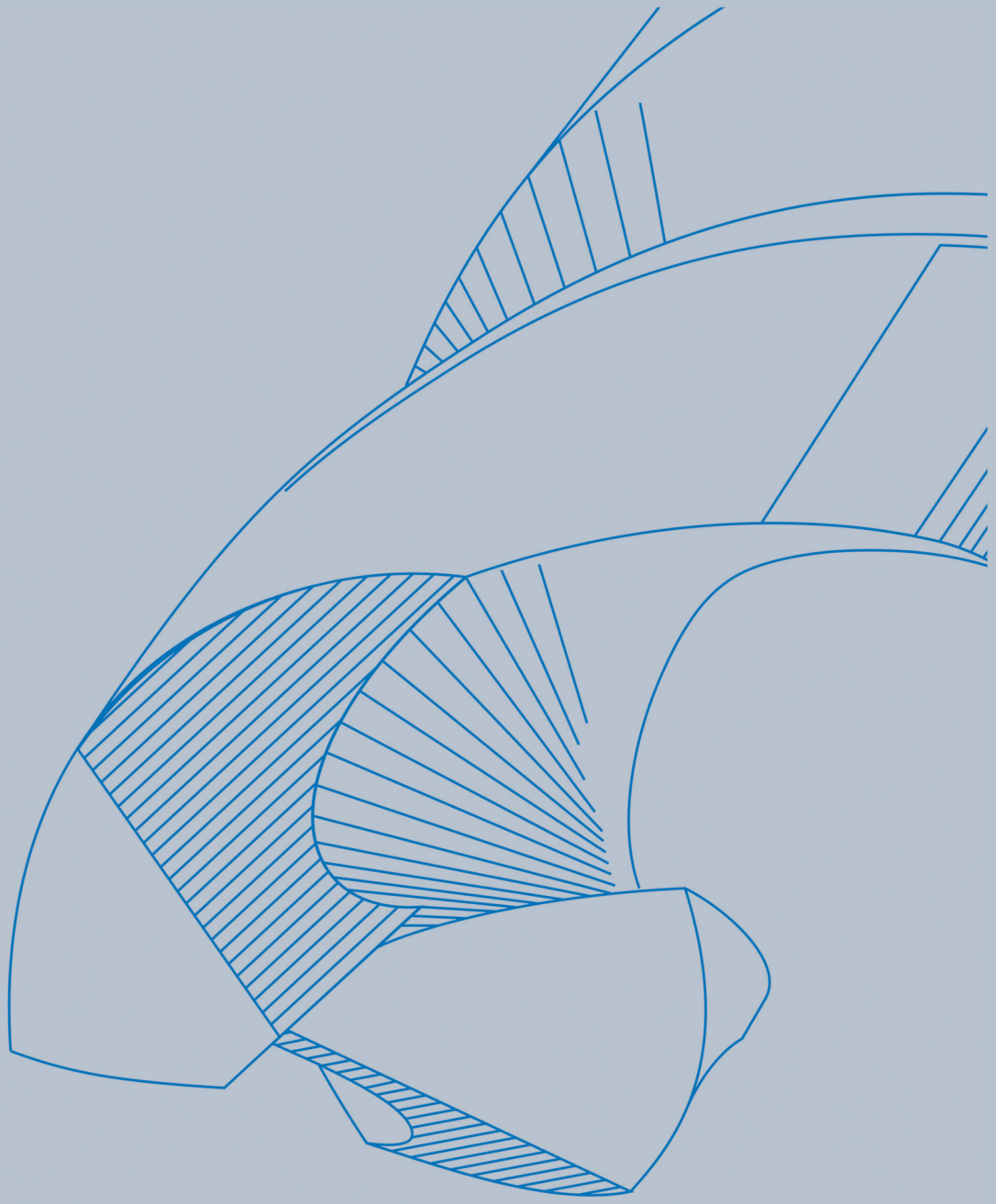


KRINO®

_CUTTING
_TOOLS
_ENGINEERING

Utensili per il taglio dei metalli
METAL CUTTING TOOLS

Outils à métaux
Utensilios para metales
Metallwerkzeuge



PUNTE PER IL TAGLIO DEI METALLI

page 20-129

Metal cutting twist drills
Forets à métaux
Brocas para metales
Metall-Spiralbohrer



UTENSILI CONICI, FRESE E SEGHE A TAZZA

page 130-213

Conical drill bits, hole cutters and hole saws
Forets coniques, fraises et scies trépans
Brocas conicas, fresas y coronas perforadoras
Blechschälbohrer und Lochsägen



MASCHI E FILIERE

page 214-324

Taps and dies
Tarauds et filiéres
Machos y terrajas
Gewindebohrer und Schneideisen



ALESATORI E FRESE FRONTALI

page 325-348

Hand reamers & end mills
Alésoirs et fraises à rainurer
Escariadores y fresas frontales
Reibahlen und langlochfräser

Utensili da taglio per edilizia
BUILDING AND CONSTRUCTION TOOLS

Outils pour bâtiment
Utensilios para construcción
Werkzeuge für Baumaterialien



UTENSILI PER MATERIALI EDILI

page 349-401

Building and contruction tools
Outils pour bâtiment
Utensilios para construcción
Werkzeuge für Baumaterialien

Utensili per il taglio del legno
WOODWORKING TOOLS

Outils à bois
Utensilios para madera
Holzwerkzeuge



UTENSILI PER IL TAGLIO DEL LEGNO

page 402-437

Woodworking tools
Outils à bois
Utensilios para madera
Holzwerkzeuge

Tabelle tecniche
TECHNICAL TABLES

TABELLE TECNICHE

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Technical tables
Tableaux techniques
Prospectos tecnico
Technische Tabellen



Case History

Una singolare “case history” di un’azienda in rapida espansione
La Krino è orgogliosa dei riconoscimenti sulla qualità dei propri utensili da taglio per asportazione di truciolo. La nostra Azienda, fondata nel 1982 a Montevecchia, a nord di Milano ed in prossimità del confine svizzero, appartiene ad un parco industriale di avanguardia specializzato nella produzione di utensili da taglio sin dai primi del 1900.
Lo sviluppo tumultuoso delle attività ha portato alla costruzione, quale polo produttivo e logistico, di un nuovissimo e ampio insediamento industriale a Monticello Brianza, al centro del parco tecnologico. Ciò ha contribuito allo sviluppo e al completamento delle varie linee di utensili di elevata qualità, nel pieno rispetto della ormai diffusa sensibilità ambientale.
Nell’estate 2011 si è completato il processo di acquisizione della Società LTI, azienda storica italiana fondata a Milano nel 1960 e famosa per la produzione di inserti e bussole per avvitatori di alta qualità, riconosciuta a livello internazionale. La produzione è ora effettuata nella sede Krino, avvalendosi degli stessi impianti produttivi e della stessa manodopera qualificata. L’acquisizione del marchio LTI rappresenta un passo importante per la nostra Società, perché ribadisce la volontà di investire in prodotti di qualità di fabbricazione italiana e permette di diversificare, all’interno del medesimo mercato, la già ampia offerta di prodotti.
Consultando il nuovo catalogo avrete modo di apprezzare la gamma e la qualità dei prodotti ed, insieme, conoscerete gli uomini che, partecipi del vostro successo, hanno reso grande la Krino.

Ingegneria degli utensili da taglio

Cutting tools engineering
Tecnologie des outils coupants
Ingenierìa de las herramientas de corte



Krino is proud of the International acclaims for the quality of its cutting tools. Our Company, established in Montevecchia in 1982 near north of Milan and the Swiss border, an industrial area specialized into the cutting tools production since the last century. The fast grow up of activities required a brand new logistic and production plant based in Monticello Brianza, exactly into the center of this technological area. This contributed to the development of a complete range of high quality tools and respectful of the environment. The acquisition of LTI, an internationally recognised Italian manufacturing Company founded in Milan in 1960 and famous for the production of high quality inserts and sockets for drivers, was completed in the summer of 2011. The production is now carried out at the Krino headquarters using the same production facilities and skilled labour. The acquisition of the LTI brand is an important milestone because it reaffirms our company's commitment to invest in high-quality products made in Italy, and allows diversifying the already wide range of products within the same market. Consulting the new catalogue you will appreciate the wide range of our products and you can make the knowledge of our staff who, participating to your success, makes Krino great.

Krino est fière des reconnaissances internationaux pour la qualité de ses produits. Notre société a été crée en 1982 à Montevecchia, à nord de Milan et près de la frontière Suisse, un pole industriel spécialisé dans la production des outils de coupe depuis le début du siècle passé. La rapide croissance de l'entreprise a motivé la création d'un nouveau centre de production et logistique à Monticello Brianza, exactement au centre du pole industriel. Cela a contribué à développer une gamme complète de outillage de coupe de qualité en respectant l'environnement. En el verano del 2011 se completó el proceso de adquisición de la Sociedad LTI, empresa histórica italiana fundada en Milán en 1960 y famosa por la producción de insertos y piezas para atornilladores de alta calidad, reconocida a nivel internacional. La producción actualmente se efectúa en la sede Krino, que utiliza las mismas instalaciones productivas y la misma mano de obra especializada. La adquisición de la marca LTI representa un paso importante para nuestra Sociedad, porque recalca nuestra voluntad de invertir en productos de alta calidad de fabricación italiana y permite diversificar, en el mismo mercado, la amplia oferta de productos ya existente.En consultant ce nouveau catalogue, Vous auriez la possibilité d'apprécier la gamme et la qualité des produits et au même temps Vous irez connaître l'équipe que, impliquée dans Votre réussite, a rendue grand Krino.

Krino es orgullosa de los reconocimientos por la calidad de su productos. Nuestra empresa fundada en el 1982 a Montevecchia, al norte de Milan y cerca de la frontera con la Suisa, hace parte de un parque industrial de vanguardia, especializado en la producción de herramienta de corte desde el principio del siglo pasado. El rapido desarrollo de las actividades ha sacado a la construcción de una nueva emplantación logistica y productiva en Monticello Brianza, en el centro del parco tecnologico y ha contribuido al desarrollo de varias calidades de utensilios de alta calidad, en el lleno respecto de la sensibilidad del medio ambiente. Le processus d'acquisition de la société LTI, entreprise historique italienne fondée à Milan en 1960 et célèbre pour la production d'inserts et de douilles pour visseuses de haute qualité, reconnue à un niveau international, s'est complété pendant l'été 2011. La production est désormais effectuée auprès du siège Krino, en utilisant les mêmes installations de production et la même main d'oeuvre qualifiée. L'acquisition de la marque LTI représente une étape importante pour notre société, car elle réitère la volonté d'investir dans des produits de qualité fabriqués en Italie et permet de diversifier, à l'intérieur du même marché, la déjà vaste offre de produits. Consultando el nuevo catálogo podrán estimar la gama y la calidad de los productos y podrán conocer nuestro equipo que ha hecho grande la Krino.

Campo di applicazione

Ricerca, progettazione e produzione di utensili da taglio e utensili per avvitatori



BUREAU VERITAS Certification

KRINO SPA

Sede Legale e Operativa:
Via Italia Unita, 21– 23876 MONTICELLO BRIANZA (LC)
Sito Operativo:
Via P. Belizzi, 23/25 – 29100 PIACENZA (PC)

Bureau Veritas Italia spa certifica che il sistema di gestione dell'organizzazione sopra indicata è stato valutato e giudicato conforme ai requisiti della norma di sistema di gestione seguente

Norma

ISO 9001:2015

Campo di applicazione

Ricerca, progettazione e produzione di utensili da taglio e utensili per avvitatori.

Settore/i EA di attività **17, 29**

Data d'inizio del presente ciclo di certificazione: **14 settembre 2017**

Soggetto al continuo e soddisfacente mantenimento del sistema di gestione questo certificato è valido fino al: **15 ottobre 2020**

Data della certificazione originale: **25 ottobre 2002**

Certificato No. IT255526 Rev. N. **1** del: **14 settembre 2017**

ANDREA FILIPPI - Local Technical Manager

Indirizzo dell'organismo di certificazione:
Bureau Veritas Italia S.p.A., Via Miramare, 15, - 20126 Milano, Italia

ACCREDIA

Ulteriori chiarimenti sul campo di applicazione di questo certificato e sul requisiti applicabili dalla norma del sistema di gestione possono essere ottenuti consultando l'organizzazione. Per controllare la validità di questo certificato consultare il sito www.bureauveritas.it

Membro degli Accordi di Mutuo Riconoscimento EA e IAF
Signatory of EA and IAF mutual Recognition Agreements

ISO 9001
BUREAU VERITAS Certification

La Brianza, soprattutto quella Lecchese, ha un'antichissima tradizione nella lavorazione dei metalli, nucleo di un potente sviluppo artigianale e, poi, industriale. La prima industria per la produzione degli utensili per la lavorazione dei metalli ebbe, così, una naturale affermazione ed, attorno ad essa, nacquero piccoli laboratori artigiani, che ora sono valide realtà manifatturiere. La specializzazione è ora elevata, così che ognuna di queste imprese ha una sua propria identità produttiva: lavorazione del metallo duro così come del superrapido, lavorazioni standard come quelle a disegno. La Krino è orgogliosa di appartenere a questo parco tecnologico e di continuare questa tradizione, indice riconosciuto della qualità made in Italy. Oltre al catalogo dei prodotti standard a norme ISO, che contempla utensili standard tradizionali per utilizzi professionali ed hobbistici, sino a utensili innovativi e tecnologicamente avanzati per le lavorazioni industriali più difficoltose. Siamo in grado di produrre a richiesta utensili speciali a disegno.

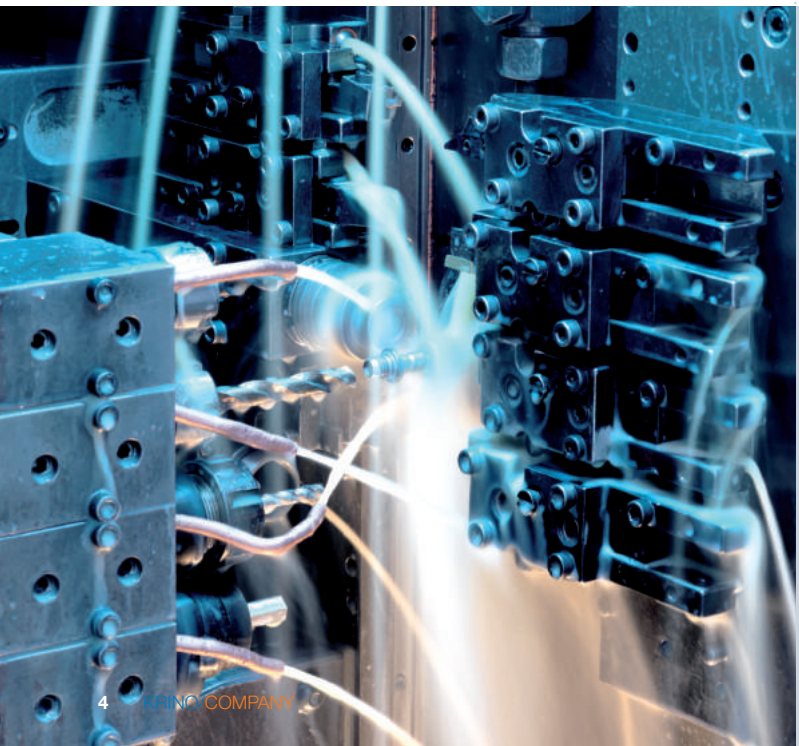
Brianza, above all the region of Lecco, has an ancient tradition of metal works, it was the center of a strong handy craft development that became industrial. The origin of cutting tools industry in our region in fact was born together with small workshops which are now well known manufacturing Companies. The specialization is now very high, so that every Company got its own production identity: hard metal works, high speed steel, standard production or under request. Krino is proud to be a part of this technological area and to carry on with the "made in Italy" tradition. In addition to the catalogue with standard products and in accordance with ISO standards, we are in a position to supply, under request, special tools.

Brianza et surtout la région de Lecco, a une ancienne tradition pour le travail des métaux. C'était le centre d'un fort développement artisanal devenu industriel. En effet l'origine de la production des outils coupants dans notre région a démarré avec les petits ateliers qui maintenant sont devenus des grandes sociétés productrices d' outils. La spécialisation est très élevée. Les sociétés ont suivi leur propre identité : lavoration des pièces en carbure, acier rapide, production standard et au dessin. Krino est orgueilleuse de faire partie de cette région technologique et de continuer la tradition du « Made in Italy ». Au-delà du catalogue avec les produits construits selon les normes ISO, nous sommes dans la position de fournir des outils spéciaux au dessin.

Brianza, sobre todo la región de Lecco, tienes una antigua tradición en el trabajo de los metales. Fue un centro de fuerte desarrollo artesanos que se quedaron industriales. Efectivamente la origen de la producción de utensilios de corte en nuestra region empezó con pequeños talleres que ahora son convertidos en grandes empresas productoras. La especialización es muy elevada y cada empresa a seguido su propia indentidad : trabajo de metal duro, acero rapido, producción estandard y sobre diseño. Krino es orgullosa de hacer parte de esta región tecnologica y de continuar la tradición del « Made in Italy » Más que el catalogo con productos segundo las normas ISO, podemos ofrecer utensilios de fabricaciones especiales.



PRODUZIONE / AUTOMAZIONE
INNOVAZIONE / FORMAZIONE

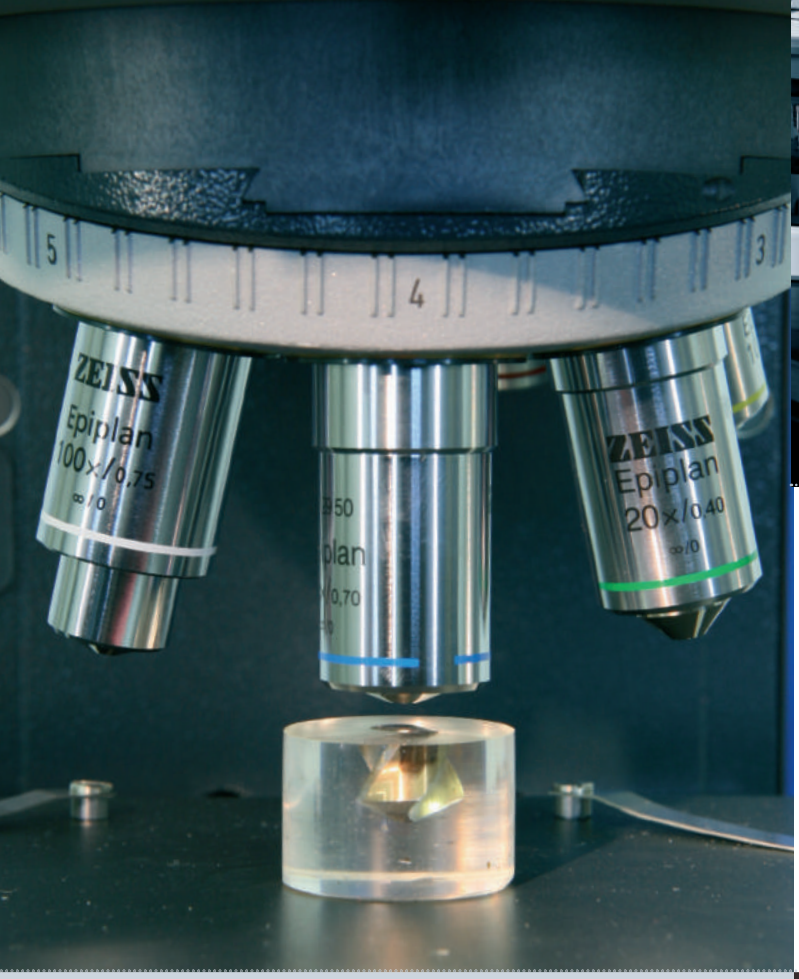


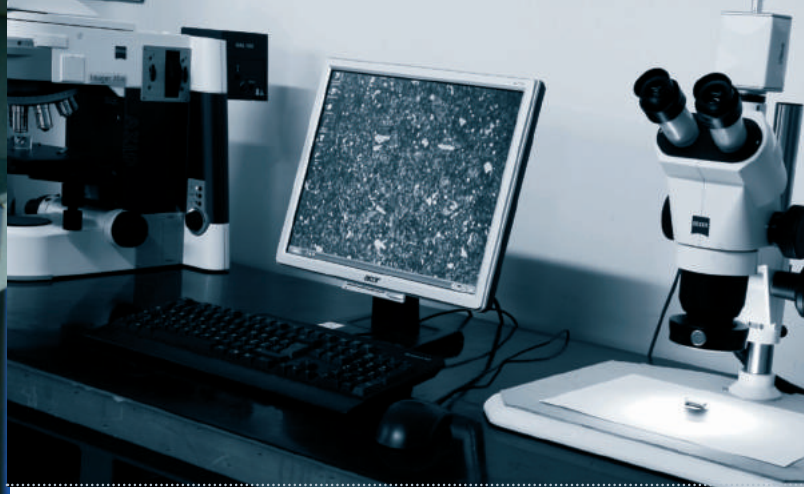
L'esperienza specifica più che trentennale nella produzione degli utensili da taglio in acciaio superrapido dei nostri ingegneri e dei tecnici di laboratorio permettono un'assistenza tecnica qualificata ai nostri clienti in tutte le problematiche che nascono nell'utilizzo industriale e professionale. La formazione del nostro personale è attuata direttamente con corsi specifici, sia all'interno della nostra azienda, così come presso le nostre associazioni di categoria come Confindustria. Corsi di formazione specifici sono inoltre effettuati, all'interno del nostro sito, rivolti alla nostra clientela; l'esperienza è sempre positiva e molto gradita.

Our long experience in high speed steel production and the full knowledge of our engineers and technical staff gives a full and qualified assistance to all our customers for any kind of use, industrial or professional.

Notre longue expérience dans la fabrication des outils en acier rapide et la connaissance de nos ingénieurs et de l'équipe technique donne une complète et qualifié assistance à tous nos clients pour toutes les utilisations soit industrielles que professionnelles.

La experiencia de más de treinta años en la producción de utensilios de corte en acero rapido de nuestro ingenieros y tecnicos de laboratorios, permiten una asistencia tecnica calificada a todos los clientes por cualquier problema de utilización industrial y profesional.





TECNOLOGIA

CONTROLLO QUALITÀ

L'attrezzato laboratorio di controllo qualità garantisce l'intera produzione dei nostri utensili. Specifici ed accurati controlli metallurgici sugli acciai di produzione europea, effettuati prima e dopo il trattamento termico, assicurano elevate prestazioni degli utensili nella sicurezza più completa.

The modern and very well equipped quality laboratory, guarantees the full production of our cutting tools. Specific and precise tests made on steels, before and after heat treatment, allow high performance totally on safety.

Un moderne et bien équipé laboratoire de qualité garantit une entière production d' outillage de coupe. Les tests spécifiques sur les aciers, effectués avant et après les traitements thermiques, permettent des performances élèves en total sécurité.

Un moderno y bien equipado laboratorio de calidad garantiza toda nuestra producción de productos de corte. Controles cuidados de los aceros de producción europea, hechos antes y después del tratamiento termico, aseguran elevadas prestaciones en seguridad.





ILTI
SCREWDRIVING TOOLS

UTENSILI SPECIALI A DISEGNO

La nostra Azienda, oltre alla produzione di inserti per avvitatori secondo le norme internazionali, ha una grande esperienza nella produzione di utensili speciali a disegno. È importante che ci inviate un disegno dettagliato, possibilmente insieme ad un campione, specificando in modo particolare il tipo di supporto sul quale avverrà l'operazione di avvitamento. In questo modo possiamo realizzare il trattamento termico specifico in funzione della resistenza che l'inserto incontrerà durante il lavoro. Infatti, avvitare sulla lamiera piuttosto che sulla plastica, in un pannello truciolare od in un foro maschiato, richiede sforzi del tutto differenti, che si traducono in altrettanto diverse esigenze di durezza e resistenza alla torsione.

Our factory is specialized in manufacturing quality screws bits since 1960, according to the international standards. We dedicate the same care in making special tools under your specific design. Just one more point that will permit us to create your tool with all the necessary characteristics regarding the type of support on which the screw driving operation will take place. The cycle of heat treatment that we will use in our plant can be studied in accordance with the function of resistance that the tool will face during the pressure. In fact, to screw on the thin sheet rather than on a plastic one or in a panel of composed wood or in a threaded hole requires different degrees of pressure, which mean different needs of hardness and torque resistance.



Per raggiungere l'eccellenza nel servizio alla clientela offriamo oggi la possibilità di realizzare set e valigette con contenuti specifici: il nostro parco macchine si è infatti ampliato con una fresatrice taglia spugne che consente la realizzazione di sedi dedicate per l'inserimento di utensili e accessori su esigenza del cliente.

To achieve excellence in customer service we can offer you to create sets and cases with specific contents: our machine fleet has in fact been expanded with a sponge milling machine that allows the creation of dedicated seats for the insertion of tools and accessories on customer's request.

Pour atteindre l'excellence du service à la clientèle, nous offrons maintenant la possibilité de créer des ensembles et des boîtiers avec des contenus spécifiques: notre parc de machines a en effet été élargi avec une fraiseuse à éponger qui permet la création de sièges dédiés pour l'insertion d'outils et d'accessoires à la demande du client.

Para alcanzar la excelencia en el servicio al cliente, ahora ofrecemos la posibilidad de crear conjuntos y cajas con contenidos específicos: nuestra flota de máquinas se ha ampliado con una fresadora de esponja que permite la creación de asientos dedicados para la inserción de herramientas y accesorios a petición del cliente.

customize

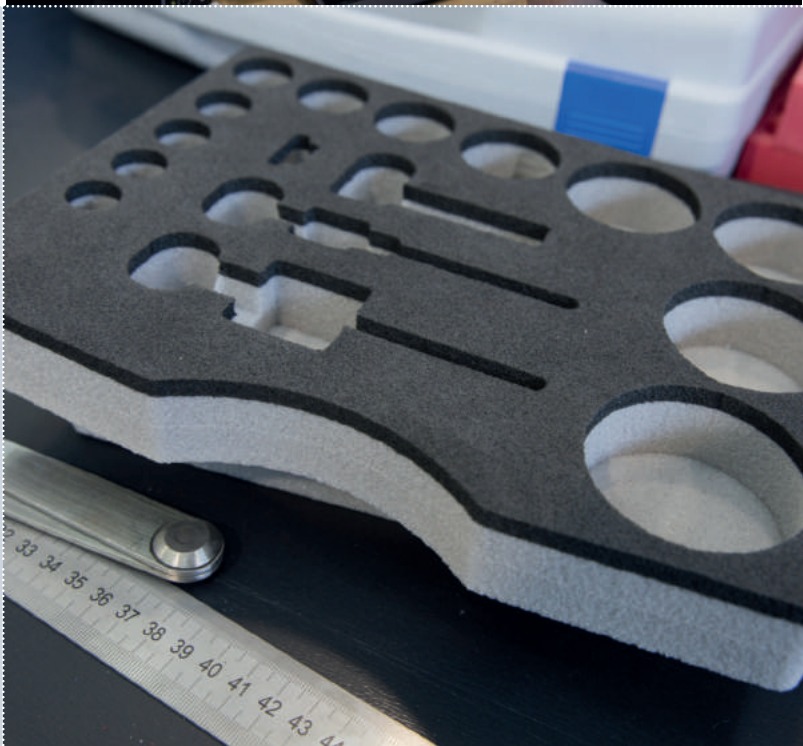


Il cliente può personalizzare il contenuto del set scegliendo gli utensili desiderati e decidendo il colore della spugna nella quale saranno disposti.

The customer can customize the contents of the set by choosing the desired tools and deciding the color of the sponge in which they will be arranged..

Le client peut personnaliser le contenu de l'ensemble en choisissant les outils souhaités et en choisissant la couleur de l'éponge dans laquelle ils seront disposés.

El cliente puede personalizar el contenido del conjunto seleccionando las herramientas deseadas y decidiendo el color de la esponja en la que se colocarán.



Ancora non conosci Mr. K?! Cercalo anche sul blog! Blog.Krino.It
Mr. K è il nuovo paladino della ferramenta che ogni mese ci regala preziosi video con consigli e informazioni utili sui nostri prodotti!

You still do not know Mr. K ?! Look for it on the blog too! Blog.Krino.It Mr. K is the new hardware champion who every month gives us precious videos with tips and useful information about our products!

Vous ne connaissez toujours pas M. K?! Cherchez aussi sur le blog! Blog.Krino.It M. K est le nouveau champion du matériel informatique qui, chaque mois, nous fournit de précieuses vidéos contenant des conseils et des informations Utiles sur nos produits!

¿Aún no conoces al Sr. K? ¡Búscalo en el blog también! Blog.Krino.It ¡El Sr. K es el nuevo campeón de hardware que cada mes nos brinda videos valiosos con consejos e información útil sobre nuestros productos!

blog.krino.it

TiFaForare

Krino è presente anche sui social con tutorial, presentazioni di prodotto e tante altre idee, dimostrazione di un'azienda dinamica e al passo coi tempi che non si accontenta dei soliti standard comunicativi.

Krino is also present on social media with tutorials, product presentations and many other ideas, demonstration of a dynamic company that isn't satisfied with the usual communication standards.

Krino est également présent sur les médias sociaux avec des tutoriels, des présentations de produits et de nombreuses autres idées, la démonstration d'une entreprise dynamique et en phase avec l'époque qui n'est pas satisfaite des standards de communication habituels.

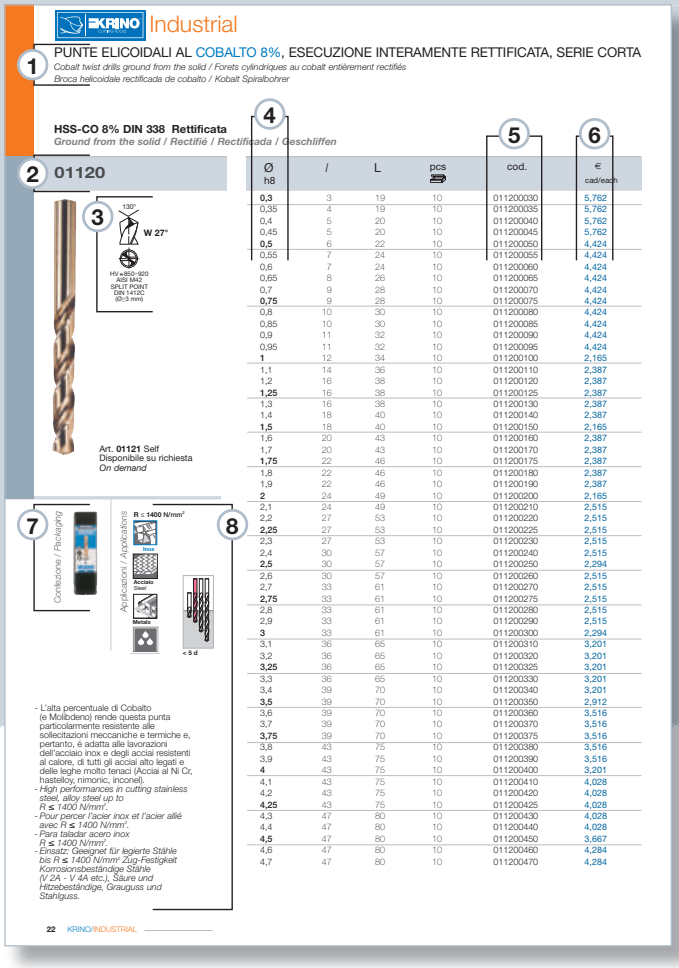
Krino también está presente en las redes sociales con tutoriales, presentaciones de productos y muchas otras ideas, demostraciones de una empresa dinámica y en sintonía con los tiempos que no están satisfechos con los estándares de comunicación habituales.



@KrinoTools

Consultazione
reference/consultation/consultación

La struttura schematica della pagina rende la consultazione del catalogo rapida ed immediata anche grazie alla fotografia del prodotto, corredata da codici specifici, dimensioni, caratteristiche, confezionamento base e norme d'impiego. L'operatore è facilitato nell'impiego degli utensili da simboli molto semplici che specificano le effettive capacità e modalità d'uso.



KRINO Industrial

1 PUNTE ELICOIDALI AL COBALTO 8%, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA
Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 8% DIN 338 Rettificata
Ground from the solid / Rectifié / Rectificada / Geschliffen

2 **01120**

3 130° W 27° HV ≈ 850-920 ASS M42 SPLIT POINT DIN 1412C (Ø>3 mm)

Art. **01121** Self
Disponibile su richiesta
On demand

7 Confezione / Packaging

8 Applicazioni / Applications
R ≤ 1400 N/mm²
Inox
Acciaio Steel
Metalli Metals
< 5 d

- L'alta percentuale di Cobalto (e Molibdeno) rende questa punta particolarmente resistente alle sollecitazioni meccaniche e termiche e, pertanto, è adatta alle lavorazioni dell'acciaio inox e degli acciai resistenti al calore, di tutti gli acciai alto legati e delle leghe molto tenaci (Acciai al Ni Cr, hastelloy, nimonic, inconel).
- *High performances in cutting stainless steel, alloy steel up to R ≤ 1400 N/mm².*
- *Pour percer l'acier inox et l'acier allié avec R ≤ 1400 N/mm².*
- *Para taladar acero inox R ≤ 1400 N/mm².*
- *Einsatz: Geeignet für legierte Stähle bis R ≤ 1400 N/mm² Zug-Festigkeit Korrosionsbeständige Stähle (V 2A - V 4A etc.), Säure und Hitzebeständige, Grauguss und Stahlguss.*

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3,7	39	70	10	011200370	3,516
3,75	39	70	10	011200375	3,516
3,8	43	75	10	011200380	3,516
3,9	43	75	10	011200390	3,516
4	43	75	10	011200400	3,201
4,1	43	75	10	011200410	4,028
4,2	43	75	10	011200420	4,028
4,25	43	75	10	011200425	4,028
4,3	47	80	10	011200430	4,028
4,4	47	80	10	011200440	4,028
4,5	47	80	10	011200450	3,667
4,6	47	80	10	011200460	4,284
4,7	47	80	10	011200470	4,284

22 KRINO/INDUSTRIAL

1 DESCRIZIONE
Description/designation/descripción

2 CODICE FAMIGLIA
Code/code/codigo

3 CARATTERISTICHE
Features/caractéristiques/características

4 DIMENSIONI
Dimensions/dimensions/medídas

5 CODICE ARTICOLO
Item number/code ref./codigo art.

6 LISTINO PREZZI
Price list/tarif de prix/tarifa de precios

7 CONFEZIONAMENTO
Packaging/conditionnement/embalaje

8 APPLICAZIONI E MATERIALI
Applications and materials/applications et materiaux / aplicaciones y materiales

The catalogue is easy to consult, every page has item number, features, packaging and applications to the left side. To the right side appear: size, dimensions, code and gross price. The operator is helped to the tool choice by simple icons showing the real products purpose.

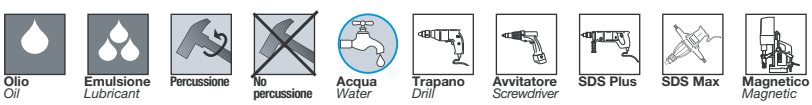
Ce catalogue est de facile consultation, chaque page porte, reference, caracteristiques, conditionnement, et applications dans le côté de gauche. A droite on trouve les dimensions, mesures, codes et tarif brut. L'opérateur est aidé dans le choix de l'outil par de simples icônes indiquant l'objectif réel du produit.

Este catálogo es facíl a consultar, cada página reporta a la izquierda, articulo, caracteristicas, envase y aplicaciones, a la derecha , medida, dimensiones, codigo y precios brutos. Se ayuda al operador a elegir la herramienta mediante iconos simples que muestran el propósito real de los productos.

Una dettagliata simbologia dei materiali da lavorare, di immediata visualizzazione, aiuta ad una agevole scelta.
All materials to work are easily identified by an icons system.
Les symboles détaillés des matériels à travailler, d'une visualisation immédiate, permettent un choix aisé.
Una detallada simbología de los materiales a trabajar de inmediata visualización, ayuda a elegir fácilmente.



MATERIALI
Materials
Materiaux
Materiales



APPLICAZIONI
Applications
Applications
Aplicaciones

Notevole e costante cura é stata dedicata alla costruzione dei nostri utensili, una qualità che significa massima efficienza ed, insieme totale sicurezza per gli utilizzatori. Rendimenti elevati si ottengono solo con un corretto utilizzo dell'utensile. Per questo motivo, invitiamo ad una scelta appropriata dell'utensile, prima di intraprendere una qualsiasi operazione di taglio, avvalendosi delle informazioni specifiche contenute nel catalogo, sulle confezioni dei prodotti e della consulenza tecnica diretta dei tecnici aziendali. Un corretto utilizzo significa anche e sopratutto usare sempre tutte le protezioni di sicurezza individuali richiesta dallo specifico lavoro. La vostra salute é un bene prezioso, difendetela.

A special care has been dedicated during the production of our tools, quality means perfect working order and total safety for the hand users. High performance are possible only with the right use of the tools. For this reason we invite you, before starting with any kind of cutting operation to choose the right tool thanks to the information given by this catalogue or on the products packaging and, when necessary directly from our technical staff. Always use the individual safety protections required by the specific work. Your health is precious, protect it !

Un grand et constant soin a été dédié à la production de nos outils, qualité signifie efficacité et aussi total sécurité pour les utilisateurs. On peut obtenir des performances élevées seulement avec un correct usage de l'outil. Pour cette raison là, nous Vous invitons, avant d'entreprendre n'importe quel opération de coupe, une choix appropriée de l'outil, en Vous référant aux informations spécifiques contenues dans le catalogue, dans les confections des produits et quand c'est nécessaire en demandant une consultation technique directement à notre staff d'entreprise. Usage correct signifie aussi : utiliser toujours toutes les protections de securité exigées par le travaille spécifique. Votre santé est précieux, protégez-la !

Gran atención ha sido dedicada para la construcción de nuestros utensilios, calidad significa máxima eficiencia y total seguridad para los utilizatores. Rendimientos elevados se pueden conseguir solamente con el utilizo correcto de los utensilios. Por esta razón, antes de empezar una operación de corte, elegir el utensilio apropriado gracias a las informaciones contenidas en el catálogo, en el envase de los productos y cuando es necesario preguntando directamente al servicio técnico de la empresa. Utilización correcta es también: utilizar siempre las protecciones de securidad individuales requeridas. Vuestra salud es preciosa, protegedla !

Lavorare in sicurezza

safety works
travailler en sécurité
trabajar en securidad



PROPRIETÀ INTELLETTUALE
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TAGLIO DEI METALLI Metal cutting

rettificate - serie corta
fully ground - rectifié - rectificada - geschliffen

cod.		DIN		pag.
01120		338	HSS-CO 8%	22
01122 01123		338	HSS-CO 8%	24
01145		338	HSS-CO 5%	28
01147 01146		338	HSS-CO 5%	30 31
01157		ANSI B94	HSS-CO 5% inches	122
01140		338	HSS-CO 5%	40
01305		338	HSS-CO+TiAlN	40
01139		338	HSS-CO 5%	42
01300		338	HSS-CO+TiAlN	43
01160		338	HSS-G+TiN	90
01163 01164		338	HSS-G+TiN	92
01162		ANSI B94	HSS-G+TiN inches	121
01089		338	Metallo duro Carbide	78
01220		338	HSS-G Speedmaster	44
01201		338	HSS-G Dual performer	46
01203 01209		338	HSS-G Dual performer	48
N MICRO 01060		338	HSS-G	52
01062 01063		338	HSS-G	54
01092 W		338	HSS-G Alu	59
01091 H		338	HSS-G	59
01090 LH		338	HSS-G	60
01093		338	HSS+HM Carbide tip	58
01066		338	HSS-118°	74
01320		338	HSS+TiN 118°	76
01070		338	HSS-G	82
01072 01074		338	HSS-G	84
01115		ANSI B94	HSS-G inches	124
01079		~338	HSS-G	86

rettificate - serie corta
fully ground - rectifié - rectificada - geschliffen

cod.		DIN		pag.
01080		338	HSS Black & white	104
01082 01084		338	HSS Black & white	105
01350		338	HSS-G Basic	96
01352 01354		338	HSS-G Basic	98 99

rullate - serie corta
roll forged - laminés - laminada - rollgewaltze

cod.		DIN		pag.
N 01006		338	HSS-CO 2%	108
01001		338	HSS	110
01003 01004		338	HSS	112
01030		ANSI B94	HSS inches	126
01034		ANSI B94	HSS inches	127

rettificate - serie extra corta
fully ground - rectifié - rectificada - geschliffen

cod.		DIN		pag.
01126		1897	HSS-CO 8%	25
01149		1897	HSS-CO 5%	32
01143		1897	HSS-CO 5%	41
01307		1897	HSS-CO+TiAlN	41
01166		1897	HSS-G + TiN	93
01119		1897	Metallo duro Carbide	79
01207		1897	HSS-G Dual performer	49
01094		1897	HSS-G	55
01067 LH		1897	HSS-G	61
N 01022		1897	HSS-G - 118°	76
01076		1897	HSS-G	85
N 01077		~1897	HSS-G	86
01087		1897	HSS Black & white	105
01356		1897	HSS-G Basic	100
01050		Norma Krino	HSS-G	85
01051			HSS-CO 5%	32
01148		~1897	HSS-CO 5%	33
01095		~1897	HSS-G	55

rullate - serie extra corta
roll forged - laminés - laminada - rollgewaltze

cod.		DIN		pag.
01018		1897	HSS	114

N= NEW

TECH 446

rettificate - serie lunga
fully ground - rectifié - rectificada - geschliffen

	cod.		DIN		pag.
	01128		340	HSS-CO 8%	25
	01152		340	HSS-CO 5%	34
N	01376 01377 01378		340	HSS-CO 5% Parabolic	35
	01141		340	HSS-CO 5%	41
	01306		340	HSS-CO+TiAlN	41
	01168		340	HSS-G + TiN	93
	01208		340	HSS-G Dual performer	49
	01096		340	HSS-G	56
	01078		340	HSS-G	87
	01086		340	HSS Black & white	105
	01358		340	HSS-G Basic	101

rullate - serie lunga
roll forged - laminés - laminada - rollgewaltze

	cod.		DIN		pag.
	01020		340	HSS	113

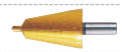
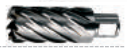
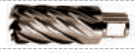
rettificate
fully ground - rectifié - rectificada - geschliffen

	cod.		DIN		pag.
	01098 01099 01100		1869/1 1869/2 1869/3	HSS-G	57
	01370 01371 01372		1869/1 1869/2 1869/3	HSS-G	57
	01105		Norma Krino	HSS-G	58
	01114			HSS-G	58
N	01129			HSS-G	56
	01103		8376	HSS	64
	01101		8374	HSS	64
	01117		8378	HSS	65
	01104		8377	HSS	64
	01102		8375	HSS	64
	01059 01058 01057		~8376 ~8374 ~8378	HSS	65
	01110		333/A	HSS-G	62
	01112		333/B	HSS-G	63
	01111		333/R	HSS-G	63
N	01374		~333/A	HSS-G	62
N	01375		~333/A	HSS-G	62

	cod.		DIN		pag.
	01364 01365		-	HSS-G	63
	01361 01363		-	Metallo duro Carbide	79
	01368 01366		6537K	Metallo duro+TiAlN Carbide+TiAlN	80
	01369 01367		6537L	Metallo duro+TiAlN Carbide+TiAlN	81

codolo Morse
Morse taper - queue Morse - mango conico - MorseKegel

	cod.		DIN		pag.
	01150		345	HSS-CO Fresata-Milled	36
	01097		345	HSS Fresata-Milled	68
	01213		345	HSS-HM Fresata-Milled	73
	01025		345	HSS Rullata-Rolled	116
	01028		341	HSS Fresata-Milled	70
	01069		341	HSS Fresata-Milled	71
	01088		1870/1	HSS Fresata-Milled	72
	01171		≃1897	HSS-CO	146
	01169		≃1897	HSS-CO+TiN	146
	01172		-	HSS-CO	146
	01173		-	HSS-CO+TiN	146
	01179		-	Metallo duro+TiAlN Carbide+TiAlN	146
	01174		-	HSS	147
	01175		-	HSS	147
	03142		-	HM Carbide	147
	01185		335/C-90°	HSS	132
	01260		335/C-90°	HSS+TiN	132
	01261		335/C-90°	HSS-CO	132
	01262		335/C-90°	HSS-CO+TiAlN	132
	01263		335/C-90°	Metallo duro Carbide	133
	01264		335/C-90°	Metallo duro+TiAlN Carbide+TiAlN	133
	01192		335/C-90°	HSS 1 tagliente-1 flute	134
	19001		335/C-90°	HSS	133
	19003		335/C-90°	HSS	133
	01193		335/C-90°	HSS	134
	01196		335/D-90°	HSS	134
N	01197		75°	HSS	135
	01186		334/C-60°	HSS	135
	01188		-	HSS	134

	cod.		DIN		pag.
	01187		335/C-90°	HSS	135
	01190		-		135
	01272 01273 01274		373	HSS	136
	01182		-	HSS-G	137
	01180		-	HSS-G	138
	01200		-	HSS+TiN	139
	01206		-	HSS+TiAlN	139
	01215		-	HSS-G	138
	01176		-	HSS	138
	01183 01254		-	HSS-G	142 145
	01230		-	HSS-G+TiN	144
	01236		-	HSS-G+TiAlN	144
	01239		-	HSS-G	143
	01240		-	HSS-G	140
	01244		-	HSS-G+TiN	141
	01248		-	HSS-G+TiAlN	141
N	01241		-	HSS	140
	21001		-	HSS-G	148
	21011		-	HSS-CO	150
	21300		-	HSS-G+TiN	152
	21325		-	HSS-G+TiAlN	153
	21040		-	T.C.T	154
	21042		-	T.C.T	155
	21200		-	HSS-G	156
	21202		-	HSS-G	156
	21206		-	HSS-CO	157
	21207		-	HSS-CO	157
	21204		-	HSS-TiAlN	158
	21205		-	HSS-TiAlN	158
	21216		-	Metallo duro Carbide tip	159
N	21218		-	Metallo duro Carbide tip	160
	21211		-	HSS-CO5%	160
	21212		-	Metallo duro Carbide tip	161
N	28011		-	-	162

	cod.		DIN		pag.
	21060 21066 21065		-	BIM M3/1	174 178 186
	21090		-	BIM M42 CO 8%	182
	21070		-	HSS	175
	21061		-	BIM M3/1	185
	21069		-		191
	21073		-		190
	26070		-		192
	2607515		-		193
	26001 26003		-	HSS Z2 HSS Z3	164
	26031 26032		-	HSS+TiAlN Z2 HSS+TiAlN Z3	165
	26015 26020		-	Metallo duro Carbide HM3 HM4	166
N	26016		-	Metallo duro Carbide HM3 PLUS	170
	26033 26034		-	Metallo duro+TiAlN Carbide +TiAlN HM4 HM3	168
N	26028 26027		-	Metallo duro Carbide long HM3 PLUS HM4	172
N	26025 26026		-	Metallo duro Carbide HM1	173
	27001 27002 27003		-	HSS	198
	27011 27012 27013		-	HSS-CO	198
	27050 27055		-	Metallo duro Carbide	199
	27060 27070		-	Metallo duro Carbide tip	200 201
	26125		-	HSS-CO ASP30 Metallo duro Carbide	202
	26150 26152 26154		-	HSS-CO 10%	203
	23001		-	BIM.HSS HSS-CO	204
	23005		-	Carbide grit	205
	23010		-	Carbide grit	205
	25010		-	BIM M42	206
	25016		-	BIM M42	207
	25011		-	BIM M42	208
	25018		-	ASP	209

N= NEW

	cod.		DIN			pag.
N MICRO	10162		371/B	HSS-G	M	216
	10250		371/B	HSS-CO	M	216
	10165		376/B	HSS-G	M	216
	10277 LH		371/B	HSS-CO	M	241
	10278 LH		376/B	HSS-CO	M	241
	10253		376/B	HSS-CO	M	216
N MICRO	10183		371/C 35°	HSS-G	M	219
	10255		371/C 35°	HSS-CO	M	219
	10279 LH		371/C 35°	HSS-CO	M	242
	10180		376/C 35°	HSS-G	M	219
	10288 LH		376/C 35°	HSS-CO	M	242
	10257		376/C 35°	HSS-CO	M	219
	10174		371/C 15°	HSS-G	M	218
	10256		371/C 15°	HSS-CO	M	218
	10177		376/C 15°	HSS-G	M	218
	10258		376/C 15°	HSS-CO	M	218
	10168		371/C	HSS-G	M	217
	10251		371/C	HSS-CO	M	217
	10263 LH		371/C	HSS-CO	M	241
	10171		376/C	HSS-G	M	217
	10254		376/C	HSS-CO	M	217
	10264 LH		376/C	HSS-CO	M	241
	10261		371/B	HSS-CO	M	221
	10262		376/B	HSS-CO	M	221
	10172		ISO 529/B	HSS-G	M	222
	10173		ISO 529/C-35°	HSS-G	M	222
	10310 10311 10312		371/B 376/B	HSS-CO	M	223
	10313 10314 10315		371/C-35° 376/C-35°	HSS-CO	M	223
	10291		≅371/B	HSS-CO	M	224
	10292		≅371/C-35°	HSS-CO	M	224
	10273		357	HSS-CO	M	220
	10290		357	HSS-CO	M	220
	10297		371/B	HSS-CO VAPO	M	225
	10298		376/B	HSS-CO VAPO	M	225
	10299		371/C 35°	HSS-CO VAPO	M	225
	10300		376/C 35°	HSS-CO VAPO	M	225

	cod.		DIN			pag.
	10350		371/B	HSS-CO +TiN	M	226
	10351		376/B	HSS-CO +TiN	M	226
	10354		371/C 35°	HSS-CO +TiN	M	226
	10355		376/C 35°	HSS-CO +TiN	M	226
	10400		371/B	HSS-CO +TiAlN	M	229
	10401		376/B	HSS-CO +TiAlN	M	229
	10404		371/C 35°	HSS-CO +TiAlN	M	229
	10405		376/C 35°	HSS-CO +TiAlN	M	229
	10259		374/B	HSS-CO	MF	230
	10286 LH		374/B	HSS-CO	MF	243
	10260		374/C 35°	HSS-CO	MF	231
	10287 LH		374/C 35°	HSS-CO	MF	243
	10252		374/C	HSS-CO	MF	232
	10198		374/C-15°		MF	232
	10280		371/376	HSS-CO	M	233
	10360		371/376	HSS-CO +TiN	M	233
	10281		371/376	HSS-CO	M	233
	10361		371/376	HSS-CO +TiN	M	233
	10268		5156/B	HSS-CO	BSP	234
	10204		374/C-15°	HSS-G	BSP	234
	10267		5156/C	HSS-CO	BSP	234
	10276		5156/C	HSS-CO	BSP	234
	10289 LH		371/B	HSS-CO	BSW	242
	10265		≅ 376/B	HSS-CO	BSW	235
	10266		≅ 371/C 35°	HSS-CO	BSW	235
	10274		≅ 376/C 35°	HSS-CO	BSW	235
	10275		≅ 371/B	HSS-CO	UNC	235
	10269		≅ 376/B	HSS-CO	UNC	236
	10270		≅ 371/C 35°	HSS-CO	UNC	236
	10271		≅ 376/C 35°	HSS-CO	UNC	236
	10272		≅ 371/B	HSS-CO	UNF	236
	10282		≅ 376/B	HSS-CO	UNF	237
	10283		≅ 371/C 35°	HSS-CO	UNF	237
	10284		≅ 376/C 35°	HSS-CO	UNF	237
	10285		≅ 376/C 35°	HSS-CO	UNF	237

cod.		DIN			pag.
10301		ISO 529/B	HSS-CO	8-UN	238
10305		ISO 529/B	HSS-CO	UNEF	238
10306		B	HSS-CO	NPTF	239
10307		C-35°	HSS-CO	NPTF	239
10308		C	HSS-CO	NPS	240
10309		C-35°	HSS-CO	NPS	240
10362		371/B	HSS-CO (PM)	M	227
10363		371/C 40°	HSS-CO	M	227
10515		371/B	HSS-CO	M	228
10516		371/C 40°	HSS-CO	M	228
10504		371/B	HSS-CO	M	244
10505		376/B	HSS-CO	M	244
10506		371/C 40°	HSS-CO	M	244
10507		376/C 40°	HSS-CO	M	244
10500		371/B	HSS-CO	M	245
10501		376/B	HSS-CO	M	245
10502		371/C 40°	HSS-CO	M	245
10503		376/C 40°	HSS-CO	M	245
10508		371/C	HSS-CO	M	246
10509		376/C	HSS-CO	M	246
10510		371/A	HSS-CO	M	246
10511		371/C 40°	HSS-CO	M	247
10512		376/C 40°	HSS-CO	M	247
10513		371/C	HSS-CO	M	247
10514		376/C	HSS-CO	M	247
10330					248
10340					229
10100		352	HSS-G	M	248
10144		352	HSS-CO	M	249
10147		352	HSS-CO	M	249
10155		352	HSS+TiN	M	250
10102 LH		352	HSS-G	M	250
10110		≃ 352	HSS-G	BSW	256
10111 LH		≃ 352	HSS-G	BSW	256
10120		≃ 352	HSS-G	UNC	257
10122 LH		≃ 352	HSS-G	UNC	257

cod.		DIN			pag.
10105		2181	HSS-G	MF	252
10146		2181	HSS-CO	MF	254
10107 LH		2181	HSS-G	MF	254
10115		5157	HSS-G	BSP	255
10148		5157	HSS-CO	BSP	255
10117 LH		5157	HSS-G	BSP	255
10112		≃ 2181	HSS-G	BSF	256
10125		≃ 2181	HSS-G	UNF	258
10127 LH		≃ 2181	HSS-G	UNF	258
10136		40432	HSS-G	PG	251
10139		-	HSS-G	BSPT	258
10134		-	HSS-G	NPT	259
10293		-	HSS-CO	NPT	259
10294		-	HSS-CO	BSPT	259
12060		223	HSS	M	260
12066		-	HSS	M	261
10267		-	HSS+TiN	M	261
12144		223	HSS-CO	M	262
12165		223	HSS+TiN	M	263
12062 LH		223	HSS	M	262
12065		223	HSS	MF	264
12146		223	HSS-CO	MF	266
12072 LH		223	HSS	MF	266
12069		223	HSS	MF	263
12070		223	HSS	BSW	268
12088 LH		223	HSS	BSW	268
12087		223	HSS	BSF	268
12080		223	HSS	UNC	269
12082 LH		223	HSS	UNC	269
12085		223	HSS	UNF	270
12086 LH		223	HSS	UNF	270
12079		223	HSS	UNEF	270
12075		5158	HSS	BSP	267
12148		5158	HSS-CO	BSP	267
12077 LH		5158	HSS	BSP	267
12089		5158	HSS	BSPT	271
12091		5158	HSS	NPT	271
12093		40434	HSS	PG	263
12094		382	HSS	M	272
12096		382	HSS	MF	273
12098		382	HSS	BSP	273
15001		1814			309
15003		1814	-	-	309
15010		-	-	-	309
15011					309
15005		-	-	-	310
15006					310
15030		225			310
15035		225			310
15032		225	-	-	
15037		225			
10065		-	-	-	280
SETS		-	HSS	-	

N= NEW

	cod.		DIN			pag.
N	10600		-	-	-	286
	10631					286
	10605					288
	10606					292
	10625					293
	10212		-	HSS-G	M	274
	10230			HSS-G+TiN	M	274
	10210			HSS-G	M	274
	10211			HSS-G	-	275
	10001		≅ 352	C.V.	M	300
	10010		≅ 352	C.V.	BSW	303
	10020		≅ 352	C.V.	UNC	304
	10003		≅ 2181	C.V.	M+MF	301
	10012		≅ 2181	C.V.	BSF	303
	10025		≅ 2181	C.V.	UNF	304
	10015		≅ 5157	C.V.	BSP	302
	10017		-	C.V.	BSPT	302
	10032		-	C.V.	NPT	304
	10030		≅ 357	C.V.	M	302
	12001		≅ 223	C.V.	M	305
	12005		≅ 223	C.V.	MF	305
	12015		≅ 223	C.V.	BSP	306
	12017		≅ 223	C.V.	BSPT	306
	12010		≅ 223	C.V.	BSW	307
	12012		≅ 223	C.V.	BSF	307
	12020		≅ 223	C.V.	UNC	308
	12025		≅ 223	C.V.	UNF	308
	12032		≅ 223	C.V.	NPT	308
	SETS					314
	29020		212/2B	HSS-CO		326
	29021		212/2C	HSS-CO		326
	29026		208/B	HSS-CO		327
N	29039		311	HSS		327
	29040		219B	HSS		328
	29001		206B	HSS		329
	29005		-	HSS		330
	29006					
	29010		9B	HSS		331
	24013		844K	HSS-CO 8%		332
	24015			HSS-CO+TiAlN		
	24014		844L	HSS-CO 8%		332
	24016			HSS-CO+TiAlN		
	24017 NR		844K	HSS-CO 8%		333
	24019 NR			HSS-CO+TiAlN		

cod.		DIN		pag.
24018		844L	HSS-CO 8%	333
24020 NR			HSS-CO+TiAlN	
24021		844K	HSS-CO 8%	334
24023 NF			HSS-CO+TiAlN	
24022		844L	HSS-CO 8%	334
24024 NF			HSS-CO+TiAlN	
24009		844K	HSS-CO 8%	335
24011			HSS-CO+TiAlN	
24010		844L	HSS-CO 8%	335
24012			HSS-CO+TiAlN	
24001		327D	HSS-CO 8%	336
24003			HSS-CO+TiAlN	
24002		844L	HSS-CO 8%	336
24004			HSS-CO+TiAlN	
24005		327D	HSS-CO 8%	337
24007			HSS-CO+TiAlN	
24006		Norma	HSS-CO 8%	337
24008		Krino	HSS-CO+TiAlN	
26100		-	HSS	337
24025		845K	HSS-CO 8%	338
24026		845L	HSS-CO 8%	338
24029 NR		845K	HSS-CO 8%	339
24030 NR		845L	HSS-CO 8%	339
24177		~6527L	**Metallo duro+TiAlN** Carbide+TiAlN	347
24185		~6527L	**Metallo duro+TiAlN** Carbide+TiAlN	
24178		Krino	**Metallo duro+TiAlN** Carbide+TiAlN	
24186		~6527L	**Metallo duro+TiAlN** Carbide+TiAlN	
24176		~6527L	**Metallo duro+TiAlN** Carbide+TiAlN	348
24174		6527L	**Metallo duro+TiAlN** Carbide+TiAlN	
24175		6527L	**Metallo duro+TiAlN** Carbide+TiAlN	
24180		Krino	**Metallo duro** Carbide	
24169		6527L	**Metallo duro** Carbide	341
24171		6527L	**Metallo duro+TiAlN** Carbide+TiAlN	
24170		Krino	**Metallo duro** Carbide	
24172		Krino	**Metallo duro+TiAlN** Carbide+TiAlN	
24165		6527K	**Metallo duro** Carbide	340
24167		6527K	**Metallo duro+TiAlN** Carbide+TiAlN	
24166		6527L	**Metallo duro** Carbide	
24168		6527L	**Metallo duro+TiAlN** Carbide+TiAlN	
24182		6527L	**Metallo duro+TiAlN** Carbide+TiAlN	
24183		6527L	**Metallo duro+TiAlN** Carbide+TiAlN	342
24184		6527L	**Metallo duro+TiAlN** Carbide+TiAlN	

cod.		DIN		pag.
24161		6527L	**Metallo duro** Carbide	343
24163		6527L	**Metallo duro+TiAlN** Carbide+TiAlN	
24162		Krino	**Metallo duro** Carbide	
24164		Krino	**Metallo duro+TiAlN** Carbide+TiAlN	
24181		Krino	**Metallo duro+TiAlN** Carbide+TiAlN	
24156		~6527K	**Metallo duro** Carbide	344
24154		6527K	**Metallo duro** Carbide	
24155		Krino	**Metallo duro** Carbide	
24150		6527K	**Metallo duro** Carbide	345
24152		6527K	**Metallo duro+TiAlN** Carbide+TiAlN	
24151		Krino	**Metallo duro** Carbide	
24153		Krino	**Metallo duro+TiAlN** Carbide+TiAlN	
24157		6527L	**Metallo duro** Carbide	346
24159		6527L	**Metallo duro+TiAlN** Carbide+TiAlN	
24158		Krino	**Metallo duro** Carbide	
24160		Krino	**Metallo duro+TiAlN** Carbide+TiAlN	
24179		6528	**Metallo duro+TiAlN** Carbide+TiAlN	

UTENSILI PER EDILIZIA
Building & construction cutting tools

cod.		DIN		pag.
03060 03063		8039	Superior	350
03065 03067		8039	Superior	350
03059		-	Superior	351
03072		-	Max4	352
03075		8039	Superspeed	353
03090 03092		8039	High Performer	354
03094 03096		8039	High Performer	354
03098		-	High Performer	355
03110 03112		8039	Supergranit	356
03100		8039	Extreme Hard Cut	357
03069		8039	SDD	358
03077		8039	Multik	358
03076		8039	Multik	359

cod.		DIN		pag.
03080 03082		8039	Foratutto	360
03089		-	Foratutto	361
03140		-	Vetro	361
03052		8039	Standard Plus	362
03053 03054		8039	Standard Plus	362
03001		8039		364
03005 03009		8039		365
03011 03015		8039		366
03160		-	K4	368
03169		-	HAMMER	370
03167		-	4X4 Speedmaster	372
03157		-	K5L	374
03155		-		376
03156		-	K8	378
03173		-		382
03170		-		380
03171		-		381
03220 03221		-	SDS PLUS	383
03210 03211 03215 03240 03242 03250		-	SDS MAX	384 384 385 385 385 385
21110 21111		-	M16 M22	386
21120		-	Conico 1:8	388
21131		-	Filetto Largo *Special Thread*	389
21122		-	Filetto a molla *With spring*	390

	cod.		DIN		pag.
	21015		-	MD Carbide tip	391
	21105		-	MD Carbide grit	392
N	21106		-		394
	03122		-	Keramaster Plus	395
	03117		-	Keramaster	396
	03125		-		396
	21104		-	Keramaster	396
	03405 03505 03400 03500 03410 03510		-		399
	03515		-	Special Gres	398

UTENSILI PER IL TAGLIO DEL LEGNO
Wood working cutting tools

	cod.		DIN		pag.
	05001		≅7487	WS	404
	05009		-	WS	406
	05020 05025		-	WS	405
	05200		≃7487	HSS	406
N	05054		-	WS	407
	05210 05212		-	WS	408
	05030 05033		-	WS	409
	05035 05036		-	WS	410
	05040 05042 05044		-	WS	410

	cod.		DIN		pag.
	05037 05038		-	WS	411
	05045 05048		-	WS	412
	05063		-	WS	414
	05067		-	WS	414
	05065		-	Metallo duro Carbide tip	414
	05058 05060		-	WS	415
	05050		-	WS	413
	05077		7489	WS	415
N	05076		-	WS	415
	05440		-	WS	416
N	05072 05070		-	WS	416
	05432		-	CV	437
	05078		-	Metallo duro Carbide tip	434
	21100		-	BIM Metallo duro Carbide tip	435
	05080		-	WS	436
N	23405 23410 23415 23400		-	Starlock®	418
N	23505 23510 23515 23500 23529		-	Universal	422

UTENSILI PER IL TAGLIO DEL LEGNO
Wood working cutting tools

	cod.		DIN		pag.
N	23600 23610 23620 23630		-	**HCS - HSS** **BIM HSS** **HSS - BIM HSS** **HSS - HM**	424 425 426 427
N	23700 23710		-	**HCS** **HSS**	428 429
N	23720		-	**BIM HSS**	429
N	23800 23810 23815 23820		-	**HCS** **BIM HSS** **BIM HSS** **BIM HSS - HM**	430 431 432 433
N	05400 05430 05432		-		437

ACCESSORI/Accessories

cod.			DIN	pag.
28150			**2185**	440
28154			**2187**	440
28160			-	441
28165			-	441
28158			**317** **318**	441 441
28001 28002 28003 28009 28010			**6349**	442 442 442 442 442
28186100	SDS			443
28186200	Q.C.			443
28186204			-	443
28186203				443
28186205				443
28054 28058			-	444 444
28053 28055	Carbide jaws		-	444 444
28031 28030 28032			-	445 445 445
28034			-	445



PUNTE PER TAGLIO DEI METALLI

Twist drills for metal cutting
Forets à métaux
Brocas para metales
Metall-Spiralbohrer

HSS

METALLO DURO
CARBIDE

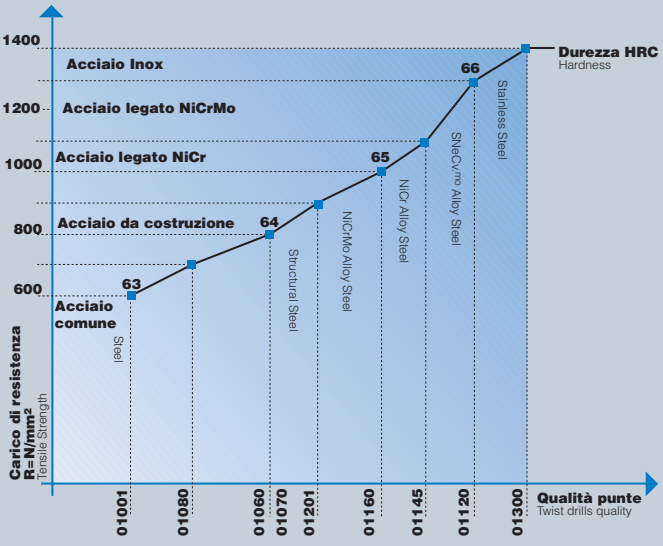
CUTTING TOOLS ENGINEERING

Metal working accounts for over than 60% all process and the great use of strong alloys push our Company to develop 10 models of HSS drills, every one with its own characteristics. Furthermore, in accordance with the international directives about pollution we develop more and more advanced and save tools which allow a real saving and a favorable impact on the environment.

Les perçages des métaux représente le 60% de tous les procès et la grand utilisation des alliages très dures a poussé notre Société au développement de 10 gammes de forets en acier HSS, tous avec leur propres caractéristiques. En outre, en accordance avec les normes internationales en matière de pollution, nous fabriquons des outillages sures et avancés, qui permettent un réel épargne et un favorable impact sur l'environnement.

El corte de los metales representa el 60% de todos los trabajos y la gran utilización de aleaciones muy duras a permitido a nuestra empresa de introducir 10 modelos de brocas HSS. Cada una con su propia caracteristica. Además, con respecto a las directivas internacionales en materia de inquinamento, fabricamos utensilios seguros y avanzados que permiten un real ahorro y un favorable impacto con el ambiente.

Punte per metalli HSS, diagramma dei campi di utilizzo
Table for the selection of metal drills



La lavorazione dei fori nei metalli occupa più del 60% di tutte le lavorazioni per asportazione di truciolo ed è, al tempo stesso, una delle operazione più difficoltose. L'esigenza di aumentare la produttività in queste lavorazioni e l'uso di materiali da forare sempre più duri hanno portato allo sviluppo di leghe di acciaio adeguate alle nuove ed impegnative richieste. La nostra Società, forte di una esperienza più che trentennale nella produzione di utensili per asportazione di truciolo, ha così sviluppato diverse linee di punte per trapano in acciaio superrapido e nuove famiglie di punte in metallo duro integrale, ognuna con caratteristiche proprie, adatte alle necessità industriali, professionali e per il fai da te. Insieme alle esigenze di competitività, che hanno spinto alle condizioni estreme i parametri di taglio, si va sempre più diffondendo una sensibilità ambientale che ha grande influenza sul modo di produrre e vendere i prodotti. Pertanto, mentre la nostra Azienda ottempera alle direttive internazionali sull'inquinamento, ha sviluppato utensili da taglio sempre più qualificati ed avanzati, che permettono un lavoro sicuro, rapido ed efficiente: ciò comporta un effettivo risparmio economico per il nostro cliente, con una benefica ricaduta ambientale.

PUNTE ELICOIDALI AL COBALTO 8%, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 8% DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01120





HV = 850÷920
AISI M42
SPLIT POINT
DIN 1412C
(Ø≥3 mm)

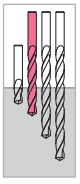
Art. **01121** Self
Disponibile su richiesta
On demand

Confezione / *Packaging*



Applicazioni / *Applications*





- L'alta percentuale di Cobalto (e Molibdeno) rende questa punta particolarmente resistente alle sollecitazioni meccaniche e termiche e, pertanto, é adatta alle lavorazioni dell'acciaio inox e degli acciai resistenti al calore, di tutti gli acciai alto legati e delle leghe molto tenaci (Acciai al Ni Cr, hastelloy, nimonic, inconel).
- *High performances in cutting stainless steel, alloy steel up to R ≤ 1400 N/mm².*
- *Pour percer l'acier inox et l'acier allié avec R ≤ 1400 N/mm².*
- *Para taladar acero inox R ≤ 1400 N/mm².*
- *Einsatz: Geeignet für legierte Stähle bis R ≤ 1400 N/mm² Zug-Festigkeit Korrosionsbeständige Stähle (V 2A - V 4A etc.), Säure und Hitzebeständige, Grauguss und Stahlguss.*

Ø h8	/	L	pcs	cod.	€ cad/each
0,3	3	19	10	011200030	5,762
0,35	4	19	10	011200035	5,762
0,4	5	20	10	011200040	5,762
0,45	5	20	10	011200045	5,762
0,5	6	22	10	011200050	4,424
0,55	7	24	10	011200055	4,424
0,6	7	24	10	011200060	4,424
0,65	8	26	10	011200065	4,424
0,7	9	28	10	011200070	4,424
0,75	9	28	10	011200075	4,424
0,8	10	30	10	011200080	4,424
0,85	10	30	10	011200085	4,424
0,9	11	32	10	011200090	4,424
0,95	11	32	10	011200095	4,424
1	12	34	10	011200100	2,165
1,1	14	36	10	011200110	2,387
1,2	16	38	10	011200120	2,387
1,25	16	38	10	011200125	2,387
1,3	16	38	10	011200130	2,387
1,4	18	40	10	011200140	2,387
1,5	18	40	10	011200150	2,165
1,6	20	43	10	011200160	2,387
1,7	20	43	10	011200170	2,387
1,75	22	46	10	011200175	2,387
1,8	22	46	10	011200180	2,387
1,9	22	46	10	011200190	2,387
2	24	49	10	011200200	2,165
2,1	24	49	10	011200210	2,515
2,2	27	53	10	011200220	2,515
2,25	27	53	10	011200225	2,515
2,3	27	53	10	011200230	2,515
2,4	30	57	10	011200240	2,515
2,5	30	57	10	011200250	2,294
2,6	30	57	10	011200260	2,515
2,7	33	61	10	011200270	2,515
2,75	33	61	10	011200275	2,515
2,8	33	61	10	011200280	2,515
2,9	33	61	10	011200290	2,515
3	33	61	10	011200300	2,294
3,1	36	65	10	011200310	3,201
3,2	36	65	10	011200320	3,201
3,25	36	65	10	011200325	3,201
3,3	36	65	10	011200330	3,201
3,4	39	70	10	011200340	3,201
3,5	39	70	10	011200350	2,912
3,6	39	70	10	011200360	3,516
3,7	39	70	10	011200370	3,516
3,75	39	70	10	011200375	3,516
3,8	43	75	10	011200380	3,516
3,9	43	75	10	011200390	3,516
4	43	75	10	011200400	3,201
4,1	43	75	10	011200410	4,028
4,2	43	75	10	011200420	4,028
4,25	43	75	10	011200425	4,028
4,3	47	80	10	011200430	4,028
4,4	47	80	10	011200440	4,028
4,5	47	80	10	011200450	3,667
4,6	47	80	10	011200460	4,284
4,7	47	80	10	011200470	4,284

Ø h8	/	L	pcs	cod.	€ cad/each
4,75	47	80	10	011200475	4,284
4,8	52	86	10	011200480	4,284
4,9	52	86	10	011200490	4,284
5	52	86	10	011200500	3,888
5,1	52	86	10	011200510	5,797
5,2	52	86	10	011200520	5,797
5,25	52	86	10	011200525	5,797
5,3	52	86	10	011200530	5,797
5,4	57	93	10	011200540	5,797
5,5	57	93	10	011200550	5,262
5,6	57	93	10	011200560	6,043
5,7	57	93	10	011200570	6,043
5,75	57	93	10	011200575	6,043
5,8	57	93	10	011200580	6,043
5,9	57	93	10	011200590	6,043
6	57	93	10	011200600	5,494
6,1	63	101	10	011200610	7,659
6,2	63	101	10	011200620	7,659
6,25	63	101	10	011200625	7,659
6,3	63	101	10	011200630	7,659
6,4	63	101	10	011200640	7,659
6,5	63	101	10	011200650	7,277
6,6	63	101	10	011200660	8,987
6,7	63	101	10	011200670	8,987
6,75	69	109	10	011200675	8,987
6,8	69	109	10	011200680	8,987
6,9	69	109	10	011200690	8,987
7	69	109	10	011200700	8,382
7,1	69	109	5	011200710	10,943
7,2	69	109	5	011200720	10,943
7,25	69	109	5	011200725	10,943
7,3	69	109	5	011200730	10,943
7,4	69	109	5	011200740	10,943
7,5	69	109	5	011200750	9,312
7,6	75	117	5	011200760	11,873
7,7	75	117	5	011200770	11,873
7,75	75	117	5	011200775	11,873
7,8	75	117	5	011200780	11,873
7,9	75	117	5	011200790	11,873
8	75	117	5	011200800	10,827
8,1	75	117	5	011200810	13,039
8,2	75	117	5	011200820	13,039
8,25	75	117	5	011200825	13,039
8,3	75	117	5	011200830	13,039
8,4	75	117	5	011200840	13,039
8,5	75	117	5	011200850	11,991
8,6	81	125	5	011200860	15,250
8,7	81	125	5	011200870	15,250
8,75	81	125	5	011200875	15,250
8,8	81	125	5	011200880	15,250
8,9	81	125	5	011200890	15,250
9	81	125	5	011200900	14,434
9,1	81	125	5	011200910	17,752
9,2	81	125	5	011200920	17,752
9,25	81	125	5	011200925	17,752
9,3	81	125	5	011200930	17,752
9,4	81	125	5	011200940	17,752
9,5	81	125	5	011200950	15,366
9,6	87	133	5	011200960	18,567
9,7	87	133	5	011200970	18,567

Ø h8	/	L	pcs	cod.	€ cad/each
9,75	87	133	5	011200975	18,567
9,8	87	133	5	011200980	18,567
9,9	87	133	5	011200990	18,567
10	87	133	5	011201000	17,857
10,1	87	133	5	011201010	21,746
10,2	87	133	5	011201020	21,746
10,25	87	133	5	011201025	21,746
10,3	87	133	5	011201030	21,746
10,4	87	133	5	011201040	21,746
10,5	87	133	5	011201050	20,838
10,6	87	133	5	011201060	25,179
10,7	94	142	5	011201070	25,179
10,75	94	142	5	011201075	25,179
10,8	94	142	5	011201080	25,179
10,9	94	142	5	011201090	25,179
11	94	142	5	011201100	24,040
11,1	94	142	5	011201110	27,358
11,2	94	142	5	011201120	27,358
11,25	94	142	5	011201125	27,358
11,3	94	142	5	011201130	27,358
11,4	94	142	5	011201140	27,358
11,5	94	142	5	011201150	25,495
11,6	94	142	5	011201160	28,579
11,7	94	142	5	011201170	28,579
11,75	94	142	5	011201175	28,579
11,8	94	142	5	011201180	28,579
11,9	101	151	5	011201190	28,579
12	101	151	5	011201200	27,764
12,1	101	151	5	011201210	31,781
12,2	101	151	5	011201220	31,781
12,25	101	151	5	011201225	31,781
12,3	101	151	5	011201230	31,781
12,4	101	151	5	011201240	31,781
12,5	101	151	5	011201250	30,034
12,6	101	151	5	011201260	33,829
12,7	101	151	5	011201270	33,829
12,75	101	151	5	011201275	33,829
12,8	101	151	5	011201280	33,829
12,9	101	151	5	011201290	33,829
13	101	151	5	011201300	32,363
13,25	108	160	3	011201325	48,952
13,5	108	160	3	011201350	48,952
13,75	108	160	3	011201375	48,952
14	108	160	3	011201400	48,952
14,25	114	169	3	011201425	66,984
14,5	114	169	3	011201450	66,984
14,75	114	169	3	011201475	66,984
15	114	169	3	011201500	66,984
15,25	120	178	3	011201525	71,744
15,5	120	178	3	011201550	71,744
15,75	120	178	3	011201575	71,744
16	120	178	3	011201600	71,744
16,5	125	184	1	011201650	87,310
17	125	184	1	011201700	87,310
17,5	130	191	1	011201750	98,951
18	130	191	1	011201800	98,951
18,5	135	198	1	011201850	110,592
19	135	198	1	011201900	110,592
19,5	140	205	1	011201950	125,726
20	140	205	1	011202000	125,726

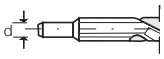
PUNTE ELICOIDALI CILINDRICHE AL COBALTO 8% CON CODOLO RIDOTTO

Cobalt reduced shank twist drills / Forets cylindriques à queue réduite au cobalt
Brocas helicoidales de cobalto con mango reducido / Kobalt-Spiralbohrer mit reduzierten Schaft

HSS-CO 8% DIN 338

01122



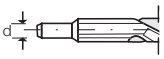


d= 10 mm.

Art. **01124** Self
Disponibile su richiesta / *On demand*

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	011221025	24,226
10,5	87	133	10	5	011221050	24,226
10,75	94	142	10	5	011221075	27,776
11	94	142	10	5	011221100	27,776
11,25	94	142	10	5	011221125	30,791
11,5	94	142	10	5	011221150	30,791
11,75	94	142	10	5	011221175	33,713
12	101	151	10	5	011221200	33,713
12,25	101	151	10	5	011221225	36,623
12,5	101	151	10	5	011221250	36,623
12,75	101	151	10	5	011221275	39,394
13	101	151	10	5	011221300	39,394
13,25	108	160	10	3	011221325	54,167
13,5	108	160	10	3	011221350	54,167
13,75	108	160	10	3	011221375	54,167
14	108	160	10	3	011221400	54,167
14,25	114	169	10	3	011221425	64,865
14,5	114	169	10	3	011221450	64,865
14,75	114	169	10	3	011221475	64,865
15	114	169	10	3	011221500	64,865
15,25	120	178	10	3	011221525	77,217
15,5	120	178	10	3	011221550	77,217
15,75	120	178	10	3	011221575	77,217
16	120	178	10	3	011221600	77,217
16,5	125	184	10	1	011221650	89,416
17	125	184	10	1	011221700	89,416
17,5	130	191	10	1	011221750	103,258
18	130	191	10	1	011221800	120,079
18,5	135	198	10	1	011221850	120,079
19	135	198	10	1	011221900	120,079
19,5	140	205	10	1	011221950	134,969
20	140	205	10	1	011222000	134,969

01123

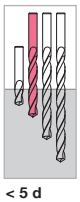


d= 13 mm.

Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	011231325	54,167
13,5	108	160	13	3	011231350	54,167
13,75	108	160	13	3	011231375	54,167
14	108	160	13	3	011231400	54,167
14,25	114	169	13	3	011231425	64,865
14,5	114	169	13	3	011231450	64,865
14,75	114	169	13	3	011231475	64,865
15	114	169	13	3	011231500	64,865
15,25	120	178	13	3	011231525	77,217
15,5	120	178	13	3	011231550	77,217
15,75	120	178	13	3	011231575	77,217
16	120	178	13	3	011231600	77,217
16,5	125	184	13	1	011231650	89,416
17	125	184	13	1	011231700	89,416
17,5	130	191	13	1	011231750	103,258
18	130	191	13	1	011231800	103,258
18,5	135	198	13	1	011231850	118,251
19	135	198	13	1	011231900	118,251
19,5	140	205	13	1	011231950	134,969
20	140	205	13	1	011232000	134,969

Confezione / *Packaging*





< 5 d

PUNTE ELICOIDALI AL COBALTO 8%, SERIE EXTRA CORTA

Cobalt straight shank twist drills, stub serie / Forets au cobalt, série extra courte
Broca de cobalto, serie extra corta / Kobalt Spiralbohrer, extra kurz

HSS-CO 8% DIN 1897





HV ≃ 850÷920
AISI M42
SPLIT POINT
DIN 1412C

Ø h8	/	L	pcs	cod.	€ cad/each
3	16	46	10	011260300	2,410
3,25	18	49	10	011260325	3,062
3,5	20	52	10	011260350	3,062
3,75	20	52	10	011260375	3,364
4	22	55	10	011260400	3,364
4,25	22	55	10	011260425	3,854
4,5	24	58	10	011260450	3,854
4,75	24	58	10	011260475	4,086
5	26	62	10	011260500	4,086
5,5	28	66	10	011260550	5,529
6	28	66	10	011260600	5,762

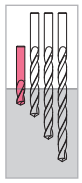
01126

Confezione / Packaging



Applicazioni / Applications







PUNTE ELICOIDALI CILINDRICHE AL COBALTO 8%, SERIE LUNGA

Cobalt long straight shank twist drills / Forets cylindriques série longue au cobalt
Brocas helicoidales serie larga de cobalto / Kobalt Spiralbohrer, lange Ausführung

HSS-CO 8% DIN 340





HV ≃ 850÷920
AISI M42
SPLIT POINT
DIN 1412C

Ø h8	/	L	pcs	cod.	€ cad/each
3	66	100	10	011280300	5,006
3,25	69	106	10	011280325	5,633
3,5	73	112	10	011280350	5,633
3,75	73	112	10	011280375	6,786
4	78	119	10	011280400	6,786
4,25	78	119	10	011280425	8,090
4,5	82	126	10	011280450	8,090
4,75	82	126	10	011280475	8,870
5	87	132	10	011280500	8,451
5,25	87	132	10	011280525	10,360
5,5	91	139	10	011280550	9,872
5,75	91	139	10	011280575	12,934
6	91	139	10	011280600	12,328
6,5	97	148	5	011280650	14,434
7	102	156	5	011280700	16,704
7,5	102	156	5	011280750	21,246
8	109	165	5	011280800	23,749
8,5	109	165	5	011280850	27,276
9	115	175	5	011280900	31,082
9,5	115	175	5	011280950	35,797
10	121	184	5	011281000	42,166

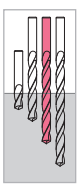
01128

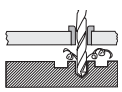
Confezione / Packaging



Applicazioni / Applications







ASSORTIMENTI PUNTE AL COBALTO 8% IN ASTUCCI DI METALLO E ABS DI QUALITÀ

Sets of cobalt twist drills / Assortiments forets au cobalt
Juego brocas de cobalto / Kobalt-geschliffene Spiralbohrersätze

HSS-CO 8% DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm

01135401 € 113,316



25 pcs
Ø 1÷13 x 0,5 mm

01135402 € 249,310



37 pcs
Ø 1÷10 x 0,25 mm

01135411 € 257,815



49 pcs
Ø 1÷13 x 0,25 mm

01135412 € 574,402

Abs



19 pcs
Ø 1÷10 x 0,5 mm

01135301 € 113,316



25 pcs
Ø 1÷13 x 0,5 mm

01135302 € 249,310



19 pcs
Ø 1÷10 x 0,5 mm

01135250 € 113,316



25 pcs
Ø 1÷13 x 0,5 mm

01135251 € 244,466

Metal



51 pcs
Ø 1÷6 x 0,1 mm

01135403 € 206,493



41 pcs
Ø 6÷10 x 0,1 mm

01135404 € 622,004



91 pcs
Ø 1÷10 x 0,1 mm

01135406 € 1071,508

Plastic



91 pcs
Ø 1÷10 x 0,1 mm

01135220 € 729,035



19 pcs
Ø 1÷10 x 0,5 mm

01135101 € 113,316



10 pcs
Ø 1÷10 x 1 mm

01135201 € 64,214



13 pcs
Ø 1,5 - 2 - 2,5 - 3 - 3,3 - 3,5
4 - 4,2 - 4,5 - 5 - 5,5 - 6 - 6,5

01135203 € 44,074



13 pcs
Ø 2÷8 x 0,5 mm

01135205 € 62,956



6 pcs
Ø 2 - 3 - 4 - 5 - 6 - 8

01135204 € 28,963



19 pcs
Ø 1÷10 x 0,5 mm

01135206 € 113,316

VALIGETTE MAGAZZENO PUNTE AL COBALTO 8%

Cobalt twist drills in metal cases / Forets cobalt en coffret métallique
Surtido de brocas cobalto en caja metalica / Lager Kästen mit Kobalt-geschliffene Spiralbohrersätze

HSS-CO 8% DIN 338



Metal
330x240x55

116 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	3
1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

cod.	€
01135450	482,060



Metal
550x310x55

128 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	3
1,5	10	8	3
2	10	8,5	2
2,5	10	9	2
3	10	9,5	2
3,5	10	10	2
4	10	10,5	2
4,5	10	11	2
5	10	11,5	2
5,5	3	12	2
6	3	12,5	2
6,5	3	13	2
7	3		

cod.	€
01135451	838,215

ESPOSITORE DA BANCO-MAGAZZENO PUNTE COBALTO 8%

Cobalt twist drills display / Display forets au cobalt
Expositor brocas de cobalto / Verkaufsschränke für Kobalt Spiralbohrer

HSS-CO 8% DIN 338



Metal
375x240x200

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	10	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	10	12	3
6	10	12,5	3
6,5	5	13	3
7	5		

cod.	€
01135501	1280,705



Metal
390x460x230

240 pcs Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs
1	10	7,25	2
1,25	5	7,5	5
1,5	10	7,75	2
1,75	5	8	5
2	10	8,25	2
2,25	5	8,5	3
2,5	10	8,75	2
2,75	5	9	3
3	10	9,25	2
3,25	10	9,5	3
3,5	10	9,75	2
3,75	10	10	3
4	10	10,25	2
4,25	10	10,5	2
4,5	10	10,75	2
4,75	3	11	2
5	10	11,25	2
5,25	3	11,5	2
5,5	10	11,75	2
5,75	2	12	2
6	10	12,25	2
6,25	2	12,5	2
6,5	5	12,75	2
6,75	2	13	2
7	5		

cod.	€
01135507	1945,046

PUNTE ELICOIDALI AL COBALTO 5%, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 5% DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01145





HV ≃ 800÷860
AISI M35
SPLIT POINT
DIN 1412 C
(Ø≥3 mm)

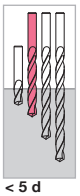
Art. **01144** Self
Disponibile su richiesta / *On demand*

Confezione / *Packaging*



Applicazioni / *Applications*





Ø h8	/	L	pcs	cod.	€ cad/each	Ø h8	/	L	pcs	cod.	€ cad/each
0,2	2,5	19	10	011450020	2,467	4,2	43	75	10	011450420	2,980
0,25	3	19	10	011450025	2,467	**4,25**	43	75	10	011450425	2,980
0,3	3	19	10	011450030	2,467	4,3	47	80	10	011450430	2,980
0,35	4	19	10	011450035	2,467	4,4	47	80	10	011450440	2,980
0,4	5	20	10	011450040	2,467	**4,5**	47	80	10	011450450	2,707
0,45	5	20	10	011450045	2,467	4,6	47	80	10	011450460	3,140
0,5	6	22	10	011450050	2,467	4,7	47	80	10	011450470	3,140
0,55	7	24	10	011450055	2,467	**4,75**	47	80	10	011450475	3,140
0,6	7	24	10	011450060	2,467	4,8	52	86	10	011450480	3,140
0,65	8	26	10	011450065	2,467	4,9	52	86	10	011450490	3,140
0,7	9	28	10	011450070	2,467	**5**	52	86	10	011450500	2,856
0,75	9	28	10	011450075	2,467	5,1	52	86	10	011450510	3,825
0,8	10	30	10	011450080	2,467	5,2	52	86	10	011450520	3,825
0,85	10	30	10	011450085	2,467	**5,25**	52	86	10	011450525	3,825
0,9	11	32	10	011450090	2,467	5,3	52	86	10	011450530	3,825
0,95	11	32	10	011450095	2,467	5,4	57	93	10	011450540	3,825
1	12	34	10	011450100	1,576	5,5	57	93	10	011450550	3,643
1,1	14	36	10	011450110	1,747	5,6	57	93	10	011450560	4,408
1,2	16	38	10	011450120	1,747	5,7	57	93	10	011450570	4,408
1,25	16	38	10	011450125	1,747	**5,75**	57	93	10	011450575	4,408
1,3	16	38	10	011450130	1,747	5,8	57	93	10	011450580	4,408
1,4	18	40	10	011450140	1,747	5,9	57	93	10	011450590	4,408
1,5	18	40	10	011450150	1,576	**6**	57	93	10	011450600	4,043
1,6	20	43	10	011450160	1,667	6,1	63	101	10	011450610	5,195
1,7	20	43	10	011450170	1,667	6,2	63	101	10	011450620	5,195
1,75	22	46	10	011450175	1,667	**6,25**	63	101	10	011450625	5,195
1,8	22	46	10	011450180	1,667	6,3	63	101	10	011450630	5,195
1,9	22	46	10	011450190	1,667	6,4	63	101	10	011450640	5,195
2	24	49	10	011450200	1,519	**6,5**	63	101	10	011450650	4,807
2,1	24	49	10	011450210	1,850	6,6	63	101	10	011450660	6,350
2,2	27	53	10	011450220	1,850	6,7	63	101	10	011450670	6,350
2,25	27	53	10	011450225	1,850	**6,75**	69	109	10	011450675	6,350
2,3	27	53	10	011450230	1,850	6,8	69	109	10	011450680	6,350
2,4	30	57	10	011450240	1,850	6,9	69	109	10	011450690	6,350
2,5	30	57	10	011450250	1,599	**7**	69	109	10	011450700	5,870
2,6	30	57	10	011450260	1,759	7,1	69	109	5	011450710	7,080
2,7	33	61	10	011450270	1,759	7,2	69	109	5	011450720	7,080
2,75	33	61	10	011450275	1,759	**7,25**	69	109	5	011450725	7,080
2,8	33	61	10	011450280	1,759	7,3	69	109	5	011450730	7,080
2,9	33	61	10	011450290	1,759	7,4	69	109	5	011450740	7,080
3	33	61	10	011450300	1,599	**7,5**	69	109	5	011450750	6,440
3,1	36	65	10	011450310	2,192	7,6	75	117	5	011450760	8,337
3,2	36	65	10	011450320	2,192	7,7	75	117	5	011450770	8,337
3,25	36	65	10	011450325	2,192	**7,75**	75	117	5	011450775	8,337
3,3	36	65	10	011450330	2,192	7,8	75	117	5	011450780	8,337
3,4	39	70	10	011450340	2,192	7,9	75	117	5	011450790	8,337
3,5	39	70	10	011450350	1,987	**8**	75	117	5	011450800	7,582
3,6	39	70	10	011450360	2,591	8,1	75	117	5	011450810	8,828
3,7	39	70	10	011450370	2,591	8,2	75	117	5	011450820	8,828
3,75	39	70	10	011450375	2,591	**8,25**	75	117	5	011450825	8,828
3,8	43	75	10	011450380	2,591	8,3	75	117	5	011450830	8,828
3,9	43	75	10	011450390	2,591	8,4	75	117	5	011450840	8,828
4	43	75	10	011450400	2,364	**8,5**	75	117	5	011450850	8,028
4,1	43	75	10	011450410	2,980	8,6	81	125	5	011450860	10,791

- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

Ø h8	/	L	pcs	cod.	€ cad/each
8,7	81	125	5	011450870	10,791
8,75	81	125	5	011450875	10,791
8,8	81	125	5	011450880	10,791
8,9	81	125	5	011450890	10,791
9	81	125	5	011450900	9,810
9,1	81	125	5	011450910	11,293
9,2	81	125	5	011450920	11,293
9,25	81	125	5	011450925	11,293
9,3	81	125	5	011450930	11,293
9,4	81	125	5	011450940	11,293
9,5	81	125	5	011450950	10,266
9,6	87	133	5	011450960	13,110
9,7	87	133	5	011450970	13,110
9,75	87	133	5	011450975	13,110
9,8	87	133	5	011450980	13,110
9,9	87	133	5	011450990	13,110
10	87	133	5	011451000	11,921
10,1	87	133	5	011451010	15,610
10,2	87	133	5	011451020	15,610
10,25	87	133	5	011451025	15,610
10,3	87	133	5	011451030	15,610
10,4	87	133	5	011451040	15,610
10,5	87	133	5	011451050	14,194
10,6	87	133	5	011451060	17,654
10,7	94	142	5	011451070	17,654
10,75	94	142	5	011451075	17,654
10,8	94	142	5	011451080	17,654
10,9	94	142	5	011451090	17,654
11	94	142	5	011451100	16,045
11,1	94	142	5	011451110	19,242
11,2	94	142	5	011451120	19,242
11,25	94	142	5	011451125	19,242
11,3	94	142	5	011451130	19,242
11,4	94	142	5	011451140	19,242
11,5	94	142	5	011451150	17,495
11,6	94	142	5	011451160	21,183
11,7	94	142	5	011451170	21,183
11,75	94	142	5	011451175	21,183
11,8	94	142	5	011451180	21,183
11,9	101	151	5	011451190	21,183
12	101	151	5	011451200	19,253
12,1	101	151	5	011451210	22,907
12,2	101	151	5	011451220	22,907
12,25	101	151	5	011451225	22,907
12,3	101	151	5	011451230	22,907
12,4	101	151	5	011451240	22,907
12,5	101	151	5	011451250	20,829
12,6	101	151	5	011451260	24,953
12,7	101	151	5	011451270	24,953
12,75	101	151	5	011451275	24,953
12,8	101	151	5	011451280	24,953
12,9	101	151	5	011451290	24,953
13	101	151	5	011451300	22,679
13,1	101	151	3	011451310	35,972

Ø h8	/	L	pcs	cod.	€ cad/each
13,2	101	151	3	011451320	35,972
13,25	108	160	3	011451325	35,972
13,3	108	160	3	011451330	35,972
13,4	108	160	3	011451340	35,972
13,5	108	160	3	011451350	35,972
13,6	108	160	3	011451360	37,912
13,7	108	160	3	011451370	37,912
13,75	108	160	3	011451375	37,912
13,8	108	160	3	011451380	37,912
13,9	108	160	3	011451390	37,912
14	108	160	3	011451400	37,912
14,1	108	160	3	011451410	41,819
14,2	114	169	3	011451420	41,819
14,25	114	169	3	011451425	41,819
14,3	114	169	3	011451430	41,819
14,4	114	169	3	011451440	41,819
14,5	114	169	3	011451450	41,819
14,6	114	169	3	011451460	43,966
14,7	114	169	3	011451470	43,966
14,75	114	169	3	011451475	43,966
14,8	114	169	3	011451480	43,966
14,9	114	169	3	011451490	43,966
15	114	169	3	011451500	43,966
15,1	120	178	3	011451510	43,966
15,2	120	178	3	011451520	43,966
15,25	120	178	3	011451525	43,966
15,3	120	178	3	011451530	50,589
15,4	120	178	3	011451540	50,589
15,5	120	178	3	011451550	50,589
15,6	120	178	3	011451560	50,589
15,7	120	178	3	011451570	50,589
15,75	120	178	3	011451575	51,810
15,8	120	178	3	011451580	51,810
15,9	120	178	3	011451590	51,810
16	120	178	3	011451600	51,810
16,25	125	184	1	011451625	52,701
16,5	125	184	1	011451650	52,701
16,75	125	184	1	011451675	52,701
17	125	184	1	011451700	52,701
17,25	130	191	1	011451725	68,403
17,5	130	191	1	011451750	68,403
17,75	130	191	1	011451775	68,403
18	130	191	1	011451800	68,403
18,25	135	198	1	011451825	78,543
18,5	135	198	1	011451850	78,543
18,75	135	198	1	011451875	78,543
19	135	198	1	011451900	78,543
19,25	140	205	1	011451925	90,740
19,5	140	205	1	011451950	90,740
19,75	140	205	1	011451975	90,740
20	140	205	1	011452000	90,740

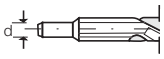
PUNTE ELICOIDALI AL COBALTO 5% CON CODOLO RIDOTTO, ESECUZIONE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 5% DIN 338

01147





d= 10 mm.

Art. **01151** Self
Disponibile su richiesta / *On demand*

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	011471025	18,203
10,5	87	133	10	5	011471050	16,788
10,75	94	142	10	5	011471075	20,248
11	94	142	10	5	011471100	18,637
11,25	94	142	10	5	011471125	21,834
11,5	94	142	10	5	011471150	20,087
11,75	94	142	10	5	011471175	23,775
12	101	151	10	5	011471200	21,846
12,25	101	151	10	5	011471225	25,511
12,5	101	151	10	5	011471250	23,421
12,75	101	151	10	5	011471275	27,544
13	101	151	10	5	011471300	25,272
13,25	108	160	10	3	011471325	39,170
13,5	108	160	10	3	011471350	39,170
13,75	108	160	10	3	011471375	40,197
14	108	160	10	3	011471400	40,197
14,25	114	169	10	3	011471425	45,450
14,5	114	169	10	3	011471450	45,450
14,75	114	169	10	3	011471475	46,935
15	114	169	10	3	011471500	46,935
15,25	120	178	10	3	011471525	54,586
15,5	120	178	10	3	011471550	54,586
15,75	120	178	10	3	011471575	56,549
16	120	178	10	3	011471600	56,549
16,5	125	184	10	1	011471650	57,440
17	125	184	10	1	011471700	57,440
17,5	130	191	10	1	011471750	73,942
18	130	191	10	1	011471800	73,942
18,5	135	198	10	1	011471850	84,870
19	135	198	10	1	011471900	84,870
19,5	140	205	10	1	011471950	98,722
20	140	205	10	1	011472000	98,722

Confezione / *Packaging*



Applicazioni / *Applications*



- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

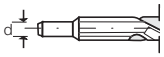
PUNTE ELICOIDALI AL COBALTO 5% CON CODOLO RIDOTTO, ESECUZIONE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid / Forets cylindriques au cobalt entièrement rectifiés
Broca helicoidale rectificada de cobalto / Kobalt Spiralbohrer

HSS-CO 5% DIN 338

01146





d= 13 mm.

Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	011461325	39,170
13,5	108	160	13	3	011461350	39,170
13,75	108	160	13	3	011461375	40,197
14	108	160	13	3	011461400	40,197
14,25	114	169	13	3	011461425	45,450
14,5	114	169	13	3	011461450	45,450
14,75	114	169	13	3	011461475	46,935
15	114	169	13	3	011461500	46,935
15,25	120	178	13	3	011461525	54,586
15,5	120	178	13	3	011461550	54,586
15,75	120	178	13	3	011461575	56,549
16	120	178	13	3	011461600	56,549
16,5	125	184	13	1	011461650	57,440
17	125	184	13	1	011461700	57,440
17,5	130	191	13	1	011461750	73,942
18	130	191	13	1	011461800	73,942
18,5	135	198	13	1	011461850	84,870
19	135	198	13	1	011461900	84,870
19,5	140	205	13	1	011461950	98,722
20	140	205	13	1	011462000	98,722
20,5	145	213	13	1	011462050	102,729
21	145	213	13	1	011462100	102,729
21,5	150	221	13	1	011462150	104,120
22	150	221	13	1	011462200	104,120
22,5	150	221	13	1	011462250	111,831
23	155	229	13	1	011462300	111,831
23,5	155	229	13	1	011462350	120,649
24	160	236	13	1	011462400	120,649
24,5	160	236	13	1	011462450	129,826
25	160	236	13	1	011462500	129,826

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 1200 N/mm²



Inox



Acciaio
Steel



Metals



- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

PUNTE ELICOIDALI AL COBALTO 5%, SERIE EXTRA CORTA

Cobalt straight shank twist drills, stub serie / Forets au cobalt, série extra courte
Broca de cobalto, serie extra corta / Kobalt Spiralbohrer, extra kurz

HSS-CO 5% DIN 1897

Extra corta
Extra short

01149





Ø h8	/	L	pcs	cod.	€ cad/each
3	16	46	10	011490300	2,021
3,2	18	49	10	011490320	2,340
3,25	18	49	10	011490325	2,570
3,5	20	52	10	011490350	2,570
3,75	20	52	10	011490375	2,833
4	22	55	10	011490400	2,833
4,2	22	55	10	011490420	3,015
4,25	22	55	10	011490425	3,231
4,5	24	58	10	011490450	3,231
4,75	24	58	10	011490475	3,437
5	26	62	10	011490500	3,437
5,25	26	62	10	011490525	3,751
5,5	28	66	10	011490550	4,670
5,75	28	66	10	011490575	4,853
6	28	66	10	011490600	4,853
6,5	31	70	10	011490650	5,060
7	34	74	10	011490700	6,114
7,5	34	74	5	011490750	7,021
8	37	79	5	011490800	8,662
8,5	37	79	5	011490850	9,069
9	40	84	5	011490900	10,559
9,5	40	84	5	011490950	11,571
10	43	89	5	011491000	13,978

NORMA KRINO HSS-CO5%

Super corta
Super short

01051





Ø	/	L	pcs	cod.	€ cad/each
3	16	35	10	010510300	1,443
3,25	19	40	10	010510325	1,443
3,5	19	40	10	010510350	1,443
3,75	19	40	10	010510375	2,054
4	20	40	10	010510400	2,170
4,25	20	40	10	010510425	2,359
4,5	23	42	10	010510450	2,728
5	23	45	10	010510500	3,023

Super corta - *Super short*



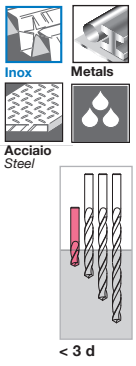
Punte speciali per la foratura di lamiere e tubi in acciaio inox e lamiere metalliche in genere (acciaio, ferro, rame). Speciali per lattonieri, carpentieri, coperturisti, fabbri, installatori.
Super short twist drills for cutting stainless metal sheets. Special for journeymen's, carpenters, locksmith's, tinsmith's.



Confezione / Packaging



Applicazioni / Applications



PUNTE ELICOIDALI AL COBALTO 5%, SERIE EXTRA CORTA

Cobalt straight shank twist drills, stub serie / Forets au cobalt, série extra courte
Broca de cobalto, serie extra corta / Kobalt Spiralbohrer, extra kurz

HSS-CO 5%

Elica contrapposta
Double ended

01148





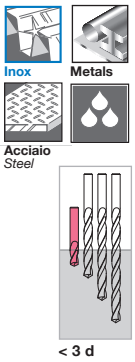


Ø h8	/	L	pcs	cod.	€ cad/each
2	10	38	10	011480200	2,724
2,5	10	43	10	011480250	2,724
3	10	46	10	011480300	2,724
3,25	10	49	10	011480325	3,482
3,5	12	52	10	011480350	3,154
3,75	12	55	10	011480375	3,732
4	12	55	10	011480400	3,382
4,1	12	55	10	011480410	4,181
4,25	12	58	10	011480425	4,181
4,5	12	58	10	011480450	3,812
4,75	13	62	10	011480475	4,900
4,9	13	62	10	011480490	4,460
5	13	62	10	011480500	4,460
5,1	13	62	10	011480510	5,398
5,5	16	66	10	011480550	5,398
6	16	66	10	011480600	6,386

Confezione / Packaging



Applicazioni / Applications



PUNTE ELICOIDALI CILINDRICHE AL COBALTO 5%, SERIE LUNGA

Cobalt long straight shank twist drills / Forets cylindriques série longue au cobalt
Brocas helicoidales serie larga de cobalto / Kobalt Spiralbohrer, lange Ausführung

HSS-CO 5% DIN 340

01152



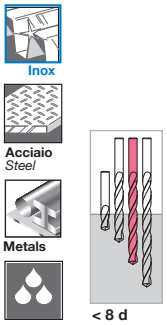


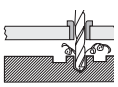
Ø h8	/	L	pcs	cod.	€ cad/each
1	33	56	10	011520100	1,486
1,5	45	70	10	011520150	1,486
1,75	53	80	10	011520175	1,808
2	56	85	10	011520200	3,102
2,25	59	90	10	011520225	2,392
2,5	62	95	10	011520250	3,626
2,75	66	100	10	011520275	3,610
3	66	100	10	011520300	3,883
3,25	69	106	10	011520325	4,328
3,5	73	112	10	011520350	4,328
3,75	73	112	10	011520375	5,413
4	78	119	10	011520400	5,413
4,25	78	119	10	011520425	6,463
4,5	82	126	10	011520450	6,463
4,75	82	126	10	011520475	6,863
5	87	132	10	011520500	6,863
5,25	87	132	10	011520525	8,599
5,5	91	139	10	011520550	8,599
5,75	91	139	10	011520575	9,272
6	91	139	10	011520600	9,272
6,25	97	148	5	011520625	11,099
6,5	97	148	5	011520650	11,099
6,75	97	148	5	011520675	12,893
7	102	156	5	011520700	12,893
7,25	102	156	5	011520725	14,023
7,5	102	156	5	011520750	14,023
7,75	109	165	5	011520775	16,558
8	109	165	5	011520800	16,558
8,25	109	165	5	011520825	17,586
8,5	109	165	5	011520850	17,586
8,75	115	175	5	011520875	20,555
9	115	175	5	011520900	20,555
9,25	115	175	5	011520925	22,782
9,5	115	175	5	011520950	22,782
9,75	121	184	5	011520975	26,493
10	121	184	5	011521000	26,493
10,25	121	184	5	011521025	28,724
10,5	121	184	5	011521050	31,417
10,75	128	195	5	011521075	31,879
11	128	195	5	011521100	36,225
11,25	128	195	5	011521125	34,663
11,5	128	195	5	011521150	39,420
11,75	134	205	5	011521175	40,024
11,8	134	205	5	011521180	40,024
12	134	205	5	011521200	45,513
12,25	134	205	5	011521225	43,019
12,5	134	205	5	011521250	48,917
12,75	134	205	5	011521275	46,044
13	134	205	5	011521300	52,351
13,5	140	214	3	011521350	59,449
14	140	214	3	011521400	59,449
14,5	144	220	3	011521450	67,089
15	144	220	3	011521500	67,089
15,5	149	227	3	011521550	79,090
16	149	227	3	011521600	79,090
16,5	154	235	1	011521650	90,628
17	154	235	1	011521700	90,628
17,5	158	241	1	011521750	104,492
18	158	241	1	011521800	104,492
18,5	162	247	1	011521850	130,187
19	162	247	1	011521900	130,187
19,5	166	254	1	011521950	148,924
20	166	254	1	011522000	148,924

Confezione / *Packaging*



Applicazioni / *Applications*





PUNTE ELICOIDALI CILINDRICHE AL COBALTO 5%, SERIE EXTRA LUNGA

Cobalt extra long straight shank twist drills / Forets cylindriques série extra longue au cobalt
Brocas helicoidales serie extra larga de cobalto / Kobalt Spiralbohrer, extra lange Ausführung

HSS-CO 5% Parabolic



DIN 1869/1

01376 NEW

Ø h8	/	L	pcs	cod.	€ cad/each
3	100	150	1	013760300	33,605
3,5	115	165	1	013760350	33,605
4	120	175	1	013760400	34,320
4,5	125	185	1	013760450	35,650
5	135	195	1	013760500	27,476
5,5	140	205	1	013760550	31,825
6	140	205	1	013760600	32,221
6,5	150	215	1	013760650	39,765
7	155	225	1	013760700	45,588
7,5	155	225	1	013760750	48,785
8	165	240	1	013760800	45,396
8,5	165	240	1	013760850	59,920
9	175	250	1	013760900	61,380
9,5	175	250	1	013760950	72,928
10	185	265	1	013761000	66,440

DIN 1869/2

01377 NEW

Ø h8	/	L	pcs	cod.	€ cad/each
3	130	190	1	013770300	48,015
3,5	145	210	1	013770350	42,398
4	150	220	1	013770400	43,384
4,5	160	235	1	013770450	46,585
5	170	245	1	013770500	44,460
5,5	180	260	1	013770550	48,488
6	180	260	1	013770600	45,780
6,5	190	275	1	013770650	68,556
7	200	290	1	013770700	72,616
7,5	200	290	1	013770750	76,444
8	210	305	1	013770800	76,140
8,5	210	305	1	013770850	83,200
9	220	320	1	013770900	79,982
9,5	220	320	1	013770950	92,352
10	235	340	1	013771000	77,520

DIN 1869/3

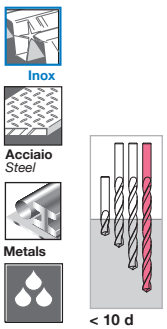
01378 NEW

Ø h8	/	L	pcs	cod.	€ cad/each
3	160	240	1	013780300	62,425
3,5	180	265	1	013780350	55,158
4	190	280	1	013780400	56,434
4,5	200	295	1	013780450	60,555
5	210	315	1	013780500	61,105
5,5	225	330	1	013780550	59,785
6	225	330	1	013780600	57,536
6,5	235	350	1	013780650	84,480
7	250	370	1	013780700	89,540
7,5	250	370	1	013780750	94,215
8	265	390	1	013780800	90,750
8,5	265	390	1	013780850	108,212
9	280	410	1	013780900	98,615
9,5	280	410	1	013780950	124,686
10	295	430	1	013781000	120,798
10,5	295	430	1	013781050	140,400
11	310	455	1	013781100	190,296
11,5	310	455	1	013781150	209,628
12	330	480	1	013781200	211,410
12,5	330	480	1	013781250	211,410
13	330	480	1	013781300	223,722

Confezione / *Packaging*



Applicazioni / *Applications*



PUNTE ELICOIDALI AL COBALTO 5% CODOLO CONICO MORSE

Cobalt morse taper shank twist drills / Forets à queue conique morse au cobalt
Brocas helicoidales de cobalto con mango conico / Cobalt Spiralbohrer mit Morsekegel

HSS-CO 5% DIN 345

01150

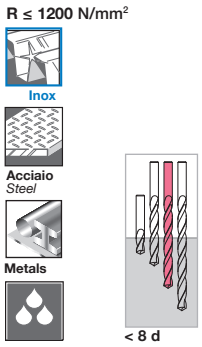




Confezione / *Packaging*



Applicazioni / *Applications*



- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non, con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

Fresata / *Milled / Fraisé / Fresada / Gefräst*

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
7	1	69	150	1	011500700	41,183
7,5	1	69	150	1	011500750	41,183
8	1	75	156	1	011500800	41,183
8,5	1	75	156	1	011500850	41,183
9	1	81	162	1	011500900	41,183
9,5	1	81	162	1	011500950	41,183
10	1	87	168	1	011501000	41,183
10,25	1	87	168	1	011501025	41,183
10,5	1	87	168	1	011501050	41,183
10,75	1	94	175	1	011501075	41,183
11	1	94	175	1	011501100	41,183
11,25	1	94	175	1	011501125	41,183
11,5	1	94	175	1	011501150	41,183
11,75	1	94	175	1	011501175	41,183
12	1	101	182	1	011501200	41,183
12,25	1	101	182	1	011501225	43,539
12,5	1	101	182	1	011501250	43,539
12,75	1	101	182	1	011501275	43,539
13	1	101	182	1	011501300	43,539
13,25	1	108	189	1	011501325	47,592
13,5	1	108	189	1	011501350	47,592
13,75	1	108	189	1	011501375	50,890
14	1	108	189	1	011501400	50,890
14,25	2	114	212	1	011501425	59,823
14,5	2	114	212	1	011501450	59,823
14,75	2	114	212	1	011501475	60,482
15	2	114	212	1	011501500	60,482
15,25	2	120	218	1	011501525	65,799
15,5	2	120	218	1	011501550	65,799
15,75	2	120	218	1	011501575	65,799
16	2	120	218	1	011501600	65,799
16,25	2	125	223	1	011501625	70,491
16,5	2	125	223	1	011501650	70,491
16,75	2	125	223	1	011501675	70,491
17	2	125	223	1	011501700	70,491
17,25	2	130	228	1	011501725	73,082
17,5	2	130	228	1	011501750	73,082
17,75	2	130	228	1	011501775	73,082
18	2	130	228	1	011501800	73,082
18,25	2	135	233	1	011501825	77,710
18,5	2	135	233	1	011501850	77,710
18,75	2	135	233	1	011501875	77,710
19	2	135	233	1	011501900	77,710
19,25	2	140	238	1	011501925	90,365
19,5	2	140	238	1	011501950	90,365
19,75	2	140	238	1	011501975	90,365
20	2	140	238	1	011502000	90,365
20,25	2	145	243	1	011502025	108,375
20,5	2	145	243	1	011502050	108,375
20,75	2	145	243	1	011502075	111,296
21	2	145	243	1	011502100	111,296
21,25	2	150	248	1	011502125	121,682
21,5	2	150	248	1	011502150	121,682
21,75	2	150	248	1	011502175	121,682
22		150	248	1	011502200	121,682

ø ≤ 60 Disponibili su richiesta - *Available on demand*

PUNTE ELICOIDALI AL COBALTO 5% CODOLO CONICO MORSE

Cobalt morse taper shank twist drills / Forets à queue conique morse au cobalt
Brocas helicoidales de cobalto con mango conico / Cobalt Spiralbohrer mit Morsekegel

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
22,25	2	155	248	1	011502225	128,419
22,5	2	155	253	1	011502250	128,419
22,75	2	155	253	1	011502275	139,727
23	2	155	253	1	011502300	139,727
23,25	2	155	276	1	011502325	141,989
23,5		155	276	1	011502350	141,989
23,75	3	160	281	1	011502375	155,494
24	3	160	281	1	011502400	155,494
24,25	3	160	281	1	011502425	159,989
24,5	3	160	281	1	011502450	159,989
24,75	3	160	281	1	011502475	159,989
25	3	160	281	1	011502500	159,989
25,25	3	165	286	1	011502525	180,288
25,5	3	165	286	1	011502550	180,288
25,75	3	165	286	1	011502575	182,550
26	3	165	286	1	011502600	182,550
26,25	3	165	286	1	011502625	184,765
26,5	3	165	286	1	011502650	184,765
26,75	3	170	291	1	011502675	196,045
27	3	170	291	1	011502700	196,045
27,25	3	170	291	1	011502725	202,793
27,5	3	170	291	1	011502750	202,793
27,75	3	170	291	1	011502775	202,793
28	3	170	291	1	011502800	202,793
28,25	3	175	296	1	011502825	216,957
28,5	3	175	296	1	011502850	216,957
28,75	3	175	296	1	011502875	220,821
29	3	175	296	1	011502900	220,821
29,25	3	175	296	1	011502925	220,821
29,5	3	175	296	1	011502950	220,821
29,75	3	175	296	1	011502975	232,072
30	3	175	296	1	011503000	232,072
30,25	3	180	301	1	011503025	281,393
30,5	3	180	301	1	011503050	281,393
30,75	3	180	301	1	011503075	281,393
31	3	180	301	1	011503100	281,393
31,25	3	180	301	1	011503125	302,545
31,5	3	180	301	1	011503150	302,545
31,75	3	185	306	1	011503175	302,545
32	3	185	334	1	011503200	302,545
32,25	4	185	334	1	011503225	317,158
32,5	4	185	334	1	011503250	317,158
32,75	4	185	334	1	011503275	317,158
33	4	185	334	1	011503300	317,158
33,25	4	185	334	1	011503325	344,282
33,5	4	185	334	1	011503350	344,282
33,75	4	185	334	1	011503375	344,282
34	4	190	339	1	011503400	344,282
34,25	4	190	339	1	011503425	356,801
34,5	4	190	339	1	011503450	356,801
34,75	4	190	339	1	011503475	356,801
35	4	190	339	1	011503500	356,801
35,25	4	190	339	1	011503525	400,612
35,5	4	190	339	1	011503550	400,612
35,75	4	190	339	1	011503575	400,612
36	4	195	344	1	011503600	400,612

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
36,25	4	195	344	1	011503625	426,693
36,5	4	195	344	1	011503650	426,693
36,75	4	195	344	1	011503675	426,693
37	4	195	344	1	011503700	426,693
37,25	4	195	344	1	011503725	459,035
37,5	4	195	344	1	011503750	459,035
37,75	4	195	344	1	011503775	459,035
38	4	200	349	1	011503800	459,035
38,25	4	200	349	1	011503825	539,373
38,5	4	200	349	1	011503850	539,373
38,75	4	200	349	1	011503875	539,373
39	4	200	349	1	011503900	539,373
39,25	4	200	349	1	011503925	539,373
39,5	4	200	349	1	011503950	539,373
39,75	4	200	349	1	011503975	539,373
40	4	200	349	1	011504000	539,373
40,5	4	205	354	1	011504050	561,983
41	4	205	354	1	011504100	620,310
41,5	4	205	354	1	011504150	620,310
42	4	205	354	1	011504200	646,826
42,5	4	205	354	1	011504250	646,826
43	4	210	359	1	011504300	710,400
43,5	4	210	359	1	011504350	710,400
44	4	210	359	1	011504400	726,344
44,5	4	210	359	1	011504450	726,344
45	4	210	359	1	011504500	774,051
45,5	4	215	364	1	011504550	774,051
46	4	215	364	1	011504600	779,366
46,5	4	215	364	1	011504650	779,366
47	4	215	364	1	011504700	827,064
47,5	4	215	364	1	011504750	827,064
48	4	220	369	1	011504800	901,267
48,5	4	220	369	1	011504850	901,267
49	4	220	369	1	011504900	922,469
49,5	4	220	369	1	011504950	922,469
50	4	220	369	1	011505000	943,660
50,5	4	225	374	1	011505050	943,660
51	4	225	412	1	011505100	1150,886
51,5	5	225	412	1	011505150	1150,886
52	5	225	412	1	011505200	1197,272
52,5	5	225	412	1	011505250	1197,272
53	5	225	412	1	011505300	1214,953
53,5	5	230	417	1	011505350	1214,953
54	5	230	417	1	011505400	1303,307
54,5	5	230	417	1	011505450	1303,307
55	5	230	417	1	011505500	1325,395
55,5	5	230	417	1	011505550	1325,395
56	5	230	417	1	011505600	1325,395
56,5	5	235	422	1	011505650	1325,395
57	5	235	422	1	011505700	1404,924
57,5	5	235	422	1	011505750	1404,924
58	5	235	422	1	011505800	1484,451
58,5	5	235	422	1	011505850	1484,451
59	5	235	422	1	011505900	1484,451
59,5	5	235	422	1	011505950	1537,464
60	5	235	422	1	011506000	1537,464

ASSORTIMENTI PUNTE AL COBALTO 5% IN ASTUCCI DI METALLO E ABS DI QUALITÀ

Sets of cobalt twist drills / Assortiments forets au cobalt
Juego brocas de cobalto / Kobalt-geschliffene Spiralbohrersätze

HSS-CO 5% DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm
01155401 € 82,742



25 pcs
Ø 1÷13 x 0,5 mm
01155402 € 165,483



37 pcs
Ø 1÷10 x 0,25 mm
01155411 € 187,070



49 pcs
Ø 1÷13 x 0,25 mm
01155412 € 406,513

Abs



19 pcs
Ø 1÷10 x 0,5 mm
01155301 € 82,742



25 pcs
Ø 1÷13 x 0,5 mm
01155302 € 165,483



19 pcs
Ø 1÷10 x 0,5 mm
01155250 € 82,742



25 pcs
Ø 1÷13 x 0,5 mm
01155251 € 165,483

Metal



51 pcs
Ø 1÷6 x 0,1 mm
01155403 € 125,914



41 pcs
Ø 6÷10 x 0,1 mm
01155404 € 341,765



91 pcs
Ø 1÷10 x 0,1 mm
01155410 € 583,992

Plastic



91 pcs
Ø 1÷10 x 0,1 mm
01155220 € 464,076



19 pcs
Ø 1÷10 x 0,5 mm
01155101 € 82,742



10 pcs
Ø 1÷10 x 1 mm
01155201 € 47,962



13 pcs
Ø 1,5 - 2 - 2,5 - 3 - 3,3 - 3,5
4 - 4,2 - 4,5 - 5 - 5,5 - 6 - 6,5
01155203 € 32,374



13 pcs
Ø 2÷8 x 0,5 mm
01155205 € 45,568



6 pcs
Ø 2 - 3 - 4 - 5 - 6 - 8
01155204 € 20,988



19 pcs
Ø 1÷10 x 0,5 mm
01155206 € 82,742

VALIGETTE MAGAZZENO PUNTE AL COBALTO 5%

Cobalt 5% twist drills in metal cases / Forets cobalt 5% en coffret métallique
Surtido de brocas cobalto 5% en caja metalica / Lager Kästen mit Kobalt-geschliffene Spiralbohrersätze

HSS-CO 5% DIN 338



Metal
330x240x55

116 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	3
1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

cod.	€
01155450	342,963



Metal
550x310x55

128 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	3
1,5	10	8	3
2	10	8,5	2
2,5	10	9	2
3	10	9,5	2
3,5	10	10	2
4	10	10,5	2
4,5	10	11	2
5	10	11,5	2
5,5	3	12	2
6	3	12,5	2
6,5	3	13	2
7	3		

cod.	€
01155451	670,326

ESPOSITORE DA BANCO-MAGAZZENO PUNTE COBALTO 5%

5% Cobalt twist drills display / Display forets au cobalt 5%
Expositor brocas de cobalto 5% / Verkaufsschränke für Kobalt 5% Spiralbohrer

HSS-CO 8% DIN 338



Metal
375x240x200

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	10	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	10	12	3
6	10	12,5	3
6,5	5	13	3
7	5		

cod.	€
01155501	983,310



Metal
390x460x230

255 pcs Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs
1	10	7,25	2
1,25	5	7,5	5
1,5	10	7,75	2
1,75	5	8	5
2	10	8,25	2
2,25	5	8,5	5
2,5	10	8,75	2
2,75	5	9	5
3	10	9,25	2
3,25	10	9,5	5
3,5	10	9,75	2
3,75	10	10	5
4	10	10,25	2
4,25	10	10,5	3
4,5	10	10,75	2
4,75	3	11	3
5	10	11,25	2
5,25	3	11,5	3
5,5	10	11,75	2
5,75	3	12	3
6	10	12,25	2
6,25	2	12,5	3
6,5	5	12,75	2
6,75	2	13	3
7	5		

cod.	€
01155507	1650,045

PUNTE ELICOIDALI CON AFFILATURA A CROCE ED ELICA SPECIALE AD ALTA RESISTENZA PER FORATURE PROFONDE - SERIE CORTA

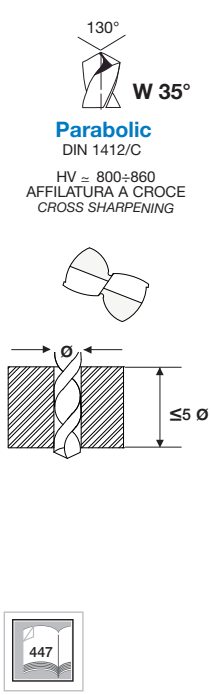
Twist drills cross cut sharpened and special "high resistance flute design" for deep in to cutting, short serie / Forets helicoidaux, affutage croix et spiral rapide pour perçages profonds / Brocas helicoidales corte forma cruz, helice rapida para perforaciones profundas

HSS-CO 5% DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01140 01305





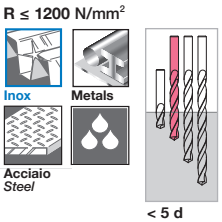
HSS-CO HSS-CO+TiAlN

Ø h8	/	L	pcs	Art. 01140 HSS-CO cod.	€ cad/each	Art. 01305 HSS-CO+TiAlN cod.	€ cad/each
2	24	49	10	011400200	2,404	013050200	9,255
2,25	27	53	10	011400225	2,404	013050225	9,255
2,5	30	57	10	011400250	2,404	013050250	9,255
2,75	33	61	10	011400275	2,563	013050275	9,432
3	33	61	10	011400300	2,563	013050300	9,432
3,2	36	65	10	011400320	2,856	013050320	9,736
3,25	36	65	10	011400325	2,856	013050325	9,736
3,5	39	70	10	011400350	2,856	013050350	9,736
3,75	39	70	10	011400375	3,149	013050375	10,037
4	43	75	10	011400400	3,149	013050400	10,037
4,2	43	75	10	011400420	3,796	013050420	11,903
4,25	43	75	10	011400425	3,796	013050425	11,903
4,5	47	80	10	011400450	3,796	013050450	11,903
4,75	47	80	10	011400475	4,151	013050475	12,260
4,8	52	86	10	011400480	4,151	013050480	12,260
5	52	86	10	011400500	4,151	013050500	12,260
5,2	52	86	10	011400520	4,906	013050520	13,052
5,25	52	86	10	011400525	4,906	013050525	13,052
5,5	57	93	10	011400550	4,906	013050550	13,052
5,75	57	93	10	011400575	5,428	013050575	13,580
6	57	93	10	011400600	5,428	013050600	13,580
6,25	63	101	10	011400625	7,042	013050625	17,887
6,5	63	101	10	011400650	7,042	013050650	17,887
6,75	63	101	10	011400675	8,160	013050675	19,036
7	69	109	10	011400700	8,160	013050700	19,036
7,5	69	109	5	011400750	9,198	013050750	20,110
8	75	117	5	011400800	10,119	013050800	21,053
8,5	75	117	5	011400850	12,452	013050850	23,456
9	81	125	5	011400900	13,482	013050900	27,010
9,5	81	125	5	011400950	15,203	013050950	28,780
10	87	133	5	011401000	16,914	013051000	30,552
10,5	87	133	5	011401050	19,806	013051050	35,782
11	94	142	5	011401100	21,917	013051100	37,960
11,5	94	142	5	011401150	25,465	013051150	41,616
12	101	151	5	011401200	25,465	013051200	41,616
12,5	101	151	5	011401250	30,466	013051250	48,504
13	101	151	5	011401300	33,262	013051300	51,379

Confezione / Packaging



Applicazioni / Applications



- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

HSS-CO 5% DIN 338

Metal



116 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
* 1	10	6	3
* 1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

01142450 € 481,450

*Ø 1mm, 1,5 mm Art. 01145

Metal
330x240x55



Abs

19 pcs
*Ø 1÷10 x 0,5 mm

01142401 HSS-CO € 131,380

01310305 HSS-CO+TiAlN € 277,255



Abs

25 pcs
*Ø 1÷13 x 0,5 mm

01142402 HSS-CO € 279,390

01310306 HSS-CO+TiAlN € 504,061

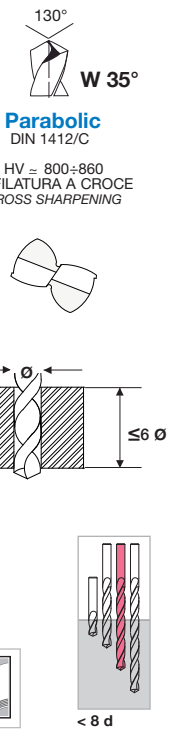
PUNTE ELICOIDALI CON AFFILATURA A CROCE ED ELICA SPECIALE AD ALTA RESISTENZA PER FORATURE PROFONDE

Twist drills cross cut sharpened and special "high resistance flute design" for deep in to cutting. / Forets helicoidaux, affutage croix et spiral rapide pour perçages profonds./ Brocas helicoidales corte forma cruz, helice rapida para perforaciones profundas

HSS-CO 5% DIN 340 Rettificata
Ground from the solid

01141 01306





Serie lunga / *Long serie*

Ø h8	/	L	pcs	Art. 01141 HSS-CO cod.	€ cad/each	Art. 01306 HSS-CO+TiAlN cod.	€ cad/each
2,5	62	95	10	011410250	4,302	013060250	11,185
3	66	100	10	011410300	4,604	013060300	11,497
3,25	69	106	10	011410325	5,438	013060325	12,345
3,5	73	112	10	011410350	5,438	013060350	12,345
3,75	73	112	10	011410375	5,952	013060375	12,882
4	78	119	10	011410400	5,952	013060400	12,882
4,25	78	119	10	011410425	7,114	013060425	15,275
4,5	82	126	10	011410450	7,114	013060450	15,275
4,75	82	126	10	011410475	7,548	013060475	15,720
5	87	132	10	011410500	7,548	013060500	15,720
5,25	87	132	10	011410525	9,109	013060525	17,321
5,5	91	139	10	011410550	9,109	013060550	17,321
5,75	91	139	10	011410575	9,109	013060575	17,321
6	91	139	10	011410600	9,109	013060600	17,321
6,25	97	148	5	011410625	13,437	013060625	24,389
6,5	97	148	5	011410650	13,437	013060650	24,389
7	102	156	5	011410700	15,628	013060700	26,632
7,5	102	156	5	011410750	16,870	013060750	27,913
8	109	165	5	011410800	18,698	013060800	30,759
8,5	109	165	5	011410850	20,524	013060850	34,134
9	115	175	5	011410900	22,005	013060900	35,651
9,5	115	175	5	011410950	22,351	013060950	36,009
10	121	184	5	011411000	24,063	013061000	39,647
10,5	121	184	5	011411050	33,199	013061050	49,381
11	128	195	5	011411100	36,267	013061100	52,520
11,5	128	195	5	011411150	37,003	013061150	53,283
12	134	205	5	011411200	40,729	013061200	61,010
12,5	134	205	5	011411250	41,979	013061250	64,403
13	134	205	5	011411300	43,948	013061300	66,420

01143 01307





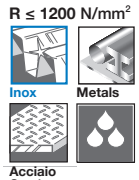
Serie extra corta / *Extra short serie*

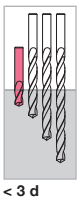
Ø h8	/	L	pcs	Art. 01143 HSS-CO cod.	€ cad/each	Art. 01307 HSS-CO+TiAlN cod.	€ cad/each
3	16	46	10	011430300	1,631	013070300	8,463
3,2	18	49	10	011430320	1,668	013070320	8,500
3,25	18	49	10	011430325	1,668	013070325	8,500
3,3	18	49	10	011430330	1,668	013070330	8,500
3,5	20	52	10	011430350	1,748	013070350	8,577
3,7	20	52	10	011430370	1,951	013070370	8,783
3,75	20	52	10	011430375	1,951	013070375	8,783
3,8	22	55	10	011430380	1,951	013070380	8,783
4	22	55	10	011430400	1,951	013070400	8,783
4,2	22	55	10	011430420	1,951	013070420	9,989
4,25	22	55	10	011430425	2,073	013070425	9,989
4,5	24	58	10	011430450	2,200	013070450	10,243
4,7	24	58	10	011430470	2,581	013070470	10,639
4,75	24	58	10	011430475	2,742	013070475	10,639
4,8	26	62	10	011430480	2,839	013070480	10,639
5	26	62	10	011430500	2,839	013070500	10,639
5,2	26	62	10	011430520	3,486	013070520	11,563
5,25	26	62	10	011430525	3,486	013070525	11,563
5,5	28	66	10	011430550	3,166	013070550	11,233
5,7	28	66	10	011430570	4,790	013070570	12,892
5,75	28	66	10	011430575	4,790	013070575	12,892
5,8	28	66	10	011430580	4,790	013070580	12,892
6	28	66	10	011430600	3,362	013070600	11,441
6,5	31	70	10	011430650	4,390	013070650	15,125
6,8	34	74	10	011430680	6,384	013070680	15,628
7	34	74	10	011430700	5,419	013070700	16,181
7,5	34	74	5	011430750	5,783	013070750	16,549
8	37	79	5	011430800	6,324	013070800	17,104
8,5	37	79	5	011430850	8,808	013070850	22,137
9	40	84	5	011430900	8,808	013070900	22,137
9,5	40	84	5	011430950	13,127	013070950	26,557
10	43	89	5	011431000	13,127	013071000	26,557
10,5	43	89	5	011431050	17,127	013071050	32,927
11	47	95	5	011431100	18,254	013071100	34,077
11,5	47	95	5	011431150	19,486	013071150	35,340
12	51	102	5	011431200	21,802	013071200	37,715
12,5	51	102	5	011431250	22,263	013071250	39,910
13	51	102	5	011431300	22,263	013071300	39,910

Confezione / Packaging



Applicazioni / Applications





PUNTE ELICOIDALI AL COBALTO 5% CON ELICA RAPIDA TIPO W, PER IL TAGLIO DEGLI ACCIAI INOX, ACCIAI RESISTENTI AL CALORE ED AUSTENITICI (V2A-V4A)

Cobalt twist drill with W type flute to cut stainless steel, heat resistant steel, austenitic steel (V2A-V4A)

Forets cylindriques HSS-CO avec eliche especial W / Brocas helicoidales HSS-CO con elica especial W

HSS-CO DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

W 36°

01139





HV ≃ 800÷860
AISI M35
SPLIT POINT
DIN 1412 C
(Ø≥3 mm)



Forte evacuazione del truciolo
High chip removal

Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	011390100	2,216
1,25	16	38	10	011390125	2,216
1,5	18	40	10	011390150	1,736
1,75	22	46	10	011390175	1,985
2	24	49	10	011390200	1,576
2,25	27	53	10	011390225	1,736
2,5	30	57	10	011390250	1,736
2,75	33	61	10	011390275	1,736
2,8	33	61	10	011390280	1,736
3	33	61	10	011390300	1,736
3,2	36	65	10	011390320	1,736
3,25	36	65	10	011390325	2,066
3,3	36	65	10	011390330	2,066
3,4	39	70	10	011390340	2,136
3,5	39	70	10	011390350	2,136
3,7	39	70	10	011390370	2,216
3,75	39	70	10	011390375	2,525
3,8	43	75	10	011390380	2,525
4	43	75	10	011390400	2,385
4,1	43	75	10	011390410	2,615
4,2	43	75	10	011390420	2,615
4,25	43	75	10	011390425	2,774
4,5	47	80	10	011390450	2,684
4,75	47	80	10	011390475	2,934
4,8	52	86	10	011390480	2,934
5	52	86	10	011390500	2,934
5,2	52	86	10	011390520	3,244
5,25	52	86	10	011390525	3,244
5,5	57	93	10	011390550	3,952
5,75	57	93	10	011390575	3,952
6	57	93	10	011390600	3,952
6,25	63	101	10	011390625	6,377
6,5	63	101	10	011390650	6,836
6,75	69	109	10	011390675	8,771
7	69	109	10	011390700	8,192
7,25	69	109	5	011390725	9,220
7,5	69	109	5	011390750	9,220
7,75	75	117	5	011390775	9,888
8	75	117	5	011390800	9,888
8,25	75	117	5	011390825	10,577
8,5	75	117	5	011390850	10,467
8,75	81	125	5	011390875	12,852
9	81	125	5	011390900	12,852
9,25	81	125	5	011390925	13,880
9,5	81	125	5	011390950	13,880
9,75	87	133	5	011390975	15,236
10	87	133	5	011391000	15,236
10,25	87	133	5	011391025	19,108
10,5	87	133	5	011391050	19,108
10,75	94	142	5	011391075	22,401
11	94	142	5	011391100	22,401
11,25	94	142	5	011391125	23,429
11,5	94	142	5	011391150	23,429
11,75	94	142	5	011391175	25,914
12	101	151	5	011391200	25,914
12,25	101	151	5	011391225	28,299
12,5	101	151	5	011391250	28,299
12,75	101	151	5	011391275	28,877
13	101	151	5	011391300	28,877

Abs



19 pcs
Ø 1÷10 x 0,5 mm

01155303 € 126,236



25 pcs
Ø 1÷13 x 0,5 mm

01155304 € 290,709

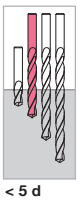
Confezione / Packaging



Applicazioni / Applications

R≤1200 N/mm²





- V2A è la classificazione tedesca dell'acciaio inox 304, mentre V4A è l'inox 316.
- *V2A is german standard for 304 stainless steel, V4A is 316 stainless steel.*

HSS-CO W36° DIN 338



Metal
330x240x55

Metal

116 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	3
1,5	10	8	3
2	10	8,5	2
2,5	10	9	2
3	10	9,5	2
3,5	10	10	2
4	10		
4,5	10		
5	10		
5,5	3		
6	3		
6,5	3		
7	3		

01155454 € 487,824

PUNTE ELICOIDALI CILINDRICHE AL COBALTO RIVESTITE AL TiAlN

HSS-CO TiAlN coated twist drills / Forets cylindriques HSS-CO revêtement TiAlN

Brocas helicoidales HSS-CO con recubrimiento de TiAlN / HSS-CO geschliffene Spiralbohrer, TiAlN-beschichtet

HSS-CO TiAlN DIN 338

01300





HV 0,05 = 3300
Riv. TiAlN

Ø h8	l	L	pcs	cod.	€ cad/each
1	12	34	1	013000100	7,838
1,25	16	38	1	013000125	8,049
1,5	18	40	1	013000150	8,049
1,75	22	46	1	013000175	7,894
2	24	49	1	013000200	7,894
2,25	27	53	1	013000225	7,894
2,5	30	57	1	013000250	7,894
2,75	33	61	1	013000275	7,894
3	33	61	1	013000300	7,894
3,2	36	65	1	013000320	8,525
3,25	36	65	1	013000325	8,525
3,5	39	70	1	013000350	8,525
3,75	39	70	1	013000375	8,681
4	43	75	1	013000400	8,681
4,2	43	75	1	013000420	10,554
4,25	43	75	1	013000425	10,554
4,5	47	80	1	013000450	10,554
4,75	47	80	1	013000475	10,554
4,8	52	86	1	013000480	10,554
5	52	86	1	013000500	10,554
5,2	52	86	1	013000520	11,752
5,25	52	86	1	013000525	11,752
5,5	57	93	1	013000550	11,752
5,75	57	93	1	013000575	11,752
6	57	93	1	013000600	11,752
6,25	63	101	1	013000625	17,130
6,5	63	101	1	013000650	17,130
6,75	69	109	1	013000675	18,105
7	69	109	1	013000700	18,105
7,25	69	109	1	013000725	18,105
7,5	69	109	1	013000750	18,105
7,75	75	117	1	013000775	19,346
8	75	117	1	013000800	19,346
8,25	75	117	1	013000825	21,076
8,5	75	117	1	013000850	21,076
8,75	81	125	1	013000875	22,729
9	81	125	1	013000900	22,729
9,25	81	125	1	013000925	23,415
9,5	81	125	1	013000950	23,415
9,75	87	133	1	013000975	26,265
10	87	133	1	013001000	26,265
10,25	87	133	1	013001025	32,384
10,5	87	133	1	013001050	32,384
10,75	94	142	1	013001075	34,635
11	94	142	1	013001100	34,635
11,25	94	142	1	013001125	35,378
11,5	94	142	1	013001150	35,378
11,75	94	142	1	013001175	37,064
12	101	151	1	013001200	37,064
12,25	101	151	1	013001225	39,747
12,5	101	151	1	013001250	39,747
12,75	101	151	1	013001275	42,153
13	101	151	1	013001300	42,153

Rivestimento TiAlN
TiAlN coating

447

Confezione / *Packaging*



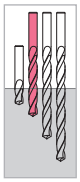
Applicazioni / *Applications*

R≥900 N/mm²

Inox

Acciaio
Steel

Metals



< 5 d

- **Taglio a secco**, ad altissima velocità di rotazione ed avanzamento su tutti gli acciai durissimi (**acciai alto legati in genere, acciai inox**) e materiali fortemente abrasivi (ghisa, leghe Al-Si).
- H.S.C. in high alloy steel, stainless steel, abrasive metals as cast iron, Al-Si Alloys.
- Les outils revêtues en TiAlN favorisent le coupe de l'acier allié, acier inox, métal abrasif (Alliage Al-Si) avec paramètre de coupe augmentées de 40%.
- El recubrimiento TiAlN permite aumentar la velocidad de corte y reducir desgastes de utensilios.



19 pcs
Ø 1÷10 x 0,5 mm
01310301 € 216,926



25 pcs
Ø 1÷13 x 0,5 mm
01310302 € 393,920

HSS-CO TiAlN DIN 338



Metal
330x240x55

Metal

71 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	5	7,5	3
1,5	5	8	3
2	5	8,5	2
2,5	5	9	2
3	5	9,5	2
3,5	5	10	2
4	5		
4,5	5		
5	5		
5,5	3		
6	3		
6,5	3		
7	3		

01310452 € 723,092

PUNTE ELICOIDALI CILINDRICHE RETTIFICATE A DOPPIO CONOIDE Speedmaster®

HSS-G fully ground twist drills "Speedmaster®" / Forets cylindriques rectifiés "Speedmaster®"
Brocas helicoidales rectificadas "Speedmaster®" / Geschliffene Spiralbohrer "Speedmaster®"

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01220





W 27°
Doppio conoide
Double conoid
SPLIT POINT
(Ø ≥ 2,5 mm)

AISI M2
HV≃820÷850

Art. **01221** Self
Disponibile su richiesta
On demand

Ø h8	/	L	pcs	cod.	€ each/cad.
1	12	34	10	012200100	1,534
1,25	16	38	10	012200125	1,683
1,5	18	40	10	012200150	1,534
1,75	22	46	10	012200175	1,683
2	24	49	10	012200200	1,534
2,25	27	53	10	012200225	1,707
2,5	30	57	10	012200250	1,557
2,75	33	61	10	012200275	1,834
3	33	61	10	012200300	1,661
3,1	33	61	10	012200310	1,906
3,25	36	65	10	012200325	2,144
3,3	36	65	10	012200330	1,949
3,5	39	70	10	012200350	1,949
3,75	39	70	10	012200375	2,364
4	43	75	10	012200400	2,144
4,1	43	75	10	012200410	2,464
4,25	43	75	10	012200425	2,560
4,3	43	75	10	012200430	2,560
4,5	47	80	10	012200450	2,317
4,75	47	80	10	012200475	2,929
5	52	86	10	012200500	2,790
5,1	52	86	10	012200510	3,793
5,25	52	86	10	012200525	3,793
5,5	57	93	10	012200550	3,516
5,75	57	93	10	012200575	4,116
6	57	93	10	012200600	3,748
6,25	63	101	10	012200625	4,854
6,5	63	101	10	012200650	4,417
6,75	69	109	10	012200675	5,685
7	69	109	10	012200700	5,166
7,25	69	109	5	012200725	6,089
7,5	69	109	5	012200750	5,523
7,75	75	117	5	012200775	7,149
8	75	117	5	012200800	6,804
8,25	75	117	5	012200825	7,818
8,5	75	117	5	012200850	7,356
8,75	81	125	5	012200875	9,271
9	81	125	5	012200900	8,418
9,25	81	125	5	012200925	9,824
9,5	81	125	5	012200950	9,224
9,75	87	133	5	012200975	11,114
10	87	133	5	012201000	10,597
10,25	87	133	5	012201025	12,268
10,5	87	133	5	012201050	11,472
10,75	94	142	5	012201075	14,240
11	94	142	5	012201100	12,949
11,25	94	142	5	012201125	15,486
11,5	94	142	5	012201150	14,067
11,75	94	142	5	012201175	17,261
12	101	151	5	012201200	16,153
12,25	101	151	5	012201225	18,622
12,5	101	151	5	012201250	17,319
12,75	101	151	5	012201275	19,832
13	101	151	5	012201300	18,518

Abs



19 pcs
Ø 1÷10 x 0,5 mm
01229301 € 87,297



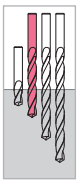
25 pcs
Ø 1÷13 x 0,5 mm
01229302 € 180,831

Confezione / Packaging



Applicazioni / Applications





Taglio altamente professionale con trapani portatili o stazionari in: acciai legati ed altamente legati, acciaio inox fino a R ≤ 900 N/mm², ferro, alluminio, metalli.
High quality cuts with portable or bench drilling machines into: alloy steel, high alloy steel, stainless steel up to R ≤ 900 N/mm², iron, aluminium, metals.
Très professionnel découpage avec trépans portatifs ou (stationnaires) en: acier, acier inox jusqu'a R ≤ 900 N/mm, fer, aluminium et métaux.
Corte altamente profesional con taladros portatiles o estacionarios en : aceros aleados y altamente aleados, acero inox hasta R ≤ 900 N/mm², hierro, aluminio, metales.
Beruflicher Schnitt mit tragbaren Bohrers in: legiert und unlegiert Stahl, rostfreier Stahl bis R ≤ 900 N/mm², Aluminium, Eisen.

Caratteristiche tecniche / Technical features

3 pianetti antisdrucciolo (Ø > 5 mm):
Piena trasmissione della potenza
- 3 anti-skid flats (Ø > 5 mm):
Full power transmission
- 3 plats antirotation (Ø > 5 mm):
Plain transmission de la puissance
- 3 pianos antiresbaladizo (Ø > 5 mm): Llena trasmisión de la potencia
3 rutschsicheren Pläne – volle Übermittlung von der Macht.

Cave ampie e lisce:
Facile estrazione dei trucioli
Wide and smooth flutes:
Easy chip removal
Rainures grandes et lisses:
Evacuation facile des copeaux
Ranuras anchas y lisas:
Fácil extracción de las virutas
Weiten und glatten Furchen :
einfacher Auszug des Hobelspannes.

Affilatura speciale
Special Sharpening
Affûtage Spécial
Afiladura especial
Besonderes Schleifen.



ASSORTIMENTI PUNTE RETTIFICATEA DOPPIO CONOIDE Speedmaster

HSS-G fully ground twist drills "Speedmaster®" / Forets cylindriques rectifiés "Speedmaster®"
Brocas helicoidales rectificadas "Speedmaster®" / Geschliffene Spiralbohrer "Speedmaster®"



HSS-G DIN 338

Metal



37 pcs
Ø 1÷10 x 0,25 mm
01229411 € 166,681

49 pcs
Ø 1÷13 x 0,25 mm
01229412 € 353,749



116 pcs
Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	3
1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

Metal 330x240x55

cod.	€
01229450	328,572

128 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	3
1,5	10	8	3
2	10	8,5	2
2,5	10	9	2
3	10	9,5	2
3,5	10	10	2
4	10	10,5	2
4,5	10	11	2
5	10	11,5	2
5,5	3	12	2
6	3	12,5	2
6,5	3	13	2
7	3		

Metal 550x310x55

cod.	€
01229451	581,598

ESPOSITORE MAGAZZENO PER PUNTE HSS-G RETTIFICATE Speedmaster

HSS-G twist drills display "Speedmaster®" / Display forets HSS-G rectifies "Speedmaster®"
Expositor de brocas HSS-G rectificadas "Speedmaster®" / Verkaufsschränke für Spiralbohrer "Speedmaster®"

HSS-G DIN 338



Metal
375x240x200

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	10	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	10	12	3
6	10	12,5	3
6,5	5	13	3
7	5		

cod.	€
01229501	801,041



Metal
390x460x230

240 pcs Ø 1÷13 x 0,25 mm

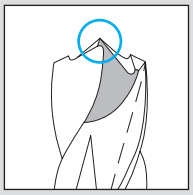
Ø	pcs	Ø	pcs
1	10	7,25	2
1,25	5	7,5	5
1,5	10	7,75	2
1,75	5	8	5
2	10	8,25	2
2,25	5	8,5	3
2,5	10	8,75	2
2,75	5	9	3
3	10	9,25	2
3,25	10	9,5	3
3,5	10	9,75	2
3,75	10	10	3
4	10	10,25	2
4,25	10	10,5	2
4,5	10	10,75	2
4,75	3	11	2
5	10	11,25	2
5,25	3	11,5	2
5,5	10	11,75	2
5,75	2	12	2
6	10	12,25	2
6,25	2	12,5	2
6,5	5	12,75	2
6,75	2	13	2
7	5		

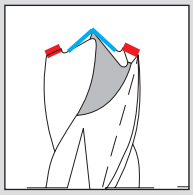
cod. **01229502** € 1070,852

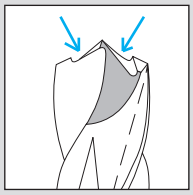
Micropunta autocentrante:
Facile centratura sul pezzo e agevole partenza del taglio.
Micro self-centering tip:
Easiness of spot-drilling and start cut.
Micropunta autocentadora:
Facilidad de centrado y de principio de corte.
Micro pointe auto-centrant:
Facilité du centrage et du début de la coupe.

Doppia coppia di taglienti con spoglia variabile:
Massima capacità di taglio con grande durata del filo tagliente.
Double couple of cutting edges with variable relief: Maximum cutting capacity, with high resistance of the cutting edges. Pareja doble de cortantes con ángulo de corte variable: Máxima capacidad de corte con elevada resistencia del corte. Double couple de coupants avec dépouille vairable: Grande capacité de coupe avec une élevée résistance du fil coupant.

Coppia di rompitruciolo:
Evita la formazione di taglienti di riporto.
Double chip-breaker:
Avoid the creation of built-up cutting edges.
Pareja de rompevirutas:
Evita la formación de filos causados por virutas.
Couple brise-copeaux:
Evite la création de tranchants causés par les coupeaux.









PUNTE ELICOIDALI CILINDRICHE, ESECUZIONE INTERAMENTE RETTIFICATA, "Dual Performer®"

Fully ground straight shank twist drills "Dual Performer®" / Forets cylindriques rectifiés "Dual Performer®"
Brocas helicoidales rectificadas "Dual Performer®" / Geschliffene Spiralbohrer "Dual Performer®"

HSS-G DIN 338 D.P. Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01201



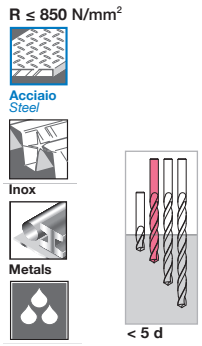


HV≃ 820
AISI M2 D.P.
SPLIT POINT
DIN 1412C
Ø≥3 mm

Confezione / *Packaging*



Applicazioni / *Applications*



- Taglio dei materiali con R ≤ 850 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 850 N/mm²
- Puor percer métaux et acier avec R ≤ 850 N/mm²
- Para taladrar hierro e acero R ≤ 850 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 850 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

Ø h8	/	L	pcs	cod.	€ cad/each
0,3	3	19	10	012010030	2,516
0,35	4	19	10	012010035	2,516
0,4	5	20	10	012010040	2,516
0,45	5	20	10	012010045	2,516
0,5	6	22	10	012010050	2,516
0,55	7	24	10	012010055	2,516
0,6	7	24	10	012010060	2,516
0,65	8	26	10	012010065	2,516
0,7	9	28	10	012010070	2,516
0,75	9	28	10	012010075	2,516
0,8	10	30	10	012010080	2,516
0,85	10	30	10	012010085	2,516
0,9	11	32	10	012010090	2,516
0,95	11	32	10	012010095	2,516
1	12	34	10	012010100	1,405
1,1	14	36	10	012010110	1,485
1,2	16	38	10	012010120	1,485
1,25	16	38	10	012010125	1,485
1,3	16	38	10	012010130	1,485
1,4	18	40	10	012010140	1,485
1,5	18	40	10	012010150	1,302
1,6	20	43	10	012010160	1,210
1,7	20	43	10	012010170	1,210
1,75	22	46	10	012010175	1,210
1,8	22	46	10	012010180	1,210
1,9	22	46	10	012010190	1,210
2	24	49	10	012010200	1,073
2,1	24	49	10	012010210	1,292
2,2	27	53	10	012010220	1,292
2,25	27	53	10	012010225	1,292
2,3	27	53	10	012010230	1,292
2,4	30	57	10	012010240	1,292
2,5	30	57	10	012010250	1,176
2,6	30	57	10	012010260	1,519
2,7	33	61	10	012010270	1,519
2,75	33	61	10	012010275	1,519
2,8	33	61	10	012010280	1,519
2,9	33	61	10	012010290	1,519
3	33	61	10	012010300	1,381
3,1	36	65	10	012010310	1,713
3,2	36	65	10	012010320	1,713
3,25	36	65	10	012010325	1,713
3,3	36	65	10	012010330	1,713
3,4	39	70	10	012010340	1,713
3,5	39	70	10	012010350	1,553
3,6	39	70	10	012010360	1,782
3,7	39	70	10	012010370	1,782
3,75	39	70	10	012010375	1,782
3,8	43	75	10	012010380	1,782
3,9	43	75	10	012010390	1,782
4	43	75	10	012010400	1,633
4,1	43	75	10	012010410	2,090
4,2	43	75	10	012010420	2,090
4,25	43	75	10	012010425	2,090
4,3	47	80	10	012010430	2,090
4,4	47	80	10	012010440	2,090

Ø h8	/	L	pcs	cod.	€ cad/each
4,5	47	80	10	012010450	1,987
4,6	47	80	10	012010460	2,216
4,7	47	80	10	012010470	2,216
4,75	47	80	10	012010475	2,216
4,8	52	86	10	012010480	2,216
4,9	52	86	10	012010490	2,216
5	52	86	10	012010500	2,079
5,1	52	86	10	012010510	2,833
5,2	52	86	10	012010520	2,833
5,25	52	86	10	012010525	2,833
5,3	52	86	10	012010530	2,833
5,4	57	93	10	012010540	2,833
5,5	57	93	10	012010550	2,718
5,6	57	93	10	012010560	3,140
5,7	57	93	10	012010570	3,140
5,75	57	93	10	012010575	3,140
5,8	57	93	10	012010580	3,140
5,9	57	93	10	012010590	3,140
6	57	93	10	012010600	2,969
6,1	63	101	10	012010610	3,917
6,2	63	101	10	012010620	3,917
6,25	63	101	10	012010625	3,917
6,3	63	101	10	012010630	3,917
6,4	63	101	10	012010640	3,917
6,5	63	101	10	012010650	3,609
6,6	63	101	10	012010660	4,557
6,7	63	101	10	012010670	4,557
6,75	69	109	10	012010675	4,557
6,8	69	109	10	012010680	4,557
6,9	69	109	10	012010690	4,557
7	69	109	10	012010700	4,225
7,1	69	109	5	012010710	5,001
7,2	69	109	5	012010720	5,001
7,25	69	109	5	012010725	5,001
7,3	69	109	5	012010730	5,001
7,4	69	109	5	012010740	5,001
7,5	69	109	5	012010750	4,476
7,6	75	117	5	012010760	5,630
7,7	75	117	5	012010770	5,630
7,75	75	117	5	012010775	5,630
7,8	75	117	5	012010780	5,630
7,9	75	117	5	012010790	5,630
8	75	117	5	012010800	5,311
8,1	75	117	5	012010810	7,240
8,2	75	117	5	012010820	7,240
8,25	75	117	5	012010825	7,240
8,3	75	117	5	012010830	7,240
8,4	75	117	5	012010840	7,240

Ø h8	/	L	pcs	cod.	€ cad/each
8,5	75	117	5	012010850	6,897
8,6	81	125	5	012010860	7,412
8,7	81	125	5	012010870	7,412
8,75	81	125	5	012010875	7,412
8,8	81	125	5	012010880	7,412
8,9	81	125	5	012010890	7,412
9	81	125	5	012010900	7,069
9,1	81	125	5	012010910	8,290
9,2	81	125	5	012010920	8,290
9,25	81	125	5	012010925	8,290
9,3	81	125	5	012010930	8,290
9,4	81	125	5	012010940	8,290
9,5	81	125	5	012010950	7,891
9,6	87	133	5	012010960	8,519
9,7	87	133	5	012010970	8,519
9,75	87	133	5	012010975	8,519
9,8	87	133	5	012010980	8,519
9,9	87	133	5	012010990	8,519
10	87	133	5	012011000	8,119
10,25	87	133	5	012011025	10,962
10,5	87	133	5	012011050	9,592
10,75	94	142	5	012011075	13,189
11	94	142	5	012011100	11,499
11,25	94	142	5	012011125	14,023
11,5	94	142	5	012011150	12,265
11,75	94	142	5	012011175	15,256
12	101	151	5	012011200	13,223
12,25	101	151	5	012011225	16,615
12,5	101	151	5	012011250	14,457
12,75	101	151	5	012011275	18,819
13	101	151	5	012011300	15,256
13,25	108	160	3	012011325	23,102
13,5	108	160	3	012011350	20,978
13,75	108	160	3	012011375	23,798
14	108	160	3	012011400	21,640
14,25	114	169	3	012011425	27,179
14,5	114	169	3	012011450	24,689
14,75	114	169	3	012011475	31,906
15	114	169	3	012011500	29,006
15,25	120	178	3	012011525	34,920
15,5	120	178	3	012011550	31,735
15,75	120	178	3	012011575	36,178
16	120	178	3	012011600	32,878
16,5	125	184	1	012011650	34,019
17	125	184	1	012011700	35,686
17,5	130	191	1	012011750	37,399
18	130	191	1	012011800	39,751
18,5	135	198	1	012011850	43,269
19	135	198	1	012011900	44,686
19,5	140	205	1	012011950	46,809
20	140	205	1	012012000	49,047

PUNTE ELICOIDALI CILINDRICHE RETTIFICATE CON CODOLO RIDOTTO "Dual Performer®"

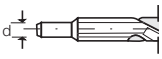
Fully ground straight shank twist drills "Dual Performer®" / Forets cylindriques rectifiés "Dual Performer®"
Brocas helicoidales rectificadas "Dual Performer®" / Geschliffene Spiralbohrer "Dual Performer®"

HSS-G DIN 338 D.P. Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01203

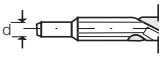




d= 10 mm.

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	012031025	13,166
10,5	87	133	10	5	012031050	11,784
10,75	94	142	10	5	012031075	15,382
11	94	142	10	5	012031100	13,680
11,25	94	142	10	5	012031125	16,216
11,5	94	142	10	5	012031150	14,468
11,75	94	142	10	5	012031175	17,437
12	101	151	10	5	012031200	15,427
12,25	101	151	10	5	012031225	18,796
12,5	101	151	10	5	012031250	16,627
12,75	101	151	10	5	012031275	21,022
13	101	151	10	5	012031300	17,437
13,25	108	160	10	3	012031325	26,551
13,5	108	160	10	3	012031350	24,141
13,75	108	160	10	3	012031375	27,384
14	108	160	10	3	012031400	24,884
14,25	114	169	10	3	012031425	31,232
14,5	114	169	10	3	012031450	28,400
14,75	114	169	10	3	012031475	36,692
15	114	169	10	3	012031500	33,356
15,25	120	178	10	3	012031525	40,151
15,5	120	178	10	3	012031550	36,497
15,75	120	178	10	3	012031575	41,601
16	120	178	10	3	012031600	37,810
16,5	125	184	10	1	012031650	39,112
17	125	184	10	1	012031700	41,031
17,5	130	191	10	1	012031750	43,017
18	130	191	10	1	012031800	45,712
18,5	135	198	10	1	012031850	49,755
19	135	198	10	1	012031900	51,388
19,5	140	205	10	1	012031950	53,843
20	140	205	10	1	012032000	56,412

01209



d= 13 mm.

Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	012091325	26,551
13,5	108	160	13	3	012091350	24,141
13,75	108	160	13	3	012091375	27,384
14	108	160	13	3	012091400	24,884
14,25	114	169	13	3	012091425	31,232
14,5	114	169	13	3	012091450	28,400
14,75	114	169	13	3	012091475	36,692
15	114	169	13	3	012091500	33,356
15,25	120	178	13	3	012091525	40,151
15,5	120	178	13	3	012091550	36,497
15,75	120	178	13	3	012091575	41,601
16	120	178	13	3	012091600	37,810
16,5	125	184	13	1	012091650	39,112
17	125	184	13	1	012091700	41,031
17,5	130	191	13	1	012091750	43,017
18	130	191	13	1	012091800	45,712
18,5	135	198	13	1	012091850	49,755
19	135	198	13	1	012091900	51,388
19,5	140	205	13	1	012091950	53,843
20	140	205	13	1	012092000	56,412

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 850 N/mm²



Acciaio
Steel

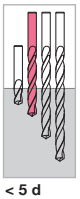


Inox



Metals





< 5 d

PUNTE ELICOIDALI CILINDRICHE RETTIFICATE, SERIE EXTRA CORTA "Dual Performer®"

Straight shank twist drills, stub serie "Dual Performer®" / Forets cylindriques, série extra courte "Dual Performer®"
Brocas helicoidales, serie extra corta "Dual Performer®" / Geschliffene Spiralbohrer, extra kurz "Dual Performer®"

HSS-G DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen





HV≃ 820
SPLIT POINT
DIN 1412C

Confezione / Packaging



Applicazioni / Applications

R ≤ 850 N/mm²



Acciaio
Steel

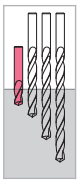


Inox



Metals





< 3 d

Ø h8	/	L	pcs	cod.	€ cad/each
3	16	46	10	012070300	1,565
3,25	18	49	10	012070325	1,645
3,5	20	52	10	012070350	1,645
3,75	20	52	10	012070375	1,645
4	22	55	10	012070400	1,645
4,25	22	55	10	012070425	2,079
4,5	24	58	10	012070450	2,079
4,75	24	58	10	012070475	2,204
5	26	62	10	012070500	2,204
5,25	26	62	10	012070525	2,752
5,5	28	66	10	012070550	2,752
5,75	28	66	10	012070575	3,037
6	28	66	10	012070600	3,037

01207



PUNTE ELICOIDALI CILINDRICHE RETTIFICATE, SERIE LUNGA "Dual Performer®"

Long straight shank twist drills "Dual Performer®" / Forets cylindriques série longue "Dual Performer®"
Brocas helicoidales serie larga "Dual Performer®" / Spiralbohrer, lange Ausführung "Dual Performer®"

HSS-G DIN 340 D.P. Rettificata / Ground from the solid / Rectifié / Rectificada / Geschliffen





HV≃ 820
SPLIT POINT
DIN 1412C

Confezione / Packaging



Applicazioni / Applications

R ≤ 850 N/mm²



Acciaio
Steel

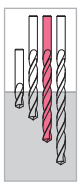


Inox



Metals

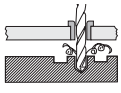




< 8 d

Ø h8	/	L	pcs	cod.	€ cad/each
3	66	100	10	012080300	3,027
3,25	69	106	10	012080325	3,152
3,5	73	112	10	012080350	3,152
3,75	73	112	10	012080375	3,152
4	78	119	10	012080400	3,152
4,25	78	119	10	012080425	4,008
4,5	82	126	10	012080450	4,008
4,75	82	126	10	012080475	4,328
5	87	132	10	012080500	4,328
5,25	87	132	10	012080525	5,298
5,5	91	139	10	012080550	5,298
5,75	91	139	10	012080575	5,846
6	91	139	10	012080600	5,846
6,5	97	148	5	012080650	7,240
7	102	156	5	012080700	7,936
7,5	102	156	5	012080750	8,622
8	109	165	5	012080800	10,849
8,5	109	165	5	012080850	13,921
9	115	175	5	012080900	13,921
9,5	115	175	5	012080950	15,554
10	121	184	5	012081000	17,106

01208



ASSORTIMENTI PUNTE HSS-G RETTIFICATE "Dual Performer®"

Set of HSS-G twist drills "Dual Performer®" / Assortiments forets rectifiés "Dual Performer®"
Juego brocas rectificadas en HSS-G "Dual Performer®" / Geschliffene Spiralbohrersätze "Dual Performer®"

HSS-G DIN 338 D.P.

Metal



19 pcs
Ø 1÷10 x 0,5 mm

01205401 € 59,290



25 pcs
Ø 1÷13 x 0,5 mm

01205402 € 117,336

Abs



19 pcs
Ø 1÷10 x 0,5 mm

01205301 € 59,290



25 pcs
Ø 1÷13 x 0,5 mm

01205302 € 117,336

Metal



37 pcs
Ø 1÷10 x 0,25 mm

01205411 € 135,869



49 pcs
Ø 1÷13 x 0,25 mm

01205412 € 271,727



51 pcs
Ø 1÷6 x 0,1 mm

01205404 € 96,346



41 pcs
Ø 6÷10 x 0,1 mm

01205405 € 251,972

Metal



91 pcs
Ø 1÷10 x 0,1 mm

01205406 € 455,683

Abs



91 pcs
Ø 1÷10 x 0,1 mm

01205220 € 353,749



19 pcs
Ø 1÷10 x 0,5 mm

01205250 € 59,290



25 pcs
Ø 1÷13 x 0,5 mm

01205251 € 117,336

VALIGETTE ED ESPOSITORI MAGAZZENO PUNTE "Dual Performer®"

Metal case storage and display with HSS-G fully ground twist drills "Dual Performer®" / Display forets cylindriques rectifiés "Dual Performer®"
Expositor de brocas rectificadas "Dual Performer®" / Lager Kästen mit geschliffene Spiralbohrer "Dual Performer®"

HSS-G DIN 338 D.P.

01205450 Ø 1÷10 x 0,5 mm
01205451 Ø 1÷13 x 0,5 mm



150 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

cod.	€
01205450	377,732

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

cod.	€
01205451	625,967



Metal
375x240x200

540 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	30	7,5	5
1,5	30	8	10
2	50	8,5	5
2,5	50	9	5
3	80	9,5	5
3,5	50	10	10
4	80	10,5	5
4,5	30	11	5
5	30	11,5	5
5,5	10	12	5
6	20	12,5	5
6,5	5	13	5
7	5		

cod.	€
01205501	1284,298



Metal
390x460x230

700 pcs Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	20	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	40	6,25	3	10,5	3
2,25	10	6,5	20	10,75	2
2,5	50	6,75	2	11	3
2,75	10	7	5	11,25	2
3	100	7,25	2	11,5	2
3,25	10	7,5	5	11,75	2
3,5	50	7,75	2	12	3
3,75	10	8	10	12,25	2
4	60	8,25	2	12,5	2
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	3
4,75	10	9	5		
5	40	9,25	2		

cod.	€
01205507	1743,585

PUNTE ELICOIDALI CILINDRICHE, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA

Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01060

NEW





HV 820
AISI M2
SPLIT POINT
DIN 1412C
(Ø≥3)

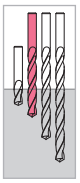
MICRO DRILLS HSS-G

Confezione / *Packaging*



Applicazioni / *Applications*





Ø h8	/	L	pcs	cod.	€ cad/each	Ø h8	/	L	pcs	cod.	€ cad/each
0,2	2,5	19	10	010600020	2,491	3,7	39	70	10	010600370	1,464
0,21	2,5	19	10	010600021	2,491	**3,75**	39	70	10	010600375	1,464
0,22	2,5	19	10	010600022	2,491	3,8	43	75	10	010600380	1,464
0,23	2,5	19	10	010600023	2,491	3,9	43	75	10	010600390	1,464
0,24	2,5	19	10	010600024	2,491	**4**	43	75	10	010600400	1,372
0,25	3	19	10	010600025	2,491	4,1	43	75	10	010600410	1,811
0,26	3	19	10	010600026	2,491	4,2	43	75	10	010600420	1,811
0,27	3	19	10	010600027	2,491	**4,25**	43	75	10	010600425	1,811
0,28	3	19	10	010600028	2,491	4,3	47	80	10	010600430	1,811
0,29	3	19	10	010600029	2,491	4,4	47	80	10	010600440	1,811
0,3	3	19	10	010600030	2,491	**4,5**	47	80	10	010600450	1,648
0,35	4	19	10	010600035	2,260	4,6	47	80	10	010600460	1,856
0,4	5	20	10	010600040	2,144	4,7	47	80	10	010600470	1,856
0,45	5	20	10	010600045	2,144	**4,75**	47	80	10	010600475	1,856
0,5	6	22	10	010600050	1,845	4,8	52	86	10	010600480	1,856
0,55	7	24	10	010600055	2,144	4,9	52	86	10	010600490	1,856
0,6	7	24	10	010600060	1,694	**5**	52	86	10	010600500	1,707
0,65	8	26	10	010600065	1,845	5,1	52	86	10	010600510	2,375
0,7	9	28	10	010600070	1,580	5,2	52	86	10	010600520	2,375
0,75	9	28	10	010600075	1,580	**5,25**	52	86	10	010600525	2,375
0,8	10	30	10	010600080	1,580	5,3	52	86	10	010600530	2,375
0,85	10	30	10	010600085	1,580	5,4	57	93	10	010600540	2,375
0,9	11	32	10	010600090	1,476	**5,5**	57	93	10	010600550	2,283
0,95	11	32	10	010600095	1,580	5,6	57	93	10	010600560	2,641
1	12	34	10	010600100	1,199	5,7	57	93	10	010600570	2,641
1,1	14	36	10	010600110	1,256	**5,75**	57	93	10	010600575	2,641
1,2	16	38	10	010600120	1,256	5,8	57	93	10	010600580	2,641
1,25	16	38	10	010600125	1,256	5,9	57	93	10	010600590	2,641
1,3	16	38	10	010600130	1,256	**6**	57	93	10	010600600	2,375
1,4	18	40	10	010600140	1,256	6,1	63	101	10	010600610	3,297
1,5	18	40	10	010600150	1,084	6,2	63	101	10	010600620	3,297
1,6	20	43	10	010600160	1,026	**6,25**	63	101	10	010600625	3,297
1,7	20	43	10	010600170	1,026	6,3	63	101	10	010600630	3,297
1,75	22	46	10	010600175	1,026	6,4	63	101	10	010600640	3,297
1,8	22	46	10	010600180	1,026	**6,5**	63	101	10	010600650	3,043
1,9	22	46	10	010600190	1,026	6,6	63	101	10	010600660	3,841
2	24	49	10	010600200	0,899	6,7	63	101	10	010600670	3,841
2,1	24	49	10	010600210	1,084	**6,75**	69	109	10	010600675	3,841
2,2	27	53	10	010600220	1,084	6,8	69	109	10	010600680	3,841
2,25	27	53	10	010600225	1,084	6,9	69	109	10	010600690	3,841
2,3	27	53	10	010600230	1,084	**7**	69	109	10	010600700	3,552
2,4	30	57	10	010600240	1,084	7,1	69	109	5	010600710	4,220
2,5	30	57	10	010600250	0,992	7,2	69	109	5	010600720	4,220
2,6	30	57	10	010600260	1,246	**7,25**	69	109	5	010600725	4,220
2,7	33	61	10	010600270	1,246	7,3	69	109	5	010600730	4,220
2,75	33	61	10	010600275	1,246	7,4	69	109	5	010600740	4,220
2,8	33	61	10	010600280	1,246	**7,5**	69	109	5	010600750	3,759
2,9	33	61	10	010600290	1,246	7,6	75	117	5	010600760	4,739
3	33	61	10	010600300	1,130	7,7	75	117	5	010600770	4,739
3,1	36	65	10	010600310	1,337	**7,75**	75	117	5	010600775	4,739
3,2	36	65	10	010600320	1,337	7,8	75	117	5	010600780	4,739
3,25	36	65	10	010600325	1,337	7,9	75	117	5	010600790	4,739
3,3	36	65	10	010600330	1,337	**8**	75	117	5	010600800	4,474
3,4	39	70	10	010600340	1,337	8,1	75	117	5	010600810	5,823
3,5	39	70	10	010600350	1,256	8,2	75	117	5	010600820	5,823
3,6	39	70	10	010600360	1,464	8,25	75	117	5	010600825	5,823

- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm²
- Puor percer métaux et acier avec R ≤ 800 N/mm²
- Para taladrar hierro e acero R ≤ 800 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

Ø h8	/	L	pcs	cod.	€ cad/each
8,3	75	117	5	010600830	5,823
8,4	75	117	5	010600840	5,823
8,5	75	117	5	010600850	5,523
8,6	81	125	5	010600860	6,041
8,7	81	125	5	010600870	6,041
8,75	81	125	5	010600875	6,041
8,8	81	125	5	010600880	6,041
8,9	81	125	5	010600890	6,041
9	81	125	5	010600900	5,789
9,1	81	125	5	010600910	6,839
9,2	81	125	5	010600920	6,839
9,25	81	125	5	010600925	6,839
9,3	81	125	5	010600930	6,839
9,4	81	125	5	010600940	6,839
9,5	81	125	5	010600950	6,226
9,6	87	133	5	010600960	7,242
9,7	87	133	5	010600970	7,242
9,75	87	133	5	010600975	7,242
9,8	87	133	5	010600980	7,242
9,9	87	133	5	010600990	7,242
10	87	133	5	010601000	6,515
10,1	87	133	5	010601010	9,258
10,2	87	133	5	010601020	9,258
10,25	87	133	5	010601025	9,258
10,3	87	133	5	010601030	9,258
10,4	87	133	5	010601040	9,258
10,5	87	133	5	010601050	8,082
10,6	87	133	5	010601060	11,093
10,7	94	142	5	010601070	11,093
10,75	94	142	5	010601075	11,093
10,8	94	142	5	010601080	11,093
10,9	94	142	5	010601090	11,093
11	94	142	5	010601100	9,674
11,1	94	142	5	010601110	11,784
11,2	94	142	5	010601120	11,784
11,25	94	142	5	010601125	11,784
11,3	94	142	5	010601130	11,784
11,4	94	142	5	010601140	11,784
11,5	94	142	5	010601150	10,320
11,6	94	142	5	010601160	12,856
11,7	94	142	5	010601170	12,856
11,75	94	142	5	010601175	12,856
11,8	94	142	5	010601180	12,856
11,9	101	151	5	010601190	12,856
12	101	151	5	010601200	11,138
12,1	101	151	5	010601210	14,009
12,2	101	151	5	010601220	14,009
12,25	101	151	5	010601225	14,009
12,3	101	151	5	010601230	14,009
12,4	101	151	5	010601240	14,009
12,5	101	151	5	010601250	12,152
12,6	101	151	5	010601260	15,843
12,7	101	151	5	010601270	15,843
12,75	101	151	5	010601275	15,843
12,8	101	151	5	010601280	15,843
12,9	101	151	5	010601290	15,843

Ø h8	/	L	pcs	cod.	€ cad/each
13	101	151	5	010601300	13,110
13,1	101	151	3	010601310	18,575
13,2	101	151	3	010601320	18,575
13,25	108	160	3	010601325	18,575
13,3	108	160	3	010601330	18,575
13,4	108	160	3	010601340	18,575
13,5	108	160	3	010601350	16,684
13,6	108	160	3	010601360	18,575
13,7	108	160	3	010601370	18,575
13,75	108	160	3	010601375	18,575
13,8	108	160	3	010601380	18,575
13,9	108	160	3	010601390	18,575
14	108	160	3	010601400	17,145
14,1	108	160	3	010601410	22,301
14,2	114	169	3	010601420	22,301
14,25	114	169	3	010601425	22,301
14,3	114	169	3	010601430	22,301
14,4	114	169	3	010601440	22,301
14,5	114	169	3	010601450	19,014
14,6	114	169	3	010601460	22,301
14,7	114	169	3	010601470	22,301
14,75	114	169	3	010601475	22,301
14,8	114	169	3	010601480	22,301
14,9	114	169	3	010601490	22,301
15	114	169	3	010601500	20,316
15,1	120	178	3	010601510	25,391
15,2	120	178	3	010601520	25,391
15,25	120	178	3	010601525	25,391
15,3	120	178	3	010601530	25,391
15,4	120	178	3	010601540	25,391
15,5	120	178	3	010601550	23,845
15,6	120	178	3	010601560	25,391
15,7	120	178	3	010601570	25,391
15,75	120	178	3	010601575	25,391
15,8	120	178	3	010601580	25,391
15,9	120	178	3	010601590	25,391
16	120	178	3	010601600	25,195
16,25	125	184	1	010601625	25,391
16,5	125	184	1	010601650	25,391
16,75	125	184	1	010601675	26,982
17	125	184	1	010601700	26,982
17,25	130	191	1	010601725	26,982
17,5	130	191	1	010601750	28,458
17,75	130	191	1	010601775	28,458
18	130	191	1	010601800	30,660
18,25	135	198	1	010601825	30,660
18,5	135	198	1	010601850	33,795
18,75	135	198	1	010601875	33,795
19	135	198	1	010601900	35,029
19,25	140	205	1	010601925	37,782
19,5	140	205	1	010601950	39,550
19,75	140	205	1	010601975	39,550
20	140	205	1	010602000	39,550

PUNTE ELICOIDALI CILINDRICHE CON CODOLO RIDOTTO, INTERAMENTE RETTIFICATE

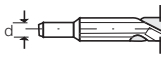
Reduced shank twist drills / Forets cylindriques à queue réduite
Brocas helicoidales con mango reducido / Geschliffene Spiralbohrer mit reduzierten Schaft

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01062

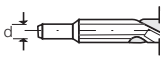




d= 10 mm.

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	010621025	11,877
10,5	87	133	10	5	010621050	10,701
10,75	94	142	10	5	010621075	13,709
11	94	142	10	5	010621100	12,291
11,25	94	142	10	5	010621125	14,401
11,5	94	142	10	5	010621150	12,938
11,75	94	142	10	5	010621175	15,474
12	101	151	10	5	010621200	13,756
12,25	101	151	10	5	010621225	16,628
12,5	101	151	10	5	010621250	14,770
12,75	101	151	10	5	010621275	18,460
13	101	151	10	5	010621300	15,727
13,25	108	160	10	3	010621325	21,562
13,5	108	160	10	3	010621350	19,682
13,75	108	160	10	3	010621375	21,562
14	108	160	10	3	010621400	20,143
14,25	114	169	10	3	010621425	25,297
14,5	114	169	10	3	010621450	22,011
14,75	114	169	10	3	010621475	25,297
15	114	169	10	3	010621500	23,315
15,25	120	178	10	3	010621525	30,775
15,5	120	178	10	3	010621550	26,843
15,75	120	178	10	3	010621575	30,775
16	120	178	10	3	010621600	28,180
16,5	125	184	10	1	010621650	28,388
17	125	184	10	1	010621700	29,968
17,5	130	191	10	1	010621750	31,455
18	130	191	10	1	010621800	33,645
18,5	135	198	10	1	010621850	36,793
19	135	198	10	1	010621900	38,027
19,5	140	205	10	1	010621950	42,535
20	140	205	10	1	010622000	42,535

01063



d= 13 mm.

Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	010631325	21,562
13,5	108	160	13	3	010631350	19,682
13,75	108	160	13	3	010631375	21,562
14	108	160	13	3	010631400	20,143
14,25	114	169	13	3	010631425	25,297
14,5	114	169	13	3	010631450	22,011
14,75	114	169	13	3	010631475	25,297
15	114	169	13	3	010631500	23,315
15,25	120	178	13	3	010631525	30,775
15,5	120	178	13	3	010631550	26,843
15,75	120	178	13	3	010631575	30,775
16	120	178	13	3	010631600	28,180
16,5	125	184	13	1	010631650	28,388
17	125	184	13	1	010631700	29,968
17,5	130	191	13	1	010631750	31,455
18	130	191	13	1	010631800	33,645
18,5	135	198	13	1	010631850	36,793
19	135	198	13	1	010631900	38,027
19,5	140	205	13	1	010631950	42,535
20	140	205	13	1	010632000	42,535
20,5	145	213	13	1	010632050	43,765
21	145	213	13	1	010632100	43,765
21,5	150	221	13	1	010632150	44,865
22	150	221	13	1	010632200	44,865
22,5	150	221	13	1	010632250	46,342
23	155	229	13	1	010632300	46,342
23,5	155	229	13	1	010632350	47,125
24	160	236	13	1	010632400	47,125
24,5	160	236	13	1	010632450	49,544
25	160	236	13	1	010632500	49,544

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 800 N/mm²

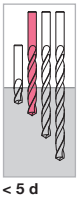


Acciaio
Steel



Metals





< 5 d

PUNTE ELICOIDALI CILINDRICHE, SERIE EXTRA CORTA, INTERAMENTE RETTIFICATE

Straight shank twist drills, stub serie / Forets cylindriques, série extra courte
Brocas helicoidales, serie extra corta / Geschliffene Spiralbohrer, extra kurz

HSS-G DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01094





Confezione / Packaging



Applicazioni / Applications

R ≤ 800 N/mm²



Acciaio
Steel



Metals



Ø h8	/	L	pcs	cod.	€ cad/each	Ø h8	/	L	pcs	cod.	€ cad/each
1,5	9	32	10	010940150	0,864	**6**	28	66	10	010940600	2,526
2	12	38	10	010940200	0,864	6,25	31	70	10	010940625	3,033
2,2	13	40	10	010940220	1,049	**6,5**	31	70	10	010940650	3,033
2,25	13	40	10	010940225	1,049	6,75	34	74	10	010940675	3,539
2,5	14	43	10	010940250	0,957	**7**	34	74	10	010940700	3,539
2,75	16	46	10	010940275	1,188	7,25	34	74	5	010940725	3,759
2,8	16	46	10	010940280	1,188	**7,5**	34	74	5	010940750	3,759
3	16	46	10	010940300	1,188	7,75	37	79	5	010940775	4,567
3,1	18	49	10	010940310	1,304	**8**	37	79	5	010940800	4,567
3,2	18	49	10	010940320	1,304	8,25	37	79	5	010940825	6,111
3,25	18	49	10	010940325	1,304	**8,5**	37	79	5	010940850	6,111
3,5	20	52	10	010940350	1,304	8,75	40	84	5	010940875	7,011
3,7	20	52	10	010940370	1,441	**9**	40	84	5	010940900	7,011
3,75	20	52	10	010940375	1,441	9,25	40	84	5	010940925	7,967
3,8	22	55	10	010940380	1,441	**9,5**	40	84	5	010940950	7,967
4	22	55	10	010940400	1,441	9,75	40	84	5	010940975	8,994
4,1	22	55	10	010940410	1,799	**10**	43	89	5	010941000	8,994
4,2	22	55	10	010940420	1,799	10,25	43	89	5	010941025	12,854
4,25	22	55	10	010940425	1,799	**10,5**	43	89	5	010941050	12,854
4,5	24	58	10	010940450	1,638	10,75	47	95	5	010941075	13,711
4,75	24	58	10	010940475	1,834	**11**	47	95	5	010941100	13,711
4,8	26	62	10	010940480	1,834	11,25	47	95	5	010941125	14,461
5	26	62	10	010940500	1,707	**11,5**	47	95	5	010941150	14,461
5,1	26	62	10	010940510	2,398	11,75	47	95	5	010941175	14,890
5,2	26	62	10	010940520	2,398	**12**	51	102	5	010941200	14,890
5,25	26	62	10	010940525	2,398	12,25	51	102	5	010941225	16,389
5,5	28	66	10	010940550	2,260	**12,5**	51	102	5	010941250	16,389
5,75	28	66	10	010940575	2,699	12,75	51	102	5	010941275	16,818
5,8	28	66	10	010940580	2,699	**13**	51	102	5	010941300	16,818

Art. **01373** Self
Disponibile su richiesta / *On demand*





Ø 2 ÷ 10x0,5

01068221 € 94,239

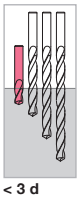
HSS-G Rettificata / *Ground from the solid / Rectifié / Rectificada / Geschliffen*

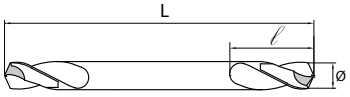
Elica contrapposta
Double ended

01095

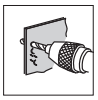








Ø h8	/	L	pcs	cod.	€ cad/each
2	10	38	10	010950200	1,485
2,5	10	43	10	010950250	1,485
3	11	46	10	010950300	1,708
3,2	11	49	10	010950320	1,708
3,25	11	49	10	010950325	1,708
3,3	11	49	10	010950330	1,708
3,4	14	52	10	010950340	1,708
3,5	14	52	10	010950350	1,708
3,75	14	55	10	010950375	1,919
4	14	55	10	010950400	1,919
4,1	14	55	10	010950410	2,284
4,2	17	58	10	010950420	2,284
4,25	17	58	10	010950425	2,284
4,5	17	58	10	010950450	2,516
4,75	17	62	10	010950475	2,783
4,9	17	62	10	010950490	2,783
5	17	62	10	010950500	2,783
5,1	17	62	10	010950510	3,714
5,5	17	66	10	010950550	3,714
6	17	66	10	010950600	4,080
6,5	17	66	10	010950650	4,606



PUNTE ELICOIDALI CILINDRICHE SERIE LUNGA, INTERAMENTE RETTIFICATE

Long straight shank twist drills / Forets cylindriques série longue
Brocas helicoidales serie larga / Spiralbohrer, lange Ausführung

HSS-G DIN 340 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01096





Ø h8	/	L	pcs	cod.	€ cad/each	Ø h8	/	L	pcs	cod.	€ cad/each
1	33	56	10	010960100	1,856	9,25	115	175	5	010960925	12,729
1,5	45	70	10	010960150	1,856	9,5	115	175	5	010960950	12,118
1,75	53	80	10	010960175	2,052	9,75	121	184	5	010960975	13,940
2	56	85	10	010960200	1,949	**10**	121	184	5	010961000	13,283
2,25	59	90	10	010960225	2,155	10,25	121	184	5	010961025	16,016
2,5	62	95	10	010960250	2,052	10,5	121	184	5	010961050	16,016
2,75	66	100	10	010960275	2,375	10,75	121	184	5	010961075	16,281
3	66	100	10	010960300	2,375	**11**	128	195	5	010961100	16,281
3,25	69	106	10	010960325	2,582	11,25	128	195	5	010961125	17,975
3,5	73	112	10	010960350	2,526	11,5	128	195	5	010961150	17,975
3,75	73	112	10	010960375	2,686	11,75	128	195	5	010961175	19,578
4	78	119	10	010960400	2,560	11,8	128	195	5	010961180	19,578
4,25	78	119	10	010960425	3,252	**12**	134	205	5	010961200	19,578
4,5	82	126	10	010960450	3,297	12,25	134	205	5	010961225	20,224
4,75	82	126	10	010960475	3,366	12,5	134	205	5	010961250	20,224
5	87	132	10	010960500	3,205	12,75	134	205	5	010961275	23,695
5,25	87	132	10	010960525	4,439	**13**	134	205	5	010961300	23,695
5,5	91	139	10	010960550	4,439	13,5	140	214	3	010961350	32,677
5,75	91	139	10	010960575	4,854	**14**	140	214	3	010961400	32,677
6	91	139	10	010960600	4,854	14,5	144	220	3	010961450	46,249
6,25	97	148	5	010960625	5,489	**15**	144	220	3	010961500	44,046
6,5	97	148	5	010960650	5,224	15,5	149	227	3	010961550	53,687
6,75	97	148	5	010960675	6,399	**16**	149	227	3	010961600	51,137
7	102	156	5	010960700	5,869	16,5	154	235	1	010961650	53,005
7,25	102	156	5	010960725	7,218	**17**	154	235	1	010961700	54,503
7,5	102	156	5	010960750	6,872	17,5	158	241	1	010961750	60,488
7,75	109	165	5	010960775	8,210	**18**	158	241	1	010961800	61,480
8	109	165	5	010960800	7,818	18,5	162	247	1	010961850	69,840
8,25	109	165	5	010960825	10,805	**19**	162	247	1	010961900	71,212
8,5	109	165	5	010960850	10,805	19,5	166	254	1	010961950	75,454
8,75	115	175	5	010960875	11,311	**20**	166	254	1	010962000	76,319
9	115	175	5	010960900	11,311						

Confezione / *Packaging*



Applicazioni / *Applications*



HSS-G Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Speciale infissi / *Special for casing*

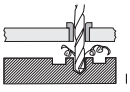
01129

NEW



Ø h8	/	L	pcs	cod.	€ cad/each
3	16	100	10	011291000300	6,320
5	30	210	10	011292100500	6,880
5,3	30	210	10	011292100530	7,045
5,8	30	150	10	011291500580	6,641
5,8	30	210	10	011292100580	7,284





PUNTE ELICOIDALI CILINDRICHE, SERIE EXTRA LUNGA, INTERAMENTE RETTIFICATE

Extra long straight shank twist drills / Forets helicoidaux, série extra longue
Brocas helicoidales, serie extra larga / Spiralbohrer, extra lange Ausführung

HSS-G DIN 1869 Rettificata

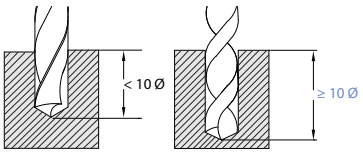
Ground from the solid / Rectifié
Rectificada / Geschliffen





HV 820
AISI M2
SPLIT POINT
DIN 1412C
(Ø≥3)

Parabolic



Profondità di foratura
Cutting depth

DIN 1869/1

Ø h8	/	L	pcs	Art. 01098 cod.	€ cad/each	Parabolic Art. 01370 cod.	€ cad/each
2	85	125	1	010980200	9,229	013700200	14,978
2,5	95	140	1	010980250	9,692	013700250	14,908
3	100	150	1	010980300	10,731	013700300	16,614
3,5	115	165	1	010980350	11,387	013700350	17,153
4	120	175	1	010980400	11,387	013700400	17,422
4,5	125	185	1	010980450	12,383	013700450	19,398
5	135	195	1	010980500	12,383	013700500	19,846
5,25	135	195	1	010980525	15,042	013700525	22,631
5,5	140	205	1	010980550	15,042	013700550	22,631
5,75	140	205	1	010980575	15,042	013700575	22,631
6	140	205	1	010980600	15,042	013700600	22,631
6,5	150	215	1	010980650	17,936	013700650	28,288
6,8	155	225	1	010980680	20,706	-	-
7	155	225	1	010980700	20,706	013700700	32,329
7,5	155	225	1	010980750	23,420	013700750	38,167
7,75	165	240	1	010980775	25,625	-	-
8	165	240	1	010980800	25,625	013700800	41,400
8,5	165	240	1	010980850	26,904	013700850	53,343
9	175	250	1	010980900	34,016	013700900	56,577
9,5	175	250	1	010980950	37,014	013700950	64,660
10	185	265	1	010981000	37,014	013701000	59,810
10,2	185	265	1	010981020	37,014	-	-
10,5	185	265	1	010981050	37,014	013701050	71,753
11	195	280	1	010981100	37,014	013701100	80,464
11,5	195	280	1	010981150	46,636	013701150	87,918
11,75	205	295	1	010981175	46,636	-	-
12	205	295	1	010981200	46,636	013701200	106,329
12,5	205	295	1	010981250	48,843	013701250	111,537
13	205	295	1	010981300	48,843	013701300	107,046

DIN 1869/2

Ø h8	/	L	pcs	Art. 01099 cod.	€ cad/each	Art. 01371 cod.	€ cad/each
3	130	190	1	010990300	13,197	013710300	19,258
3,5	145	210	1	010990350	13,706	013710350	20,445
4	150	220	1	010990400	14,171	013710400	20,615
4,5	160	235	1	010990450	16,375	013710450	25,025
5	170	245	1	010990500	16,828	013710500	24,088
5,5	180	260	1	010990550	21,984	013710550	32,061
5,75	180	260	1	010990575	21,984	-	-
6	180	260	1	010990600	21,984	013710600	31,302
6,5	190	275	1	010990650	23,420	013710650	35,114
7	200	290	1	010990700	27,175	013710700	39,694
7,5	200	290	1	010990750	31,234	013710750	47,327
8	210	305	1	010990800	31,812	013710800	47,327
8,5	210	305	1	010990850	41,638	013710850	64,120
9	220	320	1	010990900	49,543	013710900	65,648
9,5	220	320	1	010990950	50,153	013710950	77,860
10	235	340	1	010991000	50,153	013711000	74,807
10,5	235	340	1	010991050	52,042	013711050	97,707
11	250	365	1	010991100	52,042	013711100	112,046
11,5	250	365	1	010991150	54,656	013711150	124,847
12	260	375	1	010991200	65,580	013711200	125,786
12,5	260	375	1	010991250	68,847	013711250	133,160
13	260	375	1	010991300	68,847	013711300	131,293

DIN 1869/3

Ø h8	/	L	pcs	Art. 01100 cod.	€ cad/each	Art. 01372 cod.	€ cad/each
3,5	180	265	1	011000350	17,313	013720350	30,713
4	190	280	1	011000400	16,692	013720400	30,713
4,5	200	295	1	011000450	19,892	013720450	38,796
5	210	315	1	011000500	20,740	013720500	38,796
5,5	225	330	1	011000550	22,267	013720550	41,400
6	225	330	1	011000600	23,273	013720600	42,028
6,5	235	350	1	011000650	25,807	013720650	46,877
7	250	370	1	011000700	33,406	013720700	61,427
7,5	250	370	1	011000750	37,952	013720750	69,508
8	265	390	1	011000800	37,952	013720800	71,125
8,5	265	390	1	011000850	49,588	013720850	90,523
9	280	410	1	011000900	53,638	013720900	100,220
9,5	280	410	1	011000950	58,194	013720950	111,537
10	295	430	1	011001000	58,194	013721000	111,537
10,5	295	430	1	011001050	58,194	013721050	117,014
11	310	455	1	011001100	58,194	013721100	133,539
11,5	310	455	1	011001150	61,111	013721150	143,507
12	330	480	1	011001200	73,325	013721200	149,703
12,5	330	480	1	011001250	84,690	013721250	153,923
13	330	480	1	011001300	84,690	013721300	153,923

Confezione / Packaging



Applicazioni / Applications

R ≤ 800 N/mm²

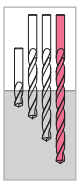


Acciaio
Steel



Metals





PUNTE ELICOIDALI CILINDRICHE HSS RETTIFICATE, SERIE SPECIALI SUPER LUNGHE

Long straight shank twist drills / Forets cylindriques série longue
Brocas helicoidales serie larga / Spiralbohrer, lange Ausführung

NORMA KRINO HSS-G Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01105
01114

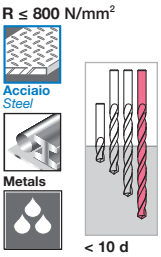




Confezione / *Packaging*



Applicazioni / *Applications*

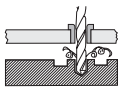


Art. 01105
L = 305 mm

Ø	/	L	d	pcs	cod.	€ cad/each
6	228	305	6	1	011050600	23,239
6,5	228	305	6,5	1	011050650	25,690
7	228	305	7	1	011050700	33,022
7,5	228	305	7,5	1	011050750	37,921
8	228	305	8	1	011050800	41,588
8,5	228	305	8,5	1	011050850	49,541
9	228	305	9	1	011050900	49,541
9,5	228	305	9,5	1	011050950	51,370
10	228	305	10	1	011051000	51,370
10,5	228	305	10,5	1	011051050	52,595
11	228	305	11	1	011051100	52,595
11,5	228	305	11,5	1	011051150	54,432
12	228	305	12	1	011051200	54,432
12,5	228	305	12,5	1	011051250	57,081
13	228	305	13	1	011051300	57,081
14	228	305	13	1	011051400	70,944
15	228	305	13	1	011051500	81,583
16	228	305	13	1	011051600	91,026

Art. 01114
L = 460 mm

Ø	/	L	d	pcs	cod.	€ cad/each
6	330	460	6	1	011140600	36,908
8	330	460	8	1	011140800	59,016
10	330	460	10	1	011141000	85,425
12	330	460	12	1	011141200	116,634
14	330	460	13	1	011141400	163,089
16	330	460	13	1	011141600	203,855



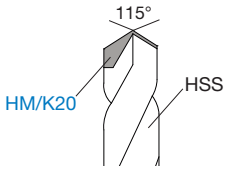
PUNTE ELICOIDALI CON PLACCHETTA IN METALLO DURO K20 PER IL TAGLIO DEI METALLI

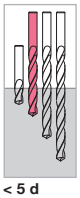
Carbide tipped twist drills for metal cutting / Forets à mise rapportée carbure de tungstene pour métaux
Brocas helicoidales, corte de metal duro para acero / Spiralbohrer mit Schneidplatte aus Hartmetall für Metall

HSS-G DIN 338 Rettificata / Ground from the solid / Rectifié / Rectificada / Geschliffen

01093







Confezione / *Packaging*



Applicazioni / *Applications*





Ø	/	L	pcs	cod.	€ cad/each
2	24	49	1	010930200	26,019
2,5	30	57	1	010930250	26,019
3	33	61	1	010930300	26,019
3,5	39	70	1	010930350	26,019
4	43	75	1	010930400	14,456
4,5	47	80	1	010930450	15,069
5	52	86	1	010930500	15,973
5,5	57	93	1	010930550	16,577
6	57	93	1	010930600	17,180
6,5	63	101	1	010930650	18,980
7	69	109	1	010930700	19,281
7,5	69	109	1	010930750	20,479
8	75	117	1	010930800	22,297
8,5	75	117	1	010930850	25,605
9	81	125	1	010930900	25,605
9,5	81	125	1	010930950	27,413
10	87	133	1	010931000	29,515
10,5	87	133	1	010931050	31,937
11	94	142	1	010931100	34,350
11,5	94	142	1	010931150	37,347
12	101	151	1	010931200	40,354
12,5	101	151	1	010931250	43,369
13	101	151	1	010931300	46,979

- Taglio degli acciai duri trattati ed abrasivi con R da 750 N/mm² a 1400 N/mm², acciai per molle, acciai al manganese, molibdeno puro, ghisa in conchiglia con HB>300, bronzo duro.
- For drilling in: Hardened steel, tough cast iron, manganese steel, bronze, abrasive tough steel.
- Pour percer: acier traité et au manganese, font, acier abrasif.
- Para taladar: metales muy abrasivos, aceros tratados, acero manganeso, bronze duro.
- Spiralbohrer nach dieser Norm eignen sich zum Bohren von Stahl mit 750 bis 1400 N/mm² (~75 bis 140 Kp/mm²) Zugfestigkeit sowie für Gußeisen, Hartguß, Temperguß, Rotguß, Bronze und Stahlguß.



Ø 3-4-5-6-8
01068208
€ 91,317



Ø 2-10x0,5
01068417
€ 230,646

Ø 2-13x0,5
01068418
€ 445,536

154

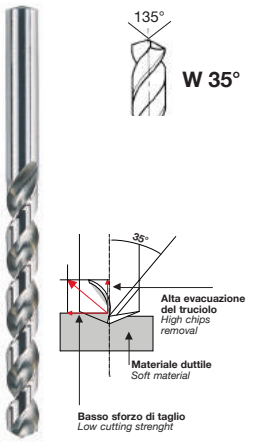
PUNTE PER ALLUMINIO E PER MATERIALI A TRUCIOLO LUNGO, SERIE CORTA

Fully ground twist drills for light alloys / Forets rectifiés pour aluminium et alliage léger

Brocas rectificadas para aluminio y aleaciones ligeras / Geschliffene Spiralbohrer für Alluminium und Leichtmetallegierung

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen



Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	010920100	3,802
1,5	18	40	10	010920150	3,372
2	24	49	10	010920200	3,372
2,25	27	53	10	010920225	3,861
2,5	30	57	10	010920250	3,443
2,75	33	61	10	010920275	4,171
3	33	61	10	010920300	3,792
3,2	36	65	10	010920320	4,590
3,25	36	65	10	010920325	4,590
3,5	39	70	10	010920350	4,171
3,75	39	70	10	010920375	4,989
4	43	75	10	010920400	4,521
4,2	43	75	10	010920420	6,177
4,25	43	75	10	010920425	6,177
4,5	47	80	10	010920450	5,468
4,75	47	80	10	010920475	6,246
5	52	86	10	010920500	5,618
5,2	52	86	10	010920520	7,962
5,25	52	86	10	010920525	7,962
5,5	57	93	10	010920550	7,583
5,75	57	93	10	010920575	7,962
6	57	93	10	010920600	7,234

Ø h8	/	L	pcs	cod.	€ cad/each
6,25	63	101	10	010920625	9,528
6,5	63	101	10	010920650	8,672
6,75	69	109	10	010920675	9,689
7	69	109	10	010920700	8,811
7,25	69	109	5	010920725	12,932
7,5	69	109	5	010920750	13,740
7,75	75	117	5	010920775	15,303
8	75	117	5	010920800	14,691
8,25	75	117	5	010920825	14,909
8,5	75	117	5	010920850	13,778
8,75	81	125	5	010920875	15,578
9	81	125	5	010920900	14,240
9,25	81	125	5	010920925	16,237
9,5	81	125	5	010920950	15,578
9,75	87	133	5	010920975	17,236
10	87	133	5	010921000	15,898
10,5	87	133	5	010921050	19,338
11	94	142	5	010921100	23,494
11,5	94	142	5	010921150	27,583
12	101	151	5	010921200	30,156
12,5	101	151	5	010921250	31,391
13	101	151	5	010921300	31,391

Alu

01092



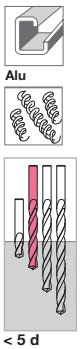
Ø 1÷10x0,5
01068303
€ 164,286

Ø 1÷13x0,5
01068304
€ 338,161

Confezione / Packaging



Applicazioni / Applications



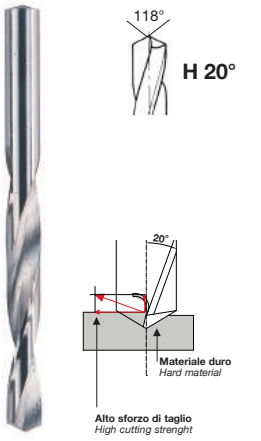
PUNTE PER OTTONE E PER MATERIALI A TRUCIOLO CORTO, SERIE CORTA

Fully ground twist drills for brass / Forets rectifiés pour laiton

Brocas rectificadas para laton / Geschliffene Spiralbohrer für Messing

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen



Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	010910100	3,802
1,5	18	40	10	010910150	3,372
2	24	49	10	010910200	3,372
2,25	27	53	10	010910225	3,861
2,5	30	57	10	010910250	3,443
2,75	33	61	10	010910275	4,171
3	33	61	10	010910300	3,792
3,25	36	65	10	010910325	4,590
3,5	39	70	10	010910350	4,171
3,75	39	70	10	010910375	4,989
4	43	75	10	010910400	4,521
4,25	43	75	10	010910425	6,177
4,5	47	80	10	010910450	5,468
4,75	47	80	10	010910475	6,246
5	52	86	10	010910500	5,618
5,25	52	86	10	010910525	7,962
5,5	57	93	10	010910550	7,583
5,75	57	93	10	010910575	7,962
6	57	93	10	010910600	7,234
6,25	63	101	10	010910625	9,528
6,5	63	101	10	010910650	8,672

Ø h8	/	L	pcs	cod.	€ cad/each
6,75	69	109	10	010910675	9,689
7	69	109	10	010910700	8,811
7,25	69	109	5	010910725	12,932
7,5	69	109	5	010910750	12,932
7,75	75	117	5	010910775	14,403
8	75	117	5	010910800	13,827
8,25	75	117	5	010910825	14,032
8,5	75	117	5	010910850	12,967
8,75	81	125	5	010910875	14,662
9	81	125	5	010910900	13,402
9,25	81	125	5	010910925	15,282
9,5	81	125	5	010910950	14,662
9,75	87	133	5	010910975	16,222
10	87	133	5	010911000	14,962
10,5	87	133	5	010911050	18,201
11	94	142	5	010911100	22,112
11,5	94	142	5	010911150	25,961
12	101	151	5	010911200	28,382
12,5	101	151	5	010911250	29,545
13	101	151	5	010911300	29,545

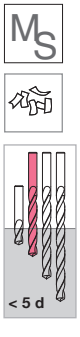
01091



Confezione / Packaging



Applicazioni / Applications



PUNTE ELICOIDALI CILINDRICHE SINISTRE, INTERAMENTE RETTIFICATE

Straight shank twist drills, left hand / Forets helicoidaux, coupe à gauche
Brocas helicoidales izquierdas / Spiralbohrer mit Zylinderschaft, link

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Serie corta
Short serie

01090





W 27°

Sinistra
Left hand
Gauche
Izquierda
Link



Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	010900100	3,160
1,5	18	40	10	010900150	2,497
2	24	49	10	010900200	2,497
2,1	24	49	10	010900210	2,497
2,2	27	53	10	010900220	2,497
2,3	27	53	10	010900230	2,497
2,4	30	57	10	010900240	2,497
2,5	30	57	10	010900250	2,497
2,6	30	57	10	010900260	2,497
2,7	33	61	10	010900270	2,497
2,8	33	61	10	010900280	2,497
2,9	33	61	10	010900290	2,497
3	33	61	10	010900300	2,497
3,2	36	65	10	010900320	3,065
3,3	36	65	10	010900330	3,065
3,4	36	65	10	010900340	5,900
3,5	39	70	10	010900350	3,065
3,7	39	70	10	010900370	3,370
3,8	43	75	10	010900380	3,370
4	43	75	10	010900400	3,370
4,1	43	75	10	010900410	3,876
4,2	43	75	10	010900420	3,876
4,5	47	80	10	010900450	3,876
4,6	47	80	10	010900460	4,192
4,7	47	80	10	010900470	4,192
4,8	52	86	10	010900480	4,192
5	52	86	10	010900500	4,192
5,1	52	86	10	010900510	5,677
5,2	52	86	10	010900520	5,677
5,5	57	93	10	010900550	5,677
5,8	57	93	10	010900580	6,215
6	57	93	10	010900600	6,215
6,2	57	101	10	010900620	13,408
6,3	57	101	10	010900630	13,824
6,5	63	101	10	010900650	7,541
7	69	109	10	010900700	9,058
7,5	69	109	5	010900750	10,228
7,8	69	117	5	010900780	19,540
8	75	117	5	010900800	10,986
8,5	75	117	5	010900850	11,607
8,7	75	117	5	010900870	23,906
9	81	125	5	010900900	14,251
9,5	81	125	5	010900950	15,388
10	87	133	5	010901000	16,894
10,5	87	133	5	010901050	21,223
11	94	142	5	010901100	24,866
11,5	94	142	5	010901150	26,026
12	101	151	5	010901200	28,828
12,5	101	151	5	010901250	31,440
13	101	151	5	010901300	32,103
13,5	101	151	5	010901350	49,877

Abs



Ø 1÷10x0,5
01068307
€ 139,000

Ø 1÷13x0,5
01068308
€ 297,000

Confezione / Packaging



Applicazioni / Applications

$R \leq 800\ N/mm^2$

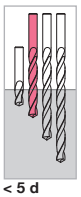


Acciaio
Steel



Metals





< 5 d

PUNTE ELICOIDALI CILINDRICHE SINISTRE, INTERAMENTE RETTIFICATE SERIE EXTRA CORTA

Straight shank twist drills, left hand, stub serie / Forets helicoidaux, coupe à gauche, série extra courte
Brocas helicoidales izquierdas serie extra corta / Spiralbohrer mit Zylinderschaft, link, extra kurz

HSS-G DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Serie extra corta
Extra short serie

01067



ø ≤ 6 mm ø > 6 mm



Sinistra
Left hand
Gauche
Izquierda
Link

Ø h8	/	L	pcs	cod.	€ cad/each
1,5	9	32	10	010670150	17,697
2	12	38	10	010670200	10,856
2,2	13	40	10	010670220	20,581
2,5	14	43	10	010670250	14,928
2,7	16	46	10	010670270	36,075
2,8	16	46	10	010670280	24,144
3	16	46	10	010670300	7,577
3,1	18	49	10	010670310	15,888
3,2	18	49	10	010670320	26,123
3,25	18	49	10	010670325	33,757
3,5	20	52	10	010670350	15,776
3,7	20	52	10	010670370	22,505
3,75	20	52	10	010670375	21,939
3,8	22	55	10	010670380	23,579
4	22	55	10	010670400	9,047
4,2	22	55	10	010670420	11,705
4,5	24	58	10	010670450	22,958
4,8	26	62	10	010670480	33,474
5	26	62	10	010670500	16,737
5,1	26	62	10	010670510	21,542
5,2	26	62	10	010670520	24,426
5,5	28	66	10	010670550	20,468
5,7	28	66	10	010670570	42,125
5,8	28	66	10	010670580	35,114
6	28	66	10	010670600	11,705
6,5	31	70	10	010670650	29,120
7	34	74	10	010670700	15,944
7,5	34	74	5	010670750	21,261
8	37	79	5	010670800	18,150
8,5	37	79	5	010670850	24,426
9	40	84	5	010670900	27,706
9,5	40	84	5	010670950	38,562
10	43	89	5	010671000	21,034
10,2	43	89	5	010671020	39,580
10,5	43	89	5	010671050	41,164
11	47	95	5	010671100	46,422
11,5	47	95	5	010671150	71,924
12	51	102	5	010671200	31,551
12,5	51	102	5	010671250	57,561
13	51	102	5	010671300	42,407
14	54	107	3	010671400	56,826
15	56	111	3	010671500	77,464
16	58	115	3	010671600	70,848

Confezione / Packaging

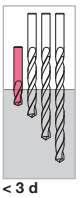


Applicazioni / Applications

R ≤ 800 N/mm²

Acciaio
Steel

Metals



< 3 d

PUNTE A CENTRARE, ANGOLO DI SVASATURA 60°

Center drills 60° / Forets à centrer 60°
Brocas de centrar 60° / Zentrierbohrer 60°

HSS-G DIN 333/A 60°

Rivestimento TiN-TiAlN disponibile su richiesta (cod. TiN 01214, cod. TiAlN 01311)
TiN-TiAlN coating available on demand (cod. TiN 01214, cod. TiAlN 01311)

01110





Ø k12	D h8	L	pcs	cod.	€ cad/each
1	3,15	31,5	1	011100100	5,421
1,6	4	35,5	1	011100160	5,311
2	5	40	1	011100200	5,621
2,5	6,3	45	1	011100250	6,053
3,15	8	50	1	011100315	7,085
4	10	56	1	011100400	13,837
5	12,5	63	1	011100500	18,781
6,3	16	71	1	011100630	31,598

HSS-G~DIN 333/A 60°

01374

NEW





Ø	D	L	pcs	cod.	€ cad/each
1	4	120	1	013740100	22,930
1,6	5	120	1	013740160	22,930
2	6	120	1	013740200	22,930
2,5	8	120	1	013740250	24,970
3,15	10	120	1	013740315	48,398

HSS-G~DIN 333/A 60°

01375

NEW







Ø	D	L	S	pcs	cod.	€ cad/each
1,6	4	35,5	3,25	1	013750160	13,985
2	5	40	4,2	1	013750200	13,985
2,5	6,3	45	5,35	1	013750250	13,985
3,15	8	50	6,95	1	013750315	17,717
4	10	56	8,4	1	013750400	24,970
5	12,5	63	10,95	1	013750500	38,209
6,3	16	71	14	1	013750630	67,249

PUNTE A CENTRARE, ANGOLO DI SVASATURA 60°

Center drills 60° / Forets à centrer 60°
Brocas de centrar 60° / Zentrierbohrer 60°

HSS-G DIN 333/B 60°/120°

Rivestimento TiN-TiAlN disponibile su richiesta (cod. TiN 01217, cod. TiAlN 01312)
TiN-TiAlN coating available on demand (cod. TiN 01217, cod. TiAlN 01312)

01112





Ø	D	L	pcs	cod.	€ cad/each
1	4	35,5	1	011120100	8,271
1,6	6,3	45	1	011120160	9,058
2	8	50	1	011120200	9,779
2,5	10	56	1	011120250	12,484
3,15	11,2	60	1	011120315	15,001
4	14	67	1	011120400	23,736
5	18	75	1	011120500	29,845
6,3	20	80	1	011120630	43,771

HSS-G DIN 333/R 60°

Rivestimento TiN-TiAlN disponibile su richiesta (cod. TiN 01216, cod. TiAlN 01313)
TiN-TiAlN coating available on demand (cod. TiN 01216, cod. TiAlN 01313)

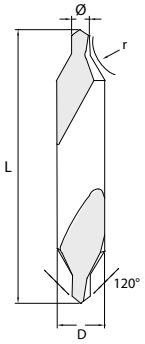
01111







Ø	r	D	L	pcs	cod.	€ cad/each
1	3,15	3,15	31,5	1	011110100	5,421
1,6	5	4	35,5	1	011110160	5,311
2	6,3	5	40	1	011110200	5,621
2,5	8	6,3	45	1	011110250	6,053
3,15	10	8	50	1	011110315	7,085
4	12,5	10	56	1	011110400	13,837
5	16	12,5	63	1	011110500	18,781
6,3	20	16	71	1	011110630	31,598



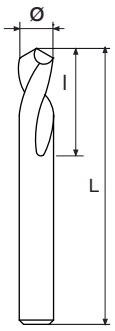
Disponibile su richiesta versione TiN Art. **01216**
*On demand TiN coated Art. **01216***

PUNTE A CENTRARE CILINDRICHE PER CENTRI CN 90°-120°

CNC center drills / Forêts à center pour machines CN



Ø	/ mm	L mm	pcs	Art. 01364 HSS-G 90° cod.	€ cad/each	Art. 01365 HSS-G 120° cod.	€ cad/each
3	12	46	1	013640300	12,362	013650300	12,362
4	12	55	1	013640400	13,220	013650400	13,220
5	14	62	1	013640500	14,872	013650500	14,872
6	16	66	1	013640600	17,197	013650600	17,197
8	21	79	1	013640800	26,010	013650800	26,010
10	25	89	1	013641000	32,925	013651000	32,925
12	30	102	1	013641200	46,512	013651200	46,512
14	33	107	1	013641400	66,402	013651400	66,402
16	37	115	1	013641600	72,399	013651600	72,399
20	45	131	1	013641200	123,807	013652000	123,807



Metallo duro - *Carbide*



PUNTE A GRADINO AD ELICHE INDIPENDENTI PER FORI SEDI VITI

Subland twist drills with independent spirals for screws holes / Forets étagés avec hélices indépendantes, pour têtes de vis
Brocas escalonadas con espirales indipendientes, para asientos de tornillos / Stufenbohrer mit selbständigen Schrauben für Zylinderschrauben

Per fori passanti - *For through holes - Pour trous débouchants - Para orificios pasantes - Für Durchgangslöcher*

HSS

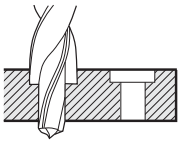
01103 **01104**

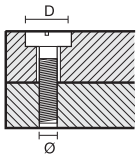


Eliche indipendenti
Independent spirals



DIN 8376 **DIN 8377**





Art. 01103 Grado fine / Fine grade

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	3,4	6	9	57	93	011030300	32,954
4	4,5	8	11	75	117	011030400	37,078
5	5,5	10	13	87	133	011030500	45,327
6	6,6	11	15	94	142	011030600	53,554
8	9	15	19	114	169	011030800	66,731
10	11	18	23	130	191	011031000	99,706

Art. 01104

VITE *thread*	Ø	D	l_1	l	L	M.K.	cod.	€ cad/each
M 5	5,5	10	13	87	168	1	011040500	67,135
6	6,6	11	15	94	175	1	011040600	70,485
8	9	15	19	114	212	2	011040800	94,900
10	11	18	23	130	228	2	011041000	124,906
12	13,5	20	27	140	238	2	011041200	155,013
14	15,5	24	31	160	281	3	011041400	189,585
16	17,5	26	35	165	286	3	011041600	223,044
18	20	30	39	175	296	3	011041800	258,731
20	22	33	43	185	334	4	011042000	301,107

HSS

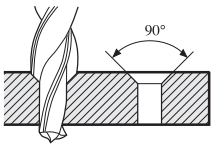
01101 **01102**

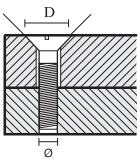


Eliche indipendenti
Independent spirals



DIN 8374 **DIN 8375**





Art. 01101 Grado fine / Fine grade

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	3,2	6	9	57	93	011010300	37,459
4	4,3	8	11	75	117	011010400	42,965
5	5,3	10	13	87	133	011010500	54,236
6	6,4	11,5	15	94	142	011010600	62,432
8	8,4	15	19	114	169	011010800	105,727
10	10,5	19	23	135	198	011011000	163,942

Art. 01102

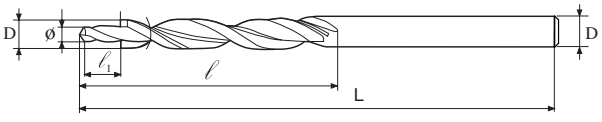
VITE *thread*	Ø	D	l_1	l	L	M.K.	cod.	€ cad/each
M 5	5,5	11	13	94	175	1	011020500	72,764
6	6,6	13	15	101	182	1	011020600	97,777
8	9	17,2	19	130	228	2	011020800	124,906
10	11	21,5	23	150	248	2	011021000	172,862

Confezione / Packaging



Applicazioni / Applications





PUNTA A GRADINO AD ELICHE INDIPENDENTI PER PREFORI DI FILETTATURA

Subland twist drills with independent spirals for thread core hole / Foret étagés avec hélices indépendantes pour trous de taraudage
Brocas escalonadas con espirales independientes para orificios de roscado / Stufenbohrer mit selbständigen Schrauben für Gewindelöcher

Per prefori di filettature - *For thread core holes - Pour trous de taraudage - Para orificios de roscado - Für Gewindelöcher*

HSS



Eliche indipendenti
Independent spirals

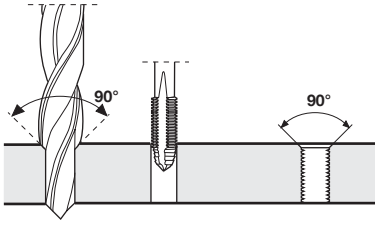
Applicazioni / Applications

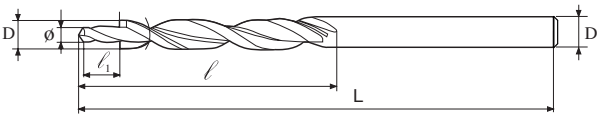
Acciaio *Steel* — Metals

DIN 8378

01117

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	2,5	3,4	8,8	39	70	011170300	41,514
4	3,3	4,5	11,4	47	80	011170400	44,289
5	4,2	5,5	13,6	57	93	011170500	45,675
6	5	6,6	16,5	63	101	011170600	52,592
8	6,8	9,0	21	81	125	011170800	59,507
10	8,5	11	25,5	94	142	011171000	77,500
12	10,2	13,5	30	108	160	011171200	101,020





PUNTE A GRADINO AD ELICA SINGOLA, SERIE CORTA

Subland twist drills, short serie / Forets étagés, série courte / Brocas escalonadas, serie corta / Stufenbohrer, Kurze Ausführung

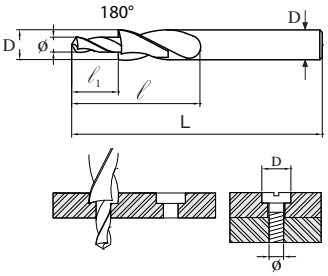
HSS

01059 **01058** **01057**



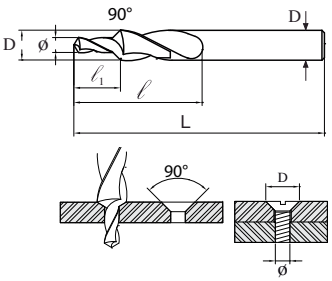
Art. 01059 ~ DIN 8376 Grado fine / Fine grade

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	3,4	6	9	28	66	010590300	14,857
4	4,5	8	11	37	79	010590400	18,580
5	5,5	10	13	43	89	010590500	27,869
6	6,6	11	15	47	95	010590600	40,872
8	9,0	15	19	56	111	010590800	59,441
10	11,0	18	23	62	123	010591000	92,887



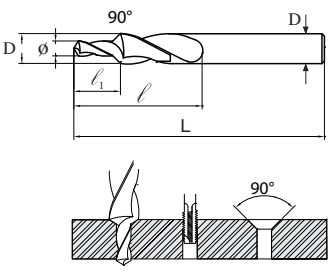
Art. 01058 ~ DIN 8374 Grado fine / Fine grade

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	3,2	6	9	28	66	010580300	14,857
4	4,3	8	11	37	79	010580400	18,580
5	5,3	10	13	43	89	010580500	27,869
6	6,4	11,5	15	47	95	010580600	40,872
8	8,4	15	19	56	111	010580800	59,441
10	10,5	19	23	62	123	010581000	92,887



Art. 01057 ~ DIN 8378

VITE *thread*	Ø	D	l_1	l	L	cod.	€ cad/each
M 3	2,5	3,4	8,8	20	52	010570300	15,605
4	3,3	4,5	11,4	24	58	010570400	15,605
5	4,2	5,5	13,6	28	66	010570500	17,831
6	5,0	6,6	16,5	31	70	010570600	20,066
8	6,8	9,0	21,0	40	84	010570800	26,752
10	8,5	11,0	25,5	47	95	010571000	40,122
12	10,2	13,5	30,0	54	107	010571200	55,729



Applicazioni / Applications

Acciaio *Steel* — Metals

ASSORTIMENTI PUNTE HSS-G RETTIFICATE IN ASTUCCI DI METALLO E DI PLASTICA

Sets of HSS twist drills ground from the solid / Assortiments forets à metaux rectifiés
Juego brocas rectificadas en HSS / Geschliffene Spiralbohrersätze

HSS-G DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm

01068401	€ 51,137

Abs



19 pcs
Ø 1÷10 x 0,5 mm

01068301	€ 54,771

Metal



25 pcs
Ø 1÷13 x 0,5 mm

01068402	€ 101,468

Abs



25 pcs
Ø 1÷13 x 0,5 mm

01068302	€ 110,691

Metal



37 pcs
Ø 1÷10 x 0,25 mm

01068411	€ 113,918

49 pcs
Ø 1÷13 x 0,25 mm

01068412	€ 227,837

51 pcs
Ø 1÷6 x 0,1 mm

01068404	€ 86,345

Metal



41 pcs
Ø 6÷10 x 0,1 mm

01068405	€ 221,251

91 pcs
Ø 1÷10 x 0,1 mm

01068406	€ 413,708

Plastic



19 pcs
Ø 1÷10 x 0,5 mm

01068101	€ 47,364



10 pcs
Ø 1÷10 x 1 mm

01068201	€ 29,933

19 pcs
Ø 1÷10 x 0,5 mm

01068206	€ 49,259



91 pcs
Ø 1÷10 x 0,1 mm

01068220	€ 299,791



19 pcs
Ø 1÷10 x 0,5 mm

01068250	€ 47,364

25 pcs
Ø 1÷13 x 0,5 mm

01068251	€ 103,885

VALIGETTE ED ESPOSITORI MAGAZZENO PUNTE HSS-G RETTIFICATE

Metal case storage display with HSS-G fully ground twist drills / Display forets cylindriques rectifiés
Expositor de brocas rectificadas / Lager Kästen mit geschliffene Spiralbohrer

HSS-G DIN 338

01068450 Ø 1÷10 x 0,5 mm
01068451 Ø 1÷13 x 0,5 mm



150 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

cod.	€
01068450	326,177

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

cod.	€
01068451	539,622



Metal
375x240x200

600 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	30	7,5	5
1,5	30	8	10
2	50	8,5	5
2,5	50	9	5
3	100	9,5	5
3,5	50	10	10
4	100	10,5	5
4,5	30	11	5
5	30	11,5	5
5,5	20	12	5
6	20	12,5	5
6,5	10	13	5
7	10		

cod.	€
01068501	1157,186



Metal
390x460x230

760 pcs Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	50	6,25	3	10,5	3
2,25	10	6,5	20	10,75	2
2,5	50	6,75	2	11	3
2,75	10	7	5	11,25	2
3	100	7,25	2	11,5	2
3,25	10	7,5	5	11,75	2
3,5	50	7,75	2	12	3
3,75	10	8	10	12,25	2
4	80	8,25	2	12,5	2
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	3
4,75	10	9	5		
5	60	9,25	2		

cod.	€
01068507	1549,320

PUNTE ELICOIDALI CODOLO CONICO MORSE, ESECUZIONE FRESATA

Morse taper shank twist drills / Forets à queue conique morse / Brocas helicoidales con mango conico/ Spiralbohrer mit Morsekegel

HSS DIN 345 Fresata / *Milled / Fraisé / Fresada / Gefräst*

01097





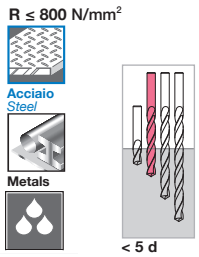
HV ≃ 820



Confezione / *Packaging*



Applicazioni / *Applications*



- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm²
- Puor percer métaux et acier avec R ≤ 800 N/mm²
- Para taladrar hierro e acero R ≤ 800 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
5	1	52	133	1	010970500	14,425
5,5	1	57	138	1	010970550	18,363
6	1	57	138	1	010970600	14,425
6,25	1	63	144	1	010970625	15,878
6,5	1	63	144	1	010970650	14,425
6,75	1	69	150	1	010970675	15,878
7	1	69	150	1	010970700	14,425
7,25	1	69	150	1	010970725	15,878
7,5	1	69	150	1	010970750	14,425
7,75	1	75	156	1	010970775	15,878
8	1	75	156	1	010970800	14,425
8,25	1	75	156	1	010970825	15,878
8,5	1	75	156	1	010970850	14,425
8,75	1	81	162	1	010970875	15,878
9	1	81	162	1	010970900	14,425
9,25	1	81	162	1	010970925	15,878
9,5	1	81	162	1	010970950	14,425
9,75	1	87	168	1	010970975	15,878
10	1	87	168	1	010971000	14,425
10,25	1	87	168	1	010971025	17,399
10,5	1	87	168	1	010971050	15,809
10,75	1	94	175	1	010971075	17,399
11	1	94	175	1	010971100	15,809
11,25	1	94	175	1	010971125	17,399
11,5	1	94	175	1	010971150	15,809
11,75	1	94	175	1	010971175	18,818
12	1	101	182	1	010971200	17,110
12,25	1	101	182	1	010971225	18,818
12,5	1	101	182	1	010971250	17,110
12,75	1	101	182	1	010971275	20,744
13	1	101	182	1	010971300	18,852
13,25	1	108	189	1	010971325	20,744
13,5	1	108	189	1	010971350	18,852
13,75	1	108	189	1	010971375	23,443
14	1	108	189	1	010971400	21,319
14,25	2	114	212	1	010971425	23,443
14,5	2	114	212	1	010971450	21,319
14,75	2	114	212	1	010971475	23,443
15	2	114	212	1	010971500	21,319
15,25	2	120	218	1	010971525	23,443
15,5	2	120	218	1	010971550	21,319
15,75	2	120	218	1	010971575	26,613
16	2	120	218	1	010971600	24,190
16,25	2	125	223	1	010971625	28,687
16,5	2	125	223	1	010971650	26,070
16,75	2	125	223	1	010971675	30,695
17	2	125	223	1	010971700	27,903
17,25	2	130	228	1	010971725	32,240
17,5	2	130	228	1	010971750	29,310
17,75	2	130	228	1	010971775	33,854
18	2	130	228	1	010971800	30,764
18,25	2	135	233	1	010971825	33,854
18,5	2	135	233	1	010971850	30,764
18,75	2	135	233	1	010971875	37,324
19	2	135	233	1	010971900	33,933
19,25	2	140	238	1	010971925	38,408
19,5	2	140	238	1	010971950	34,925
19,75	2	140	238	1	010971975	39,572
20	2	140	238	1	010972000	35,976
20,25	2	145	243	1	010972025	39,572
20,5	2	145	243	1	010972050	35,976
20,75	2	145	243	1	010972075	42,374
21	2	145	243	1	010972100	38,535
21,25	2	150	248	1	010972125	42,374
21,5	2	150	248	1	010972150	38,535
21,75	2	150	248	1	010972175	43,493
22	2	150	248	1	010972200	39,538

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
22,25	2	155	248	1	010972225	43,493
22,5	2	155	253	1	010972250	39,538
22,75	2	155	253	1	010972275	47,955
23	2	155	253	1	010972300	43,585
23,25	3	155	276	1	010972325	58,990
23,5	3	155	276	1	010972350	53,629
23,75	3	160	281	1	010972375	58,990
24	3	160	281	1	010972400	53,629
24,25	3	160	281	1	010972425	58,990
24,5	3	160	281	1	010972450	53,629
24,75	3	160	281	1	010972475	60,223
25	3	160	281	1	010972500	54,747
25,25	3	165	286	1	010972525	60,223
25,5	3	165	286	1	010972550	54,747
25,75	3	165	286	1	010972575	74,762
26	3	165	286	1	010972600	67,972
26,25	3	165	286	1	010972625	74,762
26,5	3	165	286	1	010972650	67,972
26,75	3	170	291	1	010972675	77,761
27	3	170	291	1	010972700	70,693
27,25	3	170	291	1	010972725	77,761
27,5	3	170	291	1	010972750	70,693
27,75	3	170	291	1	010972775	80,863
28	3	170	291	1	010972800	73,519
28,25	3	175	296	1	010972825	80,863
28,5	3	175	296	1	010972850	73,519
28,75	3	175	296	1	010972875	93,004
29	3	175	296	1	010972900	84,553
29,25	3	175	296	1	010972925	93,004
29,5	3	175	296	1	010972950	84,553
29,75	3	175	296	1	010972975	95,806
30	3	175	296	1	010973000	87,100
30,25	3	180	301	1	010973025	95,806
30,5	3	180	301	1	010973050	87,100
30,75	3	180	301	1	010973075	107,302
31	3	180	301	1	010973100	97,547
31,25	3	180	301	1	010973125	112,871
31,5	3	180	301	1	010973150	102,597
31,75	3	185	306	1	010973175	115,119
32	4	185	334	1	010973200	104,661
32,25	4	185	334	1	010973225	115,119
32,5	4	185	334	1	010973250	104,661
32,75	4	185	334	1	010973275	115,119
33	4	185	334	1	010973300	104,661
33,25	4	185	334	1	010973325	133,441
33,5	4	185	334	1	010973350	121,185
33,75	4	185	334	1	010973375	137,188
34	4	190	339	1	010973400	123,606
34,25	4	190	339	1	010973425	145,917
34,5	4	190	339	1	010973450	133,441
34,75	4	190	339	1	010973475	153,400
35	4	190	339	1	010973500	139,679
35,25	4	190	339	1	010973525	153,400
35,5	4	190	339	1	010973550	139,679
35,75	4	190	339	1	010973575	177,096
36	4	195	344	1	010973600	160,885
36,25	4	195	344	1	010973625	177,096
36,5	4	195	344	1	010973650	160,885
36,75	4	195	344	1	010973675	177,096
37	4	195	344	1	010973700	160,885
37,25	4	195	344	1	010973725	177,096
37,5	4	195	344	1	010973750	160,885
37,75	4	195	344	1	010973775	196,660
38	4	200	349	1	010973800	178,677
38,25	4	200	349	1	010973825	196,660
38,5	4	200	349	1	010973850	178,677
38,75	4	200	349	1	010973875	196,660
39	4	200	349	1	010973900	178,677
39,25	4	200	349	1	010973925	196,660
39,5	4	200	349	1	010973950	178,677
39,75	4	200	349	1	010973975	196,660
40	4	200	349	1	010974000	178,677

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
40,5	4	205	354	1	010974050	214,653
41	4	205	354	1	010974100	214,653
41,5	4	205	354	1	010974150	220,640
42	4	205	354	1	010974200	220,640
42,5	4	205	354	1	010974250	220,640
43	4	210	359	1	010974300	220,640
43,5	4	210	359	1	010974350	220,640
44	4	210	359	1	010974400	230,242
44,5	4	210	359	1	010974450	230,242
45	4	210	359	1	010974500	241,029
45,5	4	215	364	1	010974550	241,029
46	4	215	364	1	010974600	241,029
46,5	4	215	364	1	010974650	241,029
47	4	215	364	1	010974700	266,219
47,5	4	215	364	1	010974750	266,219
48	4	220	369	1	010974800	266,219
48,5	4	220	369	1	010974850	292,595
49	4	220	369	1	010974900	292,595
49,5	4	220	369	1	010974950	302,186
50	4	220	369	1	010975000	302,186
50,5	4	225	374	1	010975050	360,946
51	5	225	412	1	010975100	360,946
52	5	225	412	1	010975200	360,946
53	5	225	412	1	010975300	360,946
54	5	230	417	1	010975400	440,095
55	5	230	417	1	010975500	440,095
56	5	230	417	1	010975600	506,051
57	5	235	422	1	010975700	506,051
58	5	235	422	1	010975800	506,051
59	5	235	422	1	010975900	506,051
60	5	235	422	1	010976000	506,051
61	5	240	427	1	010976100	667,931
62	5	240	427	1	010976200	667,931
63	5	240	427	1	010976300	667,931
64	5	245	432	1	010976400	667,931
65	5	245	432	1	010976500	667,931
66	5	245	432	1	010976600	849,003
67	5	245	432	1	010976700	849,003
68	5	250	437	1	010976800	849,003
69	5	250	437	1	010976900	849,003
70	5	250	437	1	010977000	1145,201
71	5	250	437	1	010977100	1187,165
72	5	255	442	1	010977200	1248,331
73	5	255	442	1	010977300	1295,097
74	5	255	442	1	010977400	1370,643
75	5	255	442	1	010977500	1395,821
76	5	260	447	1	010977600	1518,143
77	6	260	514	1	010977700	1566,105
78	6	260	514	1	010977800	1615,275
79	6	260	514	1	010977900	1688,416
80	6	260	514	1	010978000	1737,586
81	6	265	519	1	010978100	1835,917
82	6	265	519	1	010978200	1859,898
83	6	265	519	1	010978300	1933,049
84	6	265	519	1	010978400	1933,049
85	6	265	519	1	010978500	1958,228
86	6	270	524	1	010978600	2007,398
87	6	270	524	1	010978700	2031,378
88	6	270	524	1	010978800	2080,549
89	6	270	524	1	010978900	2129,708
90	6	270	524	1	010979000	2129,708
91	6	275	529	1	010979100	2299,993
92	6	275	529	1	010979200	2398,322
93	6	275	529	1	010979300	2422,304
94	6	275	529	1	010979400	2422,304
95	6	275	529	1	010979500	2471,474
96	6	280	534	1	010979600	2542,220
97	6	280	534	1	010979700	2593,785
98	6	280	534	1	010979800	2642,955
99	6	280	534	1	010979900	2834,815
100	6	280	534	1	0109710000	4032,779

PUNTE ELICOIDALI CODOLO CONICO MORSE, SERIE LUNGA, ESECUZIONE FRESATA

Cobalt long straight shank twist drills / Forets cylindriques série longue au cobalt
Brocas helicoidales serie larga de cobalto / Kobalt Spiralbohrer, lange Ausführung

HSS DIN 341 Fresata / *Milled / Fraisé / Fresada / Gefräst*

01028





HV≃ 820

Confezione / Packaging

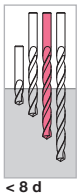


Applicazioni / Applications

R ≤ 800 N/mm²

Acciaio
Steel

Metals



- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm²
- Puor percer métaux et acier avec R ≤ 800 N/mm²
- Para taladrar hierro e acero R ≤ 800 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
8	1	100	181	1	010280800	26,011
8,5	1	100	181	1	010280850	26,821
9	1	107	188	1	010280900	29,787
9,5	1	107	188	1	010280950	29,787
10	1	116	197	1	010281000	30,207
10,25	1	116	197	1	010281025	31,748
10,5	1	116	197	1	010281050	31,748
11	1	125	206	1	010281100	33,064
11,5	1	125	206	1	010281150	35,571
12	1	134	215	1	010281200	37,220
12,25	1	134	215	1	010281225	38,851
12,5	1	134	215	1	010281250	38,851
13	1	134	215	1	010281300	38,851
13,25	1	142	223	1	010281325	42,128
13,5	1	142	223	1	010281350	42,128
14	1	142	223	1	010281400	44,723
14,5	2	147	245	1	010281450	47,183
15	2	147	245	1	010281500	51,992
15,5	2	153	251	1	010281550	54,060
16	2	153	251	1	010281600	54,060
16,5	2	159	257	1	010281650	57,251
17	2	159	257	1	010281700	57,251
17,5	2	165	263	1	010281750	60,431
18	2	165	263	1	010281800	64,686
18,5	2	171	269	1	010281850	67,320
19	2	171	269	1	010281900	67,320
19,5	2	177	275	1	010281950	70,276
20	2	177	275	1	010282000	70,276
20,5	2	184	282	1	010282050	81,662
21	2	184	282	1	010282100	81,662
21,5	2	191	289	1	010282150	89,106
22	2	191	289	1	010282200	89,106
22,5	2	198	296	1	010282250	94,355
23	2	198	296	1	010282300	101,799
23,5	3	198	319	1	010282350	105,087
24	3	206	327	1	010282400	114,385
24,5	3	206	327	1	010282450	118,775
25	3	206	327	1	010282500	125,878
25,5	3	214	335	1	010282550	131,342
26	3	214	335	1	010282600	131,342
26,5	3	214	335	1	010282650	145,421
27	3	222	343	1	010282700	145,421
27,5	3	222	343	1	010282750	149,528
28	3	222	343	1	010282800	149,528
28,5	3	230	351	1	010282850	161,880
29	3	230	351	1	010282900	161,880
29,5	3	230	351	1	010282950	170,104
30	3	230	351	1	010283000	170,104
31	3	239	360	1	010283100	192,057
32	4	248	397	1	010283200	212,634
33	4	248	397	1	010283300	238,703
34	4	257	406	1	010283400	255,161
35	4	257	406	1	010283500	260,654
35,5	4	267	416	1	010283550	287,143
36	4	267	416	1	010283600	288,090
36,5	4	267	416	1	010283650	297,778
37	4	267	416	1	010283700	297,690
37,5	4	267	416	1	010283750	313,731
38	4	277	426	1	010283800	312,783
39	4	277	426	1	010283900	340,219
40	4	277	426	1	010284000	351,195
41	4	287	436	1	010284100	382,747
42	4	287	436	1	010284200	403,323
43	4	298	447	1	010284300	445,852
44	4	298	447	1	010284400	455,453
45	4	298	447	1	010284500	488,381
46	4	310	459	1	010284600	499,346
47	4	310	459	1	010284700	519,923
48	4	321	470	1	010284800	563,828
49	4	321	470	1	010284900	577,546
50	4	321	470	1	010285000	584,404

PUNTE ELICOIDALI CODOLO CONICO MORSE CON FORI DI LUBROREFRIGERAZIONE

Morse taper shank twist drills with internal coolant / Forets a queue conique Morse avec trous réfrigérants
Brocas helicoidales con mango conico / Spiralbohrer mit Morsekegel mit Schmierloch

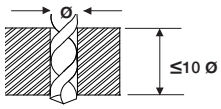
HSS DIN 341 Fresata / *Milled / Fraisé / Fresada / Gefräst*

01069





AISI M2
HV≃ 820

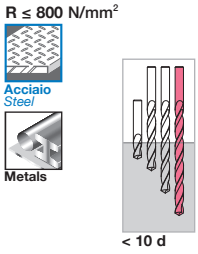


Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
10	2	116	233	1	010691000	278,815
11	2	125	242	1	010691100	307,259
12	2	134	251	1	010691200	298,549
13	2	134	251	1	010691300	295,334
14	2	142	259	1	010691400	309,970
15	2	147	264	1	010691500	359,414
16	2	153	270	1	010691600	367,475
17	2	159	276	1	010691700	377,150
18	2	165	282	1	010691800	386,357
19	3	171	307	1	010691900	536,406
20	3	177	313	1	010692000	544,915
21	3	184	320	1	010692100	558,976
22	3	191	327	1	010692200	551,401
23	3	198	334	1	010692300	650,348
24	3	206	342	1	010692400	646,458
25	3	206	342	1	010692500	696,062
26	3	214	335	1	010692600	696,062
27	3	222	343	1	010692700	842,383
28	3	222	343	1	010692800	837,556
29	3	230	351	1	010692900	915,387
30	3	230	351	1	010693000	887,213
32	4	248	397	1	010693200	986,419

Confezione / *Packaging*



Applicazioni / Applications





- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite, taglio di lamierini in pacchi. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm²
- Puor percer métaux et acier avec R ≤ 800 N/mm²
- Para taladrar hierro e acero R ≤ 800 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

PUNTE ELICOIDALI CODOLO CONICO MORSE, SERIE EXTRA LUNGA, ESECUZIONE FRESATA

Morse taper shank twist drills, extra long serie / Forets à queue conique Morse, série extra longue
Brocas helicoidales con mango conico, serie extra larga / Spiralbohrer mit Morsekegel, extra lange Ausführung

HSS DIN 1870/1 Fresata / *Milled / Fraisé / Fresada / Gefräst*

01088





HV≃ 820

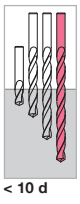
Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
8	1	165	265	1	010880800	82,328
8,5	1	165	265	1	010880850	92,279
9	1	175	275	1	010880900	92,279
9,5	1	175	275	1	010880950	99,516
10	1	185	285	1	010881000	99,516
10,5	1	185	285	1	010881050	113,992
11	1	195	300	1	010881100	113,992
11,5	1	195	300	1	010881150	124,848
12	1	205	310	1	010881200	119,419
12,5	1	205	310	1	010881250	121,229
13	1	205	310	1	010881300	119,419
13,5	1	220	325	1	010881350	133,895
14	1	220	325	1	010881400	133,895
14,5	2	220	340	1	010881450	150,180
15	2	220	340	1	010881500	159,226
15,5	2	230	355	1	010881550	164,080
16	2	230	355	1	010881600	158,842
16,5	2	230	355	1	010881650	160,588
17	2	230	355	1	010881700	178,043
17,5	2	245	370	1	010881750	195,499
18	2	245	370	1	010881800	192,008
18,5	2	245	370	1	010881850	193,753
19	2	245	370	1	010881900	193,753
19,5	2	260	385	1	010881950	216,446
20	2	260	385	1	010882000	211,208
20,5	2	260	385	1	010882050	257,039
21	2	260	385	1	010882100	237,881
21,5	2	270	405	1	010882150	279,390
22	2	270	405	1	010882200	252,250
22,5	2	270	405	1	010882250	304,934
23	2	270	405	1	010882300	288,969
23,5	3	270	425	1	010882350	360,812
24	3	290	440	1	010882400	328,883
24,5	3	290	440	1	010882450	383,164
25	3	290	440	1	010882500	348,041
25,5	3	290	440	1	010882550	415,094
26	3	290	440	1	010882600	373,585
26,5	3	290	440	1	010882650	440,639
27	3	305	460	1	010882700	386,357
27,5	3	305	460	1	010882750	456,604
28	3	305	460	1	010882800	415,094
28,5	3	305	460	1	010882850	488,534
29	3	305	460	1	010882900	440,639
29,5	3	305	460	1	010882950	510,885
30	3	305	460	1	010883000	453,411
31	3	320	480	1	010883100	549,202
32	4	320	505	1	010883200	561,974
33	4	320	505	1	010883300	587,519
34	4	340	530	1	010883400	635,414
35	4	340	530	1	010883500	644,993
36	4	340	530	1	010883600	686,502
37	4	340	530	1	010883700	692,888
38	4	360	555	1	010883800	734,397
39	4	360	555	1	010883900	772,714
40	4	360	555	1	010884000	775,907
41	4	360	555	1	010884100	830,189
42	4	360	555	1	010884200	846,154
43	4	385	585	1	010884300	925,979
44	4	385	585	1	010884400	925,979
45	4	385	585	1	010884500	973,875
46	4	385	585	1	010884600	1021,770
47	4	385	585	1	010884700	1069,666
48	4	405	605	1	010884800	1165,457
49	4	405	605	1	010884900	1213,352
50	4	405	605	1	010885000	1197,387

Confezione / Packaging



Applicazioni / Applications





- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm²
- Puor percer métaux et acier avec R ≤ 800 N/mm²
- Para taladrar hierro e acero R ≤ 800 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

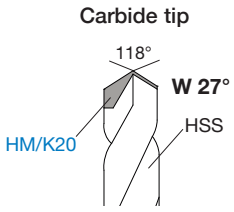
PUNTE ELICOIDALI CODOLO CONICO MORSE CON TAGLIENTI IN METALLO DURO

Morse taper shank twist drills with carbide tips / Forets à queue conique Morse
Brocas helicoidales con mango conico / Spiralbohrer mit Morsekegel

DIN 345 HSS/HM Fresata / *Milled / Fraisé / Fresada / Gefräst*

01213





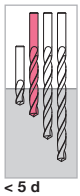
Ø h8	M.K.	/	L	pcs	cod.	€ cad/each
10	1	87	168	1	012131000	90,080
10,5	1	87	168	1	012131050	90,080
11	1	94	175	1	012131100	90,080
11,5	1	94	175	1	012131150	94,055
12	1	101	182	1	012131200	94,055
12,5	1	101	182	1	012131250	100,525
13	1	101	182	1	012131300	100,525
13,5	1	108	189	1	012131350	116,453
14	1	108	189	1	012131400	116,453
14,5	2	114	212	1	012131450	119,435
15	2	114	212	1	012131500	119,435
15,5	2	120	218	1	012131550	124,413
16	2	120	218	1	012131600	124,413
16,5	2	125	223	1	012131650	136,357
17	2	125	223	1	012131700	136,357
17,5	2	130	228	1	012131750	136,357
18	2	130	228	1	012131800	136,357
18,5	2	135	233	1	012131850	144,317
19	2	135	233	1	012131900	144,317
19,5	2	140	238	1	012131950	185,129
20	2	140	238	1	012132000	185,129
20,5	2	145	243	1	012132050	199,061
21	2	145	243	1	012132100	199,061
21,5	2	150	248	1	012132150	204,040
22	2	150	248	1	012132200	204,040
22,5	2	155	253	1	012132250	209,018
23	2	155	253	1	012132300	209,018
23,5	3	155	276	1	012132350	216,978
24	3	160	281	1	012132400	216,978
24,5	3	160	281	1	012132450	228,921
25	3	160	281	1	012132500	228,921
25,5	3	165	286	1	012132550	285,653
26	3	165	286	1	012132600	285,653
26,5	3	165	286	1	012132650	296,603
27	3	170	291	1	012132700	296,603
27,5	3	170	291	1	012132750	312,523
28	3	170	291	1	012132800	312,523
28,5	3	175	296	1	012132850	348,356
29	3	175	296	1	012132900	348,356
29,5	3	175	296	1	012132950	375,226
30	3	175	296	1	012133000	375,226
30,5	3	180	301	1	012133050	393,852
31	3	180	301	1	012133100	393,852
31,5	3	180	301	1	012133150	438,022
32	4	185	334	1	012133200	438,022
32,5	4	185	334	1	012133250	444,463
33	4	185	334	1	012133300	444,463
33,5	4	185	334	1	012133350	454,586
34	4	190	339	1	012133400	454,586
34,5	4	190	339	1	012133450	463,788
35	4	190	339	1	012133500	463,788

Confezione / *Packaging*



Applicazioni / *Applications*





- Taglio di acciai duri con R ≤ 1100 N/mm², acciai per molle, ghisa temperata, molibdeno puro, bronzo duro, materie plastiche termoindurenti con azione abrasiva, materie sintetiche con fibre vetrose,…
- Cut of hard steels R ≤ 1100 N/mm², spring steel, hard cast iron, Mo, hard bronze, abrasive thermosetting plastics, glass fiber reinforced plastics,…
- Pour travaille aciers durs avec R≤ 1100 N/mm², acier pour meule, de fer trempé, de molybdène pur, en bronze, matières plastiques thermodurcissables avec action abrasive, en plastique avec des fibres de verre..
- Para trabajar aceros duro con R≤ 1100 N/mm², aceros de resorte, de hierro fundido templado, molibdeno puro, bronce, plástico termoestable con una acción abrasiva, plásticos con fibras de vidrio

PUNTE ELICOIDALI CILINDRICHE, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA CON ANGOLO AL VERTICE DI 118°

MFully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS-G DIN 338 Rettificata / ***Ground from the solid / Rectifié / Rectificada / Geschliffen*** **118° CLASSIC**

01066







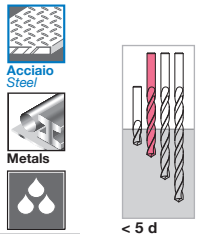
AISI M2
HV≃ 820

Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	010660100	0,698
1,1	14	36	10	010660110	0,698
1,2	16	38	10	010660120	0,698
1,25	16	38	10	010660125	0,698
1,3	16	38	10	010660130	0,698
1,4	18	40	10	010660140	0,698
1,5	18	40	10	010660150	0,698
1,6	20	43	10	010660160	0,698
1,7	20	43	10	010660170	0,698
1,75	22	46	10	010660175	0,698
1,8	22	46	10	010660180	0,698
1,9	22	46	10	010660190	0,698
2	24	49	10	010660200	0,698
2,1	24	49	10	010660210	0,698
2,2	27	53	10	010660220	0,698
2,25	27	53	10	010660225	0,698
2,3	27	53	10	010660230	0,698
2,4	30	57	10	010660240	0,698
2,5	30	57	10	010660250	0,698
2,6	30	57	10	010660260	0,698
2,7	33	61	10	010660270	0,698
2,75	33	61	10	010660275	0,698
2,8	33	61	10	010660280	0,698
2,9	33	61	10	010660290	0,698
3	36	61	10	010660300	0,698
3,1	36	65	10	010660310	0,821
3,2	36	65	10	010660320	0,821
3,25	36	65	10	010660325	0,821
3,3	36	65	10	010660330	0,821
3,4	39	70	10	010660340	0,821
3,5	39	70	10	010660350	0,821
3,6	39	70	10	010660360	0,887
3,7	39	70	10	010660370	0,887
3,75	39	70	10	010660375	0,887
3,8	43	75	10	010660380	0,887
3,9	43	75	10	010660390	0,887
4	43	75	10	010660400	0,887
4,1	43	75	10	010660410	1,131
4,2	43	75	10	010660420	1,131
4,25	43	75	10	010660425	1,131
4,3	47	80	10	010660430	1,131
4,4	47	80	10	010660440	1,131
4,5	47	80	10	010660450	1,131
4,6	47	80	10	010660460	1,419
4,7	47	80	10	010660470	1,419
4,75	47	80	10	010660475	1,419
4,8	52	86	10	010660480	1,419
4,9	52	86	10	010660490	1,419
5	52	86	10	010660500	1,419
5,1	52	86	10	010660510	1,874
5,2	52	86	10	010660520	1,874
5,25	52	86	10	010660525	1,874
5,3	52	86	10	010660530	1,874
5,4	57	93	10	010660540	1,874
5,5	57	93	10	010660550	1,874
5,6	57	93	10	010660560	2,162
5,7	57	93	10	010660570	2,162
5,75	57	93	10	010660575	2,162
5,8	57	93	10	010660580	2,162
5,9	57	93	10	010660590	2,162
6	57	93	10	010660600	2,162
6,1	63	101	10	010660610	2,339
6,2	63	101	10	010660620	2,339
6,25	63	101	10	010660625	2,339
6,3	63	101	10	010660630	2,339
6,4	63	101	10	010660640	2,339
6,5	63	101	10	010660650	2,339

Confezione / Packaging



Applicazioni / Applications



- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm²
- Puor percer métaux et acier avec R ≤ 800 N/mm²
- Para taladrar hierro e acero R ≤ 800 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

Ø h8	/	L	pcs	cod.	€ cad/each
6,6	63	101	10	010660660	2,827
6,7	63	101	10	010660670	2,827
6,75	69	109	10	010660675	2,827
6,8	69	109	10	010660680	2,827
6,9	69	109	10	010660690	2,827
7	69	109	10	010660700	2,827
7,1	69	109	5	010660710	3,316
7,2	69	109	5	010660720	3,316
7,25	69	109	5	010660725	3,316
7,3	69	109	5	010660730	3,316
7,4	69	109	5	010660740	3,316
7,5	69	109	5	010660750	3,316
7,6	75	117	5	010660760	4,180
7,7	75	117	5	010660770	4,180
7,75	75	117	5	010660775	4,180
7,8	75	117	5	010660780	4,180
7,9	75	117	5	010660790	4,180
8	75	117	5	010660800	4,180
8,1	75	117	5	010660810	4,534
8,2	75	117	5	010660820	4,534
8,25	75	117	5	010660825	4,534
8,3	75	117	5	010660830	4,534
8,4	75	117	5	010660840	4,534
8,5	75	117	5	010660850	4,534
8,6	81	125	5	010660860	5,278
8,7	81	125	5	010660870	5,278
8,75	81	125	5	010660875	5,278
8,8	81	125	5	010660880	5,278
8,9	81	125	5	010660890	5,278
9	81	125	5	010660900	5,278
9,1	81	125	5	010660910	5,742
9,2	81	125	5	010660920	5,742
9,25	81	125	5	010660925	5,742
9,3	81	125	5	010660930	5,742
9,4	81	125	5	010660940	5,742
9,5	81	125	5	010660950	5,742
9,6	87	133	5	010660960	6,463
9,7	87	133	5	010660970	6,463
9,75	87	133	5	010660975	6,463

Ø h8	/	L	pcs	cod.	€ cad/each
9,8	87	133	5	010660980	6,463
9,9	87	133	5	010660990	6,463
10	87	133	5	010661000	6,463
10,1	87	133	5	010661010	7,207
10,2	87	133	5	010661020	7,207
10,25	87	133	5	010661025	7,207
10,3	87	133	5	010661030	7,207
10,4	87	133	5	010661040	7,207
10,5	87	133	5	010661050	7,207
10,6	87	133	5	010661060	8,094
10,7	94	142	5	010661070	8,094
10,75	94	142	5	010661075	8,094
10,8	94	142	5	010661080	8,094
10,9	94	142	5	010661090	8,094
11	94	142	5	010661100	8,094
11,1	94	142	5	010661110	8,814
11,2	94	142	5	010661120	8,814
11,25	94	142	5	010661125	8,814
11,3	94	142	5	010661130	8,814
11,4	94	142	5	010661140	8,814
11,5	94	142	5	010661150	8,814
11,6	94	142	5	010661160	10,167
11,7	94	142	5	010661170	10,167
11,75	94	142	5	010661175	10,167
11,8	94	142	5	010661180	10,167
11,9	101	151	5	010661190	10,167
12	101	151	5	010661200	10,167
12,1	101	151	5	010661210	11,120
12,2	101	151	5	010661220	11,120
12,25	101	151	5	010661225	11,120
12,3	101	151	5	010661230	11,120
12,4	101	151	5	010661240	11,120
12,5	101	151	5	010661250	11,120
12,6	101	151	5	010661260	12,051
12,7	101	151	5	010661270	12,051
12,75	101	151	5	010661275	12,051
12,8	101	151	5	010661280	12,051
12,9	101	151	5	010661290	12,051
13	101	151	5	010661300	12,051



19 pcs
Ø 1÷10 x 0,5 mm

01068431
€ 44,868

25 pcs
Ø 1÷13 x 0,5 mm

01068432
€ 99,438



19 pcs
Ø 1÷10 x 0,5 mm

01068311
€ 52,830

25 pcs
Ø 1÷13 x 0,5 mm

01068312
€ 105,813



37 pcs
Ø 1÷10 x 0,25 mm

01068413
€ 100,219



49 pcs
Ø 1÷13 x 0,25 mm

01068414
€ 225,570



Metal 330x240x55

150 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

01068460 € 272,528

PUNTE ELICOIDALI CILINDRICHE, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE EXTRA CORTA CON ANGOLO AL VERTICE DI 118°

Fully ground straight shank twist drills, stub serie / Forets cylindriques rectifiés, série extra courte
Braocas helicoidales rectificadas, serie extra corta / Geschliffene Spiralbohrer, extra kurz

HSS-G DIN 1897 Rettificata / *Ground from the solid / Rectifié / Rectificada / Geschliffen*

01022

NEW







AISI M2
HV≃ 820

Ø h8	/	L	pcs	cod.	€ cad/each
2,5	14	43	10	010220250	0,874
3	16	46	10	010220300	1,085
3,2	18	49	10	010220320	1,191
3,25	18	49	10	010220325	1,191
3,5	20	52	10	010220350	1,191
3,7	20	52	10	010220370	1,317
3,75	20	52	10	010220375	1,317
4	22	55	10	010220400	1,317
4,2	22	55	10	010220420	1,644
4,25	22	55	10	010220425	1,644
4,5	24	58	10	010220450	1,496
5	26	62	10	010220500	1,559
5,5	28	66	10	010220550	2,064
6	28	66	10	010220600	2,308

- Taglio dei materiali con R≤800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R≤800 N/mm² Pour percer métaux et acier avec R≤800 N/mm²
- Para taladrar hierro y acero R≤800 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R≤800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe.

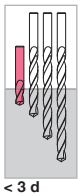
Confezione / Packaging



Applicazioni / Applications

R ≤ 800 N/mm²





PUNTE ELICOIDALI CILINDRICHE CON RIVESTIMENTO AL NITRURO DI TITANIO SUI TAGLIENTI E CON ANGOLO AL VERTICE DI 118° *TiN coated twist drills / Forets cylindriques au nitrure de titan*

Brocas helicoidales con recubrimiento de titanio / Geschliffene Spiralbohrer, TiN-beschichtet

HSS-G DIN 338 Rivestita al Titanio sui taglienti / *Titanium coated / Titan / Titanio / TiN-beschichtet* 118° TiN

01320





HV 0,05 ≃ 2500
AISI M2
SPLIT POINT
DIN 1412 C
(Ø≥2,5 mm)

01160 — 90

Rivestimento TiN
TiN coating — 447

Ø h8	/	L	pcs	cod.	€ cad/each	Ø h8	/	L	pcs	cod.	€ cad/each
2	24	49	10	013200200	1,325	4,3	47	80	10	013200430	2,649
2,1	24	49	10	013200210	1,325	4,4	47	80	10	013200440	2,649
2,2	27	53	10	013200220	1,325	4,5	47	80	10	013200450	2,649
2,25	27	53	10	013200225	1,325	4,6	47	80	10	013200460	3,014
2,3	27	53	10	013200230	1,325	4,7	47	80	10	013200470	3,014
2,4	30	57	10	013200240	1,325	4,75	47	80	10	013200475	3,014
2,5	30	57	10	013200250	1,325	4,8	52	86	10	013200480	3,014
2,6	30	57	10	013200260	1,565	4,9	52	86	10	013200490	3,014
2,7	33	61	10	013200270	1,565	**5**	52	86	10	013200500	3,014
2,75	33	61	10	013200275	1,565	5,1	52	86	10	013200510	3,688
2,8	33	61	10	013200280	1,565	5,2	52	86	10	013200520	3,688
2,9	33	61	10	013200290	1,565	5,25	52	86	10	013200525	3,688
3	33	61	10	013200300	1,565	5,3	52	86	10	013200530	3,688
3,1	36	65	10	013200310	1,782	5,4	57	93	10	013200540	3,688
3,2	36	65	10	013200320	1,782	5,5	57	93	10	013200550	3,688
3,25	36	65	10	013200325	1,782	5,6	57	93	10	013200560	4,088
3,3	36	65	10	013200330	1,782	5,7	57	93	10	013200570	4,088
3,4	39	70	10	013200340	1,782	5,75	57	93	10	013200575	4,088
3,5	39	70	10	013200350	1,782	5,8	57	93	10	013200580	4,088
3,6	39	70	10	013200360	2,079	5,9	57	93	10	013200590	4,088
3,7	39	70	10	013200370	2,079	**6**	57	93	10	013200600	4,088
3,75	39	70	10	013200375	2,079	6,1	63	101	10	013200610	4,807
3,8	43	75	10	013200380	2,079	6,2	63	101	10	013200620	4,807
3,9	43	75	10	013200390	2,079	6,25	63	101	10	013200625	4,807
4	43	75	10	013200400	2,079	6,3	63	101	10	013200630	4,807
4,1	43	75	10	013200410	2,649	6,4	63	101	10	013200640	4,807
4,2	43	75	10	013200420	2,649	6,5	63	101	10	013200650	4,807
4,25	43	75	10	013200425	2,649	6,6	63	101	10	013200660	5,413

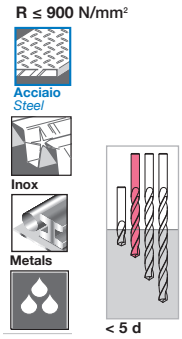
01320

Ø h8	/	L	pcs	cod.	€ cad/each	Ø h8	/	L	pcs	cod.	€ cad/each
6,7	63	101	10	013200670	5,413	9,9	87	133	5	013200990	12,208
6,75	69	109	10	013200675	5,413	**10**	87	133	5	013201000	12,208
6,8	69	109	10	013200680	5,413	10,1	87	133	5	013201010	13,464
6,9	69	109	10	013200690	5,413	10,2	87	133	5	013201020	13,464
7	69	109	10	013200700	5,413	10,25	87	133	5	013201025	13,464
7,1	69	109	5	013200710	6,292	10,3	87	133	5	013201030	13,464
7,2	69	109	5	013200720	6,292	10,4	87	133	5	013201040	13,464
7,25	69	109	5	013200725	6,292	10,5	87	133	5	013201050	13,464
7,3	69	109	5	013200730	6,292	10,6	87	133	5	013201060	14,742
7,4	69	109	5	013200740	6,292	10,7	94	142	5	013201070	14,742
7,5	69	109	5	013200750	6,292	10,75	94	142	5	013201075	14,742
7,6	75	117	5	013200760	7,640	10,8	94	142	5	013201080	14,742
7,7	75	117	5	013200770	7,640	10,9	94	142	5	013201090	14,742
7,75	75	117	5	013200775	7,640	**11**	94	142	5	013201100	14,742
7,8	75	117	5	013200780	7,640	11,1	94	142	5	013201110	15,988
7,9	75	117	5	013200790	7,640	11,2	94	142	5	013201120	15,988
8	75	117	5	013200800	7,640	11,25	94	142	5	013201125	15,988
8,1	75	117	5	013200810	9,044	11,3	94	142	5	013201130	15,988
8,2	75	117	5	013200820	9,044	11,4	94	142	5	013201140	15,988
8,25	75	117	5	013200825	9,044	11,5	94	142	5	013201150	15,988
8,3	75	117	5	013200830	9,044	11,6	94	142	5	013201160	17,666
8,4	75	117	5	013200840	9,044	11,7	94	142	5	013201170	17,666
8,5	75	117	5	013200850	9,044	11,75	94	142	5	013201175	17,666
8,6	81	125	5	013200860	9,900	11,8	94	142	5	013201180	17,666
8,7	81	125	5	013200870	9,900	11,9	101	151	5	013201190	17,666
8,75	81	125	5	013200875	9,900	**12**	101	151	5	013201200	17,666
8,8	81	125	5	013200880	9,900	12,1	101	151	5	013201210	19,550
8,9	81	125	5	013200890	9,900	12,2	101	151	5	013201220	19,550
9	81	125	5	013200900	9,900	12,25	101	151	5	013201225	19,550
9,1	81	125	5	013200910	10,986	12,3	101	151	5	013201230	19,550
9,2	81	125	5	013200920	10,986	12,4	101	151	5	013201240	19,550
9,25	81	125	5	013200925	10,986	12,5	101	151	5	013201250	19,550
9,3	81	125	5	013200930	10,986	12,6	101	151	5	013201260	21,378
9,4	81	125	5	013200940	10,986	12,7	101	151	5	013201270	21,378
9,5	81	125	5	013200950	10,986	12,75	101	151	5	013201275	21,378
9,6	87	133	5	013200960	12,082	12,8	101	151	5	013201280	21,378
9,7	87	133	5	013200970	12,082	12,9	101	151	5	013201290	21,378
9,75	87	133	5	013200975	12,082	**13**	101	151	5	013201300	21,378
9,8	87	133	5	013200980	12,208						

Confezione / *Packaging*



Applicazioni / *Applications*



- Rendimenti elevati e maggiore durata dei taglienti nella foratura degli acciai legati, nelle ghise e nei metalli in genere.
- High level of performances in cutting alloy steel, cast iron, metals up to R ≤ 900 N/mm²
- Pour percer métaux et acier allié avec R ≤ 900 N/mm²
- Para taladrar acero aleado con elevada velocidad de corte R ≤ 900 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis zu einer Zug-Festigkeit von R ≤ 900 N/mm² , Temperguss, Sintereisen, Aluminium legiert und unlegiert, Kupfer, Bronze.



19 pcs
Ø 1÷10 x 0,5 mm
Ø 1÷1,5 mm art. 01160

01170311
€ 111,614

25 pcs
Ø 1÷13 x 0,5 mm
Ø 1÷1,5 mm art. 01160

01170312
€ 224,189



Metal 330x240x55

116 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	3
1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

Ø 1÷1,5 mm art. 01160

01170452 € 399,129

PUNTE ELICOIDALI CILINDRICHE IN METALLO DURO INTEGRALE PER CENTRI DI LAVORO CNC

Tungsten carbide drill bits for CNC / Forets en carbure pour CNC
Broca de metal duro para CNC / Hartmetall Spiralbohrer für CNC

VHM ≃ DIN 338 / *Metallo duro / Carbide / Carbure / Metal duro / Hartmetall*

Serie corta
Short serie

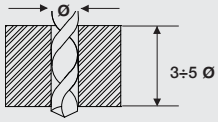
Carbide

01089





Metallo duro
Solid Carbide

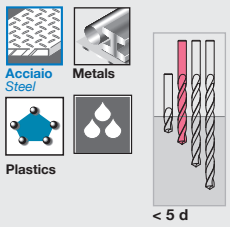


Rivestimento TiAlN disponibile su richiesta (art. n. 01308)
TiAlN coating available on demand (code n. 01308)

Confezione / Packaging



Applicazioni / Applications



- Taglio di ghisa, acciai duri al manganese, bronzi e metalli abrasivi, plastiche rinforzate con fibre.
- Suitable for cutting into cast iron, Mn hard steel, bronzes, abrasive materials, fiber reinforced plastics.

Ø h7	/	L	pcs	cod.	€ cad/each
1	12	34	1	010890100	6,865
1,1	14	36	1	010890110	7,956
1,2	16	38	1	010890120	8,302
1,3	16	38	1	010890130	8,072
1,4	18	40	1	010890140	8,018
1,5	18	40	1	010890150	7,610
1,6	20	43	1	010890160	7,726
1,7	20	43	1	010890170	8,417
1,8	22	46	1	010890180	8,480
1,9	22	46	1	010890190	8,594
2	24	49	1	010890200	11,415
2,1	24	49	1	010890210	12,284
2,2	27	53	1	010890220	13,146
2,3	27	53	1	010890230	12,976
2,4	30	57	1	010890240	14,475
2,5	30	57	1	010890250	14,822
2,6	30	57	1	010890260	15,398
2,7	33	61	1	010890270	17,411
2,8	33	61	1	010890280	16,950
2,9	33	61	1	010890290	16,950
3	33	61	1	010890300	16,834
3,1	36	65	1	010890310	19,140
3,2	36	65	1	010890320	18,510
3,3	36	65	1	010890330	18,510
3,4	39	70	1	010890340	20,471
3,5	39	70	1	010890350	20,294
3,6	39	70	1	010890360	21,792
3,7	39	70	1	010890370	21,970
3,8	43	75	1	010890380	23,585
3,9	43	75	1	010890390	23,982
4	43	75	1	010890400	24,392
4,1	43	75	1	010890410	24,738
4,2	43	75	1	010890420	24,675
4,3	47	80	1	010890430	27,789
4,4	47	80	1	010890440	27,850
4,5	47	80	1	010890450	28,710
4,6	47	80	1	010890460	28,888
4,7	47	80	1	010890470	29,633
4,8	52	86	1	010890480	33,784
4,9	52	86	1	010890490	34,653
5	52	86	1	010890500	33,554
5,1	52	86	1	010890510	38,468
5,2	52	86	1	010890520	36,728
5,3	52	86	1	010890530	37,075
5,4	57	93	1	010890540	41,394
5,5	57	93	1	010890550	40,302
5,6	57	93	1	010890560	41,740
5,7	57	93	1	010890570	44,506
5,8	57	93	1	010890580	43,124
5,9	57	93	1	010890590	44,223
6	57	93	1	010890600	42,432
6,1	63	101	1	010890610	51,142
6,2	63	101	1	010890620	50,911
6,3	63	101	1	010890630	51,425
6,4	63	101	1	010890640	54,999
6,5	63	101	1	010890650	53,731
6,6	63	101	1	010890660	54,885
6,7	63	101	1	010890670	55,754
6,8	69	109	1	010890680	61,750
6,9	69	109	1	010890690	71,084
7	69	109	1	010890700	61,865
7,1	69	109	1	010890710	63,762
7,2	69	109	1	010890720	70,912
7,3	69	109	1	010890730	71,897
7,4	69	109	1	010890740	70,282
7,5	69	109	1	010890750	69,298
7,6	75	117	1	010890760	79,852
7,7	75	117	1	010890770	80,429
7,8	75	117	1	010890780	78,061
7,9	75	117	1	010890790	79,098
8	75	117	1	010890800	76,739
8,1	75	117	1	010890810	89,822
8,2	75	117	1	010890820	88,962
8,3	75	117	1	010890830	89,654
8,4	75	117	1	010890840	89,768
8,5	75	117	1	010890850	87,002
8,6	81	125	1	010890860	113,925
8,7	81	125	1	010890870	104,528
8,8	81	125	1	010890880	103,835
8,9	81	125	1	010890890	106,079
9	81	125	1	010890900	101,184
9,1	81	125	1	010890910	107,118
9,2	81	125	1	010890920	116,111
9,3	81	125	1	010890930	115,135
9,4	81	125	1	010890940	116,688
9,5	81	125	1	010890950	112,714
9,6	87	133	1	010890960	125,912
9,7	87	133	1	010890970	125,220
9,8	87	133	1	010890980	122,107
9,9	87	133	1	010890990	124,758
10	87	133	1	010891000	119,570
10,2	87	133	1	010891020	141,248
10,5	87	133	1	010891050	139,863
10,8	94	142	1	010891080	174,829
11	94	142	1	010891100	162,410
11,5	94	142	1	010891150	178,375
12	101	151	1	010891200	201,037

Caratteristiche del metallo duro
Features of hard metal
Caractéristiques du metal dur
Caracteristicas del metal duro

Il metallo duro è un prodotto sinterizzato costituito principalmente da WC e Co in proporzioni variabili. Da questa proporzione dipendono le caratteristiche specifiche dell'utensile: la qualità a grana fine K20 che usiamo per i nostri prodotti è composta dal 94% di WC e dal restante 6% di Co e presenta una resistenza a rottura di 2200 MPa e una durezza di 91.9 HVA. Tale prodotto è caratterizzato da un'ottima resistenza a usura e da una discreta resistenza a flessione anche se, naturalmente, si consiglia di evitare qualsiasi urto o eccessivo sforzo flettente. Vista l'elevata durezza, l'utensile è infatti discretamente fragile e sensibile a condizioni di lavoro non omogenee. Si consideri poi che il metallo duro è mediamente rigido il doppio rispetto all'acciaio superrapido: pertanto, con punte in metallo duro, si producono di norma fori molto più cilindrici.

The hard metal is produced by sintering of WC and Co powders. The main features of the product depend on the content of these 2 components: we chose K20 fine grain type, which means 94% WC and 6% Co, with 2200 MPa resistance and 91.9 HVA hardness. This product has an excellent wear resistance and a good bending resistance. By the way, it's recommended to avoid any accidental crash, because the product is very hard and thus fragile. The hard metal stiffness is quite double comparing to the high speed steel one: you can drill "very cylindrical" holes with an hard metal tool.

Le métal dur est un produit fritté constitué principalement de WC et Co en proportions variables. C'est de ces proportions que dépendent les caractéristiques spécifiques de l'outil : la qualité à grain fin K20 que nous utilisons pour nos produits est composée de 94% de WC et du restant 6% de Co et présente une résistance à la rupture de 2200 MPa et une dureté de 91,9 HVA. Ce produit se distingue par une excellente résistance à l'usure et à une résistance correcte à la flexion même si, naturellement, nous conseillons d'éviter tout choc ou effort de flexion excessif. Étant donnée la dureté élevée, l'outil est en fait assez fragile et sensible aux conditions de travail non homogènes. Il faut aussi considérer que le métal dur est en moyenne deux fois plus rigide que l'acier super rapide : de fait, des trous bien plus cylindriques sont produits en général avec des forets en métal dur.

El metal duro es un producto sinterizado constituido principalmente por WC y Co en proporciones variables. De esta proporción dependen las características específicas del utensilio: el tipo de grano fino K20 que usamos para nuestros productos está formado por el 94% de WC y por el restante 6% de Co; y presenta una resistencia a la ruptura de 2200 MPa y una dureza de 91.9 HVA. Este producto se caracteriza por una óptima resistencia al desgaste y por una discreta resistencia a la flexión aunque, naturalmente, se aconseja evitar cualquier golpe o excesivo esfuerzo de flexión. Considerada la elevada dureza, el utensilio es bastante frágil y sensible en condiciones de trabajo no homogéneas. Hay que considerar que el metal duro es medianamente el doble de rígido con respecto al acero super rápido: por tanto, con puntas de metal duro, normalmente se realizan orificios mucho más cilíndricos.

PUNTE ELICOIDALI CILINDRICHE IN METALLO DURO INTEGRALE PER CENTRI DI LAVORO CNC

Tungsten carbide drill bits for CNC / Forets en carbure pour CNC
Broca de metal duro para CNC / Hartmetall Spiralbohrer für CNC

Serie extra corta
Extra short series

01119

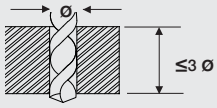
Carbide

VHM DIN 1897/6539 / *Metallo duro / Carbide / Carbure / Metal duro / Hartmetall*





Metallo duro
Solid Carbide



Rivestimento TiAlN disponibile su richiesta (art. n. 01309)
TiAlN coating available on demand (code n. 01309)

Ø h7	/	L	pcs	cod.	€ cad/each	Ø h7	/	L	pcs	cod.	€ cad/each
0,5	6	26	1	011190050	11,483	**6**	28	66	1	011190600	32,711
0,6	6	26	1	011190060	10,602	6,1	31	70	1	011190610	39,024
0,7	6	26	1	011190070	9,744	6,2	31	70	1	011190620	39,449
0,8	6	26	1	011190080	8,764	6,3	31	70	1	011190630	39,636
0,9	6	26	1	011190090	8,397	6,4	31	70	1	011190640	41,842
1	6	26	1	011190100	5,824	6,5	31	70	1	011190650	41,041
1,1	7	28	1	011190110	6,983	6,6	31	70	1	011190660	42,143
1,2	8	30	1	011190120	6,804	6,7	31	70	1	011190670	42,945
1,3	8	30	1	011190130	6,682	6,8	34	74	1	011190680	46,677
1,4	9	32	1	011190140	6,616	6,9	34	74	1	011190690	53,200
1,5	9	32	1	011190150	7,284	**7**	34	74	1	011190700	46,253
1,6	10	34	1	011190160	7,063	7,1	34	74	1	011190710	48,580
1,7	10	34	1	011190170	6,616	7,2	34	74	1	011190720	53,782
1,8	11	36	1	011190180	6,860	7,3	34	74	1	011190730	54,461
1,9	11	36	1	011190190	6,860	7,4	34	74	1	011190740	53,660
2	12	38	1	011190200	10,169	7,5	34	74	1	011190750	52,623
2,1	12	38	1	011190210	10,904	7,6	36	79	1	011190760	57,581
2,2	13	40	1	011190220	11,638	7,7	36	79	1	011190770	57,825
2,3	13	40	1	011190230	11,582	7,8	36	79	1	011190780	56,845
2,4	14	43	1	011190240	12,496	7,9	36	79	1	011190790	57,891
2,5	14	43	1	011190250	12,808	**8**	36	79	1	011190800	55,376
2,6	14	43	1	011190260	13,230	8,1	36	79	1	011190810	57,645
2,7	16	46	1	011190270	14,946	8,2	36	79	1	011190820	60,342
2,8	16	46	1	011190280	14,400	8,3	36	79	1	011190830	61,378
2,9	16	46	1	011190290	14,522	8,4	36	79	1	011190840	61,623
3	16	46	1	011190300	14,400	8,5	36	79	1	011190850	59,418
3,1	18	49	1	011190310	16,361	8,6	40	84	1	011190860	78,479
3,2	18	49	1	011190320	15,993	8,7	40	84	1	011190870	74,364
3,3	18	49	1	011190330	16,237	8,8	40	84	1	011190880	73,572
3,4	20	52	1	011190340	17,151	8,9	40	84	1	011190890	74,675
3,5	20	52	1	011190350	16,907	**9**	40	84	1	011190900	71,734
3,6	20	52	1	011190360	18,499	9,1	40	84	1	011190910	74,364
3,7	20	52	1	011190370	18,377	9,2	40	84	1	011190920	82,449
3,8	22	55	1	011190380	19,725	9,3	40	84	1	011190930	82,572
3,9	22	55	1	011190390	19,847	9,4	40	84	1	011190940	83,864
4	22	55	1	011190400	20,159	9,5	40	84	1	011190950	80,857
4,1	22	55	1	011190410	20,704	9,6	43	89	1	011190960	88,575
4,2	22	55	1	011190420	20,336	9,7	43	89	1	011190970	88,886
4,3	24	58	1	011190430	21,995	9,8	43	89	1	011190980	87,595
4,4	24	58	1	011190440	21,995	9,9	43	89	1	011190990	89,922
4,5	24	58	1	011190450	22,608	**10**	43	89	1	011191000	85,211
4,6	24	58	1	011190460	23,343	10,2	43	89	1	011191020	97,463
4,7	24	58	1	011190470	23,400	10,5	43	89	1	011191050	97,584
4,8	26	62	1	011190480	26,829	10,8	47	95	1	011191080	101,561
4,9	26	62	1	011190490	27,385	**11**	47	95	1	011191100	111,183
5	26	62	1	011190500	26,340	11,5	47	95	1	011191150	133,046
5,1	26	62	1	011190510	30,095	**12**	51	102	1	011191200	147,381
5,2	26	62	1	011190520	28,857	12,5	51	102	1	011191250	150,754
5,3	26	62	1	011190530	29,223	**13**	51	102	1	011191300	165,456
5,4	28	66	1	011190540	32,588	13,5	54	107	1	011191350	219,006
5,5	28	66	1	011190550	31,306	**14**	54	107	1	011191400	190,080
5,6	28	66	1	011190560	32,286	14,5	56	111	1	011191450	252,485
5,7	28	66	1	011190570	33,511	**15**	56	111	1	011191500	205,272
5,8	28	66	1	011190580	33,511	15,5	58	115	1	011191550	340,291
5,9	28	66	1	011190590	33,757	**16**	58	115	1	011191600	255,010

PUNTE A CENTRARE IN METALLO DURO INTEGRALE PER CENTRI DI LAVORO CNC

Solid carbide center drills for CNC / Forets à centrer en carbure pour CNC
Brocas de puntear CNC en metal duro integral / Hartmetall Zentrierbohrer für CNC

01361
01363

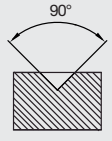
VHM *Metallo duro / Carbide / Carbure / Metal duro / Hartmetall*

01361





Metallo duro
Solid Carbide



01363





Metallo duro
Solid Carbide



Ø h7	/	L	pcs	cod. 90°	€ cad/each	cod. 120°	€ cad/each
5	10	50	1	013610500	37,560	013630500	37,560
6	15	50	1	013610600	48,827	013630600	48,827
8	20	63	1	013610800	67,606	013630800	67,606
10	22	72	1	013611000	93,890	013631000	93,890
12	22	73	1	013611200	150,230	013631200	150,230
14	25	75	1	013611400	202,558	013631400	202,558
16	25	82	1	013611600	262,902	013631600	262,902
20	30	104	1	013612000	450,691	013632000	450,691

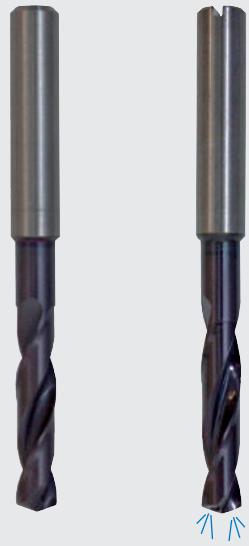
PUNTE IN METALLO DURO INTEGRALE RIVESTITE TiAlN CON GAMBO RINFORZATO, SERIE CORTA DIN 6537K

TiAlN coated tungsten carbide drill bits with reinforced shank, short serie DIN 6537K /Forets en carbure, série courte DIN 6537K, avec TiAlN
Broca de metal duro, serie corta DIN 6537K con TiAlN / Hartmetall Spiralbohrer, kurz Ausführung DIN 6537K, mit TiAlN

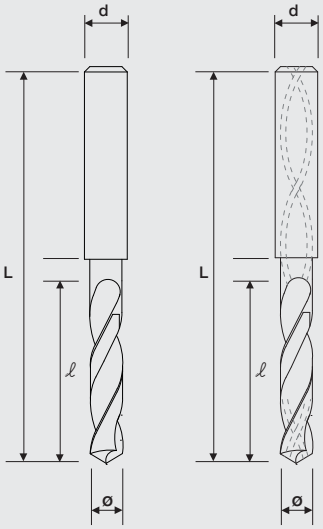
VHM+TiAlN DIN 6537K

Metallo duro / *Carbide / Carbure*
Metal duro / VHM

01368 **01366**



VHM+TiAlN VHM+TiAlN



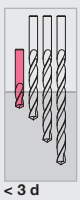
Profondità di foratura
Cutting depth
3 ø

Confezione / Packaging



Applicazioni / Applications





Rivestimento TiAlN
TiAlN coating
447

- Acciai induriti, acciai per lavorazioni a caldo, acciai legati fino a 1200 N/mm^2, acciai dolci, bronzo, ghisa, leghe Al-Si.
- Structural and case hardened steels, cast steels, heat treatable steels, alloyed steels up to 1200 N/mm^2, carbon steels, bronze, cast iron, high alloyed Al-Si alloys.

Ø m7	d h6	/	L	pcs	**Art. 01368** senza fori / *without holes* cod.	€ cad/each	**Art. 01366** con fori / *with holes* cod.	€ cad/each
3	6	20	62	1	013680300	67,548	013660300	80,076
3,1	6	20	62	1	013680310	67,548	013660310	80,076
3,2	6	20	62	1	013680320	67,548	013660320	80,076
3,3	6	20	62	1	013680330	67,548	013660330	80,076
3,4	6	20	62	1	013680340	67,548	013660340	80,076
3,5	6	20	62	1	013680350	67,548	013660350	80,076
3,6	6	20	62	1	013680360	67,548	013660360	80,076
3,7	6	20	62	1	013680370	67,548	013660370	80,076
3,8	6	24	66	1	013680380	67,548	013660380	80,076
3,9	6	24	66	1	013680390	67,548	013660390	80,076
4	6	24	66	1	013680400	67,548	013660400	86,787
4,1	6	24	66	1	013680410	67,548	013660410	86,787
4,2	6	24	66	1	013680420	67,548	013660420	86,787
4,3	6	24	66	1	013680430	67,548	013660430	86,787
4,4	6	24	66	1	013680440	67,548	013660440	86,787
4,5	6	24	66	1	013680450	67,548	013660450	86,787
4,6	6	24	66	1	013680460	67,548	013660460	86,787
4,7	6	28	66	1	013680470	67,548	013660470	86,787
4,8	6	28	66	1	013680480	67,548	013660480	86,787
4,9	6	28	66	1	013680490	67,548	013660490	86,787
5	6	28	66	1	013680500	67,548	013660500	86,787
5,1	6	28	66	1	013680510	67,548	013660510	86,787
5,2	6	28	66	1	013680520	67,548	013660520	86,787
5,3	6	28	66	1	013680530	67,548	013660530	86,787
5,4	6	28	66	1	013680540	67,548	013660540	86,787
5,5	6	28	66	1	013680550	67,548	013660550	86,787
5,6	6	28	66	1	013680560	67,548	013660560	86,787
5,7	6	28	66	1	013680570	67,548	013660570	86,787
5,8	6	28	66	1	013680580	67,548	013660580	86,787
5,9	6	28	66	1	013680590	67,548	013660590	86,787
6	6	28	66	1	013680600	67,548	013660600	86,787
6,1	8	34	79	1	013680610	67,548	013660610	117,750
6,2	8	34	79	1	013680620	67,548	013660620	117,750
6,3	8	34	79	1	013680630	67,548	013660630	117,750
6,4	8	34	79	1	013680640	67,548	013660640	117,750
6,5	8	34	79	1	013680650	67,548	013660650	117,750
6,6	8	34	79	1	013680660	67,548	013660660	117,750
6,7	8	34	79	1	013680670	67,548	013660670	117,750
6,8	8	34	79	1	013680680	67,548	013660680	117,750
6,9	8	34	79	1	013680690	67,548	013660690	117,750
7	8	34	79	1	013680700	67,548	013660700	117,750
7,1	8	41	79	1	013680710	67,548	013660710	117,750
7,2	8	41	79	1	013680720	67,548	013660720	117,750
7,3	8	41	79	1	013680730	67,548	013660730	117,750
7,4	8	41	79	1	013680740	67,548	013660740	117,750
7,5	8	41	79	1	013680750	67,548	013660750	117,750
7,6	8	41	79	1	013680760	67,548	013660760	117,750
7,7	8	41	79	1	013680770	67,548	013660770	117,750
7,8	8	41	79	1	013680780	67,548	013660780	117,750
7,9	8	41	79	1	013680790	67,548	013660790	117,750
8	8	41	79	1	013680800	67,548	013660800	117,750
8,1	10	47	89	1	013680810	75,758	013660810	132,015
8,2	10	47	89	1	013680820	75,758	013660820	132,015
8,3	10	47	89	1	013680830	75,758	013660830	132,015
8,4	10	47	89	1	013680840	75,758	013660840	132,015
8,5	10	47	89	1	013680850	75,758	013660850	132,015
8,6	10	47	89	1	013680860	75,758	013660860	132,015
8,7	10	47	89	1	013680870	75,758	013660870	132,015
8,8	10	47	89	1	013680880	75,758	013660880	132,015
8,9	10	47	89	1	013680890	75,758	013660890	132,015
9	10	47	89	1	013680900	75,758	013660900	132,015
9,1	10	47	89	1	013680910	75,758	013660910	132,015
9,2	10	47	89	1	013680920	75,758	013660920	132,015
9,3	10	47	89	1	013680930	75,758	013660930	132,015
9,4	10	47	89	1	013680940	75,758	013660940	132,015
9,5	10	47	89	1	013680950	75,758	013660950	132,015
9,6	10	47	89	1	013680960	75,758	013660960	132,015
9,7	10	47	89	1	013680970	75,758	013660970	132,015
9,8	10	47	89	1	013680980	75,758	013660980	132,015
10	10	47	89	1	013681000	75,758	013661000	132,015
10,2	12	55	102	1	013681020	112,986	013661020	188,948
10,5	12	55	102	1	013681050	112,986	013661050	188,948
11	12	55	102	1	013681100	112,986	013661100	188,948
11,5	12	55	102	1	013681150	112,986	013661150	188,948
12	12	55	102	1	013681200	112,986	013661200	188,948
12,5	14	60	107	1	013681250	151,634	013661250	264,021
13	14	60	107	1	013681300	151,634	013661300	264,021
13,5	14	60	107	1	013681350	151,634	013661350	264,021
14	14	60	107	1	013681400	151,634	013661400	264,021
14,5	16	65	115	1	013681450	195,599	013661450	322,286
15	16	65	115	1	013681500	195,599	013661500	322,286
15,5	16	65	115	1	013681550	195,599	013661550	322,286
16	16	65	115	1	013681600	195,599	013661600	322,286

PUNTE IN METALLO DURO INTEGRALE RIVESTITE TiAlN CON GAMBO RINFORZATO, SERIE LUNGA DIN 6537L

TiAlN coated tungsten carbide drill bits with reinforced shank, long serie DIN 6537L / Forets en carbure, série longue DIN 6537L, avec TiAlN
Broca de metal duro, serie larga DIN 6537L con TiAlN / Hartmetall Spiralbohrer, lange Ausführung DIN 6537L, mit TiAlN

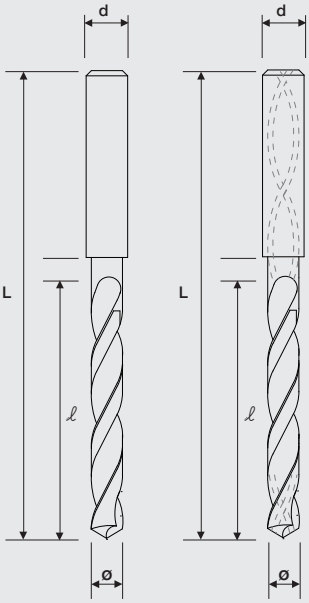
VHM+TiAlN DIN 6537L

Metallo duro / Carbide / Carbure
Metal duro / VHM

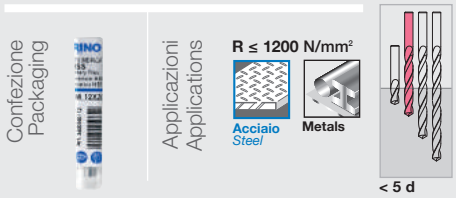
01369 **01367**



VHM+TiAlN **VHM+TiAlN**



Profondità di foratura
Cutting depth
5 ø



- Acciai induriti, acciai per lavorazioni a caldo, acciai legati fino a 1200 N/mm², acciai dolci, bronzo, ghisa, leghe Al-Si.
- Structural and case hardened steels, cast steels, heat treatable steels, alloyed steels up to 1200 N/mm², carbon steels, bronze, cast iron, high alloyed Al-Si alloys.

Ø m7	d h6	/	L	pcs	**Art. 01369** senza fori / *without holes* cod.	€ cad/each	**Art. 01367** con fori / *with holes* cod.	€ cad/each
3	6	28	66	1	013690300	77,240	013670300	103,493
3,1	6	28	66	1	013690310	77,240	013670310	103,493
3,2	6	28	66	1	013690320	77,240	013670320	103,493
3,3	6	28	66	1	013690330	77,240	013670330	103,493
3,4	6	28	66	1	013690340	77,240	013670340	103,493
3,5	6	28	66	1	013690350	77,240	013670350	103,493
3,6	6	28	66	1	013690360	77,240	013670360	103,493
3,7	6	28	66	1	013690370	77,240	013670370	103,493
3,8	6	36	74	1	013690380	77,240	013670380	103,493
3,9	6	36	74	1	013690390	77,240	013670390	103,493
4	6	36	74	1	013690400	77,240	013670400	111,373
4,1	6	36	74	1	013690410	77,240	013670410	111,373
4,2	6	36	74	1	013690420	77,240	013670420	111,373
4,3	6	36	74	1	013690430	77,240	013670430	111,373
4,4	6	36	74	1	013690440	77,240	013670440	111,373
4,5	6	36	74	1	013690450	77,240	013670450	111,373
4,6	6	36	74	1	013690460	77,240	013670460	111,373
4,7	6	44	82	1	013690470	77,240	013670470	111,373
4,8	6	44	82	1	013690480	77,240	013670480	111,373
4,9	6	44	82	1	013690490	77,240	013670490	111,373
5	6	44	82	1	013690500	77,240	013670500	111,373
5,1	6	44	82	1	013690510	77,240	013670510	111,373
5,2	6	44	82	1	013690520	77,240	013670520	111,373
5,3	6	44	82	1	013690530	77,240	013670530	111,373
5,4	6	44	82	1	013690540	77,240	013670540	111,373
5,5	6	44	82	1	013690550	77,240	013670550	111,373
5,6	6	44	82	1	013690560	77,240	013670560	111,373
5,7	6	44	82	1	013690570	77,240	013670570	111,373
5,8	6	44	82	1	013690580	77,240	013670580	111,373
5,9	6	44	82	1	013690590	77,240	013670590	111,373
6	6	44	82	1	013690600	77,240	013670600	111,373
6,1	8	53	91	1	013690610	78,595	013670610	123,026
6,2	8	53	91	1	013690620	78,595	013670620	123,026
6,3	8	53	91	1	013690630	78,595	013670630	123,026
6,4	8	53	91	1	013690640	78,595	013670640	123,026
6,5	8	53	91	1	013690650	78,595	013670650	123,026
6,6	8	53	91	1	013690660	78,595	013670660	123,026
6,7	8	53	91	1	013690670	78,595	013670670	123,026
6,8	8	53	91	1	013690680	78,595	013670680	123,026
6,9	8	53	91	1	013690690	78,595	013670690	123,026
7	8	53	91	1	013690700	78,595	013670700	123,026
7,1	8	53	91	1	013690710	78,595	013670710	123,026
7,2	8	53	91	1	013690720	78,595	013670720	123,026
7,3	8	53	91	1	013690730	78,595	013670730	123,026
7,4	8	53	91	1	013690740	78,595	013670740	123,026
7,5	8	53	91	1	013690750	78,595	013670750	123,026
7,6	8	53	91	1	013690760	78,595	013670760	123,026
7,7	8	53	91	1	013690770	78,595	013670770	123,026
7,8	8	53	91	1	013690780	78,595	013670780	123,026
7,9	8	53	91	1	013690790	78,595	013670790	123,026
8	8	53	91	1	013690800	78,595	013670800	123,026
8,1	10	61	103	1	013690810	86,813	013670810	141,005
8,2	10	61	103	1	013690820	86,813	013670820	141,005
8,3	10	61	103	1	013690830	86,813	013670830	141,005
8,4	10	61	103	1	013690840	86,813	013670840	141,005
8,5	10	61	103	1	013690850	86,813	013670850	141,005
8,6	10	61	103	1	013690860	86,813	013670860	141,005
8,7	10	61	103	1	013690870	86,813	013670870	141,005
8,8	10	61	103	1	013690880	86,813	013670880	141,005
8,9	10	61	103	1	013690890	86,813	013670890	141,005
9	10	61	103	1	013690900	86,813	013670900	141,005
9,1	10	61	103	1	013690910	86,813	013670910	141,005
9,2	10	61	103	1	013690920	86,813	013670920	141,005
9,3	10	61	103	1	013690930	86,813	013670930	141,005
9,4	10	61	103	1	013690940	86,813	013670940	141,005
9,5	10	61	103	1	013690950	86,813	013670950	141,005
9,6	10	61	103	1	013690960	86,813	013670960	141,005
9,7	10	61	103	1	013690970	86,813	013670970	141,005
9,8	10	61	103	1	013690980	86,813	013670980	141,005
10	10	61	103	1	013691000	86,813	013671000	141,005
10,2	12	71	118	1	013691020	129,596	013671020	205,816
10,5	12	71	118	1	013691050	129,596	013671050	205,816
11	12	71	118	1	013691100	129,596	013671100	205,816
11,5	12	71	118	1	013691150	129,596	013671150	205,816
12	12	71	118	1	013691200	129,596	013671200	205,816
12,5	14	77	124	1	013691250	170,843	013671250	276,844
13	14	77	124	1	013691300	170,843	013671300	276,844
13,5	14	77	124	1	013691350	170,843	013671350	276,844
14	14	77	124	1	013691400	170,843	013671400	276,844
14,5	16	83	133	1	013691450	221,836	013671450	341,597
15	16	83	133	1	013691500	221,836	013671500	341,597
15,5	16	83	133	1	013691550	221,836	013671550	341,597
16	16	83	133	1	013691600	221,836	013671600	341,597

PUNTE ELICOIDALI CILINDRICHE, INTERAMENTE RETTIFICATE, SERIE CORTA, FINITURA BRILLANTE

Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01070





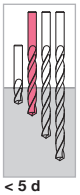
Art. **01071** Self
Disponibile su richiesta
On demand

Confezione / *Packaging*



Applicazioni / Applications





Ø h8	/	L	pcs	cod.	€ cad/each
0,3	3	19	10	010700030	2,467
0,35	4	19	10	010700035	2,238
0,4	5	20	10	010700040	2,124
0,45	5	20	10	010700045	2,124
0,5	6	22	10	010700050	1,827
0,55	7	24	10	010700055	2,124
0,6	7	24	10	010700060	1,678
0,65	8	26	10	010700065	1,827
0,7	9	28	10	010700070	1,565
0,75	9	28	10	010700075	1,565
0,8	10	30	10	010700080	1,565
0,85	10	30	10	010700085	1,565
0,9	11	32	10	010700090	1,462
0,95	11	32	10	010700095	1,565
1	12	34	10	010700100	1,188
1,1	14	36	10	010700110	1,244
1,2	16	38	10	010700120	1,244
1,25	16	38	10	010700125	1,244
1,3	16	38	10	010700130	1,244
1,4	18	40	10	010700140	1,244
1,5	18	40	10	010700150	1,073
1,6	20	43	10	010700160	1,017
1,7	20	43	10	010700170	1,017
1,75	22	46	10	010700175	1,017
1,8	22	46	10	010700180	1,017
1,9	22	46	10	010700190	1,017
2	24	49	10	010700200	0,890
2,1	24	49	10	010700210	1,073
2,2	27	53	10	010700220	1,073
2,25	27	53	10	010700225	1,073
2,3	27	53	10	010700230	1,073
2,4	30	57	10	010700240	1,073
2,5	30	57	10	010700250	0,983
2,6	30	57	10	010700260	1,234
2,7	33	61	10	010700270	1,234
2,75	33	61	10	010700275	1,234
2,8	33	61	10	010700280	1,234
2,9	33	61	10	010700290	1,234
3	33	61	10	010700300	1,120
3,1	36	65	10	010700310	1,325
3,2	36	65	10	010700320	1,325
3,25	36	65	10	010700325	1,325
3,3	36	65	10	010700330	1,325
3,4	39	70	10	010700340	1,325
3,5	39	70	10	010700350	1,244
3,6	39	70	10	010700360	1,450
3,7	39	70	10	010700370	1,450
3,75	39	70	10	010700375	1,450
3,8	43	75	10	010700380	1,450
3,9	43	75	10	010700390	1,450

- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm²
- Puor percer métaux et acier avec R ≤ 800 N/mm²
- Para taladrar hierro e acero R ≤ 800 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

Ø h8	/	L	pcs	cod.	€ cad/each
4	43	75	10	010700400	1,359
4,1	43	75	10	010700410	1,793
4,2	43	75	10	010700420	1,793
4,25	43	75	10	010700425	1,793
4,3	47	80	10	010700430	1,793
4,4	47	80	10	010700440	1,793
4,5	47	80	10	010700450	1,633
4,6	47	80	10	010700460	1,839
4,7	47	80	10	010700470	1,839
4,75	47	80	10	010700475	1,839
4,8	52	86	10	010700480	1,839
4,9	52	86	10	010700490	1,839
5	52	86	10	010700500	1,690
5,1	52	86	10	010700510	2,353
5,2	52	86	10	010700520	2,353
5,25	52	86	10	010700525	2,353
5,3	52	86	10	010700530	2,353
5,4	57	93	10	010700540	2,353
5,5	57	93	10	010700550	2,261
5,6	57	93	10	010700560	2,615
5,7	57	93	10	010700570	2,615
5,75	57	93	10	010700575	2,615
5,8	57	93	10	010700580	2,615
5,9	57	93	10	010700590	2,615
6	57	93	10	010700600	2,353
6,1	63	101	10	010700610	3,265
6,2	63	101	10	010700620	3,265
6,25	63	101	10	010700625	3,265
6,3	63	101	10	010700630	3,265
6,4	63	101	10	010700640	3,265
6,5	63	101	10	010700650	3,014
6,6	63	101	10	010700660	3,804
6,7	63	101	10	010700670	3,804
6,75	69	109	10	010700675	3,804
6,8	69	109	10	010700680	3,804
6,9	69	109	10	010700690	3,804
7	69	109	10	010700700	3,517
7,1	69	109	5	010700710	4,180
7,2	69	109	5	010700720	4,180
7,25	69	109	5	010700725	4,180
7,3	69	109	5	010700730	4,180
7,4	69	109	5	010700740	4,180
7,5	69	109	5	010700750	3,722
7,6	75	117	5	010700760	4,694
7,7	75	117	5	010700770	4,694
7,75	75	117	5	010700775	4,694
7,8	75	117	5	010700780	4,694
7,9	75	117	5	010700790	4,694
8	75	117	5	010700800	4,431
8,1	75	117	5	010700810	5,767
8,2	75	117	5	010700820	5,767
8,25	75	117	5	010700825	5,767
8,3	75	117	5	010700830	5,767

Ø h8	/	L	pcs	cod.	€ cad/each
8,4	75	117	5	010700840	5,767
8,5	75	117	5	010700850	5,470
8,6	81	125	5	010700860	5,983
8,7	81	125	5	010700870	5,983
8,75	81	125	5	010700875	5,983
8,8	81	125	5	010700880	5,983
8,9	81	125	5	010700890	5,983
9	81	125	5	010700900	5,733
9,1	81	125	5	010700910	6,773
9,2	81	125	5	010700920	6,773
9,25	81	125	5	010700925	6,773
9,3	81	125	5	010700930	6,773
9,4	81	125	5	010700940	6,773
9,5	81	125	5	010700950	6,167
9,6	87	133	5	010700960	7,172
9,7	87	133	5	010700970	7,172
9,75	87	133	5	010700975	7,172
9,8	87	133	5	010700980	7,172
9,9	87	133	5	010700990	7,172
10	87	133	5	010701000	6,452
10,2	87	133	5	010701020	9,169
10,25	87	133	5	010701025	9,169
10,5	87	133	5	010701050	8,004
10,75	94	142	5	010701075	10,986
11	94	142	5	010701100	9,581
11,25	94	142	5	010701125	11,671
11,5	94	142	5	010701150	10,221
11,75	94	142	5	010701175	12,733
12	101	151	5	010701200	11,031
12,25	101	151	5	010701225	13,874
12,5	101	151	5	010701250	12,036
12,75	101	151	5	010701275	15,691
13	101	151	5	010701300	12,984
13,25	108	160	3	010701325	18,397
13,5	108	160	3	010701350	16,523
13,75	108	160	3	010701375	18,397
14	108	160	3	010701400	16,981
14,25	114	169	3	010701425	22,086
14,5	114	169	3	010701450	18,831
14,75	114	169	3	010701475	22,086
15	114	169	3	010701500	20,121
15,25	120	178	3	010701525	27,522
15,5	120	178	3	010701550	23,616
15,75	120	178	3	010701575	27,522
16	120	178	3	010701600	24,953
16,5	125	184	1	010701650	25,146
17	125	184	1	010701700	26,722
17,5	130	191	1	010701750	28,184
18	130	191	1	010701800	30,365
18,5	135	198	1	010701850	33,470
19	135	198	1	010701900	34,692
20	140	205	1	010702000	39,170

PUNTE ELICOIDALI CILINDRICHE CON CODOLO RIDOTTO INTERAMENTE RETTIFICATE

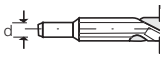
Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS-G DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01072



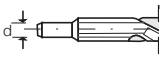


d= 10 mm.

Art. **01073** Self
Disponibile su richiesta
On demand

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	010721025	11,763
10,5	87	133	10	5	010721050	10,598
10,75	94	142	10	5	010721075	13,577
11	94	142	10	5	010721100	12,173
11,25	94	142	10	5	010721125	14,262
11,5	94	142	10	5	010721150	12,813
11,75	94	142	10	5	010721175	15,325
12	101	151	10	5	010721200	13,624
12,25	101	151	10	5	010721225	16,468
12,5	101	151	10	5	010721250	14,628
12,75	101	151	10	5	010721275	18,283
13	101	151	10	5	010721300	15,576
13,25	108	160	10	3	010721325	21,355
13,5	108	160	10	3	010721350	19,493
13,75	108	160	10	3	010721375	21,355
14	108	160	10	3	010721400	19,949
14,25	114	169	10	3	010721425	25,054
14,5	114	169	10	3	010721450	21,799
14,75	114	169	10	3	010721475	25,054
15	114	169	10	3	010721500	23,091
15,25	120	178	10	3	010721525	30,479
15,5	120	178	10	3	010721550	26,585
15,75	120	178	10	3	010721575	30,479
16	120	178	10	3	010721600	27,909
16,5	125	184	10	1	010721650	28,115
17	125	184	10	1	010721700	29,679
17,5	130	191	10	1	010721750	31,152
18	130	191	10	1	010721800	33,322
18,5	135	198	10	1	010721850	36,439
19	135	198	10	1	010721900	37,661
19,5	140	205	10	1	010721950	42,126
20	140	205	10	1	010722000	42,126

01074



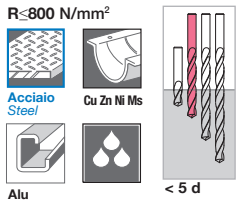
d= 13 mm.

Ø h8	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	010741325	21,355
13,5	108	160	13	3	010741350	19,493
13,75	108	160	13	3	010741375	21,355
14	108	160	13	3	010741400	19,949
14,25	114	169	13	3	010741425	25,054
14,5	114	169	13	3	010741450	21,799
14,75	114	169	13	3	010741475	25,054
15	114	169	13	3	010741500	23,091
15,25	120	178	13	3	010741525	30,479
15,5	120	178	13	3	010741550	26,585
15,75	120	178	13	3	010741575	30,479
16	120	178	13	3	010741600	27,909
16,5	125	184	13	1	010741650	28,115
17	125	184	13	1	010741700	29,679
17,5	130	191	13	1	010741750	31,152
18	130	191	13	1	010741800	33,322
18,5	135	198	13	1	010741850	36,439
19	135	198	13	1	010741900	37,661
19,5	140	205	13	1	010741950	42,126
20	140	205	13	1	010742000	42,126

Confezione / *Packaging*



Applicazioni / *Applications*



PUNTE ELICOIDALI CILINDRICHE INTERAMENTE RETTIFICATE, SERIE EXTRA CORTA

Straight shank twist drills, stub serie / Forets cylindriques, série extra courte
Brocas helicoidales, serie extra corta / Geschliffene Spiralbohrer, extra kurz

HSS-G DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Extra corta
Extra short

01076





HV≃ 820
SPLIT POINT
DIN 1412C
(Ø≥3)

Ø h8	/	L	pcs	cod.	€ cad/each	Ø h8	/	L	pcs	cod.	€ cad/each
1,5	9	32	10	010760150	0,831	5,1	26	62	10	010760510	2,306
2	12	38	10	010760200	0,831	5,2	26	62	10	010760520	2,306
2,2	13	40	10	010760220	1,009	**5,25**	26	62	10	010760525	2,306
2,25	13	40	10	010760225	1,009	5,5	28	66	10	010760550	2,173
2,5	14	43	10	010760250	0,920	**5,75**	28	66	10	010760575	2,595
2,75	16	46	10	010760275	1,142	5,8	28	66	10	010760580	2,595
2,8	16	46	10	010760280	1,142	**6**	28	66	10	010760600	2,429
3	16	46	10	010760300	1,142	6,25	31	70	10	010760625	2,633
3,1	18	49	10	010760310	1,254	**6,5**	31	70	10	010760650	2,916
3,2	18	49	10	010760320	1,254	6,75	34	74	10	010760675	3,244
3,25	18	49	10	010760325	1,254	**7**	34	74	10	010760700	3,403
3,3	18	49	10	010760330	1,254	7,5	34	74	5	010760750	3,614
3,5	20	52	10	010760350	1,254	**8**	37	79	5	010760800	4,391
3,7	20	52	10	010760370	1,386	8,5	37	79	5	010760850	5,876
3,75	20	52	10	010760375	1,386	**9**	40	84	5	010760900	6,741
3,8	22	55	10	010760380	1,386	9,5	40	84	5	010760950	7,661
4	22	55	10	010760400	1,386	**10**	43	89	5	010761000	8,648
4,1	22	55	10	010760410	1,730	10,5	43	89	5	010761050	9,064
4,2	22	55	10	010760420	1,730	**11**	47	95	5	010761100	10,173
4,25	22	55	10	010760425	1,730	11,5	47	95	5	010761150	11,086
4,5	24	58	10	010760450	1,575	**12**	51	102	5	010761200	12,778
4,75	24	58	10	010760475	1,763	12,5	51	102	5	010761250	13,976
4,8	26	62	10	010760480	1,763	**13**	51	102	5	010761300	14,979
5	26	62	10	010760500	1,641						

Confezione / Packaging





10211



Ø 2 ÷ 10x0,5 mm
01075221
€ 80,279

PUNTE ELICOIDALI SUPERCORTE PER LATTONIERI

Extra short twist drills for portable applications / Forets cylindriques série extra courte spécial
Brocas helicoidales, serie extra corta special / Spiralbohrer, spezial extra kurz

NORMA KRINO HSS-G Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Supercorta
Supershort

01050





HV≃ 750÷820
SPLIT POINT
DIN 1412C

Ø	/	L	pcs	cod.	€ cad/each
3	16	35	10	010500300	0,931
3,2	19	40	10	010500320	0,975
3,25	19	40	10	010500325	0,975
3,3	19	40	10	010500330	0,975
3,5	19	40	10	010500350	0,975
3,6	19	40	10	010500360	1,075
3,75	19	40	10	010500375	1,075
4	20	40	10	010500400	1,075
4,1	20	40	10	010500410	1,319
4,2	20	40	10	010500420	1,319
4,25	20	40	10	010500425	1,319
4,5	23	42	10	010500450	1,319
5	23	45	10	010500500	1,442

Confezione / Packaging



Applicazioni / Applications

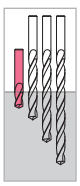
R≤800 N/mm²


Acciaio
Steel


Cu Zn Ni Ms


Alu




< 3 d

Punte speciali per lattonieri, carpentieri, coperturisti, fabbri, installatori.
Foratura dolce e precisa, grazie all'affilatura *split point* autocentrante, su lamiere e tubi in acciaio, rame e plastica.
Super short twist drills for cutting metal sheets, special for journeymen's, carpenters, locksmith's, tinsmith's.



Super corta - *Super short*

01051
HSS-CO





PUNTE ELICOIDALI INTERAMENTE RETTIFICATE

Fully ground twist drills / Forets rectifiés avec
Brocas rectificadas / Geschliffene Spiralbohrer

HSS-G Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

Elica contrapposta
Double ended

01077

NEW



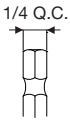


Ø h8	/	L	pcs	cod.	€ cad/each
2	10	38	10	010770200	0,741
2,5	10	43	10	010770250	0,888
3	11	46	10	010770300	1,089
3,2	11	49	10	010770320	1,144
3,25	11	49	10	010770325	1,144
3,3	11	49	10	010770330	1,300
3,4	14	52	10	010770340	1,437
3,5	14	52	10	010770350	1,437
3,75	14	55	10	010770375	1,556
4	14	55	10	010770400	1,666
4,1	14	55	10	010770410	1,666
4,2	17	58	10	010770420	2,032
4,25	17	58	10	010770425	2,032
4,5	17	58	10	010770450	2,032
4,75	17	62	10	010770475	2,389
4,9	17	62	10	010770490	2,682
5	17	62	10	010770500	2,682
5,1	17	62	10	010770510	2,700
5,5	17	66	10	010770550	2,984
6	17	66	10	010770600	3,204

HSS-G ~DIN 338

01079





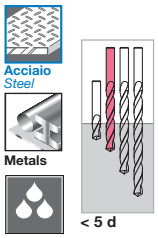
Ø h8	d ⬡	/	L	pcs	cod.	€ cad/each
1,5	1/4	18	60	10	010790150	1,296
2	1/4	24	69	10	010790200	1,296
2,5	1/4	30	77	10	010790250	1,348
3	1/4	33	81	10	010790300	1,685
3,25	1/4	36	85	10	010790325	1,791
3,5	1/4	39	90	10	010790350	1,791
4	1/4	43	95	10	010790400	1,959
4,25	1/4	43	95	10	010790425	2,295
4,5	1/4	47	100	10	010790450	2,295
5	1/4	52	106	10	010790500	2,465
5,5	1/4	57	113	10	010790550	2,971
6	1/4	57	113	10	010790600	3,297
6,5	1/4	63	121	10	010790650	4,413
7	1/4	69	109	10	010790700	5,109
7,5	1/4	69	109	5	010790750	6,584
8	1/4	75	117	5	010790800	6,584
8,5	1/4	75	117	5	010790850	8,194
9	1/4	81	125	5	010790900	9,521
9,5	1/4	81	125	5	010790950	10,491
10	1/4	87	133	5	010791000	10,869



Confezione / *Packaging*



Applicazioni / *Applications*





Ø 3-4-5-6-8 mm
01068700
€ 22,174

PUNTE ELICOIDALI CILINDRICHE SERIE LUNGA, INTERAMENTE RETTIFICATE, FINITURA BRILLANTE

Long straight shank twist drills / Forets cylindriques série longue
Brocas helicoidales serie larga / Spiralbohrer, lange Ausführung

HSS-G DIN 340 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01078





Ø h8	/	L	pcs	cod.	€ cad/each
1,5	45	70	10	010780150	1,785
1,75	53	80	10	010780175	1,973
2	56	85	10	010780200	1,874
2,25	59	90	10	010780225	2,072
2,5	62	95	10	010780250	1,973
2,75	66	100	10	010780275	2,284
3	66	100	10	010780300	2,284
3,25	69	106	10	010780325	2,483
3,5	73	112	10	010780350	2,429
3,75	73	112	10	010780375	2,583
4	78	119	10	010780400	2,462
4,25	78	119	10	010780425	3,127
4,5	82	126	10	010780450	3,170
4,75	82	126	10	010780475	3,237
5	87	132	10	010780500	3,082
5,25	87	132	10	010780525	4,268
5,5	91	139	10	010780550	4,268
5,75	91	139	10	010780575	4,667
6	91	139	10	010780600	4,667
6,25	97	148	5	010780625	5,278
6,5	97	148	5	010780650	5,023
6,75	97	148	5	010780675	6,153
7	102	156	5	010780700	5,643
7,25	102	156	5	010780725	6,940
7,5	102	156	5	010780750	6,608
7,75	109	165	5	010780775	7,894
8	109	165	5	010780800	7,517
8,25	109	165	5	010780825	10,389
8,5	109	165	5	010780850	10,389
8,75	115	175	5	010780875	10,876
9	115	175	5	010780900	10,876
9,25	115	175	5	010780925	12,239
9,5	115	175	5	010780950	11,652
9,75	121	184	5	010780975	13,404
10	121	184	5	010781000	12,772
10,5	121	184	5	010781050	15,400
11	128	195	5	010781100	15,655
11,5	128	195	5	010781150	17,284
12	134	205	5	010781200	18,825
12,5	134	205	5	010781250	19,446
13	134	205	5	010781300	22,784
13,5	140	214	3	010781350	31,420
14	140	214	3	010781400	31,420
14,5	144	220	3	010781450	44,470
15	144	220	3	010781500	42,352
15,5	149	227	3	010781550	51,622
16	149	227	3	010781600	49,170
16,5	154	235	1	010781650	50,966
17	154	235	1	010781700	52,407
17,5	158	241	1	010781750	58,162
18	158	241	1	010781800	59,115
18,5	162	247	1	010781850	67,154
19	162	247	1	010781900	68,473
19,5	166	254	1	010781950	72,552
20	166	254	1	010782000	73,384

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 800 N/mm²

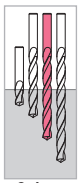


Acciaio
Steel

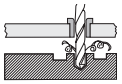


Metals





< 8 d



ASSORTIMENTI PUNTE HSS-G RETTIFICATE BRILLANTI IN ASTUCCI DI METALLO E DI PLASTICA

Sets of HSS twist drills ground from the solid / Assortiments forets à metaux rectifiés
Juego brocas rectificadas en HSS / Geschliffene Spiralbohrersätze

HSS-G DIN 338

Metal



51 pcs
Ø 1÷6 x 0,1 mm
01075407 € 88,935



41 pcs
Ø 6÷10 x 0,1 mm
01075408 € 221,251



91 pcs
Ø 1÷10 x 0,1 mm
01075410 € 413,708

Plastic



19 pcs
Ø 1÷10 x 0,5 mm
01075101 € 48,785



10 pcs
Ø 1÷10 x 1 mm
01075201 € 29,645

19 pcs
Ø 1÷10 x 0,5 mm
01075206 € 48,785



91 pcs
Ø 1÷10 x 0,1 mm
01075220 € 299,791

Plastic



19 pcs
Ø 1÷10 x 0,5 mm
01075250 € 48,785

25 pcs
Ø 1÷13 x 0,5 mm
01075251 € 107,002

Abs



19 pcs
Ø 1÷10 x 0,5 mm
01075301 € 54,244

Abs



25 pcs
Ø 1÷13 x 0,5 mm
01075302 € 109,627



19 pcs
Ø 1÷10 x 0,5 mm
01075401 € 50,645



25 pcs
Ø 1÷13 x 0,5 mm
01075402 € 100,492

VALIGETTA MAGAZZENO ED ESPOSITORI PUNTE HSS-G RETTIFICATE BRILLANTI

Metal case storage display with HSS-G fully ground twist drills / Display forets cylindriques rectifiés
Expositor de brocas rectificadas / Lager Kästen mit geschliffene Spiralbohrer

HSS-G DIN 338

01075450 Ø 1÷10 x 0,5 mm
01075451 Ø 1÷13 x 0,5 mm



150 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

cod.	€
01075450	326,177

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

cod.	€
01075451	539,622



Metal
375x240x200

600 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	30	7,5	5
1,5	30	8	10
2	50	8,5	5
2,5	50	9	5
3	100	9,5	5
3,5	50	10	10
4	100	10,5	5
4,5	30	11	5
5	30	11,5	5
5,5	20	12	5
6	20	12,5	5
6,5	10	13	5
7	10		

cod.	€
01075501	1157,186



Metal
390x460x230

760 pcs Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	50	6,25	3	10,5	3
2,25	10	6,5	20	10,75	2
2,5	50	6,75	2	11	3
2,75	10	7	5	11,25	2
3	100	7,25	2	11,5	2
3,25	10	7,5	5	11,75	2
3,5	50	7,75	2	12	3
3,75	10	8	10	12,25	2
4	80	8,25	2	12,5	2
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	3
4,75	10	9	5		
5	60	9,25	2		

cod.	€
01075507	1549,320

PUNTE ELICOIDALI CILINDRICHE CON RIVESTIMENTO AL NITRURO DI TITANIO

TiN coated twist drills / Forets cylindriques au nitrure de titan
Brocas helicoidales con recubrimiento de titanio / Geschliffene Spiralboher, TiN-beschichtet

HSS-G DIN 338 Rivestita al titanio

Titanium coated / Titan /Titanio / TiN-beschichtet

01160





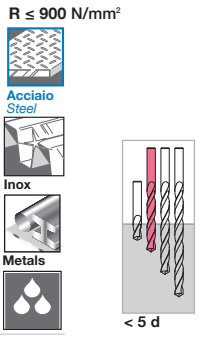
Art. **01161** Self
Disponibile su richiesta
On demand



Confezione / *Packaging*



Applicazioni / Applications



Ø h8	/	L	pcs	cod.	€ cad/each
1	12	34	10	011600100	1,176
1,1	14	36	10	011600110	1,176
1,2	16	38	10	011600120	1,176
1,25	16	38	10	011600125	1,063
1,3	16	38	10	011600130	1,063
1,4	18	40	10	011600140	1,063
1,5	18	40	10	011600150	0,993
1,6	20	43	10	011600160	1,325
1,7	20	43	10	011600170	1,325
1,75	22	46	10	011600175	1,199
1,8	22	46	10	011600180	1,244
1,9	22	46	10	011600190	1,244
2	24	49	10	011600200	1,141
2,1	24	49	10	011600210	1,325
2,2	27	53	10	011600220	1,325
2,25	27	53	10	011600225	1,325
2,3	27	53	10	011600230	1,325
2,4	30	57	10	011600240	1,325
2,5	30	57	10	011600250	1,199
2,6	30	57	10	011600260	1,622
2,7	33	61	10	011600270	1,622
2,75	33	61	10	011600275	1,622
2,8	33	61	10	011600280	1,622
2,9	33	61	10	011600290	1,622
3	33	61	10	011600300	1,473
3,1	36	65	10	011600310	1,759
3,2	36	65	10	011600320	1,759
3,25	36	65	10	011600325	1,759
3,3	36	65	10	011600330	1,759
3,4	39	70	10	011600340	1,759
3,5	39	70	10	011600350	1,599
3,6	39	70	10	011600360	1,850
3,7	39	70	10	011600370	1,850
3,75	39	70	10	011600375	1,850
3,8	43	75	10	011600380	1,850
3,9	43	75	10	011600390	1,850
4	43	75	10	011600400	1,678
4,1	43	75	10	011600410	2,216
4,2	43	75	10	011600420	2,216
4,25	43	75	10	011600425	2,216
4,3	47	80	10	011600430	2,216
4,4	47	80	10	011600440	2,216
4,5	47	80	10	011600450	2,011
4,6	47	80	10	011600460	2,409
4,7	47	80	10	011600470	2,409
4,75	47	80	10	011600475	2,409
4,8	52	86	10	011600480	2,409
4,9	52	86	10	011600490	2,409
5	52	86	10	011600500	2,192
5,1	52	86	10	011600510	2,934
5,2	52	86	10	011600520	2,934
5,25	52	86	10	011600525	2,934
5,3	52	86	10	011600530	2,934
5,4	57	93	10	011600540	2,934
5,5	57	93	10	011600550	2,673
5,6	57	93	10	011600560	3,221
5,7	57	93	10	011600570	3,221
5,75	57	93	10	011600575	3,221
5,8	57	93	10	011600580	3,221
5,9	57	93	10	011600590	3,221

- Rendimenti elevati e maggiore durata dei taglienti nella foratura degli acciai legati, nelle ghise e nei metalli in genere.
- High level of performances in cutting alloy steel, cast iron, metals up to R ≤ 900 N/mm²
- Pour percer métaux et acier allié avec R ≤ 900 N/mm²
- Para taladrar acero aleado con elevada velocidad de corte R ≤ 900 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis zu einer Zug-Festigkeit von R ≤ 900 N/mm² , Temperguss, Sintereisen, Aluminium legiert und unlegiert, Kupfer, Bronze.

Ø h8	/	L	pcs	cod.	€ cad/each
6	57	93	10	011600600	2,924
6,1	63	101	10	011600610	3,609
6,2	63	101	10	011600620	3,609
6,25	63	101	10	011600625	3,609
6,3	63	101	10	011600630	3,609
6,4	63	101	10	011600640	3,609
6,5	63	101	10	011600650	3,277
6,6	63	101	10	011600660	4,020
6,7	63	101	10	011600670	4,020
6,75	69	109	10	011600675	4,020
6,8	69	109	10	011600680	4,020
6,9	69	109	10	011600690	4,020
7	69	109	10	011600700	3,643
7,1	69	109	5	011600710	4,980
7,2	69	109	5	011600720	4,980
7,25	69	109	5	011600725	4,980
7,3	69	109	5	011600730	4,980
7,4	69	109	5	011600740	4,980
7,5	69	109	5	011600750	4,523
7,6	75	117	5	011600760	5,790
7,7	75	117	5	011600770	5,790
7,75	75	117	5	011600775	5,790
7,8	75	117	5	011600780	5,790
7,9	75	117	5	011600790	5,790
8	75	117	5	011600800	5,264
8,1	75	117	5	011600810	7,035
8,2	75	117	5	011600820	7,035
8,25	75	117	5	011600825	7,035
8,3	75	117	5	011600830	7,035
8,4	75	117	5	011600840	7,035
8,5	75	117	5	011600850	6,384
8,6	81	125	5	011600860	7,629
8,7	81	125	5	011600870	7,629
8,75	81	125	5	011600875	7,629
8,8	81	125	5	011600880	7,629
8,9	81	125	5	011600890	7,629
9	81	125	5	011600900	6,943
9,1	81	125	5	011600910	8,622

Ø h8	/	L	pcs	cod.	€ cad/each
9,2	81	125	5	011600920	8,622
9,25	81	125	5	011600925	8,622
9,3	81	125	5	011600930	8,622
9,4	81	125	5	011600940	8,622
9,5	81	125	5	011600950	7,844
9,6	87	133	5	011600960	8,975
9,7	87	133	5	011600970	8,975
9,75	87	133	5	011600975	8,975
9,8	87	133	5	011600980	8,975
9,9	87	133	5	011600990	8,975
10	87	133	5	011601000	8,165
10,25	87	133	5	011601025	10,038
10,5	87	133	5	011601050	9,125
10,75	94	142	5	011601075	10,849
11	94	142	5	011601100	9,855
11,25	94	142	5	011601125	11,808
11,5	94	142	5	011601150	10,735
11,75	94	142	5	011601175	12,459
12	101	151	5	011601200	12,791
12,25	101	151	5	011601225	13,646
12,5	101	151	5	011601250	13,932
12,75	101	151	5	011601275	15,176
13	101	151	5	011601300	14,732
13,5	108	160	3	011601350	22,083
14	108	160	3	011601400	23,797
14,5	114	169	3	011601450	26,377
15	114	169	3	011601500	28,365
15,5	120	178	3	011601550	31,344
16	120	178	3	011601600	33,283
16,5	125	184	1	011601650	36,231
17	125	184	1	011601700	38,454
17,5	130	191	1	011601750	41,780
18	130	191	1	011601800	44,186
18,5	135	198	1	011601850	47,777
19	135	198	1	011601900	50,458
19,5	140	205	1	011601950	52,081
20	140	205	1	011602000	54,489

Caratteristiche del rivestimento TiN – Features of TiN coating
Caractéristiques du revêtement TiN – Caracteristicas del recubrimiento TiN

Il rivestimento monostrato TiN ha lo scopo di incrementare la resistenza a fenomeni di usura e ossidazione cui gli utensili sono sottoposti durante le lavorazioni di foratura: ha ottime caratteristiche di microdurezza (HV 0.05 2300), un basso coefficiente di attrito (0.4), una temperatura massima di esercizio pari a 500°C. Il rivestimento di pochi µm, depositato per via fisica mediante vapore (Physical Vapour Deposition), consente pertanto di aumentare la vita utile degli utensili da taglio, migliorando anche la finitura superficiale ed il conseguente scorrimento dei trucioli di lavorazione.

TiN monolayer coating can increase both wear and oxidation resistance of every tool. It has high hardness (HV 0.05 2300), low friction coefficient (0.4), maximum working temperature 500°C. The coating thickness is very low (µm) and it's produced by Physical Vapour Deposition. TiN coating increases the life cycle of the tool, also improving the surface finishing and the drilling chips removal.

Le revêtement monocouche TiN sert à augmenter la résistance aux phénomènes d'usure et d'oxydation auxquels les outils sont soumis pendant les travaux de perçage : il possède des caractéristiques optimales de microdureté (HV 0,05 2300), un coefficient de frottement faible (0,4), une température maximale de fonctionnement égale à 500°C. Le revêtement de quelques µm, déposé par un procédé physique par le biais de la vapeur (Physical Vapour Deposition), permet donc d'augmenter la vie utile des outils de coupe, en améliorant aussi la finition de la surface et donc l'évacuation des copeaux d'usinage produits.

El recubrimiento monocapa TiN tiene la finalidad de aumentar la resistencia al desgaste y a la oxidación que sufren los utensilios durante los trabajos de perforado: tiene óptimas características de microdureza (HV 0.05 2300), un bajo coeficiente de fricción (0.4), una temperatura máxima de funcionamiento equivalente a 500°C. El recubrimiento de pocos µm, depositado físicamente con vapor (Physical Vapour Deposition), consiente aumentar la duración de los utensilios de corte, mejorando también el acabado superficial y el consiguiente deslizamiento de las virutas generadas durante la actividad.

PUNTE ELICOIDALI CILINDRICHE CON CODOLO RIDOTTO RIVESTITE AL TiN

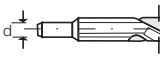
Reduced shank TiN coated twist drills / Forets cylindriques au nitrure de titan à queue degageé
Brocas helicoidales con recubrimiento de titanio y mango reducido / Geschliffene Spiralbohrer TiN-beschichtet mit reduzierten Schaft

HSS-G DIN 338 Rivestita al titanio

Titanium coated / Titan /Titanio / TiN-beschichtet

01163

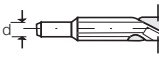




d= 10 mm.

Ø h8	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	011631025	12,254
10,5	87	133	10	5	011631050	11,317
10,75	94	142	10	5	011631075	13,063
11	94	142	10	5	011631100	12,048
11,25	94	142	10	5	011631125	14,011
11,5	94	142	10	5	011631150	12,915
11,75	94	142	10	5	011631175	14,606
12	101	151	10	5	011631200	14,845
12,25	101	151	10	5	011631225	16,788
12,5	101	151	10	5	011631250	17,244
12,75	101	151	10	5	011631275	17,702
13	101	151	10	5	011631300	17,358
13,5	108	160	10	3	011631350	27,703
14	108	160	10	3	011631400	29,623
14,5	114	169	10	3	011631450	32,511
15	114	169	10	3	011631500	34,738
15,5	120	178	10	3	011631550	38,073
16	120	178	10	3	011631600	40,242
16,5	125	184	10	1	011631650	43,543
17	125	184	10	1	011631700	46,033
17,5	130	191	10	1	011631750	49,755
18	130	191	10	1	011631800	52,438
18,5	135	198	10	1	011631850	56,470
19	135	198	10	1	011631900	59,473
19,5	140	205	10	1	011631950	61,288
20	140	205	10	1	011632000	63,984

01164



d= 13 mm.

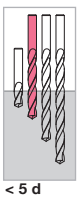
Ø h8	/	L	d	pcs	cod.	€ cad/each
13,5	108	160	13	3	011641350	27,703
14	108	160	13	3	011641400	29,623
14,5	114	169	13	3	011641450	32,511
15	114	169	13	3	011641500	34,738
15,5	120	178	13	3	011641550	38,073
16	120	178	13	3	011641600	40,242
16,5	125	184	13	1	011641650	43,543
17	125	184	13	1	011641700	46,033
17,5	130	191	13	1	011641750	49,755
18	130	191	13	1	011641800	52,438
18,5	135	198	13	1	011641850	56,470
19	135	198	13	1	011641900	59,473
19,5	140	205	13	1	011641950	61,288
20	140	205	13	1	011642000	63,984

Confezione / Packaging



Applicazioni / Applications





< 5 d

PUNTE HSS-G RETTIFICATE RIVESTITE AL TiN, SERIE EXTRA CORTA

HSS-G TiN coated twist drills, stub serie / Forets au nitrure de Titan, série extra courte
Brocas de Titanio serie extra corta / TiN-beschichtet Spiralbohrer, extra kurz

HSSG+TiN DIN 1897





HV 0,05 ≃ 2500
SPLIT POINT
DIN 1412C
(Ø≥ 3 mm)

Ø h8	/	L	pcs	cod.	€ cad/each
3	16	46	10	011660300	1,437
3,25	18	49	10	011660325	1,759
3,5	20	52	10	011660350	1,599
3,75	20	52	10	011660375	1,850
4	22	55	10	011660400	1,678
4,5	24	58	10	011660450	2,011
5	26	62	10	011660500	2,192
5,5	28	66	10	011660550	2,673
5,9	28	66	10	011660590	3,150
6	28	66	10	011660600	2,839
6,5	28	66	10	011660650	3,358

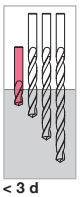
01166

Confezione / Packaging



Applicazioni / Applications







PUNTE ELICOIDALI HSS-G RETTIFICATE RIVESTITE AL TiN, SERIE LUNGA

HSS-G TiN coated twist drills, long serie / Forets au nitrure de Titan, série longue
Brocas de Titanio serie larga / TiN-beschichtet Spiralbohrer, lange Ausführung

HSSG+TiN DIN 340





HV 0,05 ≃ 2500
SPLIT POINT
DIN 1412C
(Ø≥ 3 mm)

Ø h8	/	L	pcs	cod.	€ cad/each
3	66	100	10	011680300	2,809
3,25	69	106	10	011680325	2,958
3,5	73	112	10	011680350	2,958
3,75	73	112	10	011680375	3,289
4	78	119	10	011680400	3,289
4,25	78	119	10	011680425	3,780
4,5	82	126	10	011680450	3,780
4,75	82	126	10	011680475	4,259
5	87	132	10	011680500	4,259
5,25	87	132	10	011680525	4,980
5,5	91	139	10	011680550	4,980
5,75	91	139	10	011680575	5,482
6	91	139	10	011680600	5,482
6,5	97	148	5	011680650	5,767
7	102	156	5	011680700	7,423
7,5	102	156	5	011680750	8,907
8	109	165	5	011680800	10,849
8,5	109	165	5	011680850	12,710
9	115	175	5	011680900	13,932
9,5	115	175	5	011680950	15,303
10	121	184	5	011681000	17,815

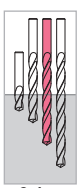
01168

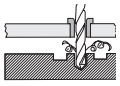
Confezione / Packaging



Applicazioni / Applications







ASSORTIMENTI PUNTE AL TITANIO IN ASTUCCI DI METALLO E ABS

Sets of TiN coated twist drills / Assortiments forets au titan
Juego brocas de titanio / HSS-TiN Spiralbohrersätze

HSSG+TiN DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm

01170401 € 58,239



25 pcs
Ø 1÷13 x 0,5 mm

01170402 € 130,183



37 pcs
Ø 1÷10 x 0,25 mm

01170411 € 131,325



49 pcs
Ø 1÷13 x 0,25 mm

01170412 € 269,812

Abs



19 pcs
Ø 1÷10 x 0,5 mm

01170301 € 58,239



25 pcs
Ø 1÷13 x 0,5 mm

01170302 € 130,183

Plastic



19 pcs
Ø 1÷10 x 0,5 mm

01170101 € 53,102



19 pcs
Ø 1÷10 x 0,5 mm

01170250 € 53,102

25 pcs
Ø 1÷13 x 0,5 mm

01170251 € 91,356

Metal



51 pcs
Ø 1÷6 x 0,1 mm

01170407 € 67,375



41 pcs
Ø 6÷10 x 0,1 mm

01170408 € 220,396



91 pcs
Ø 1÷10 x 0,1 mm

01170410 € 467,668



91 pcs
Ø 1÷10 x 0,1 mm

01170220 € 353,749



10 pcs
Ø 1÷10 x 1 mm

01170201 € 34,259



13 pcs
Ø 1,5 - 2 - 2,5 - 3 - 3,3 - 3,5
4 - 4,2 - 4,5 - 5 - 5,5 - 6 - 6,5

01170203 € 22,269



13 pcs
Ø 2÷8 x 0,5 mm

01170205 € 27,407



6 pcs
Ø 2 - 3 - 4 - 5 - 6 - 8

01170204 € 17,290



19 pcs
Ø 1÷10 x 0,5 mm

01170206 € 53,102

VALIGETTE MAGAZZENO PUNTE AL TITANIO

HSSG+TiN twist drills in metal cases / Forets HSSG+TiN en coffret métallique
Surtido de brocas HSSG+TiN en caja metalica / Lager Kästen mit HSSG+TiN Spiralbohrersätze

HSSG+TiN DIN 338



Metal
330x240x55

116 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	3
1,5	10	6,5	3
2	10	7	3
2,5	10	7,5	3
3	10	8	3
3,5	10	8,5	2
4	10	9	2
4,5	10	9,5	2
5	10	10	2
5,5	3		

cod.	€
01170450	254,999



Metal
550x310x55

128 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	3
1,5	10	8	3
2	10	8,5	2
2,5	10	9	2
3	10	9,5	2
3,5	10	10	2
4	10	10,5	2
4,5	10	11	2
5	10	11,5	2
5,5	3	12	2
6	3	12,5	2
6,5	3	13	2
7	3		

cod.	€
01170451	442,369

ESPOSITORE DA BANCO-MAGAZZENO PUNTE AL TITANIO

HSSG+TiN twist drills display / Display forets au HSSG+TiN
Expositor brocas de HSSG+TiN / Verkaufsschränke für HSSG+TiN Spiralbohrer

HSSG+TiN DIN 338



Metal
375x240x200

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	10	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	10	12	3
6	10	12,5	3
6,5	5	13	3
7	5		

cod.	€
01170501	659,672



Metal
390x460x230

255 pcs Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs
1	10	7,25	2
1,25	5	7,5	5
1,5	10	7,75	2
1,75	5	8	5
2	10	8,25	2
2,25	5	8,5	5
2,5	10	8,75	2
2,75	5	9	5
3	10	9,25	2
3,25	10	9,5	5
3,5	10	9,75	2
3,75	10	10	5
4	10	10,25	2
4,25	10	10,5	3
4,5	10	10,75	2
4,75	3	11	3
5	10	11,25	2
5,25	3	11,5	3
5,5	10	11,75	2
5,75	3	12	3
6	10	12,25	2
6,25	2	12,5	3
6,5	5	12,75	2
6,75	2	13	3
7	5		

cod.	€
01170507	1130,866

PUNTE ELICOIDALI CILINDRICHE "BASIC", ESECUZIONE RETTIFICATA, SERIE CORTA, FINITURA LUCIDA

"Basic" fully ground straight shank twist drills / Forets cylindriques rectifiés "basic"
Brocas helicoidales rectificadas "basic" / Geschliffene Spiralbohrer "basic"

HSS DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01350



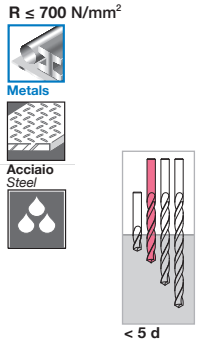


Art. **01351** Self
Disponibile su richiesta
On demand

Confezione / *Packaging*



Applicazioni / Applications



Ø h8	/	L	pcs	cod.	€ cad/each
0,2	2,5	19	10	013500020	1,286
0,25	3	19	10	013500025	1,286
0,3	3	19	10	013500030	1,286
0,35	4	19	10	013500035	1,286
0,4	5	20	10	013500040	1,286
0,45	5	20	10	013500045	1,286
0,5	6	22	10	013500050	1,108
0,55	7	24	10	013500055	1,108
0,6	7	24	10	013500060	1,108
0,65	8	26	10	013500065	1,108
0,7	9	28	10	013500070	1,108
0,75	9	28	10	013500075	1,108
0,8	10	30	10	013500080	1,108
0,85	10	30	10	013500085	1,108
0,9	11	32	10	013500090	1,108
0,95	11	32	10	013500095	1,108
1	12	34	10	013500100	0,831
1,1	14	36	10	013500110	0,864
1,2	16	38	10	013500120	0,864
1,25	16	38	10	013500125	0,864
1,3	16	38	10	013500130	0,864
1,4	18	40	10	013500140	0,864
1,5	18	40	10	013500150	0,754
1,6	20	43	10	013500160	0,709
1,7	20	43	10	013500170	0,709
1,75	22	46	10	013500175	0,709
1,8	22	46	10	013500180	0,709
1,9	22	46	10	013500190	0,709
2	24	49	10	013500200	0,621
2,1	24	49	10	013500210	0,721
2,2	27	53	10	013500220	0,721
2,25	27	53	10	013500225	0,721
2,3	27	53	10	013500230	0,721
2,4	30	57	10	013500240	0,721
2,5	30	57	10	013500250	0,688
2,6	30	57	10	013500260	0,831
2,7	33	61	10	013500270	0,831
2,75	33	61	10	013500275	0,831
2,8	33	61	10	013500280	0,831
2,9	33	61	10	013500290	0,831
3	33	61	10	013500300	0,777
3,1	36	65	10	013500310	0,964
3,2	36	65	10	013500320	0,964
3,25	36	65	10	013500325	0,964
3,3	36	65	10	013500330	0,964
3,4	39	70	10	013500340	0,964
3,5	39	70	10	013500350	0,931
3,6	39	70	10	013500360	1,042
3,7	39	70	10	013500370	1,042
3,75	39	70	10	013500375	1,042
3,8	43	75	10	013500380	1,042
3,9	43	75	10	013500390	1,042
4	43	75	10	013500400	1,009
4,1	43	75	10	013500410	1,198
4,2	43	75	10	013500420	1,198
4,25	43	75	10	013500425	1,198
4,3	47	80	10	013500430	1,198
4,4	47	80	10	013500440	1,198
4,5	47	80	10	013500450	1,153
4,6	47	80	10	013500460	1,286
4,7	47	80	10	013500470	1,286
4,75	47	80	10	013500475	1,286
4,8	52	86	10	013500480	1,286
4,9	52	86	10	013500490	1,286
5	52	86	10	013500500	1,221
5,1	52	86	10	013500510	1,675
5,2	52	86	10	013500520	1,675
5,25	52	86	10	013500525	1,675
5,3	52	86	10	013500530	1,675
5,4	57	93	10	013500540	1,675
5,5	57	93	10	013500550	1,629
5,6	57	93	10	013500560	1,785

- Taglio dei materiali con R ≤ 700 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 700 N/mm²
- Puor percer métaux et acier avec R ≤ 700 N/mm²
- Para taladrar hierro e acero R ≤ 700 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 700 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

Ø h8	/	L	pcs	cod.	€ cad/each
5,7	57	93	10	013500570	1,785
5,75	57	93	10	013500575	1,785
5,8	57	93	10	013500580	1,785
5,9	57	93	10	013500590	1,785
6	57	93	10	013500600	1,708
6,1	63	101	10	013500610	2,185
6,2	63	101	10	013500620	2,185
6,25	63	101	10	013500625	2,185
6,3	63	101	10	013500630	2,185
6,4	63	101	10	013500640	2,185
6,5	63	101	10	013500650	2,107
6,6	63	101	10	013500660	2,539
6,7	63	101	10	013500670	2,539
6,75	69	109	10	013500675	2,539
6,8	69	109	10	013500680	2,539
6,9	69	109	10	013500690	2,539
7	69	109	10	013500700	2,462
7,1	69	109	5	013500710	2,760
7,2	69	109	5	013500720	2,760
7,25	69	109	5	013500725	2,760
7,3	69	109	5	013500730	2,760
7,4	69	109	5	013500740	2,760
7,5	69	109	5	013500750	2,605
7,6	75	117	5	013500760	3,283
7,7	75	117	5	013500770	3,283
7,75	75	117	5	013500775	3,283
7,8	75	117	5	013500780	3,283
7,9	75	117	5	013500790	3,283
8	75	117	5	013500800	3,104
8,1	75	117	5	013500810	4,024
8,2	75	117	5	013500820	4,024
8,25	75	117	5	013500825	4,024
8,3	75	117	5	013500830	4,024
8,4	75	117	5	013500840	4,024
8,5	75	117	5	013500850	3,825
8,6	81	125	5	013500860	4,190
8,7	81	125	5	013500870	4,190
8,75	81	125	5	013500875	4,190
8,8	81	125	5	013500880	4,190
8,9	81	125	5	013500890	4,190
9	81	125	5	013500900	4,002
9,1	81	125	5	013500910	4,380
9,2	81	125	5	013500920	4,380
9,25	81	125	5	013500925	4,380
9,3	81	125	5	013500930	4,380
9,4	81	125	5	013500940	4,380
9,5	81	125	5	013500950	4,190
9,6	87	133	5	013500960	5,023
9,7	87	133	5	013500970	5,023
9,75	87	133	5	013500975	5,023
9,8	87	133	5	013500980	5,023
9,9	87	133	5	013500990	5,023
10	87	133	5	013501000	4,679
10,1	87	133	5	013501010	6,264
10,2	87	133	5	013501020	6,264
10,25	87	133	5	013501025	6,264
10,3	87	133	5	013501030	6,264
10,4	87	133	5	013501040	6,264
10,5	87	133	5	013501050	5,588
10,6	87	133	5	013501060	7,495
10,7	94	142	5	013501070	7,495
10,75	94	142	5	013501075	7,495
10,8	94	142	5	013501080	7,495
10,9	94	142	5	013501090	7,495
11	94	142	5	013501100	6,707
11,1	94	142	5	013501110	7,993
11,2	94	142	5	013501120	7,993
11,25	94	142	5	013501125	7,993
11,3	94	142	5	013501130	7,993
11,4	94	142	5	013501140	7,993
11,5	94	142	5	013501150	7,151

Ø h8	/	L	pcs	cod.	€ cad/each
11,6	94	142	5	013501160	8,625
11,7	94	142	5	013501170	8,625
11,75	94	142	5	013501175	8,625
11,8	94	142	5	013501180	8,625
11,9	101	151	5	013501190	8,625
12	101	151	5	013501200	7,705
12,1	101	151	5	013501210	9,412
12,2	101	151	5	013501220	9,412
12,25	101	151	5	013501225	9,412
12,3	101	151	5	013501230	9,412
12,4	101	151	5	013501240	9,412
12,5	101	151	5	013501250	8,404
12,6	101	151	5	013501260	9,967
12,7	101	151	5	013501270	9,967
12,75	101	151	5	013501275	9,967
12,8	101	151	5	013501280	9,967
12,9	101	151	5	013501290	9,967
13	101	151	5	013501300	8,902
13,1	101	151	3	013501310	12,328
13,2	101	151	3	013501320	12,328
13,25	108	160	3	013501325	12,328
13,3	108	160	3	013501330	12,328
13,4	108	160	3	013501340	12,328
13,5	108	160	3	013501350	12,328
13,6	108	160	3	013501360	13,404
13,7	108	160	3	013501370	13,404
13,75	108	160	3	013501375	13,404
13,8	108	160	3	013501380	13,404
13,9	108	160	3	013501390	13,404
14	108	160	3	013501400	13,404
14,1	108	160	3	013501410	15,588
14,2	114	169	3	013501420	15,588
14,25	114	169	3	013501425	15,588
14,3	114	169	3	013501430	15,588
14,4	114	169	3	013501440	15,588
14,5	114	169	3	013501450	15,588
14,6	114	169	3	013501460	16,309
14,7	114	169	3	013501470	16,309
14,75	114	169	3	013501475	16,309
14,8	114	169	3	013501480	16,309
14,9	114	169	3	013501490	16,309
15	114	169	3	013501500	16,309
15,1	120	178	3	013501510	18,116
15,2	120	178	3	013501520	18,116
15,25	120	178	3	013501525	18,116
15,3	120	178	3	013501530	18,116
15,4	120	178	3	013501540	18,116
15,5	120	178	3	013501550	18,116
15,6	120	178	3	013501560	19,114
15,7	120	178	3	013501570	19,114
15,75	120	178	3	013501575	19,114
15,8	120	178	3	013501580	19,114
15,9	120	178	3	013501590	19,114
16	120	178	3	013501600	19,114
16,25	125	184	1	013501625	21,741
16,5	125	184	1	013501650	21,741
16,75	125	184	1	013501675	22,828
17	125	184	1	013501700	22,828
17,25	130	191	1	013501725	25,633
17,5	130	191	1	013501750	25,633
17,75	130	191	1	013501775	26,908
18	130	191	1	013501800	26,908
18,25	135	198	1	013501825	26,908
18,5	135	198	1	013501850	26,908
18,75	135	198	1	013501875	28,903
19	135	198	1	013501900	28,903
19,25	140	205	1	013501925	32,264
19,5	140	205	1	013501950	32,264
19,75	140	205	1	013501975	33,161
20	140	205	1	013502000	33,161

Professional

PUNTE ELICOIDALI CILINDRICHE "BASIC", CON CODOLO RIDOTTO, INTERAMENTE RETTIFICATE, FINITURA LUCIDA

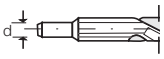
Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01352





d= 10 mm.

Ø	/	L	d	pcs	cod.	€ cad/each
10,25	87	133	10	5	013521025	8,426
10,5	87	133	10	5	013521050	7,794
10,75	94	142	10	5	013521075	9,590
11	94	142	10	5	013521100	8,847
11,25	94	142	10	5	013521125	10,078
11,5	94	142	10	5	013521150	9,269
11,75	94	142	10	5	013521175	10,666
12	101	151	10	5	013521200	9,800
12,25	101	151	10	5	013521225	11,408
12,5	101	151	10	5	013521250	10,455
12,75	101	151	10	5	013521275	11,929
13	101	151	10	5	013521300	11,420
13,25	108	160	10	3	013521325	16,042
13,5	108	160	10	3	013521350	16,042
13,75	108	160	10	3	013521375	16,342
14	108	160	10	3	013521400	16,342
14,25	114	169	10	3	013521425	18,527
14,5	114	169	10	3	013521450	18,527
14,75	114	169	10	3	013521475	19,258
15	114	169	10	3	013521500	19,258
15,25	120	178	10	3	013521525	21,076
15,5	120	178	10	3	013521550	21,076
15,75	120	178	10	3	013521575	22,074
16	120	178	10	3	013521600	22,074
16,5	125	184	10	1	013521650	24,724
17	125	184	10	1	013521700	25,811
17,5	130	191	10	1	013521750	28,637
18	130	191	10	1	013521800	29,912
18,5	135	198	10	1	013521850	29,912
19	135	198	10	1	013521900	31,920
19,5	140	205	10	1	013521950	35,290
20	140	205	10	1	013522000	36,199

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 700 N/mm²

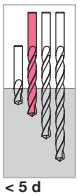


Metals



Acciaio
Steel





< 5 d

PUNTE ELICOIDALI CILINDRICHE "BASIC", CON CODOLO RIDOTTO, INTERAMENTE RETTIFICATE, FINITURA LUCIDA

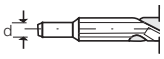
Fully ground straight shank twist drills / Forets cylindriques rectifiés
Brocas helicoidales rectificadas / Geschliffene Spiralbohrer

HSS DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01354





d= 13 mm.

Ø	/	L	d	pcs	cod.	€ cad/each
13,25	108	160	13	3	013541325	16,042
13,5	108	160	13	3	013541350	16,042
13,75	108	160	13	3	013541375	16,342
14	108	160	13	3	013541400	16,342
14,25	114	169	13	3	013541425	18,527
14,5	114	169	13	3	013541450	18,527
14,75	114	169	13	3	013541475	19,258
15	114	169	13	3	013541500	19,258
15,25	120	178	13	3	013541525	21,076
15,5	120	178	13	3	013541550	21,076
15,75	120	178	13	3	013541575	22,074
16	120	178	13	3	013541600	22,074
16,5	125	184	13	1	013541650	24,724
17	125	184	13	1	013541700	25,811
17,5	130	191	13	1	013541750	28,637
18	130	191	13	1	013541800	29,912
18,5	135	198	13	1	013541850	29,912
19	135	198	13	1	013541900	31,920
19,5	140	205	13	1	013541950	35,290
20	140	205	13	1	013542000	36,199
20,5	145	213	13	1	013542050	37,550
21	145	213	13	1	013542100	37,550
21,5	150	221	13	1	013542150	38,480
22	150	221	13	1	013542200	38,480
22,5	150	221	13	1	013542250	39,651
23	155	229	13	1	013542300	39,651
23,5	155	229	13	1	013542350	41,355
24	160	236	13	1	013542400	41,355
24,5	160	236	13	1	013542450	42,828
25	160	236	13	1	013542500	42,828

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 700 N/mm²

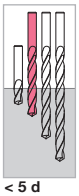


Metals



Acciaio
Steel





< 5 d

PUNTE ELICOIDALI CILINDRICHE "BASIC", RETTIFICATE LUCIDE, SERIE EXTRA CORTA

Straight shank twist drills, stub serie / Forets cylindriques, série extra courte
Brocas helicoidales, serie extra corta / Geschliffene Spiralbohrer, extra kurz

HSS DIN 1897 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

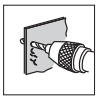
01356





HV≃ 750÷820
SPLIT POINT
DIN 1412C

Ø	/	L	d	pcs	cod.	€ cad/each
1,5	9	32	10		013560150	0,668
2	12	38	10		013560200	0,708
2,2	13	40	10		013560220	0,884
2,25	13	40	10		013560225	0,884
2,5	14	43	10		013560250	1,066
2,75	16	46	10		013560275	1,066
2,8	16	46	10		013560280	1,066
3	16	46	10		013560300	1,142
3,1	18	49	10		013560310	1,254
3,2	18	49	10		013560320	1,254
3,25	18	49	10		013560325	1,254
3,5	20	52	10		013560350	1,254
3,7	20	52	10		013560370	1,386
3,75	20	52	10		013560375	1,386
4	22	55	10		013560400	1,386
4,1	22	55	10		013560410	1,164
4,2	22	55	10		013560420	1,164
4,25	22	55	10		013560425	1,164
4,5	24	58	10		013560450	1,164
4,75	24	58	10		013560475	1,353
4,8	26	62	10		013560480	1,353
5	26	62	10		013560500	1,353
5,1	26	62	10		013560510	1,552
5,2	26	62	10		013560520	1,552
5,25	26	62	10		013560525	1,552
5,5	28	66	10		013560550	1,552
5,75	28	66	10		013560575	1,741
6	28	66	10		013560600	1,741
6,25	31	70	10		013560625	1,927
6,5	31	70	10		013560650	1,927
6,75	34	74	10		013560675	2,226
7	34	74	10		013560700	2,226
7,25	34	74	5		013560725	2,484
7,5	34	74	5		013560750	2,484
7,75	37	79	5		013560775	2,764
8	37	79	5		013560800	2,764
8,25	37	79	5		013560825	3,184
8,5	37	79	5		013560825	3,184
8,75	40	84	5		013560875	3,759
9	40	84	5		013560900	3,759
9,25	40	84	5		013560925	4,209
9,5	40	84	5		013560950	4,209
9,75	40	84	5		013560975	4,658
10	43	89	5		013561000	4,658
10,25	43	89	5		013561025	4,961
10,5	43	89	5		013561050	4,961
10,75	47	95	5		013561075	4,961
11	47	95	5		013561100	5,263
11,25	47	95	5		013561125	5,713
11,5	47	95	5		013561150	5,713
11,75	47	95	5		013561175	6,464
12	51	102	5		013561200	6,464
12,25	51	102	5		013561225	6,767
12,5	51	102	5		013561250	6,767
12,75	51	102	5		013561275	7,216
13	51	102	5		013561300	7,216



Confezione / Packaging



Applicazioni / Applications

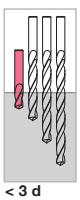
R ≤ 700 N/mm²



Metals

Acciaio
Steel





< 3 d

PUNTE ELICOIDALI CILINDRICHE "BASIC", RETTIFICATE LUCIDE, SERIE LUNGA

Long straight shank twist drills / Forets cylindriques, série longue
Brocas helicoidales, serie larga / Geschliffene Spiralbohrer, lange Ausführung

HSS DIN 340 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01358





HV≃ 750÷820
SPLIT POINT
DIN 1412C

Ø	/	L	pcs	cod.	€ cad/each
1	33	56	10	013580100	1,074
1,5	45	70	10	013580150	1,251
1,75	53	80	10	013580175	1,363
2	56	85	10	013580200	1,363
2,25	59	90	10	013580225	1,484
2,5	62	95	10	013580250	1,484
2,75	66	100	10	013580275	1,690
3	66	100	10	013580300	1,885
3,25	69	106	10	013580325	2,295
3,5	73	112	10	013580350	2,295
3,75	73	112	10	013580375	2,528
4	78	119	10	013580400	2,528
4,25	78	119	10	013580425	2,773
4,5	82	126	10	013580450	2,773
4,75	82	126	10	013580475	2,982
5	87	132	10	013580500	2,982
5,25	87	132	10	013580525	3,459
5,5	91	139	10	013580550	3,459
5,75	91	139	10	013580575	3,847
6	91	139	10	013580600	3,847
6,25	97	148	5	013580625	4,424
6,5	97	148	5	013580650	4,424
6,75	97	148	5	013580675	5,089
7	102	156	5	013580700	5,089
7,25	102	156	5	013580725	5,865
7,5	102	156	5	013580750	5,865
7,75	109	165	5	013580775	6,797
8	109	165	5	013580800	6,797
8,25	109	165	5	013580825	7,407
8,5	109	165	5	013580850	7,407
8,75	115	175	5	013580875	8,525
9	115	175	5	013580900	8,525
9,25	115	175	5	013580925	9,102
9,5	115	175	5	013580950	9,102
9,75	121	184	5	013580975	10,600
10	121	184	5	013581000	10,600
10,25	121	184	5	013581025	11,798
10,5	121	184	5	013581050	11,798
10,75	128	195	5	013581075	13,753
11	128	195	5	013581100	13,753
11,25	128	195	5	013581125	15,255
11,5	128	195	5	013581150	15,255
11,75	134	205	5	013581175	17,103
11,8	134	205	5	013581180	17,103
12	134	205	5	013581200	17,103
12,25	134	205	5	013581225	18,283
12,5	134	205	5	013581250	18,283
12,75	134	205	5	013581275	19,050
13	134	205	5	013581300	19,050
13,5	140	214	3	013581350	20,928
14	140	214	3	013581400	24,002
14,5	144	220	3	013581450	26,447
15	144	220	3	013581500	28,119
15,5	149	227	3	013581550	28,747
16	149	227	3	013581600	29,813
16,5	154	235	1	013581650	32,519
17	154	235	1	013581700	33,508
17,5	158	241	1	013581750	36,773
18	158	241	1	013581800	39,587
18,5	162	247	1	013581850	41,710
19	162	247	1	013581900	44,447
19,5	166	254	1	013581950	46,494
20	166	254	1	013582000	49,330

Confezione / Packaging



Applicazioni / Applications

R ≤ 700 N/mm²

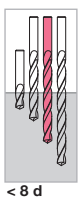


Metals

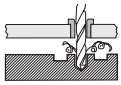


Acciaio
Steel





< 8 d



ASSORTIMENTI PUNTE HSS "BASIC", RETTIFICATE LUCIDE, IN ASTUCCI DI METALLO E DI PLASTICA

Sets of HSS twist drills ground from the solid / Assortiments forets à metaux rectifiés
Juego brocas rectificadas en HSS / Geschliffene Spiralbohrersätze

HSS DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm

01360401 € 39,570



25 pcs
Ø 1÷13 x 0,5 mm

01360402 € 67,154



37 pcs
Ø 1÷10 x 0,25 mm

01360411 € 89,937



49 pcs
Ø 1÷13 x 0,25 mm

01360412 € 165,483

Plastic



19 pcs
Ø 1÷10 x 0,5 mm

01360101 € 37,175

Abs



19 pcs
Ø 1÷10 x 0,5 mm

01360301 € 40,479

25 pcs
Ø 1÷13 x 0,5 mm

01360302 € 68,444



19 pcs
Ø 1÷10 x 0,5 mm

01360250 € 37,175

25 pcs
Ø 1÷13 x 0,5 mm

01360251 € 77,920

VALIGETTE MAGAZZENO ED ESPOSITORI CON PUNTE HSS "BASIC", RETTIFICATE LUCIDE

Ground drills storage displays / Display forets cylindriques rectifiés
Expositor de brocas rectificadas / Lager Kästen mit geschliffene Spiralbohrer

HSS DIN 338

01360450 Ø 1÷10 x 0,5 mm
01360451 Ø 1÷13 x 0,5 mm



150 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

cod.	€
01360450	233,835

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

cod.	€
01360451	383,730



Metal
375x240x200

600 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	30	7,5	5
1,5	30	8	10
2	50	8,5	5
2,5	50	9	5
3	100	9,5	5
3,5	50	10	10
4	100	10,5	5
4,5	30	11	5
5	30	11,5	5
5,5	20	12	5
6	20	12,5	5
6,5	10	13	5
7	10		

cod.	€
01360502	827,418



Metal
390x460x230

760 pcs Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	50	6,25	3	10,5	3
2,25	10	6,5	20	10,75	2
2,5	50	6,75	2	11	3
2,75	10	7	5	11,25	2
3	100	7,25	2	11,5	2
3,25	10	7,5	5	11,75	2
3,5	50	7,75	2	12	3
3,75	10	8	10	12,25	2
4	80	8,25	2	12,5	2
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	3
4,75	10	9	5		
5	60	9,25	2		

cod.	€
01360507	1163,184

PUNTE ELICOIDALI CILINDRICHE RETTIFICATE, QUALITÀ STANDARD, FINITURA BLACK & WHITE

Standard fully ground straight shank twist drills / Forets cylindriques rectifiés, qualité standard
Brocas helicoidales rectificada standard / Geschliffene Spiralbohrer standard

HSS DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen

01080





HV≃ 750÷820
SPLIT POINT
DIN 1412C

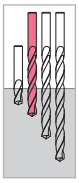
Art. **01081** Self
Disponibile su richiesta
On demand

Confezione / *Packaging*



Applicazioni / Applications





- Taglio del ferro, acciaio, metalli in genere con R ≤ 650 N/mm².
- For drilling in iron, steel, metals up to R ≤ 650 N/mm².
- Pour percer fer, acier, métaux avec R ≤ 650 N/mm².
- Para taladrar hierro y aceros R ≤ 650 N/mm².
- Einsatz in Eisen, Stahl bis R ≤ 650 N/mm².

Ø	/	L	pcs	cod.	€ cad/each
1	12	34	10	010800100	0,645
1,1	14	36	10	010800110	0,690
1,2	16	38	10	010800120	0,690
1,25	16	38	10	010800125	0,690
1,3	16	38	10	010800130	0,645
1,4	18	40	10	010800140	0,645
1,5	18	40	10	010800150	0,645
1,6	20	43	10	010800160	0,690
1,7	20	43	10	010800170	0,690
1,75	22	46	10	010800175	0,690
1,8	22	46	10	010800180	0,633
1,9	22	46	10	010800190	0,633
2	24	49	10	010800200	0,633
2,1	24	49	10	010800210	0,735
2,2	27	53	10	010800220	0,735
2,25	27	53	10	010800225	0,735
2,3	27	53	10	010800230	0,678
2,4	30	57	10	010800240	0,678
2,5	30	57	10	010800250	0,678
2,6	30	57	10	010800260	0,735
2,7	33	61	10	010800270	0,735
2,75	33	61	10	010800275	0,735
2,8	33	61	10	010800280	0,690
2,9	33	61	10	010800290	0,690
3	33	61	10	010800300	0,690
3,1	36	65	10	010800310	0,916
3,2	36	65	10	010800320	0,916
3,25	36	65	10	010800325	0,916
3,3	36	65	10	010800330	0,848
3,4	39	70	10	010800340	0,848
3,5	39	70	10	010800350	0,848
3,6	39	70	10	010800360	0,983
3,7	39	70	10	010800370	0,983
3,75	39	70	10	010800375	0,983
3,8	43	75	10	010800380	0,938
3,9	43	75	10	010800390	0,938
4	43	75	10	010800400	0,938
4,1	43	75	10	010800410	1,063
4,2	43	75	10	010800420	1,063
4,25	43	75	10	010800425	1,063
4,3	47	80	10	010800430	1,007
4,4	47	80	10	010800440	1,007
4,5	47	80	10	010800450	1,007
4,6	47	80	10	010800460	1,130
4,7	47	80	10	010800470	1,130
4,75	47	80	10	010800475	1,130
4,8	52	86	10	010800480	1,029
4,9	52	86	10	010800490	1,029
5	52	86	10	010800500	1,029
5,1	52	86	10	010800510	1,515
5,2	52	86	10	010800520	1,515
5,25	52	86	10	010800525	1,515
5,3	52	86	10	010800530	1,368
5,4	57	93	10	010800540	1,368
5,5	57	93	10	010800550	1,368
5,6	57	93	10	010800560	1,594
5,7	57	93	10	010800570	1,594
5,75	57	93	10	010800575	1,594
5,8	57	93	10	010800580	1,447
5,9	57	93	10	010800590	1,447
6	57	93	10	010800600	1,447
6,1	63	101	10	010800610	1,798
6,2	63	101	10	010800620	1,798
6,25	63	101	10	010800625	1,798
6,3	63	101	10	010800630	1,629
6,4	63	101	10	010800640	1,629
6,5	63	101	10	010800650	1,629
6,6	63	101	10	010800660	1,843
6,7	63	101	10	010800670	1,843
6,75	69	109	10	010800675	1,843
6,8	69	109	10	010800680	1,809
6,9	69	109	10	010800690	1,809
7	69	109	10	010800700	1,809
7,1	69	109	10	010800710	2,420
7,2	69	109	10	010800720	2,420
7,25	69	109	10	010800725	2,420
7,3	69	109	10	010800730	2,216
7,4	69	109	10	010800740	2,216
7,5	69	109	10	010800750	2,216
7,6	75	117	10	010800760	2,601
7,7	75	117	10	010800770	2,601
7,75	75	117	10	010800775	2,601
7,8	75	117	10	010800780	2,386
7,9	75	117	10	010800790	2,386
8	75	117	10	010800800	2,386
8,1	75	117	5	010800810	3,584
8,2	75	117	5	010800820	3,584
8,25	75	117	5	010800825	3,584
8,3	75	117	5	010800830	3,257
8,4	75	117	5	010800840	3,257
8,5	75	117	5	010800850	3,257
8,6	81	125	5	010800860	3,845
8,7	81	125	5	010800870	3,845
8,75	81	125	5	010800875	3,845
8,8	81	125	5	010800880	3,471
8,9	81	125	5	010800890	3,471
9	81	125	5	010800900	3,471
9,1	81	125	5	010800910	4,037
9,2	81	125	5	010800920	4,037
9,25	81	125	5	010800925	4,037
9,3	81	125	5	010800930	3,653
9,4	81	125	5	010800940	3,653
9,5	81	125	5	010800950	3,653
9,6	87	133	5	010800960	4,274
9,7	87	133	5	010800970	4,274
9,75	87	133	5	010800975	4,274
9,8	87	133	5	010800980	3,879
9,9	87	133	5	010800990	3,879
10	87	133	5	010801000	3,879
10,25	87	133	5	010801025	4,897
10,5	87	133	5	010801050	4,455
10,75	94	142	5	010801075	5,101
11	94	142	5	010801100	4,704
11,25	94	142	5	010801125	5,507
11,5	94	142	5	010801150	4,976
11,75	94	142	5	010801175	5,925
12	101	151	5	010801200	5,575
12,25	101	151	5	010801225	6,469
12,5	101	151	5	010801250	6,140
12,75	101	151	5	010801275	8,324
13	101	151	5	010801300	7,520
13,25	108	160	5	010801325	13,333
13,5	108	160	5	010801350	13,333
13,75	108	160	5	010801375	13,695
14	108	160	5	010801400	13,695
14,25	114	169	5	010801425	15,788
14,5	114	169	5	010801450	15,788
14,75	114	169	5	010801475	18,603
15	114	169	5	010801500	18,603
15,25	120	178	5	010801525	20,367
15,5	120	178	5	010801550	20,367
15,75	120	178	5	010801575	21,328
16	120	178	5	010801600	21,328
16,5	125	184	3	010801650	23,883
17	125	184	3	010801700	24,936
17,5	130	191	3	010801750	27,672
18	130	191	3	010801800	28,905
18,5	135	198	3	010801850	28,905
19	135	198	3	010801900	30,850
19,5	140	205	3	010801950	34,108
20	140	205	3	010802000	34,979

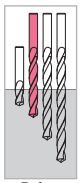
PUNTE ELICOIDALI CILINDRICHE RETTIFICATE, QUALITÀ STANDARD

Standard fully ground straight shank twist drills / Forets cylindriques rectifiés, qualité standard
Brocas helicoidales rectificada standard / Geschliffene Spiralbohrer standard

HSS DIN 338 Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen





01082 d= 10 mm. **01084** d= 13 mm.

01082 01084

Ø	/	L	pcs	cod.	€ cad/each
10,25	87	133	5	010821025	6,694
10,5	87	133	5	010821050	6,265
10,75	94	142	5	010821075	6,899
11	94	142	5	010821100	6,503
11,25	94	142	5	010821125	7,305
11,5	94	142	5	010821150	6,785
11,75	94	142	5	010821175	7,747
12	101	151	5	010821200	7,374
12,25	101	151	5	010821225	6,841
12,5	101	151	5	010821250	7,950
12,75	101	151	5	010821275	10,121
13	101	151	5	010821300	9,318
13,25	101	151	3	010821325	16,386
13,5	108	160	3	010821350	16,386
13,75	108	160	3	010821375	16,761
14	108	160	3	010821400	16,761
14,25	114	169	3	010821425	18,851
14,5	114	169	3	010821450	18,851
14,75	114	169	3	010821475	21,668
15	114	169	3	010821500	21,668
15,25	120	178	3	010821525	23,420
15,5	120	178	3	010821550	23,420
15,75	120	178	3	010821575	24,393
16	120	178	3	010821600	24,393
16,5	125	184	1	010821650	26,949
17	125	184	1	010821700	28,001
17,5	130	191	1	010821750	30,725
18	130	191	1	010821800	31,959
18,5	135	198	1	010821850	31,959
19	135	198	1	010821900	33,903
19,5	140	205	1	010821950	37,160
20	140	205	1	010822000	38,042

Ø	/	L	pcs	cod.	€ cad/each
13,25	101	151	3	010841325	16,386
13,5	108	160	3	010841350	16,386
13,75	108	160	3	010841375	16,761
14	108	160	3	010841400	16,761
14,25	114	169	3	010841425	18,851
14,5	114	169	3	010841450	18,851
14,75	114	169	3	010841475	21,668
15	114	169	3	010841500	21,668
15,25	120	178	3	010841525	23,420
15,5	120	178	3	010841550	23,420
15,75	120	178	3	010841575	24,393
16	120	178	3	010841600	24,393
16,5	125	184	1	010841650	26,949
17	125	184	1	010841700	28,001
17,5	130	191	1	010841750	30,725
18	130	191	1	010841800	31,959
18,5	135	198	1	010841850	31,959
19	135	198	1	010841900	33,903
19,5	140	205	1	010841950	37,160
20	140	205	1	010842000	38,042

HSS DIN 1897

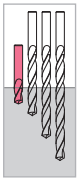
01087 01086

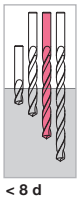






HV≃ 750÷820
SPLIT POINT
DIN 1412C





01087

Ø	/	L	pcs	cod.	€ cad/each
3	16	46	10	010870300	0,690
3,25	18	49	10	010870325	0,916
3,5	20	52	10	010870350	0,848
3,75	20	52	10	010870375	0,983
4	22	55	10	010870400	0,983
4,25	22	55	10	010870425	1,063
4,5	24	58	10	010870450	1,007

Ø	/	L	pcs	cod.	€ cad/each
4,75	24	58	10	010870475	1,029
5	26	62	10	010870500	1,029
5,25	26	62	10	010870525	1,097
5,5	28	66	10	010870550	1,368
5,75	28	66	10	010870575	1,447
6	28	66	10	010870600	1,447



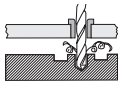
HSS DIN 340

01086

Ø	/	L	pcs	cod.	€ cad/each
3	66	100	10	010860300	1,210
3,25	69	106	10	010860325	1,538
3,5	73	112	10	010860350	1,538
3,75	73	112	10	010860375	1,617
4	78	119	10	010860400	1,617
4,25	78	119	10	010860425	2,216
4,5	82	126	10	010860450	2,216
4,75	82	126	10	010860475	2,250
5	87	132	10	010860500	2,250
5,25	87	132	10	010860525	2,566
5,5	91	139	10	010860550	2,566

Ø	/	L	pcs	cod.	€ cad/each
5,75	91	139	10	010860575	2,623
6	91	139	10	010860600	2,623
6,5	97	148	5	010860650	3,404
7	102	156	5	010860700	3,471
7,5	102	156	5	010860750	4,015
8	109	165	5	010860800	4,468
8,5	109	165	5	010860850	6,740
9	115	175	5	010860900	6,774
9,5	115	175	5	010860950	7,577
10	121	184	5	010861000	7,645

01086



Professional

ASSORTIMENTI PUNTE HSS-G RETTIFICATE, QUALITÀ STANDARD, IN ASTUCCI DI METALLO E PLASTICA

Sets of HSS twist drills ground from the solid / Assortiments forets à metaux rectifiés
Juego brocas rectificadas en HSS / Geschliffene Spiralbohrersätze

HSS DIN 338

Metal



19 pcs Ø 1÷10 x 0,5 mm		25 pcs Ø 1÷13 x 0,5 mm	
01085401	€ 30,578	01085402	€ 55,039

Abs



19 pcs Ø 1÷10 x 0,5 mm		25 pcs Ø 1÷13 x 0,5 mm	
01085301	€ 34,494	01085302	€ 59,722



37 pcs Ø 1÷10 x 0,25 mm	
01085411	€ 75,835



49 pcs Ø 1÷13 x 0,25 mm	
01085412	€ 134,550

Plastic



19 pcs Ø 1÷10 x 0,5 mm	
01085101	€ 30,578



19 pcs Ø 1÷10 x 0,5 mm		25 pcs Ø 1÷13 x 0,5 mm	
01085250	€ 30,578	01085251	€ 55,039

VALIGETTA MAGAZZENO ED ESPOSITORI PUNTE HSS RETTIFICATE STANDARD

Metal case storage and display with HSS fully ground twist drills / Display forets cylindriques rectifiés
Expositor de brocas rectificadas / Lager Kästen mit geschliffene Spiralbohrer

HSS DIN 338

01085450 Ø 1÷10 x 0,5 mm
01085451 Ø 1÷13 x 0,5 mm



150 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

Metal 330x240x55

cod.	€
01085450	197,857

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

Metal 550x310x55

cod.	€
01085451	335,768



Metal
375x240x200

720 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	30	7,5	5
1,5	30	8	20
2	50	8,5	5
2,5	70	9	5
3	100	9,5	5
3,5	70	10	10
4	100	10,5	5
4,5	50	11	5
5	50	11,5	5
5,5	30	12	5
6	40	12,5	5
6,5	10	13	5
7	10		

cod.	€
01085501	755,473



Metal
390x460x230

900 pcs Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs	Ø	pcs
1	30	5,25	5	9,5	5
1,25	10	5,5	30	9,75	2
1,5	30	5,75	5	10	10
1,75	10	6	30	10,25	2
2	50	6,25	3	10,5	5
2,25	10	6,5	20	10,75	2
2,5	50	6,75	3	11	5
2,75	10	7	10	11,25	2
3	100	7,25	2	11,5	5
3,25	10	7,5	5	11,75	2
3,5	100	7,75	2	12	5
3,75	10	8	20	12,25	2
4	100	8,25	2	12,5	5
4,25	10	8,5	5	12,75	2
4,5	50	8,75	2	13	5
4,75	10	9	5		
5	100	9,25	2		

cod.	€
01085507	1103,226

Professional

PUNTE ELICOIDALI CILINDRICHE DI ALTA QUALITÀ AL COBALTO 2%, ESECUZIONE RULLATA, CON TAGLIENTI SPECIALI ROMPITRUCIOLO

Cobalt rolled straight shank twist drills / Forets cylindriques au cobalt laminés
Broca helicoidale laminada de cobalto / Kobalt Rollgewalzte spiralbohrer

01006 NEW





W 27°

HV≃ 800÷820
SPLIT POINT
DIN 1412C
(Ø≥3 mm)

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 700 N/mm²

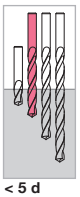


Metals



Acciaio
Steel





< 5 d

- Taglio dei materiali con R ≤ 700 N/mm² quali acciai legati, ghise, tutti i metalli in genere, la grafite.
- High performances in cutting alloy steel up to R ≤ 700 N/mm²
- Puor percer métaux et acier avec R ≤ 700 N/mm²
- Para taladrar hierro e acero R ≤ 700 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 700 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

HSS-CO 2%

Ø	/	L	pcs	cod.	€ cad/each
1	12	34	10	010060100	0,260
1,25	16	38	10	010060125	0,260
1,5	18	40	10	010060150	0,260
1,75	22	46	10	010060175	0,325
2	24	49	10	010060200	0,325
2,25	27	53	10	010060225	0,434
2,5	30	57	10	010060250	0,434
2,75	33	61	10	010060275	0,704
3	33	61	10	010060300	0,658
3,25	36	65	10	010060325	0,943
3,5	39	70	10	010060350	0,943
3,75	39	70	10	010060375	1,140
4	43	75	10	010060400	1,140
4,25	43	75	10	010060425	1,354
4,5	47	80	10	010060450	1,354
4,75	47	80	10	010060475	1,590
5	52	86	10	010060500	1,590
5,25	52	86	10	010060525	2,013
5,5	57	93	10	010060550	2,013
5,75	57	93	10	010060575	2,262
6	57	93	10	010060600	2,262
6,25	63	101	10	010060625	2,629
6,5	63	101	10	010060650	2,629
6,75	69	109	10	010060675	3,191
7	69	109	10	010060700	3,191
7,25	69	109	5	010060725	3,625
7,5	69	109	5	010060750	3,625
7,75	75	117	5	010060775	4,207
8	75	117	5	010060800	4,207
8,25	75	117	5	010060825	4,627
8,5	75	117	5	010060850	4,627
8,75	81	125	5	010060875	5,396
9	81	125	5	010060900	5,396
9,25	81	125	5	010060925	5,857
9,5	81	125	5	010060950	5,857
9,75	87	133	5	010060975	6,576
10	87	133	5	010061000	6,638
10,25	87	133	5	010061025	7,150
10,5	87	133	5	010061050	7,150
10,75	94	142	5	010061075	8,022
11	94	142	5	010061100	8,022
11,25	94	142	5	010061125	8,730
11,5	94	142	5	010061150	8,730
11,75	94	142	5	010061175	9,858
12	101	151	5	010061200	9,858
12,25	101	151	5	010061225	10,809
12,5	101	151	5	010061250	10,809
12,75	101	151	5	010061275	11,626
13	101	151	5	010061300	11,626

ASSORTIMENTI PUNTE RULLATE AL COBALTO 2% IN ASTUCCI DI METALLO DI QUALITÀ

HSS-CO 2% rolled twist drills in high quality metal cases / Forets HSS-CO 2% laminés en coffret métallique
Surtido de brocas laminada en caja metalica / Rollgewalzte Spiralbohrersätze in Metallkassetten

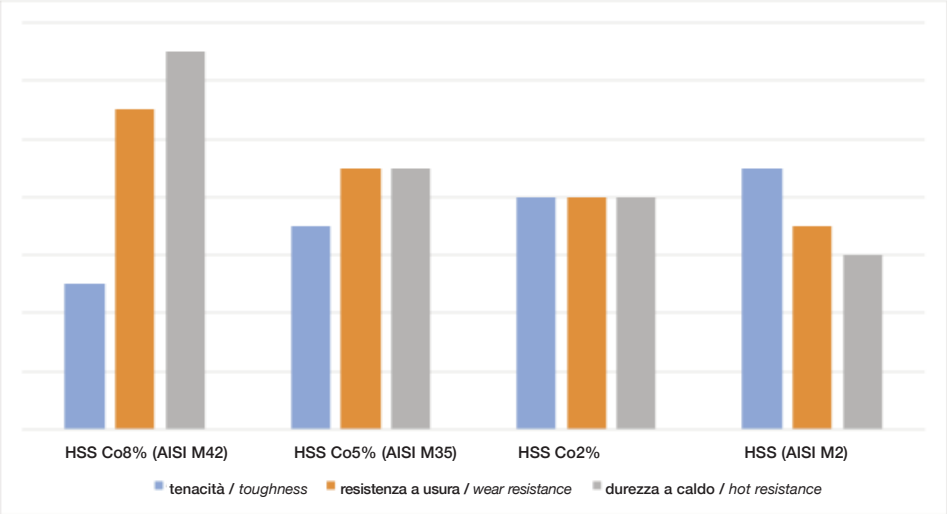
HSS-CO 2%

Metal		Abs	
			
19 pcs Ø 1÷10 x 0,5 mm	**25 pcs** Ø 1÷13 x 0,5 mm	**19 pcs** Ø 1÷10 x 0,5 mm	**25 pcs** Ø 1÷13 x 0,5 mm
01008401 € 51,513	**01008402** € 106,499	**01008301** € 52,602	**01008302** € 107,959

Descrizione / *Description / Description / Descripciòn*

Punta con affilatura che funziona da rompitruciolo, per lavorare tutti quei materiali con trucioli lunghi che potrebbero diventare pericolosi durante il processo di foratura. Il doppio angolo di affilatura dei taglienti crea infatti una discontinuità che favorisce la rottura del truciolo appena generato. La punta è rullata e viene costruita con un acciaio superrapido al cobalto 2%. Questo contributo di cobalto favorisce il mantenimento delle caratteristiche dell'utensile anche a temperature elevate. La punta può pertanto essere utilizzata nella foratura di materiali più duri e resistenti rispetto alla semplice punta rullata in HSS (art. 01001).
This twist drill has a proper sharpening that works as a chipbreaker, to cut into all those long chipped materials that could become dangerous during the drilling process. The double sharpening angle of the cutting edges creates a discontinuity that helps the breakage of the newly generated chip. The tip is rolled forged and it's made with a 2% cobalt high speed steel. This cobalt content promotes the maintenance of the tool characteristics even at high temperatures. This twist drill can therefore be used to drill into harder and more resistant materials than the simple rolled drill bit made of HSS (item 01001).
Ce foret hélicoïdal a un affûtage approprié qui fonctionne comme un brise-copeaux, pour couper tous les matériaux à copeaux longs qui pourraient devenir dangereux pendant le processus de forage. Le double angle d'affûtage des arêtes de coupe crée une discontinuité qui favorise la rupture de la nouvelle puce. L'embout est laminé et fabriqué avec un acier rapide à 2% de cobalt. Cette teneur en cobalt favorise le maintien des caractéristiques de l'outil même à des températures élevées. Ce foret hélicoïdal peut donc être utilisé pour forer des matériaux plus durs et plus résistants que le simple foret laminé en HSS (art. 01001).
Esta broca helicoidale tiene un afilado adecuado que funciona como un rompevirutas, para cortar en todos esos materiales largos astillados que podrían volverse peligrosos durante el proceso de perforación. El doble ángulo de afilado de los bordes cortantes crea una discontinuidad que ayuda a la rotura del chip recién generado. La punta está laminada y está hecha con un acero HSS al 2% de cobalto. Este contenido de cobalto promueve el mantenimiento de las características de la herramienta incluso a altas temperaturas. Por lo tanto, esta broca helicoidal se puede utilizar para taladrar en materiales más duros y más resistentes que la broca laminada simple hecha de HSS (art. 01001).

Confronto di alcune proprietà di acciai superrapidi
Properties comparison of some high speed steels
Comparaison de certaines propriétés des aciers HSS
Comparación de algunas propiedades de los aceros HSS



PUNTE ELICOIDALI CILINDRICHE, SERIE CORTA, ESECUZIONE RULLATA

Rolled straight shank twist drills / Forets cylindriques laminés
Broca helicoidale laminada / Rollgewalzte spiralbohrer

HSS DIN 338 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01001





HV≃ 750÷820

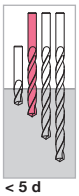
Art. **01002** Self
Disponibile su richiesta
On demand

Confezione / *Packaging*



Applicazioni / Applications





Ø	/	L	pcs	cod.	€ cad/each
0,3	3	19	10	010010030	1,187
0,35	4	19	10	010010035	1,053
0,4	5	20	10	010010040	1,053
0,45	5	20	10	010010045	1,053
0,5	6	22	10	010010050	0,871
0,55	7	24	10	010010055	1,053
0,6	7	24	10	010010060	0,871
0,65	8	26	10	010010065	0,848
0,7	9	28	10	010010070	0,735
0,75	9	28	10	010010075	0,735
0,8	10	30	10	010010080	0,735
0,85	10	30	10	010010085	0,769
0,9	11	32	10	010010090	0,803
0,95	11	32	10	010010095	0,769
1	12	34	10	010010100	0,487
1,1	14	36	10	010010110	0,487
1,2	16	38	10	010010120	0,487
1,25	16	38	10	010010125	0,487
1,3	16	38	10	010010130	0,453
1,4	18	40	10	010010140	0,453
1,5	18	40	10	010010150	0,340
1,6	20	43	10	010010160	0,385
1,7	20	43	10	010010170	0,385
1,75	22	46	10	010010175	0,385
1,8	22	46	10	010010180	0,385
1,9	22	46	10	010010190	0,385
2	24	49	10	010010200	0,351
2,1	24	49	10	010010210	0,395
2,2	27	53	10	010010220	0,395
2,25	27	53	10	010010225	0,395
2,3	27	53	10	010010230	0,395
2,4	30	57	10	010010240	0,395
2,5	30	57	10	010010250	0,351
2,6	30	57	10	010010260	0,418
2,7	33	61	10	010010270	0,418
2,75	33	61	10	010010275	0,418
2,8	33	61	10	010010280	0,418
2,9	33	61	10	010010290	0,418
3	33	61	10	010010300	0,385
3,1	36	65	10	010010310	0,487
3,2	36	65	10	010010320	0,487
3,25	36	65	10	010010325	0,487
3,3	36	65	10	010010330	0,487
3,4	39	70	10	010010340	0,487
3,5	39	70	10	010010350	0,453
3,6	39	70	10	010010360	0,554
3,7	39	70	10	010010370	0,554
3,75	39	70	10	010010375	0,554
3,8	43	75	10	010010380	0,554
3,9	43	75	10	010010390	0,554
4	43	75	10	010010400	0,497
4,1	43	75	10	010010410	0,622
4,2	43	75	10	010010420	0,622
4,25	43	75	10	010010425	0,622
4,3	47	80	10	010010430	0,622
4,4	47	80	10	010010440	0,622
4,5	47	80	10	010010450	0,554
4,6	47	80	10	010010460	0,712
4,7	47	80	10	010010470	0,712
4,75	47	80	10	010010475	0,712
4,8	52	86	10	010010480	0,712
4,9	52	86	10	010010490	0,712

- Per forare: tutti i metalli, ferro, acciaio etc...
- For drilling in: Iron, steel, metals
- Pour percer: Fer, acier, métaux
- Para taladrar: Hierro, acero etc...
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 650 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

Ø	/	L	pcs	cod.	€ cad/each
5	52	86	10	010010500	0,645
5,1	52	86	10	010010510	0,881
5,2	52	86	10	010010520	0,881
5,25	52	86	10	010010525	0,881
5,3	52	86	10	010010530	0,881
5,4	57	93	10	010010540	0,881
5,5	57	93	10	010010550	0,803
5,6	57	93	10	010010560	0,905
5,7	57	93	10	010010570	0,905
5,75	57	93	10	010010575	0,905
5,8	57	93	10	010010580	0,905
5,9	57	93	10	010010590	0,905
6	57	93	10	010010600	0,837
6,1	63	101	10	010010610	1,109
6,2	63	101	10	010010620	1,109
6,25	63	101	10	010010625	1,109
6,3	63	101	10	010010630	1,109
6,4	63	101	10	010010640	1,109
6,5	63	101	10	010010650	1,007
6,6	63	101	10	010010660	1,301
6,7	63	101	10	010010670	1,301
6,75	69	109	10	010010675	1,301
6,8	69	109	10	010010680	1,301
6,9	69	109	10	010010690	1,301
7	69	109	10	010010700	1,187
7,1	69	109	5	010010710	1,414
7,2	69	109	5	010010720	1,414
7,25	69	109	5	010010725	1,414
7,3	69	109	5	010010730	1,414
7,4	69	109	5	010010740	1,414
7,5	69	109	5	010010750	1,301
7,6	75	117	5	010010760	1,752
7,7	75	117	5	010010770	1,752
7,75	75	117	5	010010775	1,752
7,8	75	117	5	010010780	1,752
7,9	75	117	5	010010790	1,752
8	75	117	5	010010800	1,650
8,1	75	117	5	010010810	1,878
8,2	75	117	5	010010820	1,878
8,25	75	117	5	010010825	1,878
8,3	75	117	5	010010830	1,878
8,4	75	117	5	010010840	1,878
8,5	75	117	5	010010850	1,709
8,6	81	125	5	010010860	2,149
8,7	81	125	5	010010870	2,149
8,75	81	125	5	010010875	2,149
8,8	81	125	5	010010880	2,149
8,9	81	125	5	010010890	2,149
9	81	125	5	010010900	1,957
9,1	81	125	5	010010910	2,431
9,2	81	125	5	010010920	2,431
9,25	81	125	5	010010925	2,431
9,3	81	125	5	010010930	2,431
9,4	81	125	5	010010940	2,431
9,5	81	125	5	010010950	2,194
9,6	87	133	5	010010960	2,713
9,7	87	133	5	010010970	2,713
9,75	87	133	5	010010975	2,713
9,8	87	133	5	010010980	2,713
9,9	87	133	5	010010990	2,713
10	87	133	5	010011000	2,521
10,1	87	133	5	010011010	3,856
10,2	87	133	5	010011020	3,856

Ø	/	L	pcs	cod.	€ cad/each
10,25	87	133	5	010011025	3,190
10,3	87	133	5	010011030	3,856
10,4	87	133	5	010011040	3,856
10,5	87	133	5	010011050	2,906
10,6	87	133	5	010011060	4,410
10,7	94	142	5	010011070	4,410
10,75	94	142	5	010011075	3,698
10,8	94	142	5	010011080	4,410
10,9	94	142	5	010011090	4,410
11	94	142	5	010011100	3,335
11,1	94	142	5	010011110	4,795
11,2	94	142	5	010011120	4,795
11,25	94	142	5	010011125	3,992
11,3	94	142	5	010011130	4,795
11,4	94	142	5	010011140	4,795
11,5	94	142	5	010011150	3,618
11,6	94	142	5	010011160	5,123
11,7	94	142	5	010011170	5,123
11,75	94	142	5	010011175	4,274
11,8	94	142	5	010011180	5,123
11,9	101	151	5	010011190	5,123
12	101	151	5	010011200	3,913
12,1	101	151	5	010011210	5,621
12,2	101	151	5	010011220	5,621
12,25	101	151	5	010011225	4,682
12,3	101	151	5	010011230	5,621
12,4	101	151	5	010011240	5,621
12,5	101	151	5	010011250	4,286
12,6	101	151	5	010011260	5,892
12,7	101	151	5	010011270	5,892
12,75	101	151	5	010011275	4,918
12,8	101	151	5	010011280	5,892
12,9	101	151	5	010011290	5,892
13	101	151	5	010011300	4,546
13,25	108	160	3	010011325	6,638
13,5	108	160	3	010011350	6,152
13,75	108	160	3	010011375	6,638
14	108	160	3	010011400	6,152
14,25	114	169	3	010011425	7,520
14,5	114	169	3	010011450	6,887
14,75	114	169	3	010011475	9,815
15	114	169	3	010011500	8,923
15,25	120	178	3	010011525	11,048
15,5	120	178	3	010011550	10,043
15,75	120	178	3	010011575	12,135
16	120	178	3	010011600	11,037
16,25	125	184	3	010011625	14,045
16,5	125	184	1	010011650	11,670
16,75	125	184	1	010011675	14,045
17	125	184	1	010011700	11,670
17,25	130	191	1	010011725	15,244
17,5	130	191	1	010011750	12,700
17,75	130	191	1	010011775	15,244
18	130	191	1	010011800	13,955
18,25	135	198	1	010011825	17,880
18,5	135	198	1	010011850	14,893
18,75	135	198	1	010011875	17,880
19	135	198	1	010011900	14,893
19,25	140	205	1	010011925	20,852
19,5	140	205	1	010011950	17,404
19,75	140	205	1	010011975	20,852
20	140	205	1	010012000	17,404
20,5	145	213	1	010012050	19,722
21	145	213	1	010012100	21,543
21,5	150	221	1	010012150	23,206
22	150	221	1	010012200	24,279
22,5	150	221	1	010012250	24,744
23	155	229	1	010012300	26,733
23,5	155	229	1	010012350	31,800
24	160	236	1	010012400	32,603
24,5	160	236	1	010012450	33,123
25	160	236	1	010012500	33,915

PUNTE ELICOIDALI CILINDRICHE CON CODOLO RIDOTTO, ESECUZIONE RULLATA

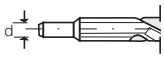
Reduced shank twist drills / Forets cylindriques à queue réduite
Brocas helicoidales con mango reducido / Rollgewalzte Spiralbohrer mit reduzierten Schaft

HSS DIN 338 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01003



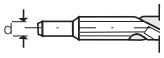


d= 10 mm.

Art. **01005** Self
Disponibile su richiesta
On demand

Ø	/	L	pcs	cod.	€ cad/each
10,25	87	133	5	010031025	4,806
10,5	87	133	5	010031050	4,061
10,75	94	142	5	010031075	5,405
11	94	142	5	010031100	4,489
11,25	94	142	5	010031125	5,721
11,5	94	142	5	010031150	4,750
11,75	94	142	5	010031175	6,038
12	101	151	5	010031200	5,044
12,25	101	151	5	010031225	6,491
12,5	101	151	5	010031250	5,428
12,75	101	151	5	010031275	7,000
13	101	151	5	010031300	5,823
13,25	108	160	3	010031325	9,046
13,5	108	160	3	010031350	7,520
13,75	108	160	3	010031375	9,046
14	108	160	3	010031400	7,520
14,25	114	169	3	010031425	9,748
14,5	114	169	3	010031450	8,379
14,75	114	169	3	010031475	11,183
15	114	169	3	010031500	10,292
15,25	120	178	3	010031525	12,892
15,5	120	178	3	010031550	11,264
15,75	120	178	3	010031575	12,892
16	120	178	3	010031600	12,405
16,25	125	184	3	010031625	15,005
16,5	125	184	1	010031650	13,051
16,75	125	184	1	010031675	15,005
17	125	184	1	010031700	13,051
17,25	125	184	1	010031725	16,160
17,5	130	191	1	010031750	14,057
17,75	130	191	1	010031775	16,160
18	130	191	1	010031800	14,057
18,25	130	191	1	010031825	18,649
18,5	135	198	1	010031850	16,217
18,75	135	198	1	010031875	18,649
19	135	198	1	010031900	16,217
19,25	135	198	1	010031925	21,453
19,5	140	205	1	010031950	18,649
19,75	140	205	1	010031975	21,453
20	140	205	1	010032000	18,649

01004



d= 13 mm.

Ø	/	L	pcs	cod.	€ cad/each
13,25	108	160	3	010041325	9,046
13,5	108	160	3	010041350	7,520
13,75	108	160	3	010041375	9,046
14	108	160	3	010041400	7,520
14,25	114	169	3	010041425	9,748
14,5	114	169	3	010041450	8,379
14,75	114	169	3	010041475	11,183
15	114	169	3	010041500	10,292
15,25	120	178	3	010041525	12,892
15,5	120	178	3	010041550	11,264
15,75	120	178	3	010041575	12,892
16	120	178	3	010041600	12,405
16,25	125	184	3	010041625	15,005
16,5	125	184	1	010041650	13,051
16,75	125	184	1	010041675	15,005
17	125	184	1	010041700	13,051
17,25	130	191	1	010041725	16,160
17,5	130	191	1	010041750	14,057
17,75	130	191	1	010041775	16,160
18	130	191	1	010041800	14,057
18,25	135	198	1	010041825	18,649
18,5	135	198	1	010041850	16,217
18,75	135	198	1	010041875	18,649
19	135	198	1	010041900	16,217
19,25	140	205	1	010041925	21,453
19,5	140	205	1	010041950	18,649
19,75	140	205	1	010041975	21,453
20	140	205	1	010042000	18,649
20,5	145	213	1	010042050	25,773
21	145	213	1	010042100	27,751
21,5	150	221	1	010042150	29,561
22	150	221	1	010042200	30,725
22,5	150	221	1	010042250	31,223
23	155	229	1	010042300	33,406
23,5	155	229	1	010042350	38,902
24	160	236	1	010042400	39,762
24,5	160	236	1	010042450	40,338
25	160	236	1	010042500	41,209

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 650 N/mm²

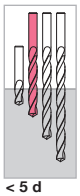


Metals



Acciaio
Steel





< 5 d

PUNTE ELICOIDALI CILINDRICHE SERIE LUNGA, ESECUZIONE RULLATA

Straight shank twist drills, long serie / Forets cylindriques, série longue
Brocas helicoidales, serie larga / Spiralbohrer, lange Ausführung, rollgewalzt

HSS DIN 340 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01020





HV≃ 750÷820

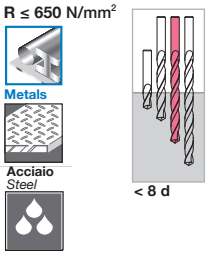
Art. **01021** Self
Disponibile su richiesta
On demand

Ø	/	L	pcs	cod.	€ cad/each
1,5	45	70	10	010200150	1,662
1,75	53	80	10	010200175	1,289
2	56	85	10	010200200	1,289
2,2	59	90	10	010200220	1,368
2,25	59	90	10	010200225	1,368
2,5	62	95	10	010200250	1,368
2,75	66	100	10	010200275	1,401
2,8	66	100	10	010200280	1,401
3	66	100	10	010200300	1,401
3,2	69	106	10	010200320	1,629
3,25	69	106	10	010200325	1,629
3,5	73	112	10	010200350	1,629
3,75	73	112	10	010200375	1,786
3,8	78	119	10	010200380	1,786
4	78	119	10	010200400	1,786
4,2	78	119	10	010200420	2,113
4,25	78	119	10	010200425	2,113
4,5	82	126	10	010200450	2,113
4,75	82	126	10	010200475	2,250
4,8	87	132	10	010200480	2,250
5	87	132	10	010200500	2,250
5,2	87	132	10	010200520	2,815
5,25	87	132	10	010200525	2,815
5,5	91	139	10	010200550	2,815
5,75	91	139	10	010200575	3,031
5,8	91	139	10	010200580	3,031
6	91	139	10	010200600	3,031
6,25	97	148	5	010200625	3,641
6,5	97	148	5	010200650	3,641
6,75	97	148	5	010200675	4,274
7	102	156	5	010200700	4,274
7,25	102	156	5	010200725	4,601
7,5	102	156	5	010200750	4,601
7,75	109	165	5	010200775	5,168
8	109	165	5	010200800	5,168
8,25	109	165	5	010200825	5,654
8,5	109	165	5	010200850	5,654
8,75	115	175	5	010200875	6,016
9	115	175	5	010200900	6,016
9,25	115	175	5	010200925	6,118
9,5	115	175	5	010200950	6,118
9,75	121	184	5	010200975	7,069
10	121	184	5	010201000	7,069
10,5	121	184	5	010201050	9,059
11	128	195	5	010201100	9,771
11,5	128	195	5	010201150	10,121
12	134	205	5	010201200	11,071
12,5	134	205	5	010201250	11,467
13	134	205	5	010201300	13,027
13,5	140	214	3	010201350	19,010
14	140	214	3	010201400	19,010
14,5	144	220	3	010201450	20,243
15	144	220	3	010201500	24,936
15,5	149	227	3	010201550	26,032
16	149	227	3	010201600	28,351
17	154	235	1	010201700	33,982
18	158	241	1	010201800	37,375
19	162	247	1	010201900	41,209
20	166	254	1	010202000	46,264

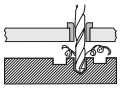
Confezione / *Packaging*



Applicazioni / *Applications*



- Per forare: tutti i metalli, ferro, acciaio etc..
- For drilling in: Iron, steel, metals
- Pour percer: Fer, acier, métaux
- Para taladrar: Hierro, acero etc...
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 650 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe



PUNTE ELICOIDALI CILINDRICHE SERIE EXTRA CORTA, ESECUZIONE RULLATA

Straight shank twist drills-stub serie / Forets cylindriques, série extra courte
Brocas helicoidales, serie extra corta / Rollgewalzte Spiralbohrer, extra kurz

HSS DIN 1897 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01018





HV≃ 750÷820

Art. **01019** Self
Disponibile su richiesta
On demand

Ø	/	L	pcs	cod.	€ cad/each
2	12	38	10	010180200	0,453
2,2	13	40	10	010180220	0,475
2,25	13	40	10	010180225	0,475
2,5	14	43	10	010180250	0,475
2,75	16	46	10	010180275	0,487
2,8	16	46	10	010180280	0,487
3	16	46	10	010180300	0,487
3,2	18	49	10	010180320	0,554
3,25	18	49	10	010180325	0,554
3,3	18	49	10	010180330	0,554
3,5	20	52	10	010180350	0,554
3,75	20	52	10	010180375	0,610
3,8	22	55	10	010180380	0,610
4	22	55	10	010180400	0,610
4,2	22	55	10	010180420	0,723
4,25	22	55	10	010180425	0,723
4,5	24	58	10	010180450	0,723
4,75	24	58	10	010180475	0,837
4,8	26	62	10	010180480	0,837
5	26	62	10	010180500	0,837
5,2	26	62	10	010180520	1,040
5,25	26	62	10	010180525	1,040
5,5	28	66	10	010180550	1,040
5,75	28	66	10	010180575	1,053
5,8	28	66	10	010180580	1,053
6	28	66	10	010180600	1,053
6,5	31	70	5	010180650	1,380
7	34	74	5	010180700	1,561
7,5	34	74	5	010180750	1,786
8	37	79	5	010180800	2,273
8,5	37	79	5	010180850	2,579
9	40	84	5	010180900	3,008
9,5	40	84	5	010180950	3,268
10	43	89	5	010181000	4,082

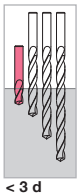
Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 650 N/mm²







PUNTE ELICOIDALI SUPERCORTE PER LATTONIERI

Extra short twist drills for portable applications / Forets cylindriques série extra courte spécial
Brocas helicoidales, serie extra corta special / Spiralbohrer, spezial extra kurz

NORMA KRINO HSS-G Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen





HV≃750÷820
SPLIT POINT
DIN 1412C

Ø	/	L	pcs	cod.	€ cad/each
3	16	35	10	010500300	0,931
3,2	19	40	10	010500320	0,975
3,25	19	40	10	010500325	0,975
3,3	19	40	10	010500330	0,975
3,5	19	40	10	010500350	0,975
3,6	19	40	10	010500360	1,075
3,75	19	40	10	010500375	1,075
4	20	40	10	010500400	1,075
4,1	20	40	10	010500410	1,319
4,2	20	40	10	010500420	1,319
4,25	20	40	10	010500425	1,319
4,5	23	42	10	010500450	1,319
5	23	45	10	010500500	1,442

01050

Confezione / Packaging



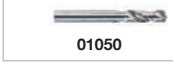
Applicazioni / Applications

R≤800 N/mm²



Punte speciali per lattonieri, carpentieri, coperturisti, fabbri, installatori.
Foratura dolce e precisa, grazie all'affilatura *split point* autocentrante, su lamiere e tubi in acciaio, rame e plastica.
Super short twist drills for cutting metal sheets, special for journeymen's, carpenters, locksmith's, tinsmith's.





85

PUNTE ELICOIDALI SUPERCORTE AL COBALTO PER LATTONIERI

HSS-CO extra short twist drills for portable applications / Forets extra court spécial au cobalt
Brocas helicoidales, serie extra corta de cobalto / Cobalt Spiralbohrer, spezial extra kurz

NORMA KRINO HSS-CO Rettificata

Ground from the solid / Rectifié / Rectificada / Geschliffen





HV≃850
SPLIT POINT
DIN 1412C

Ø	/	L	pcs	cod.	€ cad/each
3	16	35	10	010510300	1,443
3,25	19	40	10	010510325	1,443
3,5	19	40	10	010510350	1,443
3,75	19	40	10	010510375	2,054
4	20	40	10	010510400	2,170
4,25	20	40	10	010510425	2,359
4,5	23	42	10	010510450	2,728
5	23	45	10	010510500	3,023

01051

Confezione / Packaging



Applicazioni / Applications

R≤1200 N/mm²



Punte speciali per la foratura di lamiere e tubi in acciaio inox e lamiere metalliche in genere (acciaio, ferro, rame). Speciali per lattonieri, carpentieri, coperturisti, fabbri, installatori.
Super short twist drills for cutting stainless metal sheets. Special for journeymen's, carpenters, locksmith's, tinsmith's.





32

PUNTE ELICOIDALI CODOLO CONICO MORSE, ESECUZIONE RULLATA

Morse taper shank twist drills / Forets à queue conique morse
Brocas helicoidales con mango conico / Spiralbohrer mit Morsekegel

HSS DIN 345 Esecuzione Rullata

Rolled / Laminé / Laminada / Rollgewalzt

01025





HV ≃ 750÷820

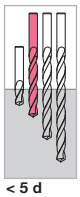


Confezione / Packaging



Applicazioni / Applications





- Taglio dei materiali con R ≤ 650 N/mm² quali acciai legati, ghise tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 650 N/mm²
- Puor percer métaux et acier avec R ≤ 650 N/mm²
- Para taladrar hierro e acero R ≤ 650 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 650 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

Ø	M.K.	/	L	pcs	cod.	€ cad/each
5	1	52	133	1	010250500	8,685
6	1	57	138	1	010250600	8,685
6,25	1	63	144	1	010250625	8,685
6,5	1	63	144	1	010250650	8,685
6,75	1	69	150	1	010250675	8,685
7	1	69	150	1	010250700	8,685
7,25	1	69	150	1	010250725	8,685
7,5	1	69	150	1	010250750	8,685
7,75	1	75	156	1	010250775	8,685
8	1	75	156	1	010250800	8,685
8,25	1	75	156	1	010250825	9,036
8,5	1	75	156	1	010250850	9,036
8,75	1	81	162	1	010250875	9,036
9	1	81	162	1	010250900	9,036
9,25	1	81	162	1	010250925	9,036
9,5	1	81	162	1	010250950	9,036
9,75	1	87	168	1	010250975	9,036
10	1	87	168	1	010251000	9,036
10,25	1	87	168	1	010251025	9,397
10,5	1	87	168	1	010251050	9,397
10,75	1	94	175	1	010251075	9,397
11	1	94	175	1	010251100	9,397
11,25	1	94	175	1	010251125	10,053
11,5	1	94	175	1	010251150	10,053
11,75	1	94	175	1	010251175	10,053
12	1	101	182	1	010251200	10,053
12,25	1	101	182	1	010251225	10,449
12,5	1	101	182	1	010251250	10,449
12,75	1	101	182	1	010251275	10,687
13	1	101	182	1	010251300	10,687
13,25	1	108	189	1	010251325	15,142
13,5	1	108	189	1	010251350	12,847
13,75	1	108	189	1	010251375	15,142
14	2	108	189	1	010251400	12,847
14,25	2	114	212	1	010251425	16,341
14,5	2	114	212	1	010251450	13,887
14,75	2	114	212	1	010251475	17,857
15	2	114	212	1	010251500	15,142
15,25	2	120	218	1	010251525	18,083
15,5	2	120	218	1	010251550	15,403
15,75	2	120	218	1	010251575	18,083
16	2	120	218	1	010251600	15,403
16,25	2	125	223	1	010251625	20,423
16,5	2	125	223	1	010251650	17,325
16,75	2	125	223	1	010251675	20,423
17	2	125	223	1	010251700	17,325
17,25	2	130	228	1	010251725	22,087
17,5	2	130	228	1	010251750	18,728
17,75	2	130	228	1	010251775	22,087
18	2	130	228	1	010251800	18,728
18,25	2	135	233	1	010251825	23,273
18,5	2	135	233	1	010251850	19,688
18,75	2	135	233	1	010251875	23,273
19	2	135	233	1	010251900	19,688
19,25	2	140	238	1	010251925	24,143
19,5	2	140	238	1	010251950	20,491
19,75	2	140	238	1	010251975	24,143
20	2	140	238	1	010252000	21,034
20,25	2	145	243	1	010252025	29,358
20,5	2	145	243	1	010252050	25,331
20,75	2	145	243	1	010252075	29,358
21	2	145	243	1	010252100	26,089
21,25	2	150	248	1	010252125	30,759
21,5	2	150	248	1	010252150	26,643
21,75	2	150	248	1	010252175	30,759
22	2	150	248	1	010252200	26,643
22,25	2	150	248	1	010252225	34,774
22,5	2	155	253	1	010252250	30,071
22,75	2	155	253	1	010252275	34,774
23	3	155	253	1	010252300	30,071
23,25	3	155	276	1	010252325	39,468
23,5	3	155	276	1	010252350	36,211
23,75	3	160	281	1	010252375	39,468
24	3	160	281	1	010252400	36,211
24,25	3	160	281	1	010252425	41,853
24,5	3	160	281	1	010252450	37,658

Ø	M.K.	/	L	pcs	cod.	€ cad/each
24,75	3	160	281	1	010252475	41,853
25	3	160	281	1	010252500	37,658
25,25	3	165	286	1	010252525	41,571
25,5	3	165	286	1	010252550	41,571
25,75	3	165	286	1	010252575	50,369
26	3	165	286	1	010252600	45,801
26,25	3	165	286	1	010252625	51,872
26,5	3	165	286	1	010252650	47,169
26,75	3	170	291	1	010252675	47,948
27	3	170	291	1	010252700	47,948
27,25	3	170	291	1	010252725	55,627
27,5	3	170	291	1	010252750	50,572
27,75	3	170	291	1	010252775	55,627
28	3	170	291	1	010252800	50,572
28,25	3	175	296	1	010252825	59,925
28,5	3	175	296	1	010252850	54,440
28,75	3	175	296	1	010252875	63,407
29	3	175	296	1	010252900	57,651
29,25	3	175	296	1	010252925	65,353
29,5	3	175	296	1	010252950	59,405
29,75	3	175	296	1	010252975	65,353
30	3	175	296	1	010253000	59,405
30,25	3	180	301	1	010253025	74,852
30,5	3	180	301	1	010253050	71,278
30,75	3	180	301	1	010253075	74,852
31	3	180	301	1	010253100	71,278
31,25	3	180	301	1	010253125	80,462
31,5	3	180	301	1	010253150	76,628
31,75	4	185	306	1	010253175	92,731
32	4	185	334	1	010253200	92,731
32,25	4	185	334	1	010253225	95,524
32,5	4	185	334	1	010253250	95,524
32,75	4	185	334	1	010253275	102,773
33	4	185	334	1	010253300	102,773
33,25	4	185	334	1	010253325	106,879
33,5	4	185	334	1	010253350	106,879
33,75	4	185	334	1	010253375	112,228
34	4	190	339	1	010253400	112,228
34,25	4	190	339	1	010253425	115,598
34,5	4	190	339	1	010253450	115,598
34,75	4	190	339	1	010253475	121,093
35	4	190	339	1	010253500	121,093
35,25	4	190	339	1	010253525	124,756
35,5	4	190	339	1	010253550	124,756
35,75	4	190	339	1	010253575	140,656
36	4	195	344	1	010253600	140,656
36,25	4	195	344	1	010253625	143,111
36,5	4	195	344	1	010253650	143,111
36,75	4	195	344	1	010253675	143,111
37	4	195	344	1	010253700	143,111
37,25	4	195	344	1	010253725	145,554
37,5	4	195	344	1	010253750	145,554
37,75	4	195	344	1	010253775	157,791
38	4	200	349	1	010253800	157,791
38,25	4	200	349	1	010253825	160,232
38,5	4	200	349	1	010253850	160,232
38,75	4	200	349	1	010253875	160,232
39	4	200	349	1	010253900	160,232
39,25	4	200	349	1	010253925	163,897
39,5	4	200	349	1	010253950	163,897
39,75	4	200	349	1	010253975	163,897
40	4	200	349	1	010254000	163,897
40,25	4	205	354	1	010254025	195,707
40,5	4	205	354	1	010254050	195,707
40,75	4	205	354	1	010254075	195,707
41	4	205	354	1	010254100	195,707
41,25	4	205	354	1	010254125	201,814
41,5	4	205	354	1	010254150	201,814
41,75	4	205	354	1	010254175	201,814
42	4	205	354	1	010254200	201,814
42,25	4	205	354	1	010254225	204,268
42,5	4	205	354	1	010254250	204,268
42,75	4	205	354	1	010254275	204,268
43	4	210	359	1	010254300	204,268
43,25	4	210	359	1	010254325	207,932
43,5	4	210	359	1	010254350	207,932
43,75	4	210	359	1	010254375	207,932

Ø	M.K.	/	L	pcs	cod.	€ cad/each
44	4	210	359	1	010254400	207,932
44,25	4	210	359	1	010254425	215,272
44,5	4	210	359	1	010254450	215,272
44,75	4	210	359	1	010254475	215,272
45	4	210	359	1	010254500	215,272
45,25	4	215	364	1	010254525	220,168
45,5	4	215	364	1	010254550	220,168
45,75	4	215	364	1	010254575	220,168
46	4	215	364	1	010254600	220,168
46,25	4	215	364	1	010254625	249,526
46,5	4	215	364	1	010254650	249,526
46,75	4	215	364	1	010254675	249,526
47	4	215	364	1	010254700	249,526
47,25	4	215	364	1	010254725	255,632
47,5	4	215	364	1	010254750	255,632
47,75	4	215	364	1	010254775	255,632
48	4	220	369	1	010254800	255,632
48,25	4	220	369	1	010254825	266,647
48,5	4	220	369	1	010254850	266,647
48,75	4	220	369	1	010254875	266,647
49	4	220	369	1	010254900	266,647
49,25	4	220	369	1	010254925	272,765
49,5	4	220	369	1	010254950	272,765
49,75	4	220	369	1	010254975	272,765
50	4	220	369	1	010255000	272,765
50,5	4	225	374	1	010255050	330,246
51	5	225	412	1	010255100	330,246
52	5	225	412	1	010255200	353,486
53	5	225	412	1	010255300	358,383
54	5	230	417	1	010255400	382,844
55	5	230	417	1	010255500	390,183
56	5	230	417	1	010255600	436,662
57	5	235	422	1	010255700	436,662
58	5	235	422	1	010255800	442,780
59	5	235	422	1	010255900	442,780
60	5	235	422	1	010256000	452,562
61	5	240	427	1	010256100	615,169
62	5	240	427	1	010256200	685,925
63	5	240	427	1	010256300	685,925
64	5	245	432	1	010256400	685,925
65	5	245	432	1	010256500	685,925
66	5	245	432	1	010256600	863,393
67	5	245	432	1	010256700	863,393
68	5	250	437	1	010256800	863,393
69	5	250	437	1	010256900	863,393
70	5	250	437	1	010257000	1092,439
71	5	250	437	1	010257100	1132,008
72	5	255	442	1	010257200	1177,575
73	5	255	442	1	010257300	1223,143
74	5	255	442	1	010257400	1292,702
75	5	255	442	1	010257500	1316,683
76	6	260	447	1	010257600	1431,798
77	6	260	514	1	010257700	1477,366
78	6	260	514	1	010257800	1524,130
79	6	260	514	1	010257900	1593,689
80	6	260	514	1	010258000	1639,256
81	6	265	519	1	010258100	1731,589
82	6	265	519	1	010258200	1754,372
83	6	265	519	1	010258300	1823,921
84	6	265	519	1	010258400	1823,921
85	6	265	519	1	010258500	1846,703
86	6	270	524	1	010258600	1893,480
87	6	270	524	1	010258700	1916,264
88	6	270	524	1	010258800	1963,028
89	6	270	524	1	010258900	2008,596
90	6	270	524	1	010259000	2008,596
91	6	275	529	1	010259100	2170,487
92	6	275	529	1	010259200	2262,818
93	6	275	529	1	010259300	2285,602
94	6	275	529	1	010259400	2285,602
95	6	275	529	1	010259500	2332,367
96	6	280	534	1	010259600	2398,322
97	6	280	534	1	010259700	2447,493
98	6	280	534	1	010259800	2493,060
99	6	280	534	1	010259900	2675,329
100	6	280	534	1	0102510000	3881,041



Magazzeno cono box per punte coniche *Plastic bench stand for taper shank tools*

Totale: n° 10 fori C.M. 3
(con 4 riduzioni C.M. 1 e C.M. 2)

01016436 € 105,525

ASSORTIMENTI PUNTE HSS RULLATE IN ASTUCCI DI METALLO DI QUALITÀ

HSS rolled twist drills in high quality metal cases / Forets HSS laminés en coffret métallique
Surtido de brocas laminada en caja metalica / Rollgewalzte Spiralbohrersätze in Metallkassetten

HSS-DIN 338

Metal



19 pcs
Ø 1÷10 x 0,5 mm

01016401 € 18,229



25 pcs
Ø 1÷13 x 0,5 mm

01016402 € 39,875



19 fori - holes
Ø 1÷10 x 0,5 mm

01016401V € 10,078



25 fori - holes
Ø 1÷13 x 0,5 mm

01016402V € 16,309



19 pcs
Ø 1÷10 x 0,5 mm

01016405 € 17,732



25 pcs
Ø 1÷13 x 0,5 mm

01016406 € 37,919



19 fori - holes
Ø 1÷10 x 0,5 mm

01016405V € 8,392



25 fori - holes
Ø 1÷13 x 0,5 mm

01016406V € 11,153



37 pcs
Ø 1÷10 x 0,25 mm

01016411 € 58,714



49 pcs
Ø 1÷13 x 0,25 mm

01016412 € 103,972



37 fori - holes
Ø 1÷10 x 0,25 mm

01016411V € 29,381



49 fori - holes
Ø 1÷13 x 0,25 mm

01016412V € 32,972



51 pcs
Ø 1÷6 x 0,1 mm

01016407 € 37,308



41 pcs
Ø 6÷10 x 0,1 mm

01016408 € 89,294

91 pcs
Ø 1÷10 x 0,1 mm

01016410 € 256,866

ASSORTIMENTI PUNTE HSS RULLATE

HSS rolled twist drills sets / Assortiments forets HSS laminés
Juegos brocas helicoidales en HSS laminadas / Rollgewalzte Spiralbohrersätze

HSS-DIN 338

Abs



19 pcs
Ø 1÷10 x 0,5 mm

01016305 € 29,150

Abs



25 pcs
Ø 1÷13 x 0,5 mm

01016306 € 56,300



10 pcs
Ø 1÷10 x 1 mm

01016201 € 12,598

13 pcs
Ø 2 ÷ 8 x 0,5 mm

01016205 € 12,474

19 pcs
Ø 1÷10 x 0,5 mm

01016206 € 16,510



6 pcs Ø 2 ÷ 8 mm
Ø 2 - 3 - 4 - 5 - 6 - 8

01016204 € 6,977

13 pcs Ø 1,5 ÷ 6,5 mm
Ø 1,5 - 2 - 2,5 - 3 - 3,3 - 3,5
4 - 4,2 - 4,5 - 5 - 5,5 - 6 - 6,5

01016203 € 8,692

7 pcs Ø 1,5 ÷ 6 mm
Ø 1,5 - 2 - 3 - 4 - 5
5,5 - 6

01016202 € 6,357



19 pcs
Ø 1÷10 x 0,5 mm

01016250 € 17,384

25 pcs
Ø 1÷13 x 0,5 mm

01016251 € 40,468



8 pcs
4 pcs Ø 4 - 5 - 6 - 8
4 pcs Ø 4 - 5 - 6 - 8

09010230 € 9,357



9 pcs
5 pcs Ø 3 - 4 - 5 - 6 - 8
4 pcs Ø 4 - 5 - 6 - 8

09010231 € 9,779



9 pcs
3 pcs Ø 4 - 6 - 8
3 pcs Ø 4 - 6 - 8
3 pcs Ø 4 - 6 - 8

09010232 € 9,970



91 pcs
Ø 1÷10 x 0,1 mm

01016220 € 184,675



19 pcs HSS
Ø 1÷10 x 0,5 mm

01016101 € 16,186



19 pcs HSS + W
13 pcs Ø 1 - 1,5 - 2 - 2,5 - 3 - 3,5
4 - 4,5 - 5 - 5,5 - 6 - 8 - 10
6 pcs Ø 4 - 5 - 6 - 8 - 9 - 10

09001102 € 16,186



18 pcs
6 pcs Ø 3 - 4 - 5 - 6 - 8 - 10
6 pcs Ø 3 - 4 - 5 - 6 - 8 - 10
6 pcs Ø 3 - 4 - 5 - 6 - 8 - 10

09005105 € 16,186



19 pcs HSS + W + BITS
HSS Ø 2 - 3 - 4 - 5 - 6 - 8 - 10
W Ø 4 - 5 - 6 - 8 - 10
BITS Ø 4,5 - 6 - 1 - 2 Pz1 Pz2

● Porta inserti magnetico *magnetic holder* 1Pc

09001107 € 16,186

ESPOSITORE DA BANCO-MAGAZZENO PUNTE TRAPANO HSS RULLATE

HSS rolled twist drills display / Display forets HSS laminés
Expositor de brocas HSS laminada / Verkaufsschränke für Spiralbohrer

HSS-DIN 338



Metal
330x240x55

150 pcs Ø 1÷10 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	6	5
1,5	10	6,5	5
2	10	7	5
2,5	10	7,5	5
3	20	8	5
3,5	10	8,5	5
4	10	9	5
4,5	10	9,5	5
5	10	10	5
5,5	5		

cod.	€
01016450	165,483



Metal
550x310x55

168 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	10	7,5	5
1,5	10	8	5
2	10	8,5	5
2,5	10	9	5
3	20	9,5	5
3,5	10	10	5
4	10	10,5	3
4,5	10	11	3
5	10	11,5	3
5,5	5	12	3
6	5	12,5	3
6,5	5	13	3
7	5		

cod.	€
01016451	299,791

HSS DIN 338



Plastic
410x240x150

610 pcs Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	30	7,5	5
1,5	50	8	10
2	50	8,5	5
2,5	50	9	5
3	100	9,5	5
3,5	50	10	10
4	100	10,5	5
4,5	30	11	5
5	30	11,5	5
5,5	10	12	5
6	20	12,5	5
6,5	10	13	5
7	10		

cod.	€
01016510	471,271



Plastic
390x460x230

cod.	€
01016507	1069,655

1.110 pcs Ø 1÷13 x 0,25 mm

Ø	pcs	Ø	pcs
1	50	7,25	5
1,25	10	7,5	30
1,5	50	7,75	3
1,75	10	8	30
2	50	8,25	3
2,25	10	8,5	20
2,5	100	8,75	3
2,75	20	9	20
3	100	9,25	2
3,25	20	9,5	10
3,5	100	9,75	2
3,75	20	10	20
4	100	10,25	2
4,25	10	10,5	5
4,5	50	10,75	2
4,75	10	11	5
5	50	11,25	2
5,25	10	11,5	5
5,5	30	11,75	2
5,75	10	12	5
6	30	12,25	2
6,25	10	12,5	5
6,5	30	12,75	2
6,75	10	13	5
7	30		



Metal
375x240x200

880 pcs
Ø 1÷13 x 0,5 mm

Ø	pcs	Ø	pcs
1	50	7,5	5
1,5	100	8	10
2	100	8,5	5
2,5	100	9	5
3	150	9,5	5
3,5	100	10	10
4	100	10,5	5
4,5	30	11	5
5	30	11,5	5
5,5	10	12	5
6	20	12,5	5
6,5	10	13	5
7	10		

01016501	€ 569,602

710 pcs *COMBI SET*

HSS

Ø	pcs	Ø	pcs
1	50	6	20
1,5	50	6,5	10
2	50	7	10
2,5	50	8	10
3	100	9	10
3,5	50	10	10
4	100	11	5
4,5	30	12	5
5	20	13	5
5,5	20		

DIN 8039

Ø	pcs
3	5
4	10
5	10
6	20
7	10
8	20
9	10
10	10
12	5
14	5

09020502	€ 509,644

PUNTE ELICOIDALI CILINDRICHE CON RIVESTIMENTO AL NITRURO DI TITANIO

TiN coated twist drills / Forets cylindriques au nitrure de titan
Brocas helicoidales con recubrimiento de titanio / TiN Geschliffene Spiralbohrer aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS-G+TiN ANSI B94 Rettificata / Ground from the solid / Rectifié / Rectificada / Geschliffen

01162

INCHES





Ø inch	Ø inch	/ inch	L inch	pcs	cod.	€ cad/each
1/16	1,59	7/8	1-7/8	10	0116214	0,925
5/64	1,98	1"	2"	10	0116215	1,017
3/32	2,38	1-1/4	2-1/4	10	0116216	1,222
7/64	2,78	1-1/2	2-5/8	10	0116217	1,519
1/8	3,17	1-5/8	2-3/4	10	0116218	1,610
9/64	3,57	1-3/4	2-7/8	10	0116219	1,793
5/32	3,97	2"	3-1/8	10	0116220	1,907
11/64	4,37	2-1/8	3-1/4	10	0116221	2,079
3/16	4,76	2-5/16	3-1/2	10	0116222	2,341
13/64	5,16	2-7/16	3-5/8	10	0116223	2,707
7/32	5,56	2-1/2	3-3/4	10	0116224	2,980
15/64	5,95	2-5/8	3-7/8	10	0116225	3,140
1/4	6,35	2-3/4	4"	10	0116226	3,358
17/64	6,75	2-7/8	4-1/8	10	0116227	3,770
9/32	7,14	2-15/16	4-1/4	5	0116228	4,351
19/64	7,54	3-1/16	4-3/8	5	0116229	4,636
5/16	7,94	3-3/16	4-1/2	5	0116230	5,048
21/64	8,33	3-5/16	4-5/8	5	0116231	6,829
11/32	8,73	3-7/16	4-3/4	5	0116232	7,148
23/64	9,13	3-1/2	4-7/8	5	0116233	7,606
3/8	9,52	3-5/8	5"	5	0116234	7,788
25/64	9,92	3-3/4	5-1/8	5	0116235	8,052
13/32	10,32	3-7/8	5-1/4	5	0116236	8,667
27/64	10,72	3-15/16	5-3/8	5	0116237	8,828
7/16	11,11	4-1/16	5-1/2	5	0116238	10,186
29/64	11,51	4-3/16	5-5/8	5	0116239	10,506
15/32	11,91	4-5/16	5-3/4	5	0116240	10,997
31/64	12,30	4-7/16	5-7/8	5	0116241	11,853
1/2	12,70	4-1/2	6"	5	0116242	13,121

Rivestimento TiN
TiN coating



Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 900 N/mm²



Acciaio
Steel

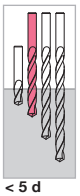


Inox



Metals





< 5 d

- Rendimenti elevati e maggiore durata dei taglienti nella foratura degli acciai legati, nelle ghise e nei metalli in genere con R ≤ 900 N/mm².
- High level of performances in cutting alloy steel, cast iron, metals up to R ≤ 900 N/mm².
- Pour percer mètaux et acier allié avec R ≤ 900 N/mm².
- Para taladrar acero aleado con elevada velocidad de corte R ≤ 900 N/mm².



Abs

21 pcs
Ø 1/16÷3/8 x 1/64

01167401 € 59,382



Abs

29 pcs
Ø 1/16÷1/2 x 1/64

01167402 € 127,899

PUNTE ELICOIDALI IN POLLICI AL COBALTO 5%, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA

Cobalt twist drills ground from the solid in inches / Forets cylindriques au cobalt entièrement rectifiés en pouce
Broca helicoidale rectificada de cobalto in pulgada / Kobalt Spiralbohrer aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS-CO 5% ANSI B94 Rettificata / Ground from the solid / Rectifié / Rectificada / Geschliffen

01157



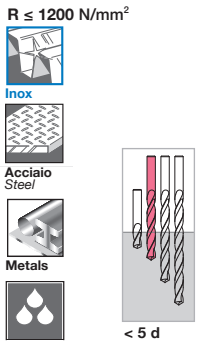


Ø inch	Ø mm	l inch	L inch	pcs	cod.	€ cad/each
1/16	1,59	7/8	1-7/8	10	0115714	2,011
5/64	1,98	1"	2"	10	0115715	2,011
3/32	2,38	1-1/4	2-1/4	10	0115716	2,090
7/64	2,78	1-1/2	2-5/8	10	0115717	2,090
1/8	3,17	1-5/8	2-3/4	10	0115718	2,090
9/64	3,57	1-3/4	2-7/8	10	0115719	2,546
5/32	3,97	2"	3-1/8	10	0115720	2,730
11/64	4,37	2-1/8	3-1/4	10	0115721	3,095
3/16	4,76	2-5/16	3-1/2	10	0115722	3,358
13/64	5,16	2-7/16	3-5/8	10	0115723	3,722
7/32	5,56	2-1/2	3-3/4	10	0115724	4,454
15/64	5,95	2-5/8	3-7/8	10	0115725	4,454
1/4	6,35	2-3/4	4"	10	0115726	5,928
17/64	6,75	2-7/8	4-1/8	10	0115727	7,513
9/32	7,14	2-15/16	4-1/4	5	0115728	7,707
19/64	7,54	3-1/16	4-3/8	5	0115729	8,004
5/16	7,94	3-3/16	4-1/2	5	0115730	8,587
21/64	8,33	3-5/16	4-5/8	5	0115731	9,181
11/32	8,73	3-7/16	4-3/4	5	0115732	11,055
23/64	9,13	3-1/2	4-7/8	5	0115733	11,236
3/8	9,52	3-5/8	5"	5	0115734	12,539
25/64	9,92	3-3/4	5-1/8	5	0115735	13,133
13/32	10,32	3-7/8	5-1/4	5	0115736	16,558
27/64	10,72	3-15/16	5-3/8	5	0115737	19,356
7/16	11,11	4-1/16	5-1/2	5	0115738	20,235
29/64	11,51	4-3/16	5-5/8	5	0115739	20,235
15/32	11,91	4-5/16	5-3/4	5	0115740	22,508
31/64	12,30	4-7/16	5-7/8	5	0115741	24,564
1/2	12,70	4-1/2	6"	5	0115742	25,009

Confezione / *Packaging*



Applicazioni / *Applications*



- Punte con ottima resistenza alle sollecitazioni termiche, adatte per forare acciai legati e non con R sino a 1200 N/mm², in modo particolare acciai da bonifica, acciai per lavorazioni a caldo e a freddo, acciai inossidabili, ghisa etc.
- *High performance in cutting alloy steel, cast iron, stainless steel and metals up to R ≤ 1200 N/mm².*
- *Pour percer l'acier allié, la fonte, l'acier inox avec R ≤ 1200 N/mm².*
- *Para taladar acero aleado, acero inox, fundicion R ≤ 1200 N/mm².*
- *Einsatz in legierte Stahl bis R ≤ 1200 N/mm² Zug-Festigkeit, Korrosionsbeständige Stähle, Grauguss und Stahlguss.*

ASSORTIMENTI PUNTE AL COBALTO IN POLLICI

HSS-CO fully ground twist drills sets in inches / Assortiments forets HSS-CO rectifié en pouce
Expositor de brocas de cobalto rectificadas in pulgada / HSS-CO geschliffene Spiralbohrersätze aus Zoll

HSS-CO 5%

Abs



21 pcs
Ø 1/16÷3/8 x 1/64

01159401 € 89,937

Abs



29 pcs
Ø 1/16÷1/2 x 1/64

01159402 € 225,441



Metal
330x240x55

122 pcs Ø 1/16÷3/8 x 1/64

Ø	pcs	Ø	pcs
1/16	10	**15/64**	3
5/64	10	1/4	3
3/32	10	**17/64**	3
7/64	10	9/32	3
1/8	10	**19/64**	3
9/64	10	5/16	3
5/32	10	**21/64**	2
11/64	10	11/32	2
3/16	10	**23/64**	2
13/64	3	3/8	2
7/32	3		

cod.	€
01159450	407,710



Metal
375x240x200

168 pcs Ø 1/16÷1/2 x 1/64

Ø	pcs	Ø	pcs
1/16	10	**21/64**	3
5/64	10	11/32	3
3/32	10	**23/64**	3
7/64	10	3/8	3
1/8	10	**25/64**	2
9/64	10	13/32	2
5/32	10	**27/64**	2
11/64	10	7/16	2
3/16	10	**29/64**	2
13/64	10	15/32	2
7/32	10	**31/64**	2
15/64	5	1/2	2
1/4	5		
17/64	5		
9/32	5		
19/64	5		
5/16	5		

cod.	€
01159501	815,431

PUNTE ELICOIDALI CILINDRICHE IN POLLICI, ESECUZIONE INTERAMENTE RETTIFICATA, SERIE CORTA, FINITURA BRILLANTE

Fully ground straight shank twist drills in inches / Forets cylindriques rectifiés en pouce
Brocas helicoidales rectificadas in pulgada / Geschliffene Spiralbohrer aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS-G ANSI B94 Rettificata / Ground from the solid / Rectifié / Rectificada / Geschliffen

01115





Bright finish

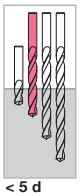
Ø inch	Ø mm	/ inch	L inch	pcs	cod.	€ cad/each
1/16	1,59	7/8	1-7/8	10	0111514	0,765
5/64	1,98	1"	2"	10	0111515	0,811
3/32	2,38	1-1/4	2-1/4	10	0111516	0,936
7/64	2,78	1-1/2	2-5/8	10	0111517	1,085
1/8	3,17	1-5/8	2-3/4	10	0111518	1,141
9/64	3,57	1-3/4	2-7/8	10	0111519	1,268
5/32	3,97	2"	3-1/8	10	0111520	1,347
11/64	4,37	2-1/8	3-1/4	10	0111521	1,462
3/16	4,76	2-5/16	3-1/2	10	0111522	1,656
13/64	5,16	2-7/16	3-5/8	10	0111523	1,930
7/32	5,56	2-1/2	3-3/4	10	0111524	2,124
15/64	5,95	2-5/8	3-7/8	10	0111525	2,238
1/4	6,35	2-3/4	4"	10	0111526	2,409
17/64	6,75	2-7/8	4-1/8	10	0111527	2,707
9/32	7,14	2-15/16	4-1/4	5	0111528	3,152
19/64	7,54	3-1/16	4-3/8	5	0111529	3,358
5/16	7,94	3-3/16	4-1/2	5	0111530	3,677
21/64	8,33	3-5/16	4-5/8	5	0111531	5,082
11/32	8,73	3-7/16	4-3/4	5	0111532	5,311
23/64	9,13	3-1/2	4-7/8	5	0111533	5,676
3/8	9,52	3-5/8	5"	5	0111534	5,790
25/64	9,92	3-3/4	5-1/8	5	0111535	5,983
13/32	10,32	3-7/8	5-1/4	5	0111536	6,463
27/64	10,72	3-15/16	5-3/8	5	0111537	7,229
7/16	11,11	4-1/16	5-1/2	5	0111538	8,392
29/64	11,51	4-3/16	5-5/8	5	0111539	8,667
15/32	11,91	4-5/16	5-3/4	5	0111540	9,078
31/64	12,30	4-7/16	5-7/8	5	0111541	9,797
1/2	12,70	4-1/2	6"	5	0111542	10,894

Confezione / *Packaging*



Applicazioni / *Applications*





- Taglio dei materiali con R ≤ 800 N/mm² quali acciai legati, ghise tutti i metalli in genere, la grafite. Precisione di foratura e costanza di rendimenti elevati.
- High precision and high performances in cutting alloy steel up to R ≤ 800 N/mm²
- Puor percer métaux et acier avec R ≤ 800 N/mm²
- Para taladrar hierro e acero R ≤ 800 N/mm²
- Einsatz in Stahl und Stahlguss, legiert und unlegiert bis R ≤ 800 N/mm² Zug-Festigkeit, Ne-Metalle, Kunststoffe

ASSORTIMENTI PUNTE HSS RETTIFICATE IN POLLICI

HSS fully ground twist drills sets in inches / Assortiments forets HSS rectifiés en pouce
Expositor de brocas HSS rectificadas in pulgada / Geschliffene HSS Spiralbohrersätze aus Zoll

HSS-G

Abs



21 pcs
Ø 1/16÷3/8 x 1/64

01118401 € 51,879

Abs



29 pcs
Ø 1/16÷1/2 x 1/64

01118402 € 119,905



Metal
330x240x55

150 pcs Ø 1/16÷3/8 x 1/64

Ø	pcs	Ø	pcs
1/16	10	**15/64**	5
5/64	10	1/4	5
3/32	10	**17/64**	5
7/64	10	9/32	5
1/8	10	**19/64**	5
9/64	10	5/16	5
5/32	10	**21/64**	5
11/64	10	11/32	5
3/16	10	**23/64**	5
13/64	5	3/8	5
7/32	5		

cod.	€
01118450	335,768



Metal
375x240x200

540 pcs Ø 1/16÷1/2 x 1/64

Ø	pcs	Ø	pcs
1/16	50	**19/64**	5
5/64	50	5/16	10
3/32	50	**21/64**	5
7/64	50	11/32	5
1/8	50	**23/64**	5
9/64	50	3/8	10
5/32	50	**25/64**	5
11/64	30	13/32	5
3/16	30	**27/64**	5
13/64	10	7/16	5
7/32	10	**29/64**	5
15/64	10	15/32	5
1/4	10	**31/64**	5
17/64	5	1/2	5
9/32	5		

cod.	€
01118501	1045,675

Professional

PUNTE HSS RULLATE IN POLLICI

HSS roll-forged straight shank twist drills-jobber's length / Forets cylindriques laminés en HSS en Pouce
Broca helicoidale laminada HSS in pulgada / HSS rollgewalzt Spiralbohrer aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS ANSI B94 Esecuzione rullata / Rolled / Laminé / Laminada / Rollgewalzt

01030





HV ≃ 750÷820

Ø inch	Ø mm	/ inch	L inch	pcs	cod.	€ cad/each
1/64	0,40	13/64	7/8	10	0103011	0,780
1/32	0,79	13/32	1-1/4	10	0103012	0,780
3/64	1,19	5/8	1-3/4	10	0103013	0,780
1/16	1,59	7/8	1-7/8	10	0103014	0,305
5/64	1,98	1"	2"	10	0103015	0,317
3/32	2,38	1-1/4	2-1/4	10	0103016	0,327
7/64	2,78	1-1/2	2-5/8	10	0103017	0,361
1/8	3,17	1-5/8	2-3/4	10	0103018	0,374
9/64	3,57	1-3/4	2-7/8	10	0103019	0,453
5/32	3,97	2"	3-1/8	10	0103020	0,510
11/64	4,37	2-1/8	3-1/4	10	0103021	0,520
3/16	4,76	2-5/16	3-1/2	10	0103022	0,610
13/64	5,16	2-7/16	3-5/8	10	0103023	0,678
7/32	5,56	2-1/2	3-3/4	10	0103024	0,769
15/64	5,95	2-5/8	3-7/8	10	0103025	0,793
1/4	6,35	2-3/4	4"	10	0103026	0,895
17/64	6,75	2-7/8	4-1/8	10	0103027	1,109
9/32	7,14	2-15/16	4-1/4	5	0103028	1,232
19/64	7,54	3-1/16	4-3/8	5	0103029	1,312
5/16	7,94	3-3/16	4-1/2	5	0103030	1,617
21/64	8,33	3-5/16	4-5/8	5	0103031	1,719
11/32	8,73	3-7/16	4-3/4	5	0103032	1,945
23/64	9,13	3-1/2	4-7/8	5	0103033	2,046
3/8	9,52	3-5/8	5"	5	0103034	2,080
25/64	9,92	3-3/4	5-1/8	5	0103035	2,613
13/32	10,32	3-7/8	5-1/4	5	0103036	2,703
27/64	10,72	3-15/16	5-3/8	5	0103037	2,782
7/16	11,11	4-1/16	5-1/2	5	0103038	3,088
29/64	11,51	4-3/16	5-5/8	5	0103039	3,132
15/32	11,91	4-5/16	5-3/4	5	0103040	3,754
31/64	12,30	4-7/16	5-7/8	5	0103041	3,913
1/2	12,70	4-1/2	6"	5	0103042	4,071
33/64	13,00	4-13/16	6-5/8	5	0103043	4,806
17/32	13,50	4-13/16	6-5/8	3	0103044	4,942
35/64	14,00	4-13/16	6-5/8	3	0103045	5,452
9/16	14,30	4-13/16	6-5/8	3	0103046	5,982
37/64	14,70	4-13/16	6-5/8	3	0103047	7,090
19/32	15,00	5-3/16	7-1/8	3	0103048	8,165
39/64	15,50	5-3/16	7-1/8	3	0103049	9,046
5/8	16,00	5-3/16	7-1/8	3	0103050	9,895
11/16	17,50	5-3/16	7-1/8	1	0103054	12,383
3/4	19,00	5-5/16	7-3/8	1	0103058	14,147

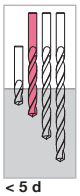
Confezione / *Packaging*



Applicazioni / Applications

R ≤ 650 N/mm²





- Per forare: tutti i metalli, ferro, acciaio etc..
- For drilling in: Iron, steel,metals
- Pour percer: Fer, acier, metaux
- Para taladrar: Hierro, acero etc.
- Einsatz: Stahl und Stahlguss, Zug-Festigkeit Ne-Metalle

PUNTE HSS RULLATE IN POLLICI CON CODOLO RIDOTTO

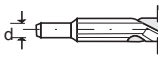
Reduced shank HSS roll-forged straight shank twist drills-jobber's length / Forets cylindriques laminés en HSS en Pouce avec queue degageé
Broca helicoidale laminada HSS in pulgada con mango reducido / HSS rollgewalzt Spiralbohrer aus Zoll mit reduzierten Schaft

SILVER&DEMING HSS ANSI B94 Esecuzione fresata / Milled / Fraisé / fresada / Gefräst

01034

INCHES





d= 1/2"

Ø inch	Ø mm	*d* inch	*l* inch	L inch	pcs	cod.	€ cad/each
17/32	13,50	1/2"	3-1/8	6"	1	0103402	11,408
9/16	14,30	1/2"	3-1/8	6"	1	0103404	11,564
19/32	15,00	1/2"	3-1/8	6"	1	0103406	13,083
5/8	16,00	1/2"	3-1/8	6"	1	0103408	13,260
21/32	16,70	1/2"	3-1/8	6"	1	0103410	14,291
11/16	17,50	1/2"	3-1/8	6"	1	0103412	15,598
23/32	18,25	1/2"	3-1/8	6"	1	0103414	16,630
3/4	19,00	1/2"	3-1/8	6"	1	0103416	18,094
25/32	20,00	1/2"	3-1/8	6"	1	0103418	19,214
13/16	20,50	1/2"	3-1/8	6"	1	0103420	21,142
27/32	21,50	1/2"	3-1/8	6"	1	0103422	22,639
7/8	22,25	1/2"	3-1/8	6"	1	0103424	25,256
29/32	23,00	1/2"	3-1/8	6"	1	0103426	28,139
15/16	24,00	1/2"	3-1/8	6"	1	0103428	30,189
31/32	24,50	1/2"	3-1/8	6"	1	0103430	33,283
1"	25,40	1/2"	3-1/8	6"	1	0103432	35,590
1.3/32	27,75	1/2"	3-1/8	6"	1	0103438	43,128
1.1/8	28,50	1/2"	3-1/8	6"	1	0103440	43,893
1.1/4	31,75	1/2"	3-1/8	6"	1	0103448	71,788
1.3/8	35,00	1/2"	3-1/8	6"	1	0103456	90,813
1.1/2	38,00	1/2"	3-1/8	6"	1	0103464	135,870

Confezione / *Packaging*



Applicazioni / *Applications*

R ≤ 650 N/mm²

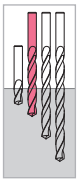


Metals



Acciaio
Steel





< 5 d

- Per forare: tutti i metalli, ferro, acciaio etc..
- For drilling in: Iron, steel,metals
- Pour percer: Fer, acier, metaux
- Para taladrar: Hierro, acero etc.
- Einsatz: Stahl und Stahlguss, Zug-Festigkeit Ne-Metalle

ASSORTIMENTI PUNTE HSS RULLATE IN POLLICI

HSS rolled twist drills sets in inches / Assortiments forets HSS laminés en pouce
Juego brocas HSS laminadas in pulgada / Rollgewaltze Spiralbohrersätze aus Zoll

POLLICI / **INCHES** / POUCE / PULGADA / ZOLL

HSS

Abs



21 pcs

Ø 1/16÷3/8 x 1/64

01040401 € 21,764

Abs



29 pcs

Ø 1/16÷1/2 x 1/64

01040402 € 46,764

Plastic



21 pcs

Ø 1/16÷3/8 x 1/64

01040101 € 20,145



18 pcs

13 pcs
Ø 1/16 - 5/64 - 3/32 - 7/64
1/8 - 5/32 - 11/64 - 3/16
7/32 - 1/4(2x) - 5/16 - 3/8

5 pcs
Ø 1/8 - 3/16 - 1/4
5/16 - 3/8

09001106 € 15,955

Plastic



7 pcs

Ø 1/16 - 3/32 - 1/8 - 5/32
3/16 - 7/32 - 1/4

01040201 € 8,260



13 pcs

Ø 1/16 - 5/64 - 3/32 - 7/64 - 1/8
9/64 - 5/32 - 11/64 - 3/16 - 13/64
7/32 - 15/64 - 1/4

01040202 € 10,311



21 pcs

Ø 1/16 ÷ 3/8 x 1/64

01040203 € 21,066

ASSORTIMENTI PUNTE HSS RULLATE IN POLLICI IN VALIGETTA DI METALLO

HSS twist drills set in inches / Assortiments forets HSS en pouce
Expositor de brocas HSS laminada in pulgada / Spiralbohrersätze aus Zoll

HSS



Metal
330x240x55

150 pcs Ø 1/16÷3/8 x 1/64

Ø	pcs	Ø	pcs
1/16	10	**15/64**	5
5/64	10	1/4	5
3/32	10	**17/64**	5
7/64	10	9/32	5
1/8	10	**19/64**	5
9/64	10	5/16	5
5/32	10	**21/64**	5
11/64	10	11/32	5
3/16	10	**23/64**	5
13/64	5	3/8	5
7/32	5		

cod.	€
01040450	168,521

ASSORTIMENTI PUNTE HSS RULLATE IN POLLICI

HSS twist drills in inches in metal display / Assortiments forets HSS en Pouce
Expositor de brocas HSS laminada in pulgada / Verkaufsschränke für Spiralbohrer aus Zoll

HSS

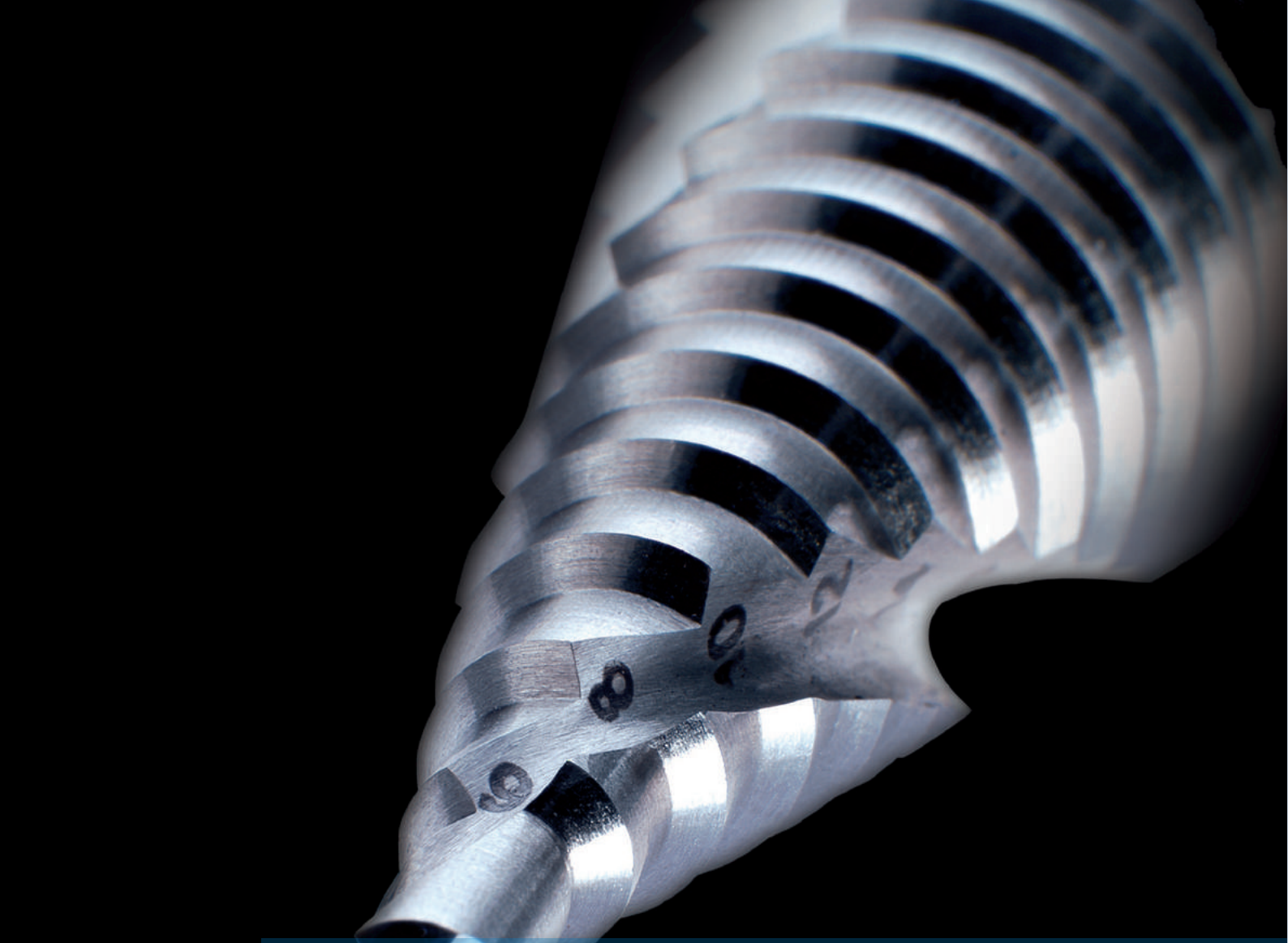


Metal
375x240x200

920 pcs Ø 1/16÷1/2 x 1/64

Ø	pcs	Ø	pcs
1/16	50	**19/64**	5
5/64	50	5/16	10
3/32	50	**21/64**	5
7/64	100	11/32	5
1/8	150	**23/64**	5
9/64	100	3/8	10
5/32	150	**25/64**	5
11/64	30	13/32	5
3/16	50	**27/64**	5
13/64	20	7/16	5
7/32	30	**29/64**	5
15/64	10	15/32	5
1/4	30	**31/64**	5
17/64	10	1/2	5
9/32	10		

cod.	€
01040501	551,619



UTENSILI PER TAGLIO LAMIERE METALLICHE

Conical drill bits, hole cutters and hole saws
Forets coniques, fraises et scies trépans
Brocas conicas, fresas y coronas perforadoras
Blechschälbohrer und Lochsägen

HSS

METALLO DURO
CARBIDE

CUTTING TOOLS ENGINEERING

The processing of metal sheet and all thin materials is becoming increasingly important to industrial and professional users alike. Furthermore, stainless steel is now used for the vast majority of mechanical assemblies. As a result, Krino's range of tools for cutting sheet metal and all related processes has evolved in line with new cutting requirements, the use of highspeed cobalt steel and Titanium and Titanium-Alluminium new coatings suggested with high performances with very hard materials. Is now also available a new section of Spot drills with TiN coating too. We recommend to see the section technical Tables at the end of this catalogue.

Le travail de la tôle et de tous les matériaux de fin épaisseur en général prend de plus en plus d'importance dans toutes les activités professionnelles et dans l'industrie, l'acier inoxydable est désormais présent dans la plupart des constructions mécaniques. Par conséquent, la gamme de nos outils de coupe de la tôle et de tous les Travaux connexes a évolué au niveau de la géométrie de la coupe, de l'utilisation d'aciers super rapides au cobalt et des nouveaux revêtements au nitrure de Titane et au nitrure de Titane – Aluminium, indiqués pour le perçage des matériaux très durs avec des performances optimales. Une famille complète de fraises pour points de soudure est maintenant disponibles en version revêtue au Titan. Nous recommandons de consulter les tableaux techniques au fond de ce catalogue.

La elaboración de la chapa y en general de todos los materiales de espesor sutil va adquiriendo siempre más importancia en todas las actividades profesionales y en la industria; el acero inoxydable, además, ya està presente en gran parte de la construcciones mecànicas. Por lo tanto, la gama de nuestras herramientas de corte de la chapa y de todas las elaboraciones conectadas se ha desarrollada en las nuevas geometrias de corte, en el uso de aceros superràpidos al cobalto y en los nuevos revestimientos al Titanio y al Titanio –Aluminio para el corte de materiales muy duros con optimo rendimiento. Ahora una famílla completa de fresas para puntos de solduras es disponibles con recubrimiento de Titanio también. Recomendamos la consultación de los prospectos tecnico al fondo de este catálogo.

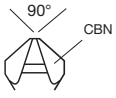
La lavorazione della lamiera e di tutti i materiali in genere a spessore sottile assume sempre più importanza in tutte le attività professionali e nell'industria; l'acciaio inossidabile, inoltre, è presente in gran parte delle costruzioni meccaniche. Pertanto, la gamma dei nostri utensili per il taglio della lamiera e di tutte le lavorazioni connesse è evoluta nelle nuove geometrie di taglio, nell'impiego di acciai superrapidi al cobalto e nei rivestimenti al nitruro di titanio e al nitruro di titanio-alluminio, particolarmente adatti al taglio dei materiali molto duri, con ottimi rendimenti. Sono anche disponibili le famiglie complete delle punte-frese per rimuovere punti di saldatura, anche nelle esecuzioni con rivestimento al TiN. Si consiglia vivamente di seguire tutte le istruzioni indicate nel capitolo e nelle tabelle tecniche riportate in fondo al catalogo.

FRESE AD INCASSARE E SVASARE A 3 TAGLI

Deburring tools with 3 flutes / Fraise conique à ébavurer avec 3 coupes / Fresas de avellanar con 3 cortes / Kegelsenker mit 3 Schneiden

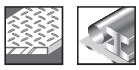
01185 01260

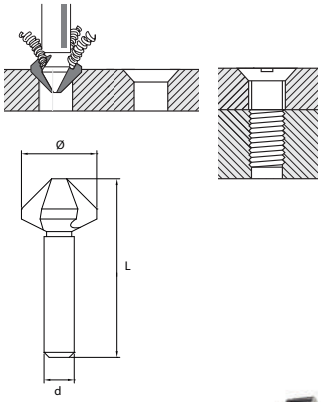






HSS **HSS+TiN**





Confezione / Packaging



DIN 335/C-90°

Ø (mm)	d	L	Per VITI / *For screws* DIN 74 AF	DIN 74 BF	**01185 HSS** cod.	€ cad/each	**01260 HSS+TiN** cod.	€ cad/each
4,3	4	40			011850430	11,398	012600430	16,694
5	4	40	M 2,5		011850500	11,398	012600500	16,694
5,3	4	40			011850530	11,398	012600530	16,694
5,8	5	45			011850580	11,752	012600580	16,924
6	5	45	M 3		011850600	11,752	012600600	16,924
6,3	5	45		M 3	011850630	11,752	012600630	17,282
7	6	50	M 3,5		011850700	13,026	012600700	18,530
7,3	6	50			011850730	13,026	012600730	18,530
8	6	50	M 4		011850800	13,327	012600800	18,889
8,3	6	50		M 4	011850830	13,327	012600830	18,889
9,4	6	50			011850940	14,613	012600940	20,256
10	6	50	M 5		011851000	16,054	012601000	23,858
10,4	6	50		M 5	011851040	16,054	012601040	23,858
11,5	8	56	M 6		011851150	17,329	012601150	25,295
12,4	8	56		M 6	011851240	17,329	012601240	25,295
13,4	8	56			011851340	20,311	012601340	27,610
15	10	60	M 8		011851500	20,311	012601500	29,533
16,5	10	60		M 8	011851650	21,220	012601650	33,031
19	10	63	M 10		011851900	29,203	012601900	41,689
20,5	10	63		M 10	011852050	29,203	012602050	43,216
23	10	67	M 12		011852300	44,847	012602300	67,991
25	10	67		M 12	011852500	44,847	012602500	65,837
26	12	67	M 14		011852600	58,172	012602600	78,789
28	12	71		M 14	011852800	58,172	012602800	82,021
30	12	71	M 16		011853000	61,755	012603000	84,186
31	12	71		M 16	011853100	61,755	012603100	86,342
40	15	80			011854000	152,179	012604000	197,741



Ø 6,3-8,3-10,4-12,4-16,5-20,5 **6pcs**
01270107 - HSS € 107,920



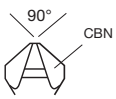
Ø 6,3-8,3-10,4-12,4-16,5-20,5 **6pcs**
01270109 - HSS+TiN € 161,891



Cod.	Composizione *Description*
01270400 HSS € 310,434	**17 pcs** Ø 4,3 - 5 - 6 - 6,3 - 7 - 8 - 8,3 10 - 10,4 - 11,5 - 12,4 -15 -16,5 19 - 20,5 - 23 - 25 mm

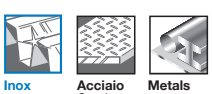
01261 01262







HSS-CO **HSS-CO+TiAlN**



DIN 335/C-90°

Ø (mm)	d	L	Per VITI *For screws* DIN 74 AF	DIN 74 BF	**Art. 01261 HSS-CO** cod.	€ cad/each	**Art. 01262 HSS-CO+TiAlN** cod.	€ cad/each
6,3	5	45		M 3	012610630	15,244	012620630	18,959
8,3	6	50		M 4	012610830	17,173	012620830	24,828
10,4	6	50		M 5	012611040	24,646	012621040	36,364
12,4	8	56		M 6	012611240	27,573	012621240	45,142
15	10	60	M 8		012611500	31,586	012621500	49,530
16,5	10	60		M 8	012611650	33,903	012621650	53,919
20,5	10	63		M 10	012612050	47,064	012622050	73,982
25	10	67		M 12	012612500	63,950	012622500	112,854
28	12	71		M 16	012612800	68,540	012622800	119,347
30	12	71			012613000	73,336	012623000	126,846
31	12	71			012613100	85,547	012623100	134,171
40	15	80			012614000	90,587	012624000	190,791



Ø 6,3-8,3-10,4-12,4-16,5-20,5 6pcs
01270110 - HSS-CO
€ 144,130



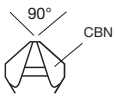
Ø 6,3-8,3-10,4-12,4-16,5-20,5 6pcs
01270111 - HSS-CO+TiAlN
€ 220,630

FRESE AD INCASSARE E SVASARE A 3 TAGLI IN METALLO DURO

Carbide deburring tools with 3 flutes / Fraise conique à ébavurer carbure avec 3 coupes
Fresas de avellanar metal duro con 3 cortes / Kegelsenker VHM mit 3 Schneiden

01263 01264

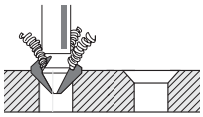






Metallo Duro / *Carbide*





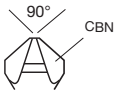
Metallo Duro / *Carbide* DIN 335/C-90°				Art. 01263 MD		Art. 01264 MD+TiAlN	
Ø *h10*	d *h7*	L	Per VITI *For screws* DIN 74 BF	cod.	€ cad/each	cod.	€ cad/each
6,3	6	50	M 3	012630630	87,414	012640630	100,122
8,3	6	50	M 4	012630830	95,605	012640830	108,580
10,4	6	50	M 5	012631040	98,337	012641040	116,606
12,4	8	50	M 6	012631240	109,262	012641240	127,887
16,5	10	60	M 8	012631650	158,426	012641650	182,352
20,5	10	63	M 10	012632050	251,306	012642050	285,169
25	10	67	M 12	012632500	355,102	012642500	406,736

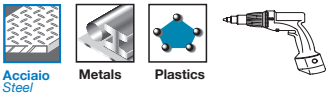
SVASATORI A 90° CON ATTACCO ESAGONALE 1/4”

90° countersink with 1/4” hexagon shank / Fraise conique a 90° avec 6 pans de 1/4”
Avellanador a 90° con mango esagonal 1/4” / Kagelsenker-bits 90°, mit 1/4” sechskant-Aufnahme

19003

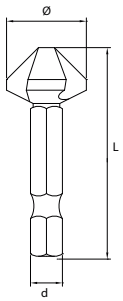






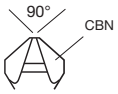
HSS DIN 335/C-90°

Ø	L	d ⬡	Per VITI *For screws* DIN 74 BF	cod.	€ cad/each
6,3	40	1/4	M 3	190030630	9,310
8,3	45	1/4	M 4	190030830	10,669
10,4	47	1/4	M 5	190031040	12,692
12,4	49	1/4	M 6	190031240	15,535
16,5	52	1/4	M 8	190031650	19,801
20,5	55	1/4	M 10	190032050	27,385



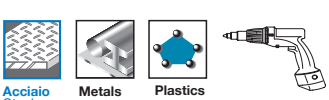
19001





HSS

Art. **19002** Self
Disponibile su richiesta
On demand



HSS DIN 335/C-90°

Ø	L	d ⬡	Per VITI *For screws* DIN 74 BF	cod.	€ cad/each
6,3	31	1/4	M 3	19001063	14,291
8,3	31	1/4	M 4	19001083	14,291
10,4	34	1/4	M 5	19001104	15,311
12,4	35	1/4	M 6	19001124	16,342
16,5	40	1/4	M 8	19001165	18,371
20,5	41	1/4	M 10	19001205	23,837

	ØxL	cod.	€ cad/each
	33x120	19001000	14,136

Magnetico
Magnetic



6 pcs
Ø 6,3 - 8,3 - 10,4
12,4 - 16,5 - 20,5
19020214 - HSS-G
€ 141,491



FRESE AD INCASSARE E SVASARE IN HSS

HSS deburring tools / Fraise conique à ébavurer en HSS
Fresas de avellanar HSS / Kegelsenker HSS

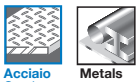
01193





Z = 3

Applicazioni / Applications



HSS

HSS DIN 335/C-90°

Serie lunga - Long serie

Ø (mm)	d	L	cod.	€ cad/each
6,3	5	104	011930630	24,427
8,3	6	105	011930830	27,500
10,4	6	107	011931040	33,208
12,4	8	108	011931240	35,284
15	10	109	011931500	40,472
16,5	10	111	011931650	43,425
20,5	10	114	011932050	60,308
25	10	118	011932500	91,040

Lunghezza del codolo 100 mm
Shank lenght 100 mm



6 pcs
Ø 6,3 - 8,3 - 10,4
12,4 - 16,5 - 20,5
01270207 - HSS
€ 243,912

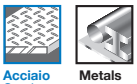
01196





Z = 3

Applicazioni / Applications



HSS

HSS DIN 335/D 90°

Ø (mm)	MK	L	Per VITI *For screws* DIN 74 AF	DIN 74 BF	cod.	€ cad/each
15	1	85	M 8		011961500	36,689
16,5	1	85		M 8	011961650	43,216
19	2	100	M 10		011961900	50,779
20,5	2	100		M 10	011962050	52,077
23	2	106	M 12		011962300	54,671
25	2	106		M 12	011962500	72,132
26	2	106	M 14		011962600	72,132
28	2	112		M 14	011962800	88,547
30	2	112	M 16		011963000	95,571
31	2	112		M 16	011963100	104,252
34	2	118	M 18	M 18	011963400	117,904
37	2	118	M 20	M 20	011963700	132,800
40	3	140			011964000	184,928
50	3	150			011965000	299,117

01192





Z = 1

Applicazioni / Applications



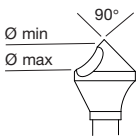
HSS

HSS DIN 335/C 90°

Ø (mm)	d	L	cod.	€ cad/each
6	5	45	011920600	19,268
8	6	50	011920800	21,383
10	6	50	011921000	22,681
12	8	56	011921200	28,857
16	10	60	011921600	35,034
20	10	63	011922000	51,788
25	10	67	011922500	85,473
30	12	71	011923000	111,377

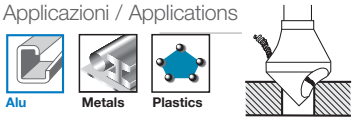
01188





HSS

Applicazioni / Applications



HSS-90°

Gr.	Ø min.-max	d	L	cod.	€ cad/each
1	2 ÷ 5	6	45	0118801	14,636
2	5 ÷ 10	8	48	0118802	18,473
3	10 ÷ 15	10	65	0118803	36,373
4	15 ÷ 20	12	85	0118804	64,454
5	20 ÷ 25	15	102	0118805	117,718
6	25 ÷ 30	15	115	0118806	173,542
7	30 ÷ 35	15	127	0118807	226,929
8	35 ÷ 40	15	136	0118808	319,166
9	40 ÷ 50	20	166	0118809	391,975



Abs

2-5 5-10 10-15 15-20 4 pcs
01270108 HSS
€ 145,094

Speciale per alluminio, metalli leggeri e plastica. Lavora senza vibrazioni, ottima finitura
Pour aluminium, metaux légers et plastiques. Pour ébavurage et petits chanfreirie. Meilleur état de surface. Travaille sans vibrations.
For alluminium, metals and plastics. For deburring and small chamfers. Best surface finish. Works without vibrations.

FRESE AD INCASSARE E SVASARE IN HSS

HSS deburring tools / Fraise conique à ébavurer en HSS
Fresas de avellanar HSS / Kegelsenker HSS

01197

NEW

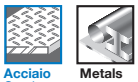


HSS



Z = 3

Applicazioni / Applications



Acciaio *Steel* Metals

HSS - 75°

Ø *(mm)*	d	L	cod.	€ cad/each
6,3	5	45	011970630	15,765
8,3	6	50	011970830	17,663
10,4	6	50	011971040	21,453
12,4	8	56	011971240	22,750
13,4	8	56	011971340	27,939
16,5	10	63	011971650	27,939
20,5	10	67	011972050	38,915
25	10	71	011972500	58,872

01186

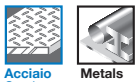


HSS



Z = 3

Applicazioni / Applications



Acciaio *Steel* Metals

HSS DIN 334/C 60°

Ø *(mm)*	d	L	cod.	€ cad/each
6,3	5	45	011860630	14,086
8	6	50	011860800	17,340
10	6	53	011861000	19,176
12,5	8	56	011861250	25,500
16	10	63	011861600	25,500
20	10	67	011862000	34,792
25	10	71	011862500	52,540
31,5	12	76	011863150	72,593

SBAVATORI A MANO

Hand deburres / Fraises à ébavurer / Fresas de avellanar / Handentgrater

01187



HSS



Z = 3



Magnetico
Magnetic

HSS DIN 335/C-90°

Ø	L	cod.	€ cad/each
6,3	121	011870630	20,747
8,3	122	011870830	23,368
10,4	124	011871040	25,846
12,4	126	011871240	29,101
16,5	130	011871650	36,668
20,5	130	011872050	45,819

Doppia possibilità di impugnatura.
Double handing.

	ØxL	cod.	€ cad/each
	33x120	19001000	14,136

Manico
Handle

01190





Z = 6

Art. **01191** Self
Disponibile su richiesta
On demand

HSS - 40°

Gr.	Ø min.-max	L	cod.	€ cad/each
1	10 ÷ 34	155	0119001	75,391

Speciale per sbavare condutture elettriche, tubi in rame o tubi in generale e grossi fori.
Quick and effective deburring of electrical conduit, copper pipe or any tubes or large holes.

SVASATORI CON PERNO GUIDA PER SEDE VITI A TESTA CILINDRICA

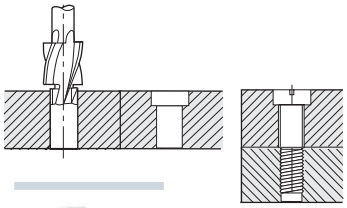
HSS deburring tools / Fraise conique à ébavurer en HSS
Fresas de avellanar HSS / Kegelsenker HSS

Per fori passanti - *For through holes - Pour trous débouchants - Para orificios pasantes - Für Durchgangslöcher*

01273
01274



HSS DIN 373



Confezione / Packaging



Art. 01273 **Grado fine -** Fine grade - Degré fin - Grado fino - Fein Grad

VITE *thread*	Ø	d_1	L	d	cod.	€ cad/each
M 3	6	3,2	71	5	0127303	18,169
4	8	4,3	71	5	0127304	18,169
5	10	5,3	80	8	0127305	18,169
6	11	6,4	80	8	0127306	18,854
8	15	8,4	100	12,5	0127308	30,302
10	18	10,5	100	12,5	0127310	36,370
12	20	13,0	100	12,5	0127312	39,729



M 3÷10 **6 pcs**
01275100
€ 161,891

Grado medio - Medium grade
Degré Moyen - Grado Medio
Mittelgrad

VITE *thread*	Ø	d_1	L	d	**Art. 01274 HSS** cod.	€ cad/each	**Art. 01277 HSS+TiAlN** cod.	€ cad/each
M 3	6	3,4	71	5	0127403	18,169	0127703	21,780
4	8	4,5	71	5	0127404	18,169	0127704	26,806
5	10	5,5	80	8	0127405	18,169	0127705	27,890
6	11	6,6	80	8	0127406	18,854	0127706	33,507
8	15	9,0	100	12,5	0127408	30,302	0127708	48,191
10	18	11,0	100	12,5	0127410	36,370	0127710	57,948
12	20	14,0	100	12,5	0127412	41,820	0127712	76,870

Grado fine per viteria/bulloneria di precisione.
Grado medio per meccanica standard.
Fine grade to fit precision screwing.
Medium grade to fit standard coupling.



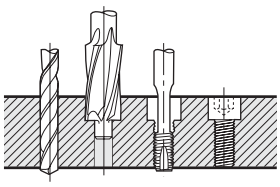
M 3÷10 **6 pcs**
01275101 HSS
€ 161,891
01275120 HSS+TiAlN
€ 234,914

Per prefori di filettature - *For thread core holes - Pour trous de taraudage - Para orificios de roscado - Für Gewindelöcher*

01272



HSS DIN 373



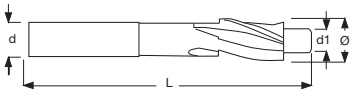
Art. 01272

VITE *thread*	Ø	d_1	L	d	cod.	€ cad/each
M 3	6	2,5	71	5	0127203	18,169
4	8	3,3	71	5	0127204	18,169
5	10	4,2	80	8	0127205	18,169
6	11	5,0	80	8	0127206	18,854
8	15	6,8	100	12,5	0127208	30,302
10	18	8,5	100	12,5	0127210	36,370
12	20	10,2	100	12,5	0127212	39,729



M 3÷10 **6 pcs**
01275105
€ 161,891





Applicazioni / Applications



UTENSILI CONICI INTEGRALI IN HSS-G CON SCALATURA ELICOIDALE E SPOGLIA MULTIPLA PER FORARE E ALLARGARE LAMIERE E TUBI

Conical drill bits with spiral flute and multiple clearance for metal sheets and tubes / Forets coniques et étages avec affutage à multiples facettes pour travaillé la tole et les tubes / Brocas conicas y escalonadas con afilatura multipla para trabajar las planchas de metal y los tubos / Blechschalbohrer mit Spiralnute und Vielfaches Hinterarbeitung.

01182

HSS-G Interamente rettificata / Fully ground

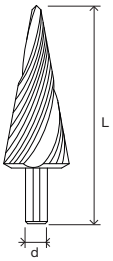
Gr.	Ø min.-max	d	l	L	pcs	cod.	€ cad/each
1	3 ÷ 14	6	35	60	1	0118201	26,519
2	6 ÷ 20	8	45	70	1	0118202	39,869
3	5 ÷ 31	10	80	105	1	0118203	85,724

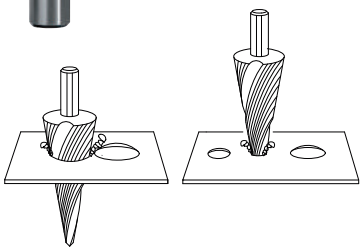


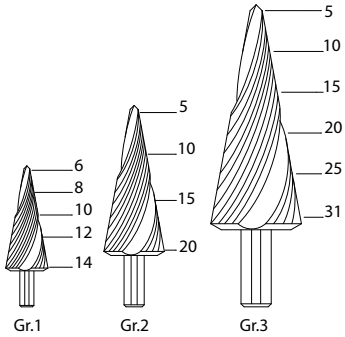


AISI M2
HV:820

Gambo antisdrucciolo
Spoglia multipla
High grip shank
Multiple clearance







Grande capacità di taglio, grande rendimento grazie alla nuova scanalatura a spirale e alla spoglia multipla. Usare una leggera pressione durante il taglio: l'elicoide è autoalimentante.
Better cutting performances due to the new spiral flute and multiple clearance. Please use a very soft press when drilling: the tool proceeds by itself.



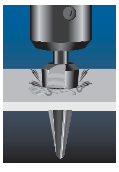
Cod.	Composizione *Description*
01182100 HSS-G € 155,217	Gr.1 3÷14 mm Gr.2 6÷20 mm Gr.3 5÷31 mm

Confezione / Packaging

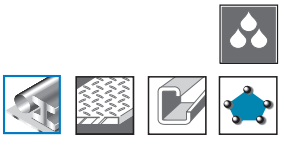


Applicazioni / *Applications*

R ≤ 800 N/mm²



- Per forare lamiere in acciaio, tubi, profilati in acciaio e leghe leggere, plexiglass, plastica sino a 5 mm di spessore.
- For hole-making into metal sheets, pipes, structurals, light alloys sheets, plastics, plexiglass up to 5 mm thickness
- Pour le perçage des trous dans tous matèriaux de faible épaisseur (épaisseur max. 5 mm).
- Broca-avellanador para cortar tubo y chapa de hierro y acero, aleaciones ligeras, plexiglass (5 mm de profundidad).
- Zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher.



Pasta lubrificante per il taglio
Cutting paste / Lubrifiant de coupe
Pasta de corte - Bohrpaste



Cod.
4100401
€ 11,031

Olio da taglio minerale intero 0,5 lt
Cutting oil 0,5 lt



Cod.
28020004
€ 31,985

Olio da taglio emulsionabile in tanica 5 Kg (5lt)
Cutting oil tank 5 lt



Cod.
28020005
€ 102,887

Professional

UTENSILI CONICI INTEGRALI IN HSS-G PER FORARE ED ALLARGARE LAMIERE E TUBI

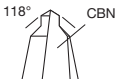
Conical drill bits for metal sheets and tubes / Forets coniques et étages pour la tôle
Brocas conicas para planchas / Blechschälbohrer

01180

HSS-G

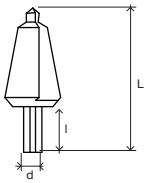
Gr.	Ø min.-max	d (mm)	l (mm)	L (mm)	cod.	€ cad/each
1	**3 ÷ 14**	6	21	58	0118001	19,403
2	**6 ÷ 20**	8	21	70	0118002	32,152
3	**16 ÷ 30,5**	10	25	79	0118003	55,213
4	**26 ÷ 40**	10	25	86	0118004	115,116
5	**36 ÷ 50**	13	25	90	0118005	177,479
6	**40 ÷ 61**	13	25	97	0118006	304,592
7	**3 ÷ 31**	10	21	109	0118007	82,742
8	**3 ÷ 22,5**	8	21	85	0118008	58,760





AISI M2
HV:820

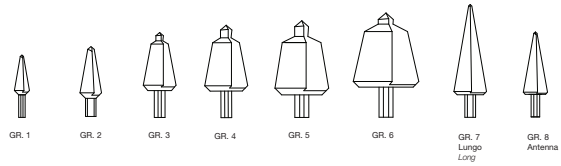
Gambo antisdrucciolo
High grip shank



Art. **01181** Self
Disponibile su richiesta
On demand

Confezione / Packaging







01195101
HSS-G
€ 133,043

Composizione
Description

Gr.1 3÷14 mm
Gr.2 6÷20 mm
Gr.3 16÷30,5 mm

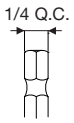
01215

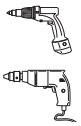
Gr.	Ø min.-max	d ⬡	l (mm)	L (mm)	cod.	€ cad/each
2	**8 ÷ 20**	1/4	20	68	0121502	31,598

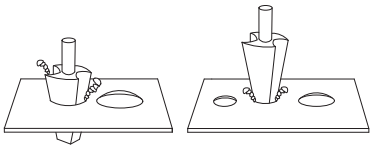




AISI M2
HV:820







FRESA CONICA ALLARGAFORI PER LAMIERE, SPECIALE PER MECCANICI, ELETTRAUTO, CARROZZIERI

Conical drill bits for metal sheets / Forets coniques pour la tôle / Brocas conicas para planchas / Blechschälbohrer

01176

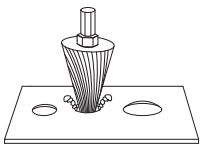
HSS

Ø x l	d	cod.	€ cad/each
25 x 40	8	0117601	24,281
32 x 50	10	0117603	45,568
45 x 60	10	0117604	74,948

CV

Ø x l	d	cod.	€ cad/each
25 x 40	8	0117602	20,511





Art. **01177** Self
Disponibile su richiesta
On demand

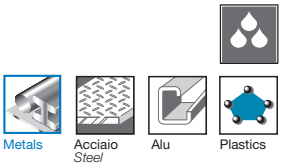
La fresa allargafori va usata con velocità massima di 420 giri/min per allargare fori in lamiere di materiali dolci con spessore inferiore a 0,5 mm.
The conical drill bit shoud work at max 420 rpm to enlarge holes inside mild steel sheet 0,5 mm thick.

Applicazioni *Applications*

R ≤ 800 N/mm²



- Per forare lamiere in acciaio, tubi, profilati in acciaio e leghe leggere, plexiglass, plastica sino a 5 mm di spessore.
- For hole-making into metal sheets, pipes, structurals, light alloys sheets, plastics, plexiglass up to 5 mm thickness
- Pour le perçage des trous dans tous matèriaux de faible épaisseur (épaisseur max. 5 mm).
- Broca-avellanador para cortar tubo y chapa de hierro y acero, aleaciones ligeras, plexiglass (5 mm de profundidad).
- Zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher.



UTENSILI CONICI RIVESTITI AL TiN E AL TiAlN PER FORARE ED ALLARGARE LAMIERE E TUBI

TiN and TiAlN coated conical drill bits / Forets coniques et étages revêtus au TiN et TiAlN

Brocas conicas con recubrimiento de TiN y TiAlN para planchas / Blechschälbohrer TiN und TiAlN beschichtet

01200

HSS-G + TiN



CBN

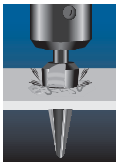
HSS-G+TIN
HV 0,05 = 2300

Gambo antisdrucciolo
High grip shank

447

Gr.	Ø min.-max	d *(mm)*	l *(mm)*	L *(mm)*	cod.	€ cad/each
1	**3 ÷ 14**	6	21	58	0120001	27,939
2	**6 ÷ 20**	8	21	70	0120002	47,457
3	**16 ÷ 30,5**	10	25	79	0120003	87,631
4	**26 ÷ 40**	10	25	86	0120004	186,748
5	**36 ÷ 50**	13	25	90	0120005	268,119
6	**40 ÷ 61**	13	25	97	0120006	436,088
7	**3 ÷ 31**	10	21	109	0120007	140,304
8	**3 ÷ 22,5**	8	21	85	0120008	75,545

USO INTENSIVO
INTENSIVE USE
R≤1000 N/mm²



ACCIAIO LEGATO
ALLOY STEEL



Cod.	Composizione *Description*
01195110 HSS-G + TiN € 185,873	Gr.1 3÷14 mm Gr.2 6÷20 mm Gr.3 16÷30,5 mm



Acciaio *Steel* · Metals · Alu

Confezione / Packaging



01206

HSS-G + TiAlN



CBN

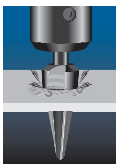
HSS-G+TiAlN
HV 0,05 = 3300

Gambo antisdrucciolo
High grip shank

447

Gr.	Ø min.-max	d *(mm)*	l *(mm)*	L *(mm)*	cod.	€ cad/each
1	**3 ÷ 14**	6	21	58	0120601	32,250
2	**6 ÷ 20**	8	21	70	0120602	54,800
3	**16 ÷ 30,5**	10	25	79	0120603	103,964
4	**26 ÷ 40**	10	25	86	0120604	212,010
5	**36 ÷ 50**	13	25	90	0120605	299,671
6	**40 ÷ 61**	13	25	97	0120606	481,109
7	**3 ÷ 31**	10	21	109	0120607	153,910
8	**3 ÷ 22,5**	8	21	85	0120608	85,264

USO INTENSIVO
INTENSIVE USE
R≤1200 N/mm²



ACCIAIO INOX - ACCIAIO ALTO LEGATO
STAINLESS STEEL - HIGH ALLOY STEEL



Cod.	Composizione *Description*
01195111 HSS-G + TiAlN € 209,853	Gr.1 3÷14 mm Gr.2 6÷20 mm Gr.3 16÷30,5 mm

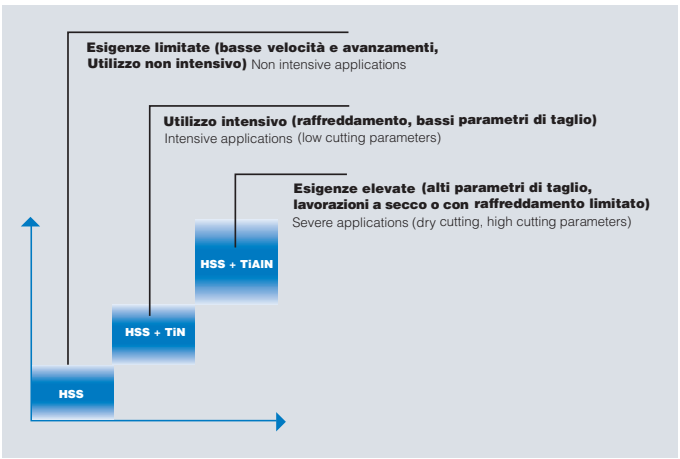


Inox · Metals · Alu

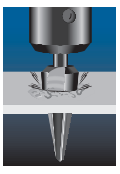
Confezione / Packaging



Campo di applicazione degli utensili conici rivestiti
Range of application for HSS conical drill-bits



Applicazioni *Applications*



- Per forare lamiere in acciaio, tubi, profilati in acciaio e leghe leggere, plexiglass, plastica sino a 5 mm di spessore.
- For hole-making into metal sheets, pipes, structurals, light alloys sheets, plastics, plexiglass up to 5 mm thickness
- Pour le perçage des trous dans tous matèriaux de faible épaisseur (épaisseur max. 5 mm).
- Broca-avellanador para cortar tubo y chapa de hierro y acero, aleaciones ligeras, plexiglass (5 mm de profundidad).
- Zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher.

UTENSILI CONICI A GRADINO CON TAGLIENTI ELICOIDALI AD ALTO RENDIMENTO

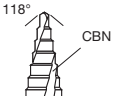
Spiral step drill bits / Forets étages hélicoïdaux
Brocas escalonadas helicoidale / Stufenbohrer mit Spiralnute

01240

HSS-G

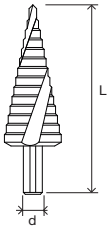
Gr.	Ø min.-max	Progressione *Step (mm)*	N° Gradini *N° Steps*	d *(mm)*	L *(mm)*	cod.	€ cad/each
2	4 ÷ 12	1	9	6	70	0124002	37,119
4	4 ÷ 20	2	9	10	85	0124004	46,399
6	4 ÷ 30	2	13	10	100	0124006	123,730
9	6 ÷ 36	3	10	10	80	0124009	150,538
11	4 ÷ 39	3	13	10	107	0124011	164,974
24	6 ÷ 38	-	11	10	96	0124024	167,035



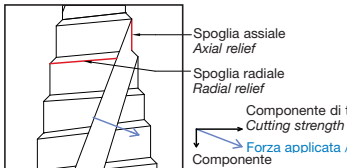


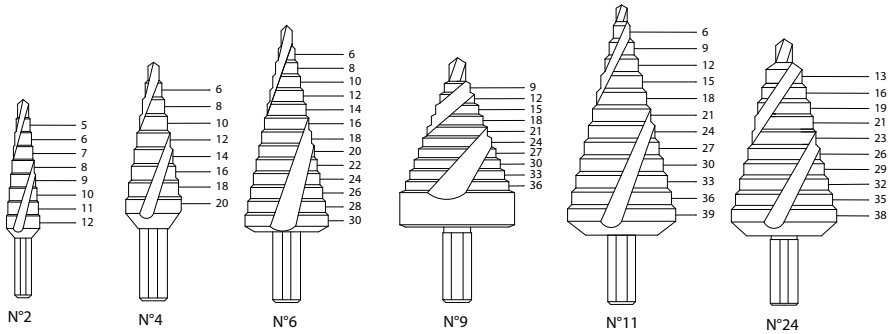
HSS-G
HV 820

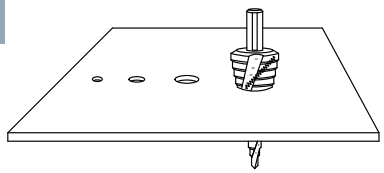
Gambo antisdrucciolo
High grip shank



Esercitare solo una lieve pressione durante il taglio. L'elicoide è autoalimentante grazie alla componente assiale della forza di taglio.
Please use a very soft press while drilling. The tool proceeds by itself, due to the axial cutting strenght.

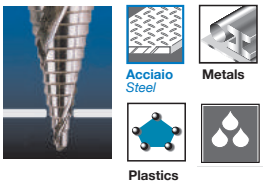






Esercitare solo una lieve pressione durante il taglio. L'elicoide è autoalimentante grazie alla componente assiale della forza di taglio.
Please use a very soft press while drilling. The tool proceeds by itself, due to the axial cutting strenght.

R ≤ 800 N/mm²





HSS-G

Cod.	Composizione *Description*
01259107	Gr.2 4÷12 mm
HSS-G	Gr.4 4÷20 mm
€ 174,356	Gr.6 4÷30 mm

UTENSILI A GRADINO CON TAGLIENTI ELICOIDALI AD ALTO RENDIMENTO CON ATTACCO ¼" QC

Spiral step drill bits / Forets étages hélicoïdaux / Brocas escalonadas helicoidale / Stufenbohrer mit Spiralnute

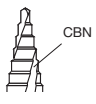
01241

NEW

HSS

Gr.	Ø min.-max	Progressione *Step*	N° Gradini *N° Steps*	d ⬡	*l*	*L*	cod.	€ cad/each
4	4 ÷ 20	2	9	1/4	25	76	0124104	39,913
6	4 ÷ 30	2	13	1/4	25	100	0124106	107,765



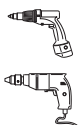


HSS-G
HV 820

Gambo antisdrucciolo
High grip shank



1/4 Q.C.



UTENSILI CONICI A GRADINO RIVESTITI AL TiN E AL TiAlN CON TAGLIENTI ELICOIDALI AD ALTO RENDIMENTO

TiN and TiAlN spiral step drill bits / Forets étages hélicoïdaux au TiN et TiAlN
Brocas escalonadas helicoidale con recubrimiento de TiN y TiAlN / Stufenbohrer mit Spiralnute TiN und TiAlN

01244



CBN

HSS-G+TIN
HV 0,05=2300

Gambo antisdrucciolo
High grip shank

447

R ≤ 1000 N/mm²



Inox | Acciaio *Steel* | Metals

HSS-G + TiN

Gr.	Ø min.-max	Progressione *Step (mm)*	N° Gradini *N° Steps*	d *(mm)*	L *(mm)*	cod.	€ cad/each
2	4 ÷ 12	1	9	6	70	0124402	40,910
4	4 ÷ 20	2	9	10	85	0124404	65,856
6	4 ÷ 30	2	13	10	100	0124406	138,698
9	6 ÷ 36	3	10	10	80	0124409	209,543
11	4 ÷ 39	3	13	10	107	0124411	224,510
24	6 ÷ 38	-	11	10	96	0124424	231,495



Cod.	Composizione *Description*
01259108 HSS-G + TiN € 247,460	Gr.2 4÷12 mm Gr.4 4÷20 mm Gr.6 4÷30 mm

HSS-G + TiN

HSS-G + TiAlN

01248



CBN

HSS-G+TiAlN
HV 0,05=3300

Gambo antisdrucciolo
High grip shank

447

R ≤ 1400 N/mm²



Inox | Acciaio *Steel* | Metals

Gr.	Ø min.-max	Progressione *Step (mm)*	N° Gradini *N° Steps*	d *(mm)*	L *(mm)*	cod.	€ cad/each
2	4 ÷ 12	1	9	6	70	0124802	44,902
4	4 ÷ 20	2	9	10	85	0124804	73,840
6	4 ÷ 30	2	13	10	100	0124806	151,669
9	6 ÷ 36	3	10	10	80	0124809	231,495
11	4 ÷ 39	3	13	10	107	0124811	264,423
24	6 ÷ 38	-	11	10	96	0124824	244,467



Cod.	Composizione *Description*
01259109 HSS-G + TiAlN € 262,926	Gr.2 4÷12 mm Gr.4 4÷20 mm Gr.6 4÷30 mm

HSS-G + TiAlN

UTENSILI CONICI INTEGRALI A GRADINO IN HSS-G PER LA FORATURA ED ALLARGATURA DELLA LAMIERA

HSS step drill bits / Forets étages HSS-G

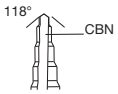
Brocas escalonadas HSS-G / HSS-G Stufenbohrer

01183

HSS-G

Metric - per costruzione - *for construction*

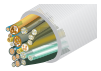




AISI M2
HV:820

Gambo
antisdrucciolo
High grip
shank

Gr.	Ø min.-max	Progressione *Step (mm)*	N° Gradini *N° Steps*	d *(mm)*	L *(mm)*	cod.	€ cad/each
1	**4 ÷ 12**	2	5	6	56	0118301	25,911
2	**4 ÷ 12**	1	9	6	70	0118302	28,183
3	**12 ÷ 20**	1	9	10	85	0118303	72,719
4	**4 ÷ 20**	2	9	10	85	0118304	37,940
5	**20 ÷ 30**	1	11	10	97	0118305	115,059
6	**4 ÷ 30**	2	13	10	97	0118306	84,260
7	**30 ÷ 40**	1	11	13	97	0118307	167,468
8	**40 ÷ 50**	1	11	13	100	0118308	242,648
9	**6 ÷ 36**	3	10	10	80	0118309	153,798
***10**	**25 ÷ 58**	3	12	13	90	0118310	389,605
11	**4 ÷ 39**	3	13	10	107	0118311	144,673
					Pg		
21	**6,3 ÷ 26,75**	-	7	10	91	0118321	107,089
22	**6 ÷ 30,5**	-	7	10	80	0118322	95,691
23	**6 ÷ 37**	-	7	10	85	0118323	144,673
24	**6 ÷ 38**	-	11	10	96	0118324	133,287

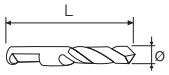


Art. **01184** Self
Disponibile su richiesta
On demand

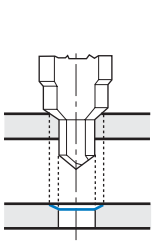
Confezione / Packaging

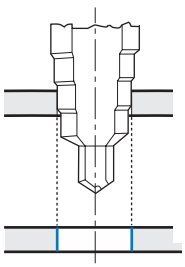


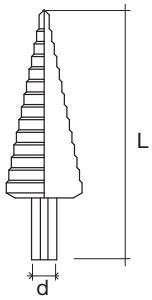
***Ricambio - Spare part**

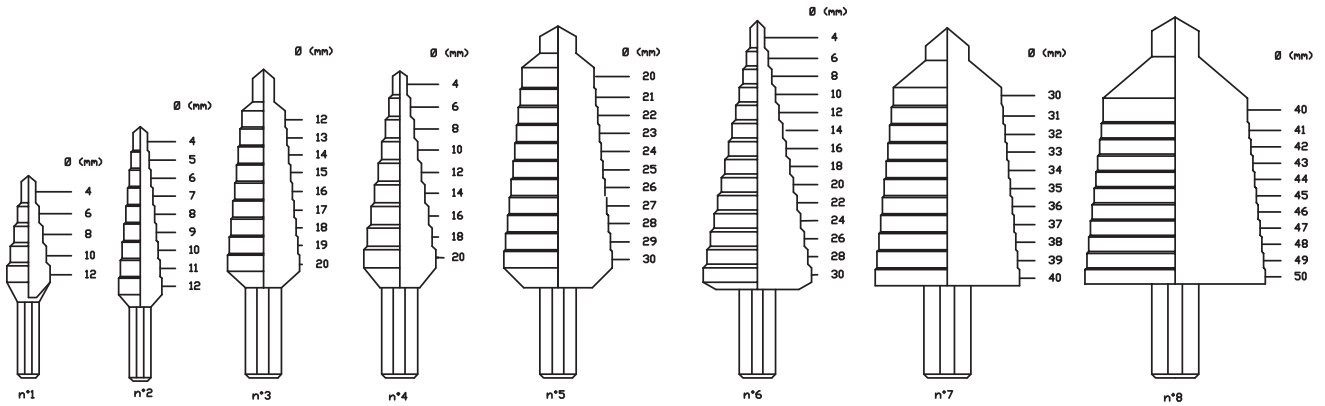


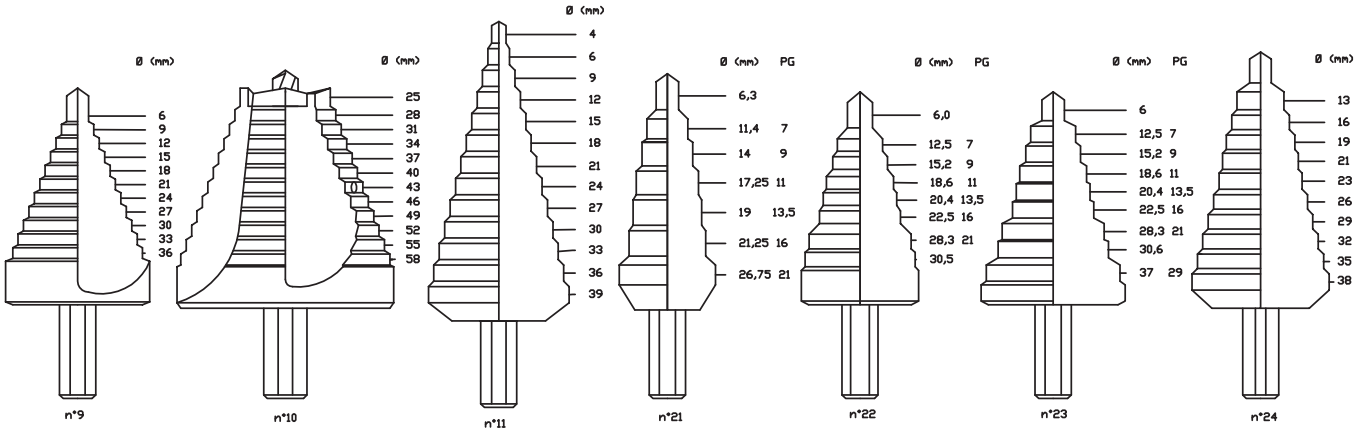
Ø x L	cod.	€ cad/each
10x48	0118300	24,531











ASSORTIMENTI UTENSILI CONICI HSS-G

HSS-G conical drill bits sets / Assortiments de forets coniques et étages HSS-G
Surtidos de brocas conicas HSS-G para planchas / HSS-G Blechschälbohrer Sortimente

01259102 **01259105** **01259110**

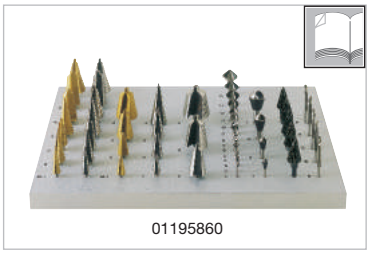
Abs







Cod.	Composizione *Description*
01259102 HSS-G € 151,091	Gr.2 4÷12 mm Gr.4 4÷20 mm Gr.6 4÷30 mm
01259105 HSS-G € 155,660	**Gr.2 4÷12 mm** **Gr.3 12÷20 mm** **Gr.5 20÷30 mm**
01259110 HSS-G € 108,745	Gr.6 4÷30 mm  HSS 25÷40 mm  HSS 6÷90 mm



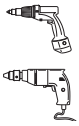
UTENSILI CONICI A GRADINO IN HSS-G CON ATTACCO 1/4" Q.C. PER FORARE E ALLARGARE LAMIERE E TUBI

HSS-G step drill bits,1/4" shank / Forets étages HSS-G avec queue 1/4"
Brocas escalonadas HSS-G con mango 1/4" / HSS-G Stufenbohrer

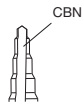
01239

HSS-G

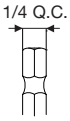
Gr.	Ø min.-max	Progressione *Step (mm)*	N° Gradini *N° Steps*	d ⬡	L *(mm)*	cod.	€ cad/each
2	**4 ÷ 12**	1	9	1/4	68	0123902	25,351
4	**4 ÷ 20**	2	9	1/4	78	0123904	34,398
6	**4 ÷ 30**	2	13	1/4	101	0123906	76,333







AISI M2
HV:820





Abs

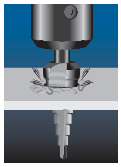
Cod.	Composizione *Description*
01259118 HSS-G € 147,597	Gr.2 4÷12 mm Gr.4 4÷20 mm Gr.6 4÷30 mm

Confezione / Packaging



Applicazioni / Applications

R ≤ 800 N/mm²






Acciaio *Steel*


Metals


Alu


Plastics

- Per fori **cilindrici e precisi** in lamiere di acciaio, tubi, profilati, leghe leggere, plastica, plexiglass sino a 5 mm spessore. Taglio veloce, alto rendimento.
- For parallel and precise holes in metal sheets, pipes, structurals, light alloys, plastics, plexiglass up to 5 mm thickness. Fast cutting, high performance.
- Perçage precise et haute rendement dans tous matèriaux de faible épaisseur (max 5 mm).
- Grande rendimiento y precision para cortar tubo y chapa de acero, aleaciones ligeras, plexiglass (5 mm profondidad).
- Große Präzision und Leistung zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher

UTENSILI CONICI A GRADINO RIVESTITI AL TiN E TiAlN

TiN and TiAlN coated step drill bits / Forets étages revêtus au TiN et TiAlN
Brocas escalonadas con recubrimiento de TiN y TiAlN / Stufenbohrer TiN-TiAlN beschichtet

01230



CBN

HSS-G + TIN
HV 0,05 = 2300

Gambo
antisdrucciolo
High grip shank

447

HSS-G + TiN

Metric - per costruzione - *for construction*

Gr.	Ø min.-max	Progressione *Step (mm)*	N° Gradini *N° Steps*	d *(mm)*	L *(mm)*	cod.	€ cad/each
1	**4 ÷ 12**	2	5	6	56	0123001	40,354
2	**4 ÷ 12**	1	9	6	70	0123002	41,607
3	**12 ÷ 20**	1	9	10	85	0123003	104,991
4	**4 ÷ 20**	2	9	10	85	0123004	67,278
5	**20 ÷ 30**	1	11	10	97	0123005	180,411
6	**4 ÷ 30**	2	13	10	97	0123006	134,545
7	**30 ÷ 40**	1	11	13	97	0123007	256,858
8	**40 ÷ 50**	1	11	13	100	0123008	354,715
9	**6 ÷ 36**	3	10	10	80	0123009	215,072
10	**10 ÷ 58**	3	12	13	90	0123010	480,081
11	**4 ÷ 39**	3	13	10	107	0123011	216,090
					Pg		
21	**6,3 ÷ 26,75**	-	7	10	91	0123021	162,063
22	**6 ÷ 30,5**	-	7	10	80	0123022	125,375
23	**6 ÷ 37**	-	7	10	85	0123023	225,259
24	**6 ÷ 38**	-	11	10	96	0123024	215,072



Confezione / Packaging





GR. 2-4-6
01259103
HSS-G + TiN
€ 237,432

USO INTENSIVO
INTENSIVE USE
R≤1000 **N/mm²**



Applicazioni / Applications

Inox | Acciaio *Steel* | Metals | Alu

- Per fori **cilindrici e precisi** in lamiere di acciaio, tubi, profilati, leghe leggere, plastica, plexiglass sino a 5 mm spessore.
- For parallel and precise holes in metal sheets, pipes, structurals, light alloys, plastics, plexiglass up to 5 mm thickness.
- Perçage precise et haute rendement dans tous matèriaux de faible épaisseur (max 5 mm).
- Grande rendimiento y precision para cortar tubo y chapa de acero, aleaciones ligeras, plexiglass (5 mm profondidad).
- Große Präzision und Leistung zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher

01236



CBN

HSS-G + TiAlN
HV 0,05 = 3300

Gambo
antisdrucciolo
High grip shank

447

HSS-G + TiAlN

Metric - per costruzione - *for construction*

Gr.	Ø min.-max	Progressione *Step (mm)*	N° Gradini *N° Steps*	d *(mm)*	L *(mm)*	cod.	€ cad/each
1	**4 ÷ 12**	2	5	6	56	0123601	44,415
2	**4 ÷ 12**	1	9	6	70	0123602	45,564
3	**12 ÷ 20**	1	9	10	85	0123603	114,161
4	**4 ÷ 20**	2	9	10	85	0123604	75,429
5	**20 ÷ 30**	1	11	10	97	0123605	196,723
6	**4 ÷ 30**	2	13	10	97	0123606	150,857
7	**30 ÷ 40**	1	11	13	97	0123607	282,339
8	**40 ÷ 50**	1	11	13	100	0123608	385,296
9	**6 ÷ 36**	3	10	10	80	0123609	236,474
10	**10 ÷ 58**	3	12	13	90	0123610	526,974
11	**4 ÷ 39**	3	13	10	107	0123611	246,669
					Pg		
21	**6,3 ÷ 26,75**	-	7	10	91	0123621	182,455
22	**6 ÷ 30,5**	-	7	10	80	0123622	130,474
23	**6 ÷ 37**	-	7	10	85	0123623	250,741
24	**6 ÷ 38**	-	11	10	96	0123624	239,536





GR. 2-4-6
01259104
HSS-G + TiAlN
€ 259,434

USO INTENSIVO
INTENSIVE USE
R≤1200 **N/mm²**



Applicazioni / Applications

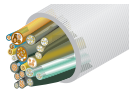
Inox | Acciaio *Steel* | Metals | Alu

- Per fori **cilindrici e precisi** in lamiere di acciaio, tubi, profilati, leghe leggere, plastica, plexiglass sino a 5 mm spessore.
- For parallel and precise holes in metal sheets, pipes, structurals, light alloys, plastics, plexiglass up to 5 mm thickness.
- Perçage precise et haute rendement dans tous matèriaux de faible épaisseur (max 5 mm).
- Grande rendimiento y precision para cortar tubo y chapa de acero, aleaciones ligeras, plexiglass (5 mm profondidad).
- Große Präzision und Leistung zum Bohren größerer Löcher in dünnwandige Materialien oder zum Aufbohren bereits vorhandener Löcher

UTENSILI CONICI UNIVERSALI PER PREFORI DI FILETTATURA DI TUBI PER CAVI DI CONDUZIONE ELETTRICA

Universal step drill bits for cables connections / Forets étages universelles pour tubes avec armature en acier
Brocas escalonadas universales para tubos de conducción eléctrica / Universal-Stufenbohrer für Kabelverschraubungen

0125405 **0125406** **0125407** **METRIC - DIN-EN 60423**



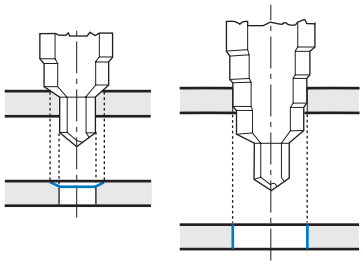


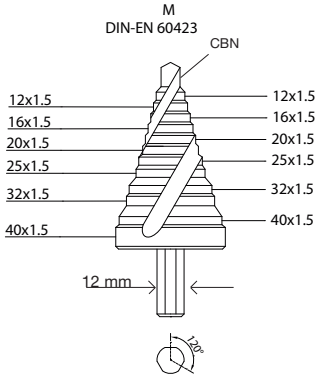
HSS-G **HSS-G + TiN** **HSS-G + TiAlN**

Metric Universal

Cod.	Composizione *Description*
0125405 HSS-G € 160,095	Ø 7÷40,5 mm M 12x1,5÷40x1,5
0125406 HSS-G + TiN € 247,516	Ø 7÷40,5 mm M 12x1,5÷40x1,5
0125407 HSS-G + TiAlN € 278,060	Ø 7÷40,5 mm M 12x1,5÷40x1,5

COMBINATO UNIVERSALE: per fori nocciolo e fori passanti DIN EN 60423
COMBINED UNIVERSAL: for core holes and through holes DIN EN 60423





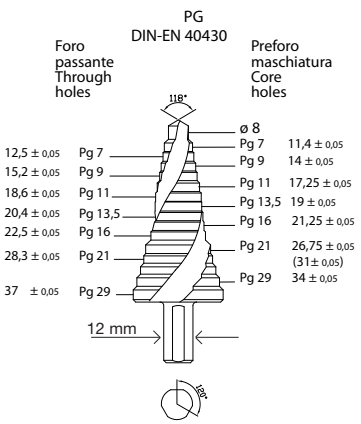
COMBINATO UNIVERSALE: per fori nocciolo (quando è prevista la successiva filettatura) e fori passanti (quando si inserisce un raccordo filettato serrato con un relativo dado).
UNIVERSAL COMBINED: for core holes (when the thread is needed) and through holes (when inserting a threaded connection with a relative nut).
UNIVERSAL COMBINED: pour les trous de noyau (lorsque le filetage suivant est fourni) et les trous de passage (lors de l'insertion d'une connexion filetée avec un écrou relatif).
UNIVERSAL COMBINADO: para orificios centrales (cuando se proporciona la siguiente rosca) y orificios pasantes (cuando se inserta una conexión roscada con una tuerca relativa).

0125404 **0125403** **PG - DIN-EN 40430**



HSS-G + TiN **HSS-G**

COMBINATO UNIVERSALE: per fori nocciolo e fori passanti DIN EN 40430
COMBINED UNIVERSAL: for core holes and through holes DIN EN 40430



PG Drill Universal

Cod.	Composizione *Description*
0125404 HSS-G + TiN € 216,527	Ø 6÷30,5 mm Pg 7÷29
0125403 HSS-G € 148, 676	Ø 8÷37 mm Pg 7÷29

PUNTA FRESA IN HSS-CO PER RIMUOVERE PUNTI DI SALDATURA E PER FORARE LAMIERE IN GENERE

HSS-CO spot drills / Fraise pour points de soudure
Fresas para puntos de soldaduras / Schweisspunktbohrer

01171 **01169**





≃ **DIN 1897**

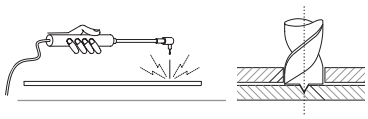
~DIN 1412/E

Confezione / Packaging



Art. 01171 HSS-CO

Ø	d	L	cod.	€ cad/each
6	6	66	0117106	13,105
7	7	74	0117107	14,734
8	8	79	0117108	15,588
10	10	89	0117110	19,846



Art. 01169 HSS-CO+TiN

Ø	d	L	cod.	€ cad/each
6	6	66	011690600	18,925
7	7	74	011690700	22,473
8	8	79	011690800	24,834
10	10	89	011691000	30,789



4 pcs TiN
01178200 € 56,970
4 pcs HSSCO
01178205 € 57,492

PUNTA FRESA IN HSS-CO PER RIMUOVERE PUNTI DI SALDATURA CON MACCHINE PNEUMATICHE

Milling drill for removing spot welds with pneumatic tools / Fraise pour enlever les points de soudure avec machines pneumatiques
Fresa para quitar los puntos de soldadura con las máquinas neumaticás / Schweißpunktfräser für pneumatische Maschinen

01172 **01173**





~DIN 1412/E

Velocità consigliata **3.000** giri/min
*Recommended speed **3.000** rpm*

Art. 01172 HSS-CO

Ø	d	L	cod.	€ cad/each
6,5	6.5	40	011720650	14,472
6,5 vario	8	44	011720650V	14,472
8	8	40	011720800	16,494
8 vario	8	44	011720800V	16,494

Art. 01173 HSS-CO+TiN

Ø	d	L	cod.	€ cad/each
6,5	6.5	40	011730650	17,852
6,5 vario	8	44	011730650V	17,852
8	8	40	011730800	20,876
8 vario	8	44	011730800V	20,876



2 pcs TiN
Ø 6,5 vario - 8 vario
01178210 € 38,632
2 pcs TiN
Ø 6,5 - 8
01178215 € 34,725

Art. 01179
Metallo duro - Solid carbide - Carbure - Metal duro + TiAlN

01179

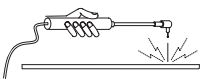
Ø	d	L	cod.	€ cad/each
6,5	8	40	011790650	106,774
8	8	40	011790800	106,774
10	8	44	011791000	131,379



MD + TiAlN
Solid carbide + TiAlN

447

Velocità consigliata **10.000** giri/min
*Recommended speed **10.000** rpm*



Speciale per taglio di acciai molto duri con carico di resistenza fino a 1500N/mm²; grande rendimento grazie all'accoppiamento metallo duro + rivestimento TiAlN multistrato.
Specially designed for cutting very hard metal sheets up to 1500N/mm² tensile strenght; great performances due to the combination of solid carbide and TiAlN multilayer coating.



3 pcs
01178220 € 341,675

FRESA PER RIMUOVERE I PUNTI DI SALDATURA SU LAMIERE METALLICHE

Milling cutter for removing spot welds from metal sheets / Fraise pour enlever les points de soudure de la tôle
Fresa para quitar los puntos de soldadura de las planchas metálicas / Schweißpunktfräser für Bleche



HSS

Ø	d	L	cod.	€ cad/each
10	7	72	01174100	11,963

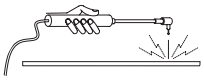
01174

Ricambi - Spare parts



01174101 € 6,120

01174102 € 0,721



PUNTA FRESA UNIVERSALE PER LA FORATURA E FRESATURA DI LAMIERE E MATERIALI SOTTILI IN LEGNO E PLASTICA

Universal milling drill for cutting and milling metal sheets and thin wooden or plastic materials / Fraise universel pour couper et fraiser la tôle et les matériaux fins en bois ou plastique / Fresa universal para cortar y fresar planchas y materiales finos de madera y plástico / Mehrzweckfräser für die Bohrung und das Fräser von Bleche und dunnen Holz-Kunststoffmaterialen

01175 **05432**



HSS



CV



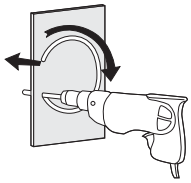


Confezione / Packaging



HSS

ØxL	cod.	€ cad/each
6 x 90	011750600	5,765



C.V

ØxL	cod.	€ cad/each
6 x 90	05432120	3,836

01175
05432



5 pcs
01178100 € 59,805



Ø 8x40 2 pcs
Ø 8 2 pcs
Ø 6 1 pcs

5 pcs
01178101 € 64,127



Ø 8x44 2 pcs
Ø 8 2 pcs
Ø 6 1 pcs

PUNTE PER TRACCIARE CON RIPORTO IN METALLO DURO

Carbide scribers / Pointe carbure à tracer / Punta para trazar / Hartmetall Reißspitze

0314201



0314202



cod.	L	€ cad/each
0314201	200	6,696
0314202	150	5,825

03142



03142

PUNTERUOLO

Punch



CV

cod.	L	€ cad/each
4100101	78	3,104

41001

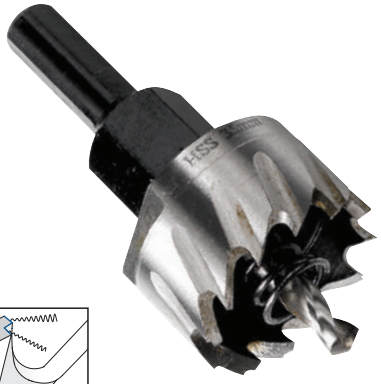
Professional

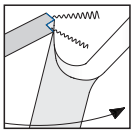
FRESE PERFORATRICI A TAZZA IN HSS-G INTERAMENTE RETTIFICATE PER FORARE LAMIERE IN ACCIAIO, FERRO, LEGHE LEGGERE, TUTTI I MATERIALI METALLICI, PLASTICA DURA

HSSG fully ground hole cutters / Scies trépans HSSG rectifiées
Coronas perforadoras HSSG rectificadas - HSSG Lochsägen

HSS-G

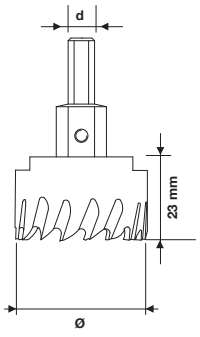
21001





Taglio laterale: miglior estrazione dei trucioli
Side cut: easy chips removal

HSS-G
HRC ≃ 64



- Innovativo disegno dei denti e taglio laterale: migliore scarico dei trucioli con grande rendimento del taglio.
- Upgrade teeth design and side cut: easy chips removal with high cutting performances
- Dessin innovateur de la denture et coup latéral: meilleur extraction des copeaux avec un élevé rendement du coupe
- Diseño innovador de los dientes y corte lateral: mejor extracción de las virutas con un alto rendimiento de corte
- Erneuerungszeichnung der Zahnung und Seitenschnitt: besser Abziehen der Späne mit Hochleistung des Schnitts.

Confezione / Packaging

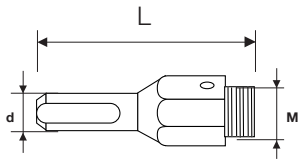


Ø	z	cod.	€ cad/each	Ø	z	cod.	€ cad/each
*10	5	2100101000	15,600	40	14	2100104000	34,137
12	5	2100101200	15,001	41	14	2100104100	34,569
13	5	2100101300	15,001	42	14	2100104200	35,290
14	6	2100101400	15,322	43	14	2100104300	36,531
15	6	2100101500	15,322	44	16	2100104400	37,196
16	6	2100101600	15,322	45	16	2100104500	39,337
17	6	2100101700	15,322	46	16	2100104600	39,337
18	6	2100101800	15,322	47	16	2100104700	39,681
19	8	2100101900	15,809	48	16	2100104800	41,997
20	8	2100102000	16,753	49	16	2100104900	42,785
21	8	2100102100	17,529	50	16	2100105000	42,785
22	8	2100102200	18,338	51	18	2100105100	52,152
23	8	2100102300	19,768	52	18	2100105200	53,240
24	8	2100102400	20,089	53	18	2100105300	54,570
25	8	2100102500	20,766	54	18	2100105400	56,688
26	10	2100102600	22,151	55	18	2100105500	57,695
27	10	2100102700	22,495	56	18	2100105600	58,085
28	10	2100102800	23,415	57	18	2100105700	58,085
29	10	2100102900	24,259	58	18	2100105800	60,346
30	10	2100103000	24,680	59	18	2100105900	62,286
31	12	2100103100	25,688	60	18	2100106000	62,286
32	12	2100103200	26,464	65	20	2100106500	80,313
33	12	2100103300	27,318	70	20	2100107000	86,146
34	12	2100103400	28,260	75	22	2100107500	92,775
35	12	2100103500	28,925	80	22	2100108000	103,696
36	12	2100103600	30,322	85	24	2100108500	116,945
37	12	2100103700	30,656	90	24	2100109000	129,506
38	12	2100103800	31,476	95	24	2100109500	139,107
39	12	2100103900	34,137	100	24	2100110000	149,895

*__Integrale:__ One piece

	cod.	€ cad/each
ø ≥ 20mm	21005098	0,299

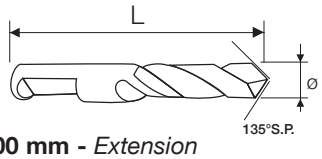
Gambo - *Arbor*



Per frese *Fit hole cutters*	L	d	M	cod.	€ cad/each
Ø 12 ÷ 14	56	8	10 x 1,25	21005099	4,967
Ø 15 ÷ 34	56	10	12 x 1,25	21005100	4,967
Ø 35 ÷ 50	56	10	14 x 1,5	21005102	7,440
Ø 51 ÷100	60	12	16 x 1,5	21005101	7,440

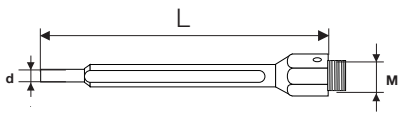
Punta pilota - *Pilot drill*

AISI M2



Per frese *Fit hole cutters*	ø x L	cod.	€ cad/each
Ø 10	4x50	21005109	1,787
Ø 12 ÷100	6x52	21005110	2,639

Prolunga 400 mm - *Extension*



Per frese *Fit hole cutters*	L mm	d	M	cod.	€ cad/each
Ø 15 ÷ 34	400	13	12 x 1,25	21005120	28,350
Ø 35 ÷ 50	400	13	14 x 1,5	21005122	28,350
Ø 51 ÷100	400	13	16 x 1,5	21005121	28,350

ASSORTIMENTI FRESE PERFORATRICI A TAZZA IN HSS-G

HSS-G hole-cutters sets / Assortiments de scies trépans HSS-G
Juegos de corona perforadoras HSS-G / HSS-G Lochsägensätze



Cod.

21010100
39 pcs
Ø 12÷50x1mm
€ 1091,241

21010101
31 pcs
Ø 12÷40x1+45-50mm
€ 778,258

21010102
21 pcs
Ø 18÷35x1+36-38-40mm
€ 563,604

21010104
11 pcs
Ø 16-18-20-21-22-25
27-28-30-32-35mm
€ 246,806

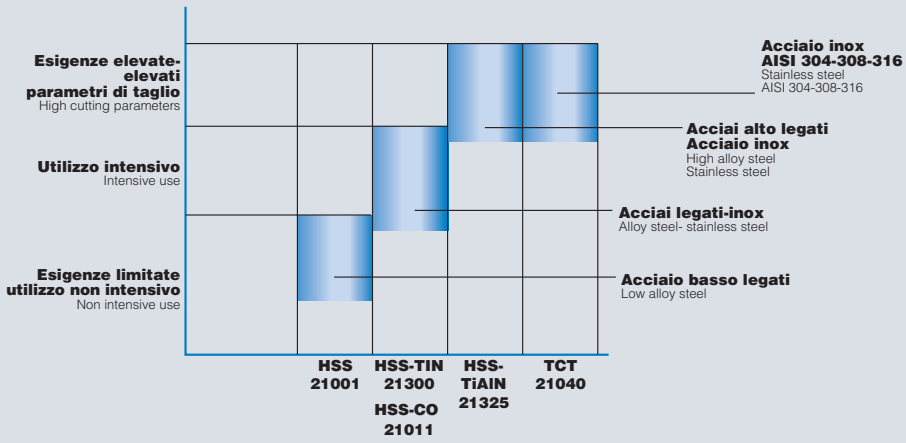


Cod.

21010300
8 pcs
Ø 16-18-20-22- 25-30-32-35
€ 194,265

21010301
6 pcs
Ø 16-18-20-22- 25-30
€ 143,897

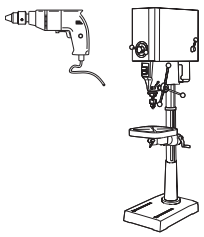
Guida alla scelta della tazza / *Choosing chart*











Applicazioni / Applications



R≤800 N/mm²



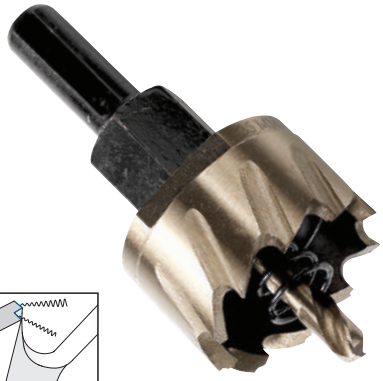
- Dentatura ricavata interamente di rettifica, taglio laterale rompitruciolo, molla di espulsione del dischetto. **Profondità di foratura sino a 5 mm. Grande rendimento, precisione di foratura** nel taglio anche profondo di tutte le lamiere in acciaio, leghe leggere, materiali metallici in genere, utensile riaffilabile.
- Fully ground cutting teeth with chipbreaker, regrindable, **cutting depth up to 5 mm**. High performances and precision in hole-making into metal sheets, light alloys, all kind of metals.
- Trépan HSS rectifié avec coupe lateral pour perçage haute rendement en acier et métaux courants en construction mécanique, entretien, installations électriques et sanitaires. **Epaisseur de coupe: 5 mm**. Outil reaffilable.
- Corona perforadora rectificada con corte lateral para cortar planchas y tubos de hierro, acero, metales. **Profondidad de corte: 5 mm**. utensilio reafilable.
- HSS Lochsägen mit geschliffene Zähnen für die präzise Schneide und größe Leistung in Stahlblätter.

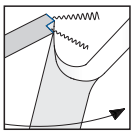
FRESE PERFORATRICI A TAZZA IN HSS-CO INTERAMENTE RETTIFICATE PER FORARE LAMIERE IN ACCIAIO INOX, ACCIAI ALTAMENTE LEGATI, FERRO, LEGHE LEGGERE E METALLI IN GENERE.

HSS-CO fully ground hole cutters / Scies trépans HSS-CO rectifiées
Coronas perforadoras HSS-CO rectificadas - HSS-CO Lochsägen

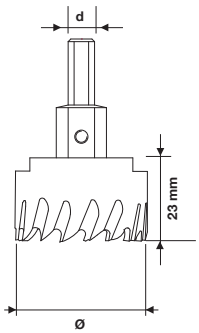
COBALT

21011





HSS-CO AISI M35
HRC ≃ 64÷65



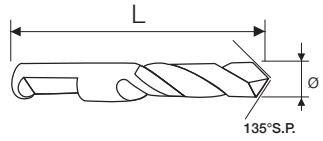
Confezione / Packaging



Ø	Z	cod.	€ cad/each	Ø	Z	cod.	€ cad/each
12	4	2101101200	18,828	39	10	2101103900	60,708
13	4	2101101300	18,828	40	12	2101104000	68,051
14	4	2101101400	18,828	41	12	2101104100	68,051
15	4	2101101500	18,828	42	12	2101104200	68,051
16	4	2101101600	18,828	43	12	2101104300	68,051
17	4	2101101700	21,524	44	14	2101104400	72,870
18	4	2101101800	21,524	45	14	2101104500	81,822
19	6	2101101900	23,758	46	14	2101104600	81,822
20	6	2101102000	23,758	47	14	2101104700	85,404
21	6	2101102100	26,432	48	14	2101104800	85,404
22	6	2101102200	26,432	49	14	2101104900	89,874
23	6	2101102300	29,836	50	14	2101105000	89,874
24	6	2101102400	29,836	51	16	2101105100	106,857
25	6	2101102500	32,788	52	16	2101105200	106,857
26	8	2101102600	32,788	53	16	2101105300	106,857
27	8	2101102700	35,392	54	16	2101105400	106,857
28	8	2101102800	38,236	55	16	2101105500	106,857
29	8	2101102900	38,236	56	16	2101105600	121,955
30	8	2101103000	43,157	57	16	2101105700	121,955
31	10	2101103100	43,157	58	16	2101105800	121,955
32	10	2101103200	43,157	59	16	2101105900	121,955
33	10	2101103300	46,918	60	16	2101106000	121,955
34	10	2101103400	46,918	65	18	2101106500	143,537
35	10	2101103500	50,769	70	18	2101107000	170,518
36	10	2101103600	53,913	75	20	2101107500	197,729
37	10	2101103700	60,708	80	20	2101108000	216,926
38	10	2101103800	60,708				

	cod.	€ cad/each
Ø ≥ 20mm	21005098	0,299

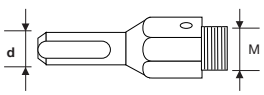
Punta pilota - *Pilot drill*



AISI M35

Per frese *Fit hole cutters*	ø x L	cod.	€ cad/each
Ø 12 ÷ 80	6x52	21005115	3,836

Gambo - *Arbor*



148

ASSORTIMENTI FRESE PERFORATRICI A TAZZA IN HSS-CO

HSS-CO hole-cutters sets / Assortiments de scies trépans HSS-CO
Juegos de corona perforadoras HSS-CO / HSS-CO Lochsägensätze



Cod.

21013100
39 pcs
Ø 12÷50x1mm
€ 1802,384

21013101
31 pcs
Ø 12÷40x1+45-50mm
€ 1196,663

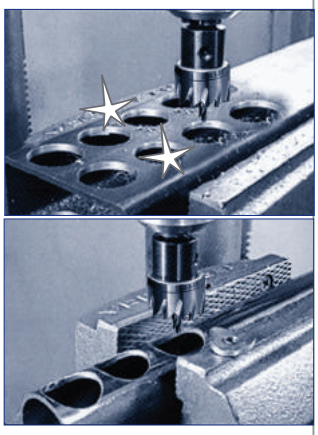
21013102
21 pcs
Ø 18÷35x1+36-38-40mm
€ 823,106

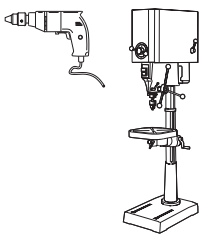


Cod.

21013300
8 pcs
Ø 16-18-20-22- 25-30-32-35
€ 305,788

21013301
6 pcs
Ø 16-18-20-22- 25-30
€ 203,855





Applicazioni / Applications



R≤1000 N/mm²



Inox | Acciaio *Steel* | Alu | Cu Zn Ni Ms

- L'innovativo disegno dei taglienti, insieme all'elevata qualità dell'acciaio al cobalto AISI M35, la rendono particolarmente adatta al taglio **dell'acciaio inox**, degli acciai altolegati, leghe leggere e metalli in genere: grande rendimento e precisione di foratura nel taglio di spessori sino a 5 mm.
- The upgrade teeth design together with the high quality of the cobalt steel AISI M35 make it particularly suitable for cutting **stainless steel**, high-alloy steels, light alloys and metals: high performance and precision of the cut in sections up to 5 mm thick.
- Le dessin innovateur de la denture ainsi que l'éleveé qualité de l'acier au cobalt AISI M35 la rendent particulièrement indiquéè pour le coupe **de l'acier inoxydable**, des aciers alliés, alliages légers et métaux en général: élevé rendement et précisions du coupe de sections jusqu'à 5 mm d'épaisseur.
- El diseño innovador de los dientes junto a la elevada calidad del acero de cobalto AISI M35 la renden particularmente apta para el corte **del acero inoxidable**, de los aceros ligados, aleaciones ligeras y metales en general: elevado rendimiento y precision de corte de espesores hasta 5 mm.
- Die Erneuerungszeichnung der Zahnung und die hohe Qualität des Kobaltsthal AISI M35 machen sie sehr geeignet für den Schnitt **von rostfreierem** Stahl, hochlegierten Stähle, Leichtmetall-Legierungen und Metalle: Hochleistung und Genauigkeit des Schnitts von Dicke bis 5 mm.

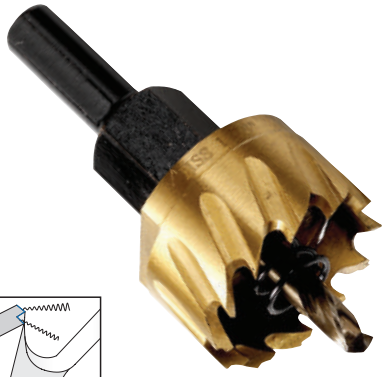
FRESE PERFORATRICI A TAZZA IN HSS-G RETTIFICATE RIVESTITE AL TiN PER FORARE LAMIERE IN ACCIAIO ALTOLEGATO, ACCIAIO INOX, FERRO, TUTTI I MATERIALI METALLICI, PLASTICA DURA.

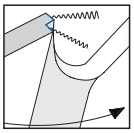
HSS-G+TiN fully ground hole cutters / Scies trépans HSS-G+TiN rectifiées

Coronas perforadoras HSS-G+TiN rectificadas - HSS-G+TiN Lochsägen

21300

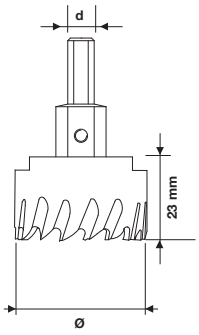
TiN





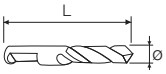
447

HSS-G+TiN
HV 0,05 ≃ 2300



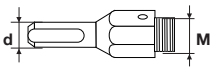
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16	2130001600	26,623	45	2130004500	57,614
17	2130001700	26,623	46	2130004600	57,614
18	2130001800	26,623	47	2130004700	57,614
19	2130001900	26,623	48	2130004800	62,024
20	2130002000	26,623	49	2130004900	62,024
21	2130002100	29,116	50	2130005000	62,024
22	2130002200	29,116	51	2130005100	66,475
23	2130002300	31,501	52	2130005200	66,475
24	2130002400	31,501	53	2130005300	66,475
25	2130002500	31,501	54	2130005400	66,475
26	2130002600	33,917	55	2130005500	66,475
27	2130002700	33,917	56	2130005600	67,573
28	2130002800	33,917	57	2130005700	67,573
29	2130002900	33,917	58	2130005800	67,573
30	2130003000	35,014	59	2130005900	67,573
31	2130003100	35,014	60	2130006000	67,573
32	2130003200	35,014	65	2130006500	90,123
33	2130003300	35,014	70	2130007000	95,243
34	2130003400	35,014	75	2130007500	102,636
35	2130003500	35,014	80	2130008000	112,245
36	2130003600	42,458	85	2130008500	125,196
37	2130003700	42,458	90	2130009000	135,984
38	2130003800	42,458	95	2130009500	143,537
39	2130003900	47,357	100	2130010000	154,333
40	2130004000	47,357			

Punta pilota - HSS-CO
Pilot drill



Ø x L	cod.	€ cad/each
6x52	21005115	3,836

Gambo - *Arbor*



148



Cod.

21320100
39 pcs
Ø 12÷50x1mm
€ 1439,234

21320101
31 pcs
Ø 12÷40x1+45-50mm
€ 1039,672

21320102
21 pcs
Ø 18÷35x1+36-38-40mm
€ 733,884



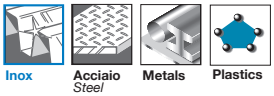
Cod.

21320300
8 pcs
Ø 16-18-20-22- 25-30-32-35
€ 249,724

21320301
6 pcs
Ø 16-18-20-22- 25-30
€ 188,573

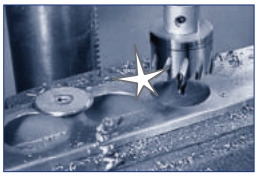


R≤1000 N/mm²



Inox | Acciaio *Steel* | Metals | Plastics







- Il Rivestimento in Nitruro di Titanio, elevando la durezza superficiale e riducendo notevolmente il coefficiente di attrito, permette il taglio negli acciai alto legati ed in particolare nell'acciaio inox. Le frese al TiN sono, inoltre molto adatte per il taglio dell'alluminio e di tutti i materiali abrasivi (plastica dura, vetroresina). Naturalmente, il rendimento nel taglio degli acciai dolci è elevatissimo.
- The Titanium Nitride Coating allows high performances in stainless steel cutting, low alloy steel cutting. Aluminium and abrasive materials such as fiberglass.
- Le revêtement ou Nitrure de titane, élève la dureté superficial et réduit le coefficient de friction, en permettent de percer dans des aciers haute alliés et particulièrement dans l'acier inoxydable. Les fraises au TiN sont aussi indiquées pour percer dans l'aluminium et tous les matériaux abrasifs (plastique dure; polyester renforcé de verre). Naturellement le coupe dans les acier doux est très élevé.
- El recubrimiento en Nitruro de Titanio, levatando la dureza superficial y reduciendo el coeficiente de fricción, permite el corte en los aceros altamente aliados y particularmente en el acero inoxidable. Les fresas al TiN son tanbien indicadas para el corte en el aluminio y en todos los materiales abrasivos (plasticos duros, vidrio-resina). Naturalmente, el rendimiento de los cortes en los aceros dulces es muy elevado.
- HSS Lochsägen mit geschliffene und TIN-beschichtete Zähnen für die präzise Schneide und größe Leistung in Edelstahl und Schleifmaterialien.

Applicazioni / Applications

FRESE PERFORATRICI A TAZZA IN HSS-G RIVESTITE AL TiAlN PER FORARE LAMIERE IN ACCIAIO ALTOLEGATO, ACCIAIO INOX, FERRO, TUTTI I MATERIALI METALLICI, PLASTICA DURA.

HSS-TiAlN fully ground hole cutters / Scies trépans HSS-TiAlN rectifiées
Coronas perforadoras HSS-TiAlN rectificadas - HSS-TiAlN Lochsägen

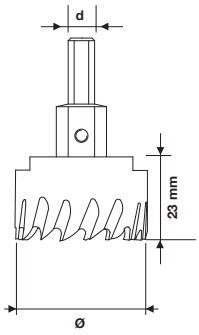
TiAlN

21325



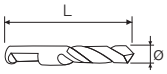
447

HSS-G+TiAlN
HV 0,05 ≃ 3300



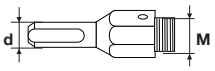
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15	2132501500	28,145	44	2132504400	59,012
16	2132501600	30,528	45	2132504500	62,397
17	2132501700	30,528	46	2132504600	62,397
18	2132501800	30,528	47	2132504700	62,397
19	2132501900	31,869	48	2132504800	67,153
20	2132502000	31,869	49	2132504900	67,153
21	2132502100	33,094	50	2132505000	67,153
22	2132502200	33,094	51	2132505100	67,963
23	2132502300	35,466	52	2132505200	67,963
24	2132502400	35,466	53	2132505300	67,963
25	2132502500	35,466	54	2132505400	67,963
26	2132502600	37,849	55	2132505500	67,963
27	2132502700	37,849	56	2132505600	69,931
28	2132502800	37,849	57	2132505700	69,931
29	2132502900	37,849	58	2132505800	69,931
30	2132503000	39,334	59	2132505900	69,931
31	2132503100	39,334	60	2132506000	69,931
32	2132503200	39,334	65	2132506500	100,200
33	2132503300	39,334	70	2132507000	106,410
34	2132503400	39,334	75	2132507500	114,763
35	2132503500	39,334	80	2132508000	125,190
36	2132503600	46,126	85	2132508500	139,794
37	2132503700	46,126	90	2132509000	151,272
38	2132503800	46,126	95	2132509500	159,625
39	2132503900	50,871	100	2132510000	171,094
40	2132504000	50,871			

Punta pilota - HSS-CO
Pilot drill



Ø x L	cod.	€ cad/each
6x52	21005115	3,836

Gambo - *Arbor*



148



Cod.

21335100
39 pcs
Ø 12÷50x1mm
€ 1549,315

21335101
31 pcs
Ø 12÷40x1+45-50mm
€ 1141,600

21335102
21 pcs
Ø 18÷35x1+36-38-40mm
€ 795,046



Cod.

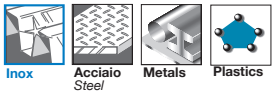
21335300
8 pcs
Ø 16-18-20-22- 25-30-32-35
€ 280,304

21335301
6 pcs
Ø 16-18-20-22- 25-30
€ 214,055

Applicazioni / Applications



R≤1300 N/mm²







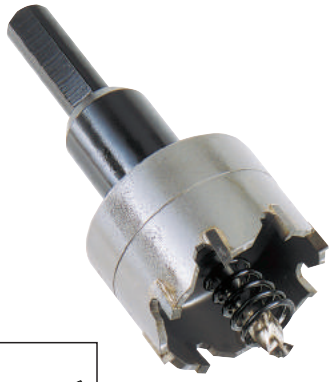


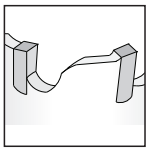
- **Frese a tazza HSS+TiAlN:** più si "scalda", più rende. È un esclusivo rivestimento PVD che permette il taglio a secco ad elevati parametri di taglio e con rendimenti eccezionali nell'acciaio inox e in tutti i materiali in genere.
- **HSS+TiAlN hole cutters:** The more it "heats" the more it performs. It is a special PVD Coating which allows the dry cut with high cutting parameters, and a great performance while drilling into the stainless steel and all kind of materials.
- **Scies trépan en acier rapid + TiAlN:** Plus "chaude" elle devient, plus c'est performante. C'est une exclusive revêtement PVD qui permet le coupe à froid avec des hautes paramètres de perforation avec des performances exceptionnelles en travaillant dans l'acier inoxydable et tous les matériaux.
- **Corona perforadora en acero rapido + TiAlN:** Lo mas se "calenta", lo mas es performante. Es un recubrimiento PVD esclusivo, permite el corte seco con elevados parametros de corte y con optimos rendimientos cortando en el acero inoxidable y todos los materiales.
- **HSS Lochsägen mit geschliffene und TiAlN-beschichtete** Zähnen für Hitzbeständige Stähle und für die präzise Schneide und größe Leistung in Edelstahl und Schleifmaterialien.

FRESE A TAZZA TCT AD ALBERO MOBILE PER FORARE LAMIERE IN ACCIAIO INOX, ACCIAI DURI TRATTATI

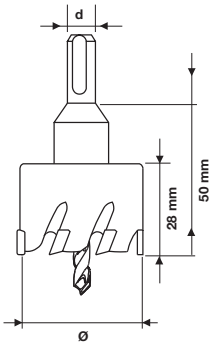
Tungsten carbide tipped hole saws for stainless and hard metal sheets / Scies trépans au carbure de tungstene pour la tôle en acier inox
Coronas con dientes de metal duro para planchas en acero inoxidable y duro / Hartmetallochsägen für nicht rostenden Stahl

21040





Inserti in metallo duro
Carbide tips



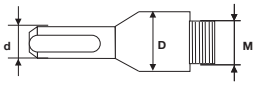
Confezione / Packaging



Ø	d	cod.	€ cad/each	Ø	d	cod.	€ cad/each
15	10	2104001500	29,931	47	13	2104004700	67,427
16	10	2104001600	29,931	48	13	2104004800	67,427
17	10	2104001700	29,931	49	13	2104004900	67,427
18	10	2104001800	29,931	50	13	2104005000	67,427
19	10	2104001900	31,231	51	13	2104005100	75,909
20	10	2104002000	31,231	52	13	2104005200	75,909
21	10	2104002100	31,231	53	13	2104005300	75,909
22	10	2104002200	31,231	54	13	2104005400	75,909
23	10	2104002300	31,881	55	13	2104005500	75,909
24	10	2104002400	31,881	56	13	2104005600	91,091
25	10	2104002500	31,881	57	13	2104005700	91,091
26	10	2104002600	37,611	58	13	2104005800	91,091
27	10	2104002700	37,611	59	13	2104005900	91,091
28	10	2104002800	37,611	60	13	2104006000	102,749
29	10	2104002900	37,611	65	13	2104006500	102,749
30	10	2104003000	37,611	70	13	2104007000	123,838
31	10	2104003100	43,802	75	13	2104007500	133,018
32	10	2104003200	43,802	76	13	2104007600	144,025
33	10	2104003300	43,802	80	13	2104008000	144,025
34	10	2104003400	43,802	85	13	2104008500	158,707
35	10	2104003500	43,802	90	13	2104009000	171,543
36	10	2104003600	50,757	95	13	2104009500	180,722
37	10	2104003700	50,757	100	13	2104010000	195,395
38	13	2104003800	50,757	*105	13	2104010500	244,625
39	13	2104003900	50,757	*110	13	2104011000	250,741
40	13	2104004000	50,757	*115	13	2104011500	287,437
41	13	2104004100	58,127	*120	13	2104012000	308,849
42	13	2104004200	58,127	*125	13	2104012500	315,315
43	13	2104004300	58,127	*130	13	2104013000	327,943
44	13	2104004400	58,127	*135	13	2104013500	339,878
45	13	2104004500	58,127	*140	13	2104014000	361,053
46	13	2104004600	67,427	*145	13	2104014500	373,373
				*150	13	2104015000	382,151

*105÷120 Frese integrali *One piece*

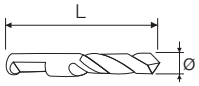
Gambo - *Arbor*



Per frese *Fit hole cutters*	d	D	M	cod.	€ cad/each
Ø 15 ÷ 21	10	15	12 x 1,5	21045120	7,661
Ø 22 ÷ 37	10	19	14 x 1,5	21045121	9,291
Ø 38 ÷100	13	22	14 x 1,5	21045122	11,487

Punta pilota - *Pilot drill*

AISI M2



Per frese *Fit hole cutters*	ø x L	cod.	€ cad/each
Ø 15 ÷100	6x62	21045100	7,661
Ø105 ÷120	8x62	21045101	10,987



Cod.

21055130
28 pcs
Ø 15÷40x1+45-50mm
€ 1130,866

21055131
21 pcs
Ø 18÷35x1+36-38-40mm
€ 859,817



Cod.

21055300
8 pcs
Ø 16-18-20-22- 25-30-32-35
€ 309,867

21055301
6 pcs
Ø 16-18-20-22- 25-30
€ 224,241



Cod.

21055302
8 pcs


Ø 51÷54mm


Ø 51÷54mm


210705546B


Ø 6÷8mm
Carbide tip


HM4 Ø12

€ 268,000

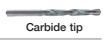
Cod.

21055303
8 pcs


Ø 54÷57mm


Ø 54÷57mm


210705546B


Ø 6÷8mm
Carbide tip


HM4 Ø12

€ 268,000

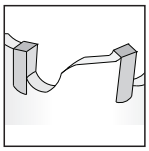
FRESE A TAZZA TCT AD ALBERO MOBILE PER FORARE LAMIERE, TUBI, PROFILATI IN ACCIAIO INOX E ACCIAI DURI TRATTATI

Tungsten carbide tipped hole saws for stainless and hard metal sheets / Scies trépans au carbure de tungstène pour la tôle en acier inox Coronas con dientes de metal duro para planchas en acero inoxidable y duro / Hartmetallochsägen für nicht rostenden Stahl

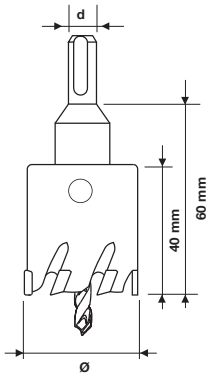
Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung

21042





Inserti in metallo duro
Carbide tips

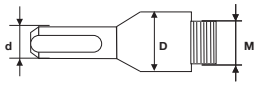


Confezione / Packaging



Ø	d	cod.	€ cad/each	Ø	d	cod.	€ cad/each
20	10	2104202000	42,399	45	13	2104204500	76,795
21	10	2104202100	42,399	46	13	2104204600	85,616
22	10	2104202200	42,399	47	13	2104204700	85,616
23	10	2104202300	42,399	48	13	2104204800	85,616
24	10	2104202400	42,399	49	13	2104204900	85,616
25	10	2104202500	42,399	50	13	2104205000	85,616
26	10	2104202600	48,853	51	13	2104205100	98,669
27	10	2104202700	48,853	52	13	2104205200	98,669
28	10	2104202800	48,853	53	13	2104205300	98,669
29	10	2104202900	48,853	54	13	2104205400	98,669
30	10	2104203000	48,853	55	13	2104205500	98,669
31	10	2104203100	57,222	56	13	2104205600	111,711
32	10	2104203200	57,222	57	13	2104205700	111,711
33	10	2104203300	57,222	58	13	2104205800	111,711
34	10	2104203400	57,222	59	13	2104205900	111,711
35	10	2104203500	57,222	60	13	2104206000	132,104
36	10	2104203600	64,657	65	13	2104206500	132,104
37	10	2104203700	64,657	70	13	2104207000	142,697
38	10	2104203800	64,657	75	13	2104207500	153,298
39	13	2104203900	64,657	80	13	2104208000	165,531
40	13	2104204000	64,657	85	13	2104208500	185,915
41	13	2104204100	76,795	90	13	2104209000	198,967
42	13	2104204200	76,795	95	13	2104209500	209,568
43	13	2104204300	76,795	100	13	2104210000	225,061
44	13	2104204400	76,795				

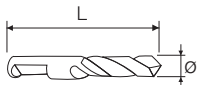
Gambo - *Arbor*



Per frese *Fit hole cutters*	d	D	M	cod.	€ cad/each
Ø 15 ÷ 21	10	15	12 x 1,5	21045120	7,661
Ø 22 ÷ 38	10	19	14 x 1,5	21045121	9,291
Ø 39 ÷100	13	22	14 x 1,5	21045122	11,487

Punta pilota - *Pilot drill*

AISI M2



ø x L	cod.	€ cad/each
6x78	**21045102**	11,874



Cod.

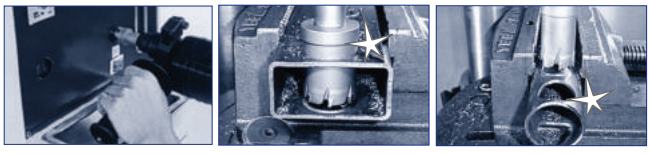
21055135
23 pcs
Ø 20÷40x1+45-50mm
€ 1177,985

Applicazioni / Applications



R≤1300 N/mm²





- La speciale geometria variabile dei denti in metallo duro di altissima qualità consente il taglio altamente professionale e con grande rendimento in tubi, profilati e lamiere in acciaio inox, acciai alto-legati e materiali composti ad elevata resistenza. Spessore massimo di taglio; 5 mm
- The special variable geometry of the high-quality tungsten carbide teeth makes it possible to realise a very professional and efficient cut in pipes, structural sections and metal sheets in stainless steel, high-alloy steel and high-resistance materials. Maximum cutting thickness: 5mm
- La spéciale géométrie variable de la denture en métal dur de haute qualité permit de couper professionnellement et avec un rendement très élevé la tôle, les tubes et les profilés en acier inoxydable, acier allié et matériaux à résistance élevée. Epaisseur maximum de coupe: 5mm
- La especial geometría variable de los dientes de metal duro de elevada calidad permite de realizar un corte profesional y de grande rendimiento en tubos, perfilados y planchas en acero inoxidable, acero ligado y materiales de elevada resistencia. Espesor máximo de corte: 5mm
- Die veränderbare Sondergeometrie der Zahnung aus Hartmetall erlaubt einen beruflichen Schnitt von Röhren, Profile und Bleche aus rostfreierem Stahl, hochlegierterem Stahl und hochfesterem Stahl. Größte Schnitt-Dicke: 5 mm

FRESE A CAROTARE IN HSS-G CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO E TRAPANI A COLONNA CON ATTACCO MORSE

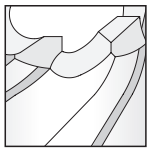
Weldon shank HSS core drills for magnetic and pillar drilling machines / Fraises HSS à carotter avec Weldon queue pour machines à embase magnétique et perceuses fixes /Fresas HSS con mango Weldon para maquinas con base magnética y taladros estacionarios

HSS-G | **WELDON**

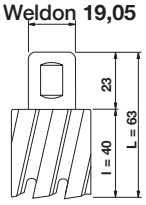
21200 **21202**

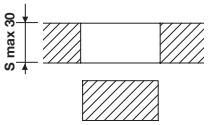




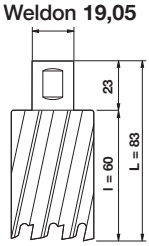


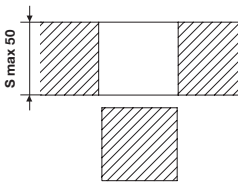
Weldon 19,05



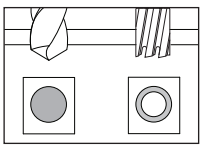


Weldon 19,05

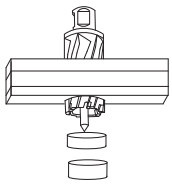




Vantaggi
Advantages



Acciaio accoppiato
Stacked steel



21200 L= 30 mm

Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

Ø	l	L	cod.	€ cad/each
12	40	63	212001200	23,797
13	40	63	212001300	24,426
14	40	63	212001400	28,666
15	40	63	212001500	29,296
16	40	63	212001600	31,238
17	40	63	212001700	32,640
18	40	63	212001800	34,192
19	40	63	212001900	35,078
20	40	63	212002000	36,143
21	40	63	212002100	37,164
22	40	63	212002200	38,263
23	40	63	212002300	39,390
24	40	63	212002400	41,864
25	40	63	212002500	43,062
26	40	63	212002600	49,546
27	40	63	212002700	50,876
28	40	63	212002800	52,259
29	40	63	212002900	53,688
30	40	63	212003000	55,177
31	40	63	212003100	57,821
32	40	63	212003200	59,338
33	40	63	212003300	60,898
34	40	63	212003400	62,486
35	40	63	212003500	64,136
36	40	63	212003600	65,857
37	40	63	212003700	67,613
38	40	63	212003800	69,759
39	40	63	212003900	71,834
40	40	63	212004000	73,218
41	40	63	212004100	84,269
42	40	63	212004200	86,336
43	40	63	212004300	87,720
44	40	63	212004400	89,794
45	40	63	212004500	105,681
46	40	63	212004600	107,756
47	40	63	212004700	109,822
48	40	63	212004800	111,898
49	40	63	212004900	113,964
50	40	63	212005000	116,040
51	40	63	212005100	126,231
52	40	63	212005200	128,706
53	40	63	212005300	131,189
54	40	63	212005400	133,655
55	40	63	212005500	137,451
60	40	63	212006000	162,322

 Ø 6,35x77 163

21202 L= 50 mm

Serie lunga / Long serie / Sèrie longue Serie larga / Lange Ausführung

Ø	l	L	cod.	€ cad/each
12	60	83	212021200	33,066
13	60	83	212021300	33,739
14	60	83	212021400	39,647
15	60	83	212021500	40,286
16	60	83	212021600	42,796
17	60	83	212021700	44,534
18	60	83	212021800	46,431
19	60	83	212021900	47,363
20	60	83	212022000	48,507
21	60	83	212022100	49,608
22	60	83	212022200	50,778
23	60	83	212022300	51,984
24	60	83	212022400	55,133
25	60	83	212022500	56,392
26	60	83	212022600	65,696
27	60	83	212022700	66,921
28	60	83	212022800	68,766
29	60	83	212022900	69,990
30	60	83	212023000	74,292
31	60	83	212023100	74,903
32	60	83	212023200	76,748
33	60	83	212023300	77,972
34	60	83	212023400	79,818
35	60	83	212023500	81,662
36	60	83	212023600	83,498
37	60	83	212023700	85,343
38	60	83	212023800	87,188
39	60	83	212023900	89,023
40	60	83	212024000	90,868
41	60	83	212024100	105,601
42	60	83	212024200	107,446
43	60	83	212024300	109,902
44	60	83	212024400	111,738
45	60	83	212024500	133,230
46	60	83	212024600	135,686
47	60	83	212024700	137,530
48	60	83	212024800	139,988
49	60	83	212024900	142,445
50	60	83	212025000	151,092
51	60	83	212025100	175,714
52	60	83	212025200	180,459
53	60	83	212025300	185,214
54	60	83	212025400	189,959
55	60	83	212025500	189,959
60	60	83	212026000	203,290

 Ø 6,35x102 163



Cod.		
21210300	€ 684,964	16 pcs Ø 14-15-16-17-18-19-20 21-22-23-24-25-28-30 32-35
21210302	€ 878,084	

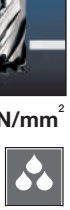


Cod.		
21210400	€ 229,166	6 pcs Ø 12-14-16 18-20-22 1 pcs
21210402	€ 274,813	

Applicazioni / Applications



R≤850 N/mm²

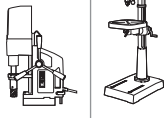


Acciaio *Steel* | Alu | Cu Zn Ni Ms

- Le frese a carotare permettono un taglio molto veloce ed economico nel ferro, acciaio da costruzione, ghisa, leghe leggere e metalli non ferrosi in genere. Speciale per piatti e lamiere di grande spessore, tubi, putrelle e profilati.
- The core drills allow a very fast and economical cut in, structural steel, iron, cast iron, light alloys and non-ferrous metals. Special for very thick metal plates and sheets, pipes, iron beam and structural steel.
- Les fraises à carotter permettent une coupe rapide et économique, dans le fer, l'acier de construction, la fonte, les alliages légères et les métaux non ferreux. Spécial pour les plates en acier et la tôle, les tubes, les poutrelles et les profilés en acier.
- Las coronas permiten el corte rapido y economico en hierro, acero de construcción, fundición, aleaciones ligeras y materiales no ferricos. Especial para platos de metal y chapas de gran espesor, tubos, vigas y perfilados.









28012

FRESE A CAROTARE IN HSS-CO 5% CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO E TRAPANI A COLONNA CON ATTACCO MORSE

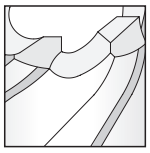
Weldon shank HSS-CO 5% core drills for magnetic and pillar drilling machines / Fraises HSS-CO 5% à carotter avec Weldon queue pour machines à embase magnétique et perceuses fixes / Fresas HSS-CO 5% con mango Weldon para maquinas con base magnética y taladros estacionarios

HSS-CO 5% | **WELDON**

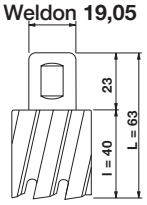
21206 | 21207

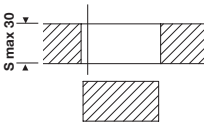




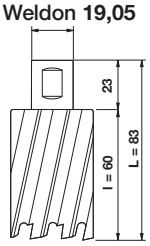


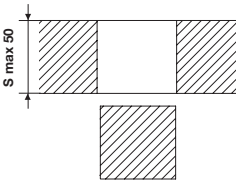
Weldon 19,05



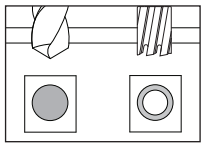


Weldon 19,05

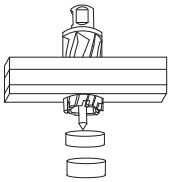




Vantaggi
Advantages



Acciaio accoppiato
Stacked steel



21206 L= 30 mm

Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

Ø	l	L	cod.	€ cad/each
12	40	63	212061200	37,246
13	40	63	212061300	39,611
14	40	63	212061400	44,375
15	40	63	212061500	47,542
16	40	63	212061600	49,924
17	40	63	212061700	49,924
18	40	63	212061800	50,026
19	40	63	212061900	51,110
20	40	63	212062000	52,596
21	40	63	212062100	54,116
22	40	63	212062200	55,712
23	40	63	212062300	57,376
24	40	63	212062400	60,988
25	40	63	212062500	62,720
26	40	63	212062600	72,137
27	40	63	212062700	74,605
28	40	63	212062800	76,824
29	40	63	212062900	78,301
30	40	63	212063000	80,520
31	40	63	212063100	84,208
32	40	63	212063200	87,162
33	40	63	212063300	93,506
34	40	63	212063400	98,260
35	40	63	212063500	102,213
36	40	63	212063600	106,174
37	40	63	212063700	110,937
38	40	63	212063800	114,899
39	40	63	212063900	119,654
40	40	63	212064000	123,607
41	40	63	212064100	128,370
42	40	63	212064200	133,918
43	40	63	212064300	137,881
44	40	63	212064400	144,215
45	40	63	212064500	153,647
46	40	63	212064600	156,601
47	40	63	212064700	159,556
48	40	63	212064800	162,509
49	40	63	212064900	166,205
50	40	63	212065000	169,159
55	40	63	212065500	200,182
60	40	63	212066000	308,005

Ø 6,35x77 163

21207 L= 50 mm

Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung

Ø	l	L	cod.	€ cad/each
12	60	83	212071200	52,319
13	60	83	212071300	53,401
14	60	83	212071400	62,705
15	60	83	212071500	63,728
16	60	83	212071600	67,994
17	60	83	212071700	70,580
18	60	83	212071800	73,822
19	60	83	212071900	75,112
20	60	83	212072000	77,057
21	60	83	212072100	79,002
22	60	83	212072200	80,940
23	60	83	212072300	82,886
24	60	83	212072400	87,418
25	60	83	212072500	89,363
26	60	83	212072600	103,607
27	60	83	212072700	106,202
28	60	83	212072800	108,140
29	60	83	212072900	110,733
30	60	83	212073000	113,320
31	60	83	212073100	118,500
32	60	83	212073200	121,094
33	60	83	212073300	123,680
34	60	83	212073400	126,275
35	60	83	212073500	128,861
36	60	83	212073600	133,460
37	60	83	212073700	136,485
38	60	83	212073800	139,762
39	60	83	212073900	141,857
40	60	83	212074000	143,753
41	60	83	212074100	167,069
42	60	83	212074200	170,303
43	60	83	212074300	173,547
44	60	83	212074400	176,781
45	60	83	212074500	211,097
46	60	83	212074600	214,341
47	60	83	212074700	217,576
48	60	83	212074800	221,459
49	60	83	212074900	224,702
50	60	83	212075000	228,585
55	60	83	212075500	269,379
60	60	83	212076000	319,110

Ø 6,35x102 163

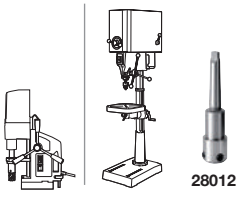


Cod.		
21210306	€ 997,823	16 pcs Ø 14-15-16-17-18-19-20 21-22-23-24-25-28-30 32-35
21210307	€ 1381,430	



Cod.		
21210406	€ 327,286	6 pcs Ø 12-14-16-18-20-22 1 pcs
21210407	€ 440,679	





28012

Applicazioni / Applications



R≤1200 N/mm²

Inox | Acciaio *Steel* | Alu | Cu Zn Ni Ms

- Le frese a carotare al cobalto 5% permettono un taglio molto veloce ed economico nell'acciaio inox, acciaio da costruzione, ferro, ghisa, leghe leggere e metalli non ferrosi in genere. Speciale per piatti e lamiere di grande spessore, tubi, putrelle e profilati.
- The 5% cobalt core drills allow a very fast and economical cut in, stainless steel, structural steel, iron, cast iron, light alloys and non-ferrous metals. Special for very thick metal plates and sheets, pipes, iron beam and structural steel.
- Les fraises à carotter au 5% du cobalt permettent une coupe rapide et économique, dans l'acier inox, l'acier de construction, le fer, la fonte, les alliages légères et les métaux non ferreux. Spécial pour les plates en acier et la tôle, les tubes, les poutrelles et les profilés en acier.
- Las coronas de cobalto 5% permiten el corte rapido y economico en acero inoxidable, acero de construcción, fundición, aleaciones ligeras y materiales no ferricos. Especial para platos de metal y chapas de gran espesor, tubos, vigas y perfilados.
- Die Kernbohrer aus Kobalt 5% erlauben einen schnellen und sparsamen Schnitt in rostfreier Stahl, Flacheisen, Baustahl, Gusseisen, Leichtmetall-Legierungen und Nichteisenmaterialen. Geeignet für Flächen und Bleche aus Stahl von großer Stärke, Röhren, Eisenträger und Profilstähle.

Confezione / Packaging



FRESE A CAROTARE IN HSS + TiAlN CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO E TRAPANI A COLONNA CON ATTACCO MORSE

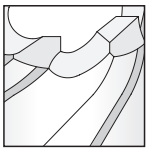
Weldon shank HSS + TiAlN core drills for magnetic and pillar drilling machines / Fraises HSS + TiAlN à carotter avec Weldon queue pour machines à embase magnétique et perceuses fixes / Fresas HSS + TiAlN con mango Weldon para maquinas con base magnética y taladros estacionarios

HSS + TiAlN | **WELDON**

21204 **21205**

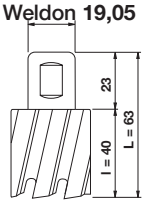




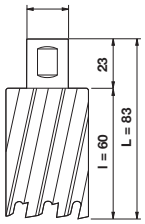


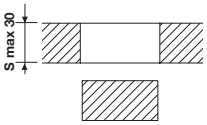


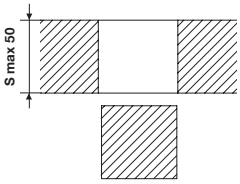
Weldon 19,05



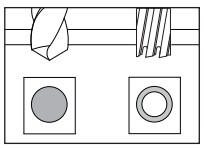
Weldon 19,05



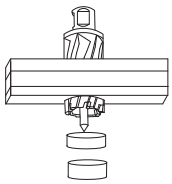




Vantaggi
Advantages



Acciaio accoppiato
Stacked steel



21204 L= 30 mm

Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

Ø	l	L	cod.	€ cad/each
12	40	63	212041200	42,957
13	40	63	212041300	42,957
14	40	63	212041400	46,111
15	40	63	212041500	47,584
16	40	63	212041600	49,375
17	40	63	212041700	50,965
18	40	63	212041800	52,820
19	40	63	212041900	55,703
20	40	63	212042000	56,975
21	40	63	212042100	59,730
22	40	63	212042200	61,030
23	40	63	212042300	68,122
24	40	63	212042400	71,085
25	40	63	212042500	72,513
26	40	63	212042600	89,203
27	40	63	212042700	90,031
28	40	63	212042800	91,686
29	40	63	212042900	94,158
30	40	63	212043000	95,813
31	40	63	212043100	110,832
32	40	63	212043200	111,623
33	40	63	212043300	112,641
34	40	63	212043400	114,696
35	40	63	212043500	115,641
36	40	63	212043600	121,996
37	40	63	212043700	123,760
38	40	63	212043800	125,533
39	40	63	212043900	127,205
40	40	63	212044000	129,677
41	40	63	212044100	152,834
42	40	63	212044200	155,124
43	40	63	212044300	156,107
44	40	63	212044400	158,588
45	40	63	212044500	176,762
46	40	63	212044600	179,234
47	40	63	212044700	181,717
48	40	63	212044800	184,189
49	40	63	212044900	187,498
50	40	63	212045000	189,972
55	40	63	212045500	295,922
60	40	63	212046000	319,785

Ø 6,35x77 

21205 L= 50 mm

Serie lunga / Long serie / Sèrie longue Serie larga / Lange Ausführung

Ø	l	L	cod.	€ cad/each
12	60	83	212051200	58,639
13	60	83	212051300	58,639
14	60	83	212051400	59,866
15	60	83	212051500	62,185
16	60	83	212051600	65,402
17	60	83	212051700	68,875
18	60	83	212051800	71,303
19	60	83	212051900	74,076
20	60	83	212052000	75,548
21	60	83	212052100	78,448
22	60	83	212052200	80,239
23	60	83	212052300	87,322
24	60	83	212052400	91,249
25	60	83	212052500	92,822
26	60	83	212052600	112,496
27	60	83	212052700	114,068
28	60	83	212052800	116,423
29	60	83	212052900	117,996
30	60	83	212053000	123,505
31	60	83	212053100	132,942
32	60	83	212053200	135,306
33	60	83	212053300	137,661
34	60	83	212053400	139,243
35	60	83	212053500	141,596
36	60	83	212053600	147,106
37	60	83	212053700	149,461
38	60	83	212053800	151,825
39	60	83	212053900	154,188
40	60	83	212054000	157,333
41	60	83	212054100	184,862
42	60	83	212054200	187,226
43	60	83	212054300	190,371
44	60	83	212054400	192,726
45	60	83	212054500	220,263
46	60	83	212054600	223,409
47	60	83	212054700	225,772
48	60	83	212054800	228,919
49	60	83	212054900	232,064
50	60	83	212055000	234,419
55	60	83	212055500	350,196
60	60	83	212056000	364,224

Ø 6,35x102 



Cod.	
21210404	€ 234,529
21210405	€ 275,008

6 pcs
Ø 12-14-16-18-20-22
1 pcs

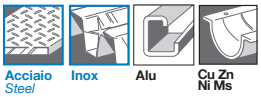


28012

Applicazioni / Applications



R≤1200 N/mm²



- Le frese a carotare, per le caratteristiche illustrate, permettono un taglio molto veloce ed economico nel ferro, acciaio da costruzione, ghisa, leghe leggere e materiali non ferrosi in genere. Speciale per piatti e lamiere in acciaio di grande spessore, tubi, putrelle, profilati etc.
- As shown, the core drills allow a very fast and economic cut in iron, structural steel, cast iron, light alloys and nonferrous metals. Special for very thick metal plates and sheets, pipes, iron beam and structural steel.
- Comme illustré, les fraises à carotter permettent un coupe très vite et économique dans le fer, l'acier de construction, la fonte, les alliages légers et les matériaux qui ne son pas ferreux. Spécial pour les plates en acier et la tôle, les tubes, poutrelles et profilés en acier.
- Las fresas para sondear, cómo ilustrado, permiten de cortar muy rápidamente y económicamente hierro, acero de construcción, fundición, aleaciones ligeras y materiales no ferrosos en general. Especial para platos de metal y planchas muy gruesos, tubos, vigas y perfilados.
- Wie illustriert erlauben die Kernbohrer einen schnellen und sparsamen Schnitt in Flacheisen, Baustahl, Gusseisen, Leichtmetall-Legierungen und Nichteisenmaterialen. Geeignet für Flächen und Bleche aus Stahl, Röhren, Eisenträger und Profilstähle.

Confezione / Packaging



FRESE A CAROTARE CON TAGLIENTI IN METALLO DURO E CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO

Weldon shank carbide tip core drill for magnetic drilling machines / Fraises à carotter au carbure de tungstène avec Weldon queue pour machines à embase magnétique / Fresas con dientes de metal duro y mango Weldon para maquinas con base magnética

Metallo duro *Carbide* | **WELDON**

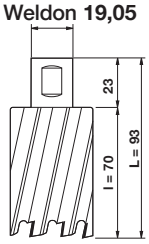
Serie lunga / Long serie / Sèrie longue
Serie larga / Lange Ausführung

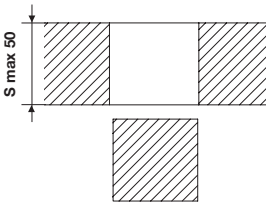
21216

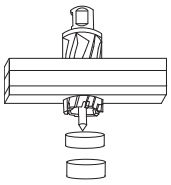


Inserti in metallo duro
Carbide tips

Weldon **19,05**







Acciaio accoppiato
Stacked steel

Ø	l	L	cod.	€ cad/each	Ø	l	L	cod.	€ cad/each
12	70	93	212161200	90,912	39	70	93	212163900	127,283
14	70	93	212161400	90,912	40	70	93	212164000	127,283
15	70	93	212161500	90,912	41	70	93	212164100	145,463
16	70	93	212161600	90,912	42	70	93	212164200	145,463
17	70	93	212161700	90,912	43	70	93	212164300	145,463
18	70	93	212161800	90,912	44	70	93	212164400	145,463
19	70	93	212161900	90,912	45	70	93	212164500	145,463
20	70	93	212162000	92,938	46	70	93	212164600	163,643
21	70	93	212162100	92,938	47	70	93	212164700	163,643
22	70	93	212162200	92,938	48	70	93	212164800	163,643
23	70	93	212162300	92,938	49	70	93	212164900	163,643
24	70	93	212162400	92,938	50	70	93	212165000	163,643
25	70	93	212162500	92,938	51	70	93	212165100	201,021
26	70	93	212162600	102,028	52	70	93	212165200	201,021
27	70	93	212162700	102,028	53	70	93	212165300	201,021
28	70	93	212162800	102,028	54	70	93	212165400	201,021
29	70	93	212162900	109,103	55	70	93	212165500	201,021
30	70	93	212163000	109,103	56	70	93	212165600	222,235
31	70	93	212163100	113,144	57	70	93	212165700	222,235
32	70	93	212163200	113,144	58	70	93	212165800	222,235
33	70	93	212163300	127,283	59	70	93	212165900	222,235
34	70	93	212163400	127,283	60	70	93	212166000	222,235
35	70	93	212163500	127,283	65	70	93	212166500	242,441
36	70	93	212163600	127,283	70	70	93	212167000	302,042
37	70	93	212163700	127,283	75	70	93	212167500	323,255
38	70	93	212163800	127,283	80	70	93	212168000	342,453

Cod. **21216000**	Ø 6,35x112 mm per frese Ø 12 mm	€ 21,952
Cod. **21216001**	Ø 7,1x112 mm per frese Ø 14÷16 mm	€ 21,952
Cod. **21216002**	Ø 8,0x112 mm per frese Ø 17÷80 mm	€ 21,952



Cod. **21210308**

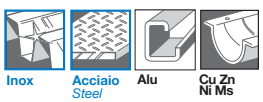
16 pcs
Ø 14-15-16-17-18-19-20
21-22-23-24-25-28-30
32-35

€ 1677,611

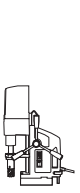
Applicazioni / Applications



R≤1200 N/mm²









28012

Confezione / Packaging



- Consigliate per il taglio molto veloce, economico e con grande rendimento in acciaio inox, acciai refrattari, acciai resistenti agli acidi, HARDOX®, WELDOX®400, tutti gli acciai in genere, ghisa,... Particolarmente adatto al taglio delle putrelle e delle rotaie. The core drills allow a very fast and economical cut in stainless steel, acid resistant steel, HARDOX®, WELDOX®400, steel and cast iron,... Suitable for cut iron beam and rails. Recommandé pour la coupe très rapide, en l'acier inoxydable avec une grande efficacité, en acier réfractaire, inoxydable, résistant aux acides, HARDOX®, WELDOX® 400, tous les aciers en fonte générale, ... Particulièrement adapté pour couper les poutres et les rails. Recomendado para el corte muy rápido y con gran eficiencia en l'acero inoxidable, acero refractario, acero resistente a los ácidos, HARDOX®, WELDOX® 400, todos los aceros en hierro fundido en general, especialmente adecuados para el corte de las vigas.

- Nota: HARDOX® è un acciaio resistente all'abrasione; è identificato solitamente da un numero che ne indica la durezza (HBW).
WELDOX® è un acciaio ad alta resistenza, identificato da un numero che ne fornisce la resistenza a snervamento (MPa).
Note: HARDOX® is an abrasion resistant steel; it's defined by a number which gives its hardness (HBW).
WELDOX® is a structural-high strength steel; it's defined by a number which gives its yield strength (MPa).

FRESE A CAROTARE SPECIALI PER ROTAIE, CON ATTACCO WELDON PER MACCHINE A SUPPORTO MAGNETICO

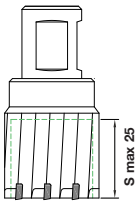
Weldon shank carbide tip core drill for magnetic drilling machines / Fraises à carotter au carbure de tungstène avec Weldon queue pour machines à embase magnétique / Fresas con dientes de metal duro y mango Weldon para maquinas con base magnética

Metallo duro
Carbide

21218

NEW





Ø	l	L	cod.	€ cad/each	Ø	l	L	cod.	€ cad/each
19	37	60	212181900	82,313	27,5	37	60	212182750	86,221
20	37	60	212182000	82,313	28	37	60	212182800	87,017
21	37	60	212182100	83,025	29	37	60	212182900	87,017
22	37	60	212182200	83,025	30	37	60	212183000	88,334
23	37	60	212182300	84,140	31	37	60	212183100	90,460
24	37	60	212182400	84,140	32	37	60	212183200	91,545
25	37	60	212182500	85,360	33	37	60	212183300	93,890
26	37	60	212182600	85,980	34	37	60	212183400	94,757
26,5	37	60	212182650	85,980	35	37	60	212183500	96,462
27	37	60	212182700	86,221	36	37	60	212183600	101,860

Cod. **21218000** Ø 8X90 € 6,070

FRESE A CAROTARE HSS-CO CON ATTACCO QUICK-IN 18 MM PER MACCHINE A SUPPORTO MAGNETICO

Quick-IN 18 mm shank HSS-CO core drill for magnetic drilling machines / HSS-CO fraises à carotter avec Quick-IN 18 mm queue pour machines à embase magnétique / Fresas HSS-CO con mango Quick-IN 18 mm para maquinas con base magnética

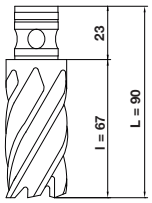
HSS-CO 5% | **Quick-IN®**

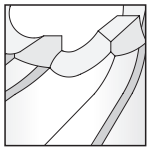
Serie lunga / Long serie / Sèrie longue
Serie larga / Lange Ausführung

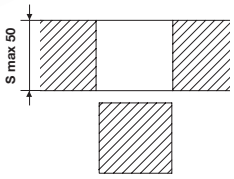
21211



Quick-IN 18



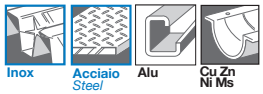




Ø	l	L	cod.	€ cad/each	Ø	l	L	cod.	€ cad/each
12	67	90	2121101200	54,184	32	67	90	2121103200	124,132
13	67	90	2121101300	56,166	33	67	90	2121103300	124,132
14	67	90	2121101400	56,166	34	67	90	2121103400	129,514
15	67	90	2121101500	58,909	35	67	90	2121103500	133,097
16	67	90	2121101600	58,909	36	67	90	2121103600	141,978
17	67	90	2121101700	65,602	37	67	90	2121103700	141,978
18	67	90	2121101800	65,602	38	67	90	2121103800	148,206
19	67	90	2121101900	68,348	39	67	90	2121103900	151,788
20	67	90	2121102000	73,630	40	67	90	2121104000	154,342
21	67	90	2121102100	78,822	41	67	90	2121104100	160,034
22	67	90	2121102200	85,241	42	67	90	2121104200	163,620
23	67	90	2121102300	85,241	43	67	90	2121104300	172,711
24	67	90	2121102400	91,567	44	67	90	2121104400	178,416
25	67	90	2121102500	98,649	45	67	90	2121104500	191,625
26	67	90	2121102600	98,649	46	67	90	2121104600	200,599
27	67	90	2121102700	103,841	47	67	90	2121104700	207,941
28	67	90	2121102800	109,122	48	67	90	2121104800	220,065
29	67	90	2121102900	109,122	49	67	90	2121104900	227,518
30	67	90	2121103000	114,504	50	67	90	2121105000	236,850
31	67	90	2121103100	122,714					



R≤1200 N/mm²



- Consigliate per il taglio molto veloce, economico e con grande rendimento in acciaio inox, acciai da costruzione, ferro, ghisa, leghe leggere e metalli non ferrosi in genere. Particolarmente adatto al taglio di piatti e lamiere di grandi spessori,tubi, putrelle e profilati.
- The core drills allow a very fast and economical cut in stainless steel, structural steel, iron, cast iron, light alloys and non-ferrous metals. Special for very thick metal plates and sheets, pipes, iron beam and structural steel.
- Les fraises à carotter permettent une coupe rapide et économique dans l'acier inox, l'acier de construction, le fer, la fonte, les alliages légères et les métaux non ferreux. Spécial pour les plates en acier et la tôle, les tubes, les poutrelles et les profilés en acier.
- Las coronas permiten el corte rapido y economico en acero inoxidable, acero de construcción, fundición, aleaciones ligeras y materiales no ferricos. Especial para platos de metal y chapas de gran espesor, tubos, vigas y perfilados.

Cod. **28016002** Ø 6,35X102
€ 12,517



Cod. **21210309**
16 pcs
Ø 14-15-16-17-18-19-20
21-22-23-24-25-28-30
32-35

€ 1261,439

Applicazioni / Applications

FRESE A CAROTARE IN METALLO DURO CON ATTACCO QUICK-IN 18 MM PER MACCHINE A SUPPORTO MAGNETICO

Quick-IN 18 mm shank carbide tip core drill for magnetic drilling machines / Fraises à carotter au carbure de tungstène avec Quick-IN 18 mm queue pour machines à embase magnétique / Fresas con dientes de metal duro y mango Quick-IN 18 mm para maquinas con base magnética

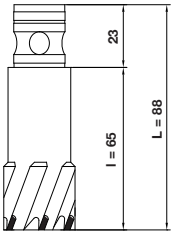
Metallo duro *Carbide* | **Quick-IN®**

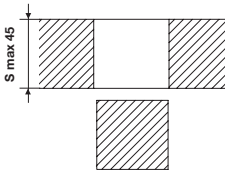
Serie lunga / Long serie / Sèrie longue
Serie larga / Lange Ausführung

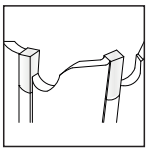
21212



Quick-IN 18







Inserti in metallo duro
Carbide tips

Ø	l	L	cod.	€ cad/each	Ø	l	L	cod.	€ cad/each
12	65	88	212121200	64,570	33	65	88	212123300	84,586
13	65	88	212121300	64,570	34	65	88	212123400	84,586
14	65	88	212121400	64,570	35	65	88	212123500	84,586
15	65	88	212121500	64,570	36	65	88	212123600	96,856
16	65	88	212121600	64,570	37	65	88	212123700	96,856
17	65	88	212121700	64,570	38	65	88	212123800	96,856
18	65	88	212121800	64,570	39	65	88	212123900	96,856
19	65	88	212121900	64,570	40	65	88	212124000	96,856
20	65	88	212122000	64,570	41	65	88	212124100	115,583
21	65	88	212122100	64,570	42	65	88	212124200	115,583
22	65	88	212122200	64,570	43	65	88	212124300	115,583
23	65	88	212122300	64,570	44	65	88	212124400	115,583
24	65	88	212122400	64,570	45	65	88	212124500	115,583
25	65	88	212122500	64,570	46	65	88	212124600	133,014
26	65	88	212122600	70,384	47	65	88	212124700	133,014
27	65	88	212122700	70,384	48	65	88	212124800	133,014
28	65	88	212122800	70,384	49	65	88	212124900	133,014
29	65	88	212122900	70,384	50	65	88	212125000	133,014
30	65	88	212123000	70,384	55	65	88	212125500	150,452
31	65	88	212123100	84,586	60	65	88	212126000	165,299
32	65	88	212123200	84,586					

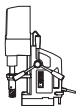
Cod. **28016002** Ø 6,35X102
€ 12,517



Cod. **21210310**

16 pcs
Ø 14-15-16-17-18-19-20
21-22-23-24-25-28-30
32-35

€ 1135,947



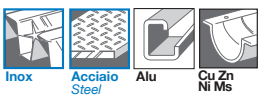
Confezione / Packaging



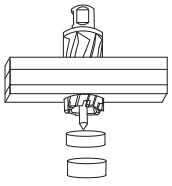
Applicazioni / Applications



R≤1200 N/mm²







Acciaio accoppiato
Stacked steel

- Consigliate per il taglio molto veloce, economico e con grande rendimento in acciaio inox, acciai refrattari, acciai resistenti agli acidi, HARDOX®, WELDOX®400, tutti gli acciai in genere, ghisa,... Particolarmente adatto al taglio delle putrelle e delle rotaie. The core drills allow a very fast and economical cut in stainless steel, acid resistant steel, HARDOX®, WELDOX®400, steel and cast iron,... Suitable for cut iron beam and rails. Recommandé pour la coupe très rapide, en l'acier inoxydable avec une grande efficacité, en acier réfractaire, inoxydable, résistant aux acides, HARDOX®, WELDOX® 400, tous les aciers en fonte générale, ... Particulièrement adapté pour couper les poutres et les rails. Recomendado para el corte muy rápido y con gran eficiencia en l'acero inoxidable, acero refractario, acero resistente a los ácidos, HARDOX®, WELDOX® 400, todos los aceros en hierro fundido en general, especialmente adecuados para el corte de las vigas.
- Nota: HARDOX® è un acciaio resistente all'abrasione; è identificato solitamente da un numero che ne indica la durezza (HBW). WELDOX® è un acciaio ad alta resistenza, identificato da un numero che ne fornisce la resistenza a snervamento (MPa).
Note: HARDOX® is an abrasion resistant steel; it's defined by a number which gives its hardness (HBW). WELDOX® is a structural-high strength steel; it's defined by a number which gives its yield strength (MPa).

MACCHINE PERFORATRICI A SUPPORTO ELETTROMAGNETICO CON ATTACCO WELDON

Magnetic stand drilling machines / Perceuses à embase électromagnétique / Máquinas de cortar con base electromagnética / Magnetständerbohrmaschinen

28011100



14 Kg

La base magnetica deve lavorare su una superficie metallica pulita spessa almeno 15 mm.
The magnetic base must adhere to a clean metallic surface with at latest 15 mm. thickness.

Forza di coesione magnetica *Magnetic cohesion strength*	7.350	N
Potenza assorbita *Absorbed power*	1.100	W
Tensione in entrata *Input voltage*	230	V
N. giri motore - 1ª velocità *1st speed*	780	min^{-1}
N. giri motore - 2ª velocità *2nd speed*	-	
Corsa utile *Useful stroke*	100	mm
Rotazione *Rotation*	DX *Right*	

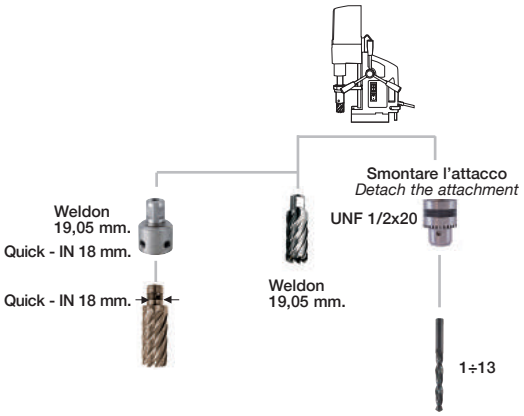
28011100
€ 1870,918

Raffredamento *Cooling*	incorporato *incorporated*	

Capacità - *Working range*

Weldon 19,05 — 13÷35 mm

DIN 338: 1÷13 mm



28011101



23 Kg

Forza di coesione magnetica *Magnetic cohesion strength*	22.540	N
Potenza assorbita *Absorbed power*	1.850	W
Tensione in entrata *Input voltage*	230	V
N. giri motore - 1ª velocità *1st speed*	450	min^{-1}
N. giri motore - 2ª velocità *2nd speed*	750	min^{-1}
Corsa utile *Useful stroke*	135	mm
Rotazione *Rotation*	DX *Right*	

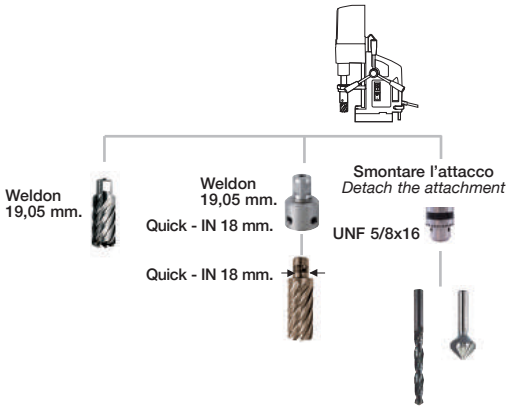
28011101
€ 2827,165

Raffredamento *Cooling*	incorporato *incorporated*	

Capacità - *Working range*

Weldon 19,05 — 18÷60 mm

DIN 338: 1÷16 mm



28011102 NEW



23 Kg

Forza di coesione magnetica *Magnetic cohesion strength*	22.540	N
Potenza assorbita *Absorbed power*	1.850	W
Tensione in entrata *Input voltage*	230	V
N. giri motore - 1ª velocità *1st speed*	450	min^{-1}
N. giri motore - 2ª velocità *2nd speed*	750	min^{-1}
Corsa utile *Useful stroke*	135	mm
Rotazione *Rotation*	DX *Right*	

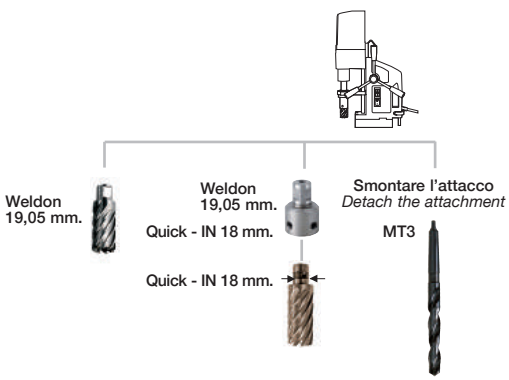
28011102
€ 3454,620

Raffredamento *Cooling*	incorporato *incorporated*	

Capacità - *Working range*

Weldon 19,05 — 18÷60 mm

DIN 338: 1÷16 mm
DIN 345: 1÷25 mm



ACCESSORI PER L'UTILIZZO DELLE FRESE A CAROTARE

Accessories for core drills / Accessoires pour fraises à carotter / Accesorios para coronas fresas / Zubehör für Kernbohrmaschinen

28012



001
002

28013



001
002



003
004

28014



001
002



003
004

28015



001 002



003 004

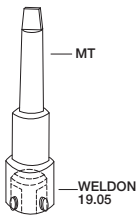
Non adatti all'uso con adattatori art. **28015**
They cannot be used with adaptors item n. 28015



Mandrino senza lubrificazione interna

Holder without lubrication / Mandrin sans lubrification
Portabroca sin lubrificación / Bohrfutter ohne Schmierung

MT	L	Weldon 19,05mm		pcs	cod.	€ cad/each
2	160	12÷60	-	1	28012001	169,230
3	175	12÷60	28011102	1	28012002	169,230



Mandrino con lubrificazione interna

Holder with lubrification / Mandrin avec lubrification
Portabroca con lubrificación / Bohrfutter mit Schmierung

MT	L	Weldon 19,05mm		pcs	cod.	€ cad/each
2	160	12÷60	-	1	28013001	241,750
3	160	12÷60	28011102	1	28013002	241,750
2	160	12÷60	-	1	28013003	265,732
3	160	12÷60	28011102	1	28013004	265,732

Mandrino a serraggio rapido con lubrificazione

Automatic quick-in arbor with interior lubrication / Mandrin à serrage automatique avec lubrification
Portabroca automático con lubrificación / Automatisches Spannfutter mit Schmierung

MT	L	Weldon 19,05mm		pcs	cod.	€ cad/each
2	160	12÷60	-	1	28014001	381,811
3	160	12÷60	28011102	1	28014002	439,083
2	160	12÷60	-	1	28014003	439,083
3	160	12÷60	28011102	1	28014004	439,083

Adattatori

Adaptors / Adaptateurs / Adaptadores / Adapter

	pcs	cod.	€ cad/each
WELDON - 18 **Quick IN**	1	28015001	55,646
18 **Quick IN** - WELDON	1	28015002	54,781
M14 -1/2 UNF	1	28015003	17,786
WELDON - 1/2 UNF	1	28015004	19,637

Espulsori

Ejector / Ejecteurs
Expulsores / Abzieher

	L	pcs	cod.	€ cad/each
Ø 6,35 x 77	L = 63 mm	1	28016001	10,788
Ø 6,35 x 102	L = 83 mm	1	28016002	12,517
Ø 6,35 x 123	L = 83 mm	1	28016003	14,336
Ø 6,35 x 112	L = 93 mm	1	21216000	21,952
Ø 7,1 x 112	L = 93 mm	1	21216001	21,952
Ø 8,0 x 112	L = 93 mm	1	21216002	21,952
Ø 8,0 x 90	L = 60 mm	1	21218000	6,070

FRESE ROTATIVE IN HSS

HSS rotary files / Fraises rotatives HSS / Fresas rotativas en HSS / HSS Fräserstifte

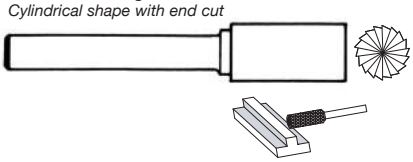


HSS

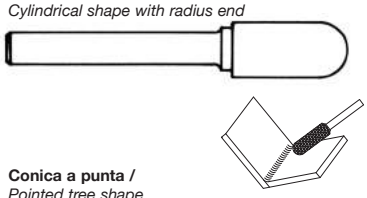
Confezione / Packaging

Art. **26004** Self
Disponibile su richiesta
On demand

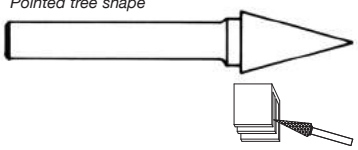
Cilindrica con taglio frontale /
Cylindrical shape with end cut



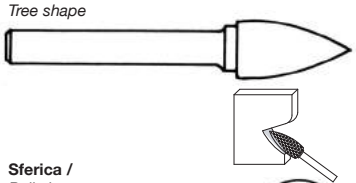
Cilindrica con testa sferica /
Cylindrical shape with radius end



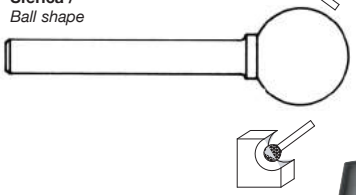
Conica a punta /
Pointed tree shape



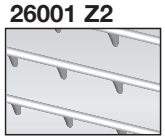
Ogiva a punta /
Tree shape



Sferica /
Ball shape

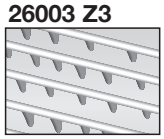


26001 Z2



- TAGLIO BASTARDO per leghe leggere, rame, ottone, bronzo, acciaio dolce. Velocità consigliata: 220÷250 m/min.
- *For cutting light alloys, copper, brass, bronze, mild steel. Cutting speed: 220÷250 m/min.*

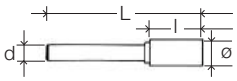
26003 Z3



- TAGLIO MEZZO DOLCE per acciai, ghisa. Vt 80÷220 m/min
For cutting steel, cast iron. Cutting speed 80÷220 m/min



Acciaio *Steel* | Alu | Cu Zn Ni Ms



HRC ~ 63

Ø	/	L	d	26001 Z2 cod.	26001 Z2 € cad/each	26003 Z3 cod.	26003 Z3 € cad/each
6	20	60	6	2600100106	9,357	2600300106	10,954
8	30	70	6	2600100108	11,874	2600300108	13,083
10	30	70	6	2600100110	14,747	2600300110	16,997
12	30	70	6	2600100112	16,409	2600300112	18,004
15	30	70	6	2600100115	21,343	2600300115	22,606
6	20	60	6	2600100206	9,357	2600300206	10,954
8	30	70	6	2600100208	11,874	2600300208	13,083
10	30	70	6	2600100210	14,747	2600300210	16,997
12	30	70	6	2600100212	16,409	2600300212	18,004
15	30	70	6	2600100215	21,343	2600300215	22,606
6	20	60	6	2600100306	9,357	2600300306	10,954
8	30	70	6	2600100308	11,874	2600300308	13,083
10	30	70	6	2600100310	14,747	2600300310	16,997
12	30	70	6	2600100312	16,409	2600300312	18,004
15	30	70	6	2600100315	21,343	2600300315	22,606
6	20	60	6	2600100406	9,357	2600300406	10,954
8	30	70	6	2600100408	11,874	2600300408	13,083
10	30	70	6	2600100410	14,747	2600300410	16,997
12	30	70	6	2600100412	16,409	2600300412	18,004
15	30	70	6	2600100415	21,343	2600300415	22,606
6	5	50	6	2600100506	9,357	2600300506	10,954
8	7	52	6	2600100508	11,874	2600300508	13,083
10	9	54	6	2600100510	14,747	2600300510	16,997
12	10	55	6	2600100512	16,409	2600300512	18,004
15	14	59	6	2600100515	21,343	2600300515	22,606





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Ø10 Z2 5 pcs **Art. 26008203**	€ 77,941	**Ø10 Z2+Z3** 10 pcs Tutte le forme - *All the shapes* **Art. 26008401**	€ 161,891	**Ø10 Z3** 5 pcs Tutte le forme - *All the shapes* **Art. 26008404**	€ 94,550
Ø10 Z3 5 pcs **Art. 26008201**	€ 89,937				
Ø12 Z2 5 pcs **Art. 26008204**	€ 86,345	**Ø12 Z2+Z3** 10 pcs Tutte le forme - *All the shapes* **Art. 26008402**	€ 173,876	**Ø12 Z3** 5 pcs Tutte le forme - *All the shapes* **Art. 26008405**	€ 98,263
Ø12 Z3 5 pcs **Art. 26008200**	€ 93,540				

Art. 26008501 50 pcs
Z2+Z3: Ø 6-8-10-12-15
Tutte le forme - *All the shapes*
€ 815,431

FRESE ROTATIVE HSS RIVESTITE AL TiAlN

HSS TiAlN rotary files / Fraises rotatives HSS revêtues au TiAlN

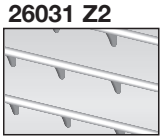
Fresas rotativas HSS con recrubimiento de TiAlN - HSS Fräserstifte TiAlN-beschichtet



HSS + TiAlN

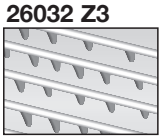
447

26031 Z2



- TAGLIO BASTARDO per leghe leggere, rame, ottone, bronzo, acciaio dolce. Velocità consigliata: 220÷250 m/min.
- *For cutting light alloys, copper, brass, bronze, mild steel. Cutting speed: 220÷250 m/min.*

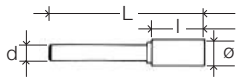
26032 Z3



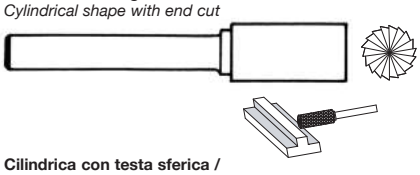
- TAGLIO MEZZO DOLCE per acciai, ghisa. Vt 80÷220 m/min
  For cutting steel, cast iron. Cutting speed 80÷220 m/min



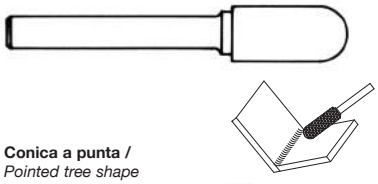
Acciaio *Steel* | **Alu** | **Cu Zn Ni Ms**



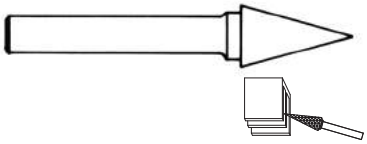
Cilindrica con taglio frontale /
Cylindrical shape with end cut



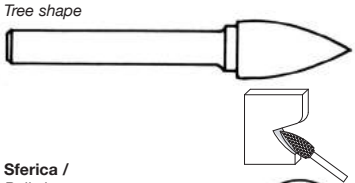
Cilindrica con testa sferica /
Cylindrical shape with radius end



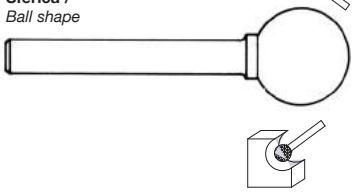
Conica a punta /
Pointed tree shape



Ogiva a punta /
Tree shape



Sferica /
Ball shape



HV 0,05 ≃ 3300				26031 Z2		26032 Z3	
Ø	/	L	d	cod.	€ cad/each	cod.	€ cad/each
6	20	60	6	2603100106	16,614	2603200106	18,743
8	30	70	6	2603100108	21,525	2603200108	23,362
10	30	70	6	2603100110	27,084	2603200110	30,128
12	30	70	6	2603100112	30,976	2603200112	32,503
15	30	70	6	2603100115	44,821	2603200115	45,546
6	20	60	6	2603100206	16,614	2603200206	18,743
8	30	70	6	2603100208	21,525	2603200208	23,362
10	30	70	6	2603100210	27,084	2603200210	30,128
12	30	70	6	2603100212	30,976	2603200212	32,503
15	30	70	6	2603100215	44,821	2603200215	45,546
6	20	60	6	2603100306	16,614	2603200306	18,743
8	30	70	6	2603100308	21,525	2603200308	23,362
10	30	70	6	2603100310	27,084	2603200310	30,128
12	30	70	6	2603100312	30,976	2603200312	32,503
15	30	70	6	2603100315	44,821	2603200315	45,546
6	20	60	6	2603100406	16,614	2603200406	18,743
8	30	70	6	2603100408	21,525	2603200408	23,362
10	30	70	6	2603100410	27,084	2603200410	30,128
12	30	70	6	2603100412	30,976	2603200412	32,503
15	30	70	6	2603100415	44,821	2603200415	45,546
6	5	50	6	2603100506	16,614	2603200506	18,743
8	7	52	6	2603100508	21,525	2603200508	23,362
10	9	54	6	2603100510	27,084	2603200510	30,128
12	10	55	6	2603100512	30,976	2603200512	32,503
15	14	59	6	2603100515	44,821	2603200515	45,546

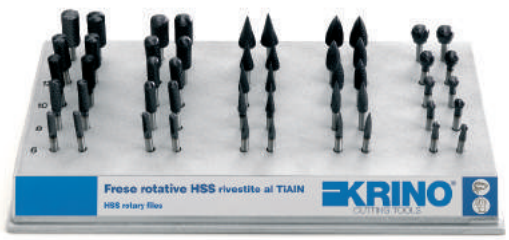




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Ø10 Z2 5 pcs **Art. 26035203** € 124,358
Ø10 Z3 5 pcs **Art. 26035201** € 137,607

Ø12 Z2 5 pcs **Art. 26035204** € 140,661
Ø12 Z3 5 pcs **Art. 26035200** € 147,795

Ø10 Z2+Z3 10 pcs
Tutte le forme - *All the shapes*
Art. 26035401 € 259,920

Ø12 Z2+Z3 10 pcs
Tutte le forme - *All the shapes*
Art. 26035402 € 273,170

Ø10 Z3 5 pcs
Tutte le forme - *All the shapes*
Art. 26035404 € 140,058

Ø12 Z3 5 pcs
Tutte le forme - *All the shapes*
Art. 26035405 € 142,074

Art. 26035501 50 pcs
Z2+Z3: Ø 6-8-10-12-15
Tutte le forme - *All the shapes*
€ 1172,180

FRESE ROTATIVE IN METALLO DURO CON TAGLI HM3 E HM4

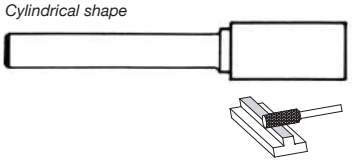
HM3 and HM4 cut carbide rotary files / Fraises rotatives carbure avec HM3 et HM4 coupants
Fresas rotativas de metal duro con HM3 y HM4 cortantes / Hartmetall Fräserstifte HM3 und HM4

Metallo duro K20 / Solid carbide K20

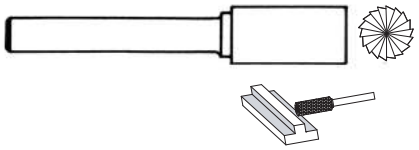
Grana fine / Fine grain
Utilizzo universale / Universal uses



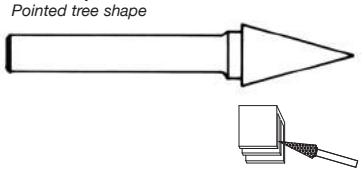
Cilindrica con fronte liscia /
Cylindrical shape



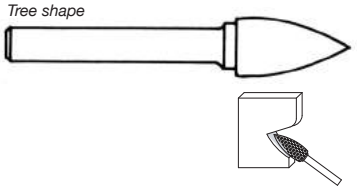
Cilindrica con taglio frontale /
Cylindrical shape with end cut



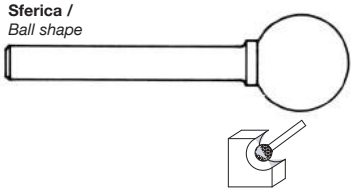
Conica a punta /
Pointed tree shape



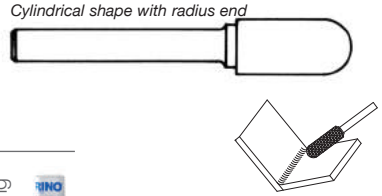
Ogiva a punta /
Tree shape



Sferica /
Ball shape



Cilindrica con testa sferica /
Cylindrical shape with radius end



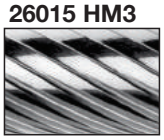
Confezione / Packaging



Applicazioni / Applications

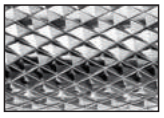


26015 HM3



- TAGLIO STANDARD per acciaio, acciaio temprato, ghisa, cordoni di saldatura, materiali metallici in genere. Buon grado di finitura con ottimi rendimenti. Velocità consigliata: 300÷400 m/min.
- *Standard cut in low and high tensile steel, welded points, metals Cutting speed: 300÷400 m/min.*

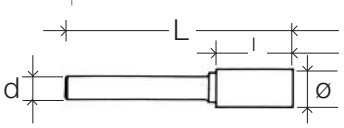
26020 HM4



- TAGLIO INCROCIATO per acciaio trattato, acciaio inox, materiali metallici in genere. Vibrazioni ridotte, buona finitura superficiale, ottimi rendimenti. Velocità consigliata: 300÷400 m/min.
- *Diamond cut: finish work in high alloy steel, stainless steel, metals, less vibrations, high performances. Cutting speed: 300÷400 m/min.*

				26015 HM3		26020 HM4	
Ø	/	L	d	cod.	€ cad/each	cod.	€ cad/each
* 3	16	38	3	2601500103	8,869	2602000103	8,869
4	14	50	6	2601500104	25,067	2602000104	25,067
6	18	50	6	2601500106	25,067	2602000106	25,067
8	18	63	6	2601500108	25,067	2602000108	25,067
10	20	65	6	2601500110	31,000	2602000110	31,000
12	25	70	6	2601500112	39,225	2602000112	39,225
16	25	70	6	2601500116	58,195	2602000116	58,195
* 3	16	38	3	2601500203	8,869	2602000203	8,869
4	14	50	6	2601500204	25,067	2602000204	25,067
6	18	50	6	2601500206	25,067	2602000206	25,067
8	18	63	6	2601500208	25,067	2602000208	25,067
10	20	65	6	2601500210	31,000	2602000210	31,000
12	25	70	6	2601500212	39,225	2602000212	39,225
16	25	70	6	2601500216	58,195	2602000216	58,195
* 3	16	38	3	2601500303	8,869	2602000303	8,869
4	14	50	6	2601500304	25,067	2602000304	25,067
6	18	50	6	2601500306	25,067	2602000306	25,067
8	18	63	6	2601500308	25,067	2602000308	25,067
10	20	65	6	2601500310	31,000	2602000310	31,000
12	25	70	6	2601500312	39,225	2602000312	39,225
16	25	70	6	2601500316	58,195	2602000316	58,195
* 3	16	38	3	2601500403	8,869	2602000403	8,869
4	14	50	6	2601500404	25,067	2602000404	25,067
6	18	50	6	2601500406	25,067	2602000406	25,067
8	18	63	6	2601500408	25,067	2602000408	25,067
10	20	65	6	2601500410	31,000	2602000410	31,000
12	25	70	6	2601500412	39,225	2602000412	39,225
16	25	70	6	2601500416	58,195	2602000416	58,195
* 3	3	38	3	2601500503	8,869	2602000503	8,869
4	4	50	6	2601500504	25,067	2602000504	25,067
6	5	50	6	2601500506	25,067	2602000506	25,067
8	7	63	6	2601500508	25,067	2602000508	25,067
10	9	65	6	2601500510	31,000	2602000510	31,000
12	10	70	6	2601500512	39,225	2602000512	39,225
16	14	70	6	2601500516	58,195	2602000516	58,195
* 3	16	38	3	2601500603	8,869	2602000603	8,869
4	14	50	6	2601500604	25,067	2602000604	25,067
6	18	50	6	2601500606	25,067	2602000606	25,067
8	18	63	6	2601500608	25,067	2602000608	25,067
10	20	65	6	2601500610	31,000	2602000610	31,000
12	25	70	6	2601500612	39,225	2602000612	39,225
16	25	70	6	2601500616	58,195	2602000616	58,195

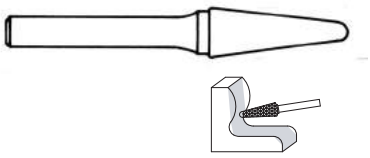
* **Microfrese** / Micro rotary files



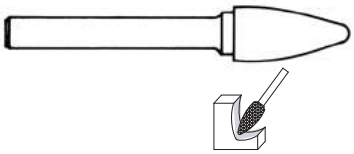
FRESE ROTATIVE IN METALLO DURO CON TAGLI HM3 E HM4

HM3 and HM4 cut carbide rotary files / Fraises rotatives carbure avec HM3 et HM4 coupants
Fresas rotativas de metal duro con HM3 y HM4 cortantes / Hartmetall Fräserstifte HM3 und HM4

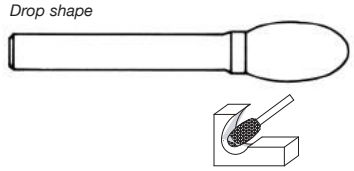
Conica a punta arrotondata /
Conical shape with radius



Ogiva a punta arrotondata o a fiamma /
Tree shape with radius



A goccia /
Drop shape



Ø	/	L	d	26015 HM3 cod.	26015 HM3 € cad/each	26020 HM4 cod.	26020 HM4 € cad/each
* 3	16	38	3	2601500703	8,869	2602000703	8,869
4	16	50	6	2601500704	25,067	2602000704	25,067
6	18	50	6	2601500706	25,067	2602000706	25,067
8	18	63	6	2601500708	25,067	2602000708	25,067
10	20	65	6	2601500710	31,000	2602000710	31,000
12	25	70	6	2601500712	39,225	2602000712	39,225
16	25	70	6	2601500716	58,195	2602000716	58,195
* 3	16	38	3	2601500803	8,869	2602000803	8,869
4	14	50	6	2601500804	25,067	2602000804	25,067
6	18	50	6	2601500806	25,067	2602000806	25,067
8	18	63	6	2601500808	25,067	2602000808	25,067
10	20	65	6	2601500810	31,000	2602000810	31,000
12	25	70	6	2601500812	39,225	2602000812	39,225
16	25	70	6	2601500816	58,195	2602000816	58,195
* 3	6	38	3	2601500903	8,869	2602000903	8,869
4	6	50	6	2601500904	25,067	2602000904	25,067
6	10	50	6	2601500906	25,067	2602000906	25,067
8	13	58	6	2601500908	25,067	2602000908	25,067
10	16	61	6	2601500910	31,000	2602000910	31,000
12	20	65	6	2601500912	39,225	2602000912	39,225
16	25	70	6	2601500916	58,195	2602000916	58,195





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Ø10 HM3 5 pcs Art. 26030206	€ 139,437
Ø10 HM4 5 pcs Art. 26030203	€ 139,437
Ø12 HM3 5 pcs Art. 26030207	€ 176,133
Ø12 HM4 5 pcs Art. 26030202	€ 176,133

Ø10 HM3+HM4 10 pcs Tutte le forme - *All the shapes* Art. 26030401	€ 278,882
Ø12 HM3+HM4 10 pcs Tutte le forme - *All the shapes* Art. 26030402	€ 352,265
Ø8 HM4 5 pcs Ø12 HM4 5 pcs Art. 26030403	€ 288,964

Ø10 HM4 5 pcs  Art. 26030404	€ 147,305
Ø12 HM4 5 pcs  Art. 26030405	€ 193,190



Art. 26030502 45 pcs Ø 6-8-10-12-16 HM4 Tutte le forme - *All the shapes*	€ 1889,876

FRESE ROTATIVE IN METALLO DURO RIVESTITE AL TiAlN CON TAGLI HM3 E HM4

HM3 and HM4 cut carbide rotary files TiAlN coated / Fraises rotatives au carbure revêtues au TiAlN avec HM3 et HM4 coupants
Fresas rotativas de metal duro con recrubimiento de TiAlN con HM3 y HM4 cortantes / Hartmetall Fräserstifte TiAlN-beschichtet HM3 und HM4

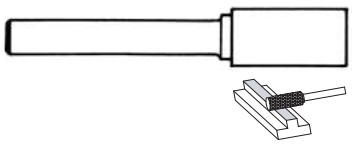
K20 + TiAlN / Carbide K20 + TiAlN

Grana fine / Fine grain
Utilizzo universale / Universal uses

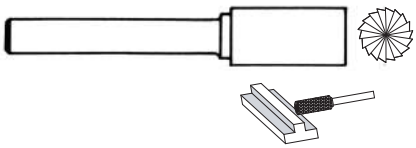


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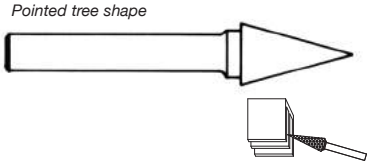
Cilindrica con fronte liscia /
Cylindrical shape



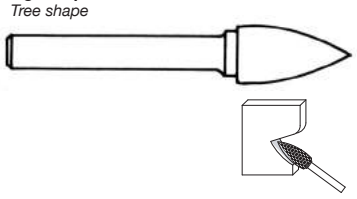
Cilindrica con taglio frontale /
Cylindrical shape with end cut



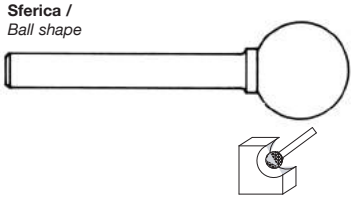
Conica a punta /
Pointed tree shape



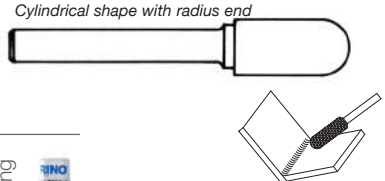
Ogiva a punta /
Tree shape



Sferica /
Ball shape



Cilindrica con testa sferica /
Cylindrical shape with radius end



Confezione / Packaging



Applicazioni / Applications



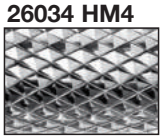
Inox | Acciaio *Steel* | Metal

26033 HM3



- TAGLIO STANDARD per acciaio, acciaio temprato, ghisa, cordoni di saldatura, materiali metallici in genere. Buon grado di finitura con ottimi rendimenti. Velocità consigliata: 450÷600 m/min.
- *Standard cut in low and high tensile steel, welded points, metals Cutting speed: 450÷600 m/min.*

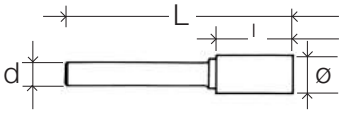
26034 HM4



- TAGLIO INCROCIATO per acciaio trattato, acciaio inox, materiali metallici in genere. Vibrazioni ridotte, buona finitura superficiale, ottimi rendimenti. Velocità consigliata: 450÷600 m/min.
- *Diamond cut: finish work in high alloy steel, stainless steel, metals, less vibrations, high performances. Cutting speed: 450÷600 m/min.*

				26033 HM3		26034 HM4	
Ø	/	L	d	cod.	€ cad/each	cod.	€ cad/each
* 3	16	38	3	2603300103	19,890	2603400103	19,890
4	14	50	6	2603300104	35,197	2603400104	35,197
6	18	50	6	2603300106	35,197	2603400106	35,197
8	18	63	6	2603300108	35,673	2603400108	35,673
10	20	65	6	2603300110	43,551	2603400110	43,551
12	25	70	6	2603300112	53,374	2603400112	53,374
16	25	70	6	2603300116	82,802	2603400116	82,802
* 3	16	38	3	2603300203	19,890	2603400203	19,890
4	14	50	6	2603300204	35,197	2603400204	35,197
6	18	50	6	2603300206	35,197	2603400206	35,197
8	18	63	6	2603300208	35,673	2603400208	35,673
10	20	65	6	2603300210	43,551	2603400210	43,551
12	25	70	6	2603300212	53,374	2603400212	53,374
16	25	70	6	2603300216	82,802	2603400216	82,802
* 3	16	38	3	2603300303	19,890	2603400303	19,890
4	14	50	6	2603300304	35,197	2603400304	35,197
6	18	50	6	2603300306	35,197	2603400306	35,197
8	18	63	6	2603300308	35,673	2603400308	35,673
10	20	65	6	2603300310	43,551	2603400310	43,551
12	25	70	6	2603300312	53,374	2603400312	53,374
16	25	70	6	2603300316	82,802	2603400316	82,802
* 3	16	38	3	2603300403	19,890	2603400403	19,890
4	14	50	6	2603300404	35,197	2603400404	35,197
6	18	50	6	2603300406	35,197	2603400406	35,197
8	18	63	6	2603300408	35,673	2603400408	35,673
10	20	65	6	2603300410	43,551	2603400410	43,551
12	25	70	6	2603300412	53,374	2603400412	53,374
16	25	70	6	2603300416	82,802	2603400416	82,802
* 3	3	38	3	2603300503	19,890	2603400503	19,890
4	4	50	6	2603300504	35,197	2603400504	35,197
6	5	50	6	2603300506	35,197	2603400506	35,197
8	7	63	6	2603300508	35,673	2603400508	35,673
10	9	65	6	2603300510	43,551	2603400510	43,551
12	10	70	6	2603300512	53,374	2603400512	53,374
16	14	70	6	2603300516	82,802	2603400516	82,802
* 3	16	38	3	2603300603	19,890	2603400603	19,890
4	14	50	6	2603300604	35,197	2603400604	35,197
6	18	50	6	2603300606	35,197	2603400606	35,197
8	18	63	6	2603300608	35,673	2603400608	35,673
10	20	65	6	2603300610	43,551	2603400610	43,551
12	25	70	6	2603300612	53,374	2603400612	53,374
16	25	70	6	2603300616	82,802	2603400616	82,802

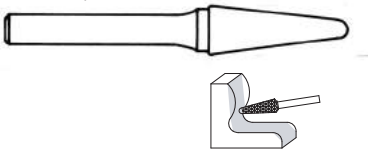
* **Microfrese** / Micro rotary files



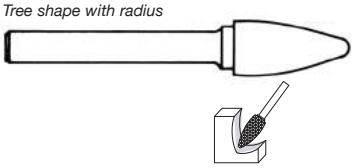
FRESE ROTATIVE IN METALLO DURO RIVESTITE AL TiAlN CON TAGLI HM3 E HM4

HM3 and HM4 cut carbide rotary files TiAlN coated / Fraises rotatives au carbure revêtues au TiAlN avec HM3 et HM4 coupants
Fresas rotativas de metal duro con recrubimiento de TiAlN con HM3 y HM4 cortantes / Hartmetall Fräserstifte TiAlN-beschichtet HM3 und HM4

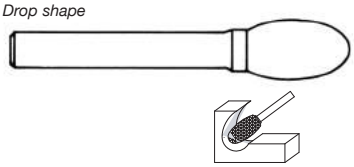
Conica a punta arrotondata /
Conical shape with radius



Ogiva a punta arrotondata o a fiamma /
Tree shape with radius



A goccia /
Drop shape



	Ø	/	L	d	26033 HM3 cod.	26033 HM3 € cad/each	26034 HM4 cod.	26034 HM4 € cad/each
*	3	16	38	3	2603300703	19,890	2603400703	19,890
	4	16	50	6	2603300704	35,197	2603400704	35,197
	6	18	50	6	2603300706	35,197	2603400706	35,197
	8	18	63	6	2603300708	35,673	2603400708	35,673
	10	20	65	6	2603300710	43,551	2603400710	43,551
	12	25	70	6	2603300712	53,374	2603400712	53,374
	16	25	70	6	2603300716	82,802	2603400716	82,802
*	3	16	38	3	2603300803	19,890	2603400803	19,890
	4	14	50	6	2603300804	35,197	2603400804	35,197
	6	18	50	6	2603300806	35,197	2603400806	35,197
	8	18	63	6	2603300808	35,673	2603400808	35,673
	10	20	65	6	2603300810	43,551	2603400810	43,551
	12	25	70	6	2603300812	53,374	2603400812	53,374
	16	25	70	6	2603300816	82,802	2603400816	82,802
*	3	6	38	3	2603300903	19,890	2603400903	19,890
	4	6	50	6	2603300904	35,197	2603400904	35,197
	6	10	50	6	2603300906	35,197	2603400906	35,197
	8	13	58	6	2603300908	35,673	2603400908	35,673
	10	16	61	6	2603300910	43,551	2603400910	43,551
	12	20	65	6	2603300912	53,374	2603400912	53,374
	16	25	70	6	2603300916	82,802	2603400916	82,802





ABS



ABS

Ø10 HM3 5 pcs
Art. 26030210 € 214,055

Ø10 HM4 5 pcs
Art. 26030211 € 214,055

Ø12 HM3 5 pcs
Art. 26030212 € 254,822

Ø12 HM4 5 pcs
Art. 26030213 € 254,822

Ø10 HM3+HM4 10 pcs
Tutte le forme - *All the shapes*
Art. 26030410 € 407,714

Ø12 HM3+HM4 10 pcs
Tutte le forme - *All the shapes*
Art. 26030411 € 499,446

Ø10 HM4 5 pcs
Art. 26030412 € 206,279

Ø12 HM4 5 pcs
Art. 26030413 € 254,586



Art. 26030504 45 pcs
Ø 6-8-10-12-16 HM4
Tutte le forme - *All the shapes*
€ 2518,239

FRESE ROTATIVE IN METALLO DURO CON TAGLIO HM3 PLUS

HM3 PLUS cut carbide rotary files / Fraises rotatives carbure avec HM3 PLUS coupant
Fresas rotativas de metal duro con HM3 PLUS cortantes / Hartmetall Fräserstifte HM3 PLUS

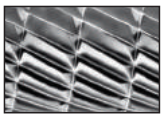
NEW

Metallo duro K20 / Solid carbide K20

Grana fine / Fine grain
Utilizzo universale / Universal uses

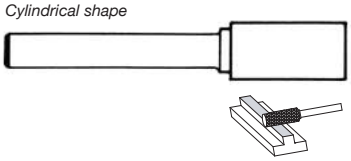


26016 HM3 PLUS

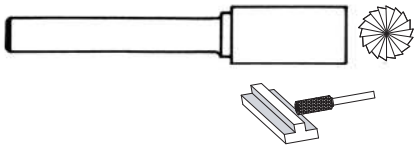


- TAGLIO STANDARD CON ROMPITRUCIOLO per acciaio, acciaio temprato, ghisa, cordoni di saldatura, materiali metallici in genere. Buon grado di finitura con ottimi rendimenti. Velocità consigliata: 450÷600 m/min.
- *Standard cut with chip breaker in low and high tensile steel, welded points, metals Cutting speed: 450÷600 m/min.*

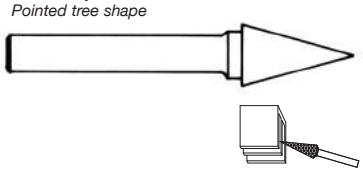
Cilindrica con fronte liscia /
Cylindrical shape



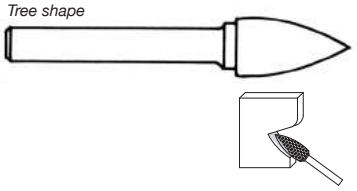
Cilindrica con taglio frontale /
Cylindrical shape with end cut



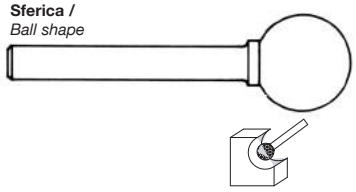
Conica a punta /
Pointed tree shape



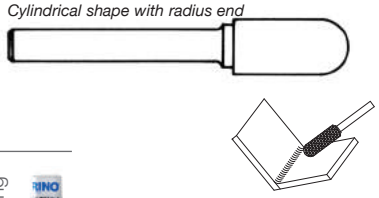
Ogiva a punta /
Tree shape



Sferica /
Ball shape

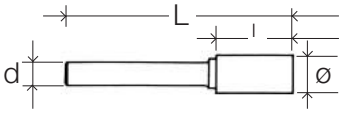


Cilindrica con testa sferica /
Cylindrical shape with radius end



Ø	/	L	d	cod.	€ cad/each
* 3	16	38	3	2601600103	11,028
4	14	50	6	2601600104	25,067
6	18	50	6	2601600106	25,067
8	18	63	6	2601600108	25,067
10	20	65	6	2601600110	31,000
12	25	70	6	2601600112	39,225
16	25	70	6	2601600116	58,195
* 3	16	38	3	2601600203	11,028
4	14	50	6	2601600204	25,067
6	18	50	6	2601600206	25,067
8	18	63	6	2601600208	25,067
10	20	65	6	2601600210	31,000
12	25	70	6	2601600212	39,225
16	25	70	6	2601600216	58,195
* 3	16	38	3	2601600303	11,028
4	14	50	6	2601600304	25,067
6	18	50	6	2601600306	25,067
8	18	63	6	2601600308	25,067
10	20	65	6	2601600310	31,000
12	25	70	6	2601600312	39,225
16	25	70	6	2601600316	58,195
* 3	16	38	3	2601600403	11,028
4	14	50	6	2601600404	25,067
6	18	50	6	2601600406	25,067
8	18	63	6	2601600408	25,067
10	20	65	6	2601600410	31,000
12	25	70	6	2601600412	39,225
16	25	70	6	2601600416	58,195
* 3	3	38	3	2601600503	11,028
4	4	50	6	2601600504	25,067
6	5	50	6	2601600506	25,067
8	7	63	6	2601600508	25,067
10	9	65	6	2601600510	31,000
12	10	70	6	2601600512	39,225
16	14	70	6	2601600516	58,195
* 3	16	38	3	2601600603	11,028
4	14	50	6	2601600604	25,067
6	18	50	6	2601600606	25,067
8	18	63	6	2601600608	25,067
10	20	65	6	2601600610	31,000
12	25	70	6	2601600612	39,225
16	25	70	6	2601600616	58,195

* **Microfrese** / Micro rotary files



Confezione / Packaging



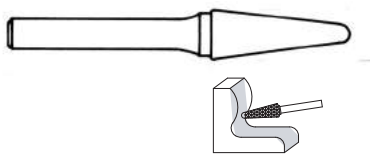
Applicazioni / Applications



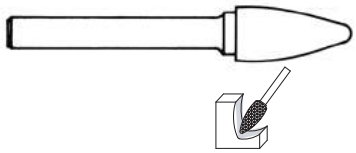
FRESE ROTATIVE IN METALLO DURO CON TAGLIO HM3 PLUS

HM3 PLUS cut carbide rotary files / Fraises rotatives carbure avec HM3 PLUS coupant
Fresas rotativas de metal duro con HM3 PLUS cortantes / Hartmetall Fräserstifte HM3 PLUS

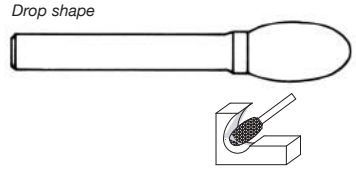
Conica a punta arrotondata /
Conical shape with radius



Ogiva a punta arrotondata o a fiamma /
Tree shape with radius



A goccia /
Drop shape



Ø	/	L	d	cod.	€ cad/each
* 3	16	38	3	2601600703	11,028
4	16	50	6	2601600704	25,067
6	18	50	6	2601600706	25,067
8	18	63	6	2601600708	25,067
10	20	65	6	2601600710	31,000
12	25	70	6	2601600712	39,225
16	25	70	6	2601600716	58,195
* 3	16	38	3	2601600803	11,028
4	14	50	6	2601600804	25,067
6	18	50	6	2601600806	25,067
8	18	63	6	2601600808	25,067
10	20	65	6	2601600810	31,000
12	25	70	6	2601600812	39,225
16	25	70	6	2601600816	58,195
* 3	6	38	3	2601600903	11,028
4	6	50	6	2601600904	25,067
6	10	50	6	2601600906	25,067
8	13	58	6	2601600908	25,067
10	16	61	6	2601600910	31,000
12	20	65	6	2601600912	39,225
16	25	70	6	2601600916	58,195



ABS

Ø10 5 pcs Art. 26030416	€ 128,000
Ø12 HM4 5 pcs Art. 26030417	€ 188,320
Ø8 5 pcs Ø12 5 pcs Art. 26030415	€ 276,318

FRESE ROTATIVE IN METALLO DURO, SERIE LUNGA

Carbide rotary files, long series - Fraises rotatives carbure, série longue
Fresas rotativas de metal duro, serie larga - Hartmetall Fräserstifte, lange Ausführung

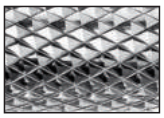
NEW

Metallo duro K20 / Solid carbide K20

Grana fine / Fine grain
Utilizzo universale / Universal uses

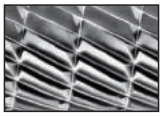


26028 HM4



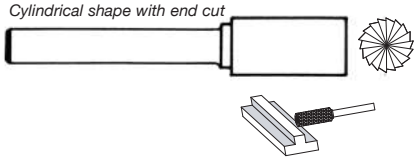
- TAGLIO INCROCIATO per acciaio trattato, acciaio inox, materiali metallici in genere. Vibrazioni ridotte, buona finitura superficiale, ottimi rendimenti. Velocità consigliata: 300÷400 m/min.
- *Diamond cut: finish work in high alloy steel, stainless steel, metals, less vibrations, high performances. Cutting speed: 300÷400 m/min.*

26027 HM3 PLUS



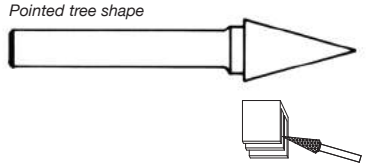
- TAGLIO STANDARD CON ROMPITRUCIOLO per acciaio, acciaio temprato, ghisa, cordoni di saldatura, materiali metallici in genere. Buon grado di finitura con ottimi rendimenti. Velocità consigliata: 450÷600 m/min.
- *Standard cut with chip breaker in low and high tensile steel, welded points, metals Cutting speed: 450÷600 m/min.*

Cilindrica con taglio frontale /
Cylindrical shape with end cut



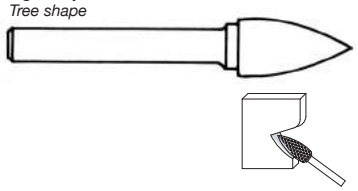
Ø	/	L	d	26028 HM4 cod.	26028 HM4 € cad/each	26027 HM3 PLUS cod.	26027 HM3 PLUS € cad/each
8	18	120	6	2602800208	28,382	2602700208	29,800
12	25	120	6	2602800212	42,573	2602700212	43,991

Conica a punta /
Pointed tree shape



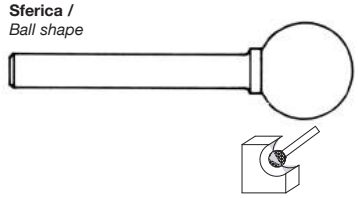
8	18	120	6	2602800308	28,382	2602700308	29,800
12	25	120	6	2602800312	42,573	2602700312	43,991

Ogiva a punta /
Tree shape



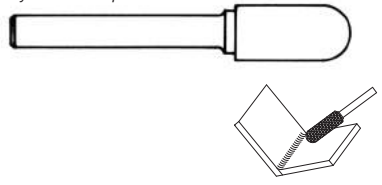
8	18	120	6	2602800408	28,382	2602700408	29,800
12	25	120	6	2602800412	42,573	2602700412	43,991

Sferica /
Ball shape



8	7	120	6	2602800508	28,382	2602700508	29,800
12	10	120	6	2602800512	42,573	2602700512	43,991

Cilindrica con testa sferica /
Cylindrical shape with radius end



8	18	120	6	2602800608	28,382	2602700608	29,800
12	25	120	6	2602800612	42,573	2602700612	43,991

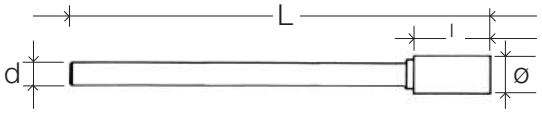
Confezione / Packaging



Applicazioni / Applications



Inox
Acciaio *Steel*
Metal



FRESE ROTATIVE IN METALLO DURO, SPECIALE PER ALLUMINIO

Carbide rotary files - Fraises rotatives carbure
Fresas rotativas de metal duro - Hartmetall Fräserstifte

NEW **Alu**

Metallo duro K20 / Solid carbide K20

Grana fine / Fine grain
Utilizzo universale / Universal uses

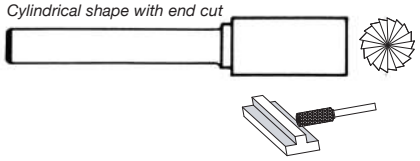


HM1



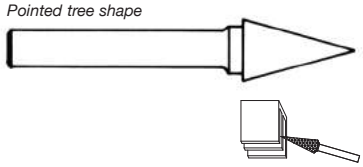
- TAGLIO ALLUMINIO adatto a alluminio, magnesio, plastiche e gomma dura. Buon rendimento con un alto tasso di asportazione del materiale, che previene l'incollaggio dei trucioli.
- *ALUMINIUM CUT suitable for cutting into aluminium, magnesium, plastic and hard rubber. High efficiency with good removal rate, thus preventing the chips clogging the tool.*

Cilindrica con taglio frontale /
Cylindrical shape with end cut



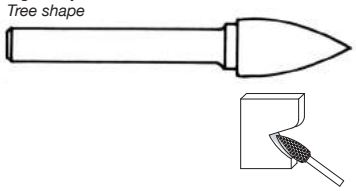
Ø	/	L	d	26025 Serie corta / Short serie cod.	€ cad/each	26026 L=120mm Serie lunga / Long serie cod.	€ cad/each
6	18	61	6	2602500206	21,106	-	-
8	18	65	6	2602500208	22,613	2602600208	29,800
10	20	65	6	2602500210	29,402	-	-
12	25	70	6	2602500212	37,691	2602600212	43,991
16	25	70	6	2602500216	54,284	-	-

Conica a punta /
Pointed tree shape



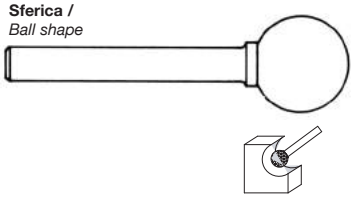
6	18	63	6	2602500306	21,106	-	-
8	18	65	6	2602500308	22,613	2602600308	29,800
10	20	65	6	2602500310	29,402	-	-
12	25	70	6	2602500312	37,691	2602600312	43,991
16	25	70	6	2602500316	54,284	-	-

Ogiva a punta /
Tree shape



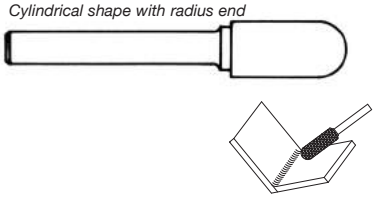
6	18	63	6	2602500406	21,106	-	-
8	18	65	6	2602500408	22,613	2602600408	29,800
10	20	65	6	2602500410	29,402	-	-
12	25	70	6	2602500412	37,691	2602600412	43,991
16	25	70	6	2602500416	54,284	-	-

Sferica /
Ball shape



6	5	50	6	2602500506	21,106	-	-
8	7	52	6	2602500508	22,613	2602600508	29,800
10	9	54	6	2602500510	29,402	-	-
12	10	56	6	2602500512	37,691	2602600512	43,991
16	14	60	6	2602500516	54,284	-	-

Cilindrica con testa sferica /
Cylindrical shape with radius end



6	18	61	6	2602500606	21,106	-	-
8	18	65	6	2602500608	22,613	2602600608	29,800
10	20	65	6	2602500610	29,402	-	-
12	25	70	6	2602500612	37,691	2602600612	43,991
16	25	70	6	2602500616	54,284	-	-

Confezione / Packaging



Applicazioni / Applications





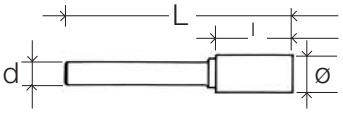
ABS

Ø10 5 pcs



Art. 26030430

€ 140,000



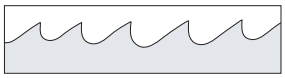
SEGHE A TAZZA BIMETALLICHE HSS A DENTATURA VARIABILE

HSS bimetal hole saws / Scies trépans bimetal HSS
Coronas perforadoras bimetalicas HSS / HSS-bimetall Lochsägen

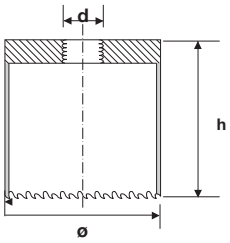
21060
21062



Variabile - *Variable* Z 4-6



BIM. - HSS M3/1



h	ø
57±1	14÷17
51±1	19÷37
44±1	38÷210

Art. **21068** Self
Disponibile su richiesta
On demand

Confezione / Packaging



21060



21062

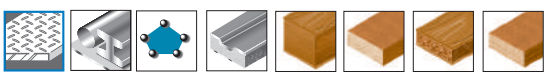




HSS M3/1

Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	cod. 21060	€ cad/each	cod. 21062	€ cad/each
14	9/16	UNF 1/2 x 20	2106001400	7,207	2106201400	8,725
16	5/8		2106001600	7,207	2106201600	8,349
17	11/16		2106001700	7,207	2106201700	8,349
19	3/4		2106001900	7,728	2106201900	8,947
20			2106002000	7,728	2106202000	8,947
21	13/16		2106002100	8,238	2106202100	9,535
22	7/8		2106002200	8,238	2106202200	9,535
24	15/16		2106002400	8,725	2106202400	10,100
25	1”		2106002500	8,725	2106202500	10,100
27	1,1/16		2106002700	9,490	2106202700	10,987
29	1,1/8		2106002900	9,490	2106202900	10,987
30	1,3/16		2106003000	10,067	2106203000	11,664
32	1,1/4	UNF 5/8 x 18	2106003200	10,067	2106203200	11,664
33	1,5/16		2106003300	10,411	2106203300	12,051
35	1,3/8		2106003500	11,520	2106203500	13,337
37	1,7/16		2106003700	11,520	2106203700	13,337
38	1,1/2		2106003800	11,520	2106203800	13,337
40	1,9/16		2106004000	11,818	2106204000	13,681
41	1,5/8		2106004100	12,074	2106204100	13,980
43	1,11/16		2106004300	12,074	2106204300	13,980
44	1,3/4		2106004400	13,116	2106204400	15,178
45	-		2106004500	13,116	2106204500	15,178
46	1,13/16		2106004600	13,116	2106204600	15,178
48	1,7/8		2106004800	13,404	2106204800	15,522
50	-		2106005000	13,880	2106205000	16,065
51	2”		2106005100	13,880	2106205100	16,065
52	2,1/16		2106005200	15,377	2106205200	17,806
54	2,1/8		2106005400	15,377	2106205400	17,806
55	-		2106005500	15,377	2106205500	17,806
56	-		2106005600	15,909	2106205600	18,427
57	2,1/4		2106005700	15,909	2106205700	18,427
59	2,5/16		2106005900	16,264	2106205900	18,837
60	2,3/8		2106006000	16,264	2106206000	18,837
62	-		2106006200	17,540	2106206200	20,311
64	2,1/2		2106006400	17,540	2106206400	20,311
65	2,9/16		2106006500	17,540	2106206500	20,311
67	2,5/8		2106006700	19,436	2106206700	22,507
68	-		2106006800	19,436	2106206800	22,507
70	2,3/4		2106007000	19,436	2106207000	22,507
73	2,7/8		2106007300	20,400	2106207300	23,626
75	-		2106007500	21,198	2106207500	24,547
76	3”		2106007600	21,198	2106207600	24,547
79	3,1/8		2106007900	21,764	2106207900	25,190
83	3,1/4		2106008300	22,673	2106208300	26,254
86	3,3/8		2106008600	23,083	2106208600	26,720
89	3,1/2		2106008900	25,211	2106208900	29,192
92	3,5/8		2106009200	26,398	2106209200	30,566
95	3,3/4		2106009500	26,398	2106209500	30,566
98	3,7/8		2106009800	27,052	2106209800	31,332
100	-		2106010000	27,052	2106210000	31,332
102	4”		2106010200	27,052	2106210200	31,332
105	4,1/8		2106010500	29,081	2106210500	33,671
108	4,1/4		2106010800	31,476	2106210800	36,442
111	4,3/8		2106011100	32,463	2106211100	37,596
114	4,1/2		2106011400	35,822	2106211400	41,476
121	4,3/4		2106012100	37,096	2106212100	46,931
127	5”		2106012700	39,836	2106212700	50,202
133	5,1/4		2106013300	41,254	2106213300	60,036
140	5,1/2		2106014000	43,694	2106214000	60,036
146	5,3/4”		2106014600	45,900	2106214600	69,859
152	6”		2106015200	50,245	2106215200	69,859
160	6,5/16		2106016000	50,768	-	
168	6,5/8		2106016800	53,516	-	
177	6,31/32		2106017700	56,821	-	
200	7,7/8		2106020000	61,399	-	
210	8,5/16		2106021000	62,242	-	

Applicazioni / Applications





- Seghe bimetalliche HSS a dentatura variabile e spoglia positiva per il taglio altamente professionale di qualsiasi materiale a spessore sottile quale acciaio, ghisa, alluminio, rame, bronzo, ottone, legno, plastica, fibra di vetro, resine sintetiche, formica, cartongesso. Grande rendimento e durata, taglio pulito, max. profondità di foratura 5 mm.
- Variable tooth bimetal hole saws for faster and smoother cuts in: iron, steel, aluminium, brass, copper, cast iron, stainless steel, wood and plywood, plastics, fibreglass etc… Max. cutting depth : 13/64
- Scies cloches bimetal-HSS à denture progressive pour l’emploi professionel. Pour percer les métaux, fer, fonte, acier inox, bois, plastique. Profondeur de coupe: 5 mm
- Coronas perforadoras bimetalicas HSS con diente variable y angulo positivo para taladrar acero, laton, bronce, aluminio, madera, plastico etc. Profondidad de corte: 5 mm.
- HSS Bi-Metall-Lochsägen mit vario-verzahnung für schnellen Bohrfortschritt in Stahl, Guss, Küpfer, Bronze, Aluminium, Kunstoffe, Gipskarton, Holz.

ALBERI PER SEGHE A TAZZA BIMETAL (INTERCAMBIABILI CON QUALSIASI ALTRA MARCA)

Arbors for bimetal hole saws / Arbres de montage pour scies trépans bimetal
Husillos para coronas bimetalicas / Aufnahmeschäfte

ALBERI PER SEGHE BIMETAL Ø 14÷30 mm - *Fit hole saws Ø 14÷30*

210705514



210705515

Q.C.



210705519
210705519B



210705518

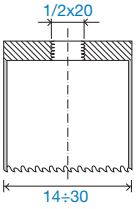


210705519 SDS
210705519 SDSB



SDS-PLUS

Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 14 ÷ 30	Ø 6,35	210705514	8,515
Ø 14 ÷ 30	HEX 6,35 Q.C.	210705515	10,200
Ø 14 ÷ 17	HEX 8,5	210705519B	11,342
Ø 19 ÷ 30	HEX 8,5	210705519	10,200
Ø 14 ÷ 30	HEX 11	210705518	11,342
Ø 14 ÷ 17	SDS PLUS	210705519SDSB	14,747
Ø 19 ÷ 30	SDS PLUS	210705519SDS	14,747



ALBERI PER SEGHE BIMETAL Ø 32÷210 mm - *Fit hole saws Ø 32÷210*

210705520



210705521

Q.C.



210705546



210705547



210705548

Q.C.



210705546 SDS



SDS-PLUS

210705549 SDS



SDS-PLUS

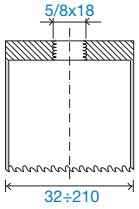
210705545



210705573



Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 32 ÷ 210	HEX 11	210705520	11,752
Ø 32 ÷ 210	HEX 6,35 Q.C.	210705521	11,752
Ø 32 ÷ 210	HEX 8,5	210705546	17,961
Ø 32 ÷ 210	HEX 11	210705547	19,846
Ø 32 ÷ 210	HEX 8,5 Q.C.	210705548	19,846
Ø 32 ÷ 210	SDS PLUS	210705546SDS	25,798
Ø 32 ÷ 210	SDS PLUS	210705549SDS	25,798
Ø 32 ÷ 210	HEX 11	210705545	20,755
Ø 32 ÷ 210	HEX 16	210705573	22,784



Art. **21071** Self
Disponibile su richiesta
On demand

21070200



21070202



21070201



21070300



21070302



Punta pilota *Pilot drill*	Per alberi *Fit arbors*	cod.	€ cad/each
Ø 6,35 x 105	5514-5520 5545-5573-5518	21070200	4,468
Ø 6,35 x 90	5519B-5519SDSB	21070202	4,468
Ø 6,35 x 80	5515-5519-5519SDS 5521-5546-5546SDS 5547-5548-5549SDS	21070201	4,468
Adattatore - montato su alberi 5514-5519 permette di portare frese da Ø 32 a Ø 210 *Arbor adapter - Allows 5514-5519 to be used with 1.1/4" through 6" hole saws*		21070300	4,391
Prolunga - L = 300 mm HEX 6 *12" extension - to be used with arbors 5545-5520*		21070302	20,556

Confezione / Packaging



ASSORTIMENTI SEGHE A TAZZA BIMETALLICHE HSS IN VALIGETTE DI PLASTICA

HSS Bi-metal hole saws kits in plastic cases / Assortiments de scies trépans HSS bimetal en coffret plastique
Juegos de coronas perforadoras bimetalica HSS en estuche de plastico / HSS Lochsägen Sortimente in Plastikköfferchen

Variabile - *Variable* Z 4-6

BIM. - HSS M3/1

Kit Elettricisti - *Electrician's kit*



Cod.	Composizione *Description*	
21080201K Ø 22÷64 6 pcs € 98,330	Ø 22-29-35 44-51-64	5519 - 5546 1
21080202K Ø 16÷51 (METRIC) 6 pcs € 83,939	Ø 16-20-25 32-40-51	5519 - 5546 1



Cod.	Composizione *Description*	
21080209K Ø 22÷68 7 pcs € 115,116	Ø 22-29-35-38 44-51-68	5519 - 5546 1
21080207K Ø 16÷60 (Pg 9÷48) 13 pcs € 158,288	Ø 16-19-20-21 22-25-29-32 38-48-51-54-60	5519 - 5546 1 1

Kit per idraulici- *Plumber's kit*



Cod.	Composizione *Description*	
21080204K Ø 19÷57 6 pcs € 88,740	Ø 19-22-29 38-44-57	5519 - 5546 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*	
21080205K Ø 19÷64 9 pcs € 137,898	Ø 19-22-29-35 38-44-51-57 64	5519 - 5546 1 1



Cod.	Composizione *Description*	
21080211K Ø 20÷64 11 pcs € 152,291	Ø 20-22-25-30 32-35-40-44 51-60-64	5519 - 5546 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*	
21080212K Ø 19÷83 11 pcs € 203,855	Ø 19-22-25-30 35-40-51-60 64-76-83	5519 - 5546 1

Kit industriale - *Industrial kit*



Cod.	Composizione *Description*	
21080206K Ø 19÷114 15 pcs € 314,181	Ø 19-22-29-35-38 44-51-57-64-76 83-92-95-105-114	5519 - 5546 1

ESPOSITORE SEGHE A TAZZA BIMETALLICHE HSS

Bimetal hole saws display - Display de scies trépans bimetal
Expositor de coronas bimetalicas - Lochsägen Sortimente

21080504K



23x18x50 cm

Cod.	Composizione *Description*		
21080504K 49 pcs - Ø 16÷102 € 671,535	Ø Sega/*Hole saw*		pcs
		16	2
		19	2
		20	2
		22	2
		25	2
		30	2
		32	2
		35	2
		38	2
		40	2
		48	2
		51	2
		57	2
		60	2
		70	2
		83	2
		102	2
	5519 14÷30		4
	5546 32÷210		6
	21070201		5

21080503K



Cod.	Composizione *Description*		
21080503K 24 pcs - Ø 16÷83 € 357,353	Ø Sega/*Hole saw*		pcs
		16	1
		19	1
		20	1
		22	1
		25	1
		27	1
		29	1
		30	1
		32	1
		35	1
		38	1
		40	1
		44	1
		51	1
		54	1
		60	1
		64	1
		70	1
		76	1
		83	1
	5519 14÷30		2
	5546 32÷210		2

Professional

SEGHE A TAZZA BIMETALLICHE HSS A DENTATURA VARIABILE

HSS bimetal hole saws / Scies trépans bimetal HSS
Coronas perforadoras bimetalicas HSS / HSS-bimetall Lochsägen

Finitura nera - *Black finish*

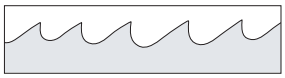
HSS M3/1

Personalizza con il tuo logo / *Put your private label*

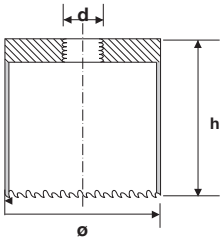
21066



Variabile - *Variable* Z 4-6



BIM. - HSS M3/1



h	ø
57±1	14÷17
51±1	19÷37
44±1	38÷210

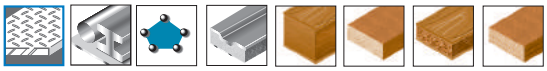
Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	cod.	€ cad/each
14	9/16	UNF 1/2 x 20	2106601400	7,207
16	5/8		2106601600	7,207
17	11/16		2106601700	7,207
19	3/4		2106601900	7,728
20			2106602000	7,728
21	13/16		2106602100	8,238
22	7/8		2106602200	8,238
24	15/16		2106602400	8,725
25	1”		2106602500	8,725
27	1,1/16		2106602700	9,490
29	1,1/8		2106602900	9,490
30	1,3/16		2106603000	10,067
32	1,1/4	UNF 5/8 x 18	2106603200	10,067
33	1,5/16		2106603300	10,411
35	1,3/8		2106603500	11,520
37	1,7/16		2106603700	11,520
38	1,1/2		2106603800	11,520
40	1,9/16		2106604000	11,818
41	1,5/8		2106604100	12,074
43	1,11/16		2106604300	12,074
44	1,3/4		2106604400	13,116
45	-		2106604500	13,116
46	1,13/16		2106604600	13,116
48	1,7/8		2106604800	13,404
50	-		2106605000	13,880
51	2”		2106605100	13,880
52	2,1/16		2106605200	15,377
54	2,1/8		2106605400	15,377
55	-		2106605500	15,377
56	-		2106605600	15,909
57	2,1/4		2106605700	15,909
59	2,5/16		2106605900	16,264
60	2,3/8		2106606000	16,264
62	-		2106606200	17,540
64	2,1/2		2106606400	17,540
65	2,9/16		2106606500	17,540
67	2,5/8		2106606700	19,436
68	-		2106606800	19,436
70	2,3/4		2106607000	19,436
73	2,7/8		2106607300	20,400
75	-		2106607500	21,198
76	3”		2106607600	21,198
79	3,1/8		2106607900	21,764
83	3,1/4		2106608300	22,673
86	3,3/8		2106608600	23,083
89	3,1/2		2106608900	25,211
92	3,5/8		2106609200	26,398
95	3,3/4		2106609500	26,398
98	3,7/8		2106609800	27,052
100	-		2106610000	27,052
102	4”		2106610200	27,052
105	4,1/8		2106610500	29,081
108	4,1/4		2106610800	31,476
111	4,3/8		2106611100	32,463
114	4,1/2		2106611400	35,822
121	4,3/4		2106612100	37,096
127	5”		2106612700	39,836
133	5,1/4		2106613300	41,254
140	5,1/2		2106614000	43,694
146	5,3/4”		2106614600	45,900
152	6”		2106615200	50,245
160	6,5/16		2106616000	50,768
168	6,5/8		2106616800	53,516
177	6,31/32		2106617700	56,821
190	7,1/2		2106619000	58,230
200	7,7/8		2106620000	60,720
210	8,5/16		2106621000	62,242

Confezione / Packaging



Esempio Krino
Krino example

Applicazioni / Applications



Acciaio *Steel* **Metals** **Plastics**



- Seghe bimetalliche HSS a dentatura variabile e spoglia positiva per il taglio altamente professionale di qualsiasi materiale a spessore sottile quale acciaio, ghisa, alluminio, rame, bronzo, ottone, legno, plastica, fibra di vetro, resine sintetiche, formica, cartongesso. Grande rendimento e durata, taglio pulito, max. profondità di foratura 5 mm.
- Variable tooth bimetal hole saws for faster and smoother cuts in: iron, steel, aluminium, brass, copper, cast iron, stainless steel, wood and plywood, plastics, fibreglass etc… Max. cutting depth : 13/64
- Scies cloches bimetal-HSS à denture progressive pour l’emploi professionel. Pour percer les métaux, fer, fonte, acier inox, bois, plastique. Profondeur de coupe: 5 mm
- Coronas perforadoras bimetalicas HSS con diente variable y angulo positivo para taladrar acero, laton, bronce, aluminio, madera, plastico etc. Profondidad de corte: 5 mm.
- HSS Bi-Metall-Lochsägen mit vario-verzahnung für schnellen Bohrfortschritt in Stahl, Guss, Küpfer, Bronze, Aluminium, Kunstoffe, Gipskarton, Holz.

ALBERI PER SEGHE A TAZZA BIMETAL (INTERCAMBIABILI CON QUALSIASI ALTRA MARCA)

Arbors for bimetal hole saws / Arbres de montage pour scies trépans bimetal
Husillos para coronas bimetalicas / Aufnahmeschäfte

ALBERI PER SEGHE BIMETAL Ø 14÷30 mm - *Fit hole saws Ø 14÷30*

210705514



210705515
Q.C.



210705519
210705519B



210705518

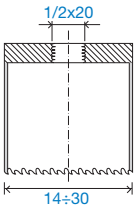


210705519 SDS
210705519 SDSB



SDS-PLUS

Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 14 ÷ 30	Ø 6,35	210705514	8,515
Ø 14 ÷ 30	HEX 6,35 Q.C.	210705515	10,200
Ø 14 ÷ 17	HEX 8,5	210705519B	11,342
Ø 19 ÷ 30	HEX 8,5	210705519	10,200
Ø 14 ÷ 30	HEX 11	210705518	11,342
Ø 14 ÷ 17	SDS PLUS	210705519SDSB	14,747
Ø 19 ÷ 30	SDS PLUS	210705519SDS	14,747



ALBERI PER SEGHE BIMETAL Ø 32÷210 mm - *Fit hole saws Ø 32÷210*

210705520



210705521
Q.C.



210705546



210705547



210705548
Q.C.



210705546 SDS



SDS-PLUS

210705549 SDS



SDS-PLUS

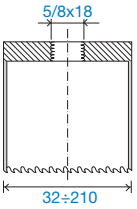
210705545



210705573



Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 32 ÷ 210	HEX 11	210705520	11,752
Ø 32 ÷ 210	HEX 6,35 Q.C.	210705521	11,752
Ø 32 ÷ 210	HEX 8,5	210705546	17,961
Ø 32 ÷ 210	HEX 11	210705547	19,846
Ø 32 ÷ 210	HEX 8,5 Q.C.	210705548	19,846
Ø 32 ÷ 210	SDS PLUS	210705546SDS	25,798
Ø 32 ÷ 210	SDS PLUS	210705549SDS	25,798
Ø 32 ÷ 210	HEX 11	210705545	20,755
Ø 32 ÷ 210	HEX 16	210705573	22,784



21070200



21070202



21070201



21070300



21070302



Punta pilota *Pilot drill*	Per alberi *Fit arbors*	cod.	€ cad/each
Ø 6,35 x 105	5514-5520 5545-5573-5518	21070200	4,468
Ø 6,35 x 90	5519B-5519SDSB	21070202	4,468
Ø 6,35 x 80	5515-5519-5519SDS 5521-5546-5546SDS 5547-5548-5549SDS	21070201	4,468
Adattatore - montato su alberi 5514-5519 permette di portare frese da Ø 32 a Ø 210 *Arbor adapter - Allows 5514-5519 to be used with 1.1/4" through 6" hole saws*		21070300	4,391
Prolunga - L = 300 mm HEX 6 *12" extension - to be used with arbors 5545-5520*		21070302	20,556

Confezione / Packaging



Esempio Krino
Krino example

ASSORTIMENTI SEGHE A TAZZA BIMETALLICHE HSS IN VALIGETTE DI PLASTICA

HSS Bi-metal hole saws kits in plastic cases / Assortiments de scies trépans HSS bimetal en coffret plastique
Juegos de coronas perforadoras bimetalica HSS en estuche de plastico / HSS Lochsägen Sortimente in Plastikköfferchen

Variabile - *Variable* Z 4-6
BIM. - HSS M3/1

Esempi Krino - *Krino examples*

Kit Elettricisti - *Electrician's kit*



Cod.	Composizione *Description*	
21080201N Ø 22÷64 6 pcs € 98,330	Ø 22-29-35 44-51-64	5519 - 5546 1
21080202N Ø 16÷51 (METRIC) 6 pcs € 83,939	Ø 16-20-25 32-40-51	5519 - 5546 1



Cod.	Composizione *Description*	
21080209N Ø 22÷68 7 pcs € 115,116	Ø 22-29-35-38 44-51-68	5519 - 5546 1
21080207N Ø 16÷60 (Pg 9÷48) 13 pcs € 158,288	Ø 16-19-20-21 22-25-29-32 38-48-51-54-60	5519 - 5546 1 1

Kit per idraulici- *Plumber's kit*



Cod.	Composizione *Description*	
21080204N Ø 19÷57 6 pcs € 88,740	Ø 19-22-29 38-44-57	5519 - 5546 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*	
21080205N Ø 19÷64 9 pcs € 137,898	Ø 19-22-29-35 38-44-51-57 64	5519 - 5546 1 1



Cod.	Composizione *Description*	
21080211N Ø 20÷64 11 pcs € 152,291	Ø 20-22-25-30 32-35-40-44 51-60-64	5519 - 5546 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*	
21080212N Ø 19÷83 11 pcs € 203,855	Ø 19-22-25-30 35-40-51-60 64-76-83	5519 - 5546 1

Kit industriale - *Industrial kit*



Cod.	Composizione *Description*	
21080206N Ø 19÷114 15 pcs € 314,181	Ø 19-22-29-35-38 44-51-57-64-76 83-92-95-105-114	5519 - 5546 1

ESPOSITORE SEGHE A TAZZA BIMETALLICHE HSS

Bimetal hole saws display - Display de scies trépans bimetal
Expositor de coronas bimetalicas - Lochsägen Sortimente

Esempi Krino - *Krino examples*

21080504



23x18x50 cm

Cod.	Composizione *Description*	
21080504N 49 pcs - Ø 16÷102 € 671,535	Ø Sega/*Hole saw*	pcs
	16	2
	19	2
	20	2
	22	2
	25	2
	30	2
	32	2
	35	2
	38	2
	40	2
	48	2
	51	2
	57	2
	60	2
	70	2
	83	2
	102	2
	5519 14÷30	4
	5546 32÷210	6
	21070201	5

21080503



Cod.	Composizione *Description*	
21080503N 24 pcs - Ø 16÷83 € 357,353	Ø Sega/*Hole saw*	pcs
	16	1
	19	1
	20	1
	22	1
	25	1
	27	1
	29	1
	30	1
	32	1
	35	1
	38	1
	40	1
	44	1
	51	1
	54	1
	60	1
	64	1
	70	1
	76	1
	83	1
	5519 14÷30	2
	5546 32÷210	2

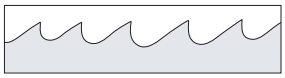
SEGHE A TAZZA BIMETALLICHE AL COBALTO 8% AISI M42 A DENTATURA VARIABILE

HSS-CO 8% AISI M42 bimetal hole saws with variable teeth / Scies trépans bimétalliques HSS-CO 8% AISI M42 avec denture variable
Coronas perforadoras bimetalicas HSS-CO 8% AISI M42 con dentadura variable / HSS-CO 8% AISI M42 Bimetall Lochsägen mit veränderbarer Zahnung

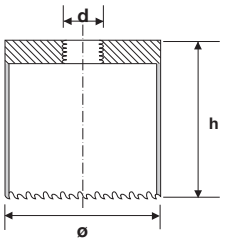
21090
21092



Variabile: nuovo disegno
dei denti più performanti Z 4-6
Variable: new upgrade teeth design Z 4-6



BIM. - HSS-CO 8% AISI M42



h	ø
67±1	14÷17
61±1	19÷37
54±1	38÷152



Fase in M42
M42 zone

Area di saldatura elettronica
Electronic band area

Banda di supporto
Support band

Microdurezza verificata direttamente sul tagliente
Micro-hardness tested directly on the cutting tooth

Confezione / Packaging



21090



21092

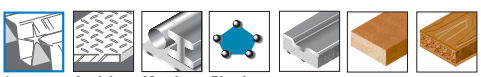




HSS-CO8% M42

Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	cod. 21090	€ cad/each	cod. 21092	€ cad/each
14	9/16	UNF 1/2 x 20	2109001400	8,869	2109201400	10,200
16	5/8		2109001600	8,869	2109201600	10,200
17	11/16		2109001700	8,869	2109201700	10,200
19	3/4		2109001900	9,512	2109201900	10,931
20	-		2109002000	9,512	2109202000	10,931
21	13/16		2109002100	10,144	2109202100	11,664
22	7/8		2109002200	10,144	2109202200	11,664
24	15/16		2109002400	10,743	2109202400	12,351
25	1”		2109002500	10,755	2109202500	12,373
27	1,1/16		2109002700	11,697	2109202700	13,449
29	1,1/8		2109002900	11,697	2109202900	13,449
30	1,3/16		2109003000	13,781	2109203000	15,843
32	1,1/4	UNF 5/8 x 18	2109003200	13,781	2109203200	15,843
33	1,5/16		2109003300	14,257	2109203300	16,398
35	1,3/8		2109003500	14,990	2109203500	17,240
37	1,7/16		2109003700	15,754	2109203700	18,116
38	1,1/2		2109003800	15,754	2109203800	18,116
40	1,9/16		2109004000	16,165	2109204000	18,593
41	1,5/8		2109004100	16,520	2109204100	19,004
43	1,11/16		2109004300	16,520	2109204300	19,004
44	1,3/4		2109004400	17,950	2109204400	20,644
45	-		2109004500	17,950	2109204500	20,644
46	1,13/16		2109004600	17,950	2109204600	20,644
48	1,7/8		2109004800	18,348	2109204800	21,099
50	-		2109005000	18,981	2109205000	21,830
51	2”		2109005100	18,981	2109205100	21,830
52	2,1/16		2109005200	21,043	2109205200	24,203
54	2,1/8		2109005400	21,043	2109205400	24,203
57	2,1/4		2109005700	21,043	2109205700	24,203
59	2,5/16		2109005900	21,764	2109205900	25,034
60	2,3/8		2109006000	21,764	2109206000	25,034
64	2,1/2		2109006400	23,372	2109206400	26,875
65	2,9/16		2109006500	23,372	2109206500	26,875
67	2,5/8		2109006700	25,190	2109206700	28,971
68	-		2109006800	25,190	2109206800	28,971
70	2,3/4		2109007000	25,190	2109207000	28,971
73	2,7/8		2109007300	27,916	2109207300	32,108
75	-		2109007500	27,916	2109207500	32,108
76	3”		2109007600	27,916	2109207600	32,108
79	3,1/8		2109007900	29,325	2109207900	33,715
83	3,1/4		2109008300	31,176	2109208300	35,855
86	3,3/8		2109008600	31,176	2109208600	35,855
89	3,1/2		2109008900	33,936	2109208900	39,026
92	3,5/8		2109009200	34,780	2109209200	39,990
95	3,3/4		2109009500	36,144	2109209500	41,565
98	3,7/8		2109009800	36,144	2109209800	41,565
100	-		2109010000	36,277	2109210000	41,720
102	4”		2109010200	36,277	2109210200	41,720
105	4,1/8		2109010500	37,175	2109210500	42,751
108	4,1/4		2109010800	38,250	2109210800	43,993
111	4,3/8		2109011100	39,337	2109211100	45,235
114	4,1/2		2109011400	41,376	2109211400	47,574
121	4,3/4		2109012100	43,073	2109212100	49,537
127	5”		2109012700	46,643	2109212700	53,650
140	5,1/2		2109014000	62,752	2109214000	72,165
152	6”		2109015200	73,029	2109215200	83,983

Applicazioni / Applications





- Seghe a tazza di altissima qualità, con taglienti in acciaio al Cobalto 8% per i lavori più gravosi; taglio professionale e profondo nell’acciaio **inox**, acciai duri, ghisa, alluminio, bronzo, ottone, legno duro e derivati, resine sintetiche, laminati plastici, gomma dura, cartongesso, etc.
- High quality hole saws with HSS-CO 8% cutting edges for the toughest jobs; deep and professional cut in **stainless steel**, hard steel, cast iron, aluminium, bronze, brass, wood and its by-products, synthetic resins, laminated plastic, hard rubber, etc.
- Scies trépans de haute qualité avec tranchants au HSS-CO 8% pour les travails les plus durs; coupe professionnel et profond dans l’acier **inoxydable**, aciers durs, fonte, aluminium, bronze, laiton, bois dur et produits dérivés, résines synthétiques, laminés plastiques, caoutchouc dur, etc.
- Coronas perforadoras de calidad con cortes de HSS-CO 8% para los trabajos más gravosos; corte profesional y profundo en acero **inoxidable**, aceros duros, fundición, aluminio, bronces, latón, madera dura y productos derivados, resinas sintéticas, laminados plásticos, goma dura, etc.
- Qualitativen Lochsägen mit Schneiden aus HSS-CO 8% für die härtesten Berufe. Beruflich Tiefschnitt im **rostfreieren** Stahl, Hartstähle, Gusseisen, Aluminium, Bronze, Messing, Hartholz und Holzprodukte, Kunstharze, Kautschuk, etc.

ALBERI PER SEGHE A TAZZA BIMETAL HSS-CO 8%

Arbors for HSS-CO 8% bimetal hole saws / Arbres de montage pour scies trépans bimetal HSS-CO 8%
Husillos para coronas bimetalicas HSS-CO 8% / Aufnahmeschäfte für HSS-CO 8% Lochsägen

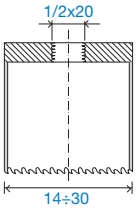
ALBERI PER SEGHE BIMETAL Ø 14÷30 mm - *Fit hole saws Ø 14÷30*

210705514B **210705515B** Q.C. **210705519B** **210705519L** **210705518B** **210705519 SDSB** **210705519 SDSL**



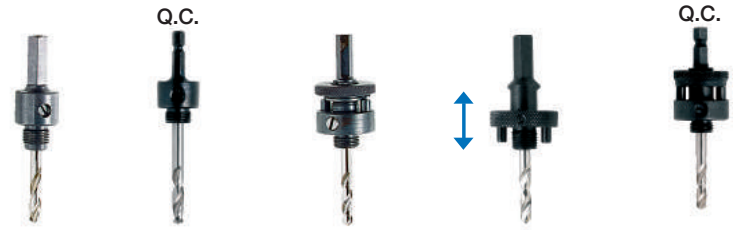
SDS-PLUS

Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 14 ÷ 30	Ø 6,35	210705514B	8,515
Ø 14 ÷ 30	HEX 6,35 Q.C.	210705515B	11,342
Ø 14 ÷ 17	HEX 8,5	210705519L	11,342
Ø 19 ÷ 30	HEX 8,5	210705519B	11,342
Ø 14 ÷ 30	HEX 11	210705518B	11,342
Ø 14 ÷ 17	SDS PLUS	210705519SDSL	14,747
Ø 19 ÷ 30	SDS PLUS	210705519SDSB	14,747



ALBERI PER SEGHE BIMETAL Ø 32÷152 mm - *Fit hole saws Ø 32÷152*

210705520B **210705521B** Q.C. **210705546B** **210705547B** **210705548B** Q.C.

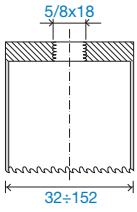


210705546 SDSB **210705549 SDSB** **210705545B** **210705573B**



SDS-PLUS **SDS-PLUS**

Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 32 ÷ 152	HEX 11	210705520B	11,752
Ø 32 ÷ 152	HEX 6,35 Q.C.	210705521B	11,752
Ø 32 ÷ 152	HEX 8,5	210705546B	19,846
Ø 32 ÷ 152	HEX 11	210705547B	19,846
Ø 32 ÷ 152	HEX 8,5 Q.C.	210705548B	19,846
Ø 32 ÷ 152	SDS PLUS	210705546SDSB	25,798
Ø 32 ÷ 152	SDS PLUS	210705549SDSB	25,798
Ø 32 ÷ 152	HEX 11	210705545B	23,072
Ø 32 ÷ 152	HEX 16	210705573B	23,980



21070203 **21070204** **21070202** **21070300** **21070302**



Punta pilota *Pilot drill*	Per alberi *Fit arbors*	cod.	€ cad/each
Ø 6,35 x 115	5514B-5520B 5545B-5573B-5518B	21070203	4,468
Ø 6,35 x 100	5519L-5519SDSL	21070204	4,468
Ø 6,35 x 90	5515B-5519B-5519SDSB 5521B-5546B-5546SDSB 5547B-5548B-5549SDSB	21070202	4,468
Adattatore - montato su alberi 5514B-5519B permette di portare frese da Ø 32 a Ø 152 *Arbor adapter - Allows 5514B-5519B to be used with 1.1/4" through 6" hole saws*		21070300	4,391
Prolunga - L = 300 mm *12" extension - to be used with arbors 5545B-5520B*		21070302	20,556

Confezione / Packaging



ASSORTIMENTI SEGHE A TAZZA BIMETALLICHE HSS-CO 8%

HSS-CO 8% Bi-metal hole saws kits / Assortiments de scies trépans HSS-CO 8% bimetal
Juegos de coronas perforadoras bimetalica HSS-CO 8% / HSS-CO 8% Lochsägen Sortimente

Kit Elettricisti - *Electrician's kit*



Cod.	Composizione *Description*	
21013201K Ø 22÷64 6 pcs € 117,521	Ø 22-29-35 44-51-64	5519B - 5546B 1
21013202K Ø 16÷51 (METRIC) 6 pcs € 101,933	Ø 16-20-25 32-40-51	5519B - 5546B 1



Cod.	Composizione *Description*	
21013209K Ø 22÷68 7 pcs € 167,879	Ø 22-29-35-38 44-51-68	5519B - 5546B 1
21013207K Ø 16÷60 (Pg 9÷48) 13 pcs € 221,850	Ø 16-19-20-21 22-25-29-32 38-48-51-54-60	5519B - 5546B 1

Kit per idraulici- *Plumber's kit*



Cod.	Composizione *Description*	
21013204K Ø 19÷57 6 pcs € 107,920	Ø 19-22-29 38-44-57	5519B - 5546B 1

Kit per installatori - *Journeyman's kit*



Cod.	Composizione *Description*	
21013205K Ø 19÷64 9 pcs € 166,681	Ø 19-22-29-35 38-44-51-57 64	5519B - 5546B 1 1



Cod.	Composizione *Description*	
21013215K Ø 19÷76 11 pcs € 228,390	Ø 19-22-25-29 35-38-44-51 57-64-76	5519B - 5546B 1
21013216K Ø 16÷76 12 pcs € 230,608	Ø 16-19-22-25 29-32-35-38 44-51-64-76	5519B - 5546B 1
21013211K Ø 20÷64 11 pcs € 218,247	Ø 20-22-25-30 32-35-40-44 51-60-64	5519B - 5546B 1
21013212K Ø 19÷83 11 pcs € 245,831	Ø 19-22-25-30 35-40-51-60 64-76-83	5519B - 5546B 1

Kit industriale - *Industrial kit*



Cod.	Composizione *Description*	
21013206K Ø 19÷114 15 pcs € 413,708	Ø 19-22-29-35-38 44-51-57-64-76 83-92-95-105-114	5519B - 5546B 1

Espositori - *Display*



23x18x50 cm

Cod.	Composizione *Description*	pcs
21013504K Ø 16÷102 49 pcs € 887,375	Ø 16-19-20-22-25-30 32-35-38-40-48-51-57 60-70-83-102	2x
	5519B 14÷30 5546B 32÷152	4x 6x
	21070202	5x



Cod.	Composizione *Description*	pcs
21013503K Ø 16÷83 24 pcs € 449,686	Ø 16-19-20-22-25-27 29-30-32-35-38-40-44 51-54-60-64-70-76-83	1x
	5519B 14÷30 5546B 32÷152	2x 2x

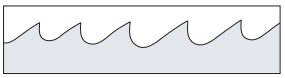
SEGHE A TAZZA BIMETALLICHE HSS A DENTATURA VARIABILE AD ALBERO FISSO

One piece HSS bimetal hole saws with fixed arbor / Scies trépans bimetal HSS avec arbres de montage fixé
Coronas perforadoras bimetalicas HSS con mango incorporado / HSS-bimetall lochsägen mit festeingebaut Aufnahmeschäfte

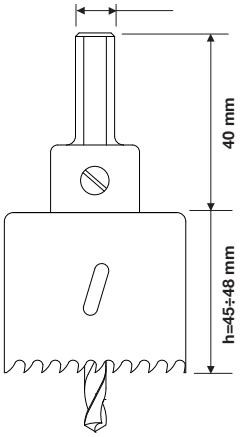
21061



Variabile - *Variable* Z 4-6



BIM. - HSS M3/1



Integrale
one-piece

Ø mm	Ø Pollici *Inch*	cod.	€ cad/each	HSS M3/1
16	5/8	2106101600	11,176	
19	3/4	2106101900	12,024	
21	13/16	2106102100	12,623	
22	7/8	2106102200	12,982	
24	15/16	2106102400	13,342	
25	1”	2106102500	13,820	
27	1,1/16	2106102700	14,189	
29	1,1/8	2106102900	15,277	
30	1,3/16	2106103000	15,636	
32	1,1/4	2106103200	16,115	
33	1,5/16	2106103300	16,355	
35	1,3/8	2106103500	16,713	
38	1,1/2	2106103800	17,431	
40	1,9/16	2106104000	17,681	
41	1,5/8	2106104100	17,922	
44	1,3/4	2106104400	18,519	
48	1,7/8	2106104800	19,477	
51	2”	2106105100	20,206	
54	2,1/8	2106105400	21,055	
57	2,1/4	2106105700	21,413	
60	2,3/8	2106106000	22,491	
64	2,1/2	2106106400	23,459	
67	2,5/8	2106106700	24,776	
70	2,3/4	2106107000	25,744	
76	3”	2106107600	27,430	
79	3,1/8	2106107900	28,148	
83	3,1/4	2106108300	29,237	
89	3,1/2	2106108900	31,522	
92	3,5/8	2106109200	32,121	
95	3,3/4	2106109500	33,089	
102	4”	2106110200	34,774	

Punta pilota *Pilot drill*		cod.	€ cad/each
	Ø 6,35 x 80	**21070201**	4,468

Confezione / Packaging



Applicazioni / Applications



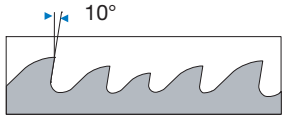
- Seghe bimetalliche HSS a dentatura variabile e spoglia positiva per il taglio altamente professionale di qualsiasi materiale a spessore sottile quale acciaio, ghisa, alluminio, rame, bronzo, ottone, legno, plastica, fibra di vetro, resine sintetiche, formica, cartongesso. Grande rendimento e durata, taglio pulito, max. profondità di foratura 5 mm. nel metallo e 30 mm nel legno
- Variable tooth bimetal hole saws for faster and smoother cuts in: iron, steel, aluminium, brass, copper, cast iron, stainless steel, wood and plywood, plastics, fibreglass etc… Max. cutting depth: 13/64
- Scies cloches bimetal-HSS à denture progressive pour l’emploi professionel. Pour percer les métaux, fer, fonte, acier inox, bois, plastique. Profondeur de coupe: 5 mm
- Coronas perforadoras bimetalicas HSS con diente variable y angulo positivo para taladrar acero, laton, bronce, aluminio, madera, plastico etc. Profondidad de corte: 5 mm.
- HSS Bi-Metall-Lochsägen mit vario-verzahnung für schnellen Bohrfortschritt in Stahl, Guss, Küpfer, Bronze, Aluminium, Kunstoffe, Gipskarton, Holz.

SEGHE A TAZZA BIMETALLICHE HSS-CO 8% A DENTATURA VARIABILE ORIGINALI “BLU-MOL”

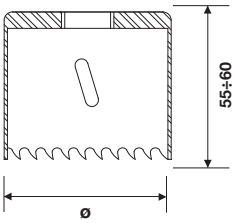
HSS-Co 8% bimetal hole saws / Scies trépans bimetal HSS-Co 8%
Coronas perforadoras bimetalicas HSS-Co 8% / HSS-Co 8% bimetall Lochsägen

21065



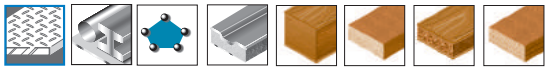


Z 4÷6 - BIM. AISI M42 - Co8%





Applicazioni / Applications



- Seghe bimetalliche HSS-Co 8% a dentatura variabile e spoglia positiva per il taglio altamente professionale di qualsiasi materiale a spessore sottile quale acciaio, ghisa, alluminio, rame, bronzo, ottone, legno, plastica, fibra di vetro, resine sintetiche, formica, cartongesso. Grande rendimento e durata, taglio pulito, max. profondità di foratura 5 mm nei metalli.
- Variable tooth bimetal hole saws for faster and smoother cuts in: iron, steel, aluminium, brass, copper, cast iron, stainless steel, wood and plywood, plastics, fibreglass etc…Max. cutting depth : 13/64
- Scies cloches bimetal-HSS-Co 8% à denture progressive pour l’emploi professionel. Pour percer les metaux, fer, fonte, acier inox, bois, plastique. Profondité de coupe: 5 mm
- Coronas perforadoras bimetalicas HSS-Co 8% con diente variable y angulo positivo para taladrar acero, laton, bronce, aluminio, madera, plastico etc. Profondidad de corte: 5 mm.
- HSS-Co 8% Bi-Metall-Lochsägen mit vario-verzahnung für schnellen Bohrfortschritt in Stahl, Guss, Küpfer, Bronze, Aluminium, Kunstoffe, Gipskarton, Holz.

Ø Nom. mm	Ø Pollici *Inch*	pcs	cod.	€ cad/each
14	9/16	1	2106501400	12,134
16	5/8	1	2106501600	12,134
17	11/16	1	2106501700	12,513
19	3/4	1	2106501900	12,513
20	–	1	2106502000	12,513
21	13/16	1	2106502100	12,513
22	7/8	1	2106502200	12,989
24	15/16	1	2106502400	13,342
25	1”	1	2106502500	13,488
27	1,1/16	1	2106502700	13,892
29	1,1/8	1	2106502900	14,354
30	1,3/16	1	2106503000	14,696
32	1,1/4	1	2106503200	15,099
33	1,5/16	1	2106503300	15,829
35	1,3/8	1	2106503500	16,306
37	1,7/16	1	2106503700	16,306
38	1,1/2	1	2106503800	16,805
40	1,9/16	1	2106504000	17,659
41	1,5/8	1	2106504100	17,659
43	1,11/16	1	2106504300	18,561
44	1,3/4	1	2106504400	18,708
45	–	1	2106504500	18,708
46	1,13/16	1	2106504600	18,818
48	1,7/8	1	2106504800	19,367
50	–	1	2106505000	19,367
51	2”	1	2106505100	19,367
52	2,1/16	1	2106505200	20,440
54	2,1/8	1	2106505400	20,525
55	–	1	2106505500	20,525
57	2,1/4	1	2106505700	21,573
59	2,5/16	1	2106505900	22,440
60	2,3/8	1	2106506000	22,502
64	2,1/2	1	2106506400	22,635
65	2,9/16	1	2106506500	25,659
67	2,5/8	1	2106506700	25,659
68	–	1	2106506800	25,659
70	2,3/4	1	2106507000	26,830
73	2,7/8	1	2106507300	27,379
75	–	1	2106507500	27,379
76	3”	1	2106507600	27,988
79	3,1/8	1	2106507900	28,855
83	3,1/4	1	2106508300	28,855
86	3,3/8	1	2106508600	30,246
89	3,1/2	1	2106508900	30,721
92	3,5/8	1	2106509200	33,831
95	3,3/4	1	2106509500	34,526
98	3,7/8	1	2106509800	36,245
100	–	1	2106510000	37,172
102	4”	1	2106510200	37,172
105	4,1/8	1	2106510500	40,988
108	4,1/4	1	2106510800	46,966
111	4,3/8	1	2106511100	55,295
114	4,1/2	1	2106511400	52,039
121	4,3/4	1	2106512100	54,710
127	5”	1	2106512700	56,148
140	5,1/2	1	2106514000	60,271
146	5,3/4	1	2106514600	64,441
152	6”	1	2106515200	64,892

ALBERI PER SEGHE A TAZZA BIMETAL (INTERCAMBIABILI CON QUALSIASI ALTRA MARCA)

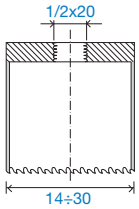
Arbors for bimetal hole saws / Arbres de montage pour scies trépans bimetal
Husillos para coronas bimetalicas / Aufnahmeschäfte

ALBERI PER SEGHE BIMETAL Ø 14÷30 mm - Fit hole saws Ø 14÷30

210705514B **210705515B** **210705519B** **210705518B** **210705519 SDSB**

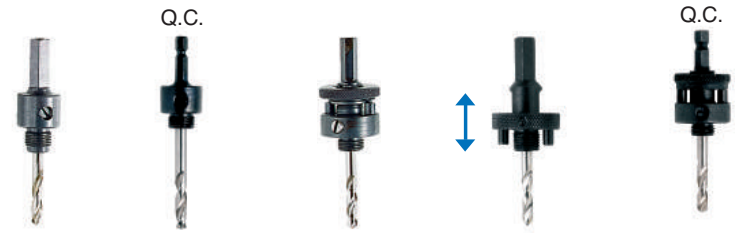


Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 14 ÷ 30	Ø 6,35	210705514B	8,515
Ø 14 ÷ 30	HEX 6,35 Q.C.	210705515B	11,342
Ø 14 ÷ 30	HEX 8,5	210705519B	11,342
Ø 14 ÷ 30	HEX 11	210705518B	11,342
Ø 14 ÷ 30	SDS PLUS	210705519SDSB	14,747

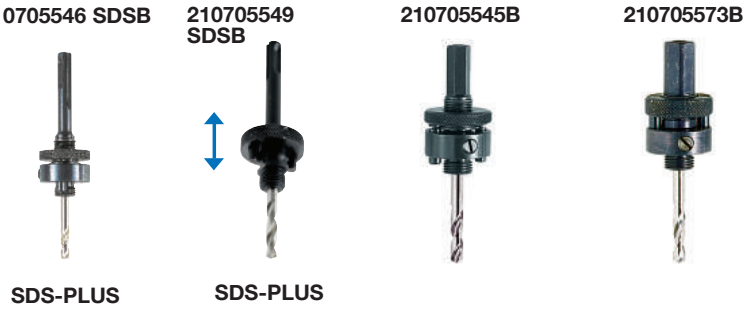


ALBERI PER SEGHE BIMETAL Ø 32÷152 mm - Fit hole saws Ø 32÷152

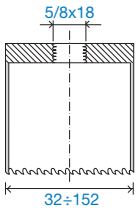
210705520B **210705521B** **210705546B** **210705547B** **210705548B**



210705546 SDSB **210705549 SDSB** **210705545B** **210705573B**



Per seghe *Fit hole saws*	d mm	cod.	€ cad/each
Ø 32 ÷ 152	HEX 11	210705520B	11,752
Ø 32 ÷ 152	HEX 6,35 Q.C.	210705521B	11,752
Ø 32 ÷ 152	HEX 8,5	210705546B	19,846
Ø 32 ÷ 152	HEX 11	210705547B	19,846
Ø 32 ÷ 152	HEX 8,5 Q.C.	210705548B	19,846
Ø 32 ÷ 152	SDS PLUS	210705546SDSB	25,798
Ø 32 ÷ 152	SDS PLUS	210705549SDSB	25,798
Ø 32 ÷ 152	HEX 11	210705545B	23,072
Ø 32 ÷ 152	HEX 16	210705573B	23,980



21070203 **21070202** **21070300** **21070302**



Punta pilota *Pilot drill*	Per alberi *Fit arbors*	cod.	€ cad/each
Ø 6,35 x 115	5514B-5520B 5545B-5573B-5518B	21070203	4,468
Ø 6,35 x 90	5515B-5519B-5519SDSB 5521B-5546B-5546SDSB 5547B-5548B-5549SDSB	21070202	4,468
	Adattatore - montato su alberi 5514B-5519B permette di portare frese da Ø 32 a Ø 152 *Arbor adapter - Allows 5514B-5519B to be used with 1.1/4" through 6" hole saws*	21070300	4,391
	Prolunga - L = 300 mm *12" extension - to be used with arbors 5545B-5520B*	21070302	20,556

Confezione / Packaging



ASSORTIMENTI SEGHE A TAZZA BIMETALLICHE “BLU-MOL” IN VALIGETTE DI PLASTICA

Bi-metal hole saws kits in plastic cases / Assortiments de scies trépans bimetal en coffret plastique
Juegos de coronas perforadoras en estucho plastico / Lochsägen Sortimente

21080200



KIT per lavori domestici
Handyman's Kit

21080200			€
Kit per lavori domestici *Handyman's Kit*	Ø 22-25-29 32-38	5514B 1	106,102

21080201



KIT per elettricisti
Electrician's Kit

21080201			€
Kit per elettricisti *Electrician's Kit*	Ø 22-29-35 44-51-64	5514B-5545B 1	166,202

21080202



KIT metrico per elettricisti
Metric electrician's Kit

21080202			€
KIT metrico per elettricisti *Metric electrician's Kit*	Ø 16-20-25 32-40-51	5514B-5545B 1	152,348

21080203



KIT per fabbri
Locksmith's Kit

21080203			€
KIT per fabbri *Locksmith's Kit*	Ø 22-25-32 38-44-54	5514B-5545B 1	166,202

ASSORTIMENTI SEGHE A TAZZA BIMETALLICHE “BLU-MOL” IN VALIGETTE DI PLASTICA

Bi-metal hole saws kits in plastic cases / Assortiments de scies trépans bimetal en coffret plastique
Juegos de coronas perforadoras en estucho plastico / Lochsägen Sortimente

21080204



KIT per idraulici
Plumber's Kit

21080204			€
KIT per idraulici *Plumber's Kit*	Ø 19-22-29 38-44-57	5514B-5545B 1	166,202

21080205



KIT per installatori
Journeyman's Kit

21080205			€
KIT per installatori *Journeyman's Kit*	Ø 19-22-29 35-38-44 51-57-64	5514B-5545B 1 21070203	221,607

21080206



KIT uso industriale in valigetta di metallo
Industrial kit in metal case

21080206				€
KIT uso industriale in valigetta di metallo *Industrial kit in metal case*	Ø 19-22-29 35-38-44 51-57-64 76-83-92 95-105-114	5514B-5546B 1 21070203	21070302	526,315

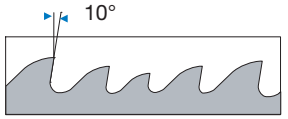
SEGHE A TAZZA BIMETALLICHE HSSCO8% DI NUOVA GENERAZIONE “XTREME”

Ultimate bimetal hole saws / Scies cloches bimétal de nouvelle génération

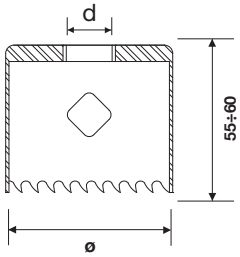
Coronas bimetalicas de nuova generacion

21073





Z 4÷6 - BIM. AISI M42 - Co8%





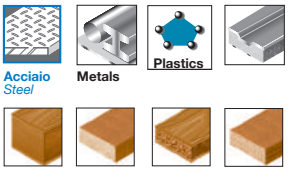
Fondo rinforzato
Solid steel plated

Larghe aperture per un’agevole rimozione del disco
Large openings provide for easy plug ejection

Confezione / Packaging



Applicazioni / Applications





21080215 — €

Kit per installatori *Journeyman’s Kit*

Ø			
19-22-29	5515B	1	215,851
35-38-44	5548B		
51-57-64	1		

21070202



21080216 — €

Kit per lavori domestici *Handyman’s Kit*

Ø			
22-25-29	5515B	1	93,540
32-38			

Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	pcs	cod.	€ cad/each
14	9/16	UNF 1/2 x 20	1	2107301400	11,502
16	5/8		1	2107301600	11,502
17	11/16		1	2107301700	11,850
19	3/4		1	2107301900	11,850
20	–		1	2107302000	11,850
21	13/16		1	2107302100	11,850
22	7/8		1	2107302200	12,305
24	15/16		1	2107302400	12,643
25	1”		1	2107302500	12,783
27	1,1/16		1	2107302700	13,155
29	1,1/8		1	2107302900	13,598
30	1,3/16		1	2107303000	13,923
32	1,1/4	UNF 5/8 x 18	1	2107303200	14,307
33	1,5/16		1	2107303300	14,994
35	1,3/8		1	2107303500	15,436
37	1,7/16		1	2107303700	15,436
38	1,1/2		1	2107303800	15,913
40	1,9/16		1	2107304000	16,718
41	1,5/8		1	2107304100	16,718
43	1,11/16		1	2107304300	17,579
44	1,3/4		1	2107304400	17,730
45	-		1	2107304500	17,730
46	1,13/16		1	2107304600	17,847
48	1,7/8		1	2107304800	18,347
50	-		1	2107305000	18,347
51	2”		1	2107305100	18,347
52	2,1/16		1	2107305200	19,370
54	2,1/8		1	2107305400	19,441
55	–		1	2107305500	19,441
57	2,1/4		1	2107305700	20,453
59	2,5/16		1	2107305900	21,268
60	2,3/8		1	2107306000	21,327
64	2,1/2		1	2107306400	21,444
65	2,9/16		1	2107306500	24,319
67	2,5/8		1	2107306700	24,319
68	-		1	2107306800	24,319
70	2,3/4		1	2107307000	25,424
73	2,7/8		1	2107307300	25,936
75	-		1	2107307500	25,936
76	3”		1	2107307600	26,531
79	3,1/8		1	2107307900	27,322
83	3,1/4		1	2107308300	27,322
86	3,3/8		1	2107308600	28,661
89	3,1/2		1	2107308900	29,103
92	3,5/8		1	2107309200	32,060
95	3,3/4		1	2107309500	32,712
98	3,7/8		1	2107309800	34,342
100	-		1	2107310000	35,215
102	4”		1	2107310200	35,215
105	4,1/8		1	2107310500	38,835
108	4,1/4		1	2107310800	40,931
111	4,3/8		1	2107311100	44,539
114	4,1/2		1	2107311400	44,924
121	4,3/4		1	2107312100	47,229
127	5”		1	2107312700	48,474
140	5,1/2		1	2107314000	52,037
146	–		1	2107314600	55,646
152	6”		1	2107315200	56,018

	Ø	d mm	cod.	€
	**Ø 14÷30**	HEX 6,35Q.C.	210705515B	11,342
	**Ø 32÷152**	HEX 8,5Q.C.	210705548B	19,846
		6,35x90	21070202	4,468

SEGHE A TAZZA BIMETAL AISI M42-CO8% A PASSO FISSO PER LAMIERE SOTTILI

AISI M42-Co8% constant pitch Bimetal hole saws for metal sheets

Scies cloches bimétal AISI M42-Co8% a denture fixe pour tôles fines / Coronas bimetalicas AISI M42-Co8% a paso fixo para chapas finas

21069



Ø mm	Ø Pollici *Inch*	Attacco Shank	pcs	cod.	€ cad/each
16	5/8	1/4”	1	210691600	39,708
19	3/4	1/4”	1	210691900	39,834
20	-	1/4”	1	210692000	39,940
22	7/8	1/4”	1	210692200	40,109
25	1”	1/4”	1	210692500	38,823
27	1,1/16	1/4”	1	210692700	40,341
29	1,1/8	1/4”	1	210692900	40,908
30	1,3/16	1/4”	1	210693000	40,451
32	1,1/4	1/4”	1	210693200	41,764
35	1,3/8	1/4”	1	210693500	44,448
38	1,1/2	1/4”	1	210693800	45,722

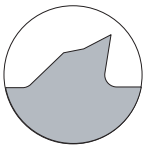
Pezzo unico
One-piece / Une piéce
Una pieza / Ein Stück

Speciali per trapani a batteria e avvitatori a impulsi
Special for cordless power drills and impact power tools

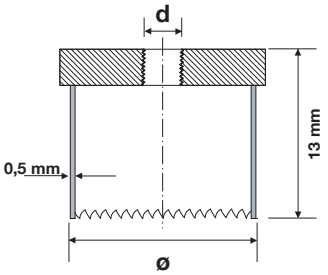
Z = 8



BIM. AISI M42 - Co8%



Speciale disegno del dente: taglio veloce e pulito
Advanced tooth design: smooth and fast cutting



Confezione / Packaging



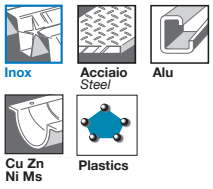


Il potere della lama fine:
Minimizza il consumo delle batterie e produce meno trucioli per un taglio più veloce e sicuro
The power of the thin blade: Lightweight blades maximize the use of chargeable impact drivers and drills by using a reduced motor and operation load. Sheet Metal Hole Saws produce fewer chips for easier and safer drilling

Fermo di sicurezza
Safety collar stop







- Il sottile spessore della lama e la dentatura costante in AISI M42 le rendono particolarmente adatte al taglio di lamiere sottili di acciaio inox, acciai legati e non, alluminio, metalli non ferrosi, plastica.
- The thin blade thickness and the AISI M42 constant pitch make these saws special for cutting into thin stainless steel sheet, alloyed steel and non-alloyed steel, non-ferrous metals and plastic.
- Le bas épaisseur de la lame en AISI M42 et le pas fixe des dents, rendent ces cloches parfait puor le parçage dans la töle de acier inox trés fines, les aciers alliés et non-alliés, les métaux non-ferreux et la plastique.
- El espesor de la lama en AISI M42 y el paso fixo de los dientes, hacen esta corona adapta por el corte de las chapas finas en acero inoxidable, aceros aleados y en non aleados, metales no-ferricos, plastico.

PUNZONI STANDARD CON CUSCINETTO

Standard ball bearing punches / Emporte pieces standard
Punzonador standard / Schraub-locher

26070

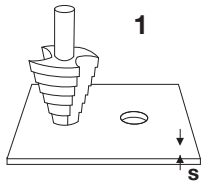


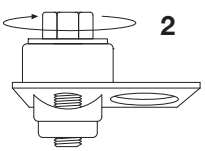
Ø mm	Pg /M	S	cod.	€ cad/each	Ø mm	Pg /M	S	cod.	€ cad/each
10		1,5	2607001000	69,703	38		2	2607003800	91,589
11		1,5	2607001100	69,703	39		2	2607003900	110,935
12		1,5	2607001200	69,703	40		2	2607004000	110,935
12,5	Pg 7/M 12x1,5	1,5	2607001250	69,703	40,5	M 40x1,5	2	2607004050	110,935
13		1,5	2607001300	69,703	41		2	2607004100	110,935
14		1,5	2607001400	78,085	42		2	2607004200	121,114
15		1,5	2607001500	78,085	43		2	2607004300	121,114
15,2	Pg 9	1,5	2607001520	78,085	44		2	2607004400	121,114
16		2	2607001600	57,386	45		2	2607004500	129,506
16,5	M 16x1,5	2	2607001650	57,386	46		2	2607004600	129,506
17		2	2607001700	57,386	47	Pg 36	2	2607004700	129,506
18		2	2607001800	57,386	48		2	2607004800	140,305
18,6	Pg 11	2	2607001860	61,034	50		2	2607005000	140,305
19		2	2607001900	61,034	50,5	M 50x1,5	3	2607005050	153,499
20		2	2607002000	61,034	51		3	2607005100	153,499
20,5	Pg 13,5/M 20x1,5	2	2607002050	61,034	52		3	2607005200	153,499
21		2	2607002100	61,034	52,5		3	2607005250	226,639
22		2	2607002200	64,638	54	Pg 42	3	2607005400	164,286
22,5	Pg 16	2	2607002250	64,638	55		3	2607005500	164,286
23		2	2607002300	64,638	57		3	2607005700	175,073
24		2	2607002400	64,638	58		3	2607005800	175,073
25		2	2607002500	71,799	59		3	2607005900	175,073
25,5	M 25x1,5	2	2607002550	71,799	60	Pg 48	3	2607006000	190,662
26		2	2607002600	71,799	60,5		3	2607006050	281,807
27		2	2607002700	71,799	61		3	2607006100	190,662
28		2	2607002800	75,480	62		3	2607006200	190,662
28,3	Pg 21	2	2607002830	75,480	63		3	2607006300	232,637
29		2	2607002900	75,480	63,5	M 63x1,5	3	2607006350	232,637
30		2	2607003000	75,480	64		3	2607006400	232,637
30,5		2	2607003050	77,343	65		3	2607006500	232,637
32		2	2607003200	77,343	70		3,5	2607007000	292,595
32,5	M 32x1,5	2	2607003250	84,283	73		3,5	2607007300	342,963
33		2	2607003300	84,283	75		3,5	2607007500	342,963
34		2	2607003400	84,283	80		3,5	2607008000	408,919
35		2	2607003500	84,283	85		3,5	2607008500	586,387
36		2	2607003600	91,589	89		3,5	2607008900	595,989
37	Pg 29	2	2607003700	91,589	102		3,5	2607010200	834,613

NEW

Art. 26071

Tiranti con cuscinetti
Draw stud





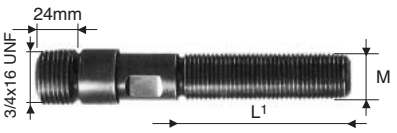


M	a	per punzoni *for punches*	cod.	€ cad/each
6x1	5	Ø 10÷13	2607106X1	30,313
8x1	13	Ø 14÷15.2	2607108X1	37,049
10x1	17	Ø 16÷38	2607110X1	18,025
12x1,5	19	Ø 39÷50	2607112X15	22,969
16x1,5	24	Ø 51÷62	2607116X15	26,677

a = Dimensione della chiave per la testa del tirante

Art. 26084

Tiranti per pompa idraulica 2607514-2607515
Draw stud for hydraulic pump 2607514-2607515



M	L^1	per punzoni *for punches*	cod.	€ cad/each
8x1	38	Ø14÷15,2	2608408x1	51,566
10x1	40	Ø16÷38	2608410x1	51,566
12x1,5	50	Ø39÷50	2608412x15	51,566
16x1,5	60	Ø52÷62	2608416x15	51,566
20x1,5	73	Ø63÷85	2608420x15	64,758
24x1,5	81	Ø89÷115	2608424x15	70,746

Applicazioni *Applications*



Adatti per fori precisi in lamiere di acciaio, acciaio inox, tutti i metalli, plastica
For precise holes in steel and stainless steel metal sheets, metals, plastics
Pour trous précis dans le tole en acier, acie inoxydable, tous le métaux, plastique
Para agujeros precisos en chapa de acero inoxidable, todos los metales, plastico

Assortimenti punzoni - *Set of ball bearing punches*

Utilizzo con chiave
To be used with wrench

Utilizzo con pompa idraulica
To be used with hydraulic pump



26085100 € 345,589

Pg 7 - Pg 29
Ø 12,5-15,2-18,6-20,5
22,5-28,3-37



26085110 € 1025,285

Pg 7 - Pg 48
Ø 12,5-15,2-18,6-20,5
22,5-28,3-37-47-54-60
Ø 7÷21 mm.

26085111 € 873,794

M 12x1,5 - M 63x1,5
Ø 12,5-16,5-20,5-25,5
32,5-40,5-50,5-63,5

26085112 € 1499,000

Pg 9 - Pg 48
Ø 15,2-18,6-20,5-22,5
28,3-37-47-54-60

26085113 € 1255,000

M 16x1,5 - M 63x1,5
Ø 16,5-20,5-25,5-32,5
40,5-50,5-63,5

Assortimenti punzoni con pompa idraulica - *Set of ball bearing punches with hydraulic pump*



26085120 € 1598,000

Pg 9 - Pg 29
Ø 15,2-18,6-20,5
22,5-28,3-37
Pompa/*Pump* Art. 2607514

26085121 € 1598,000

M 16x1,5 - M 40x1,5
Ø 16,5-20,5-25,5
32,5-40,5
Pompa/*Pump* Art. 2607514

Pompa idraulica - *Hydraulic pump*

Pompa idraulica manuale a testa orientabile (600 bar)
Utilizzo con punzoni fino a 63,5 mm.
Contirne 4 tiranti e 4 spessori.
Hydraulic pump with revolving head.
With 4 drawstud and 4 shims.





2607514 € 1359,115

*Pompa idraulica manuale (700 bar)
Utilizzo con punzoni fino a 150 mm. Lunghezza tubo : 0,9 m.
Hand hydraulic pump

*In esaurimento
To be discontinued





2607515 € 2458,280

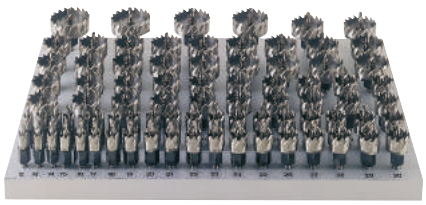
ESPOSITORI UTENSILI DA TAGLIO

Cutting tools display / Display outils coupant
Expositor utensilios de corte / Schneidwerkzeuge Aussteller

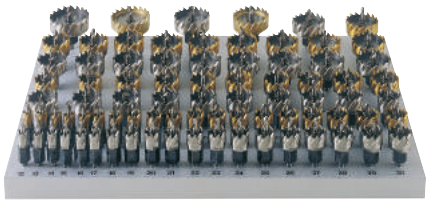


60x44x190 cm

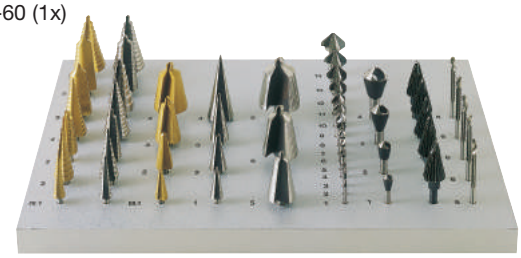
La vetrina è in omaggio per ordini di 6 ripiani di utensili a scelta
The display is free of charge in case of an order with 6 shelves with tools at your choice. / La vitrine est gratuite en cas de commande de 6 plateaux avec outils à votre choix. / La vitrina es gratuita en caso de pedido con 6 rellanos con utensilios a Vuestra preferencia. / Der Schaukasten ist unentgeltlich für Ordnungen von Werkzeugen mit 6 Flächen, nach freier Wahl



Cod.	Composizione *Description*
01195861 82 pcs HSS-G € 2410,318	**21001** Ø12÷50+55-60 (2x)
01195876 82 pcs HSS-Co € 4340,962	**21011** Ø12÷50+55-60 (2x)
01195871 41 pcs HSS-G € 1223,143	**21001** Ø12÷50+5 5-60 (1x)
01195869 41 pcs HSS+TiN € 1882,681	**21300** Ø12÷50+55 -60 (1x)



Cod.	Composizione *Description*
01195862 82 pcs HSS-G HSS+TiN € 2890,430	**21001** Ø12÷50+5 5-60 (1x) **21300** Ø12÷50+55 -60 (1x)



Cod.	Composizione *Description*	
01195860 53 pcs € 3573,503	**01180** Gr. 1-2-3 4-5-7-8 1 pc	**01200** Gr. 1-2-3-4 1 pc
	01183 Gr. 2-3-4-5 6-9-24 1 pc	**01230** Gr. 2-3-4-5 6-9-24 1 pc
	01185 Ø 4.3-5.3-6.3-7.3-8.3 9.4-10.4-12.4-15-16.5 20.5-25-28-31 1 pc	**01188** Gr 1-2-3-4 1 pc
	0117601 5 pcs	**011750600** 5 pcs



Cod.	Composizione *Description*	
01195859 53 pcs € 2679,365	**01180** Gr. 1-2-3-4 2 pc Gr. 5-7-8 1 pc	**0117601** 5 pcs
	01183 Gr. 2-3-4-5 6-9-24 2 pc	**01188** Gr 1-2-3-4 1 pc
	01185 Ø 4.3-5.3-6.3-7.3-8.3 9.4-10.4-12.4-15-16.5 20.5-25-28-31 1 pc	**011750600** 5 pcs



Cod.	Composizione *Description*	
01195865 72 pcs HSS M3/1 € 1007,292	**21060** Ø 16-17-19-20-21-22-24-25 27-29-30-32-33-35-37-38-40 41-44-46-48-51-54 (2x) Ø 57-60-64-70-76-79-83 89-92-102 (1x)	**210705519** 8 pcs **210705546** 8 pcs
01195877 72 pcs € 956,927	**21066** Ø 16-17-19-20-21-22-24-25 27-29-30-32-33-35-37-38-40 41-44-46-48-51-54 (2x) Ø 57-60-64-70-76-79-83 89-92-102 (1x)	**210705519** 8 pcs **210705546** 8 pcs



Cod.	Composizione *Description*	
01195879 72 pcs M42 CO 8% € 1169,183	**21090** Ø 16-17-19-20-21-22-24-25 27-29-30-32-33-35-37-38-40 41-44-46-48-51-54 (2x) Ø 57-60-64-70-76-79-83 89-92-102 (1x)	**210705519B** 8 pcs **210705546B** 8 pcs



Cod.	Composizione *Description*
01195880 28 pcs HSS € 2033,774	**21200** **Weldon** Ø12÷35x1 +38-40-45-50



Cod.	Composizione *Description*
01195864 32 pcs T.C.T. € 1906,662	**21040** Ø15÷40x1+42-45-48 50-55-60



Cod.	Composizione *Description*
01195866 32 pcs € 1840,183	**21015** Ø 16-22-25-27-30-35-38-40 45-50-55-60-65-70-80 (2x) Ø 85-100 (1x)



Cod.	Composizione *Description*
26008501 50 pcs HSS Z2+Z3 € 815,431	**26001-26003** Ø6-8-10-12-15 (5x)



Cod.	Composizione *Description*
26030502 45 pcs HM4 € 1889,876	**26020** Ø 6-8-10-12-16 (9x)
26030504 45 pcs HM4+TiALN € 2518,239	**26034** Ø 6-8-10-12-16 (9x)



Cod.	Composizione *Description*		
21116112 24 pcs € 707,501	Ø 30-35-40 **21110** **HEX 12** 4 pcs	50-65-80-90-100 **21111** **SDS** 4 pcs	8 pcs

Cod.	Composizione *Description*			
21116117 29 pcs € 1383,647	**21122** Ø 40-50-60-66-80-90-100			
	21130316 10 pcs	**21130110** 6 pcs	**21130300** 3 pcs	**21130305** 3 pcs

ESPOSITORI UTENSILI DA TAGLIO

Cutting tools display / Display outils coupant
Expositor utensilios de corte / Schneidwerkzeuge Aussteller



44x31x52 cm

La vetrina è in omaggio per ordini di 2 ripiani di utensili a scelta
The display is free of charge in case of an order with 2 shelves with tools at your choice. / La vitrine est gratuite en cas de commande de 2 plateaux avec outils à votre choix. / La vitrina es gratuita en caso de pedido con 2 rellanos con utensilios a Vuestra preferencia. / Der Schaukasten ist unentgeltlich für Ordnungen von Werkzeugen mit 2 Flächen, nach freier Wahl



Cod.	Composizione *Description*	
01195761 59 pcs HSS-G € 1403,019	**21001**	HSS-G Ø15÷37x2 + 38÷50x1



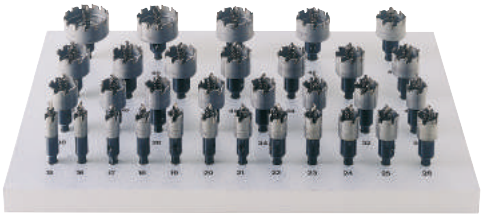
Cod.	Composizione *Description*			
01195760 45 pcs € 2629,039	**01180**	Gr. 1-2-3 4-5-7-8 1 pc	**01200**	Gr. 1-2-3-4 1 pc
	01183	Gr. 2-4-6 9-24 1 pc	**01230**	Gr. 2-4-6 9-24 1 pc
	01185	Ø 5.3-6.3-8.3 10.4-12.4-15 16.5-20.5 25-28 1 pc	**01188**	Gr 1-2-3-4 1 pc
	0117601	5 pcs	**011750600**	5 pcs



Cod.	Composizione *Description*
01195786 38 pcs HSS+TiN € 1751,412	**21300** Ø15÷50+55-60x1



Cod.	Composizione *Description*
01195764 38 pcs HSS-G+TiALN € 1802,337	**21325** Ø15÷50x1 + 55-60



Cod.	Composizione *Description*
01195762 38 pcs T.C.T. € 2099,968	**21040** Ø15÷50x1+55-60



Cod.	Composizione *Description*
01195778 23 pcs HSS € 1400,622	**21200 Weldon** Ø12÷30x1 +32-35-38-40



Cod.	Composizione *Description*		
01195773 47 pcs HSS M3/1 € 539,623	**21060** Ø 16-19-20-21-22-24-25 27-29-30 (2x) Ø 32-35-37-38-40-41-44 48-51-54-57-60-64-70-76 (1x)	**210705519** 6 pcs	**210705546** 6 pcs



Cod.	Composizione *Description*		
01195780 47 pcs M42 CO 8% € 707,501	**21090** Ø 16-19-20-21-22-24-25 27-29-30 (2x) Ø 32-35-37-38-40-41-44 48-51-54-57-60-64-70-76 (1x)	**210705519B** 6 pcs	**210705546B** 6 pcs



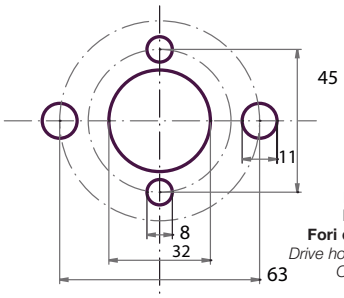
Cod.	Composizione *Description*				
01195774 31 pcs € 717,580	Ø 25-30-35-40 (2x) **21110** 50-65 (2x) 80-90-100 (1x) **21111**	**21115501** 2 pcs	**21115521** 2 pcs	**21115504** 2 pcs	**21115524** 2 pcs	**21115506** 8 pcs

SEGHE CIRCOLARI IN HSS E HSS-CO PER IL TAGLIO DI ACCIAI E MATERIALI METALLICI

HSS and HSS-CO circular saw blades for cutting steel and metals / Scies circulaires HSS et HSS-CO pour couper l'acier et les métaux
Hojas HSS y HSS-CO para sierras circulares y tronzadoras para cortar acero y metales / HSS und HSS-CO Sägeblatter für den Schnitt von Stahl und Metalle

~UNI 4012





N°2 Ø 11x63 mm
N°2 Ø 8x45 mm
Fori di trascinamento
Drive holes - Trouse guide
Orificios de arrastre

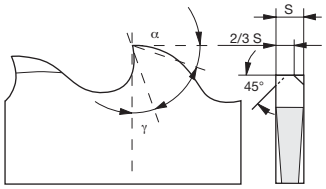
Troncatrici lente - *Slow cutting-off machines*

HSS
R≤900 N/mm²
Acciaio *Steel* | Inox | Metal

HSS-CO
R≤1200 N/mm²
Inox | Acciaio *Steel* | Metal

Profilati *structurals*

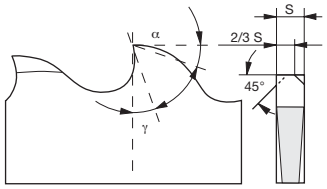
BW DIN 1838 t4



Ø mm	s Spessore *Thickness*	d Foro *Hole*	z n° denti *teeth*	Art. 27001 HSS Vapo cod.	€ cad/each	Art. 27011 HSS-CO Vapo cod.	€ cad/each
200	1,8	32	160	27001200	98,928	27011200	123,033
225	1,9	32	180	27001225	112,123	27011225	139,227
250	2	32	200	27001250	125,914	27011250	156,488
275	2,5	32	220	27001275	188,266	27011275	233,121
300	2,5	32	220	27001300	234,799	27011300	262,257
315	2,5	32	240	27001315	267,771	27011315	284,918
350	2,5	32	280	27001350	325,811	27011350	365,862

Pieni-profilati *full section-structurals*

BW DIN 1838 t5

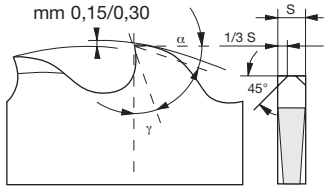


Ø mm	s Spessore *Thickness*	d Foro *Hole*	z n° denti *teeth*	Art. 27002 HSS Vapo cod.	€ cad/each	Art. 27012 HSS-CO Vapo cod.	€ cad/each
200	1,8	32	128	27002200	98,928	27012200	123,033
225	1,9	32	140	27002225	112,123	27012225	139,227
250	2	32	160	27002250	125,914	27012250	156,488
275	2,5	32	180	27002275	188,266	27012275	233,121
300	2,5	32	180	27002300	234,799	27012300	262,257
315	2,5	32	200	27002315	267,771	27012315	284,918
350	2,5	32	220	27002350	325,811	27012350	365,862

Pieni *Full section*

C (HZ) t6

mm 0,15/0,30



Ø mm	s Spessore *Thickness*	d Foro *Hole*	z n° denti *teeth*	Art. 27003 HSS Vapo cod.	€ cad/each	Art. 27013 HSS-CO Vapo cod.	€ cad/each
200	1,8	32	100	27003200	98,928	27013200	123,033
225	1,9	32	120	27003225	112,123	27013225	139,227
250	2	32	128	27003250	125,914	27013250	156,488
275	2,5	32	140	27003275	188,266	27013275	233,121
300	2,5	32	160	27003300	234,799	27013300	262,257
315	2,5	32	160	27003315	267,771	27013315	284,918
350	2,5	32	180	27003350	325,811	27013350	365,862

t = È il passo tra due denti consecutivi espresso in mm.

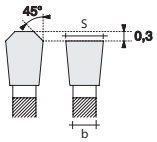
Confezione / Packaging



SEGHE CIRCOLARI CON DENTI IN METALLO DURO PER ALLUMINIO

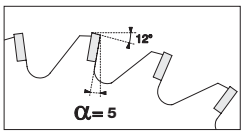
Carbide tipped circular blades for Aluminium / Lames de scies circulaires carbure pour Aluminium
Sierras circulares con dientes de metal duro para Aluminium / Kreissägeblätter für Ne-Metall





Dentatura sbozzatore-finitore
Rough and finishing teeth

N°2 Ø 11x63 mm
Fori di trascinamento
Drive holes - Trouse guide
Orificios de arrastre



Velocità di taglio *Cutting speed* — 456

27050

Ø mm	s Spessore *Thickness*	b	d Foro *hole*	z n° denti *teeth*	α Spoglia *hook angle*	cod.	€ cad/each
250	3,2	2,2	32	60	5	270502503260	112,750
250	3,2	2,2	32	80	5	270502503280	115,304
300	3,2	2,4	32	72	5	270503003272	127,100
300	3,2	2,4	32	84	5	270503003284	137,350
300	3,2	2,4	32	96	5	270503003296	155,412
350	3,4	2,8	32	84	5	270503503284	168,750
350	3,4	2,8	32	96	5	270503503296	184,500
350*	3,4	2,8	32	108	5	2705035032108	184,194
400	3,6	2,8	32	96	5	270504003296	213,750
400*	3,6	2,8	32	120	5	2705040032120	249,750
420	3,8	3,0	32	108	5	2705042032108	288,000
450*	3,8	3,0	32	96	5	270504503296	270,000
450*	3,8	3,0	32	108	5	2705045032108	292,500
500*	4,0	3,2	32	120	5	2705050032120	360,000

*** Incisioni anti rumore -** ***Anti noise notches***

Applicazioni / Applications

Alu — Plastics

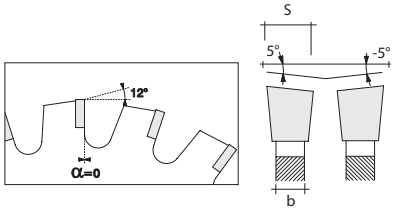
- Seghe adatte per il taglio di profilati e pieni in Alluminio, leghe non ferrose, resine e plastica dura. Il taglio non deve fuoriuscire dal materiale oltre 10-15 mm.
- For cutting structurals and solids of Aluminium and light alloys. The circular blade can't go out the work-piece material further than 10÷15 mm.
- Indiquée pour la coupe de profiles et solides en Aluminium et alliages légeres. La scie circulaire ne peut pas sortir de la pièce à couper plus que 10-15mm.
- Para el corte de perfiles y piezos macizos de Aluminio y aleaciones ligeras. La sierra circular no puede salir de la pieza a cortar más de 10-15mm.
- Zum sägen von profilen und voll Materialien aus Aluminium und Ne-Metall.

SEGA CIRCOLARE UNIVERSALE CON DENTI IN METALLO DURO

Universal carbide tipped circular sawblade / Lame de scie circulaire carbure universelle
Sierra circular universal con dientes de metal duro / Mehrzweck-Sägeblatt

Multiuso / multi-purpose





27055

Ø mm	s Spessore *Thickness*	b	d Foro *hole*	z n° denti *teeth*	α Spoglia *hook angle*	cod.	€ cad/each
160	2,2	1,6	**20**	28	0°	270551602028	83,062
160	2,2	1,6	30	28	0°	270551603028	83,062
180	2,2	1,6	30	32	0°	270551803032	94,287
190	2,2	1,6	30	32	0°	270551903032	94,287
230	2,2	1,6	30	40	0°	270552303040	109,248
240	2,2	1,6	30	42	0°	270552403042	123,200
250	2,4	2,0	**20**	40	0°	270552502040	126,457
250	2,4	1,8	30	48	0°	270552503048	126,457
300	2,4	1,8	30	60	0°	270553003060	145,283
300	2,4	1,8	30	80	0°	270553003080	174,150
305	2,4	1,8	**25,4**	80	0°	270553052580	178,450
350	2,5	2,0	30	70	0°	270553503070	204,600
350	2,5	2,0	30	90	0°	270553503090	244,200

Applicazioni / Applications

Metal — Alu — Plastics

Velocità di taglio *Cutting speed* — 456

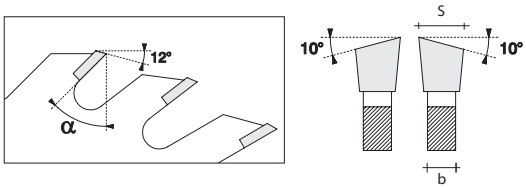
- Lama circolare con denti in metallo duro per il taglio a secco di ferro, acciaio dolce, alluminio, leghe leggere, materiali compositi (pannelli isolanti, laminati), plastica dura, legno e truciolati. Il taglio non deve fuoriuscire dal materiale oltre 10-15 mm.
- Ideal for cutting in iron, soft steel, Aluminium, brass, copper, plastics, plexiglass, chipboards, composites. Applications on portable or bench sawing machines. The circular blade can't go out the work-piece material further than 10÷15 mm.
- Indiquée pour la coupe de fer, acier, Aluminium et alliages légeres, plastique, plexiglass, agglomeré, composites. Utilisation pour machines electroportatives et stationaires. La scie circulaire ne peut pas sortir de la pièce à couper plus que 10-15mm.
- Para el corte de hierro, acero dulce, Aluminio y aleaciones ligeras, aglomerado, plastica,paneles. La sierra circular no puede salir de la pieza a cortar más de 10-15mm.
- Ideal für licht Stahl, Aluminium, Messing, Kupfer, Kunststoffe, Plexiglass, Spanplatten, Mineralstoffplatten.

SEGHE CIRCOLARI PER LEGNO CON DENTI IN METALLO DURO PER SEGATRICI PORTATILI

Carbide tipped circular sawblades for wood for portable machines / Lames de scies avec dente carbure pour bois avec machines electroportatives / Sierras para madera para maquinas portatiles / Kreissägeblätter für Holz mit handkreissägen Maschinen

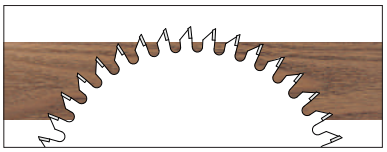
27060





Dentatura alternata
Alternated teeth

Ø mm	s Spessore *Thickness*	b	d Foro *hole*	z n° denti *teeth*	α Spoglia *hook angle*	cod.	€ cad/each
130	2,5	1,6	20	20	15°	270601302020	47,300
140	2,5	1,6	20	20	15°	270601402020	33,739
150	2,5	1,6	16	24	15°	270601501624	33,739
150	2,5	1,6	20	24	15°	270601502024	33,739
150	2,5	1,6	16	40	15°	270601501640	44,517
150	2,5	1,6	20	40	12°	270601502040	44,517
160	2,5	1,6	20	24	15°	270601602024	33,739
160	2,5	1,6	30	24	15°	270601603024	33,739
160	2,5	1,6	20	40	12°	270601602040	44,517
160	2,5	1,6	30	40	12°	270601603040	44,517
170	2,5	1,6	30	24	15°	270601703024	50,400
170	2,5	1,6	30	40	12°	270601703040	63,000
180	2,5	1,6	20	24	15°	270601802024	35,396
180	2,5	1,6	30	24	15°	270601803024	35,396
180	2,5	1,6	20	40	12°	270601802040	46,395
180	2,5	1,6	30	40	12°	270601803040	46,395
190	2,5	1,6	20	24	15°	270601902024	38,907
190	2,5	1,6	30	24	15°	270601903024	38,907
200	2,8	1,8	30	24	15°	270602003024	58,800
200	2,8	1,8	30	48	12°	270602003048	71,400
210	2,8	1,8	30	24	15°	270602103024	46,395
210	2,8	1,8	30	48	12°	270602103048	75,600
230	2,8	1,8	30	24	15°	270602303024	65,100
230	2,8	1,8	30	48	12°	270602303048	79,800
235	2,8	1,8	30	24	15°	270602353024	48,635
235	2,8	1,8	30	48	12°	270602353048	79,800
240	2,8	1,8	30	24	15°	270602403024	65,100
240	2,8	1,8	30	48	12°	270602403048	79,800



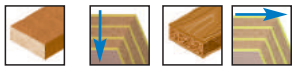
La sega circolare deve fuoriuscire dal materiale lavorato di una quantità pari all'altezza dei denti. Il numero di denti impegnati nel taglio deve essere di 2÷3 alla volta.
The overlap of the circular saw blade teeth over the cutting material must be equal to the height of the carbide tip. The number of teeth cutting simulteneously must be 2÷3.

Per avere indicazioni circa il numero di denti adatto alla lavorazione, conoscendo il diametro della sega circolare ø e lo spessore del materiale da lavorare L, è possibile utilizzare la seguente formula Z = ø x β / L, dove β è:
7=nel taglio di legno naturale in direzione parallela alle nervature
9=nel taglio di legno naturale in direzione trasversale alle nervature
11=nel taglio di legno duro in direzione trasversale alle nervature e pannelli compositi.
To choose the teeth suitable for processing, if you know the diameter ø of the circular saw blade and the thickness L of the material to be processed, it is possible to use the following formula Z = ø x β / L, where β is:
7 = natural wood cutting, parallel to the ribs
9 = natural wood cutting, transverse to the ribs
11 = hard wood and composite panels, transverse to the ribs



Velocità di taglio *Cutting speed* — 456

Applicazioni / Applications



- Raccomandate per il taglio su macchine portatili di legno, truciolari, laminati, etc….
  Il taglio non deve fuoriuscire dal materiale oltre 10-15 mm.
- Universal use in wood and chipboard materials with portable machines.The circular blade can't go out the work-piece material further than 10÷15 mm.
- Coupe en bois et derivés (agglomerés, contreplaqués), stratifié ou lamifiés et plastiques avec machines electroportatives.La scie circulaire ne peut pas sortir de la pièce à couper plus que 10-15mm.
- Para cortar madera y sus derivaciones con machina portatile. La sierra circular no puede salir de la pieza a cortar más de 10-15mm.
- Ideal für Holz mit Handkreissägen Maschinen.

Confezione / Packaging



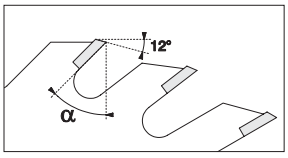
LAME PROFESSIONALI CON DENTI IN METALLO DURO PER LEGNO

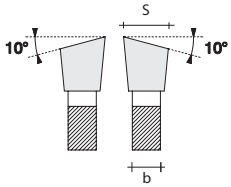
Carbide tipped circular sawblades for wood / Lames de scies circulaires carbure pour bois
Sierras circulares de metal duro para madera / Kreissägeblätter für Holz

27070



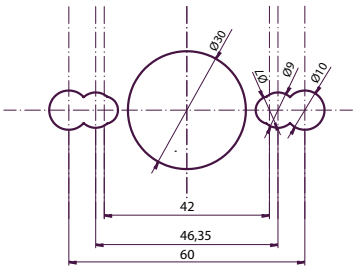
Ø mm	s Spessore *Thickness*	b	d Foro *hole*	z n° denti *teeth*	α Spoglia *hook angle*	cod.	€ cad/each
200	3,2	2,2	30	64	10°	270702003064	102,900
250	3,2	2,2	30	40	10°	270702503040	65,998
250	3,2	2,2	30	60	10°	270702503060	78,282
250	3,2	2,2	30	80	10°	270702503080	92,093
280	3,2	2,2	30	64	10°	270702803064	117,600
280	3,2	2,2	30	80	10°	270702803080	134,400
300	3,2	2,2	30	48	12°	270703003048	88,261
300	3,2	2,2	30	60	12°	270703003060	116,100
300	3,2	2,2	30	72	10°	270703003072	114,068
300	3,2	2,2	30	96	10°	270703003096	135,270
305	3,2	2,2	30	72	10°	270703053072	135,450
305	3,2	2,2	30	96	10°	270703053096	138,600
350	3,5	2,5	30	54	12°	270703503054	108,404
350	3,5	2,5	30	72	12°	270703503072	136,500
350	3,5	2,5	30	84	10°	270703503084	138,142
400	3,8	2,8	30	64	12°	270704003064	174,598
400	3,8	2,8	30	80	12°	270704003080	184,800
400	3,8	2,8	30	96	10°	270704003096	198,000
450	4,0	2,8	30	72	12°	270704503072	198,000





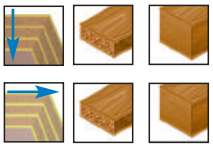
Dentatura alternata
Alternated teeth

N°2 Ø 7x42 mm
N°2 Ø 9x46,35 mm
N°2 Ø 10x60 mm
Fori di trascinamento
Drive holes - Trouse guide
Orificios de arrastre



Velocità di taglio
Cutting speed
456

Applicazioni / Applications

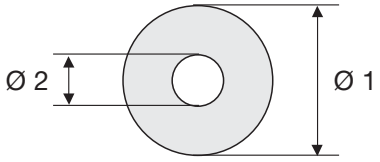


- Indicate per il taglio sia longitudinale che trasversale nel legno e derivati (agglomerati, stratificati) con seghe circolari a banco e troncatrici. Il taglio non deve fuoriuscire dal materiale oltre 10-15 mm.
- Crosswise and lengthwise cutting in woods and chipboards for any professional use. The circular blade can't go out the work-piece material further than 10÷15 mm.
- Coupe en long et traverse des bois et derivés (agglomerés, contreplaqués). La scie circulaire ne peut pas sortir de la pièce à couper plus que 10-15mm.
- Indicados para el corte longitudinal y trasversal de maderas in general. La sierra circular no puede salir de la pieza a cortar más de 10-15mm.
- Blätter für längs- und querschnitte bei allen Holztypen.

ANELLI DI RIDUZIONE PER TUTTI I TIPI DI LAME CIRCOLARI

Reduction ring for every kind of circular blades / Bagues de réduction pour toutes les scies circulaires
Anillos para reduccion / Reduzierringe

27072



Rame
Copper

Ø1/Ø 2	cod.	€ cad/each
35 / 30	270723530	5,375
35 / 25	270723525	5,375
35 / 20	270723520	5,375
32 / 30	270723230	5,375
32 / 25	270723225	5,375
32 / 20	270723220	5,375
30 / 25	270723025	5,375
30 / 20	270723020	5,375
30 / 18	270723018	5,375
30 / 16	270723016	5,375
25 / 20	270722520	5,375
20 / 16	270722016	5,375

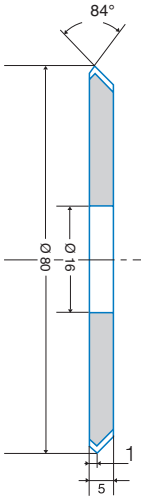
FRESE A DISCO PER CHIAVI

Milling cutters for keys / Fraises pour clefs
Fresas para llaves / Fräser für Schlüssel

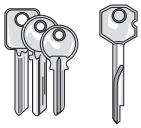
26125

Frese biconiche
Prismatic milling cutters





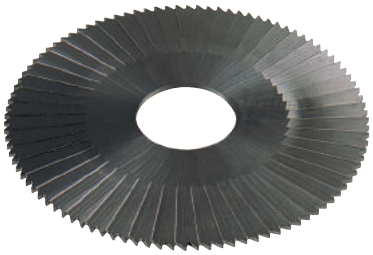
PER MACCHINE DUPLICATRICI DI CHIAVI:
for key cutting machines:

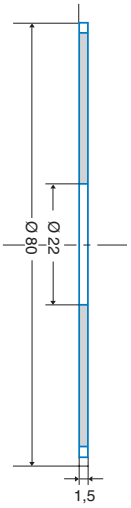


Rekord – Rekord plus, Rekord 2000,
Special Super, Special Master,
Bravo Super, Bravo Master,
Bravo Europa, Poker-s, Poker Plus, etc…

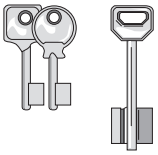
Dimensioni *Sizes*	Z Denti/*Teeth*	Cod.	€ cad/each
Ø 80x5x16 HSS-CO	110	26125001	129,506
Ø 80x5x16 HSS-CO	120	26125002	147,500
Ø 80x5x16 ASP 30 - CO8%	110	26125003	177,479
Ø 80x5x16 Metallo duro/*Carbide*	80	26125005	709,563

Frese a disco a 3 tagli
Three cutting milling cutters





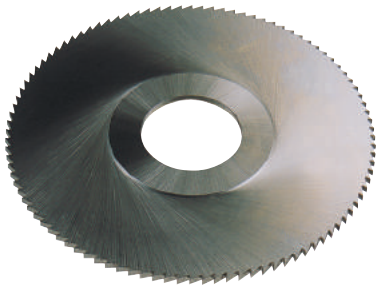
PER MACCHINE DUPLICATRICI DI CHIAVI:
for key cutting machines:

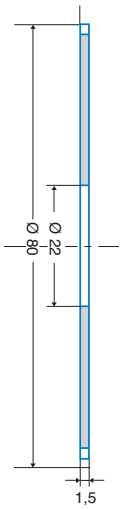


Targa –Targa 2000 –Targa 2000 P
Tech 3, Modular IV, Serenissima,
Opera IV, X80, GT 40B, GT 40C,
GT 40D, Super Dar, Mini Jolly, etc..

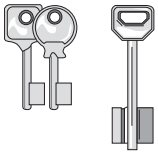
Dimensioni *Sizes*	Z Denti/*Teeth*	Cod.	€ cad/each
Ø 80x1,5x22 HSS-CO	100	26125010	129,506
Ø 80x1,5x22 ASP 30 - CO8%	100	26125012	177,479
Ø 80x1,5x22 Metallo duro/*Carbide*	100	26125015	537,716

Frese a disco a taglio periferico
Peripherical milling cutters





PER MACCHINE DUPLICATRICI DI CHIAVI:
for key cutting machines:



Targa –Targa 2000 –Targa 2000 P
Tech 3, Modular IV, Serenissima,
Opera IV, X80, GT 40B, GT 40C,
GT 40D, Super Dar, Mini Jolly, etc..

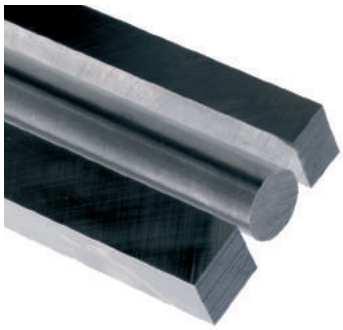
Dimensioni *Sizes*	Z Denti/*Teeth*	Cod.	€ cad/each
Ø 80x1,5x22 HSS-CO	100	26125020	63,561
Ø 80x1,5x22 ASP 30* - CO8%	100	26125022	104,329
Ø 80x1,5x22 Metallo duro/*Carbide*	100	26125025	341,765

** ASP 30 Acciaio superrapido sinterizzato (Metallurgia delle polveri) - Sinterized steel*
C 1,28% - Cr 4,2% - Mo 5% - W 6,4% - Co 8,5% - V 3,1% -

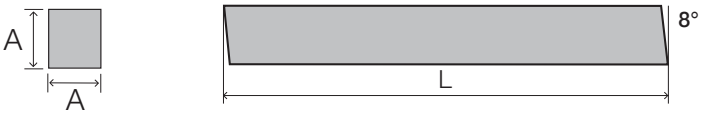
BARRETTE TRATTATE E RETTIFICATE IN HSS-CO 10%

HSS-CO 10% tool bits / Tiges traitées en HSS-CO 10%
Cuchillas HSS de Cobalto 10% para tornio - HSS-CO 10% Stabstahl

HSS-CO 10%

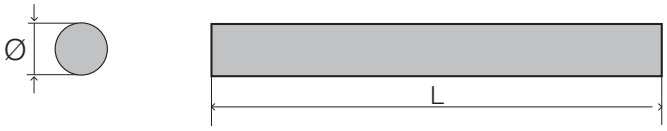


Art. 26150 DIN 4964/B



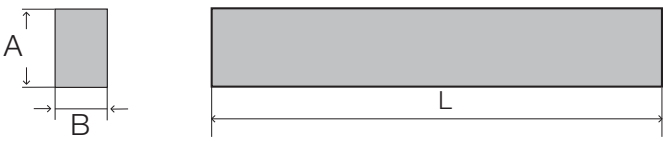
AxA h14	L mm	cod.	€ cad/each	AxA mm	L mm	cod.	€ cad/each
6 x 6	160	261500606160	15,578	14 x14	200	261501414200	71,322
6 x 6	200	261500606200	19,368	16 x16	160	261501616160	80,424
8 x 8	160	261500808160	22,097	16 x16	200	261501616200	104,472
8 x 8	200	261500808200	28,172	18 x18	160	261501818160	98,197
10 x10	160	261501010160	38,350	18 x18	200	261501818200	123,120
10 x10	200	261501010200	49,193	20 x20	160	261502020160	124,872
12 x12	160	261501212160	49,847	20 x20	200	261502020200	158,654
12 x12	200	261501212200	63,950	30 x30	200	261503030200	358,850
14 x14	160	261501414160	59,171				

Art. 26152 DIN 4964/A



Ø h14	L mm	cod.	€ cad/each	Ø mm	L mm	cod.	€ cad/each
4,0	100	2615204100	7,274	12	160	2615212160	43,782
5,0	100	2615205100	7,784	12	200	2615212200	54,392
6,0	100	2615206100	8,426	14	160	2615214160	52,685
6,0	160	2615206160	12,218	14	200	2615214200	75,845
6,0	200	2615206200	14,734	15	200	2615215200	75,845
8,0	100	2615208100	11,908	16	160	2615216160	52,685
8,0	160	2615208160	19,092	16	200	2615216200	75,845
8,0	200	2615208200	21,664	18	200	2615218200	138,587
10,0	100	2615210100	18,193	20	160	2615220160	117,921
10,0	160	2615210160	34,026	20	200	2615220200	148,575
10,0	200	2615210200	42,053				

Art. 26154 DIN 4964/D



AxB h14	L mm	cod.	€ cad/each	AxB mm	L mm	cod.	€ cad/each
10 x 4	160	261541004160	25,522	16 x10	200	261541610200	72,188
10 x 5	200	261541005200	29,481	20 x 4	200	261542004200	53,960
12 x 6	200	261541206200	37,275	20 x 5	200	261542005200	53,960
12 x 8	200	261541208200	46,000	20 x 6	200	261542006200	60,224
15 x 4	200	261541504200	38,150	20 x 8	200	261542008200	70,513
16 x 4	160	261541604160	31,853	20 x10	200	261542010200	80,846
16 x 4	200	261541604200	38,727	20 x12	200	261542012200	89,294

Confezione / Packaging



Professional

LAMA A MANO PER IL TAGLIO DI TUTTI I METALLI

Hack saw blades for metal cutting / Lames de scies à main pour métaux
Hojas de sierra a mano / Sägeblätter

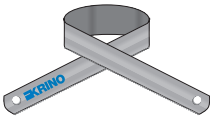
424

~UNI 4000

BIMETAL HSS-CO8% SUPERFLEX

KRINO Cobalt — Per acciaio inox, acciai duri e per tutti i metalli / *Stainless steel*

HRC 66÷67
HRC 40÷42



Super Flex

Inox — Acciaio / *Steel* — Alu — Metals

Caratteristiche:
Lama di grandissima qualità con una durezza sui denti di circa 67 gradi Rockwell C, notevolmente superiore ad una lama tradizionale.
Il corpo, più dolce, garantisce una perfetta flessibilità, pur mantenendo una buona rigidità torsionale, per un lavoro preciso e sicuro.
Queste caratteristiche permettono un taglio ineguagliabile per dolcezza, rendimento, precisione e durata negli acciai inox, acciai duri legati, acciai da costruzione, leghe leggere, tutti i metalli, etc.

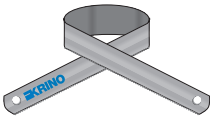
Cod.	Dimensioni *Sizes*	Z n° Denti *t.p.i.*	€ cad/each
23001101	300x13x0,65 12"x1/2x0,025	18	2,383
23001100	300x13x0,65 12"x1/2x0,025	24	2,383
23001102	300x13x0,65 12"x1/2x0,025	32	2,383

Features:
- *High performances, safe and smooth cut in stainless steel, high alloy steel, structural steel, light alloys, metals.*
- *Pour des travaux dans des aciers très durs, aciers inoxydables, aciers réfractaires pour une précision et sécurité garantis.*
- *Para cortar materiales muy duros, acero inox, acero tratado, aleaciones ligeras, metales. Corte seguro y preciso.*
- *Einsatz: Stahl und Stahlguss, V2A - V4A etc.*

HSS-BIMETAL

KRINO BI-HSS Superflex

HRC 64
HRC 38÷40



Super Flex

Cod.	Dimensioni *Sizes*	Z n° Denti *t.p.i.*	€ cad/each
23001110	300x13x0,65 12"x1/2x0,025	18	2,052
23001120	300x13x0,65 12"x1/2x0,025	24	2,052
23001130	300x13x0,65 12"x1/2x0,025	32	2,052

- Lama superflessibile professionale per il taglio degli acciai duri, dolci, tutti i metalli.
- Shatterproof blades for cutting iron, alloy steel, light alloys, any kind of metal.
- Lames de scies professionnel pour acier dur, alliages légers, métaux
- Hoja de sierra professional para cortar acero duro, acero aleado, aleaciones ligeras, metales.
- Einsatz : Stahl und Stahlguss, Ne-Metall

HSS

KRINO Super HSS

HRC 64

Art. **21141** Self
Disponibile su richiesta
On demand

Cod.	Dimensioni *Sizes*	Z n° Denti *t.p.i.*	€ cad/each
23001150	300x13x0,65 12"x1/2x0,025	24	1,985

- Lama professionale HSS a tempra integrale per un taglio preciso ad alto rendimento in tutti gli acciai duri, acciai in genere, leghe leggere, metalli.
- All hard HSS hack saw blades.
- Lame HSS professionnelle pour un découpage précis en tous les aciers durs et les métaux
- Hoja de sierra profesional HSS a temple integral para el corte preciso de alto rendimiento en todos los aceros duros, aceros, aleaciones ligeras, metales.
- Berufliches HSS Lama für einen genaue Schnitt.

High carbon flexible

KRINO High carbon flexible

HRC 60

Cod.	Dimensioni *Sizes*	Z n° Denti *t.p.i.*	€ cad/each
23001160	300x13x0,65 12"x1/2x0,025	24	0,466

- Lama in acciaio da utensile per il taglio occasionale e non professionale di materiali dolci.
- *Carbon flexible hack saw blades for occasional usage.*
- *Lame en acier pour outils destinés aux découpages pas professionnels et occasionnels des métaux doux*
- *Hoja de sierra en acero al carbono flexible para el corte ocasional y no profesional en materiales dulces.*
- *Lama aus Stahl für nicht beruflichen und gelegentlichen Schnitte.*

Packaging  100 pcs

LAMA A MANO RIVESTITA IN GRANI DI CARBURO DI TUNGSTENO PER IL TAGLIO DEI MATERIALI PIÙ DURI ED ABRASIVI.

Carbide grit-edge hack saw blades / Lame de scies au carbure de tungstène
Hojas de sierra de metal duro / Diamant Sägeblätter



Cod.	Dimensioni *Sizes*	€ cad/each
23010060	300x13x0,65 12"x1/2x0,025	6,653



Packaging 10 pcs

Art. **23011** Self
Disponibile su richiesta
On demand

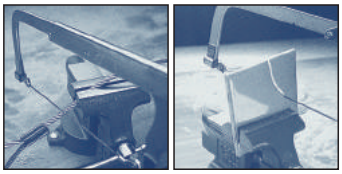
- Le particelle di carburo di tungsteno sono metallurgicamente e permanentemente legate al corpo in acciaio e permettono il taglio di materiali duri che una normale lama non può neanche scalfire. ***Taglio piano e dolce***, in entrambe le direzioni in : bulloni, catene, acciai duri trattatati in barre o tubi, ceramica, marmo, granito, gres, fibra di cemento, fibra di vetro, cristallo.
- *Carbide grit particles permanently bounded to alloy steel, designed to cut materials that a standard won't even scratch. Straight cuts in hardened steel, such as chain and bolts, as well as ceramic tile, stranded cable, hydraulic hose and glass.*
- *Perçage droit des matériaux très durs et abrasifs*
- *Corte plano de materiales muy duros y abrasivos.*
- *Einsatz: Schneiden der ganzen harten und schleifen Materialien.*

LAME IN FILO TONDO IN CARBURO DI TUNGSTENO PER TAGLI IN QUALSIASI DIREZIONE DI TUTTI I MATERIALI DIFFICILI DA LAVORARE

Carbide grit-edge rod saws / Lame-fil de carbure de tungstène
Cordones de metal duro / Diamant Sägeblätter



Cod.	Dimensioni *Sizes*	€ cad/each
23005050	300 12"	5,965



Packaging 10 pcs

Art. **23006** Self
Disponibile su richiesta
On demand

Le particelle di carburo di tungsteno sono permanentemente legate al corpo di acciaio e permettono un ***taglio piano o curvo in tutte le direzioni***, anche nelle posizioni inaccessibili ad altri utensili.
Taglia in modo dolce e progressivo:
- Acciaio inox e acciai duri trattati, tutti gli acciai in genere.
- Bulloni, catene temperate, cavi di trazione
- Ceramica, marmo, granito, gres, fibra di cemento
- Vetro e cristallo

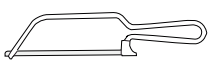
- *Coupe en façon progressive : acier inox, aciers durs, tous les aciers, boulons, câbles, céramique, marbre, granit, grès, ciment, verre, cristal.*
- *Corte en manera dulce y progresiva : acero inox y aceros duros tratados, todos los aceros, pernos, cadenas templadas, cables de tracción, cerámica, mármol, granito, gres, fibra de cemento, vidrio y cristal.*
- *Schneidet in einer Progressivweise: rostfreier Stahl, hart Stahl, Bolzen, Ketten, Keramik, emailliert Steingut, Glass und Kristall.*

Sostituisce il tagliabulloni, le mole abrasive ed il taglio all'acetilene per molte operazioni!!
Carbide grit particles permanently bounded to alloy steel rod can be substituted for bolt cutters, acetylene torches and abrasive wheel, cuts "unsawble materials" like glass, ceramic tile and hardened tool steel. Cuts in any direction and works in tight spaces.

Lama a mano per seghetti tipo "PUK®"
Hack saw blades type "PUK®"
Lame de scie à main type "PUK®"
Hoja de sierra de cinta tipo "PUK®"
Händliches Sägeblatter für Metallsäge "PUK®"

HCS





Cod.	Dimensioni *Sizes*	Z *tpi*	€ cad/each
23012100	150 mm 6"	24	0,373

Packaging 100 pcs

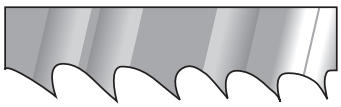
Art. **23012** Self
Disponibile su richiesta
On demand

LAME A NASTRO BIMETALLICHE MULTIUSO - HSS AISI M42

Bimetal band saw blades - HSS AISI M42 / Lames de scie à ruban bimetalliques - HSS AISI M42
Hojas de sierra de cinta bimetálicas - HSS AISI M42 / Bandsägeblätter HSS AISI M42

LAMA MULTIUSO - *Multipurpose blade*

25010



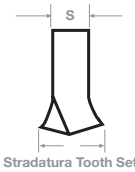
Dentatura / *Teeth*
AISI M42 - 8%Co
HRC: 67/69
Strip di supporto / *Body*
HRC: 44/46



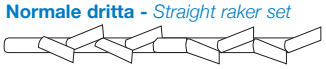
Moduli dentature a passo variabile
Variable pitch modules
Modules de dentures à pas variable
Módulos de dentaduras a paso variable

Variabile - *Variable*





Normale dritta - *Straight raker set*



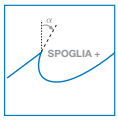
la più utilizzata
most used

Moduli dentature a passo costante
Constant pitch modules
Modules de dentures à pas constante
Módulos de dentaduras a paso constante

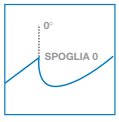
Fissa - *Regular*



Disponibile art. 25013 lame a nastro **Carbon** con dentatura HRC 65÷66 adatte a segatrici prevalentemente verticali a ciclo di taglio manuale o automatico, in tutte le **lavorazioni generiche di base**.
*Available art. 25013 **Carbon** band saw blades with HRC 65 ÷ 66 teeth suitable for mainly vertical sawing machines with manual or automatic cutting cycles, in all general **basic machining operations**. Disponible art. 25013 lames de scie à bande de **carbone** avec HRC 65 66 dents pour les scies principalement verticales avec cycles de coupe manuels ou automatiques, dans toutes les **opérations d'usinage de base**. Disponible art. 25013 hojas de sierra de cinta de **carbono** con HRC 65 ÷ 66 dientes adecuados para máquinas de corte principalmente verticales con ciclos de corte manual o automático, en todas las operaciones de mecanizado **básicas generales**.*



SPOGLIA POSITIVA 8° - *Positive rake 8°*
- Dentatura variabile - *variable tooth*
(z - tpi 1,4/2÷5/8)
- Dentatura costante - *regular tooth*
(z - tpi 2÷6)



SPOGLIA NEUTRA - *Standard straight rake*
- Dentatura variabile - *variable tooth*
(z - tpi 6/10÷14/18)
- Dentatura costante - *regular tooth*
(z - tpi 8÷18)

- Utilizzare su segatrici a ciclo di taglio (manuale o automatico), in tutti i generi di lavorazioni artigianali ed industriali, per il taglio di sezioni piene ed interrotte, singole o disposte a fascio, di acciai fino a 1200 N/mm^2, acciai strutturali, acciai automatici, acciai al carbonio, ghise lamellari e sferoidali, metalli non ferrosi (alluminio, rame,…) materie plastiche, materiali non metallici in genere.
- Use on cutting-cycle saws (manual or automatic), in all kinds of artisanal and industrial processes, for cutting solid and interrupted sections, single or arranged in bundles, of steels up to 1200 N/mm^2, structural steels , automatic steels, carbon steels, lamellar and spheroidal cast irons, non-ferrous metals (aluminum, copper, ...) plastics, non-metallic materials in general.
- Utilisation sur scies à découper (manuelles ou automatiques), dans tous types de procédés artisanaux et industriels, pour la découpe de profilés pleins et discontinus, simples ou disposés en faisceaux, en aciers jusqu'à 1200 N/mm^2, aciers de construction , aciers automatiques, aciers au carbone, fontes lamellaires et sphéroïdales, métaux non ferreux (aluminium, cuivre, ...), matières plastiques non métalliques en général.
- Uso en sierras de corte (manuales o automáticas), en todo tipo de procesos artesanales e industriales, para cortar secciones sólidas e interrumpidas, simples o dispuestas en haces, de aceros de hasta 1200 N/mm^2, aceros estructurales , aceros automáticos, aceros al carbono, fundición esferoidal y esferoidal, metales no ferrosos (aluminio, cobre, ...) plásticos, materiales no metálicos en general.





Dimensioni (Altezza x Spessore) ***Dimensions*** *(Width x Thickness)*	**Passo dentatura** (Moduli a passo costante e variabile in Tpi) ***Toothing pitch*** *(Constant and variable pitches modules in Tpi)*																	**Prezzo** (Al metro saldatura compresa) ***Price*** *(For meter weld included)*
mm	2	3	4	6	8	10	14	18	1,4/2	2/3	3/4	4/6	5/8	6/10	8/12	10/14	14/18	€
13 x 0,65		X	X	X		X	X	X					X	X	X	X	X	16,964
13 x 0,90		X	X	X		X	X						X	X	X	X		16,964
20 x 0,90		X	X	X		X	X					X	X	X	X	X		19,070
27 x 0,90	X	X	X	X	X		X			X	X	X	X	X	X	X		20,511
34 x 1,10										X	X	X	X	X	X			25,500
41 x 1,30									X	X	X	X	X					37,030
54 x 1,60									X	X	X	X						69,966

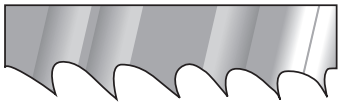
Dentatura a passo costante su richiesta / *Constant pitch modules on demand*

LAME A NASTRO BIMETALLICHE PER CARPENTERIA - HSS AISI M42

Bimetal band saw blades - HSS AISI M42 / Lames de scie à ruban bimetalliques - HSS AISI M42
Hojas de sierra de cinta bimetálicas - HSS AISI M42 / Bandsägeblätter HSS AISI M42

Dente rinforzato / *Reinforced tooth*
SPECIALE CARPENTERIA - Carpentry special blade

25016

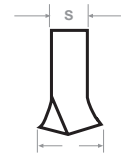


Dentatura / *Teeth*
AISI M42 - 8%Co
HRC: 67/69
Strip di supporto / *Body*
HRC: 44/46

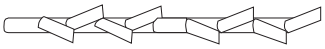
Moduli dentature a passo variabile
Variable pitch modules
Modules de dentures à pas variable
Módulos de dentaduras a paso variable

Variabile - *Variable*

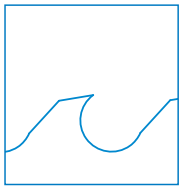




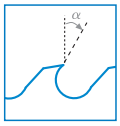
Stradatura maggiorata - *Extra set*



Profilo a dente rinforzato / *Reinforced tooth*



Dente a profilo rinforzato, per una netta riduzione dei fenomeni di rottura dei denti ed una eccezionale resistenza agli impatti e alle vibrazioni.
Tooth with reinforced profile, for a clear reduction of the breaking phenomena of the teeth and an exceptional resistance to impacts and vibrations.
Dent à profil renforcé, pour une réduction nette des phénomènes de rupture des dents et une résistance exceptionnelle aux chocs et aux vibrations.
Diente con perfil reforzado, para una clara reducción de los fenómenos de rotura de los dientes y una excepcional resistencia a los impactos y vibraciones.



SPOGLIA LEGGERMENTE POSITIVA 3° - *Low positive rake 3°*
- Dentatura variabile - *variable tooth*
(z - tpi 2/3÷8/11)

- Utilizzare su segatrici a ciclo di taglio (manuale o automatico), nelle lavorazioni di carpenteria dove necessiti una lama estremamente resistente e versatile, atta a tagliare le più diverse forme e spessori di materiali. Dedicata prevalentemente al taglio di sezioni interrotte (tubi, profilati, ecc.) ma anche di sezioni piene, singole o disposte a fascio di acciai fino a 1200 N/mm^2, acciai strutturali, acciai automatici, acciai al carbonio.
- Use on cutting machines (manual or automatic), in carpentry work where you need an extremely resistant and versatile blade, able to cut the most different shapes and thicknesses of materials. Dedicated mainly to cutting interrupted sections (pipes, profiles, etc.) but also of solid, single or beam sections of steels up to 1200 N/mm^2, structural steels, automatic steels, carbon steels.
- Utiliser sur des machines à découper (manuelles ou automatiques), dans des travaux de menuiserie où vous avez besoin d'une lame extrêmement résistante et polyvalente, capable de couper les formes et les épaisseurs les plus différentes des matériaux. Dédiés principalement à la découpe de sections interrompues (tubes, profilés, etc.) mais aussi de sections pleines, simples ou en poutres d'aciers jusqu'à 1200 N/mm^2, d'aciers de construction, d'aciers automatiques, d'aciers au carbone.
- Se usa en máquinas de corte (manuales o automáticas), en trabajos de carpintería donde se necesita una cuchilla extremadamente resistente y versátil, capaz de cortar las formas y grosores de materiales más diferentes. Dedicado principalmente al corte de secciones interrumpidas (tuberías, perfiles, etc.) pero también de secciones sólidas, simples o de viga de aceros de hasta 1200 N/mm^2, aceros estructurales, aceros automáticos, aceros al carbono.





Dimensioni (Altezza x Spessore) ***Dimensions*** *(Width x Thickness)*	**Passo dentatura** (Moduli a passo costante e variabile in Tpi) ***Toothing pitch*** *(Constant and variable pitches modules in Tpi)*					**Prezzo** (Al metro saldatura compresa) ***Price*** *(For meter weld included)*
mm	2/3	3/4	4/6	5/7	8/11	€
13 x 0,65					X	17,273
13 x 0,90					X	17,273
20 x 0,90				X	X	19,070
27 x 0,90	X	X	X	X	X	21,620
34 x 1,10	X	X	X	X		29,050
41 x 1,30	X	X	X			46,565
54 x 1,60	X	X				71,581

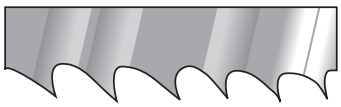
LAME A NASTRO BIMETALLICHE AD ALTE PRESTAZIONI - HSS AISI M42

Bimetal band saw blades - HSS AISI M42 / Lames de scie à ruban bimetalliques - HSS AISI M42
Hojas de sierra de cinta bimetálicas - HSS AISI M42 / Bandsägeblätter HSS AISI M42

ALTE PRESTAZIONI - High performance special blade

25011

NEW



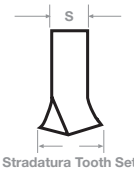
Dentatura / *Teeth*
AISI M42 - 8%Co
HRC: 68/69
Strip di supporto / *Body*
HRC: 48/50
(Alto contenuto di cromo / *High chrome)*



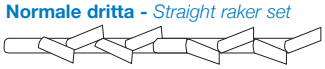
Moduli dentature a passo variabile
Variable pitch modules
Modules de dentures à pas variable
Módulos de dentaduras a paso variable

Variabile - *Variable*





Normale dritta - *Straight raker set*



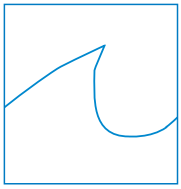
la più utilizzata
most used

Moduli dentature a passo costante
Constant pitch modules
Modules de dentures à pas constante
Módulos de dentaduras a paso constante

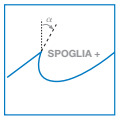
Fissa - *Regular*



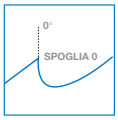
Profilo a dente curvilineo / *Curvilinear tooth*



Dente curvilineo che garantisce una esecuzione di taglio efficace e lineare, a beneficio di un migliore avanzamento.
Curvilinear tooth that guarantees an effective and linear cutting execution to fit a better feed.
Dent curviligne qui garantit une coupe efficace et linéaire pour une meilleure alimentation.
Diente curvilíneo que garantiza una ejecución de corte eficaz y lineal para adaptarse a una mejor alimentación.



SPOGLIA ESTREMAMENTE POSITIVA 12° - *EXTREMELY Positive rake 12°*
- Dentatura variabile - *variable tooth*
(z - tpi 0,75/1,25÷5/8)
- Dentatura costante - *regular tooth*
(z - tpi 2÷6)



SPOGLIA NEUTRA - *Standard straight rake*
- Dentatura variabile - *variable tooth*
(z - tpi 6/10÷10/14)
- Dentatura costante - *regular tooth*
(z - tpi 10÷18)

Utilizzare su segatrici a ciclo di taglio (manuale o automatico), in tutti i generi di lavorazioni artigianali ed industriali dove necessiti una elevata resa prestazionale e vita operativa dell'utensile, per il taglio di sezioni piene ed interrotte, singole o disposte a fascio, in acciai fino a 1300 N/mm², acciai strutturali, acciai automatici, acciai al carbonio, acciai da bonifica, acciai per cuscinetti, acciai per stampi, acciai inossidabili, ghise lamellari e sferoidali, metalli non ferrosi come alluminio e rame, materie plastiche, materiali non metallici in genere.
Use on cutting-cycle saws (manual or automatic), in all kinds of artisan and industrial processes where a high performance yield and working life of the tool is required, for cutting full and interrupted sections, single or bundled, in steels up to 1300 N/mm2, structural steels, automatic steels, carbon steels, tempered steels, bearing steels, steels for molds, stainless steels, lamellar and spheroidal cast irons, non-ferrous metals such as aluminum and copper, plastics, non-metallic materials in general.
Utilisation des commandes de sauvegarde des commandes manuelles ou automatiques, en règle générale, pour les fabricants et les fabricants, pour les besoins de l'industrie, pour la qualité de la vie, des conditions de vie, des déchets pour les personnes handicapées, pour les personnes ayant une déficience intellectuelle in acciai fino a 1300 N/mm2, acciai strutturali, acciai automaticii, accioi al carbonio, acciai da bonifica, acciai pour cuscinetti, acciai pour stampi, acciai in carbonidabili, ghise lamellari e sferoidali, métalli non ferrosi come allame e rame, matricia materiali non metallici in genere.
Se utiliza en sierras de ciclo de corte (manuales o automáticas), en todo tipo de procesos artesanales e industriales donde se requiere un alto rendimiento de rendimiento y vida útil de la herramienta, para cortar secciones completas e interrumpidas, simples o agrupadas, en aceros hasta 1300 N/mm2, aceros estructurales, aceros automáticos, aceros al carbono, aceros templados, aceros para cojinetes, aceros para moldes, aceros inoxidables, hierros laminados y esferoidales, metales no ferrosos como aluminio y cobre, plásticos, Materiales no metálicos en general.





Dimensioni (Altezza x Spessore) ***Dimensions*** *(Width x Thickness)*	**Passo dentatura** (Moduli a passo costante e variabile in Tpi) ***Toothing pitch*** *(Constant and variable pitches modules in Tpi)*																**Prezzo** (Al metro saldatura compresa) ***Price*** *(For meter weld included)*
mm	2	3	4	6	10	14	18	0,75/1,25	1/1,4	1,4/2	2/3	3/4	4/6	5/8	6/10	8/12	10/14	€
6 x 0,65				X													X	22,969
6 x 0,90			X	X	X	X											X	22,969
10 x 0,65			X	X													X	24,390
10 x 0,90			X	X	X	X											X	24,390
13 x 0,65		X	X	X	X	X	X							X	X	X	X	25,254
13 x 0,90		X	X	X	X	X								X	X	X	X	25,254
20 x 0,90		X	X	X	X	X							X	X	X	X	X	26,355
27 x 0,90						X					X	X	X	X	X	X	X	32,217
34 x 1,10										X	X	X	X	X	X	X		37,298
41 x 1,30										X	X	X	X	X	X			53,282
54 x 1,30										X	X	X	X					63,508
54 x 1,60								X	X	X	X	X	X					73,549

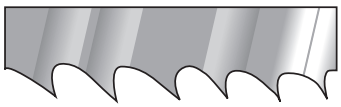
LAME A NASTRO BIMETALLICHE AD ALTE PRESTAZIONI - METALLURGIA DELLE POLVERI

Bimetal band saw blades - HSS POWDER METAL / Lames de scie à ruban bimetalliques - HSS POWDER METAL
Hojas de sierra de cinta bimetálicas - Bandsägeblätter HSS POWDER METAL

ALTE PRESTAZIONI - High performance special blade

25018

NEW



Dentatura / *Teeth*
ASP Metallurgia delle polveri
HRC: 70/71
Strip di supporto / *Body*
HRC: 48/50
(Alto contenuto di cromo / *High chrome*)



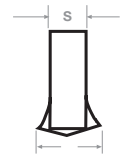
Immagine al microscopio
Microscope picture



Moduli dentature a passo variabile
Variable pitch modules
Modules de dentures à pas variable
Módulos de dentaduras a paso variable

Variabile - *Variable*





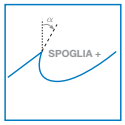
Triplo truciolo
Triple chip



Profilo a dente di produzione / *Production tooth*



Speciale geometria del dente realizzato con acciaio superrapido e metallurgia delle polveri. Ha profilo PRODUCTION TOOTH e un'ampia gola di scarico XL.
Special tooth geometry made of high speed steel and powder metallurgy. It has PRODUCTION TOOTH profile and a wide XL discharge groove.
Géométrie spéciale des dents en acier ultrarapide et en métallurgie des poudres. Il a un profil PRODUCTION TOOTH et une large rainure de refoulement XL.
Geometría especial del diente hecha de acero súper rápido y metalurgia de polvos. Tiene un perfil de PRODUCCIÓN DENTAL y una ranura de descarga XL ancha.



SPOGLIA ESTREMAMENTE POSITIVA 12° - *Estremely positive rake 12°*
- Dentatura variabile - *variable tooth*
(z - tpi 0,75/1,25÷5/8)

Utilizzare su segatrici prevalentemente a ciclo di taglio automatico, in tutte le lavorazioni particolarmente gravose dove necessiti una lama che garantisca una elevata, costante e duratura resa prestazionale. Dedicata al taglio di sezioni piene ma anche interrotte (di medio o forte spessore), singole o eventualmente disposte affiancate in acciai con R < 1400 N/mm2, acciai da bonifica, acciai per cuscinetti, acciai per stampi, acciai per lavorazioni a freddo e a caldo, acciai inossidabili, acciai inox resistenti al calore (Duplex®, Super Duplex®), titanio, leghe speciali.
Use on sawing machines mainly with automatic cutting cycle, in all particularly demanding processes where you need a blade that guarantees a high, constant and long-lasting performance. Dedicated to the cutting of solid or interrupted sections (of medium or strong thickness), single or possibly placed side by side in steels with R < 1400 N/mm2, tempered steels, bearing steels, steels for molds, steels for cold working and hot, stainless steels, heat resistant stainless steels (Duplex®, Super Duplex®), titanium, special alloys.
Utilisez sur les scies principalement avec le cycle de coupe automatique, dans tous les processus particulièrement exigeants où vous avez besoin d'une lame garantissant des performances élevées, constantes et durables. Dédié à la coupe de sections pleines ou interrompues (d'épaisseur moyenne ou forte), simples ou éventuellement juxtaposées dans des aciers de R < 1400 N/mm2, aciers trempés, aciers pour roulements, aciers de moules, aciers de travail à froid et aciers chauds et inoxydables, aciers inoxydables résistants à la chaleur (Duplex®, Super Duplex®), titane, alliages spéciaux.
Se utiliza en máquinas de corte principalmente con ciclos de corte automático, en todos los procesos especialmente exigentes en los que necesita una cuchilla que garantice un rendimiento alto, constante y duradero. Dedicados al corte de secciones sólidas o interrumpidas (de espesor medio o fuerte), individuales o posiblemente colocadas lado a lado en aceros con R < 1400 N/mm2, aceros templados, aceros para rodamientos, aceros para moldes, aceros para el trabajo en frío y Hot, aceros inoxidables, aceros inoxidables resistentes al calor (Duplex®, Super Duplex®), titanio, aleaciones especiales.

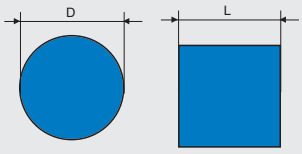




Dimensioni (Altezza x Spessore) ***Dimensions*** *(Width x Thickness)*	**Passo dentatura** (Moduli a passo costante e variabile in Tpi) ***Toothing pitch*** *(Constant and variable pitches modules in Tpi)*							**Prezzo** (Al metro saldatura compresa) ***Price*** *(For meter weld included)*
mm	0,75/1,25	1/1,4	1,4/2	2/3	3/4	4/6	5/8	€
27 x 0,90				X	X	X	X	32,865
34 x 1,10			X	X	X	X	X	40,911
41 x 1,30			X	X	X	X		56,952
54 x 1,60		X	X	X	X	X		77,414

Tabella per la scelta della dentatura (per ogni tipo di lama)

Tooth selection / comment pour choisir la denture / tabla para la elecciòn del paso del diente



Dentatura variabile - Variable tooth

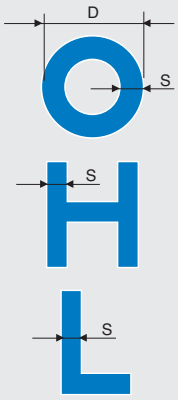
Sezioni piene - Solid cross section

D-L (mm.)	20	30	50	80	100	200	300	500	800
Z-tpi	10/14	8/12	6/10	5/8	4/6	4/6	3/4	2/3	1,4/2	0,75/1,25

Dentatura costante - Regular tooth

Sezioni piene - Solid cross section

D-L (mm.)	8	10	20	30	50	80	100	120	200	300	400	500	800
Z-tpi	24	18	14	10	8	6	4	3	2	1,25	0,75



	D (mm.)										
	20	40	60	80	100	120	150	200	300	400	500
S (mm.)	Z-tpi										
≤ 2	14	14	10/14	10/14	10/14	10/14	10/14	8/12	8/12	8/12	6/10
3	10/14	10/14	10/14	10/14	8/12	8/12	8/12	6/10	6/10	6/10	5/8
4	8/12	8/12	8/12	8/12	8/12	6/10	6/10	6/10	5/8	5/8	4/6
5	8/12	8/12	8/12	6/10	6/10	6/10	6/10	5/8	5/8	5/8	4/6
6	6/10	6/10	6/10	6/10	6/10	6/10	5/8	5/8	5/8	4/6	4/6
8	6/10	6/10	6/10	6/10	5/8	5/8	5/8	4/6	4/6	4/6	4/6
10		5/8	5/8	5/8	5/8	5/8	4/6	4/6	4/6	4/6	3/4
12		5/8	5/8	5/8	4/6	4/6	4/6	4/6	4/6	3/4	3/4
15		4/6	4/6	4/6	4/6	4/6	3/4	3/4	3/4	3/4	3/4
20			4/6	4/6	3/4	3/4	3/4	3/4	3/4	3/4	2/3
30				3/4	3/4	3/4	2/3	2/3	2/3	2/3	2/3
50						2/3	2/3	2/3	2/3	2/3	2/3

Parametri di taglio

Cutting parameters

Materiale da tagliare *Material to cut*	**Velocità di rotazione lama** *Band saw blade rotation speed* *m/min.*
Ferro comune, Acciai strutturali / *Iron, Structural steels*	70 ÷ 90
Acciai automatici, Acciai al carbonio / *Free-machining steels, Carbon steels*	70 ÷ 80
Acciai da bonifica / *Heat-treatable steels*	60 ÷ 70
Acciai per cuscinetti / *Ball bearing steels*	55 ÷ 65
Acciai per molle / *Spring steel*	45 ÷ 60
Acciai per stampi / *Mould steels*	25 ÷ 40
Acciai per lavorazioni a freddo / *Cold-working steels*	25 ÷ 40
Acciai per lavorazioni a caldo / *Hot-working steels*	25 ÷ 40
Acciai inossidabili e resistenti agli acidi / *Stainless and acid-resistant steels*	30 ÷ 40
Acciai inossidabili resistenti al calore / *Heat-resistant stainless steels (DUPLEX, SUPER DUPLEX…)*	25 ÷ 35
Leghe speciali a base di Nichel / *Nickel-base alloys (HASTELLOY, INCONEL…)*	15 ÷ 25
Titanio e leghe derivate / *Titanium and derivated alloys*	25 ÷ 45
Ghise lamellari e sferoidali / *Cast irons lamellar and spheroidal*	35 ÷ 55
Metalli non ferrosi quali Alluminio, Rame… / *Non ferrous metals as Aluminium, Copper…*	60 ÷ 200
Materie plastiche / *Plastics*	80 ÷ 400

LISTINO ANELLI SALDATI PER LE SEGATRICI PIÙ COMUNI

Price list for the most common welded bandsaw blades / List de prix des rubans soudes plus vendues
Tariffa de precios de sierra cinta soldadas a medida / Preis für geschweibt Metallbandsägen

Art. 25010 - AISI M42

Dimensioni *Size*	€	Dimensioni *Size*	€	Dimensioni *Size*	€	Dimensioni *Size*	€
1138 x **13 x 0,65**	19,305	2525 x 20 x 0,90	48,152	2850 x 27 x 0,90	58,459	4100 x 34 x 1,10	104,552
1140 x 13 x 0,65	19,339	2530 x 20 x 0,90	48,247	2880 x 27 x 0,90	59,074	4115 x 34 x 1,10	104,935
1295 x 13 x 0,65	21,968	2625 x 20 x 0,90	50,059	2925 x 27 x 0,90	59,997	4120 x 34 x 1,10	105,062
1300 x 13 x 0,65	22,053	2650 x 20 x 0,90	50,535	2940 x 27 x 0,90	60,305	4250 x 34 x 1,10	108,377
1325 x 13 x 0,65	22,477	2450 x **27 x 0,90**	50,254	2945 x 27 x 0,90	60,407	4460 x 34 x 1,10	113,732
1330 x 13 x 0,65	22,562	2500 x 27 x 0,90	51,280	2950 x 27 x 0,90	60,510	4500 x 34 x 1,10	114,752
1335 x 13 x 0,65	22,647	2520 x 27 x 0,90	51,690	3000 x 27 x 0,90	61,535	4570 x 34 x 1,10	116,537
1440 x 13 x 0,65	24,428	2550 x 27 x 0,90	52,305	3010 x 27 x 0,90	61,741	4600 x 34 x 1,10	117,302
1470 x 13 x 0,65	24,937	2560 x 27 x 0,90	52,510	3025 x 27 x 0,90	62,048	4860 x 34 x 1,10	123,932
1638 x 13 x 0,65	27,787	2580 x 27 x 0,90	52,920	3100 x 27 x 0,90	63,587	4970 x 34 x 1,10	126,738
1640 x 13 x 0,65	27,821	2590 x 27 x 0,90	53,126	3120 x 27 x 0,90	63,997	5300 x 34 x 1,10	135,153
1735 x 13 x 0,65	29,432	2600 x 27 x 0,90	53,331	3150 x 27 x 0,90	64,612	5400 x 34 x 1,10	137,703
1735 x **13 x 0,90**	29,432	2650 x 27 x 0,90	54,356	3180 x 27 x 0,90	65,228	5600 x 34 x 1,10	142,803
1740 x 13 x 0,90	29,517	2700 x 27 x 0,90	55,382	3200 x 27 x 0,90	65,638	6150 x 34 x 1,10	156,828
1745 x 13 x 0,90	29,602	2710 x 27 x 0,90	55,587	3225 x 27 x 0,90	66,151	4550 x **41 x 1,30**	168,492
1750 x 13 x 0,90	29,687	2720 x 27 x 0,90	55,792	3320 x 27 x 0,90	68,099	4870 x 41 x 1,30	180,342
1900 x **20 x 0,90**	36,233	2750 x 27 x 0,90	56,407	3370 x 27 x 0,90	69,125	5100 x 41 x 1,30	188,859
2000 x 20 x 0,90	38,140	2755 x 27 x 0,90	56,510	3435 x 27 x 0,90	70,458	5250 x 41 x 1,30	194,414
2060 x 20 x 0,90	39,284	2760 x 27 x 0,90	56,613	3505 x 27 x 0,90	71,894	5300 x 41 x 1,30	196,265
2080 x 20 x 0,90	39,665	2765 x 27 x 0,90	56,715	3580 x 27 x 0,90	73,432	5400 x 41 x 1,30	199,968
2140 x 20 x 0,90	40,810	2770 x 27 x 0,90	56,818	3660 x 27 x 0,90	75,073	5450 x 41 x 1,30	201,820
2160 x 20 x 0,90	41,191	2800 x 27 x 0,90	57,433	3810 x 27 x 0,90	78,150	5550 x 41 x 1,30	205,523
2190 x 20 x 0,90	41,763	2825 x 27 x 0,90	57,946	3850 x 27 x 0,90	78,970	5620 x 41 x 1,30	208,115
2360 x 20 x 0,90	45,005	2830 x 27 x 0,90	58,048	3900 x 27 x 0,90	79,996	5800 x 41 x 1,30	214,781
2375 x 20 x 0,90	45,291	2835 x 27 x 0,90	58,151	3505 x **34 x 1,10**	89,379	6150 x 41 x 1,30	227,742
2465 x 20 x 0,90	47,007	2840 x 27 x 0,90	58,254	3634 x 34 x 1,10	92,669	6380 x 41 x 1,30	236,259
2500 x 20 x 0,90	47,675	2845 x 27 x 0,90	58,356	3660 x 34 x 1,10	93,332	7400 x 41 x 1,30	274,031

INFORMAZIONE IMPORTANTE / *Main tip*

All'atto dell'ordine verificare il corretto senso di rotazione desiderato (STANDARD e/o INVERSO) in funzione del modello di segatrice

When ordering please verify the sense of rotation you need (STANDARD and/or REVERSE) depending on the machine type

Art. **28020005** € 102,887

Olio da taglio emulsionabile in tanica 5 Kg (5lt)
Cutting oil tank 5 lt



Art. **28020004** € 31,985

Olio da taglio minerale intero 0,5 lt
Cutting oil 0,5 lt



GUIDA ALLA RISOLUZIONE DEI PROBLEMI DI LAVORAZIONE DEI METALLI

Metalworking troubleshooting guide

Immagine del difetto / Photo of the defect



Sega bimetallica
Bimetal hole saw

Descrizione del difetto
Description of the defect

Arrotondamento dei denti della sega bimetallica.
Rounding of the teeth of a bimetal saw.

Possibili soluzioni del problema
Possible solutions to the problem

L'usura prematura delle creste dei enti è giustificata dall'utilizzo della sega bimetallica nella lavorazione di materiali abrasivi per cui non è idonea. Preferire altre tipologie di utensili più adatti all'applicazione specifica. *Premature wear and tear of the points of the teeth are due to the saw being used on inappropriate, abrasive materials. Use a more suitable tool for the job in question.*

Immagine del difetto / Photo of the defect



Punta a centrare
Pilot drill

Descrizione del difetto
Description of the defect

Incollaggio dei trucioli sui taglienti di una punta a centrare per frese a tazza.
Swarf sticks to the cutting edge of the centring bit for a hole saw.

Possibili soluzioni del problema
Possible solutions to the problem

Verificare la correttezza dei parametri di taglio in funziona del diametro dell'utensile e del materiale in lavorazione. *Check the cutting parameters are set to the correct tool diameter for the material being worked.*

Immagine del difetto / Photo of the defect



Albero
Arbor

Descrizione del difetto
Description of the defect

Strisciamento del codolo di un albero per frese nel mandrino.
Slipping of the shaft of the drill bit in the chuck.

Possibili soluzioni del problema
Possible solutions to the problem

Possibile problema di serraggio delle griffe del mandrino. Verificare inoltre lo stato di affilatura dell'utensile: nel caso di usura e conseguente scarsa capacità tagliente, l'utensile tende a bloccarsi nel pezzo in lavorazione e il codolo tende a strisciare nel madrino. In questo caso non insistere nel taglio ma passare alla riaffilatura dell'utensile
The problem could be caused by clamping of the chuck jaws. Check the sharpness of the tools. In case they are worn and cut less efficiently, the tool can get stuck in the workpiece and the cutting tool may slip in the chuck. In this case do not proceed with cutting any further and sharpen the tool.

Immagine del difetto / Photo of the defect



Utensile a gradino
Step drill

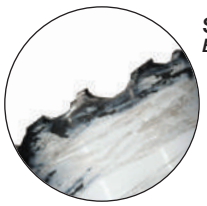
Descrizione del difetto
Description of the defect

Incollaggio dei trucioli sui taglienti di un utensile a gradino. *Swarf sticks to the cutting edge of a graduated drill bit.*

Possibili soluzioni del problema
Possible solutions to the problem

Verificare la correttezza dei parametri di taglio in funziona del diametro dell'utensile e del materiale in lavorazione. *Check the cutting parameters are set to the correct tool diameter for the material being worked.*

Immagine del difetto / Photo of the defect



Sega bimetallica
Bimetal hole saw

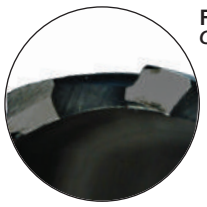
Descrizione del difetto
Description of the defect

Usura dei denti della sega bimetallica.
Wear-and-tear of the bimetal saw.

Possibili soluzioni del problema
Possible solutions to the problem

La velocità di rotazione del prodotto è eccessiva. Attenersi scrupolosamente alle indicazioni fornite dalle tabelle tecniche. *Decrease the threading and/or advancement speed. The rotation speed of the product is too fast. Always refer to the instructions provided in the technical tables.*

Immagine del difetto / Photo of the defect



Fresa a carotare
Core bit

Descrizione del difetto
Description of the defect

Usura / bruciatura della parte esterna del tagliente di una fresa a carotare.
Wearing / burning of the external part of the cutting edge of a hollow hole cutter.

Possibili soluzioni del problema
Possible solutions to the problem

Verificare la correttezza dei parametri di taglio in funziona del diametro dell'utensile e del materiale in lavorazione. Si tenga conto che la parte esterna dei taglienti è soggetta a usura precoce rispetto alla parte centrale. *Check the cutting parameters are set to the correct tool diameter for the material being worked. Bear in mind that the external part of the cutter wears out more quickly that the central part.*

Immagine del difetto / Photo of the defect



Utensile conico
Conical drill bit

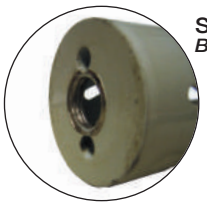
Descrizione del difetto
Description of the defect

Incollaggio dei trucioli sui taglienti di un utensile conico. *Swarf sticks to the cutting edge of a conical drill bit.*

Possibili soluzioni del problema
Possible solutions to the problem

Verificare la correttezza dei parametri di taglio in funziona del diametro dell'utensile e del materiale in lavorazione
Check the cutting parameters are set to the correct tool diameter for the material being worked.

Immagine del difetto / Photo of the defect



Sega bimetallica
Bimetal hole saw

Descrizione del difetto
Description of the defect

Striscimento dell'albero all'interno dell'attacco filettato della sega bimetallica.
Slipping of the shaft inside the threaded connector of the bimetal saw.

Possibili soluzioni del problema
Possible solutions to the problem

Assicurarsi del corretto inserimento dei perni di fissaggio dell'albero nelle sedi apposite sul fondo della tazza bimetallica.
Make sure the fastening pins of the shaft are inserted into the bottom of the bimetal cutting disc correctly.

Immagine del difetto / Photo of the defect



Tazza TCT
TCT hole saw

Descrizione del difetto
Description of the defect

Rottura di un dente in metallo duro saldabrasato al corpo dell'utensile.
Breakage of a hard metal tooth that has fused to the body of the tool.

Possibili soluzioni del problema
Possible solutions to the problem

Il dente in metallo duro è estremamente sensibile agli urti: evitare qualsiasi colpo accidentale durante la foratura ed eviatre tagli discontinui. Eventualemnte preferire altre tipologie di utensili con denti in acciaio superrapido. *The hard metal tooth is extremely sensitive to sudden shocks. Avoid accidental shocks during drilling and discontinuous cuts. If necessary, use another type of tool with super-rapid steel teeth.*

GUIDE DE DÉPANNAGE POUR LE TRAVAIL DES MÉTAUX

Guía de solución de problemas de procesamiento de metales

Image du dèfaut / Foto del defecto



Scie trépan bimetal
Corona perforadora bimetalica

Description du dèfaut
Descripción del defecto

Arrondissement des dents de la scie bi-métal.
Redondeo de los dientes de la sierra bimetálica.

Solutions possibles au problème
Posibles soluciones del problema

L'usure prématurée des crêtes des dents se produit suite à l'utilisation de la scie bi-métal dans l'usinage de matériaux abrasifs pour lesquels elle n'est pas adaptée. El desgaste precoz de las crestas de los dientes se justifica por el empleo de la sierra bimetálica en el tratamiento de materiales abrasivos para los que no es idónea. Preferir otros tipos de utensilios más aptos a la aplicación específica.

Image du dèfaut / Foto del defecto



Foret de centrage
Punta para centrar

Description du dèfaut
Descripción del defecto

Collage des copeaux sur les arêtes de coupe d'un foret de centrage d'une fraise cloche.
Adhesión de las virutas en los bordes afilados de una punta para centrar para fresas a taza.

Solutions possibles au problème
Posibles soluciones del problema

Vérifier la justesse des paramètres de coupe par rapport au diamètre de l'outil et au matériau à usiner. *Controlar que los parámetros de corte sean correctos según el diámetro del utensilio y del material que haya que tratar.*

Image du dèfaut / Foto del defecto



Arbre
Husillo

Description du dèfaut
Descripción del defecto

Frottement de la tige d'un arbre de fraisage dans le mandrin. *Roce de la extremidad de un eje para fresas en el mandril.*

Solutions possibles au problème
Posibles soluciones del problema

Problème possible avec le serrage des mâchoires du mandrin.Vérifier également l'état d'affûtage de l'outil : en cas d'usure et donc de faible capacité de coupe, l'outil a tendance à se bloquer dans la pièce à usiner et la tige a tendance à frotter dans le mandrin. Dans ce cas, ne pas insister avec la coupe mais affûter l'outil. *Posible problema de apriete de las mordazas del mandril. Controlar también el estado de afilado del utensilio: en el caso de desgaste y de escasa capacidad cortante, el utensilio tiende a bloquearse en la pieza que hay que tratar y la extremidad tiende a rozar contra el mandril. En este caso no insistir con el corte y afilar el utensilio.*

Image du dèfaut / Foto del defecto



Foret étage
Broca escalonada

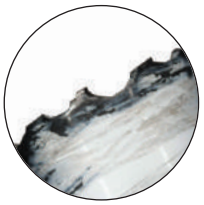
Description du dèfaut
Descripción del defecto

Collage des copeaux sur les arêtes d'un outil étagé. *Adhesión de las virutas en los bordes afilados de un utensilio escalonado.*

Solutions possibles au problème
Posibles soluciones del problema

Vérifier la justesse des paramètres de coupe par rapport au diamètre de l'outil et au matériau à usiner. *Controlar que los parámetros de corte sean correctos según el diámetro del utensilio y del material que haya que tratar.*

Image du dèfaut / Foto del defecto



Scie trépan bimetal
Corona perforadora bimetalica

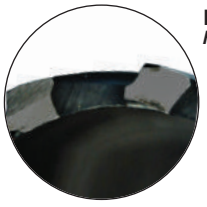
Description du dèfaut
Descripción del defecto

Usure des dents de la scie bi-métal.
Desgaste de los dientes de la sierra bimetálica.

Solutions possibles au problème
Posibles soluciones del problema

La vitesse de rotation du produit est trop élevée. Respecter scrupuleusement les instructions données dans les tableaux techniques. *Decrease the threading and/or advancement speed.*
La velocidad de rotación del producto es excesiva. Atenerse escrupulosamente a las indicaciones suministradas en las tablas técnicas.

Image du dèfaut / Foto del defecto



Fraise à carotter
Fresa a taza

Description du dèfaut
Descripción del defecto

Usure/brûlure de l'extérieur de l'arête d'une fraise à carotter.
Desgaste / abrasión de la parte externa del borde cortante de una fresa a taza.

Solutions possibles au problème
Posibles soluciones del problema

Vérifier la justesse des paramètres de coupe par rapport au diamètre de l'outil et au matériau à usiner. Tenir compte du fait que l'extérieur des arêtes est soumise à l'usure précoce par rapport à la partie centrale. *Controlar que los parámetros de corte sean correctos según el diámetro del utensilio y del material que haya que tratar. Hay que tener en cuenta que la parte externa de los bordes cortantes está sometida a un desgaste precoz con respecto a la parte central.*

Image du dèfaut / Foto del defecto



Foret conique
Broca conica

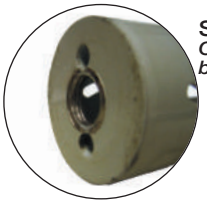
Description du dèfaut
Descripción del defecto

Collage des copeaux sur les arêtes d'un outil conique. *Adhesión de las virutas en los bordes afilados de un utensilio cónico.*

Solutions possibles au problème
Posibles soluciones del problema

Vérifier la justesse des paramètres de coupe par rapport au diamètre de l'outil et au matériau à usiner. *Controlar que los parámetros de corte sean correctos según el diámetro del utensilio y del material que haya que tratar.*

Image du dèfaut / Foto del defecto



Scie trépan bimetal
Corona perforadora bimetalica

Description du dèfaut
Descripción del defecto

Frottement de l'arbre à l'intérieur du raccord fileté de la scie bi-métal.
Roce del eje dentro del empalme fileteado de la sierra bimetálica.

Solutions possibles au problème
Posibles soluciones del problema

S'assurer que les goupilles de fixation de l'arbre sont insérées correctement dans les sièges appropriés au fond de la cloche bi-métal.
Asegurarse de que los pernos de fijación del eje estén bien introducidos en los adecuados alojamientos en el fondo de la taza bimetálica.

Image du dèfaut / Foto del defecto



Scie TCT
Fresa TCT

Description du dèfaut
Descripción del defecto

Rupture d'une dent en métal dur soudée au corps de l'outil. *Rotura de un diente de metal duro soldado al cuerpo del utensilio.*

Solutions possibles au problème
Posibles soluciones del problema

La dent en métal dur est extrêmement sensible aux chocs : éviter tout choc accidentel pendant le forage et éviter les coupes discontinues. Choisir plutôt d'autres types d'outils avec des dents en acier super rapide. *El diente de metal duro es muy sensible a los golpes: evitar cualquier golpe accidental durante la perforación y evitar cortes discontinuos. Eventualmente preferir otros tipos de utensilios con dientes de acero súper rápido.*



UTENSILI PER FILETTARE

Threading tools
Outils a fileter
Utensilios a roscar
Gewindebohrer und Schneideisen

HSS-G HSS-CO THREADING

CUTTING TOOLS ENGINEERING

Tapping and threading operations play an important role in industrial works and all types of professional applications.The same general conditions as those for drilling holes in high-speed steel also apply to threading tools; due to the complex nature of threading, it is clear why the range of tappers and dies has been greatly expanded (the chapter has been implemented even further). Therefore, threading tools in HSS-G and HSS-CO are available in a much wider range of pitches for each article and with coatings in TiN and TiAlN for more complex processes. A wide range of special tappers with coloured ring guides the industrial user in the choice of the best use. An entire offer of non-metric threaded fittings was also developed, in particular American and English threaded fittings, while the chapter on metric threaded fittings is certainly all-encompassing. At the end of the chapter is an extensive range of products for repairing damaged or stripped threads. Useful sets are also available complete with all the threading systems in practical wooden or metal boxes for a safe use and easy replacement after use.

Les opérations de filetage et de taraudage ont une importance particulière dans les travaux industriels et dans toutes les applications professionnelles. On peut appliquer les mêmes considérations générales sur les outils de forage en acier super rapide aux outils à fileter ; car les travaux de filetage sont encore plus problématiques, c'est pour cela que l'offre de tarauds et de matrices a été bien élargie (le chapitre a été ultérieurement amélioré). Les outils à fileter en HSS-G et HSS-CO sont dès lors disponibles, avec une gamme de pas fortement élargie pour chaque article, et avec revêtements en TiN et TiAlN pour les travaux les plus difficiles. Une vaste gamme de tarauds spéciaux avec bague colorée qui guide l'utilisateur industriel à un choix d'utilisation correct. De plus, toute l'offre des filetages non métriques a été développée, en particulier les filetages américains et anglais, tandis que le chapitre des métriques est certainement plus que complet. Le chapitre se termine avec un programme détaillé de produits pour le rétablissement des filetages endommagés. Il y a également de précieux ensembles avec tous les systèmes de filetages dans des coffrets pratiques en bois ou en métal, pour une utilisation sure et un rangement facile après utilisation.

Las operaciones de aterrajadura y de roscado asumen una importancia relevante en los trabajos industriales y en todas las aplicaciones profesionales. Para los utensilios que hay que roscar valen las mismas consideraciones generales de los utensilios para perforar de acero super rápido; como las operaciones de roscado son aún más problemáticas, existe una gran motivación para ampliar la oferta de machos y terrajas (el capítulo se ha ampliado ulteriormente). Por lo tanto, se hallan disponibles utensilios para roscar de HSS-G y HSS-CO, con una gama de distancias muy ampliada para cada artículo y con revestimientos de TiN y TiAlN para operaciones más difíciles. Una vasta gama de machos especiales con un anillo pintado sirve de guía para que el usuario industrial los use correctamente. También se ha ampliado la oferta de los roscados no métricos, especialmente de los roscados americanos e ingleses, mientras que se halla completo el capítulo sobre las métricas. El capítulo se cierra con un programa detallado de productos para restaurar las roscas dañadas. También hay utilísimos juegos con todos los sistemas de roscado en cómodas cajas de madera o de metal, para usarlas con seguridad y guardarlas con facilidad después del uso.

Le operazioni di maschiatura e filettatura assumono un'importanza rilevante nelle lavorazioni industriali e in tutte le applicazioni professionali. Valgono, per gli utensili a filettare, le stesse considerazioni generali sugli utensili per forare in acciaio superrapido; poiché le lavorazioni di filettatura sono ancora più problematiche, è così chiara la motivazione del grande sviluppo nell'offerta dei maschi e filiere (il capitolo è stato ulteriormente implementato). Pertanto, sono disponibili utensili a filettare in HSS-G e HSS-CO, con una gamma di passi notevolmente ampliata per ciascun articolo e con rivestimenti al TiN e TiAlN per le lavorazioni più difficili. Una vasta gamma di maschi speciali con anello colorato guida l'utente industriale ad una corretta scelta di utilizzo. E' stata inoltre sviluppata tutta l'offerta delle filettature non metriche, in modo particolare le filettature americane ed inglesi, mentre è sicuramente esauriente il capitolo delle metriche. Il capitolo si chiude con un programma dettagliato di prodotti per il ripristino delle filettature danneggiate. Sono presenti anche utilissimi set completi di tutti i sistemi di filettatura in comode cassette di legno o metallo, per un sicuro utilizzo ed un facile ricollocamento dopo l'uso.

MASCHI A MACCHINA, SCANALATURE DIRITTE, IMB. CORRETTO, FIL. METRICA ISO PASSO GROSSO

Machine taps, spiral point, metric thread / Tarauds machine, entrée gun, fil. métrique
Machos de maquina, entrada corregida, rosca metrica / Maschinen-Gewindebohrer für metrisches ISO-Regelgewinde

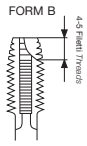
DIN 371/B ISO 2/6H

Gambo rinforzato / Reinforced shank / Queue renforcée / Mango reforzado / Verstärkten Schaft

NEW

MICRO MACHINE TAPS HSS-CO





HSS-G AISI M2
HV 750

HSS-CO AISI M35
HV 820÷850

Art. **10163** Self
Disponibile su richiesta
On demand

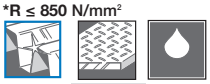
Applicazioni / Applications

HSS-G
***R ≤ 700 N/mm²**

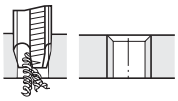


Acciaio/ *Steel* — Metals

HSS-CO
***R ≤ 850 N/mm²**



Inox — Acciaio /*Steel*



≤ 3 Ø

- Per fori passanti in acciai con R≤* N/mm², ghisa, metalli non ferrosi a truciolo lungo.
- For through holes in steel with R≤ * N/mm², cast iron, non ferrous metals with long chip
- Pour trous débouchants en acier avec R≤ *N/mm², fonte, alliages légers.
- Para orificios pasantes en materiales de hasta R≤ * N/mm².
- Für durchgangsloch in Stahl mit R≤ *N/mm², Stahlguss, alu langspanend.

Ø	/	L	d	pcs	Art. 10162 HSS-G cod.	€ cad/each	Art. 10250 HSS-CO cod.	€ cad/each
M 1 x 0,25	5	40	2,5	1	-		1025001x025	55,435
1,1 x 0,25	5	40	2,5	1	-		10250011x025	55,435
1,2 x 0,25	5	40	2,5	1	-		10250012x025	55,435
1,4 x 0,3	7	40	2,5	1	-		10250014x030	49,891
1,6 x 0,35	8	40	2,5	1	-		10250016x035	49,891
1,7 x 0,35	8	40	2,5	1	-		10250017x035	49,891
1,8 x 0,35	8	40	2,5	1	-		10250018x035	49,891
2 x 0,4	8	45	2,8	1	1016202X04	14,990	1025002X04	24,391
2,5 x 0,45	9	50	2,8	1	10162025X045	14,990	10250025X045	24,391
3 x 0,5	11	56	3,5	1	1016203X05	10,876	1025003X05	13,914
3,5 x 0,6	13	56	4	1	10162035X06	17,984	10250035X06	20,089
4 x 0,7	13	63	4,5	1	1016204X07	10,977	1025004X07	13,914
5 x 0,8	16	70	6	1	1016205X08	11,220	1025005X08	14,236
6 x 1	19	80	6	1	1016206X1	11,508	1025006X1	15,045
7 x 1	19	80	7	1	1016207X1	16,131	1025007X1	20,145
8 x 1,25	22	90	8	1	1016208X125	13,914	1025008X125	17,507
9 x 1,25	22	90	9	1	1016209X125		1025009X125	20,389
10 x 1,5	24	100	10	1	1016210X15	16,131	1025010X15	20,389



M 3÷12 7 pcs

10240300 HSS-G
€ 89,937

10345300 HSS-CO
€ 112,720



M 3÷12 14 pcs
2,5-3,3-4,2-5
6,8-8,5-10,2

10240306 HSS-G
€ 110,326

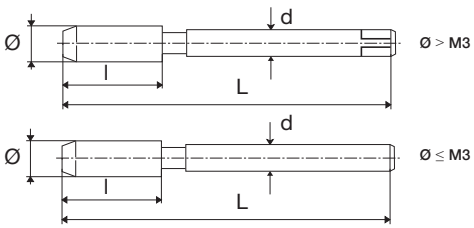
10345306 HSS-CO
€ 133,043

DIN 376/B ISO 2/6H





Art. **10166** Self
Disponibile su richiesta
On demand



Gambo cilindrico Ø ≤ M3
Round shank

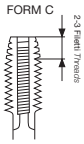
Ø	/	L	d	pcs	Art. 10165 HSS-G cod.	€ cad/each	Art. 10253 HSS-CO cod.	€ cad/each
M 3 x0,5	11	56	2,2	1	1016503X05	12,062	1025303X05	18,361
4 x0,7	13	63	2,8	1	1016504X07	12,384	1025304X07	18,659
5 x0,8	16	70	3,5	1	1016505X08	12,728	1025305X08	19,358
6 x1	19	80	4,5	1	1016506X1	12,972	1025306X1	19,513
8 x1,25	22	90	6	1	1016508X125	13,947	1025308X125	21,066
10 x1,5	24	100	7	1	1016510X15	16,365	1025310X15	24,557
12 x1,75	29	110	9	1	1016512X175	19,125	1025312X175	26,453
14 x2	30	110	11	1	1016514X2	24,037	1025314X2	36,808
16 x2	30	110	12	1	1016516X2	29,280	1025316X2	43,316
18 x2,5	34	125	14	1	1016518X25	40,178	1025318X25	54,326
20 x2,5	34	140	16	1	1016520X25	42,263	1025320X25	68,461
22 x2,5	34	140	18	1	1016522X25	51,122	1025322X25	82,609
24 x3	38	160	18	1	1016524X3	61,022	1025324X3	93,031
27 x3	38	160	20	1	1016527X3	104,329	1025327X3	124,717
30 x3,5	45	180	22	1	1016530X35	125,914	1025330X35	152,291
33 x3,5	50	180	25	1	1016533X35	155,893	1025333X35	193,067
36 x4	56	200	28	1	1016536X4	185,873	1025336X4	215,851
39 x4	60	200	32	1	1016539X4	237,438	1025339X4	291,397
42 x4,5	60	200	32	1	1016542X45	267,417	1025342X45	310,578
45 x4,5	65	220	36	1	1016545X45	311,787	1025345X45	359,748
48 x5	70	250	36	1	1016548X5	378,940	1025348X5	430,494
52 x5	70	250	40	1	1016552X5	423,309	1025352X5	501,251
56 x5,5	70	250	40	1	- - -	-	1025356X55	1110,422
60 x5,5	75	280	45	1	- - -	-	1025360X55	1278,311
64 x6	80	315	50	1	- - -	-	1025364X6	1568,500
68 x6	80	315	50	1	- - -	-	1025368X6	1698,017

MASCHI A MACCHINA,SCANALATURE DIRITTE,IMB. "C", FIL. ISO PASSO GROSSO

Machine taps, "C" chamfer form, metric thread / Tarauds machine, entrée "C", filetage metrique
Machos de maquina, entrada "C", rosca metrica /Maschinengewindebohrer für metrisches ISO-Regelgewinde

DIN 371/C ISO 2/6H





HSS-G AISI M2
HV 750

HSS-CO AISI M35
HV 820÷850

Applicazioni / Applications

HSS-G
***R ≤ 700 N/mm²**



Acciaio */Steel*



Metals



HSS-CO
***R ≤ 850 N/mm²**



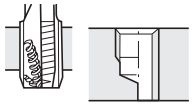
Inox



Acciaio */Steel*



Applicazioni / Applications



≤ 1,5 Ø

- Per fori ciechi e passanti in acciai e ghisa con R≤ */mm2
- For blind and trough holes in steel with R≤ * N/mm2
- Pour trous débouchants et borgnes en acier avec R≤ *N/mm2
- Para orificios pasantes y ciegos in acero de hasta R≤ */mm2
- Für grund und durchgangsloch in Stahl, Stahlguss mit R≤ *N/mm2

M

Ø	/	L	d	pcs	Art. 10168 HSS-G cod.	€ cad/each	Art. 10251 HSS-CO cod.	€ cad/each
M 2	x 0,4	8	45	2,8	1	1016802X04	15,134	1025102X04	17,894
2,3	x 0,4	9	45	2,8	1	10168023X04	15,134	10251023X04	17,894
2,5	x 0,45	9	50	2,8	1	10168025X045	15,134	10251025X045	17,894
2,6	x 0,45	9	50	2,8	1	10168026X045	15,134	10251026X045	17,894
3	x 0,5	11	56	3,5	1	1016803X05	9,723	1025103X05	13,006
3,5	x 0,6	13	56	4	1	10168035X06	15,344	10251035X06	13,914
4	x 0,7	13	63	4,5	1	1016804X07	9,723	1025104X07	13,006
5	x 0,8	16	70	6	1	1016805X08	9,945	1025105X08	13,006
6	x 1	19	80	6	1	1016806X1	10,567	1025106X1	13,860
7	x 1	19	80	7	1	1016807X1	13,016	1025107X1	17,284
8	x 1,25	22	90	8	1	1016808X125	11,874	1025108X125	15,732
10	x 1,5	24	100	10	1	1016810X15	14,269	1025110X15	18,494

DIN 376/C ISO 2/6 H



Ø	/	L	d	pcs	Art. 10171 HSS-G cod.	€ cad/each	Art. 10254 HSS-CO cod.	€ cad/each
M 3	x 0,5	11	56	2,2	1	1017103X05	10,954	1025403X05	14,617
4	x 0,7	13	63	2,8	1	1017104X07	11,153	1025404X07	14,861
5	x 0,8	16	70	3,5	1	1017105X08	11,552	1025405X08	15,392
6	x 1	19	80	4,5	1	1017106X1	11,719	1025406X1	15,544
8	x 1,25	22	90	6	1	1017108X125	12,595	1025408X125	17,647
10	x 1,5	24	100	7	1	1017110X15	14,779	1025410X15	20,583
12	x 1,75	29	110	9	1	1017112X175	17,717	1025412X175	24,744
14	x 2	30	110	11	1	1017114X2	21,875	1025414X2	30,845
16	x 2	32	110	12	1	1017116X2	25,744	1025416X2	36,282
18	x 2,5	34	125	14	1	1017118X25	35,800	1025418X25	45,187
20	x 2,5	34	140	16	1	1017120X25	38,073	1025420X25	57,253
22	x 2,5	34	140	18	1	1017122X25	45,933	1025422X25	69,146
24	x 3	38	160	18	1	1017124X3	50,235	1025424X3	78,122
27	x 3	38	160	20	1	1017127X3	86,345	1025427X3	103,285
30	x 3,5	45	180	22	1	1017130X35	105,525	1025430X35	125,767
33	x 3,5	50	180	25	1	1017133X35	135,505	1025433X35	162,179
36	x 4	56	200	28	1	1017136X4	151,093	1025436X4	180,927
39	x 4	60	200	32	1	1017139X4	196,660	1025439X4	234,986
42	x 4,5	60	200	32	1	1017142X45	219,444	1025442X45	262,568
45	x 4,5	65	220	36	1	1017145X45	251,829	1025445X45	301,185
48	x 5	70	250	36	1	1017148X5	302,186	1025448X5	361,864
52	x 5	70	250	40	1	1017152X5	357,353	1025452X5	428,052

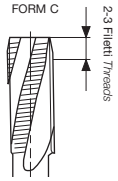
Gambo cilindrico Ø ≤ M3
Round shank

MASCHI A MACCHINA, SCANALATURE DESTRE 15°, IMB. “C”, FIL.METRICA ISO PASSO GROSSO.

Machine taps, 15° spiral flute, metric thread / Tarauds machine, goujures 15°, filetage métrique
Machos de maquina, canal helicoidal a 15°, rosca metrica / Maschinen-gewindebohrer, 15° rechtsspirale, für metrisches ISO-Regelgewinde

DIN 371/C-15° ISO 2/6H





HSS-G AISI M2
HV 750

HSS-CO AISI M35
HV 820÷850

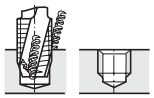
	Ø	/	L	d	pcs	Art. 10174 HSS-G cod.	€ cad/each	Art. 10256 HSS-CO cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1017403X05	12,517	1025603X05	17,118
	4 x 0,7	13	63	4,5	1	1017404X07	12,772	1025604X07	17,118
	5 x 0,8	16	70	6	1	1017405X08	12,894	1025605X08	17,118
	6 x 1	19	80	6	1	1017406X1	13,327	1025606X1	18,017
	8 x 1,25	22	90	8	1	1017408X125	14,701	1025608X125	19,691
	10 x 1,5	24	100	10	1	1017410X15	17,529	1025610X15	23,183

M

Applicazioni / Applications

HSS-G
***R ≤ 700 N/mm²**
Acciaio /*Steel*
Metals

HSS-CO
***R ≤ 850 N/mm²**
Inox
Acciaio /*Steel*



≤ 1,5 Ø

- Per fori ciechi in acciai con R≤ * N/mm², ghisa malleabile, metalli non ferrosi a truciolo lungo.
- For blind holes in steel with R≤ * N/mm², malleable cast iron, non ferrous metals with long chip.
- Pour trous borgnes en acier avec R≤ * N/mm², fonte, alliages légers.
- Para orificios ciegos en acero de hasta R≤ * N/mm², aleaciones ligeras, fundiciones.
- Für Sackloch in Stahl mit R≤ *N/mm², Stahlguss, alu langspanend.



M 3÷12 7 pcs

10240311 HSS-G
€ 91,134

10345311 HSS-CO
€ 128,309

Abs



M 3÷12 14 pcs

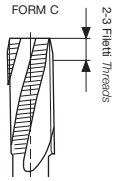
2,5-3,3-4,2-5
6,8-8,5-10,2

10240312 HSS-G
€ 112,720

10345312 HSS-CO
€ 161,891

DIN 376/C-15° ISO 2/6H





HSS-G AISI M2
HV 750

HSS-CO AISI M35
HV 820÷850

	Ø	/	L	d	pcs	Art. 10177 HSS-G cod.	€ cad/each	Art. 10258 HSS-CO cod.	€ cad/each
M	**3** x0,5	11	56	2,2	1	1017703X05	13,549	1025803X05	17,961
	4 x0,7	13	63	2,8	1	1017704X07	14,247	1025804X07	18,825
	5 x0,8	16	70	3,5	1	1017705X08	14,390	1025805X08	18,825
	6 x1	19	80	4,5	1	1017706X1	14,624	1025806X1	19,691
	8 x1,25	22	90	6	1	1017708X125	15,655	1025808X125	21,066
	10 x1,5	24	100	7	1	1017710X15	20,056	1025810X15	26,387
	12 x1,75	29	110	9	1	1017712X175	22,762	1025812X175	30,012
	14 x2	30	110	11	1	1017714X2	27,873	1025814X2	37,962
	16 x2	30	110	12	1	1017716X2	32,529	1025816X2	44,270
	18 x2,5	34	125	14	1	1017718X25	43,760	1025818X25	58,717
	20 x2,5	34	140	16	1	1017720X25	46,588	1025820X25	62,453
	22 x2,5	34	140	18	1	1017722X25	56,388	1025822X25	75,934
	24 x3	38	160	18	1	1017724X3	61,001	1025824X3	81,323

Applicazioni / Applications

HSS-G
***R ≤ 700 N/mm²**
Acciaio /*Steel*
Metals

HSS-CO
***R ≤ 850 N/mm²**
Inox
Acciaio /*Steel*

Gambo cilindrico Ø ≤ M3
Round shank

MASCHI A MACCHINA, SCANALATURE DESTRE 35°, IMB. “C”, FIL. METRICA ISO

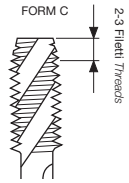
Machine taps, 35° spiral flute, metric coarse thread / Tarauds machine, goujures 35°, filetage métrique gros. / Machos de maquina, canal helicoidal 35°, rosca metrica vasta / Maschinen-Gewindebohrer, 35° rechtsspirale, für metrisches ISO-Regelgewinde

DIN 371/C-35° ISO 2/6H

NEW

MICRO MACHINE TAPS HSS-CO





HSS-G AISI M2
HV 750

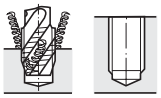
HSS-CO AISI M35
HV 820÷850

Gambo cilindrico Ø ≤ M3
Round shank

	Ø	/	L	d	pcs	Art. 10183 HSS-G cod.	€ cad/each	Art. 10255 HSS-CO cod.	€ cad/each
M	**1** x 0,25	4	40	2,5	1	- - -		1025501x025	68,739
	1,1 x 0,25	4	40	2,5	1	- - -		10255011x025	68,739
	1,2 x 0,25	4	40	2,5	1	- - -		10255012x025	68,739
	1,4 x 0,30	5	40	2,5	1	- - -		10255014x030	62,086
	1,6 x 0,35	6	40	2,5	1	- - -		10255016x035	62,086
	1,7 x 0,35	6	40	2,5	1	- - -		10255017x035	62,086
	1,8 x 0,35	6	40	2,5	1	- - -		10255018x035	62,086
	2 x 0,4	6	45	2,8	1	1018302X04	24,513	1025502X04	28,826
	2,5 x 0,45	6	50	2,8	1	10183025X045	24,513	10255025X045	28,826
	3 x 0,5	6	56	3,5	1	1018303X05	14,124	1025503X05	20,200
	3,5 x 0,6	13	56	4	1	10183035X06	20,178	10255035X06	26,675
	4 x 0,7	7	63	4,5	1	1018304X07	14,124	1025504X07	20,200
	5 x 0,8	8	70	6	1	1018305X08	14,269	1025505X08	20,356
	6 x 1	10	80	6	1	1018306X1	14,934	1025506X1	21,287
	7 x 1	19	80	7	1	1018307X1	21,066	1025507X1	31,043
	8 x 1,25	14	90	8	1	1018308X125	16,375	1025508X125	23,316
	9 x 1,25	14	90	9	1	- - -	-	1025509X125	27,916
	10 x 1,5	16	100	10	1	1018310X15	19,591	1025510X15	27,916

DIN 376/C-35° ISO 2/6H





≤ 3 Ø

- Per fori ciechi in acciai con R≤ */mm² ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai inox.
- For blind holes in steel with R≤ * N/mm² malleable cast iron, non ferrous metal with long chips, stainless steel, heat resistant steel.
- Pour trous borgnes en acier avec R≤ *N/mm² fonte, alliages légers, acier inoxidable.
- Para orificios ciegos in acero de hasta R≤ */mm² aleaciones ligeras, fundicion, acero aleado y acero inox.
- Für grundloch in Stahl mit R≤ *N/mm² Stahlguss, alu langspanend, korrosions-beständige Stähle (V2A-V4A) etc.

	Ø	/	L	d	pcs	Art. 10180 HSS-G cod.	€ cad/each	Art. 10257 HSS-CO cod.	€ cad/each
M	**3** x 0,5	5	56	2,2	1	1018003X05	15,699	1025703X05	21,164
	4 x 0,7	7	63	2,8	1	1018004X07	15,699	1025704X07	22,218
	5 x 0,8	8	70	3,5	1	1018005X08	15,909	1025705X08	22,218
	6 x 1	10	80	4,5	1	1018006X1	16,186	1025706X1	22,218
	8 x 1,25	13	90	6	1	1018008X125	17,151	1025708X125	24,180
	10 x 1,5	15	100	7	1	1018010X15	21,431	1025710X15	30,212
	12 x 1,75	18	110	9	1	1018012X175	24,957	1025712X175	35,677
	14 x 2	20	110	11	1	1018014X2	31,609	1025714X2	45,102
	16 x 2	22	110	12	1	1018016X2	38,460	1025716X2	54,892
	18 x 2,5	25	125	14	1	1018018X25	50,600	1025718X25	72,188
	20 x 2,5	25	140	16	1	1018020X25	55,879	1025720X25	76,123
	22 x 2,5	25	140	18	1	1018022X25	68,584	1025722X25	93,496
	24 x 3	30	160	18	1	1018024X3	74,627	1025724X3	101,734
	27 x 3	30	160	20	1	1018027X3	111,523	1025727X3	149,895
	30 x 3,5	35	180	22	1	1018030X35	135,505	1025730X35	183,477
	33 x 3,5	35	180	25	1	1018033X35	164,286	1025733X35	221,850
	36 x 4	40	200	28	1	1018036X4	194,265	1025736X4	261,419
	39 x 4	40	200	32	1	1018039X4	253,026	1025739X4	341,765
	42 x 4,5	45	200	32	1	1018042X45	287,794	1025742X45	389,727
	45 x 4,5	45	220	36	1	1018045X45	322,573	1025745X45	435,294
	48 x 5	50	250	36	1	1018048X5	365,746	1025748X5	494,056
	52 x 5	50	250	40	1	1018052X5	434,098	1025752X5	586,387
	56 x 5,5	70	250	40	1	- - -	-	1025756X55	1280,705
	60 x 5,5	70	280	45	1	- - -	-	1025760X55	1468,973
	64 x 6	75	315	50	1	- - -	-	1025764X6	1807,135
	68 x 6	75	315	50	1	- - -	-	1025768X6	1957,030



M 3÷12 7 pcs

10240305 HSS-G
€ 107,920

10345305 HSS-CO
€ 139,107

Abs



M 3÷12 14 pcs

2,5-3,3-4,2-5
6,8-8,5-10,2

10240307 HSS-G
€ 122,310

10345307 HSS-CO
€ 167,879



M 3÷12 14 pcs
DIN 371/B+371/C 35°

10240310 HSS-G
€ 189,464

10345310 HSS-CO
€ 242,227

Applicazioni / Applications

HSS-G
***R ≤ 700 N/mm²**

Acciaio /Steel

Metals

HSS-CO
***R ≤ 850 N/mm²**

Inox

Acciaio /Steel

MASCHI A MACCHINA PER DADI, FILETTATURA METRICA ISO A PASSO GROSSO.

Machine nut taps, metric coarse thread / Tarauds machine à l'enfilade, filetage métrique
Machos de maquina, tipo tuercas, rosca metrica /Maschinen-muttergewindebohrer, metrisches Regel-Gewinde

10273

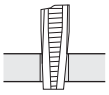
Art. 10273
HSS-CO

M





HSS-CO AISI M35
HV 820÷850



DIN 357
ISO 2/6H

Gambo cilindrico Ø ≤ M3
Round shank

	Ø	/	L	d	pcs	cod.	€ cad/each
M	3 x 0,5	22	70	2,2	1	1027303X05	18,758
	4 x 0,7	25	90	2,8	1	1027304X07	18,758
	5 x 0,8	28	100	3,5	1	1027305X08	20,034
	6 x 1	32	110	4,5	1	1027306X1	20,954
	8 x 1,25	40	125	6	1	1027308X125	27,307
	10 x 1,5	45	140	7	1	1027310X15	31,365
	12 x 1,75	50	180	9	1	1027312X175	40,346
	14 x 2	56	200	11	1	1027314X2	52,985
	16 x 2	63	200	12	1	1027316X2	64,394
	18 x 2,5	63	220	14	1	1027318X25	74,981
	20 x 2,5	70	250	16	1	1027320X25	85,137
	22 x 2,5	80	280	18	1	1027322X25	100,725
	24 x 3	80	280	18	1	1027324X3	118,719

PUNTA-MASCHIO A MACCHINA PER FORATURE E FILETTATURE IN UNA SOLA OPERAZIONE.

Combined machine drill-tap for drilling and threading in one operation / Foret taraudeur à machine, filetage métrique
Brocas-macho, rosca metrica normal / Maschinen-kombi-Gewindebohrer für metrisches ISO Regel-Gewinde

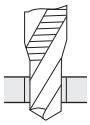
10290

Art. 10290
HSS-CO

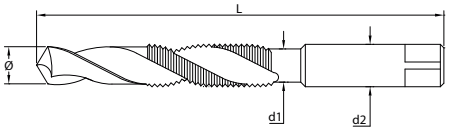
M



DIN 357
ISO 2/6H



	Ø	L	d1	d2	pcs	cod.	€ cad/each
M	3 x 0,5	56	2,5	3	1	1029003X05	51,810
	4 x 0,7	63	3,3	4	1	1029004X07	51,810
	5 x 0,8	71	4,2	5	1	1029005X08	51,810
	6 x 1	80	5	6	1	1029006X1	57,452
	8 x 1,25	95	6,8	8	1	1029008X125	63,030
	10 x 1,5	106	8,5	10	1	1029010X15	70,746
	12 x 1,75	115	10,2	12	1	1029012X175	84,538

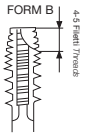


MASCHI A MACCHINA, CAVE DIRITTE E FILETTI ALTERNATI, IMB. CORRETTO, FIL.METRICA ISO

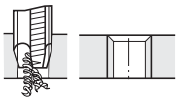
Machine taps, straight flutes, interrupted threads, spiral point / Tarauds machine, goujures droites, entrée B-gun, filets alternés
Machos de maquina, entrada tipo "B" y dientes alternados / Maschinen-gewindebohrer, schälanschnitt form "B", ausgesetzen Zahnen

10261





HSS-CO AISI M35
HV 820÷850



DIN 371/B
ISO 2/6H

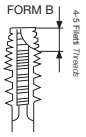
Art. 10261
HSS-CO

M

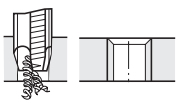
Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	1	1026103X05	19,280
4 x 0,7	13	63	4,5	1	1026104X07	19,280
5 x 0,8	16	70	6	1	1026105X08	20,635
6 x 1	19	80	6	1	1026106X1	20,635
8 x 1,25	22	90	8	1	1026108X125	25,325
10 x 1,5	24	100	10	1	1026110X15	30,223

10262





HSS-CO AISI M35
HV 820÷850



DIN 376/B
ISO 2/6H

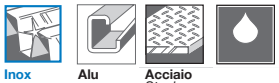
Art. 10262
HSS-CO

M

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	2,2	1	1026203X05	20,750
4 x 0,7	13	63	2,8	1	1026204X07	20,750
5 x 0,8	16	70	3,5	1	1026205X08	21,802
6 x 1	19	80	4,5	1	1026206X1	21,802
8 x 1,25	22	90	6	1	1026208X125	26,263
10 x 1,5	24	100	7	1	1026210X15	31,515
12 x 1,75	29	110	9	1	1026212X175	36,507
14 x 2	30	110	11	1	1026214X2	47,274
16 x 2	30	110	12	1	1026216X2	52,526
18 x 2,5	34	125	14	1	1026218X25	75,109
20 x 2,5	34	140	16	1	1026220X25	101,632
22 x 2,5	34	140	18	1	1026222X25	116,869
24 x 3	38	160	18	1	1026224X3	124,748

Gambo cilindrico Ø ≤ M3
Round shank

Applicazioni / Applications



Inox **Alu** **Acciaio** *Steel*

- Per filettature in fori passanti in acciai con R≥ 900 N/mm², acciai da bonifica e cementazione, acciai inox, materiali di difficile truciolabilità, acciai da utensile, bronzi e leghe di rame, alluminio e leghe, materiali sintetici duri.
- For through holes in steel with R≥900 N/mm², high alloy steel, tool steel, stainless steel, bronze, hard sinterized materials.
- Pour trous debouchants en acier avec R≥ 900 N/mm², acier allié et acier construction, fonte, bronze, matériel synthétique.
- Para orificios pasantes en aceros con R≥900 N/mm², acero aleado, acero inox, bronze, aluminio y aleaciones ligeras.
- Für durchgangsloch in Stahl mit R≥900 N/mm² ,werkzeuge Stähle, Bronze, rostfreie Stähle, alu langspanend und kurzpanend.

MASCHI A MACCHINA "CORTI" ISO 529

Short machine taps ISO 529 / Tarauds machine courte ISO 529
Machos de maquina cortos ISO 529 / Kurzmaschinen-Gewindebohrer

10172

Art. 10172
HSS-G

M



ISO 529/B



	Ø	/	L	d	pcs	cod.	€ cad/each
M 2	x 0,4	8	41	2,5	1	1017202X04	16,374
2,5	x 0,45	9,5	44,5	2,8	1	10172025X045	16,374
2,6	x 0,45	9,5	44,5	2,9	1	10172026X045	16,374
3	x 0,5	11	48	3,15	1	1017203X05	9,680
3,5	x 0,6	13	50	3,55	1	10172035X06	10,327
4	x 0,7	13	53	4	1	1017204X07	9,680
5	x 0,8	16	58	5	1	1017205X08	11,455
6	x 1	19	66	6,3	1	1017206X1	11,455
8	x 1,25	22	72	8	1	1017208X125	13,222
10	x 1,5	24	80	10	1	1017210X15	16,754
12	x 1,75	29	89	9	1	1017212X175	22,900



M 3÷12 7 pcs

10240313 HSS-G
€ 98,120

10173

Art. 10173
HSS-G



ISO 529/C 35°



	Ø	/	L	d	pcs	cod.	€ cad/each
M 2,5	x 0,45	9,5	44,5	2,8	1	10173025X045	21,524
2,6	x 0,45	9,5	44,5	2,9	1	10173026X045	21,524
3	x 0,5	11	48	3,15	1	1017303X05	13,621
4	x 0,7	13	53	4	1	1017304X07	13,621
5	x 0,8	16	58	5	1	1017305X08	14,140
6	x 1	19	66	6,3	1	1017306X1	14,140
8	x 1,25	22	72	8	1	1017308X125	15,906
10	x 1,5	24	80	10	1	1017310X15	20,755
12	x 1,75	29	89	9	1	1017312X175	28,199



M 3÷12 7 pcs

10240314 HSS-G
€ 112,921

Applicazioni / Applications



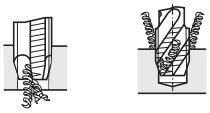
MASCHI A MACCHINA "SOVRADIMENSIONATI", FIL. DIN 13 A PASSO GROSSO

Machine taps oversize / Tarauds machine surdimensionné
Machos de maquina sobredimensionados / Gewindebohrer übergroß

HSS-CO



DIN 371/B **DIN 371/C-35°**
DIN 376/B **DIN 376/C-35°**



6G

	Ø	/	L	pcs	cod.	€ cad/each	/	L	pcs	cod.	€ cad/each
					DIN 371/B					**DIN 371/C-35°**	
M	**3** x 0,5	11	56	1	1031003X05	18,101	6	56	1	1031303X05	21,623
	4 x 0,7	13	63	1	1031004X07	18,101	7	63	1	1031304X07	21,623
	5 x 0,8	16	70	1	1031005X08	18,859	8	70	1	1031305X08	22,631
	6 x 1	19	80	1	1031006X1	18,859	10	80	1	1031306X1	22,631
	8 x 1,25	22	90	1	1031008X125	23,130	14	90	1	1031308X125	27,660
	10 x 1,5	24	100	1	1031010X15	26,402	16	100	1	1031310X15	31,930
					DIN 376/B						
M	**12** x 1,75	29	110	1	1031012X175	31,680					

7G

	Ø	/	L	pcs	cod.	€ cad/each	/	L	pcs	cod.	€ cad/each
					DIN 371/B					**DIN 371/C-35°**	
M	3 x 0,5	11	56	1	1031103X05	18,360	6	56	1	1031403X05	22,131
	4 x 0,7	13	63	1	1031104X07	18,360	7	63	1	1031404X07	22,131
	5 x 0,8	16	70	1	1031105X08	19,357	8	70	1	1031405X08	23,888
	6 x 1	19	80	1	1031106X1	19,357	10	80	1	1031406X1	23,888
	8 x 1,25	22	90	1	1031108X125	24,386	14	90	1	1031408X125	30,424
	10 x 1,5	24	100	1	1031110X15	29,166	16	100	1	1031410X15	35,961
					DIN 376/B					**DIN 376/C-35°**	
M	12 x 1,75	29	110	1	1031112X175	33,697	18	110	1	1031412X175	38,725

+ 0,1 mm.

	Ø	/	L	pcs	cod.	€ cad/each	/	L	pcs	cod.	€ cad/each
					DIN 371/B					**DIN 371/C-35°**	
M	**3** x 0,5	11	56	1	1031203X05	18,360	6	56	1	1031503X05	22,131
	4 x 0,7	13	63	1	1031204X07	18,360	7	63	1	1031504X07	22,131
	5 x 0,8	16	70	1	1031205X08	19,357	8	70	1	1031505X08	23,888
	6 x 1	19	80	1	1031206X1	19,357	10	80	1	1031506X1	23,888
	8 x 1,25	22	90	1	1031208X125	24,386	14	90	1	1031508X125	30,424
	10 x 1,5	24	100	1	1031210X15	29,166	16	100	1	1031510X15	35,961
					DIN 376/B					**DIN 376/C-35°**	
M	**12** x 1,75	29	110	1	1031212X175	33,697	18	110	1	1031512X175	38,975

Applicazioni / Applications



- Per filettature in acciai con R≤ 850 N/mm², ghisa, metalli non ferrosi a truciolo lungo.
- For threading in steel with R≤ 850 N/mm², cast iron, non ferrous metals with long chip
- Pour taraudage en acier avec R≤ 850 N/mm², fonte, alliages légers.
- Para roscados en materiales de hasta R≤ 850 N/mm².
- Für Gewinde Stahl mit R≤ 850 N/mm², Stahlguss, alu Langspanend.

6G: filetto con tolleranza lasca / *thread with large clearance.*
7G: tolleranza necessaria per tenere conto delle distorsioni da trattamento termico / *allowance for distorsion caused by heat treatment.*
+0,1 mm: tolleranza che tiene conto di un eventuale spessore di rivestimento elettrodeposto (0,25 µm) / *electroplating allowance thickness.*

Tech 446

MASCHI A MACCHINA "LUNGHI", FILETTATURA METRICA ISO A PASSO GROSSO

Long machine taps, ISO metric coarse threads / Tarauds machine long filetage metric ISO
Machos de máquina largos, rosca metrica larga / Lange maschinen-gewindebohrer, metrisches-Regelgewinde

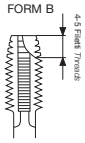
10291

Art. 10291
HSS-CO

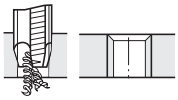
M



FORM B



HSS-CO AISI M35
HV 820÷850



≃ **DIN 371/B**
ISO 2/6H

	Ø	L	l	d	pcs	cod.	€ cad/each
M	**3** x 0,5	**100**	11	3,5	1	1029103100	23,116
	4 x 0,7	**100**	13	4,5	1	1029104100	23,116
	4 x 0,7	**120**	13	4,5	1	1029104120	24,557
	5 x 0,8	**100**	16	6	1	1029105100	24,557
	5 x 0,8	**120**	16	6	1	1029105120	26,442
	5 x 0,8	**150**	16	6	1	1029105150	28,237
	6 x 1	**100**	19	6	1	1029106100	24,557
	6 x 1	**120**	19	6	1	1029106120	26,442
	6 x 1	**150**	19	6	1	1029106150	28,237
	8 x 1,25	**120**	22	8	1	1029108120	30,134
	8 x 1,25	**150**	22	8	1	1029108150	34,902
	10 x 1,5	**120**	24	10	1	1029110120	34,902
	10 x 1,5	**150**	24	10	1	1029110150	42,451
	12 x 1,75	**120**	29	12	1	1029112120	40,468
	12 x 1,75	**150**	29	12	1	1029112150	48,672

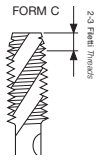
10292

Art. 10292
HSS-CO

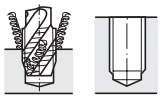
M



FORM C



HSS-CO AISI M35
HV 820÷850



≃ **DIN 371/C-35°**
ISO 2/6H

	Ø	L	l	d	pcs	cod.	€ cad/each
M	**3** x 0,5	**100**	6	3,5	1	1029203100	27,340
	4 x 0,7	**100**	7	4,5	1	1029204100	27,340
	4 x 0,7	**120**	7	4,5	1	1029204120	28,237
	5 x 0,8	**100**	8	6	1	1029205100	29,237
	5 x 0,8	**120**	8	6	1	1029205120	31,120
	5 x 0,8	**150**	8	6	1	1029205150	33,915
	6 x 1	**100**	10	6	1	1029206100	29,237
	6 x 1	**120**	10	6	1	1029206120	31,120
	6 x 1	**150**	10	6	1	1029206150	33,915
	8 x 1,25	**120**	14	8	1	1029208120	35,800
	8 x 1,25	**150**	14	8	1	1029208150	39,570
	10 x 1,5	**120**	16	10	1	1029210120	41,465
	10 x 1,5	**150**	16	10	1	1029210150	48,117
	12 x 1,75	**120**	18	12	1	1029212120	43,239
	12 x 1,75	**150**	18	12	1	1029212150	51,555

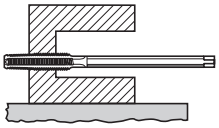
Applicazioni / Applications

R ≤ 850 N/mm²

Inox

Acciaio
Steel

- Per maschiature in acciai con R≤ 850 N/mm², ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai refrattari, acciai inox:
- For threading steel with R≤ 850 N/mm²,malleable cast iron, nonferrous metal with long chips, heat-resistant and refractory steel, stainless steel.
- Pour tarauder acier avec R≤ 850 N/mm², fonte malléable, alliages lègers, acier réfractaire et acier inoxydable.
- Para aterrajar acero con R≤ 850 N/mm², fundición, aleaciones ligeras, acero aleado y refractario, acero inoxidable.
- Um in Stahl mit R≤ 850 N/mm², Temperguss, Nichteisenmetalle, hitzbeständigem Stahl und rostfreierem Stahl Gewinde zu bohren



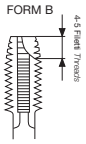
MASCHI A MACCHINA CON TRATTAMENTO DI RIVESTIMENTO SUPERFICIALE

Machine taps with coating treatment / Tarauds machine avec traitement de revetement superficiel
Machos de maquina con tratamiento de recubrimiento superficial / Maschinengewindebohrer mit Beschichtung

10297 **10298**



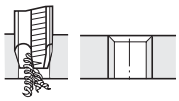




HSS-CO
HV 820÷850

DIN 371/B **DIN 376/B**

HSS-CO VAPO



Art. 10297
HSS-CO VAPO

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1029703X05	17,273
	4 x 0,7	13	63	4,5	1	1029704X07	17,273
	5 x 0,8	16	70	6	1	1029705X08	18,238
	6 x 1	19	80	6	1	1029706X1	18,238
	8 x 1,25	22	90	8	1	1029708X125	21,564
	10 x 1,5	24	100	10	1	1029710X15	25,798

Art. 10298
HSS-CO VAPO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9	1	1029812X175	32,297
	14 x 2	30	110	11	1	1029814X2	43,815
	16 x 2	30	110	12	1	1029816X2	50,789
	18 x 2,5	34	125	14	1	1029818X25	70,146
	20 x 2,5	34	140	16	1	1029820X25	97,132

Finitura: Ossidazione in vapore di Fe_3O_4 che aumenta la durezza superficiale e la resistenza a usura riducendo la tendenza all'incollamento dei trucioli.
Finish: Steam Tempered of Fe_3O_4 , increasing surface hardness and wear resistance.

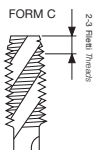


M 3÷12 7 pcs
10345315 HSS-CO VAPO
€ 158,288

10299 **10300**



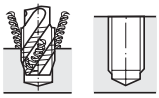




HSS-CO
HV 820÷850

DIN 371/C - 35° **DIN 376/C - 35°**

HSS-CO VAPO



Art. 10299
HSS-CO VAPO

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1029903X05	24,636
	4 x 0,7	7	63	4,5	1	1029904X07	24,636
	5 x 0,8	8	70	6	1	1029905X08	25,600
	6 x 1	10	80	6	1	1029906X1	25,600
	8 x 1,25	14	90	8	1	1029908X125	30,744
	10 x 1,5	16	100	10	1	1029910X15	35,878

Art. 10300
HSS-CO VAPO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9	1	1030012X175	44,115
	14 x 2	20	110	11	1	1030014X2	56,433
	16 x 2	22	110	12	1	1030016X2	60,513
	18 x 2,5	25	125	14	1	1030018X25	86,112
	20 x 2,5	25	140	16	1	1030020X25	112,720



M 3÷12 7 pcs
10345316 HSS-CO VAPO
€ 194,265

Applicazioni / Applications

R ≤ 900 N/mm²



Acciaio
Steel



Metals



- Per acciai con R ≤ 900 N/mm², materiali mediamente abrasivi, ghisa e metalli in genere.
- Suitable for steel with R ≤ 900 N/mm², quite abrasive materials, cast iron, metals.
- Para los aceros con R ≤ 900 N/mm², materiales medianamente abrasivos, fundición y todos los metales.
- Pour les aciers avec R ≤ 900 N/mm², matériaux modérément abrasifs, de la fonte et tous les métaux.

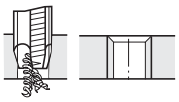
MASCHI A MACCHINA IN HSS-CO RIVESTITI AL TiN, FIL. METRICA ISO A PASSO GROSSO

HSS-CO TiN coated machine taps, metric thread /Tarauds machine HSS-CO avec revêtement TiN, fil. métrique / Machos de maquina HSS-CO con recubrimiento de titanio, rosca metrica / Maschinengewindebohrer mit TiN beschichtung für metrisches ISO Regelgewinde

10350 **10351**



DIN 371/B **DIN 376/B**



Art. 10350
HSS-CO+TiN

M

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	1	1035003X05	25,178
4 x 0,7	13	63	4,5	1	1035004X07	22,541
5 x 0,8	16	70	6	1	1035005X08	25,001
6 x 1	19	80	6	1	1035006X1	25,987
8 x 1,25	22	90	8	1	1035008X125	33,261
10 x 1,5	24	100	10	1	1035010X15	36,034

Art. 10351
HSS-CO+TiN

Ø	/	L	d	pcs	cod.	€ cad/each
M 12 x 1,75	29	110	9	1	1035112X175	43,107
14 x 2	30	110	11	1	1035114X2	54,814
16 x 2	30	110	12	1	1035116X2	62,209
18 x 2,5	34	125	14	1	1035118X25	76,001
20 x 2,5	34	140	16	1	1035120X25	90,913
22 x 2,5	34	140	18	1	1035122X25	99,527
24 x 3	38	160	18	1	1035124X3	119,917

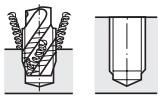


M 3÷12 7 pcs
10390300 HSS-CO+TiN
€ 185,873

10354 **10355**



DIN 371/C-35° **DIN 376/C-35°**



Art. 10354
HSS-CO+TiN

M

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,5	6	56	3,5	1	1035403X05	29,802
4 x 0,7	7	63	4,5	1	1035404X07	29,802
5 x 0,8	8	70	6	1	1035405X08	28,383
6 x 1	10	80	6	1	1035406X1	29,347
8 x 1,25	14	90	8	1	1035408X125	38,206
10 x 1,5	16	100	10	1	1035410X15	42,518

Art. 10355
HSS-CO+TiN

Ø	/	L	d	pcs	cod.	€ cad/each
M 12 x 1,75	18	110	9	1	1035512X175	52,064
14 x 2	20	110	11	1	1035514X2	64,715
16 x 2	22	110	12	1	1035516X2	73,362
18 x 2,5	25	125	14	1	1035518X25	89,083
20 x 2,5	25	140	16	1	1035520X25	105,770
22 x 2,5	25	140	18	1	1035522X25	122,310
24 x 3	30	160	18	1	1035524X3	136,703



M 3÷12 7 pcs
10390305 HSS-CO+TiN
€ 215,851

Applicazioni / Applications

R ≤ 1200 N/mm²

Inox

Acciaio *Steel*

- Alto rendimento nella filettatura in acciai ad elevata resistenza sino a R≤1200 N/mm², quali acciai da bonifica alto legati, acciai inox, acciai resistenti agli acidi, acciai refrattari. Temperatura max. di lavoro 550°
- High performances in high strength steel R≤ 1200 N/mm², stainless steel, acid resistant steel, high alloy construction steel.
- Haute rendement en taraudage des aciers alliés traités, acier inox, acier refractaire avec R≤1200 N/mm²
- Alto rendimento en taladro de acero de alta resistencia de hasta R≤1200 N/mm², acero inox, acero tratado, etc…
- Breites anwendungsspektrum u.a. für gut Spanbare Stähle, rostfrei Stähle, Säurebeständigestähle und Vergütungsstähle bis 1200 N/mm²

MASCHI A MACCHINA UNIVERSALI, FILETTATURA METRICA ISO A PASSO GROSSO

Universal machine taps, metric thread / Tarauds machine, fil. Metrique
Machos de maquina, rosca metrica / Maschinen-Gewindebohrer für metrisches ISO-Regelgewinde

SUPER POWER TAPS

METALLURGIA DELLE POLVERI
POWDER METALLURGY

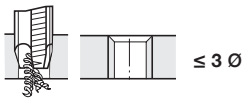
10362 NEW

HSS-CO (PM)+TiN DIN 371/B ISO 2/6H

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft* **M**



DIN 371/B DIN 376/B



	Ø	/	L	d	pcs	cod.	€ cad/each
M	**2** x 0,4	8	45	2,8	1	1036202X04	28,460
	3 x 0,5	11	56	3,5	1	1036203X05	35,434
	4 x 0,7	13	63	4,5	1	1036204X07	35,434
	5 x 0,8	16	70	6	1	1036205X08	36,282
	6 x 1	19	80	6	1	1036206X1	43,302
	8 x 1,25	22	90	8	1	1036208X125	48,486
	10 x 1,5	24	100	10	1	1036210X15	63,894



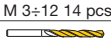
M 3÷12 7 pcs
10390320 HSS-CO+TiN
€ 339,150

HSS-CO (PM)+TiN DIN 376/B ISO 2/6H

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9	1	1036212X175	76,239
	14 x 2	20	110	11	1	1036214X2	115,444
	16 x 2	22	110	12	1	1036216X2	115,444
	18 x 2,5	25	125	14	1	1036218X25	187,630
	20 x 2,5	25	140	16	1	1036220X25	193,755



M 3÷12 14 pcs



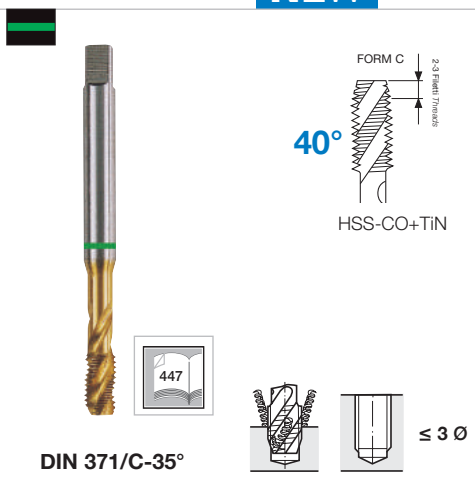
2,5-3,3-4,2-5
6,8-8,5-10,2

10390321 HSS-CO+TiN
€ 348,500

10363 NEW

HSS-CO+TiN DIN 371/C-40° ISO 2/6H

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft* **M**



DIN 371/C-35°

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**2** x 0,4	6	45	2,8	1	1036302X04	26,387
	3 x 0,5	6	56	3,5	1	1036303X05	30,533
	4 x 0,7	7	63	4,5	1	1036304X07	32,559
	5 x 0,8	8	70	6	1	1036305X08	32,983
	6 x 1	10	80	6	1	1036306X1	41,229
	8 x 1,25	14	90	8	1	1036308X125	44,387
	10 x 1,5	16	100	10	1	1036310X15	56,732

Metallurgia delle polveri / Powder metallurgy

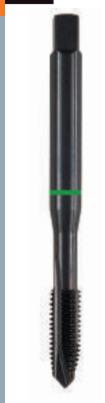
L'acciaio superrapido, derivato dal processo di metallurgia delle polveri, offre prestazioni eccezionali: presenta una elevata durezza a caldo e una elevata tenacità, garantita dall'alto contenuto di elementi di lega e dalla microstruttura fortemente omogenea. Gli utensili prodotti con la metallurgia delle polveri (Powder Metallurgy) hanno una durata più elevata ed un rendimento più alto, oltre che una finitura superficiale ottima, che agevola lo scorrimento dei trucioli di lavorazione lontano dalla zona di taglio.
HSS made by powder metallurgy has excellent performances: its homogeneous structure assures high toughness and high resistance. The finishing of the tools are really smooth, so the chip can easily be evacuated far from the cutting zone, thus avoiding built-up edge growth. L'acier super rapide, issu du procédé de métallurgie des poudres, offre des performances exceptionnelles : il présente une dureté à chaud élevée et une haute ténacité, garantie par la forte teneur en éléments d'alliage et par la microstructure très homogène. Les outils fabriqués avec la métallurgie des poudres (Powder Metallurgy) ont une durée et un rendement plus élevés ainsi qu'une excellente finition de surface, ce qui facilite le glissement des copeaux d'usinage hors de la zone de découpe. El acero super-rápido derivado del proceso de metalurgia de los polvos ofrece unas prestaciones excepcionales; presenta una elevada dureza en caliente y una elevada tenacidad, garantizada por el alto contenido de elementos de aleación y por la micro-estructura altamente homogénea. Los utensilios producidos con la metalurgia de los polvos (Powder Metallurgy) tienen una duración más extensa y un rendimiento más elevado, además de un óptimo acabado superficial, que facilita el deslizamiento de las rebabas del trabajo lejos de la zona de corte. Der Hochleistungs-Schnellstahl aus dem Verfahren der Pulvermetallurgie bietet außergewöhnliche Leistungen: er verfügt über eine hohe Hitzebeständigkeit und eine hohe Zähigkeit, die durch den hohen Gehalt an Legierungselementen und die äußerst homogene Mikrostruktur garantiert ist. Die mit der Pulvermetallurgie (Powder Metallurgy) hergestellten Werkzeuge besitzen eine höhere Haltbarkeit und eine höhere Arbeitsleistung. Zudem bieten sie eine hervorragende Oberflächengüte, die das Gleiten der Späne aus dem Schneidbereich erleichtert.

MASCHI A MACCHINA UNIVERSALI, FILETTATURA METRICA ISO A PASSO GROSSO

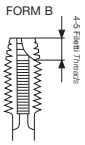
Universal machine taps, metric thread / Tarauds machine, fil. Metrique
Machos de maquina, rosca metrica / Maschinen-Gewindebohrer für metrisches ISO-Regelgewinde

SUPER POWER TAPS

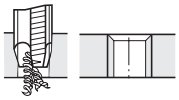
10515 NEW







HSS-CO
HV 820÷850



DIN 371/B **DIN 376/B**

HSS-CO DIN 371/B ISO 2/6H

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft*

Ø	/	L	d	pcs	cod.	€ cad/each	VAPO
M 3 x 0,5	11	56	3,5	1	1051503X05	22,712	
4 x 0,7	13	63	4,5	1	1051504X07	23,089	
5 x 0,8	16	70	6,0	1	1051505X08	23,089	
6 x 1	19	80	6,0	1	1051506X1	23,513	
8 x 1,25	22	90	8,0	1	1051508X125	27,235	
10 x 1,5	24	100	10,0	1	1051510X15	32,559	

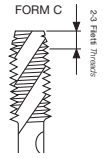
HSS-CO DIN 376/B ISO 2/6H

Ø	/	L	d	pcs	cod.	€ cad/each
M 12 x1,75	29	110	9,0	1	1051512X175	41,229
14 x2	30	110	11,0	1	1051514X2	60,830
16 x2	30	110	12,0	1	1051516X2	60,830
20 x2,5	34	140	16,0	1	1051520X25	96,878

10516 NEW

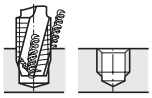






HSS-CO
HV 820÷850

DIN 371/C-40° **DIN 376/C-40°**



≤ 3 Ø

HSS-CO DIN 371/C-40° ISO 2/6H

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft*

Ø	/	L	d	pcs	cod.	€ cad/each	VAPO
M 3 x 0,5	6	56	3,5	1	1051603X05	23,937	
4 x 0,7	7	63	4,5	1	1051604X07	23,937	
5 x 0,8	8	70	6,0	1	1051605X08	25,162	
6 x 1	10	80	6,0	1	1051606X1	25,963	
8 x 1,25	14	90	8,0	1	1051608X125	30,533	
10 x 1,5	16	100	10,0	1	1051610X15	35,057	

HSS-CO DIN 376/C-40° ISO 2/6H

Ø	/	L	d	pcs	cod.	€ cad/each
M 12 x1,75	18,5	110	9,0	1	1051612X175	40,004
16 x2	20	110	12,0	1	1051616X2	58,805
20 x2,5	25	140	16,0	1	1051620X25	88,680

Applicazioni / Applications

R ≤ 900 N/mm²



Inox **Acciaio** *Steel*

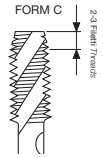
- I maschi con anello verde hanno un alto rendimento nella filettatura di acciai con resistenza R<900 N/mm², materiali mediamente abrasivi, alluminio e sue leghe, acciai in genere e ghise. Il trattamento superficiale di vaporizzazione aumenta la durezza superficiale e la resistenza a usura del maschio.
- Green ring machine taps are useful when threading steel with R<900 N/mm², light abrasive materials, aluminium and its alloys, general steels and cast iron. The steam tempering of the tap increases hardness and wear resistance.

MASCHI A MACCHINA CON CANALINA DI REFRIGERAZIONE INTERNA, FILETTATURA METRICA ISO A PASSO GROSSO

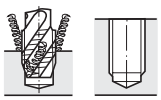
Machine taps with internal cooling system, ISO metric thread / Tarauds machine avec trous réfrigérants, filetage metric ISO / Machos de màquina con sistema de refrigeración interno, rosca metrica larga / Maschinen-gewindebohrer mit Schmierloch, metrisches-Regelgewinde

10330 NEW





HSS-CO



HSS-CO DIN 371/C-40° ISO 2/6H

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft*

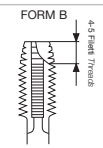
Ø	/	L	d	pcs	cod.	€ cad/each
M 5 x 0,8	8,5	70	6	1	1033005X08	84,815
6 x 1	11	80	6	1	1033006X1	84,815
8 x 1,25	14	90	8	1	1033008X125	84,815
10 x 1,5	16	100	10	1	1033010X15	120,625

MASCHI A MACCHINA IN HSS-CO RIVESTITI AL TiAlN, FIL. METRICA ISO A PASSO GROSSO

HSS-CO TiAlN coated machine taps / Tarauds machine HSS-CO avec revêtement TiAlN, fil. métrique / Machos de maquina HSS-CO con recubrimiento TiAlN, rosca metrica / Maschinengewindebohrer mit TiAlN beschichtung für metrisches ISO Regelgewinde

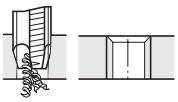
10400 **10401**





HSS-CO+TiAlN
HV 0,05=3000
T° Max. : 800°C





DIN 371/B **DIN 376/B**

Art. 10400
HSS-CO+TiAlN

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1040003X05	27,584
	4 x 0,7	13	63	4,5	1	1040004X07	27,584
	5 x 0,8	16	70	6	1	1040005X08	27,584
	6 x 1	19	80	6	1	1040006X1	29,381
	8 x 1,25	22	90	8	1	1040008X125	34,780
	10 x 1,5	24	100	10	1	1040010X15	37,685

Art. 10401 - HSS-CO+TiAlN

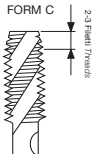
	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9	1	1040112X175	49,614
	14 x 2	30	110	11	1	1040114X2	63,373
	16 x 2	30	110	12	1	1040116X2	71,367
	18 x 2,5	34	125	14	1	1040118X25	85,148
	20 x 2,5	34	140	16	1	1040120X25	104,329
	22 x 2,5	34	140	18	1	1040122X25	117,521
	24 x 3	38	160	18	1	1040124X3	136,703



M 3÷12 7 pcs
10450300 HSS-CO+TiAlN
€ 213,475

10404 **10405**

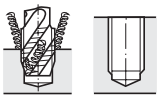




HSS-CO+TiAlN
HV 0,05=3300
T° Max. : 800°C



DIN 371/C-35° **DIN 376/C-35°**



Art. 10404
HSS-CO+TiAlN

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1040403X05	32,972
	4 x 0,7	7	63	4,5	1	1040404X07	32,972
	5 x 0,8	8	70	6	1	1040405X08	34,293
	6 x 1	10	80	6	1	1040406X1	34,902
	8 x 1,25	14	90	8	1	1040408X125	43,172
	10 x 1,5	16	100	10	1	1040410X15	47,308

Art. 10405 - HSS-CO+TiAlN

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9	1	1040512X175	59,449
	14 x 2	20	110	11	1	1040514X2	74,460
	16 x 2	22	110	12	1	1040516X2	83,895
	18 x 2,5	25	125	14	1	1040518X25	99,716
	20 x 2,5	25	140	16	1	1040520X25	121,114
	22 x 2,5	25	140	18	1	1040522X25	136,703
	24 x 3	30	160	18	1	1040524X3	157,090



M 3÷12 7 pcs
10450305 HSS-CO+TiAlN
€ 238,635

MASCHI A MACCHINA CON CANALINA DI REFRIGERAZIONE INTERNA, FILETTATURA METRICA ISO A PASSO GROSSO

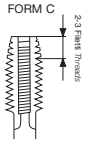
Machine taps with internal cooling system, ISO metric thread / Tarauds machine avec trous réfrigérants, filetage metric ISO / Machos de màquina con sistema de refrigeración interno, rosca metrica larga / Maschinen-gewindebohrer mit Schmierloch, metrisches-Regelgewinde

10340 NEW

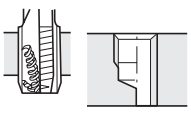
HM DIN 371/C ISO 6HX **TOP PERFORMANCE**

Gambo rinforzato / *Reinforced shank / Queue renforcèe / Mango renforzado / Verstarkten Shaft*





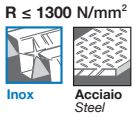
HM
SOLID CARBIDE



	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	8	56	3,5	1	1034003X05	135,704
	4 x 0,7	10	63	4,5	1	1034004X07	135,704
	5 x 0,8	10	70	6	1	1034005X08	160,206
	6 x 1	12	80	6	1	1034006X1	160,206
	8 x 1,25	16	90	8	1	1034008X125	243,136
	10 x 1,5	18	100	10	1	1034010X15	243,136

Applicazioni / Applications

R ≤ 1300 N/mm²



Inox **Acciaio** *Steel*

- Altissimo rendimento nella maschiatura di acciai ad alta resistenza sino R≤ 1300 N/mm², quali acciai inox, acciai resistenti alla corrosione, acciai refrattari, acciai da bonifica alto legati trattati. Temperatura operativa sino a 800°
- High performances in high strength steel with R≤ 1300 N/mm², stainless steel, heat resistant steel, high alloy steel.

MASCHI A MACCHINA, SCAN. DIRITTE, IMB. CORRETTO, FILETTATURA METRICA ISO A PASSO FINE

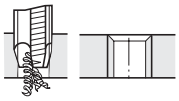
Machine taps, metric ISO fine thread /Tarauds machine, filetage métrique pas fin

Machos de maquina, rosca metrica fina / Maschinengewindebohrer für metrisches ISO fein-Gewinde

10259

HSS-CO DIN 374/B ISO 2/6H — **MF**





Gambo cilindrico Ø ≤ M3
Round shank

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,35	9	56	2,2	1	1025903X035	31,154
4 x 0,35	10	63	2,8	1	1025904X035	31,154
4 x 0,5	10	63	2,8	1	1025904X05	27,174
5 x 0,5	12	70	3,5	1	1025905X05	27,174
5 x 0,75	12	70	3,5	1	1025905X075	31,154
6 x 0,5	14	80	4,5	1	1025906X05	27,939
6 x 0,75	14	80	4,5	1	1025906X075	27,939
7 x 0,75	14	80	5,5	1	1025907X075	38,438
8 x 0,5	19	80	6	1	1025908X05	44,348
8 x 0,75	19	80	6	1	1025908X075	36,034
8 x 1	22	90	6	1	1025908X1	31,543
9 x 0,75	19	80	7	1	1025909X075	42,074
9 x 1	22	90	7	1	1025909X1	38,438
10 x 0,75	20	90	7	1	1025910X075	36,742
10 x 1	20	90	7	1	1025910X1	36,742
10 x 1,25	24	100	7	1	1025910X125	36,742
11 x 1	20	90	8	1	1025911X1	52,053
11 x 1,25	22	90	8	1	1025911X125	52,053
12 x 0,75	22	100	9	1	1025912X075	52,053
12 x 1	22	100	9	1	1025912X1	42,873
12 x 1,25	22	100	9	1	1025912X125	42,873
12 x 1,5	22	100	9	1	1025912X15	42,873
13 x 1	22	100	11	1	1025913X1	60,955
13 x 1,5	22	100	11	1	1025913X15	60,955
14 x 0,75	22	100	11	1	1025914X075	60,955
14 x 1	22	100	11	1	1025914X1	60,955
14 x 1,25	22	100	11	1	1025914X125	60,955
14 x 1,5	22	100	11	1	1025914X15	60,955
15 x 1	22	100	12	1	1025915X1	60,955
15 x 1,5	22	100	12	1	1025915X15	60,955
16 x 1	22	100	12	1	1025916X1	60,955
16 x 1,25	22	100	12	1	1025916X125	60,955
16 x 1,5	22	100	12	1	1025916X15	60,955
18 x 1	25	110	14	1	1025918X1	73,351
18 x 1,25	25	110	14	1	1025918X125	73,351
18 x 1,5	25	110	14	1	1025918X15	73,351
18 x 2	34	125	14	1	1025918X2	73,351
20 x 1	25	125	16	1	1025920X1	78,241
20 x 1,25	25	125	16	1	1025920X125	78,241
20 x 1,5	25	125	16	1	1025920X15	78,241
20 x 2	34	140	16	1	1025920X2	78,241
21 x 1,5	25	125	16	1	1025921X15	105,958
22 x 1	25	125	18	1	1025922X1	105,958
22 x 1,25	25	125	18	1	1025922X125	105,958
22 x 1,5	25	125	18	1	1025922X15	105,958
22 x 2	34	140	18	1	1025922X2	105,958
23 x 1,5	25	125	18	1	1025923X15	141,502
24 x 1	28	140	18	1	1025924X1	122,310
24 x 1,25	28	140	18	1	1025924X125	122,310
24 x 1,5	28	140	18	1	1025924X15	122,310
24 x 2	28	140	18	1	1025924X2	122,310

Ø	/	L	d	pcs	cod.	€ cad/each
M 25 x 1	28	140	18	1	1025925X1	141,502
25 x 1,5	28	140	18	1	1025925X15	141,502
25 x 2	28	140	18	1	1025925X2	141,502
26 x 1	28	140	18	1	1025926X1	140,305
26 x 1,5	28	140	18	1	1025926X15	140,305
26 x 2	28	140	18	1	1025926X2	140,305
27 x 1	28	140	20	1	1025927X1	151,093
27 x 1,5	28	140	20	1	1025927X15	151,093
27 x 2	28	140	20	1	1025927X2	151,093
28 x 1	28	140	20	1	1025928X1	151,093
28 x 1,5	28	140	20	1	1025928X15	151,093
28 x 2	28	140	20	1	1025928X2	151,093
29 x 1,5	28	150	22	1	1025929X15	203,855
30 x 1	28	150	22	1	1025930X1	175,073
30 x 1,5	28	150	22	1	1025930X15	175,073
30 x 2	28	150	22	1	1025930X2	175,073
30 x 2,5	45	180	22	1	1025930X25	195,463
30 x 3	45	180	22	1	1025930X3	195,463
32 x 1,5	28	150	22	1	1025932X15	219,444
32 x 2	28	150	22	1	1025932X2	219,444
32 x 3	50	180	22	1	1025932X3	219,444
33 x 1,5	30	160	25	1	1025933X15	244,633
33 x 2	30	160	25	1	1025933X2	244,633
33 x 3	50	180	25	1	1025933X3	244,633
34 x 1,5	30	170	28	1	1025934X15	249,423
34 x 2	30	170	28	1	1025934X2	249,423
35 x 1,5	30	170	28	1	1025935X15	260,221
36 x 1,5	30	170	28	1	1025936X15	260,221
36 x 2	30	170	28	1	1025936X2	260,221
36 x 3	56	200	28	1	1025936X3	260,221
38 x 1,5	30	170	28	1	1025938X15	278,205
39 x 1,5	30	170	32	1	1025939X15	278,205
39 x 2	30	170	32	1	1025939X2	278,205
39 x 3	60	200	32	1	1025939X3	278,205
40 x 1,5	30	170	32	1	1025940X15	300,988
40 x 2	30	170	32	1	1025940X2	300,988
40 x 3	60	200	32	1	1025940X3	300,988
42 x 1,5	30	170	32	1	1025942X15	337,038
42 x 2	30	170	32	1	1025942X2	337,038
42 x 3	60	200	32	1	1025942X3	337,038
45 x 1,5	32	180	36	1	1025945X15	375,359
45 x 2	32	180	36	1	1025945X2	375,359
45 x 3	50	200	36	1	1025945X3	375,359
48 x 1,5	32	190	36	1	1025948X15	447,508
48 x 2	32	190	36	1	1025948X2	447,508
48 x 3	50	225	36	1	1025948X3	447,508
50 x 1,5	32	190	36	1	1025950X15	527,536
50 x 2	32	190	36	1	1025950X2	527,536
50 x 3	50	225	36	1	1025950X3	527,536
52 x 1,5	32	190	40	1	1025952X15	574,882
52 x 2	32	190	40	1	1025952X2	574,882
52 x 3	50	225	40	1	1025952X3	574,882
63 x 1,5	50	275	50	1	1025963X15	991,804

Applicazioni
Applications

- Per fori passanti in acciai con R≤ 850 N/mm², ghisa, metalli non ferrosi a truciolo lungo.
- For through holes in steel with R≤ 850 N/mm², cast iron, non ferrous metals with long chip.
- Pour trous débouchants en acier avec R≤ 850 N/mm², fonte, alliages légers.
- Para orificios pasantes en materiales de hasta R≤ 850 N/mm².
- Für durchgangsloch in Stahl mit R≤ 850 N/mm², Stahlguss, alu langspanend

R ≤ 850 N/mm²



Inox



Acciaio
Steel



Metals



Alu



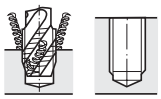
MASCHI A MACCHINA, SCAN. ELICOIDALI 35°, FIL. METRICA ISO A PASSO FINE

Machine taps, 35° spiral flute, metric fine thread - Tarauds machine, goujoures 35°, filetage métrique fin

Machos de maquina , canal helicoidal 35°, rosca metrica fina / Maschinen-gewindebohrer, 35° rechtsspirale, für metrisches ISO Feingewinde

10260





Gambo cilindrico Ø ≤ M3
Round shank

Applicazioni
Applications

- Per fori ciechi in acciai con R≤ 850 N/mm², ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai inox.
- For blind holes in steel with R≤ 850 N/mm², malleable cast iron, non ferrous metals with long chips, stainless steel, heat resistant steel.
- Pour trous borgnes en acier avec R≤ 850 N/mm², fonte, alliages légers, acier inoxidable.
- Para orificios ciegos en acero de hasta R≤ 850 N/mm², aleaciones ligeras, fundicion, acero aleado y acero inox.
- Für grundloch in Stähl mit R≤ 850 N/mm², Stahlguss, alu langspanend, korrosions beständige Stahle (V 2A – V4A) etc.

R ≤ 850 N/mm²



Inox



Acciaio
Steel



Metals



Alu



HSS-CO DIN 374/C-35° ISO 2/6H

MF

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,35	9	56	2,2	1	1026003X035	33,261
4 x 0,35	10	63	2,8	1	1026004X035	35,478
4 x 0,5	10	63	2,8	1	1026004X05	32,152
5 x 0,5	12	70	3,5	1	1026005X05	35,478
5 x 0,75	12	70	3,5	1	1026005X075	35,478
6 x 0,5	14	80	4,5	1	1026006X05	35,478
6 x 0,75	14	80	4,5	1	1026006X075	35,478
7 x 0,75	14	80	5,5	1	1026007X075	35,478
8 x 0,5	19	80	6	1	1026008X05	43,239
8 x 0,75	19	80	6	1	1026008X075	32,152
8 x 1	22	90	6	1	1026008X1	37,696
9 x 0,75	19	80	7	1	1026009X075	54,958
9 x 1	22	90	7	1	1026009X1	42,130
10 x 0,75	20	90	7	1	1026010X075	49,891
10 x 1	20	90	7	1	1026010X1	42,130
10 x 1,25	24	100	7	1	1026010X125	43,794
11 x 1	20	90	8	1	1026011X1	48,672
11 x 1,25	22	90	8	1	1026011X125	48,672
12 x 0,75	22	100	9	1	1026012X075	48,672
12 x 1	22	100	9	1	1026012X1	48,672
12 x 1,25	22	100	9	1	1026012X125	48,672
12 x 1,5	22	100	9	1	1026012X15	48,672
13 x 1	22	100	11	1	1026013X1	59,481
13 x 1,5	22	100	11	1	1026013X15	59,481
14 x 0,75	22	100	11	1	1026014X075	59,481
14 x 1	22	100	11	1	1026014X1	59,481
14 x 1,25	22	100	11	1	1026014X125	59,481
14 x 1,5	22	100	11	1	1026014X15	59,481
15 x 1	22	100	12	1	1026015X1	69,116
15 x 1,5	22	100	12	1	1026015X15	69,116
16 x 1	22	100	12	1	1026016X1	69,116
16 x 1,25	22	100	12	1	1026016X125	69,116
16 x 1,5	22	100	12	1	1026016X15	69,116
18 x 1	25	110	14	1	1026018X1	84,837
18 x 1,25	25	110	14	1	1026018X125	84,837
18 x 1,5	25	110	14	1	1026018X15	84,837
18 x 2	34	125	14	1	1026018X2	84,837
20 x 1	25	125	16	1	1026020X1	94,350
20 x 1,25	25	125	16	1	1026020X125	94,350
20 x 1,5	25	125	16	1	1026020X15	94,350
20 x 2	34	140	16	1	1026020X2	94,350
21 x 1,5	25	125	16	1	1026021X15	94,350
22 x 1	25	125	18	1	1026022X1	119,739
22 x 1,25	25	125	18	1	1026022X125	119,739
22 x 1,5	25	125	18	1	1026022X15	114,129
22 x 2	34	140	18	1	1026022X2	114,129
23 x 1,5	25	125	18	1	1026023X15	138,265
24 x 1	28	140	18	1	1026024X1	138,265
24 x 1,25	28	140	18	1	1026024X125	138,265
24 x 1,5	28	140	18	1	1026024X15	138,265
24 x 2	28	140	18	1	1026024X2	138,265

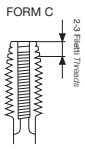
Ø	/	L	d	pcs	cod.	€ cad/each
M 25 x 1	28	140	18	1	1026025X1	138,265
25 x 1,5	28	140	18	1	1026025X15	138,265
25 x 2	28	140	18	1	1026025X2	138,265
26 x 1	28	140	18	1	1026026X1	146,348
26 x 1,5	28	140	18	1	1026026X15	146,348
26 x 2	28	140	18	1	1026026X2	152,999
27 x 1	28	140	20	1	1026027X1	166,681
27 x 1,5	28	140	20	1	1026027X15	166,681
27 x 2	28	140	20	1	1026027X2	166,681
28 x 1	28	140	20	1	1026028X1	166,681
28 x 1,5	28	140	20	1	1026028X15	166,681
28 x 2	28	140	20	1	1026028X2	166,681
29 x 1,5	28	150	22	1	1026029X15	189,464
30 x 1	28	150	22	1	1026030X1	189,464
30 x 1,5	28	150	22	1	1026030X15	189,464
30 x 2	28	150	22	1	1026030X2	189,464
30 x 2,5	45	180	22	1	1026030X25	189,464
30 x 3	45	180	22	1	1026030X3	189,464
32 x 1,5	28	150	22	1	1026032X15	236,241
32 x 2	28	150	22	1	1026032X2	236,241
32 x 3	50	180	22	1	1026032X3	236,241
33 x 1,5	30	160	25	1	1026033X15	236,241
33 x 2	30	160	25	1	1026033X2	236,241
33 x 3	50	180	25	1	1026033X3	236,241
34 x 1,5	30	170	28	1	1026034X15	236,241
34 x 2	30	170	28	1	1026034X2	236,241
35 x 1,5	30	170	28	1	1026035X15	236,241
36 x 1,5	30	170	28	1	1026036X15	296,198
36 x 2	30	170	28	1	1026036X2	296,198
36 x 3	56	200	28	1	1026036X3	296,198
38 x 1,5	30	170	28	1	1026038X15	311,787
39 x 1,5	30	170	32	1	1026039X15	311,787
39 x 2	30	170	32	1	1026039X2	311,787
39 x 3	60	200	32	1	1026039X3	311,787
40 x 1,5	30	170	32	1	1026040X15	318,997
40 x 2	30	170	32	1	1026040X2	318,997
40 x 3	60	200	32	1	1026040X3	318,997
42 x 1,5	30	170	32	1	1026042X15	360,706
42 x 2	30	170	32	1	1026042X2	360,706
42 x 3	60	200	32	1	1026042X3	360,706
45 x 1,5	32	180	36	1	1026045X15	422,705
45 x 2	32	180	36	1	1026045X2	422,705
45 x 3	50	200	36	1	1026045X3	422,705
48 x 1,5	32	190	36	1	1026048X15	501,607
48 x 2	32	190	36	1	1026048X2	501,607
48 x 3	50	225	36	1	1026048X3	501,607
50 x 1,5	32	190	36	1	1026050X15	586,148
50 x 2	32	190	36	1	1026050X2	586,148
50 x 3	50	225	36	1	1026050X3	586,148
52 x 1,5	32	190	40	1	1026052X15	643,634
52 x 2	32	190	40	1	1026052X2	643,634
52 x 3	50	225	40	1	1026052X3	643,634
63 x 1,5	40	275	50	1	1026063X15	1088,887

MASCHI A MACCHINA, SCANALATURE DIRITTE, IMBOCCO "C", FIL. METRICA ISO A PASSO FINE.

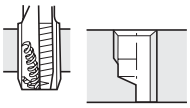
Machine taps, "C" chamfer form, metric fine thread /Tarauds machine, entrée "C", filetage métrique fin
Machos de maquina, entrada "C", rosca metrica fina /Maschinengewindebohrer für metrisches ISO-fein-Gewinde

10252





HSS-CO AISI M35
HV 820÷850



Applicazioni / Applications

R ≤ 850 N/mm²
Inox
Acciaio *Steel*
Metals
Alu

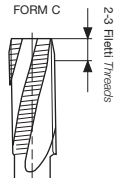
- Per fori ciechi e passanti in acciai e ghisa con R≤ 850 N/mm2
- For blind and through holes in steel with R≤ 850 N/mm2
- Pour trous débouchants et borgnes en acier avec R≤850 N/mm2
- Para orificios pasantes y ciegos in acero de hasta R≤ 850 N/mm2
- Für grund- und durchgangsloch in Stahl, Stahlguss mit R≤ 850 N/mm2

HSS-CO DIN 374/C ISO 2/6H — MF

Ø	/	L	d	pcs	cod.	€ cad/each
M 4 x 0,35	10	63	2,8	1	1025204X035	22,618
5 x 0,5	12	70	3,5	1	1025205X05	22,618
6 x 0,75	14	80	4,5	1	1025206X075	22,618
8 x 0,75	19	80	6,0	1	1025208X075	26,175
8 x 1	22	90	6,0	1	1025208X1	26,175
10 x 1	20	90	7,0	1	1025210X1	30,090
10 x 1,25	24	100	7,0	1	1025210X125	30,090
12 x 1	22	100	9,0	1	1025212X1	31,387
12 x 1,25	22	100	9,0	1	1025212X125	31,387
12 x 1,5	22	100	9,0	1	1025212X15	31,387
14 x1	22	100	11,0	1	1025214X1	35,977
14 x 1,25	22	100	11,0	1	1025214X125	35,977
14 x 1,5	22	100	11,0	1	1025214X15	35,977
16 x 1	22	100	12,0	1	1025216X1	41,720
16 x 1,5	22	100	12,0	1	1025216X15	41,720
18 x 1	25	110	14,0	1	1025218X1	51,443
18 x 1,5	25	110	14,0	1	1025218X15	51,443
18 x 2	34	125	14,0	1	1025218X2	51,443
20 x 1	25	125	16,0	1	1025220X1	57,264
20 x 1,25	25	125	16,0	1	1025220X125	57,264
20 x 1,5	25	125	16,0	1	1025220X15	57,264
20 x 2	34	140	16,0	1	1025220X2	57,264
22 x 1	25	125	18,0	1	1025222X1	66,587
22 x 1,5	25	125	18,0	1	1025222X15	66,587
22 x 2	34	140	18,0	1	1025222X2	66,587
24 x 1	28	140	18,0	1	1025224X1	75,790
24 x 1,5	28	140	18,0	1	1025224X15	75,790
24 x 2	28	140	18,0	1	1025224X2	75,790
25 x 1	28	140	18,0	1	1025225X1	101,933
26 x 1,5	28	140	18,0	1	1025226X15	91,844
27 x 1,5	28	140	20,0	1	1025227X15	102,576
27 x 2	28	140	20,0	1	1025227X2	102,576
28 x 1,5	28	140	20,0	1	1025228X15	102,576
30 x 1,5	28	150	22,0	1	1025230X15	114,439
30 x 2	28	150	22,0	1	1025230X2	114,439
32 x 1,5	28	150	22,0	1	1025232X15	129,506
32 x 2	28	150	22,0	1	1025232X2	129,506
33 x 2	30	160	25,0	1	1025233X2	145,094
35 x 1,5	30	170	28,0	1	1025235X15	155,893
36 x 1,5	30	170	28,0	1	1025236X15	167,879
36 x 2	30	170	28,0	1	1025236X2	167,879
38 x 1,5	30	170	28,0	1	1025238X15	179,874
40 x 1,5	30	170	32,0	1	1025240X15	209,853
42 x 1,5	30	170	32,0	1	1025242X15	209,853
45 x 1,5	32	180	36,0	1	1025245X15	248,225
48 x 1,5	32	190	36,0	1	1025248X15	283,005
50 x 1,5	32	190	36,0	1	1025250X15	374,139
52 x 1,5	32	190	40,0	1	1025252X15	374,139

10198

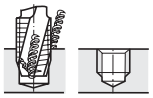




HSS-G AISI M2
HV 750

Applicazioni / Applications

HSS-G
***R ≤ 700 N/mm²**
Acciaio /*Steel*
Metals



≤ 1,5 Ø

- Per fori ciechi in acciai con R≤ * N/mm², ghisa malleabile, metalli non ferrosi a truciolo lungo.
- For blind holes in steel with R≤ * N/mm², malleable cast iron, non ferrous metals with long chip.

HSS-G DIN 374/C-15° ISO 2/6H

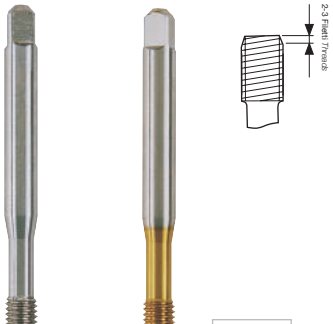
Ø	/	L	d	pcs	cod.	€ cad/each
M 4 x 0,5	10	63	2,8	1	1019804X05	15,015
5 x 0,5	12	70	3,5	1	1019805X05	15,200
6 x 0,75	14	80	4,5	1	1019806X075	15,246
8 x 1	22	90	6,0	1	1019808X1	15,362
10 x 1	20	90	7,0	1	1019810X1	15,774
10 x 1,25	24	100	7,0	1	1019810X125	21,452
12 x 1	22	100	9,0	1	1019812X1	18,720
12 x 1,25	22	100	9,0	1	1019812X125	23,498
12 x 1,5	22	100	9,0	1	1019812X15	18,200
14 x 1,25	22	100	11,0	1	1019814X125	26,424
14 x 1,5	22	100	11,0	1	1019814X15	23,933
16 x 1,5	22	100	12,0	1	1019816X15	27,858
18 x 1,5	25	110	14,0	1	1019818X15	35,670
20 x 1,5	25	125	16,0	1	1019820X15	35,670
22 x 1,5	25	125	18,0	1	1019822X15	43,986
24 x 1,5	28	140	18,0	1	1019824X15	43,986
24 x 2	28	140	18,0	1	1019824X2	47,073

MASCHI A MACCHINA A RULLARE, FIL. METRICA ISO A PASSO GROSSO

Cold forming machine taps, ISO thread / Tarauds à refouler
Machos de maquina laminacion / Maschinengewindefurcher

Speciali per lamiere / Special for metal sheets / Spécial pour tôles / Especial para chapas

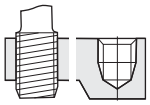
10280 **10360**



HSS-CO AISI M35
HV 820÷850

HSS-CO+TiN
HV 0,05=2500

ISO 2X/6HX



Art. 10280
HSS-CO ~ DIN 2174

M

Ø DIN 371	/	L	d	preforo *drill*	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	2,80	1	1028003X05	23,574
4 x 0,7	13	63	4,5	3,70	1	1028004X07	26,564
5 x 0,8	16	70	6,0	4,65	1	1028005X08	28,725
6 x 1	19	80	6,0	5,55	1	1028006X1	28,725
8 x 1,25	22	90	8,0	7,45	1	1028008X125	34,705
10 x 1,5	24	100	10	9,30	1	1028010X15	41,573
DIN 376							
M 12 x 1,75	29	110	9,0	11,20	1	1028012X175	51,536
14 x 2	30	110	11	13,0	1	1028014X2	72,487
16 x 2	32	110	12	15,1	1	1028016X2	91,286

Art. 10360
HSS-CO+TiN ~ DIN 2174

Ø DIN 371	/	L	d	preforo *drill*	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	2,80	1	1036003X05	40,889
4 x 0,7	13	63	4,5	3,70	1	1036004X07	44,903
5 x 0,8	16	70	6,0	4,65	1	1036005X08	52,685
6 x 1	19	80	6,0	5,55	1	1036006X1	52,685
8 x 1,25	22	90	8,0	7,45	1	1036008X125	62,885
10 x 1,5	24	100	10	9,30	1	1036010X15	73,872
DIN 376							
M 12 x 1,75	29	110	9,0	11,20	1	1036012X175	108,164
14 x 2	30	110	11	13,0	1	1036014X2	146,413
16 x 2	32	110	12	15,1	1	1036016X2	162,246

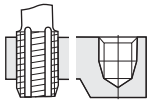
10281 **10361**



HSS-CO AISI M35
HV 820÷850

HSS-CO+TiN
HV 0,05=2500

ISO 2X/6HX



Con canalini di lubrificazione
With oil grooves

Lubrorefrigerazione con olio
o grafite raccomandata
Recommended oil or graphite cooling

Art. 10281
HSS-CO ~ DIN 2174

Ø DIN 371	/	L	d	preforo *drill*	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	2,80	1	1028103X05	28,522
4 x 0,7	13	63	4,5	3,70	1	1028104X07	32,101
5 x 0,8	16	70	6,0	4,65	1	1028105X08	35,669
6 x 1	19	80	6,0	5,55	1	1028106X1	35,669
8 x 1,25	22	90	8,0	7,45	1	1028108X125	42,392
10 x 1,5	24	100	10	9,30	1	1028110X15	49,038
DIN 376							
M 12 x 1,75	29	110	9,0	11,20	1	1028112X175	61,549
14 x 2	30	110	11	13,0	1	1028114X2	91,393
16 x 2	32	110	12	15,1	1	1028116X2	110,172

Art. 10361
HSS-CO+TiN ~ DIN 2174

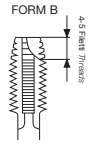
Ø DIN 371	/	L	d	preforo *drill*	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	2,80	1	1036103X05	43,061
4 x 0,7	13	63	4,5	3,70	1	1036104X07	46,998
5 x 0,8	16	70	6,0	4,65	1	1036105X08	50,600
6 x 1	19	80	6,0	5,55	1	1036106X1	52,407
8 x 1,25	22	90	8,0	7,45	1	1036108X125	63,540
10 x 1,5	24	100	10	9,30	1	1036110X15	76,456
DIN 376							
12 x 1,75	29	110	9,0	11,20	1	1036112X175	102,310
14 x 2	30	110	11	13,0	1	1036114X2	139,762
16 x 2	32	110	12	15,1	1	1036116X2	164,940

MASCHI A MACCHINA, FILETTATURA GAS CILINDRICA BSP

Machine taps, BSP pipe-thread / Tarauds machine, filetage gaz BSP
Machos de maquina, rosca gas BSP / Maschinengewindebohrer für Rohrgewinde

10268





HSS-CO AISI M35
HV 820÷850

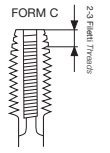


HSS-CO DIN 5156/B — BSP

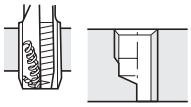
	Ø	/	L	d	pcs	cod.	€ cad/each
G	1/8 x 28	20	90	7	1	102681/8	31,420
	1/4 x 19	22	100	11	1	102681/4	41,010
	3/8 x 19	22	100	12	1	102683/8	48,095
	1/2 x 14	25	125	16	1	102681/2	71,500
	5/8 x 14	25	125	18	1	102685/8	78,141
	3/4 x 14	28	140	20	1	102683/4	108,652
	7/8 x 14	28	150	22	1	102687/8	117,521
	1" x 11	30	160	25	1	102681"	157,390
	1.1/8 x 11	30	170	28	1	102681.1/8	265,011
	1.1/4 x 11	30	170	32	1	102681.1/4	341,765
	1.3/8 x 11	32	180	36	1	102681.3/8	461,682
	1.1/2 x 11	32	190	36	1	102681.1/2	521,640
	1.3/4 x 11	32	190	40	1	102681.3/4	619,969
	2" x 11	40	220	45	1	102682"	664,339

10276





HSS-CO AISI M35
HV 820÷850



HSS-CO DIN 5156/C

	Ø	/	L	d	pcs	cod.	€ cad/each
G	1/8 x 28	20	90	7	1	102761/8	34,092
	1/4 x 19	22	100	11	1	102761/4	42,818
	3/8 x 19	22	100	12	1	102763/8	53,528
	1/2 x 14	25	125	16	1	102761/2	75,502
	5/8 x 14	25	125	18	1	102765/8	85,925
	3/4 x 14	28	140	20	1	102763/4	111,279
	7/8 x 14	28	150	22	1	102767/8	131,004
	1" x 11	30	160	25	1	102761"	161,991
	1.1/8 x 11	30	170	28	1	102761.1/8	225,564
	1.1/4 x 11	30	170	32	1	102761.1/4	300,755
	1.3/8 x 11	32	180	36	1	102761.3/8	414,185
	1.1/2 x 11	32	190	36	1	102761.1/2	440,572
	1.3/4 x 11	32	190	40	1	102761.3/4	536,862
	2" x 11	40	220	45	1	102762"	581,709

10204*



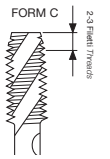
*In esaurimento
To be discontinued

HSS-G DIN 374/C-15°

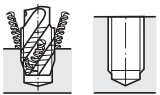
	Ø	/	L	d	pcs	cod.	€ cad/each
G	1/8 x 28	20	90	7	1	102041/8	11,745
	1/4 x 19	22	100	11	1	102041/4	19,314
	3/8 x 19	22	100	12	1	102043/8	20,304
	3/4 x 14	28	140	20	1	102043/4	44,199
	1" x 11	30	160	25	1	102041"	64,719
	1.1/4 x 11	30	170	32	1	102041.1/4	109,629
	1.1/2 x 11	32	190	36	1	102041.1/2	139,554

10267





HSS-CO AISI M35
HV 820÷850

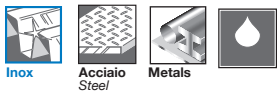


HSS-CO DIN 5156/C-35°

	Ø	/	L	d	pcs	cod.	€ cad/each
G	1/8 x 28	20	90	7	1	102671/8	34,991
	1/4 x 19	22	100	11	1	102671/4	53,816
	3/8 x 19	22	100	12	1	102673/8	69,126
	1/2 x 14	25	125	16	1	102671/2	113,375
	5/8 x 14	25	125	18	1	102675/8	130,061
	3/4 x 14	28	140	20	1	102673/4	170,861
	7/8 x 14	28	150	22	1	102677/8	206,228
	1" x 11	30	160	25	1	102671"	231,117
	1.1/8 x 11	30	170	28	1	102671.1/8	351,644
	1.1/4 x 11	30	170	32	1	102671.1/4	425,771
	1.3/8 x 11	32	180	36	1	102671.3/8	618,773
	1.1/2 x 11	32	190	36	1	102671.1/2	654,738
	1.3/4 x 11	32	190	40	1	102671.3/4	941,911
	2" x 11	40	220	45	1	102672"	1031,870

Applicazioni / Applications

R≤ 850 N/mm²



BSPT 10293 — NPT 10294

259

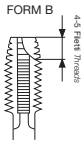
MASCHI A MACCHINA, FILETTATURA INGLESE WHITWORTH A PASSO GROSSO

Machine taps, british standard thread / Tarauds machine, filetage BSW

Machos de maquina, rosca inglesa BSW / Maschinengewindebohrer, Whitworth-gewinde BS 84

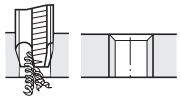
10265 **10266**





HSS-CO AISI M35
HV 820÷850

≃DIN 371/B **≃DIN 376/B**



Art. 10265
HSS-CO ISO 2/6 H

BSW

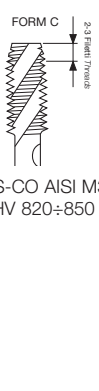
	Ø	/	L	d	pcs	cod.	€ cad/each
BSW	**1/8** x 40	5	56	3,5	1	102651/8	21,240
	5/32 x 32	6	63	4,5	1	102655/32	21,240
	3/16 x 24	9	70	5,5	1	102653/16	21,797
	1/4 x 20	10	90	7	1	102651/4	21,797
	5/16 x 18	12	90	8	1	102655/16	26,849
	3/8 x 16	14	100	10	1	102653/8	30,149

Art. 10266
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
BSW	**7/16** x 14	20	100	8	1	102667/16	32,479
	1/2 x 12	25	110	9	1	102661/2	32,789
	9/16 x 12	25	110	11	1	102669/16	48,461
	5/8 x 11	28	110	12	1	102665/8	48,461
	3/4 x 10	32	125	14	1	102663/4	100,418
	7/8 x 9	32	140	18	1	102667/8	113,419
	1” x 8	36	160	20	1	102661"	128,886
	1.1/4 x 7	40	180	22	1	102661.1/4	191,369
	1.1/2 x 6	50	200	32	1	102661.1/2	409,732

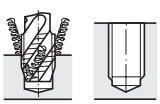
10274 **10275**





HSS-CO AISI M35
HV 820÷850

≃DIN 371/C-35° **≃DIN 376/C-35°**



Art. 10274
HSS-CO

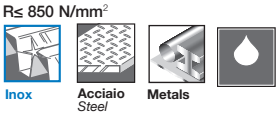
	Ø	/	L	d	pcs	cod.	€ cad/each
BSW	**1/8** x 40	5	56	3,5	1	102741/8	26,372
	5/32 x 32	6	63	4,5	1	102745/32	26,372
	3/16 x 24	9	70	5,5	1	102743/16	27,580
	1/4 x 20	10	90	7	1	102741/4	27,580
	5/16 x 18	12	90	8	1	102745/16	33,377
	3/8 x 16	14	100	10	1	102743/8	38,656

Art. 10275
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
BSW	**7/16** x 14	20	100	8	1	102757/16	44,583
	1/2 x 12	25	110	9	1	102751/2	44,583
	9/16 x 12	25	110	11	1	102759/16	64,180
	5/8 x 11	28	110	12	1	102755/8	64,180
	3/4 x 10	32	125	14	1	102753/4	128,210
	7/8 x 9	32	140	18	1	102757/8	169,770
	1” x 8	36	160	20	1	102751"	174,509
	1.1/4 x 7	40	180	22	1	102751.1/4	256,431
	1.1/2 x 6	50	200	32	1	102751.1/2	563,910

Applicazioni / Applications

R≤ 850 N/mm²



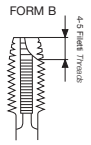
Inox **Acciaio** *Steel* **Metals**

MASCHI A MACCHINA, FILETTATURA AMERICANA UNC A PASSO GROSSO

Machine taps, UNC american coarse thread / Tarauds machine, filetage americain UNC
Machos de maquina, rosca americana vasta UNC /Maschinengewindebohrer, amerikanisches großgewind

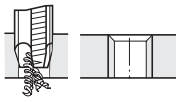
10269 **10270**





HSS-CO AISI M35
HV 820÷850

≃ DIN 371/B ≃ DIN 376/B



Art. 10269
HSS-CO **ANSI B1.1** **UNC**

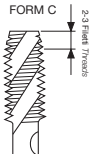
	Ø	/	L	d	pcs	cod.	€ cad/each
UNC	**6** x 32	12	56	4	1	10269NR06	21,889
	8 x 32	13	63	4,5	1	10269NR08	21,889
	10 x 24	15	70	6	1	10269NR10	21,889
	12 x 24	16	70	6	1	10269NR12	21,889
	1/4 x 20	17	80	7	1	102691/4	21,889
	5/16 x 18	20	90	8	1	102695/16	27,336
	3/8 x 16	22	100	9	1	102693/8	31,018

Art. 10270
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
UNC	**7/16** x 14	22	100	8	1	102707/16	36,455
	1/2 x 13	25	110	9	1	102701/2	36,455
	9/16 x 12	26	110	11	1	102709/16	54,672
	5/8 x 11	27	110	12	1	102705/8	54,672
	3/4 x 10	30	125	14	1	102703/4	105,702
	7/8 x 9	32	140	18	1	102707/8	127,418
	1” x 8	36	160	20	1	102701"	145,625
	1.1/4 x 7	40	180	22	1	102701.1/4	213,587
	1.1/2 x 6	50	200	32	1	102701.1/2	495,127

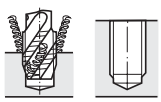
10271 **10272**





HSS-CO AISI M35
HV 820÷850

≃ DIN 371/C-35° ≃ DIN 376/C-35°



Art. 10271
HSS-CO **ANSI B1.1**

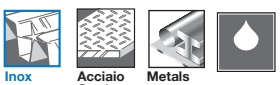
	Ø	/	L	d	pcs	cod.	€ cad/each
UNC	**6** x 32	7	56	4	1	10271NR06	27,336
	8 x 32	8	63	4,5	1	10271NR08	27,336
	10 x 24	10	70	6	1	10271NR10	27,336
	12 x 24	10	70	6	1	10271NR12	27,336
	1/4 x 20	13	80	7	1	102711/4	27,336
	5/16 x 18	14	90	8	1	102715/16	36,455
	3/8 x 16	16	100	9	1	102713/8	37,576

Art. 10272
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
UNC	**7/16** x 14	17	100	8	1	102727/16	45,574
	1/2 x 13	20	110	9	1	102721/2	45,574
	9/16 x 12	20	110	11	1	102729/16	65,606
	5/8 x 11	22	110	12	1	102725/8	65,606
	3/4 x 10	25	125	14	1	102723/4	131,059
	7/8 x 9	27	140	18	1	102727/8	173,542
	1” x 8	30	160	20	1	102721"	178,387
	1.1/4 x 7	35	180	22	1	102721.1/4	262,129
	1.1/2 x 6	40	200	32	1	102721.1/2	576,442

Applicazioni / Applications

R≤ 850 N/mm²



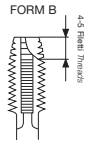
MASCHI A MACCHINA, FILETTATURA AMERICANA UNF A PASSO FINE

Machine taps, american UNF thread / Tarauds machine, filetage americain UNF
Machos de maquina, rosca americana fina UNF / Maschinengewindebohrer, amerikanisches feingewinde UNF

10282 **10283**

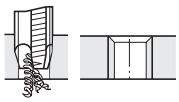


FORM B



HSS-CO AISI M35
HV 820÷850

≃ DIN 371/B ≃ DIN 376/B



Art. 10282
HSS-CO **ANSI B1.1** **UNF**

	Ø		/	L	d	pcs	cod.	€ cad/each
UNF	**6**	x 40	12	56	4	1	10282NR06	21,941
	8	x 36	13	63	4,5	1	10282NR08	21,941
	10	x 32	15	70	6	1	10282NR10	21,941
	12	x 28	16	70	6	1	10282NR12	21,941
	1/4	x 28	17	80	7	1	102821/4	21,941
	5/16	x 24	17	90	8	1	102825/16	27,774
	3/8	x 24	18	100	9	1	102823/8	30,609

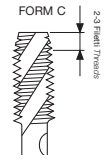
Art. 10283
HSS-CO

	Ø		/	L	d	pcs	cod.	€ cad/each
UNF	**7/16**	x 20	22	100	8	1	102837/16	35,282
	1/2	x 20	22	100	9	1	102831/2	35,282
	9/16	x 18	22	100	11	1	102839/16	54,020
	5/8	x 18	22	100	12	1	102835/8	54,020
	3/4	x 16	25	110	14	1	102833/4	105,774
	7/8	x 14	26	140	18	1	102837/8	127,092
	1”	x 14	28	150	20	1	102831"	141,658
	1.1/4	x 12	30	150	22	1	102831.1/4	199,186
	1.1/2	x 12	33	170	32	1	102831.1/2	460,539

10284 **10285**

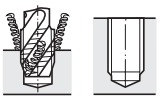


FORM C



HSS-CO AISI M35
HV 820÷850

≃ DIN 371/C-35° ≃ DIN 376/C-35°



Art. 10284
HSS-CO **ANSI B1.1**

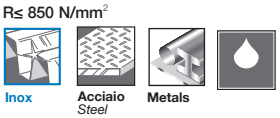
	Ø		/	L	d	pcs	cod.	€ cad/each
UNF	**6**	x 40	7	56	4	1	10284NR06	28,509
	8	x 36	8	63	4,5	1	10284NR08	28,509
	10	x 32	10	70	6	1	10284NR10	28,509
	12	x 28	10	70	6	1	10284NR12	28,509
	1/4	x 28	10	80	7	1	102841/4	28,509
	5/16	x 24	10	90	8	1	102845/16	34,425
	3/8	x 24	10	100	9	1	102843/8	39,290

Art. 10285
HSS-CO

	Ø		/	L	d	pcs	cod.	€ cad/each
UNF	**7/16**	x 20	13	100	8	1	102857/16	43,595
	1/2	x 20	13	100	9	1	102851/2	43,595
	9/16	x 18	15	100	11	1	102859/16	65,388
	5/8	x 18	15	100	12	1	102855/8	65,388
	3/4	x 16	17	110	14	1	102853/4	145,702
	7/8	x 14	17	140	18	1	102857/8	160,271
	1”	x 14	20	150	20	1	102851"	176,296
	1.1/4	x 12	22	150	22	1	102851.1/4	228,741
	1.1/2	x 12	25	170	32	1	102851.1/2	569,677

Applicazioni / Applications

R≤ 850 N/mm²



Inox **Acciaio** *Steel* **Metals**

MASCHI A MACCHINA CORTI ISO 529 FILETTATURA AMERICANA UN

Short machine taps, American UN thread / Tarauds machine courte
Machos de maquina cortos / Kurzmaschinen-Gewindebohrer.

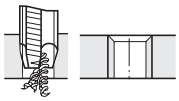
ISO 529-2B HSS-CO

8-UN

10301



FORM B



Ø	/	L	d	pcs	cod.	€ cad/each
UN 1.1/8 x 8	48	138	20,0	1	103011.1/8	146,810
1.1/4 x 8	51	151	22,4	1	103011.1/4	171,486
1.1/2 x 8	60	170	28,0	1	103011.1/2	280,617
2” x 8	70	200	35,5	1	103012"	587,219
2.1/4 x 8	76	221	40,0	1	103012.1/4	1161,456
2.1/2 x 8	79	224	40,0	1	103012.1/2	1688,915

MASCHI A MACCHINA CORTI ISO 529 FILETTATURA AMERICANA UNEF

Short machine taps, American UNEF thread / Tarauds machine courte
Machos de maquina cortos / Kurzmaschinen-Gewindebohrer.

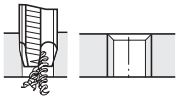
ISO 529-2B HSS-CO

UNEF

10305



FORM B



Applicazioni / Applications



Ø	/	L	d	pcs	cod.	€ cad/each
UNEF 1/4 x 32	19	66	6,3	1	103051/4	18,708
5/16 x 32	23	75	10,0	1	103055/16	26,503
3/8 x 32	24	80	10,0	1	103053/8	26,503
1/2 x 28	29	89	9,0	1	103051/2	31,182
9/16 x 24	30	95	11,2	1	103059/16	47,028
5/8 x 24	32	102	12,5	1	103055/8	48,065
3/4 x 20	37	112	14,0	1	103053/4	88,866
7/8 x 20	38	118	16,0	1	103057/8	109,132
1” x 20	45	130	18,0	1	103051"	124,718
1.1/16 x 18	48	138	20,0	1	103051.1/16	146,810
1.1/8 x 18	48	138	20,0	1	103051.1/8	146,810
1.1/4 x 18	51	151	22,4	1	103051.1/4	171,486
1.1/2 x 18	60	170	28,0	1	103051.1/2	280,617
1.3/4 x 18	67	187	31,5	1	103051.3/4	379,352
2” x 18	70	200	35,5	1	103051.2”	587,219

MASCHI A MACCHINA CORTI PER TUBI, FILETTATURA CONICA AMERICANA NPTF

Short machine taps for pipes / Tarauds machine courte
Machos de maquina cortos para tubos / Kurzmaschinen-Gewindebohrer

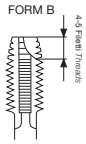
HSS-CO

NPTF

10306

NEW

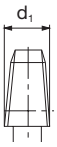




HSS-CO AISI M35
HV 820÷850

	Ø	/	L	pcs	cod.	€ cad/each
NPTF 1/16	x 27	19	55	1	103061/16	22,271
1/8	x 27	19	55	1	103061/8	24,295
1/4	x 18	28	62	1	103061/4	29,026
3/8	x 18	28	65	1	103063/8	35,095
1/2	x 14	35	80	1	103061/2	62,994
3/4	x 14	35	85	1	103063/4	83,702
1”	x 11,5	45	95	1	103061"	119,687

FORM B



CONICITA’ 1:16
TAPER 1:16

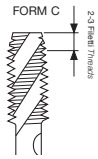
HSS-CO

NPTF

10307

NEW

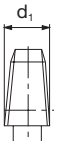




HSS-CO AISI M35
HV 820÷850

	Ø	/	L	pcs	cod.	€ cad/each
NPTF 1/8	x 27	19	55	1	103071/8	26,725
1/4	x 18	28	62	1	103071/4	31,929
3/8	x 18	28	65	1	103073/8	40,748
1/2	x 14	35	80	1	103071/2	69,292
3/4	x 14	35	85	1	103073/4	92,072
1”	x 11,5	45	95	1	103071"	131,656

FORM C 35°



CONICITA’ 1:16
TAPER 1:16

Applicazioni / Applications

R ≤ 850 N/mm²



Inox



Acciaio
Steel



Metals



NPT BSPT 259

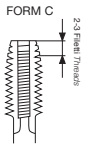
MASCHI A MACCHINA CORTI PER TUBI, FILETTATURA CILINDRICA AMERICANA NPS

Short machine taps for pipes / Tarauds machine courte
Machos de maquina cortos para tubos / Kurzmaschinen-Gewindebohrer

HSS-CO **NPS**

10308 NEW





HSS-CO AISI M35
HV 820÷850

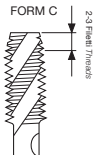
FORM C

	Ø		/	L	pcs	cod.	€ cad/each
NPS	**1/16**	x 27	17,5	54	1	103081/16	26,885
	1/8	x 27	19	55	1	103081/8	30,369
	1/4	x 18	28	62	1	103081/4	36,286
	3/8	x 18	28	65	1	103083/8	43,870
	1/2	x 14	35	80	1	103081/2	62,994
	3/4	x 14	35	85	1	103083/4	83,702
	1”	x 11,5	45	95	1	103081"	119,681

HSS-CO **NPS**

10309 NEW





HSS-CO AISI M35
HV 820÷850

FORM C 35°

	Ø		/	L	pcs	cod.	€ cad/each
NPS	**1/16**	x 27	17,5	54	1	103091/16	26,616
	1/8	x 27	19	55	1	103091/8	33,405
	1/4	x 18	28	62	1	103091/4	39,915
	3/8	x 18	28	65	1	103093/8	48,256
	1/2	x 14	35	80	1	103091/2	69,292
	3/4	x 14	35	85	1	103093/4	92,072
	1”	x 11,5	45	95	1	103091"	131,648

Applicazioni / Applications

R ≤ 850 N/mm²


Inox


Acciaio
Steel


Metals



MASCHI A MACCHINA “SINISTRI”, FILETTATURA METRICA ISO A PASSO GROSSO

Machine taps, “left hand”, metric coarse thread / Tarauds machine, "gauche ", filetage métrique

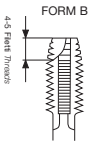
Machos de maquina, “izquierda”, rosca metrica normal / Maschinengewindebohrer, “linksgewinde”, für metrisches ISO Regelgewinde.

Sinistri - Left hand - Gauche - Izquierda - Links

10277 **10278**

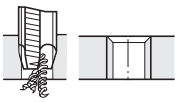






HSS-CO AISI M35
HV 820÷850

DIN 371/B **DIN 376/B**



Art. 10277
HSS-CO DIN 371/B **M**

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	1	1027703X05	27,730
4 x 0,7	13	63	4,5	1	1027704X07	27,730
5 x 0,8	16	70	6,0	1	1027705X08	28,479
6 x 1	19	80	6,0	1	1027706X1	28,479
8 x 1,25	22	90	8,0	1	1027708X125	34,825
10 x 1,5	24	100	10,0	1	1027710X15	39,583

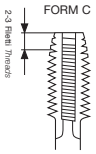
Art. 10278
HSS-CO DIN 376/B

Ø	/	L	d	pcs	cod.	€ cad/each
M 12 x 1,75	29	110	9,0	1	1027812X175	47,516
14 x2	30	110	11,0	1	1027814X2	59,381
16 x2	32	110	12,0	1	1027816X2	66,485
18 x 2,5	34	125	14,0	1	1027818X25	91,031
20 x 2,5	34	140	16,0	1	1027820X25	131,713
22 x 2,5	34	140	18,0	1	1027822X25	164,282
24 x 3	38	160	18,0	1	1027824X3	176,016
27 x 3	38	160	20,0	1	1027827X3	291,893
30 x 3,5	45	180	22,0	1	1027830X35	305,095

10263 **10264**

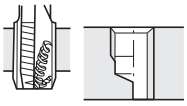






HSS-CO AISI M35
HV 820÷850

DIN 371/C **DIN 376/C**



Art. 10263
HSS-CO DIN 371/C

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	1	1026303X05	25,118
4 x 0,7	13	63	4,5	1	1026304X07	25,118
5 x 0,8	16	70	6,0	1	1026305X08	26,004
6 x 1	19	80	6,0	1	1026306X1	26,004
8 x 1,25	22	90	8,0	1	1026308X125	31,560
10 x 1,5	24	100	10,0	1	1026310X15	35,882

Art. 10264
HSS-CO DIN 376/C

Ø	/	L	d	pcs	cod.	€ cad/each
M 12 x 1,75	29	110	9,0	1	1026412X175	42,678
14 x 2	30	110	11,0	1	1026414X2	60,185
16 x 2	30	110	12,0	1	1026416X2	68,072
18 x 2,5	34	125	14,0	1	1026418X25	93,737
20 x 2,5	34	140	16,0	1	1026420X25	130,040
22 x 2,5	34	140	18,0	1	1026422X25	137,393
24 x 3	38	160	18,0	1	1026424X3	147,208

Applicazioni / Applications

R ≤ 850 N/mm²



Inox



Acciaio
Steel



Metals



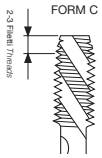
MASCHI A MACCHINA "SINISTRI", SCAN. DESTRE 35°, IMB. "C", FIL. METRICA ISO

Machine taps "left hand", 35° spiral flute, metric coarse thread / Tarauds machine "gauche", goujures 35°, filetage métrique gros. / Machos de maquina "izquierda", canal helicoidal 35°, rosca metrica vasta / Maschinen-Gewindebohrer "Linksgewinde", 35° rechtsspirale, für metrisches ISO-Regelgewinde

Sinistri - Left hand - Gauche - Izquierda - Links

DIN 371/C-35° - ISO 2/6H — **Art. 10279** — **HSS-CO** — **M**



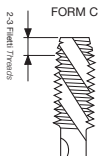


HSS-CO AISI M35
HV 820÷850

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1027903X05	32,969
	4 x 0,7	7	63	4,5	1	1027904X07	32,969
	5 x 0,8	8	70	6,0	1	1027905X08	32,969
	6 x 1	10	80	6,0	1	1027906X1	35,352
	8 x 1,25	14	90	8,0	1	1027908X125	42,557
	10 x 1,5	16	100	10,0	1	1027910X15	48,200

DIN 376/C-35° - ISO 2/6H — **Art. 10288** — **HSS-CO** — **M**





HSS-CO AISI M35
HV 820÷850

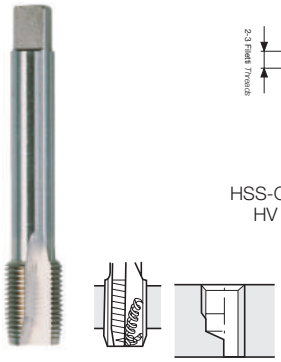
	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9,0	1	1028812X175	52,325
	14 x2	20	110	11,0	1	1028814X2	68,391
	16 x2	22	110	12,0	1	1028816X2	76,713
	18 x 2,5	25	125	14,0	1	1028818X25	103,264
	20 x 2,5	25	140	16,0	1	1028820X25	147,518
	22 x 2,5	27	140	18,0	1	1028822X25	163,613
	24 x 3	30	160	18,0	1	1028824X3	168,971
	27 x 3	30	160	20,0	1	1028827X3	289,668
	30 x 3,5	35	180	22,0	1	1028830X35	300,405

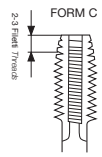
MASCHI A MACCHINA "SINISTRI", FILETTATURA GAS CILINDRICA BSP

Machine taps, "left hand", BSP pipe-thread / Tarauds machine, "gauche ", filetage gas BSP
Machos de maquina, "izquierda", rosca gas BSP / Maschinengewindebohrer, "linksgewinde", für Rohrgewinde.

Sinistri - Left hand - Gauche - Izquierda - Links

DIN 5156/C — **Art. 10289** — **HSS-CO** — **BSP**



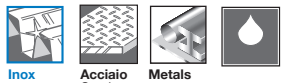


HSS-CO AISI M35
HV 820÷850

	Ø	/	L	d	pcs	cod.	€ cad/each
G	**1/8** x 28	20	90	7,0	1	102891/8	49,582
	1/4 x 19	22	100	11,0	1	102891/4	62,105
	3/8 x 19	22	100	12,0	1	102893/8	77,640
	1/2 x 14	25	125	16,0	1	102891/2	108,414
	5/8 x 14	25	125	18,0	1	102895/8	124,757
	3/4 x 14	28	140	20,0	1	102893/4	160,718
	1" x 11	30	160	25,0	1	102891"	234,269

Applicazioni / Applications

R≤ 850 N/mm²



Inox — **Acciaio** *Steel* — **Metals**

- Per fori ciechi e passanti in acciai con R≤ 850 N/mm² ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai inox.
- For blind and through holes in steel with R≤ 850 N/mm² malleable cast iron, non ferrous metal with long chips, stainless steel, heat resistant steel.
- Pour trous débouchants et borgnes en acier avec R≤ 850 N/mm² fonte, alliages légers, acier inoxidable.
- Para orificios pasantes y ciegos in acero de hasta R≤ 850 N/mm² aleaciones ligeras, fundicion, acero aleado y acero inox.
- Für grund- und durchgangsloch in Stahl mit R≤ 850 N/mm², Stahlguss, alu langspanend, korrosions-beständige Stähle (V2A-V4A) etc.

MASCHI A MACCHINA “SINISTRI”, FILETTATURA METRICA ISO A PASSO FINE

Machine taps, “left hand”, metric thread / Tarauds machine, "gauche ", filetage métrique

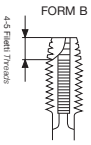
Machos de maquina, “izquierda”, rosca metrica / Maschinengewindebohrer, “linksgewinde”, für metrisches ISO.

Sinistri - Left hand - Gauche - Izquierda - Links

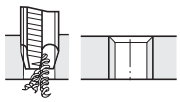
10286



DIN 374/B



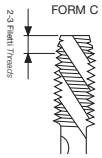
HSS-CO AISI M35
HV 820÷850



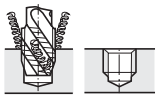
10287



DIN 374/C-35°



HSS-CO AISI M35
HV 820÷850



Applicazioni / Applications

R ≤ 850 N/mm²



- Per fori in acciai con R≤ 850 N/mm² ghisa malleabile, metalli non ferrosi a truciolo lungo, acciai resistenti al calore, acciai inox.
- For holes in steel with R≤ 850 N/mm² malleable cast iron, non ferrous metal with long chips, stainless steel, heat resistant steel.
- Pour trous en acier avec R≤ 850 N/mm² fonte, alliages légers, acier inoxidable.
- Para orificios in acero de hasta R≤ 850 N/mm² aleaciones ligeras, fundicion, acero aleado y acero inox.
- Für grundloch in Stahl mit R≤ 850 N/mm², Stahlguss, alu langspanend, korrosions-beständige Stähle (V2A-V4A) etc.

HSS-CO ISO 2/6H					Art. 10286 DIN 374/B		Art. 10287 DIN 374/C-35°		MF
Ø	/	L	d	pcs	cod.	€ cad/each	cod.	€ cad/each	
M 4 x 0,35	10	63	2,8	1	1028604X035	69,818	1028704x035	77,740	
5 x 0,5	12	70	3,5	1	1028605X05	69,818	1028705x05	77,740	
6 x 0,75	14	80	4,5	1	1028606X075	69,818	1028706x075	77,740	
8 x 0,75	19	80	6,0	1	1028608X075	69,818	1028708x075	77,740	
8 x 1	22	90	6,0	1	1028608X1	69,818	1028708x1	77,740	
10 x 1	20	90	7,0	1	1028610X1	77,740	1028710x1	93,875	
10 x 1,25	24	100	7,0	1	1028610X125	77,740	1028710x125	93,875	
12 x 1	22	100	9,0	1	1028612X1	108,543	1028712x1	120,277	
12 x 1,25	22	100	9,0	1	1028612X125	108,543	1028712x125	120,277	
12 x 1,5	22	100	9,0	1	1028612X15	108,543	1028712x15	120,277	
14 x1	22	100	11,0	1	1028614X1	132,012	1028714x1	146,680	
14 x 1,25	22	100	11,0	1	1028614X125	132,012	1028714x125	146,680	
14 x 1,5	22	100	11,0	1	1028614X15	132,012	1028714x15	146,680	
16 x 1	22	100	12,0	1	1028616X1	153,136	1028716x1	168,683	
16 x 1,5	22	100	12,0	1	1028616X15	153,136	1028716x15	168,683	
18 x 1	25	110	14,0	1	1028618X1	183,350	1028718x1	208,286	
18 x 1,5	25	110	14,0	1	1028618X15	183,350	1028718x15	208,286	
18 x 2	34	125	14,0	1	1028618X2	183,350	1028718x2	208,286	
20 x 1	25	125	16,0	1	1028620X1	200,952	1028720x1	233,222	
20 x 1,25	25	125	16,0	1	1028620X125	200,952	1028720x125	233,222	
20 x 1,5	25	125	16,0	1	1028620X15	200,952	1028720x15	233,222	
20 x 2	34	140	16,0	1	1028620X2	200,952	1028720x2	233,222	
22 x 1	25	125	18,0	1	1028622X1	252,290	1028722x1	281,625	
22 x 1,5	25	125	18,0	1	1028622X15	252,290	1028722x15	281,625	
22 x 2	34	140	18,0	1	1028622X2	252,290	1028722x2	281,625	
24 x 1	28	140	18,0	1	1028624X1	294,826	1028724x1	337,364	
24 x 1,5	28	140	18,0	1	1028624X15	294,826	1028724x15	337,364	
24 x 2	28	140	18,0	1	1028624X2	294,826	1028724x2	337,364	
25 x 1	28	140	18,0	1	1028625X1	294,826	1028725x1	337,364	
26 x 1,5	28	140	18,0	1	1028626X15	294,826	1028726x15	337,364	
27 x 1,5	28	140	20,0	1	1028627X15	369,633	1028727x15	407,770	
27 x 2	28	140	20,0	1	1028627X2	369,633	1028727x2	407,770	
28 x 1,5	28	140	20,0	1	1028628X15	369,633	1028728x15	407,770	
30 x 1,5	28	150	22,0	1	1028630X15	422,438	1028730x15	463,508	
30 x 2	28	150	22,0	1	1028630X2	422,438	1028730x2	463,508	
32 x 1,5	28	150	22,0	1	1028632X15	522,180	1028732x15	577,919	
32 x 2	28	150	22,0	1	1028632X2	522,180	1028732x2	577,919	
33 x 2	30	160	25,0	1	1028633X2	522,180	1028733x2	577,919	
35 x 1,5	30	170	28,0	1	1028635X15	522,180	1028735x15	577,919	
36 x 1,5	30	170	28,0	1	1028636X15	654,193	1028736x15	727,533	
36 x 2	30	170	28,0	1	1028636X2	654,193	1028736x2	727,533	
38 x 1,5	30	170	28,0	1	1028638X15	692,329	1028738x15	762,736	
40 x 1,5	30	170	32,0	1	1028640X15	753,935	1028740x15	830,210	
42 x 1,5	30	170	32,0	1	1028642X15	841,942	1028742x15	938,751	
45 x 1,5	32	180	36,0	1	1028645X15	997,423	1028745x15	1103,033	
48 x 1,5	32	190	36,0	1	1028648X15	1202,776	1028748x15	1314,252	
50 x 1,5	32	190	36,0	1	1028650X15	1393,460	1028750x15	1531,339	
52 x 1,5	32	190	40,0	1	1028652X15	1540,140	1028752x15	1680,953	

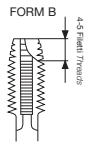
MASCHI A MACCHINA CON ANELLO BIANCO PER UTILIZZI SPECIALI

White ring machine taps / Tarauds machine avec anneau blanc
Machos de maquina con anillo blanco / Weissring-Maschinengewindebohrer

Speciale per acciaio INOX - Special for stainless steel - Pour acier inoxydable - Para acero inoxidable - Für rostfreieren Stahl

10504 **10505**

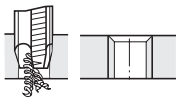




HSS-CO AISI M35
HV 820÷850

Vaporizzati *Steam treated*

DIN 371/B **DIN 376/B**



Art. 10504
HSS-CO **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1050403X05	23,770
	4 x 0,7	13	63	4,5	1	1050404X07	23,770
	5 x 0,8	16	70	6,0	1	1050405X08	25,567
	6 x 1	19	80	6,0	1	1050406X1	25,567
	8 x 1,25	22	90	8,0	1	1050408X125	29,458
	10 x 1,5	24	100	10,0	1	1050410X15	35,656

Art. 10505
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9,0	1	1050512X175	42,884
	14 x 2	30	110	11,0	1	1050514X2	55,025
	16 x 2	30	110	12,0	1	1050516X2	62,508
	18 x 2,5	34	125	14,0	1	1050518X25	85,769
	20 x 2,5	34	140	16,0	1	1050520X25	119,871

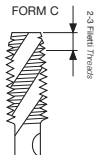


M 3÷12 7 pcs
10520300 HSS-CO
€ 191,870

Finitura: Ossidazione in vapore di Fe_3O_4 che aumenta la durezza superficiale e la resistenza a usura riducendo la tendenza all'incollamento dei trucioli.
Finish: Steam Tempered of Fe_3O_4 , increasing surface hardness and wear resistance.

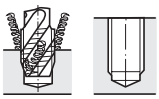
10506 **10507**





HSS-CO AISI M35
HV 820÷850

DIN 371/C-40° **DIN 376/C-40°**



Art. 10506
HSS-CO **40°** **M**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1050603X05	30,301
	4 x 0,7	7	63	4,5	1	1050604X07	30,301
	5 x 0,8	8	70	6,0	1	1050605X08	32,451
	6 x 1	10	80	6,0	1	1050606X1	32,130
	8 x 1,25	14	90	8,0	1	1050608X125	37,596
	10 x 1,5	16	100	10,0	1	1050610X15	44,847



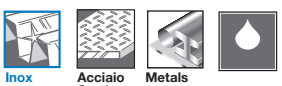
M 3÷12 7 pcs
10520301 HSS-CO
€ 237,438

Art. 10507
HSS-CO **40°**

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9,0	1	1050712X175	55,567
	14 x 2	20	110	11,0	1	1050714X2	70,413
	16 x 2	22	110	12,0	1	1050716X2	85,680
	18 x 2,5	25	125	14,0	1	1050718X25	112,610
	20 x 2,5	25	140	16,0	1	1050720X25	155,649

Applicazioni / Applications

R≤ 1000 N/mm²



Inox · Acciaio *Steel* · Metals

- Per filettature in acciaio inox, acciai per utensili, acciai resistenti al calore, acciai legati in genere, bronzo a truciolo lungo, rame con R≤ 1000 N/mm²
- For making threads in stainless steel, heat resistant steel, structural steel, long chipping bronze, copper with R≤ 1000 N/mm²
- Pour taraudage en acier inoxidable, acier pour traitement thermique, acier allié avec R≤ 1000 N/mm²
- Para roscar acero inoxidable, acero aleado, bronze
- Für VA-Werkstoffe, hitzbeständige Stähle, Messing, Alu.

MASCHI A MACCHINA CON ANELLO BLU, FILETTATURA METRICA ISO

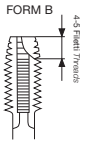
Blue ring machine taps / Tarauds machine avec anneau blue
Machos de maquina con anillo azul / Blauring-Maschinen-Gewindebohrer

Speciali per acciai refrattari, acciai da tempra e cementazione - Special for wear and heat resistant steel

10500 **10501**

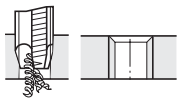






HSS-CO AISI M35
HV 850÷880

DIN 371/B **DIN 376/B**



Art. 10500
HSS-CO

M

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	1	1050003X05	22,751
4 x 0,7	13	63	4,5	1	1050004X07	22,751
5 x 0,8	16	70	6	1	1050005X08	24,813
6 x 1	19	80	6	1	1050006X1	24,813
8 x 1,25	22	90	8	1	1050008X125	28,925
10 x 1,5	24	100	10	1	1050010X15	34,103



M 3÷12 7 pcs
10520302 HSS-CO
€ 185,684

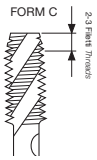
Art. 10501
HSS-CO

Ø	/	L	d	pcs	cod.	€ cad/each
M 12 x 1,75	29	110	9	1	1050112X175	39,602
14 x 2	30	110	11	1	1050114X2	51,011
16 x 2	30	110	12	1	1050116X2	57,441
18 x 2,5	34	125	14	1	1050118X25	79,016
20 x 2,5	34	140	16	1	1050120X25	110,326

10502 **10503**

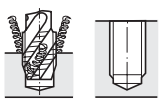






HSS-CO AISI M35
HV 850÷880

DIN 371/C-40° **DIN 376/C-40°**



Art. 10502
HSS-CO 40°

M

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,5	6	56	3,5	1	1050203X05	28,893
4 x 0,7	7	63	4,5	1	1050204X07	28,893
5 x 0,8	8	70	6	1	1050205X08	32,075
6 x 1	10	80	6	1	1050206X1	33,394
8 x 1,25	14	90	8	1	1050208X125	36,476
10 x 1,5	16	100	10	1	1050210X15	42,563



M 3÷12 7 pcs
10520303 HSS-CO
€ 231,317

Art. 10503
HSS-CO 40°

Ø	/	L	d	pcs	cod.	€ cad/each
M 12 x 1,75	18	110	9	1	1050312X175	50,978
14 x 2	20	110	11	1	1050314X2	64,570
16 x 2	22	110	12	1	1050316X2	78,562
18 x 2,5	25	125	14	1	1050318X25	103,374
20 x 2,5	25	140	16	1	1050320X25	147,734

Applicazioni / Applications

R ≤ 1200 N/mm²



Inox — Acciaio / *Steel*

- Per filettatura in acciai resistenti all'usura quali gli acciai refrattari, acciai legati da tempra e cementazione, acciai per utensili con R≤ 1200 N/mm².
- For use in wear resistant steel, heat resistant steel, tool steel with R≤ 1200 N/mm²
- Pour taraudage en aciers refractaires, acier de outil, acier pour traitement thermique avec R≤ 1200 N/mm²
- Para rosca en acero resistente al calore, acero para trattamento termico, acero para utensilios hasta R≤ 1200 N/mm²
- Für Gewindebohrer in hochlegierte Stähle, zähe kurzspanende Werkstoffe, legierte Werkzeugstähle.

MASCHI A MACCHINA CON ANELLO NERO, FILETTATURA METRICA ISO

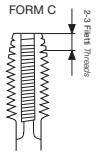
Black ring machine taps / Tarauds machine avec anneau noir
Machos de maquina con anillo negro / Schwarzring-Maschinengewindebohrer

10508 **10509**

Art. 10508
HSS-CO

M





HSS-CO AISI M35
HV 820÷850

Ø	/	L	d	pcs	cod.	€ cad/each
M 3 x 0,5	11	56	3,5	1	1050803X05	23,770
4 x 0,7	13	63	4,5	1	1050804X07	23,770
5 x 0,8	16	70	6	1	1050805X08	25,567
6 x 1	19	80	6	1	1050806X1	25,567
8 x 1,25	22	90	8	1	1050808X125	29,458
10 x 1,5	24	100	10	1	1050810X15	36,265



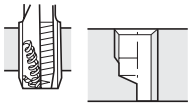
M 3÷12 7 pcs
10520304 HSS-CO
€ 199,886

Art. 10509
HSS-CO

Ø	/	L	d	pcs	cod.	€ cad/each
M12 x 1,75	29	110	9	1	1050912X175	42,884
14 x 2	30	110	11	1	1050914X2	55,025
16 x 2	30	110	12	1	1050916X2	62,508
18 x 2,5	34	125	14	1	1050918X25	85,769
20 x 2,5	34	140	16	1	1050920X25	119,871

Nitrurato *Nitrited*
L'arricchimento della superficie con nitrato e carbonio diminuisce la tendenza all'incollamento dei trucioli e aumenta la durezza superficiale e la resistenza ad usura.
The surface enrichment with nitrate and carbon is aimed to avoiding chips sticking on the tool and to increasing surface hardness and wear resistance.

DIN 371/C **DIN 376/C**



Applicazioni / Applications

G — **Ghisa** *Cast Iron*
Bronze Mg Alloys
Alu
Plastica Dura Hard Plastics

- Per filettatura in fori ciechi e passanti in ghisa grigia e sferoidale, leghe di magnesio, bronzo e alluminio a truciolo corto, plastica dura.
- For making threads into through and blind holes, cast iron, magnesium alloys, bronze and short chip aluminium, hard plastics.
- Pour taraudage en fontes à haute résistance, alliages de magnésium, bronze, plastique très dur.
- Para roscar fundiciones, aleaciones de magnesio, bronze, plastico duro.
- Für Grauguss und Sphäroguss, Magnesiumlegierungen, Bronze und Alu-Kurzspanend.

MASCHI A MACCHINA CON ANELLO ROSSO, FILETTATURA METRICA ISO

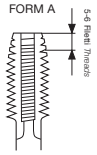
Red ring machine taps / Tarauds machine avec anneau rouge
Machos de maquina con anillo rojo / Rotring-Maschinengewindebohrer

10510

Art. 10510
HSS-CO

M





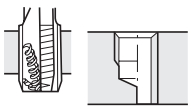
HSS-CO AISI M35
HV 820÷850

Ø	/	L	d	pcs	cod.	€ cad/each
M 4 x 0,7	9	63	4,5	1	1051004X07	27,906
5 x 0,8	11	70	6	1	1051005X08	31,000
6 x 1	12	80	6	1	1051006X1	31,000
8 x 1,25	15	90	8	1	1051008X125	34,103
10 x 1,5	16	100	10	1	1051010X15	40,301



M 4÷10 5 pcs
10520310 HSS-CO
€ 155,416

DIN 371/A



Applicazioni / Applications

R ≥ 1200 N/mm²

Inox — **Acciaio** *Steel*

- Per filettatura in acciai resistenti all'usura quali gli acciai refrattari, acciai legati da tempra e cementazione, acciai per utensili con R ≥1200 N/mm².
- For use in wear resistant steel, heat resistant steel, tool steel with R ≥1200 N/mm²
- Pour taraudage en aciers refractaires, acier de outil, acier pour traitement thermique avec R ≥1200 N/mm²
- Para rosca en acero resistente al calore, acero para trattamento termico, acero para utensilios hasta R ≥1200 N/mm²
- Für Gewindebohrer in hochlegierte Stähle, zähe kurzspanende Werkstoffe, legierte Werkzeugstähle.

MASCHI A MACCHINA CON ANELLO GIALLO, FILETTATURA METRICA ISO

Yellow ring machine taps, ISO metric thread / Tarauds machine avec anneau jaune, filetage métrique ISO
Machos de máquina con anillo amarillo, rosca métrica ISO / Gelbring-Maschinengewindebohrer, metrisches ISO-Gewinde

Speciale per alluminio - Special for aluminium - Spécial pour aluminium - Especial para aluminio - Speziell für Aluminium

10511 **10512**

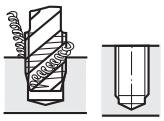




2 SPIRALI
2 FLUTES

HSS-CO AISI M35
HV 820÷850

DIN 371/C-40° **DIN 376/C-40°**



Art. 10511
HSS-CO 40°

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	6	56	3,5	1	1051103x05	37,329
	4 x 0,7	7	63	4,5	1	1051104x07	37,329
	5 x 0,8	8	70	6	1	1051105x08	40,389
	6 x 1	10	80	6	1	1051106x1	40,389
	8 x 1,25	14	90	8	1	1051108x125	46,410
	10 x 1,5	16	100	10	1	1051110x15	56,222



M 3÷12 7 pcs
10520305 HSS-CO
€ 254,224

Art. 10512
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	18	110	9	1	1051212X175	67,908
	14 x 2	20	110	11	1	1051214X2	88,951
	16 x 2	22	110	12	1	1051216X2	101,003

Applicazioni / Applications

R≤ 850 N/mm²



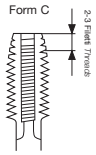
MASCHI A MACCHINA CON ANELLO ARANCIO, FILETTATURA METRICA ISO

Orange ring machine taps, ISO metric thread / Tarauds machine avec anneau orangé, filetage métrique ISO
Machos de máquina con anillo anaranjado, rosca métrica ISO / Orangering-Maschinengewindebohrer, metrisches ISO-Gewinde

Speciale per ottone - Special for brass - Spécial pour laiton - Especial para laton - Speziell für Messing

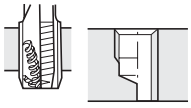
10513 **10514**





HSS-CO AISI M35
HV 820÷850

DIN 371/C **DIN 376/C**



Art. 10513
HSS-CO

M

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**3** x 0,5	11	56	3,5	1	1051303x05	32,020
	4 x 0,7	13	63	4,5	1	1051304x07	32,020
	5 x 0,8	16	70	6	1	1051305x08	34,713
	6 x 1	19	80	6	1	1051306x1	34,713
	8 x 1,25	22	90	8	1	1051308x125	39,570
	10 x 1,5	24	100	10	1	1051310x15	47,852



M 3÷12 7 pcs
10520306 HSS-CO
€ 219,444

Art. 10514
HSS-CO

	Ø	/	L	d	pcs	cod.	€ cad/each
M	**12** x 1,75	29	110	9	1	1051412X175	58,095
	14 x 2	30	110	11	1	1051414X2	74,293
	16 x 2	30	110	12	1	1051416X2	85,137

Applicazioni / Applications

R≤850 N/mm²



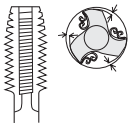
MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO A PASSO GROSSO

Hand taps, 3 pcs set, metric coarse ISO thread / Jeux de 3 tarauds à main, filetage metrique ISO
Juegos de machos a mano, rosca metrica ISO / Handgewindebohrer, dreiteiliger Satz für metrisches ISO-Gewinde DIN 13

HSS-G DIN 352 ISO 2/6H **Rettificati** / Ground from the solid / Rectifiés / Rectificado / Geschliffen — M

10100





HRC ≃ 63÷63,5
AISI M2

Confezione / Packaging

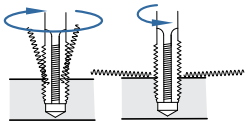


Applicazioni / Applications



Art. **10101** Self
Disponibile su richiesta
On demand

- Per filettature in fori ciechi e passanti in acciaio da costruzione, acciai da bonifica, materiali metallici in genere sino a R≤ 800 N/mm^2 - For making threads in blind and through holes in structural steel, malleable cast iron, heat-treatable steel R≤800 N/mm^2
- Taraudage pour trous borgnes et débouchant des acier de construction et aciers traités R≤ 800 N/mm^2 - Para orificios ciegos y pasantes en materiales de hasta 800 N/mm^2 - Für allgemeinen Einsatz in Baustähle, Automatenstähle und Vergütungsstähle R≤ 800 N/mm^2



É buona norma, ad ogni rotazione del maschio (1), effettuare mezzo giro indietro (2) per rompere il truciolo
Please rotate clockwise the tap (1) then rotate anticlockwise (2) to break the chip.

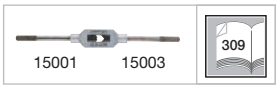
	Ø	/	L	pcs	cod.	€ cad/each
M 1	x 0,25	8	32	1	1010001X025	112,720
1,1	x 0,25	8	32	1	10100011X025	112,720
1,2	x 0,25	8	32	1	10100012X025	112,720
1,4	x 0,3	10	32	1	10100014X03	112,720
1,6	x 0,35	10	32	1	10100016X035	112,720
1,7	x 0,35	10	32	1	10100017X035	112,720
1,8	x 0,35	10	32	1	10100018X035	112,720
2	x 0,4	10	36	1	1010002X04	19,835
2,2	x 0,45	11	36	1	10100022X045	26,665
2,3	x 0,4	11	36	1	10100023X04	26,665
2,5	x 0,45	12	40	1	10100025X045	22,141
2,6	x 0,45	12	40	1	10100026X045	23,505
3	x 0,5	11	40	1	1010003X05	14,103
3,5	x 0,6	14	45	1	10100035X06	20,433
4	x 0,7	13	45	1	1010004X07	14,801
4,5	x 0,75	16	50	1	10100045X075	26,055
5	x 0,8	16	50	1	1010005X08	15,389
5	x 1	16	56	1	1010005X1	28,571
5,5	x 0,9	18	50	1	10100055x09	41,299
6	x 1	19	56	1	1010006X1	15,744
7	x 1	19	56	1	1010007X1	21,343
8	x 1,25	22	63	1	1010008X125	17,118
9	x 1,25	22	63	1	1010009X125	27,640
10	x 1,5	24	70	1	1010010X15	22,151
11	x 1,5	24	70	1	1010011X15	39,060
12	x 1,75	28	75	1	1010012X175	28,183
***13**	x 1,75	28	75	1	1010013X175	73,130
14	x 2	30	80	1	1010014X2	35,677
15	x 2	32	80	1	1010015x2	73,152
16	x 2	32	80	1	1010016X2	42,253
18	x 2,5	34	95	1	1010018X25	70,957
20	x 2,5	34	95	1	1010020X25	76,611
22	x 2,5	34	100	1	1010022X25	89,028
24	x 3	38	110	1	1010024X3	102,555
27	x 3	38	110	1	1010027X3	131,935
28	x 3	38	110	1	1010028X3	152,110
30	x 3,5	45	125	1	1010030X35	166,215
33	x 3,5	50	132	1	1010033X35	205,495
36	x 4	56	150	1	1010036X4	240,586
39	x 4	56	150	1	1010039X4	382,532
42	x 4,5	63	160	1	1010042X45	417,312
45	x 4,5	63	160	1	1010045X45	531,230
48	x 5	68	180	1	1010048X5	743,478
52	x 5	68	180	1	1010052X5	765,063
56	x 5,5	85	200	1	1010056X55	949,738
60	x 5,5	85	200	1	1010060X55	1203,963
64	x 6	90	220	1	1010064X6	1274,707
68	x 6	90	220	1	1010068X6	1417,408
72	x 6	90	240	1	1010072X6	3436,945

* ≃ DIN 352



Maschio a mano finitore
Bottoming hand tap
Taraud à main finisseur
Macho a mano acabado
Handgewindebohrer

HSS-G
DIN 352 III



	Ø	/	L	pcs	cod.	€ cad/each
M 3	x 0,5	12	40	1	1010003X053	4,712
4	x 0,7	14	45	1	1010004X073	4,934
5	x 0,8	14	50	1	1010005X083	5,122
6	x 1	16	56	1	1010006X13	5,245
8	x 1,25	18	63	1	1010008X1253	5,709
10	x 1,5	25	70	1	1010010X153	7,384
12	x 1,75	30	75	1	1010012X1753	9,391
14	x 2	32	80	1	1010014X23	11,897
16	x 2	32	80	1	1010016X23	14,081
18	x 2,5	40	95	1	1010018X253	22,584
20	x 2,5	40	95	1	1010020X253	25,500

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO A PASSO GROSSO

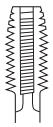
Hand taps, 3 pcs set, metric coarse ISO thread / Jeux de 3 tarauds à main, filetage metrique ISO
Juegos de machos a mano, rosca metrica ISO / Handgewindebohrer, dreiteiliger Satz für metrisches ISO – Gewinde DIN 13

COBALT HSS-CO DIN 352 ISO 2/6H

M

10144





HRC ≃ 64÷65
AISI M35

Ø	/	L	pcs	cod.	€ cad/each
M 3 x 0,5	11	40	1	1014403X05	22,329
4 x 0,7	13	45	1	1014404X07	22,329
5 x 0,8	14	50	1	1014405X08	23,105
6 x 1	16	56	1	1014406X1	24,236
8 x 1,25	18	63	1	1014408X125	26,685
10 x 1,5	24	70	1	1014410X15	33,915
12 x 1,75	29	75	1	1014412X175	43,405
14 x 2	30	80	1	1014414X2	59,016
16 x 2	32	80	1	1014416X2	71,234
18 x 2,5	40	95	1	1014418X25	121,114
20 x 2,5	40	95	1	1014420X25	129,506
22 x 2,5	40	100	1	1014422X25	153,499
24 x 3	50	110	1	1014424X3	172,678
27 x 3	50	110	1	1014427X3	227,837
30 x 3,5	56	125	1	1014430X35	290,199

Applicazioni / Applications

R ≤ 1200 N/mm²

Inox | **Acciaio** *Steel* | **Metals**

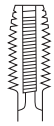
- Per filettature in acciai molto duri ed abrasivi, acciai inox, acciai resistenti al calore con R≤1200 N/mm²
- For thread in stainless steel, heat-resistant steel, high alloy steel R≤1200 N/mm²
- Taraudage en acier inox et acier allié avec R≤1200 N/mm²
- Para acero inox y acero aleado R≤1200 N/mm²
- Einsatz in legierte Stähle, korrosionebeständige Stähle, Grauguss und Stahlguss bis R≤1200 N/mm²

COBALT HSS-CO DIN 352 ISO 2/6H

M

10147





HRC ≃ 64÷65
AISI M35
R≤1400

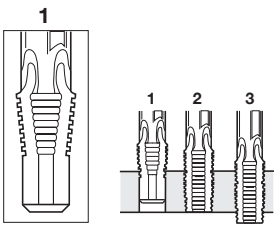
Ø	/	L	pcs	cod.	€ cad/each
M 3 x 0,5	11	40	1	1014703X05	61,036
4 x 0,7	13	45	1	1014704X07	61,036
5 x 0,8	16	50	1	1014705X08	64,862
6 x 1	19	56	1	1014706X1	64,862
8 x 1,25	22	63	1	1014708X125	72,512
10 x 1,5	24	70	1	1014710X15	97,328
12 x 1,75	29	75	1	1014712X175	131,059

Applicazioni / Applications

R≤1400 N/mm²

Inox | **Acciaio** *Steel* | **Metals**

Finitura: Ossidazione in vapore di Fe_3O_4 che aumenta la durezza superficiale e la resistenza a usura riducendo la tendenza all'incollamento dei trucioli.
Finish: Steam Tempered of Fe_3O_4 , increasing surface hardness and wear resistance.



Sbozzatore con guida
Taper with guide

MASCHI A MANO AL TITANIO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO A PASSO GROSSO

Titan coated hand taps, metric coarse ISO thread / Tarauds Titan à main, filetage metrique ISO

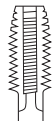
Juegos de machos a mano de Titanio, rosca metrica ISO / Handgewindebohrer mit TiN beschichtung für metrisches ISO Regelgewinde

HSS-TiN DIN 352 ISO 2/6H

M

10155



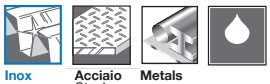


HV 0,05 ≃ 2500
AISI M2



	Ø	/	L	pcs	cod.	€ cad/each
M 3	x 0,5	12	40	1	1015503X05	31,294
4	x 0,7	14	45	1	1015504X07	25,398
4,5	x 0,75	16	50	1	10155045X075	25,398
5	x 0,8	16	50	1	1015505X08	25,908
6	x 1	18	56	1	1015506X1	26,438
8	x 1,25	22	63	1	1015508X125	41,198
10	x 1,5	25	70	1	1015510X15	45,380
12	x 1,75	30	75	1	1015512X175	59,404
14	x 2	32	80	1	1015514X2	74,756
16	x 2	32	80	1	1015516X2	81,436
18	x 2,5	40	95	1	1015518X25	115,290
20	x 2,5	40	95	1	1015520X25	151,693

Applicazioni / Applications



Inox · Acciaio *Steel* · Metals

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO SINISTRA A PASSO GROSSO

Hand taps, 3 pcs set left hand / Jeux de 3 tarauds à main gauche

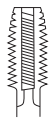
Juegos de machos a mano izquierda / Handgewindebohrer, linksgewinde dreitelliger Satz

HSS-G DIN 352 ISO 2/6H Sinistra - *Left hand - Gauche - Izquierda - Links*

M

10102





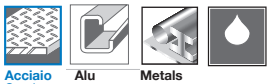
HRC ≃ 63÷63,5
AISI M2



LH

	Ø	/	L	pcs	cod.	€ cad/each
M 3	x 0,5	11	40	1	1010203x05	22,318
4	x 0,7	13	45	1	1010204x07	22,318
5	x 0,8	14	50	1	1010205x08	23,216
6	x 1	19	56	1	1010206x1	24,491
7	x 1	19	56	1	1010207x1	32,761
8	x 1,25	22	63	1	1010208x125	26,421
10	x 1,5	24	70	1	1010210x15	33,936
12	x 1,75	28	75	1	1010212x175	43,527
14	x 2	30	80	1	1010214x2	55,080
16	x 2	32	80	1	1010216x2	66,599
18	x 2,5	34	95	1	1010218x25	114,417
20	x 2,5	34	95	1	1010220x25	122,777
22	x 2,5	34	100	1	1010222x25	145,228
24	x 3	38	110	1	1010224x3	166,969
27	x 3	38	110	1	1010227x3	214,487
30	x 3,5	45	125	1	1010230x35	297,939
33	x 3,5	56	125	1	1010233x35	679,672
36	x 4	63	150	1	1010236x4	792,172
39	x 4	63	150	1	1010239x4	1022,747
42	x 4,5	63	150	1	1010242x45	1141,731
45	x 4,5	70	160	1	1010245x45	1319,753
48	x 5	75	180	1	1010248x5	1887,150
52	x 5	75	180	1	1010252x5	1996,178

Applicazioni / Applications



Acciaio *Steel* · Alu · Metals

MASCHI A MANO SERIE DI 2 PEZZI PER TUBI DI CONDUZIONE ELETTRICA

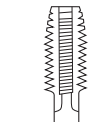
2 pcs hand taps for cable connection / Tarauds à main pour tubes avec armature en acier
Juegos de machos a mano para tubos de conducción eléctrica / Handgewindebohrer, zweitelliger Satz Stahlpanzer für Kabelverschraumbungen

HSS-G DIN 2181 ISO 2/6H

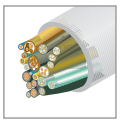
MF

10105



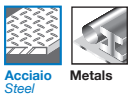


HRC ≃ 63÷63,5
AISI M2



Ø	/	L	pcs	cod.	€ cad/each
M 12 x 1,5	22	70	1	1010512x15	24,580
16 x 1,5	22	70	1	1010516x15	31,176
20 x 1,5	22	80	1	1010520x15	50,966
25 x 1,5	22	90	1	1010525x15	109,428
32 x 1,5	32	90	1	1010532x15	161,891
40 x 1,5	25	110	1	1010540x15	325,929
50 x 1,5	40	140	1	1010550x15	494,291
63 x 1,5	32	160	1	1010563x15	1536,197

Applicazioni / Applications



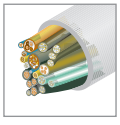
Acciaio *Steel* Metals

Pg

HSS-G DIN 40432

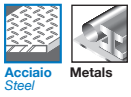
10136





Ø	/	L	pcs	cod.	€ cad/each
Pg 7 x 20	22	70	1	1013607	58,351
9 x 18	22	70	1	1013609	76,112
11 x 18	22	80	1	1013611	127,112
13,5 x 18	22	80	1	10136135	143,897
16 x 18	22	80	1	1013616	177,391
21 x 16	22	90	1	1013621	261,419
29 x 16	25	100	1	1013629	393,330
36 x 16	40	140	1	1013636	609,781
42 x 16	40	140	1	1013642	931,301
48 x 16	40	160	1	1013648	1073,247

Applicazioni / Applications



Acciaio *Steel* Metals

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA METRICA ISO A PASSO FINE

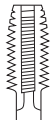
Hand taps, 2 pcs set, metric fine ISO thread / Jeux de 2 tarauds à main, filetage metrique ISO à pas fin
Juegos de machos a mano, rosca metrica fina ISO / Handgewindebohrer, zweiteiliger Satz für metrisches ISO-Feingewinde

HSS-G DIN 2181 ISO 2/6H

MF

10105





HV 0,05 ≃ 2500
AISI M2

Ø	/	L	pcs	cod.	€ cad/each
M 2 x 0,25	8	36	1	1010502x025	36,154
2,2 x 0,25	9	36	1	10105022x025	36,154
2,5 x 0,35	9	40	1	10105025x035	34,780
2,6 x 0,35	9	40	1	10105026x035	34,780
3 x 0,35	9	40	1	1010503X035	20,443
3,5 x 0,35	10	45	1	10105035X035	20,443
4 x 0,35	10	45	1	1010504X035	23,382
4 x 0,5	10	45	1	1010504X05	16,796
4,5 x 0,5	12	50	1	10105045x05	34,780
5 x 0,5	12	50	1	1010505X05	17,872
5 x 0,75	12	50	1	1010505X075	38,284
5,5 x 0,5	12	50	1	10105055x05	34,780
6 x 0,5	14	50	1	1010506X05	34,780
6 x 0,75	14	50	1	1010506X075	18,703
7 x 0,5	14	50	1	1010507x05	34,780
7 x 0,75	14	50	1	1010507X075	22,207
8 x 0,5	19	50	1	1010508X05	44,659
8 x 0,75	19	50	1	1010508X075	22,729
8 x 1	22	56	1	1010508X1	19,546
9 x 0,5	19	56	1	1010509x05	38,372
9 x 0,75	19	56	1	1010509X075	32,285
9 x 1	20	63	1	1010509X1	29,858
10 x 0,5	20	63	1	1010510x05	38,970
10 x 0,75	20	63	1	1010510X075	30,156
10 x 1	20	63	1	1010510X1	25,899
10 x 1,25	24	70	1	1010510X125	21,343
11 x 0,75	20	63	1	1010511x075	50,124
11 x 1	20	63	1	1010511X1	30,367
11 x 1,25	22	63	1	1010511X125	32,972
12 x 0,5	22	70	1	1010512x05	50,124
12 x 0,75	22	70	1	1010512X075	30,766
12 x 1	22	70	1	1010512X1	30,699
12 x 1,25	22	70	1	1010512X125	24,580
12 x 1,5	22	70	1	1010512X15	24,580
13 x 0,5	22	70	1	1010513x05	77,343
13 x 0,75	22	70	1	1010513x075	77,343
13 x 1	22	70	1	1010513X1	53,151
13 x 1,5	22	70	1	1010513X15	53,151
14 x 0,5	22	70	1	1010514x05	77,343
14 x 0,75	22	70	1	1010514X075	37,430
14 x 1	22	70	1	1010514X1	34,413
14 x 1,25	22	70	1	1010514X125	34,413
14 x 1,5	22	70	1	1010514X15	29,259
15 x 0,75	22	70	1	1010515x075	85,857
15 x 1	22	70	1	1010515X1	57,563
15 x 1,5	22	70	1	1010515X15	57,563
16 x 0,5	22	70	1	1010516X05	85,857
16 x 0,75	22	70	1	1010516X075	85,857
16 x 1	22	70	1	1010516X1	38,372
16 x 1,25	22	70	1	1010516X125	36,088
16 x 1,5	22	70	1	1010516X15	31,176
17 x 1	22	70	1	1010517x1	92,931
17 x 1,5	22	70	1	1010517x15	92,931
18 x 0,5	22	80	1	1010518x05	92,931
18 x 0,75	22	80	1	1010518x075	92,931
18 x 1	22	80	1	1010518X1	56,354
18 x 1,25	22	80	1	1010518X125	56,354
18 x 1,5	22	80	1	1010518X15	46,166
18 x 2	22	80	1	1010518X2	58,583
19 x 1	22	80	1	1010519x1	116,845
19 x 1,5	22	80	1	1010519x15	116,845
20 x 0,5	22	80	1	1010520x05	116,845
20 x 0,75	22	80	1	1010520x075	116,845
20 x 1	22	80	1	1010520X1	77,941
20 x 1,25	22	80	1	1010520X125	71,377
20 x 1,5	22	80	1	1010520X15	50,966
20 x 2	22	80	1	1010520X2	62,752
21 x 1	22	80	1	1010521X1	119,861
21 x 1,5	22	80	1	1010521X15	119,861
22 x 0,5	22	80	1	1010522x05	138,587
22 x 0,75	22	80	1	1010522x075	119,861

Confezione / Packaging



Applicazioni / Applications

R ≤ 800 N/mm²



Acciaio
Steel



Metals



Alu



- Per filettature in fori ciechi e passanti in acciaio da costruzione, acciai da bonifica, materiali metallici in genere sino a R≤ 800 N/mm²
- For making threads in blind and through holes in structural steel, malleable cast iron, heat-treatable steel R≤800 N/mm²
- Taraudage pour trous borgnes et dèbouchant des acier de construction et aciers traitès R≤ 800 N/mm²
- Para orificios ciegos y pasantes en materiales de hasta R≤ 800 N/mm²
- Für allgemeinen Einsatz in Baustähle, Automatenstähle und Vergütungsstähle R≤ 800 N/mm²

Ø		/	L	pcs	cod.	€ cad/each
M 22	x 1	22	80	1	1010522x1	74,193
22	x 1,25	22	80	1	1010522x125	74,193
22	x 1,5	22	80	1	1010522X15	74,193
22	x 2	22	80	1	1010522X2	74,193
23	x 1	22	80	1	1010523x1	161,891
23	x 1,5	22	80	1	1010523X15	98,330
24	x 0,5	22	90	1	1010524x05	161,891
24	x 0,75	22	90	1	1010524x075	161,891
24	x 1	22	90	1	1010524X1	78,185
24	x 1,25	22	90	1	1010524X125	70,036
24	x 1,5	22	90	1	1010524X15	66,554
24	x 2	22	90	1	1010524X2	69,692
25	x 1	22	90	1	1010525X1	109,428
25	x 1,5	22	90	1	1010525X15	109,428
26	x 1	22	90	1	1010526X1	102,776
26	x 1,5	22	90	1	1010526X15	102,776
26	x 2	22	90	1	1010526X2	102,776
27	x 1	22	90	1	1010527X1	142,700
27	x 1,5	22	90	1	1010527X15	98,696
27	x 2	22	90	1	1010527X2	98,696
28	x 1	22	90	1	1010528X1	146,303
28	x 1,5	22	90	1	1010528X15	116,446
28	x 2	22	90	1	1010528X2	116,446
29	x 1,5	22	90	1	1010529X15	237,438
30	x 1	22	90	1	1010530X1	149,673
30	x 1,5	22	90	1	1010530X15	149,673
30	x 2	22	90	1	1010530X2	149,673
30	x 2,5	56	125	1	1010530X25	149,673
30	x 3	56	125	1	1010530X3	149,673
32	x 1	22	90	1	1010532x1	315,379
32	x 1,5	22	90	1	1010532X15	161,891
32	x 2	22	90	1	1010532x2	315,379
32	x 3	56	125	1	1010532X3	160,683
33	x 1,5	25	100	1	1010533X15	226,639
33	x 2	25	100	1	1010533X2	248,225
33	x 3	56	125	1	1010533X3	275,809
34	x 1	25	100	1	1010534x1	384,927
34	x 1,5	25	100	1	1010534X15	255,420
34	x 2	40	125	1	1010534X2	255,420
35	x 1	25	100	1	1010535x1	384,927
35	x 1,5	25	100	1	1010535X15	255,420
35	x 2	40	125	1	1010535x2	383,730
36	x 1	25	100	1	1010536x1	404,118
36	x 1,5	25	100	1	1010536X15	269,812
36	x 2	40	125	1	1010536X2	269,812
36	x 3	40	125	1	1010536X3	269,812
37	x 1,5	25	100	1	1010537x15	447,883
38	x 1	25	100	1	1010538x1	447,883
38	x 1,5	25	100	1	1010538X15	318,374
38	x 2	40	125	1	1010538X2	393,920
38	x 3	40	125	1	1010538x3	393,920
39	x 1,5	25	110	1	1010539X15	318,374
39	x 2	40	125	1	1010539X2	318,374
39	x 3	40	125	1	1010539X3	318,374
40	x 1	25	110	1	1010540x1	393,920
40	x 1,5	25	110	1	1010540X15	325,929
40	x 2	40	125	1	1010540X2	325,929
40	x 3	40	125	1	1010540X3	325,929
42	x 1	25	110	1	1010542x1	393,920
42	x 1,5	25	110	1	1010542X15	332,405
42	x 2	40	125	1	1010542X2	332,405
42	x 3	40	125	1	1010542X3	332,405
44	x 1,5	25	110	1	1010544x15	480,262
44	x 2	40	125	1	1010544x2	480,262
45	x 1	25	110	1	1010545x1	480,262
45	x 1,5	25	110	1	1010545X15	439,251
45	x 2	40	125	1	1010545X2	439,251
45	x 3	40	125	1	1010545X3	439,251
46	x 1,5	40	140	1	1010546x15	480,262
48	x 1	40	140	1	1010548x1	569,847
48	x 1,5	25	140	1	1010548X15	426,299
48	x 2	40	140	1	1010548X2	492,136
48	x 3	40	140	1	1010548X3	492,136
50	x 1,5	40	140	1	1010550X15	494,291
50	x 2	40	140	1	1010550X2	541,778

MF

Ø		/	L	pcs	cod.	€ cad/each
M 50	x 3	40	140	1	1010550X3	605,459
52	x 1,5	40	140	1	1010552X15	625,964
52	x 2	40	140	1	1010552X2	625,964
52	x 3	40	140	1	1010552X3	625,964
54	x 1,5	32	140	1	1010554X15	1051,835
54	x 2	36	140	1	1010554X2	1051,835
54	x 3	40	140	1	1010554X3	1051,835
54	x 4	50	180	1	1010554X4	1051,835
55	x 1,5	32	140	1	1010555X15	1213,284
55	x 2	36	140	1	1010555X2	1213,284
55	x 3	40	140	1	1010555X3	1213,284
55	x 4	50	180	1	1010555X4	1213,284
56	x 1,5	32	140	1	1010556X15	1294,016
56	x 2	36	140	1	1010556X2	1294,016
56	x 3	40	140	1	1010556X3	1294,016
56	x 4	50	180	1	1010556X4	1294,016
58	x 1,5	32	160	1	1010558X15	1326,067
58	x 2	36	160	1	1010558X2	1326,067
58	x 3	40	160	1	1010558X3	1326,067
58	x 4	55	200	1	1010558X4	1326,067
60	x 1,5	34	160	1	1010560X15	1391,364
60	x 2	36	160	1	1010560X2	1391,364
60	x 3	40	160	1	1010560X3	1391,364
60	x 4	55	200	1	1010560X4	1391,364
62	x 1,5	34	160	1	1010562X15	1504,148
62	x 2	36	160	1	1010562X2	1504,148
62	x 3	45	180	1	1010562X3	1504,148
62	x 4	55	220	1	1010562X4	1504,148
63	x 1,5	32	160	1	1010563X15	1536,197
64	x 1,5	34	160	1	1010564X15	1536,197
64	x 2	36	160	1	1010564X2	1536,197
64	x 3	45	180	1	1010564X3	1536,197
64	x 4	60	220	1	1010564X4	1536,197
65	x 1,5	34	160	1	1010565X15	1633,546
65	x 2	36	160	1	1010565X2	1633,546
65	x 3	45	180	1	1010565X3	1633,546
65	x 4	60	220	1	1010565X4	1633,546
68	x 1,5	36	160	1	1010568X15	1698,844
68	x 2	40	160	1	1010568X2	1698,844
68	x 3	50	180	1	1010568X3	1698,844
68	x 4	60	220	1	1010568X4	1698,844
70	x 1,5	36	160	1	1010570X15	2749,481
70	x 2	40	160	1	1010570X2	2749,481
70	x 3	50	200	1	1010570X3	3154,307
70	x 4	60	240	1	1010570X4	3154,307
72	x 1,5	36	160	1	1010572X15	2749,481
72	x 2	40	160	1	1010572X2	2749,481
72	x 3	50	200	1	1010572X3	3154,307
72	x 4	60	240	1	1010572X4	3154,307
74	x 1,5	36	160	1	1010574X15	2991,672
74	x 2	40	160	1	1010574X2	2991,672
74	x 3	50	200	1	1010574X3	3557,947
74	x 4	60	240	1	1010574X4	3557,947
75	x 1,5	36	160	1	1010575X15	3073,584
75	x 2	40	160	1	1010575X2	3073,584
75	x 3	50	200	1	1010575X3	3638,670
75	x 4	60	240	1	1010575X4	3638,670
76	x 1,5	36	160	1	1010576X15	3154,307
76	x 2	40	160	1	1010576X2	3154,307
76	x 3	50	220	1	1010576X3	3801,316
76	x 4	60	260	1	1010576X4	3801,316
78	x 1,5	36	160	1	1010578X15	3154,307
78	x 2	40	160	1	1010578X2	3154,307
78	x 3	55	220	1	1010578X3	3801,316
78	x 4	65	260	1	1010578X4	3801,316
80	x 1,5	36	160	1	1010580X15	3396,489
80	x 2	40	160	1	1010580X2	3396,489
80	x 3	55	220	1	1010580X3	4204,956
80	x 4	65	260	1	1010580X4	4204,956
82	x 1,5	36	160	1	1010582X15	3396,489
82	x 2	40	160	1	1010582X2	3396,489
82	x 3	55	220	1	1010582X3	4204,956
82	x 4	65	260	1	1010582X4	4204,956

Ø> M84x1,5÷110x4: a richiesta
on demand

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA METRICA ISO A PASSO FINE

Hand taps, 2 pcs set, metric fine ISO thread / Jeux de 2 tarauds à main, filetage metrique ISO à pas fin
Juego de machos a mano, rosca metrica fina ISO / Handgewindebohrer, zweiteiliger Satz für metrisches ISO-Feingewinde

HSS-CO DIN 2181 ISO 2/6H COBALT

MF

10146

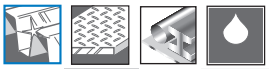




HRC ≃ 64÷65
AISI M35

Applicazioni / Applications

R ≤ 1200 N/mm²



Inox | Acciaio *Steel* | Metals

- Per filettature in acciai molto duri ed abrasivi, acciai inox, acciai resistenti al calore con R≤1200 N/mm²
- For thread in stainless steel, heat-resistant steel, high alloy steel R≤1200 N/mm²
- Taraudage en acier inox et acier allié avec R≤1200 N/mm²
- Para acero inox y acero aleado R≤1200 N/mm²
- Einsatz in legierte Stähle, korrosionebeständige Stähle, Grauguss und Stahlguss bis R≤1200 N/mm²

Ø	/	L	pcs	cod.	€ cad/each
M 6 x 0,75	14	50	1	1014606x075	32,351
8 x 0,75	19	50	1	1014608x075	38,039
8 x 1	22	56	1	1014608x1	32,351
10 x 1	20	63	1	1014610x1	34,536
10 x 1,25	24	70	1	1014610x125	42,895
12 x 1	22	70	1	1014612x1	40,545
12 x 1,25	22	70	1	1014612x125	51,466
12 x 1,5	22	70	1	1014612x15	39,181
14 x 1,25	22	70	1	1014614x125	56,521
14 x 1,5	22	70	1	1014614x15	48,949
16 x 1,5	22	70	1	1014616x15	52,353
18 x 1,5	22	80	1	1014618x15	68,295
18 x 2	22	80	1	1014618x2	87,520
20 x 1,5	22	80	1	1014620x15	75,114
20 x 2	22	80	1	1014620x2	93,540
22 x 1,5	22	80	1	1014622x15	95,935
22 x 2	22	80	1	1014622x2	110,326
24 x 1,5	22	90	1	1014624x15	110,326

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA METRICA SINISTRA A PASSO FINE

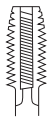
Hand taps, metric fine ISO thread, left hand / Tarauds à main, filetage metrique ISO, gauche
Juego de machos a mano, rosca fina izquierda / Handgewindebohrer, linksgewinde, metrisches ISO-Feingewinde

HSS-G DIN 2181 ISO 2/6H Sinistra - *Left hand - Gauche - Izquierda - Links*

MF

10107





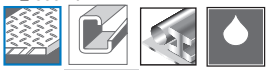
HRC ≃ 63÷63,5
AISI M2



LH

Applicazioni / Applications

R ≤ 800 N/mm²



Acciaio *Steel* | Alu | Metals

- Per filettature in fori ciechi e passanti in acciaio da costruzione, acciai da bonifica, materiali metallici in genere sino a R≤ 800 N/mm² - For making threads in blind and through holes in structural steel, malleable cast iron, heat-treatable steel R≤800 N/mm²

Ø	/	L	pcs	cod.	€ cad/each
M 6 x 0,75	14	50	1	1010706x075	26,786
8 x 0,75	19	50	1	1010708x075	30,877
8 x 1	22	56	1	1010708x1	26,786
10 x 1	20	63	1	1010710x1	28,648
10 x 1,25	24	70	1	1010710x125	34,969
12 x 1	22	70	1	1010712x1	33,871
12 x 1,25	22	70	1	1010712x125	43,162
12 x 1,5	22	70	1	1010712x15	32,741
14 x 1,25	22	70	1	1010714x125	46,887
14 x 1,5	22	70	1	1010714x15	40,945
16 x 1	22	70	1	1010716x1	52,763
16 x 1,5	22	70	1	1010716x15	52,763
18 x 1,5	22	80	1	1010718x15	64,638
20 x 1,5	22	80	1	1010720x15	71,433
22 x 1,5	22	80	1	1010722x15	91,855
24 x 1,5	22	90	1	1010724x15	124,717
24 x 2	22	90	1	1010724x2	194,442
30 x 1,5	22	90	1	1010730x15	416,468
30 x 2	22	90	1	1010730x2	416,468
38 x 1,5	25	100	1	1010738x15	664,144

MASCHI A MANO SERIE DI 2 PEZZI, FIL. GAS CILINDRICA ISO 228 PER TUBI

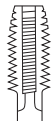
Hand taps, 2 pcs set, Wh pipe thread ISO 228 / Jeux de 2 tarauds à main, filetages gaz de tuyauterie ISO 228
Juegos de utensilios a roscar, rosca gas cilindrica ISO 228 / Handgewindebohrer, zweiteiliger Satz für Rohrgewinde DIN ISO 228

HSS-G DIN 5157

BSP (GAS)

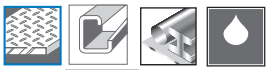
10115





HRC ≃ 63÷63,5
AISI M2

R ≤ 800 N/mm²



Acciaio *Steel* | Alu | Metals

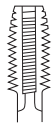
Ø	/	L	pcs	cod.	€ cad/each
G 1/8 x 28	20	63	1	101151/8	31,709
1/4 x 19	22	70	1	101151/4	41,786
3/8 x 19	22	70	1	101153/8	52,474
1/2 x 14	22	80	1	101151/2	75,391
5/8 x 14	22	80	1	101155/8	90,913
3/4 x 14	22	90	1	101153/4	111,557
7/8 x 14	22	90	1	101157/8	145,094
1” x 11	25	100	1	101151"	176,282
1.1/8 x 11	40	125	1	101151.1/8	289,003
1.1/4 x 11	40	125	1	101151.1/4	289,003
1.3/8 x 11	40	140	1	101151.3/8	387,334
1.1/2 x 11	40	140	1	101151.1/2	387,334
1.5/8 x 11	40	140	1	101151.5/8	672,732
1.3/4 x 11	40	140	1	101151.3/4	564,801
2” x 11	40	160	1	101152"	564,801
2.1/4 x 11	40	160	1	101152.1/4	1310,685
2.1/2 x 11	40	160	1	101152.1/2	1381,430
2.3/4 x 11	40	160	1	101152.3/4	1841,914
3” x 11	40	160	1	101153"	2103,333
3.1/2 x 11	45	180	1	101153.1/2	2976,318
4” x 11	45	180	1	101154"	3402,022

HSS-CO DIN 5157 COBALT

BSP (GAS)

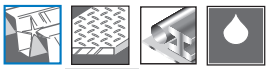
10148





HRC ≃ 64÷65
AISI M35

R ≤ 1200 N/mm²



Inox | Acciaio *Steel* | Metals

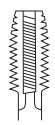
Ø	/	L	pcs	cod.	€ cad/each
G 1/8 x 28	20	63	1	101481/8	38,342
1/4 x 19	22	70	1	101481/4	50,674
3/8 x 19	22	70	1	101483/8	69,299
1/2 x 14	22	80	1	101481/2	101,939
3/4 x 14	22	90	1	101483/4	148,276
1” x 11	25	100	1	101481"	235,150

HSS-G DIN 5157 Sinistra - *Left hand - Gauche - Izquierda - Links*

BSP (GAS)

10117



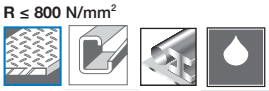


HRC ≃ 63÷63,5
AISI M2



LH

R ≤ 800 N/mm²



Acciaio *Steel* | Alu | Metals

Ø	/	L	pcs	cod.	€ cad/each
G 1/8 x 28	20	63	1	101171/8	52,896
1/4 x 19	22	70	1	101171/4	63,561
3/8 x 19	22	70	1	101173/8	79,915
1/2 x 14	22	80	1	101171/2	130,704
5/8 x 14	22	80	1	101175/8	193,246
3/4 x 14	22	90	1	101173/4	205,052
1" x 11	25	100	1	101171"	401,724
1.1/8 x 11	40	125	1	101171.1/8	533,691
1.1/4 x 11	40	125	1	101171.1/4	533,691
1.3/8 x 11	40	140	1	101171.3/8	715,239
1.1/2 x 11	40	140	1	101171.1/2	715,239
1.3/4 x 11	40	140	1	101171.3/4	1475,181
2" x 11	40	160	1	101172"	1475,181

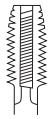
MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA WHITWORTH A PASSO GROSSO BS 84

Hand taps, 3 pcs sets, Whitworth BSW thread / Jeux de tarauds à main, filetage Whitworth
Juegos de machos a mano, rosca Whitworth / Handgewindebohrer, dreiteiliger Satz, Whitworth-Gewinde

HSS-G ≈ DIN 352 **BSW**

10110





HRC ≃ 63÷63,5
AISI M2

R ≤ 800 N/mm²



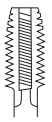
Acciaio *Steel* · Alu · Metals

	Ø	/	L	pcs	cod.	€ cad/each
BSW	**1/16** x 60	10	36	1	101101/16	53,782
	3/32 x 48	10	36	1	101103/32	53,782
	1/8 x 40	12	40	1	101101/8	25,234
	5/32 x 32	14	45	1	101105/32	25,234
	3/16 x 24	18	50	1	101103/16	27,939
	7/32 x 24	18	50	1	101107/32	30,068
	1/4 x 20	19	50	1	101101/4	30,068
	5/16 x 18	22	63	1	101105/16	31,776
	3/8 x 16	24	70	1	101103/8	36,831
	7/16 x 14	24	70	1	101107/16	45,390
	1/2 x 12	29	75	1	101101/2	47,264
	9/16 x 12	30	80	1	101109/16	60,202
	5/8 x 11	32	80	1	101105/8	71,955
	11/16 x 11	32	80	1	1011011/16	121,114
	3/4 x 10	40	95	1	101103/4	121,114
	7/8 x 9	40	100	1	101107/8	146,303
	1" x 8	50	110	1	101101"	164,286
	1.1/8 x 7	56	132	1	101101.1/8	302,186
	1.1/4 x 7	56	132	1	101101.1/4	302,186
	1.3/8 x 6	63	150	1	101101.3/8	446,094
	1.1/2 x 6	63	150	1	101101.1/2	504,842
	1.5/8 x 5	70	160	1	101101.5/8	858,604
	1.3/4 x 5	70	160	1	101101.3/4	986,914
	1.7/8 x 4.1/2	80	190	1	101101.7/8	1364,645
	2" x 4.1/2	80	190	1	101102"	1364,645

HSS-G ≈ DIN 352 Sinistra - *Left hand - Gauche - Izquierda - Links* **BSW**

10111





HRC ≃ 63÷63,5
AISI M2



LH

	Ø	/	L	pcs	cod.	€ cad/each
BSW	**1/8** x40	12	40	1	101111/8	59,337
	5/32 x32	14	45	1	101115/32	59,337
	3/16 x24	18	50	1	101113/16	59,337
	1/4 x20	22	56	1	101111/4	59,337
	5/16 x18	25	63	1	101115/16	61,998
	3/8 x16	28	70	1	101113/8	70,136
	7/16 x14	30	75	1	101117/16	86,256
	1/2 x12	32	80	1	101111/2	101,567
	9/16 x12	32	80	1	101119/16	134,551
	5/8 x11	36	90	1	101115/8	150,372
	3/4 x10	40	105	1	101113/4	201,815
	7/8 x 9	45	110	1	101117/8	247,992
	1” x 8	50	110	1	101111”	299,435

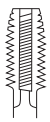
MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA WHITWORTH A PASSO FINE BS 84

Hand taps, 2 pcs set, british standard fine thread - Jeux de 2 tarauds à main, filetage Whitworth pas fin
Juego de machos a mano, rosca fina Whitworth - Handgewindebohrer, zweiteiliger Satz, britisch-standard Feingewinde

HSS-G ≈ DIN 2181 **BSF**

10112





HRC ≃ 63÷63,5
AISI M2

	Ø	/	L	pcs	cod.	€ cad/each
BSF	**3/16** x 32	14	50	1	101123/16	19,646
	1/4 x 26	18	50	1	101121/4	21,586
	5/16 x 22	22	56	1	101125/16	23,560
	3/8 x 20	22	63	1	101123/8	27,462
	7/16 x 18	22	63	1	101127/16	31,397
	1/2 x 16	24	75	1	101121/2	37,319
	9/16 x 16	28	80	1	101129/16	51,022
	5/8 x 14	28	80	1	101125/8	51,022
	3/4 x 12	32	95	1	101123/4	68,672
	7/8 x 11	36	100	1	101127/8	88,740
	1” x 10	40	110	1	101121”	113,918

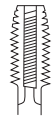
MASCHI A MANO SERIE DI 3 PEZZI, FIL. AMERICANA UNC A PASSO GROSSO

Hand taps, 3 pcs set, Unified Coarse Thread (UNC) / Jeux de 3 tarauds à main, filetage americain à pas gros UNC
Juegos de machos a mano, rosca unificada vasta UNC / Handgewindebohrer, dreiteiliger Satz, amerikanisches gewinde UNC

HSS-G ≃ DIN 352 **UNC**

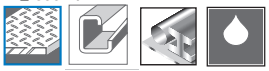
10120





HRC ≃ 63÷63,5
AISI M2

R ≤ 800 N/mm²



Acciaio *Steel* | Alu | Metals

	Ø	/	L	pcs	cod.	€ cad/each
N° 1	x 64	10	32	1	10120N01	38,694
2	x 56	11	36	1	10120N02	38,694
3	x 48	11	36	1	10120N03	32,718
4	x 40	12	40	1	10120N04	29,769
5	x 40	12	40	1	10120N05	29,769
6	x 32	14	45	1	10120N06	28,704
8	x 32	14	45	1	10120N08	28,704
10	x 24	16	50	1	10120N10	28,704
12	x 24	18	50	1	10120N12	28,704
UNC 1/4	x 20	19	50	1	101201/4	30,799
5/16	x 18	22	63	1	101205/16	30,799
3/8	x 16	24	70	1	101203/8	37,696
7/16	x 14	24	70	1	101207/16	42,130
1/2	x 13	29	75	1	101201/2	57,652
9/16	x 12	30	80	1	101209/16	67,154
5/8	x 11	32	80	1	101205/8	72,231
3/4	x 10	40	95	1	101203/4	113,319
7/8	x 12	40	100	1	101207/8	143,542
1”	x 8	50	110	1	101201”	188,478
1.1/8	x 7	56	132	1	101201.1/8	297,395
1.1/4	x 7	56	132	1	101201.1/4	408,919
1.3/8	x 6	63	150	1	101201.3/8	673,929
1.1/2	x 6	63	150	1	101201.1/2	673,929
1.5/8	x 5	70	160	1	101201.5/8	1021,682
1.3/4	x 5	70	160	1	101201.3/4	1021,682
1.7/8	x 4,5	80	190	1	101201.7/8	1426,998
2”	x 4,5	80	190	1	101202”	1426,998

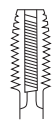
MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA AMERICANA UNC SINISTRA

Hand taps, 3 pcs set left hand / Jeux de 3 tarauds à main gauche
Juegos de machos a mano izquierda / Handgewindebohrer, linksgewinde dreitelliger Satz

HSS-G ≃ DIN 352 Sinistra - *Left hand - Gauche - Izquierda - Links* **UNC**

10122





HRC ≃ 63÷63,5
AISI M2



LH

	Ø	/	L	pcs	cod.	€ cad/each
N° 6	x 32	14	45	1	10122NR06	90,546
8	x 32	14	45	1	10122NR08	90,546
10	x 24	16	50	1	10122NR10	90,546
12	x 24	18	50	1	10122NR12	90,546
UNC 1/4	x 20	19	50	1	101221/4	57,353
5/16	x 18	22	63	1	101225/16	60,390
3/8	x 16	24	70	1	101223/8	70,390
7/16	x 14	24	70	1	101227/16	85,502
1/2	x 13	29	75	1	101221/2	102,610
9/16	x 12	30	80	1	101229/16	133,808
5/8	x 11	32	80	1	101225/8	150,849
3/4	x 10	40	95	1	101223/4	201,161
7/8	x 9	40	100	1	101227/8	251,462
1”	x 8	50	110	1	101221”	301,776

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA AMERICANA UNF A PASSO FINE

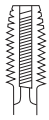
Hand taps, 2 pcs set, unified fine thread UNF / Jeux de 2 tarauds à main, filetage americain à pas fin UNF
Juego de 2 machos a mano, rosca unificada fina UNF / Handgewindebohrer, zweiteiliger Satz, amerikanisches Feingewinde

HSS-G ≃ DIN 2181

UNF

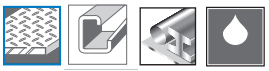
10125





HRC ≃ 63÷63,5
AISI M2

R ≤ 800 N/mm²



Acciaio *Steel* | Alu | Metals

	Ø		/	L	pcs	cod.	€ cad/each
N°	0	x 80	9	32	1	10125N00	42,812
	1	x 72	9	32	1	10125N01	39,724
	2	x 64	10	32	1	10125N02	39,724
	3	x 56	10	32	1	10125N03	34,736
	4	x 48	11	36	1	10125N04	33,505
	5	x 44	11	36	1	10125N05	32,274
	6	x 40	12	40	1	10125N06	25,833
	8	x 36	12	40	1	10125N08	25,833
	10	x 32	14	45	1	10125N10	25,833
UNF	12	x 28	14	50	1	10125N12	25,833
	1/4	x 28	18	50	1	101251/4	27,795
	5/16	x 24	22	56	1	101255/16	27,795
	3/8	x 24	22	63	1	101253/8	30,123
	7/16	x 20	22	63	1	101257/16	35,722
	1/2	x 20	24	75	1	101251/2	42,253
	9/16	x 18	28	80	1	101259/16	58,750
	5/8	x 18	28	80	1	101255/8	64,925
	3/4	x 16	32	95	1	101253/4	81,123
	7/8	x 14	36	100	1	101257/8	103,131
	1”	x 12	40	110	1	101251”12	130,704
*	1”	x 14	40	110	1	101251”14	217,049
	1.1/8	x 12	50	110	1	101251.1/8	294,989
	1.1/4	x 12	56	132	1	101251.1/4	368,142
	1.3/8	x 12	56	132	1	101251.3/8	605,578
	1.1/2	x 12	63	150	1	101251.1/2	605,578

* **Filettatura UNS**
UNS thread

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA AMERICANA UNF SINISTRA

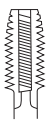
Hand taps, 2 pcs set left hand / Jeux de 2 tarauds à main gauche
Juegos de machos a mano izquierda / Handgewindebohrer, linksgewinde zweitelliger Satz

HSS-G ≃ DIN 2181 Sinistra - *Left hand - Gauche - Izquierda - Links*

UNF

10127





HRC ≃ 63÷63,5
AISI M2



LH

	Ø		/	L	pcs	cod.	€ cad/each
N°	10	x 32	14	45	1	10127NR10	57,763
UNF	1/4	x 28	18	50	1	101271/4	36,564
	5/16	x 24	22	56	1	101275/16	38,483
	3/8	x 24	22	63	1	101273/8	44,913
	7/16	x 20	22	63	1	101277/16	54,548
	1/2	x 20	24	75	1	101271/2	65,413
	9/16	x 18	28	80	1	101279/16	85,303
	5/8	x 18	28	80	1	101275/8	96,235
	3/4	x 16	32	95	1	101273/4	128,309
	7/8	x 14	36	100	1	101277/8	160,361
	1”	x 12	40	110	1	101271”	192,413

MASCHI A MANO / MACCHINA CONICI PER TUBI, FILETTATURA AMERICANA NPT - BSPT

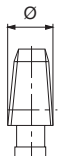
NPT taper thread taps / Tarauds conique NPT / Machos rosca conica americana NPT
Gewindebohrer, amerikanisches kegeliges Rohrgewinde

HSS-G ANSI B 2.1

NPT



FORM C



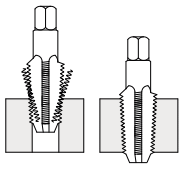
CONICITA' 1:16
TAPER 1:16



NPTF

	Ø	/	L	pcs	cod.	€ cad/each
NPT	**1/16** x 27	19	54	1	101341/16	34,878
	1/8 x 27	19	54	1	101341/8	39,570
	1/4 x 18	27	62	1	101341/4	45,844
	3/8 x 18	27	65	1	101343/8	56,688
	1/2 x 14	35	79	1	101341/2	85,835
	3/4 x 14	35	83	1	101343/4	141,502
	1" x 11,5	44	95	1	101341"	221,850
	1.1/4 x 11,5	44	102	1	101341.1/4	353,749
	1.1/2 x 11,5	44	108	1	101341.1/2	460,474
	2" x 11,5	44	114	1	101342"	826,220

10134



CONICITA' 1:16
TAPER 1:16

MASCHI A MANO / MACCHINA CONICI PER TUBI, FILETTATURA GAS CONICA BSPT

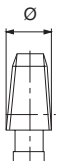
BSPT taped thread taps / Tarauds filetage gaz conique BSPT / Machos rosca conica BSPT

HSS-G

BSPT



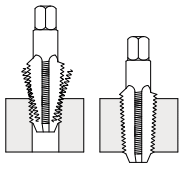
FORM C



CONICITA' 1:16
TAPER 1:16

	Ø	/	L	pcs	cod.	€ cad/each
Rc	**1/8** x 28	15	59	1	101391/8	39,570
	1/4 x 19	19	67	1	101391/4	45,844
	3/8 x 19	21	75	1	101393/8	56,688
	1/2 x 14	26	87	1	101391/2	75,536
	3/4 x 14	28	96	1	101393/4	118,120
	1" x 11	33	109	1	101391"	169,087
	1.1/4 x 11	36	119	1	101391.1/4	291,397
	1.1/2 x 11	37	125	1	101391.1/2	378,940
	2" x 11	41	140	1	101392"	673,929

10139



CONICITA' 1:16
TAPER 1:16

MASCHI A MACCHINA CONICI PER TUBI, FILETTATURA AMERICANA NPT

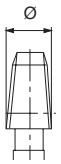
NPT machine taps / Tarauds machine NPT / Machos de maquina NPT / Machinengewindebohrer NPT

HSS-CO

NPT



FORM C



CONICITA' 1:16
TAPER 1:16



NPTF

	Ø	/	L	d	pcs	cod.	€ cad/each
NPT	**1/8** x 27	20	90	7	1	102931/8	50,796
	1/4 x 18	22	100	11	1	102931/4	63,647
	3/8 x 18	22	100	12	1	102933/8	79,335
	1/2 x 14	28	125	16	1	102931/2	111,465
	3/4 x 14	28	140	20	1	102933/4	165,474
	1" x 11,5	38	160	25	1	102931"	237,761

10293

MASCHI A MACCHINA CONICI PER TUBI, FILETTATURA GAS CONICA BSPT

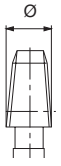
BSPT machine taps / Tarauds machine BSPT / Machos de maquina BSPT / Machinengewindebohrer BSPT

HSS-CO

BSPT



FORM C



CONICITA' 1:16
TAPER 1:16

	Ø	/	L	d	pcs	cod.	€ cad/each
Rc	**1/8** x 27	20	90	7	1	102941/8	50,796
	1/4 x 18	22	100	11	1	102941/4	63,647
	3/8 x 18	22	100	12	1	102943/8	79,335
	1/2 x 14	28	125	16	1	102941/2	111,465
	3/4 x 14	28	140	20	1	102943/4	165,474
	1" x 11,5	38	160	25	1	102941"	237,761

10294

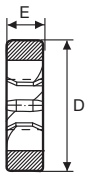
FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA METRICA ISO A PASSO GROSSO

Spiral point round dies, metric coarse thread / Filières rondes entrée gun, filetage métrique à pas gros
Cojinetes redondos entrada corregida, rosca metrica vasta / Runde Schneideisen mit schälanschnitt metrisches ISO-Gewinde

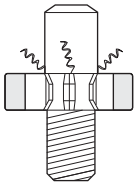
HSS DIN 223 - EN 22568 6g **M**

12060



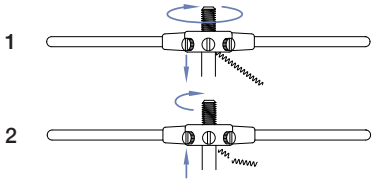


HRC ≃ 62÷63
AISI M2
FORM B

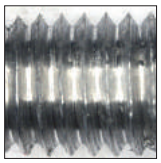


Imbocco corretto
Spiral Point

Art. **12068** Self
Disponibile su richiesta
On demand



É buona norma, ad ogni rotazione della filiera(1), effettuare mezzo giro indietro per rompere il truciolo(2)
Please rotate clockwise the round die(1) then anticlockwise to break the chip(2)



Risultato: Ottima finitura del filetto
Result: good thread finishing

Confezione / Packaging



1 pc

Applicazioni / Applications



	Ø	DxE	pcs	cod.	€ cad/each
M	**1** x 0,25	16 x 5	1	1206001X025	39,126
	1,1 x 0,25	16 x 5	1	12060011X025	39,126
	1,2 x 0,25	16 x 5	1	12060012X025	39,126
	1,4 x 0,3	16 x 5	1	12060014X03	39,126
	1,6 x 0,35	16 x 5	1	12060016X035	39,126
	1,7 x 0,35	16 x 5	1	12060017X035	39,126
	1,8 x 0,35	16 x 5	1	12060018X035	39,126
	2 x 0,4	16 x 5	1	1206002X04	18,825
	2,2 x 0,45	16 x 5	1	12060022X045	24,037
	2,3 x 0,4	16 x 5	1	12060023X04	24,037
	2,5 x 0,45	16 x 5	1	12060025X045	18,970
	2,6 x 0,45	16 x 5	1	12060026X045	24,037
	3 x 0,5	20 x 5	1	1206003X05	15,876
	3,5 x 0,6	20 x 5	1	12060035X06	24,037
	4 x 0,7	20 x 5	1	1206004X07	15,876
	4,5 x 0,75	20 x 7	1	12060045X075	18,970
	5 x 0,8	20 x 7	1	1206005X08	16,419
	5 x 1	20 x 7	1	1206005X1	72,065
	5,5 x 0,9	20 x 7	1	12060055x09	24,159
	6 x 1	20 x 7	1	1206006X1	17,229
	7 x 1	25 x 9	1	1206007X1	19,403
	8 x 1,25	25 x 9	1	1206008X125	18,260
	9 x 1,25	25 x 9	1	1206009X125	23,260
	10 x 1,5	30 x 11	1	1206010X15	20,632
	11 x 1,5	30 x 11	1	1206011X15	32,440
	12 x 1,75	38 x 14	1	1206012X175	30,223
	14 x 2	38 x 14	1	1206014X2	31,776
	15 x 2	38 x 14	1	1206015X2	49,891
	16 x 2	45 x 18	1	1206016X2	38,849
	18 x 2,5	45 x 18	1	1206018X25	42,651
	19 x 2,5	45 x 18	1	1206019X25	49,891
	20 x 2,5	45 x 18	1	1206020X25	44,126
	22 x 2,5	55 x 22	1	1206022X25	73,152
	24 x 3	55 x 22	1	1206024X3	86,189
	27 x 3	65 x 25	1	1206027X3	106,706
	30 x 3,5	65 x 25	1	1206030X35	115,430
	33 x 3,5	65 x 25	1	1206033X35	126,359
	36 x 4	65 x 25	1	1206036X4	130,040
	39 x 4	75 x 30	1	1206039X4	190,142
	42 x 4,5	75 x 30	1	1206042X45	202,412
	45 x 4,5	90 x 36	1	1206045X45	300,551
	48 x 5	90 x 36	1	1206048X5	273,227
	52 x 5	90 x 36	1	1206052X5	313,821
	56 x 5,5	105 x 36	1	1206056X55	370,036
	60 x 5,5	105 x 36	1	1206060X55	370,036
	64 x 6	120 x 36	1	1206064X6	423,899
	68 x 6	120 x 36	1	1206068X6	423,899
	72 x 6	130 x 36	1	1206072X6	1436,299

15035 15037 311

FILIERE TONDE NON A NORMA DIN, FILETTATURA METRICA ISO A PASSO GROSSO

Round dies with special outside diameter / Filières rondes avec diamètre exterieur spécial
Cojinetes redondos con diametro exterior special / Runde Schneideisen mit sonderen ausserendurchmesser

HSS 6g

12066 **12067**







Filiere con Ø esterno speciale
Round dies with special outside diameter

Ø	DxE	pcs	HSS cod.	HSS € cad/each	HSS+TiN cod.	HSS+TiN € cad/each
M 2 x 0,4	25 x 9	1	12066202X04	26,387	-	-
3 x 0,5	25 x 9	1	12066203X05	11,630	12067203X05	14,700
4 x 0,7	25 x 9	1	12066204X07	11,630	12067204X07	14,700
5 x 0,8	25 x 9	1	12066205X08	11,630	12067205X08	14,700
6 x 1	25 x 9	1	12066206X1	11,630	12067206X1	14,700
7 x 1	25 x 9	1	12066207X1	11,630	-	-
8 x 1,25	25 x 9	1	12066208X125	11,630	12067208X125	15,092
10 x 1,5	25 x 9	1	12066210X15	11,630	12067210X15	15,092
12 x 1,75	25 x 9	1	12066212X175	13,792	12067212X175	15,630
10 x 1,5	38 x 14	1	12066310X15	19,725		
12 x 1,75	38 x 14	1	12066312X175	23,770		
14 x 2	38 x 14	1	12066314X2	23,770		
16 x 2	38 x 14	1	12066316X2	23,770		
18 x 2,5	38 x 14	1	12066318X25	27,340		
20 x 2,5	38 x 14	1	12066320X25	27,340		

12066
12067

FILIERE TONDE NON A NORMA DIN, FILETTATURA METRICA ISO A PASSO FINE

NPRound dies with special outside diameter / Filières rondes avec diamètre exterieur spécial
Cojinetes redondos con diametro exterior special / Runde Schneideisen für nicht DIN Norme, mit sonderen äusseren durchmesser

HSS 6g

MF



Filiere con Ø esterno speciale
Round dies with special outside diameter

Ø	DxE	pcs	cod.	€ cad/each
M 8 x 1	25 x 9	1	12066208X1	11,342
10 x 1	38 x 14	1	12066310X1	19,745
10 x 1,25	38 x 14	1	12066310X125	19,745
12 x 1,25	38 x 14	1	12066312X125	23,770
12 x 1,5	38 x 14	1	12066312X15	23,770
14 x 1,25	38 x 14	1	12066314X125	23,770
14 x 1,5	38 x 14	1	12066314X15	23,770
16 x 1,5	38 x 14	1	12066316X15	23,770
18 x 1,5	38 x 14	1	12066318X15	27,340

12066

Confezione / Packaging



1 pc

Applicazioni / Applications



Acciaio
Steel



Metals



Alu



FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA METRICA ISO A PASSO GROSSO

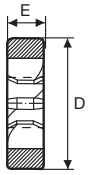
Round dies, spiral point, metric coarse thread / Filieres rondes, entrée gun, filetage métrique à pas gros
Cojinetes redondos, entrada corregida, rosca metrica vasta / Runde Schneideisen mit schälanschnitt.

HSS-CO DIN 223 EN 22568 6g COBALT

M

12144

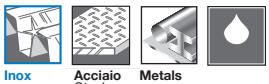




HRC ≃ 63÷64
AISI M35
FORM B

Imbocco corretto
Spiral Point

Applicazioni / Applications



	Ø	DxE	pcs	cod.	€ cad/each
M	3 x 0,5	20 x 5	1	1214403X05	18,992
	4 x 0,7	20 x 5	1	1214404X07	18,992
	5 x 0,8	20 x 7	1	1214405X08	19,491
	6 x 1	20 x 7	1	1214406X1	19,491
	8 x 1,25	25 x 9	1	1214408X125	20,267
	10 x 1,5	30 x 11	1	1214410X15	24,103
	12 x 1,75	38 x 14	1	1214412X175	37,563
	14 x 2	38 x 14	1	1214414X2	43,162
	16 x 2	45 x 18	1	1214416X2	58,039
	18 x 2,5	45 x 18	1	1214418X25	68,617
	20 x 2,5	45 x 18	1	1214420X25	68,617
	22 x 2,5	55 x 22	1	1214422X25	115,116
	24 x 3	55 x 22	1	1214424X3	115,116
	27 x 3	65 x 25	1	1214427X3	160,760
	30 x 3,5	65 x 25	1	1214430X35	160,760

FILIERE TONDE SINISTRE, FILETTATURA METRICA A PASSO GROSSO

Round dies, metric coarse thread, left hand / Filières rondes, filetage métrique à pas gros, gauche
Cojinetes redondos, rosca metrica vasta izquierda /Runde Schneideisen, metrisches ISO-Gewinde, linksgewinde

HSS DIN 223 - EN 22568 6g Sinistra - *Left hand - Gauche - Izquierda - Links*

M

12062





LH

Confezione / Packaging



1 pc

Applicazioni / Applications



	Ø	DxE	pcs	cod.	€ cad/each
M	2 x 0,4	16 x 5	1	1206202X04	27,029
	3 x 0,5	20 x 5	1	1206203X05	19,117
	4 x 0,7	20 x 5	1	1206204X07	19,117
	5 x 0,8	20 x 7	1	1206205X08	19,776
	6 x 1	20 x 7	1	1206206X1	19,776
	7 x 1	25 x 9	1	1206207X1	24,044
	8 x 1,25	25 x 9	1	1206208X125	20,951
	10 x 1,5	30 x 11	1	1206210X15	25,180
	12 x 1,75	38 x 14	1	1206212X175	38,594
	14 x 2	38 x 14	1	1206214X2	38,594
	16 x 2	45 x 18	1	1206216X2	51,874
	18 x 2,5	45 x 18	1	1206218X25	62,752
	20 x 2,5	45 x 18	1	1206220X25	62,752
	22 x 2,5	55 x 22	1	1206222X25	119,853
	24 x 3	55 x 22	1	1206224X3	119,853
	27 x 3	65 x 25	1	1206227X3	167,839
	30 x 3,5	65 x 25	1	1206230X35	167,839
	33 x 3,5	65 x 25	1	1206233X35	187,812
	36 x 4	65 x 25	1	1206236X4	206,321
	39 x 4	75 x 30	1	1206239X4	344,598
	42 x 4,5	75 x 30	1	1206242X45	344,598
	45 x 4,5	90 x 36	1	1206245X45	541,999
	48 x 5	90 x 36	1	1206248X5	541,999
	52 x 5	90 x 36	1	1206252X5	541,999

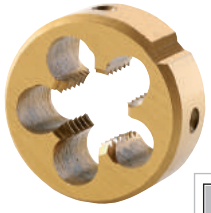
FILIERE TONDE AD IMBOCCO CORRETTO RIV. AL TIN, FIL. METRICA ISO A PASSO GROSSO

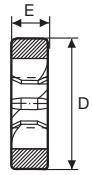
TiN round dies, metric coarse thread / Filières rondes revetue au titan, filetage métrique à pas gros
Cojinetes redondos con recubrimiento de titanio / Runde Schneideisen TiN beschichtet.

HSS+TiN DIN 223 - EN 22568 6g

M

12165







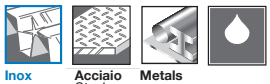
HV 0,05 ≃ 2500
AISI M2
FORM B

Imbocco corretto
Spiral Point

	Ø	DxE	pcs	cod.	€ cad/each
M	**3** x 0,5	20 x 5	1	1216503X05	18,748
	4 x 0,7	20 x 5	1	1216504X07	18,748
	5 x 0,8	20 x 7	1	1216505X08	19,148
	6 x 1	20 x 7	1	1216506X1	19,148
	8 x 1,25	25 x 9	1	1216508X125	21,655
	10 x 1,5	30 x 11	1	1216510X15	26,099
	12 x 1,75	38 x 14	1	1216512X175	37,791
	14 x 2	38 x 14	1	1216514X2	37,791
	16 x 2	45 x 18	1	1216516X2	49,334
	18 x 2,5	45 x 18	1	1216518X25	57,297
	20 x 2,5	45 x 18	1	1216520X25	57,297
	22 x 1,5	45 x 18	1	1216522X25	108,381
					MF
MF	**14** x 1,5	38 x 14	1	1216514x15	37,791
	16 x 1,5	45 x 18	1	1216516x15	49,334
	18 x 1,5	45 x 18	1	1216518x15	57,297

NEW

Applicazioni / Applications



FILIERE TONDE, FILETTATURA METRICA A PASSO FINE PER TUBI DI CONDUZIONE ELETTRICA

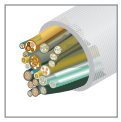
Round dies, metric fine thread for cables connections/ Filières rondes métrique à pas fin pour tubes avec armature en acier / Cojinetes redondos rosca metrica fina para tubos de conducción eléctrica/ Runde Schneideisen, Stahlpanzer ISO-Feingewinde für Kabelverschraubungen

HSS DIN 223 - EN 22568 6g

MF

12069





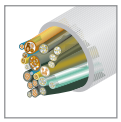
	Ø	DxE	pcs	cod.	€ cad/each
MF	**12** x 1,5	38 x 10	1	1206912X15	28,036
	16 x 1,5	45 x 14	1	1206916X15	39,841
	20 x 1,5	45 x 14	1	1206920X15	51,357
	25 x 1,5	55 x 16	1	1206925X15	113,748
	32 x 1,5	65 x 18	1	1206932X15	159,302
	40 x 1,5	75 x 20	1	1206940X15	283,043
	50 x 1,5	90 x 22	1	1206950X15	454,193
	63 x 1,5	105 x 22	1	1206963X15	878,792

HSS DIN 40434*

Pg

12093





*In esaurimento
To be discontinued

	Ø	DxE	pcs	cod.	€ cad/each
Pg	**7** x 20	38 x 10	1	1209307	89,859
	9 x 18	45 x 14	1	1209309	107,865
	11 x 18	45 x 14	1	1209311	107,865
	13,5 x 18	45 x 14	1	12093135	107,865
	16 x 18	55 x 16	1	1209316	125,792
	21 x 16	65 x 18	1	1209321	197,857
	29 x 16	65 x 18	1	1209329	197,857
	36 x 16	90 x 22	1	1209336	432,656
	42 x 16	105 x 22	1	1209342	547,416
	48 x 16	105 x 22	1	1209348	547,416

FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA METRICA A PASSO FINE

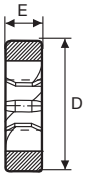
Round dies, spiral point, metric fine thread / Filieres rondes, entrée gun, filetage métrique à pas fin
Cojinetes redondos, entrada corregida, rosca metrica fina / Runde Schneideisen mit schälanschnitt, metrisches ISO-Feingewinde

HSS DIN 223 - EN 22568 - 6g

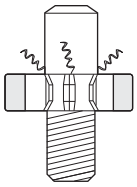
MF

12065

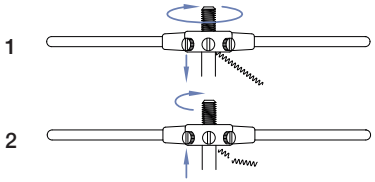




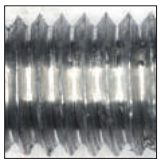
HRC ≃ 62÷63
AISI M2
FORM B



Imbocco corretto
Spiral Point



É buona norma, ad ogni rotazione della filiera(1), effettuare mezzo giro indietro per rompere il truciolo(2)
Please rotate clockwise the round die(1) then anticlockwise to break the chip(2)



Risultato: Ottima finitura del filetto
Result: good thread finishing

Ø	DxE	pcs	cod.	€ cad/each
M 2,5 x 0,35	16 x 5	1	12065025X035	37,685
2,6 x 0,35	16 x 5	1	12065026X035	37,685
3 x 0,35	20 x 5	1	1206503X035	19,790
3,5 x 0,35	20 x 5	1	12065035X035	23,749
4 x 0,35	20 x 5	1	1206504X035	31,120
4 x 0,5	20 x 5	1	1206504X05	19,790
4,5 x 0,5	20 x 5	1	12065045X05	35,257
5 x 0,5	20 x 5	1	1206505X05	19,790
5 x 0,75	20 x 7	1	1206505X075	27,042
5,5 x 0,5	20 x 5	1	12065055X05	35,257
6 x 0,5	20 x 5	1	1206506X05	27,042
6 x 0,75	20 x 7	1	1206506X075	27,042
7 x 0,5	25 x 9	1	1206507X05	35,257
7 x 0,75	25 x 9	1	1206507X075	27,042
8 x 0,5	25 x 9	1	1206508X05	27,042
8 x 0,75	25 x 9	1	1206508X075	21,553
8 x 1	25 x 9	1	1206508X1	21,553
9 x 0,5	25 x 9	1	1206509X05	47,485
9 x 0,75	25 x 9	1	1206509X075	47,485
9 x 1	25 x 9	1	1206509X1	29,325
10 x 0,5	30 x 11	1	1206510X05	47,485
10 x 0,75	30 x 11	1	1206510X075	25,798
10 x 1	30 x 11	1	1206510X1	24,226
10 x 1,25	30 x 11	1	1206510X125	24,226
11 x 1	30 x 11	1	1206511X1	35,501
11 x 1,25	30 x 11	1	1206511X125	35,501
12 x 0,5	38 x 10	1	1206512X05	46,643
12 x 0,75	38 x 10	1	1206512X075	46,643
12 x 1	38 x 10	1	1206512X1	31,299
12 x 1,25	38 x 10	1	1206512X125	31,299
12 x 1,5	38 x 10	1	1206512X15	30,146
13 x 0,5	38 x 10	1	1206513X05	60,202
13 x 0,75	38 x 10	1	1206513X075	60,202
13 x 1	38 x 10	1	1206513X1	49,116
13 x 1,5	38 x 10	1	1206513X15	49,116
14 x 0,5	38 x 10	1	1206514X05	60,290
14 x 0,75	38 x 10	1	1206514X075	60,290
14 x 1	38 x 10	1	1206514X1	33,361
14 x 1,25	38 x 10	1	1206514X125	33,361
14 x 1,5	38 x 10	1	1206514X15	33,361
15 x 0,75	38 x 10	1	1206515X075	90,192
15 x 1	38 x 10	1	1206515X1	78,429
15 x 1,5	38 x 10	1	1206515X15	56,788
16 x 0,5	45 x 14	1	1206516X05	97,143
16 x 0,75	45 x 14	1	1206516X075	97,143
16 x 1	45 x 14	1	1206516X1	42,840
16 x 1,25	45 x 14	1	1206516X125	64,304
16 x 1,5	45 x 14	1	1206516X15	42,840
17 x 1	45 x 14	1	1206517X1	78,429
17 x 1,5	45 x 14	1	1206517X15	97,012
18 x 0,5	45 x 14	1	1206518X05	97,012
18 x 0,75	45 x 14	1	1206518X075	97,012
18 x 1	45 x 14	1	1206518X1	52,064
18 x 1,25	45 x 14	1	1206518X125	78,429
18 x 1,5	45 x 14	1	1206518X15	52,064
18 x 2	45 x 14	1	1206518X2	52,064
19 x 1	45 x 14	1	1206519X1	106,434
19 x 1,5	45 x 14	1	1206519X15	78,429
20 x 0,5	45 x 14	1	1206520X05	106,434
20 x 0,75	45 x 14	1	1206520X075	106,434
20 x 1	45 x 14	1	1206520X1	55,223
20 x 1,25	45 x 14	1	1206520X125	55,223
20 x 1,5	45 x 14	1	1206520X15	55,223
20 x 2	45 x 14	1	1206520X2	55,223
21 x 1	45 x 14	1	1206521X1	105,326
21 x 1,5	45 x 14	1	1206521X15	93,540
22 x 0,5	55 x 16	1	1206522X05	148,931
22 x 0,75	55 x 16	1	1206522X075	148,931
22 x 1	55 x 16	1	1206522X1	86,589
22 x 1,25	55 x 16	1	1206522X125	86,589
22 x 1,5	55 x 16	1	1206522X15	80,934
22 x 2	55 x 16	1	1206522X2	80,934

Confezione / Packaging



1 pc

Applicazioni / Applications



Ø	DxE	pcs	cod.	€ cad/each
M 23 x 1	55 x 16	1	1206523X1	168,366
23 x 1,5	55 x 16	1	1206523X15	168,366
24 x 0,5	55 x 16	1	1206524X05	168,366
24 x 0,75	55 x 16	1	1206524X075	168,366
24 x 1	55 x 16	1	1206524X1	88,141
24 x 1,25	55 x 16	1	1206524X125	88,141
24 x 1,5	55 x 16	1	1206524X15	88,141
24 x 2	55 x 16	1	1206524X2	88,141
25 x 1	55 x 16	1	1206525X1	122,310
25 x 1,5	55 x 16	1	1206525X15	122,310
25 x 2	55 x 16	1	1206525X2	113,109
26 x 1	55 x 16	1	1206526X1	152,822
26 x 1,5	55 x 16	1	1206526X15	152,822
26 x 2	55 x 16	1	1206526X2	152,822
27 x 1	65 x 18	1	1206527X1	172,956
27 x 1,5	65 x 18	1	1206527X15	172,956
27 x 2	65 x 18	1	1206527X2	172,956
28 x 1	65 x 18	1	1206528X1	172,956
28 x 1,5	65 x 18	1	1206528X15	172,956
28 x 2	65 x 18	1	1206528X2	172,956
29 x 1,5	65 x 18	1	1206529X15	172,956
30 x 1	65 x 18	1	1206530X1	172,956
30 x 1,5	65 x 18	1	1206530X15	172,956
30 x 2	65 x 18	1	1206530X2	172,956
30 x 2,5	65 x 18	1	1206530X25	172,956
30 x 3	65 x 25	1	1206530X3	172,956
32 x 1	65 x 18	1	1206532X1	230,242
32 x 1,5	65 x 18	1	1206532X15	171,293
32 x 2	65 x 18	1	1206532X2	171,293
32 x 3	65 x 25	1	1206532X3	171,293
33 x 1,5	65 x 18	1	1206533X15	195,463
33 x 2	65 x 18	1	1206533X2	195,463
33 x 3	65 x 25	1	1206533X3	195,463
34 x 1	65 x 18	1	1206534X1	230,242
34 x 1,5	65 x 18	1	1206534X15	195,463
34 x 2	65 x 18	1	1206534X2	195,463
35 x 1	65 x 18	1	1206535X1	230,242
35 x 1,5	65 x 18	1	1206535X15	205,052
35 x 2	65 x 18	1	1206535X2	230,242
36 x 1	65 x 18	1	1206536X1	230,242
36 x 1,5	65 x 18	1	1206536X15	205,052
36 x 2	65 x 18	1	1206536X2	205,052
36 x 3	65 x 25	1	1206536X3	205,052
37 x 1,5	65 x 18	1	1206537X15	400,060
38 x 1	75 x 20	1	1206538X1	400,060
38 x 1,5	75 x 20	1	1206538X15	284,156
38 x 2	75 x 20	1	1206538X2	284,156
38 x 3	75 x 30	1	1206538X3	381,779
39 x 1,5	75 x 20	1	1206539X15	283,043
39 x 2	75 x 20	1	1206539X2	283,043
39 x 3	75 x 30	1	1206539X3	283,043
40 x 1	75 x 20	1	1206540X1	381,779
40 x 1,5	75 x 20	1	1206540X15	283,043
40 x 2	75 x 20	1	1206540X2	283,043
40 x 3	75 x 30	1	1206540X3	283,043
42 x 1	75 x 20	1	1206542X1	381,779
42 x 1,5	75 x 20	1	1206542X15	283,043
42 x 2	75 x 20	1	1206542X2	283,043
42 x 3	75 x 30	1	1206542X3	283,043
44 x 1,5	90 x 22	1	1206544X15	618,753
44 x 2	90 x 22	1	1206544X2	618,753
45 x 1	90 x 22	1	1206545X1	618,753
45 x 1,5	90 x 22	1	1206545X15	454,193
45 x 2	90 x 22	1	1206545X2	454,193
45 x 3	90 x 36	1	1206545X3	454,193
46 x 1,5	90 x 22	1	1206546X15	618,753
48 x 1	90 x 22	1	1206548X1	618,753
48 x 1,5	90 x 22	1	1206548X15	454,193
48 x 2	90 x 22	1	1206548X2	454,193
48 x 3	90 x 36	1	1206548X3	454,193
50 x 1,5	90 x 22	1	1206550X15	454,193
50 x 2	90 x 22	1	1206550X2	454,193
50 x 3	90 x 36	1	1206550X3	454,193
52 x 1,5	90 x 22	1	1206552X15	454,193
52 x 2	90 x 22	1	1206552X2	454,193
52 x 3	90 x 36	1	1206552X3	454,193

MF

Ø	DxE	pcs	cod.	€ cad/each
M 54 x 1	105 x 22	1	1206554X1	835,971
54 x 1,5	105 x 22		1206554X15	878,792
54 x 2	105 x 22	1	1206554X2	878,792
54 x 3	105 x 36	1	1206554X3	878,792
54 x 4	105 x 36	1	1206554X4	878,792
55 x 1,5	105 x 22	1	1206555X15	878,792
55 x 2	105 x 22	1	1206555X2	878,792
55 x 3	105 x 36	1	1206555X3	878,792
55 x 4	105 x 36	1	1206555X4	878,792
56 x 1	105 x 22	1	1206556X1	878,792
56 x 1,5	105 x 22	1	1206556X15	878,792
56 x 2	105 x 22	1	1206556X2	878,792
56 x 3	105 x 36	1	1206556X3	878,792
56 x 4	105 x 36	1	1206556X4	878,792
58 x 1	105 x 22	1	1206558X1	878,792
58 x 1,5	105 x 22	1	1206558X15	878,792
58 x 2	105 x 22	1	1206558X2	878,792
58 x 3	105 x 36	1	1206558X3	878,792
58 x 4	105 x 36	1	1206558X4	878,792
60 x 1,5	105 x 22	1	1206560X15	878,792
60 x 2	105 x 22	1	1206560X2	878,792
60 x 3	105 x 36	1	1206560X3	878,792
60 x 4	105 x 36	1	1206560X4	878,792
62 x 1,5	105 x 22	1	1206562X15	878,792
62 x 2	105 x 22	1	1206562X2	878,792
62 x 3	105 x 36	1	1206562X3	878,792
62 x 4	105 x 36	1	1206562X4	878,792
63 x 1,5	105 x 22	1	1206563X15	878,792
64 x 1,5	120 x 22	1	1206564X15	1007,049
64 x 2	120 x 22	1	1206564X2	1007,049
64 x 3	120 x 36	1	1206564X3	1007,049
64 x 4	120 x 36	1	1206564X4	1007,049
65 x 1,5	120 x 22	1	1206565X15	1007,049
65 x 2	120 x 22	1	1206565X2	1007,049
65 x 3	120 x 36	1	1206565X3	1007,049
65 x 4	120 x 36	1	1206565X4	1007,049
68 x 1,5	120 x 22	1	1206568X15	1007,049
68 x 2	120 x 22	1	1206568X2	1007,049
68 x 3	120 x 36	1	1206568X3	1007,049
68 x 4	120 x 36	1	1206568X4	1007,049
70 x 1,5	120 x 22	1	1206570X15	1007,049
70 x 2	120 x 22	1	1206570X2	1007,049
70 x 3	120 x 36	1	1206570X3	1007,049
70 x 4	120 x 36	1	1206570X4	1007,049
72 x 1,5	120 x 22	1	1206572X15	1007,049
72 x 2	120 x 22	1	1206572X2	1007,049
72 x 3	120 x 36	1	1206572X3	1007,049
72 x 4	120 x 36	1	1206572X4	1007,049
74 x 1,5	120 x 22	1	1206574X15	1007,049
74 x 2	120 x 22	1	1206574X2	1007,049
74 x 3	120 x 36	1	1206574X3	1007,049
74 x 4	120 x 36	1	1206574X4	1007,049
75 x 1,5	120 x 22	1	1206575X15	1007,049
75 x 2	120 x 22	1	1206575X2	1007,049
75 x 3	120 x 36	1	1206575X3	1007,049
75 x 4	120 x 36	1	1206575X4	1007,049
76 x 1,5	120 x 22	1	1206576X15	1007,049
76 x 2	120 x 22	1	1206576X2	1007,049
76 x 3	120 x 36	1	1206576X3	1007,049
76 x 4	120 x 36	1	1206576X4	1007,049
78 x 1,5	120 x 22	1	1206578X15	1007,049
78 x 2	120 x 22	1	1206578X2	1007,049
78 x 3	120 x 36	1	1206578X3	1007,049
78 x 4	120 x 36	1	1206578X4	1007,049
80 x 1,5	120 x 22	1	1206580X15	1007,049
80 x 2	120 x 22	1	1206580X2	1007,049
80 x 3	120 x 36	1	1206580X3	1007,049
80 x 4	120 x 36	1	1206580X4	1007,049
82 x 1,5	130 x 25	1	1206582X15	1262,428
82 x 2	130 x 25	1	1206582X2	1262,428
82 x 3	130 x 36	1	1206582X3	1262,428
82 x 4	130 x 36	1	1206582X4	1262,428

Ø> M84x1,5÷105x4: a richiesta
on demand

FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA METRICA ISO A PASSO FINE

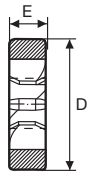
Spiral point round dies, metric fine thread / Filières rondes, entrée gun, filetage métrique à pas fin
Cojinetes redondos, entrada corregida, rosca metrica fina /Runde Schneideisen mit schälanschnitt, metrisches DIN-ISO-Feingewinde

HSS-CO DIN 223 - EN 22568 6g COBALT

MF

12146

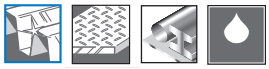




HRC ≃ 63÷64
AISI M35
FORM B

Imbocco corretto
Spiral Point

Applicazioni / Applications



Ø	DxE	pcs	cod.	€ cad/each
M 6 x 0,75	20 x 7	1	1214606X075	28,077
8 x 0,75	25 x 9	1	1214608X075	29,792
8 x 1	25 x 9	1	1214608X1	29,792
10 x 1	30 x 11	1	1214610X1	34,974
10 x 1,25	30 x 11	1	1214610X125	39,157
12 x 1	38 x 10	1	1214612X1	44,096
12 x 1,25	38 x 10	1	1214612X125	44,096
12 x 1,5	38 x 10	1	1214612X15	42,297
14 x 1,25	38 x 10	1	1214614X125	46,650
14 x 1,5	38 x 10	1	1214614X15	43,222
16 x 1,5	45 x 14	1	1214616X15	66,447
18 x 1,5	45 x 14	1	1214618X15	76,888
18 x 2	45 x 14	1	1214618X2	79,889
20 x 1,5	45 x 14	1	1214620X15	76,888
20 x 2	45 x 14	1	1214620X2	79,889
22 x 1,5	55 x 16	1	1214622X15	131,649
24 x 1,5	55 x 16	1	1214624X15	131,649

HSS DIN 223 - EN 22568 6g Sinistra - *Left hand - Gauche - Izquierda - Links*

MF

12072



LH

Applicazioni / Applications



d_1	DxE	pcs	cod.	€ cad/each	d_1	DxE	pcs	cod.	€ cad/each
M 3 x 0,35	20 x 5	1	1207203X035	37,027	**22** x 1,25	55 x 16	1	1207222X125	150,559
4 x 0,5	20 x 5	1	1207204X05	37,027	**22** x 1,5	55 x 16	1	1207222X15	150,559
4,5 x 0,5	20 x 5	1	12072045X05	37,027	**22** x 2	55 x 16	1	1207222X2	150,559
5 x 0,75	20 x 7	1	1207205X075	37,027	**23** x 1,5	55 x 16	1	1207223X15	150,559
5,5 x 0,5	20 x 5	1	12072055X05	37,027	**24** x 1,25	55 x 16	1	1207224X125	150,559
6 x 0,5	20 x 5	1	1207206X05	37,027	**24** x 1,5	55 x 16	1	1207224X15	150,559
6 x 0,75	20 x 7	1	1207206X075	37,027	**24** x 2	55 x 16	1	1207224X2	150,559
7 x 0,5	25 x 9	1	1207207X05	39,305	**25** x 1,5	55 x 16	1	1207225X15	150,559
7 x 0,75	25 x 9	1	1207207X075	39,305	**25** x 2	55 x 16	1	1207225X2	150,559
8 x 0,75	25 x 9	1	1207208X075	39,305	**26** x 1,5	55 x 16	1	1207226X15	187,864
8 x 1	25 x 9	1	1207208X1	39,305	**26** x 2	55 x 16	1	1207226X2	187,864
9 x 0,5	25 x 9	1	1207209X05	46,151	**27** x 1,5	65 x 18	1	1207227X15	187,864
10 x 1	30 x 11	1	1207210X1	46,151	**27** x 2	65 x 18	1	1207227X2	187,864
10 x 1,25	30 x 11	1	1207210X125	46,151	**28** x 1,5	65 x 18	1	1207228X15	187,864
12 x 1	38 x 10	1	1207212X1	50,039	**28** x 2	65 x 18	1	1207228X2	187,864
12 x 1,25	38 x 10	1	1207212X125	60,721	**30** x 1,5	65 x 18	1	1207230X15	268,082
12 x 1,5	38 x 10	1	1207212X15	58,370	**30** x 2	65 x 18	1	1207230X2	268,082
13 x 1,5	38 x 10	1	1207213X15	64,361	**30** x 2,5	65 x 18	1	1207230X25	268,082
14 x 1	38 x 10	1	1207214X1	64,361	**30** x 3	65 x 25	1	1207230X3	268,082
14 x 1,25	38 x 10	1	1207214X125	64,361	**32** x 1,5	65 x 18	1	1207232X15	268,082
14 x 1,5	38 x 10	1	1207214X15	59,494	**32** x 2	65 x 18	1	1207232X2	268,082
15 x 1,5	38 x 10	1	1207215X15	91,715	**32** x 3	65 x 25	1	1207232X3	268,082
16 x 1	45 x 14	1	1207216X1	91,715	**33** x 1,5	65 x 18	1	1207233X15	281,486
16 x 1,25	45 x 14	1	1207216X125	91,715	**33** x 2	65 x 18	1	1207233X2	281,486
16 x 1,5	45 x 14	1	1207216X15	91,715	**33** x 3	65 x 18	1	1207233X3	281,486
18 x 1	45 x 14	1	1207218X1	99,706	**34** x 1,5	65 x 18	1	1207234X15	288,704
18 x 1,25	45 x 14	1	1207218X125	99,706	**34** x 2	65 x 18	1	1207234X2	288,704
18 x 1,5	45 x 14	1	1207218X15	99,706	**35** x 1,5	65 x 25	1	1207235X15	288,704
18 x 2	45 x 14	1	1207218X2	99,706	**35** x 2	65 x 18	1	1207235X2	288,704
20 x 1,25	45 x 14	1	1207220X125	99,706	**36** x 1,5	65 x 18	1	1207236X15	288,704
20 x 1,5	45 x 14	1	1207220X15	99,706	**36** x 2	65 x 18	1	1207236X2	288,704
20 x 2	45 x 14	1	1207220X2	99,706	**36** x 3	65 x 18	1	1207236X3	288,704

Ø> M37x1,5÷48x3: a richiesta
on demand

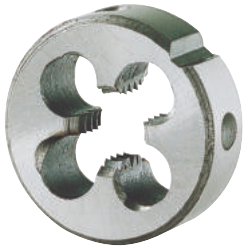
FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA GAS CILINDRICA ISO 228

Spiral point round dies, spiral point, Whitworth pipe thread ISO 228 / Filières rondes, entrée gun, pour filetage gaz de tuyauterie ISO 228 / Cojinetes redondos, entrada corregida, rosca gas cilindrica ISO 228 / Runde Schneideisen mit schälanschnitt für Rohrgewinde DIN-ISO 228

HSS DIN 5158 - EN 24231

BSP (GAS)

12075



Applicazioni / Applications

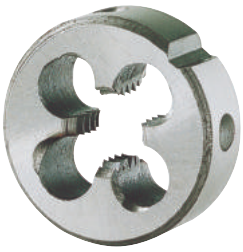


Ø	DxE	pcs	cod.	€ cad/each
G1/8 x 28	30 x 11	1	120751/8	34,326
1/4 x 19	38 x 10	1	120751/4	37,706
3/8 x 19	45 x 14	1	120753/8	54,171
1/2 x 14	45 x 14	1	120751/2	55,457
5/8 x 14	55 x 16	1	120755/8	82,619
3/4 x 14	55 x 16	1	120753/4	121,114
7/8 x 14	65 x 18	1	120757/8	128,309
1” x 11	65 x 18	1	120751"	133,109
1.1/8 x 11	75 x 20	1	120751.1/8	187,070
1.1/4 x 11	75 x 20	1	120751.1/4	187,070
1.3/8 x 11	90 x 22	1	120751.3/8	248,225
1.1/2 x 11	90 x 22	1	120751.1/2	248,225
1.5/8 x 11	90 x 22	1	120751.5/8	257,815
1.3/4 x 11	90 x 22	1	120751.3/4	257,815
1.3/4 x 11	105 x 22	1	120751.3/4105	257,815
2” x 11	90 x 22	1	1207592"	398,120
2” x 11	105 x 22	1	1207512"	398,120
2.1/4 x 11	105 x 22	1	120752.1/4	461,682
2.1/2 x 11	120 x 22	1	120752.1/2	744,675
2.3/4 x 11	120 x 22	1	120752.3/4	1241,735
3” x 11	130 x 25	1	120753"	1385,865
3.1/2 x 11	150 x 25	1	120753.1/2	2261,621
4” x 11	160 x 25	1	120754"	2827,165

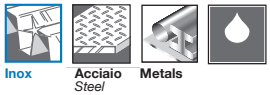
HSS-CO DIN 5158 - EN 24231 COBALT

BSP (GAS)

12148



Applicazioni / Applications

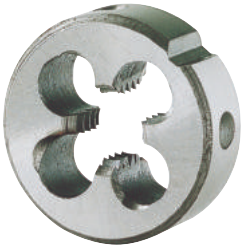


Ø	DxE	pcs	cod.	€ cad/each
G1/8 x 28	30 x 11	1	121481/8	43,436
1/4 x 19	38 x 10	1	121481/4	48,715
3/8 x 19	45 x 14	1	121483/8	70,300
1/2 x 14	45 x 14	1	121481/2	70,300
3/4 x 14	55 x 16	1	121483/4	94,098
1” x 11	65 x 18	1	121481"	151,956

HSS DIN 5158 - EN 24231 Sinistra - *Left hand - Gauche - Izquierda - Links*

BSP (GAS)

12077





Applicazioni / Applications



Ø	DxE	pcs	cod.	€ cad/each
G1/8 x 28	30 x 11	1	120771/8	78,374
1/4 x 19	38 x 10	1	120771/4	89,893
3/8 x 19	45 x 14	1	120773/8	130,150
1/2 x 14	45 x 14	1	120771/2	130,150
5/8 x 14	55 x 16	1	120775/8	176,282
3/4 x 14	55 x 16	1	120773/4	220,951
7/8 x 14	65 x 18	1	120777/8	244,633
1” x 11	65 x 18	1	120771"	244,633
1.1/8 x 11	75 x 20	1	120771.1/8	293,793
1.1/4 x 11	75 x 20	1	120771.1/4	293,793
1.1/2 x 11	90 x 22	1	120771.1/2	479,664
1.3/4 x 11	105 x 22	1	120771.3/4	832,217
2” x 11	105 x 22	1	120772"	832,217

FILIERE TONDE AD IMBOCCO CORRETTO, FILETTATURA WHITWORTH BS-84

Round dies, spiral point, Whitworth BSW thread BS-84 / Filières rondes, entrée gun, filetage Whitworth
Cojinetes redondos, entrada corregida, rosca Whitworth / Runde Schneideisen mit schälanschnitt, Whitworth –Gewinde BS-84

HSS DIN 223 - EN 22568

BSW

12070



Applicazioni / Applications



	Ø	DxE	pcs	cod.	€ cad/each
BSW	**1/16** x 60	16 x 5	1	120701/16	37,418
	3/32 x 48	16 x 5	1	120703/32	37,418
	1/8 x 40	20 x 5	1	120701/8	27,303
	5/32 x 32	20 x 5	1	120705/32	25,675
	3/16 x 24	20 x 7	1	120703/16	25,675
	7/32 x 24	20 x 7	1	120707/32	25,675
	1/4 x 20	25 x 9	1	120701/4	25,675
	5/16 x 18	25 x 9	1	120705/16	28,241
	3/8 x 16	30 x 11	1	120703/8	35,500
	7/16 x 14	30 x 11	1	120707/16	35,500
	1/2 x 12	38 x 14	1	120701/2	39,191
	9/16 x 12	38 x 14	1	120709/16	57,277
	5/8 x 11	45 x 18	1	120705/8	57,277
	3/4 x 10	45 x 18	1	120703/4	63,773
	7/8 x 9	55 x 22	1	120707/8	87,621
	1” x 8	55 x 22	1	120701"	92,220
	1.1/8 x 7	65 x 25	1	120701.1/8	122,678
	1.1/4 x 7	65 x 25	1	120701.1/4	122,678
	1.3/8 x 6	65 x 25	1	120701.3/8	176,202
	1.1/2 x 6	65 x 22	1	1207061.1/2	218,580
	1.1/2 x 6	75 x 30	1	1207071.1/2	381,954
	1.5/8 x 5	75 x 30	1	120701.5/8	257,617
	1.3/4 x 5	90 x 36	1	120701.3/4	354,527
	1.7/8 x 4,5	90 x 36	1	120701.7/8	354,527
	2” x 4,5	90 x 36	1	120702"	354,527

HSS DIN 223 - EN 22568

Sinistra - *Left hand - Gauche - Izquierda - Links*

BSW

12088





	Ø	DxE	pcs	cod.	€ cad/each
BSW	**1/8** x 40	20 x 5	1	120881/8	46,451
	5/32 x 32	20 x 5	1	120885/32	46,451
	3/16 x 24	20 x 7	1	120883/16	46,451
	1/4 x 20	20 x 7	1	120881/4	46,451
	5/16 x 18	25 x 9	1	120885/16	51,936
	3/8 x 16	30 x 11	1	120883/8	60,638
	7/16 x 14	30 x 11	1	120887/16	66,546
	1/2 x 12	38 x 14	1	120881/2	100,036
	9/16 x 12	38 x 14	1	120889/16	100,036
	5/8 x 11	45 x 18	1	120885/8	127,318
	3/4 x 10	45 x 18	1	120883/4	127,318
	7/8 x 9	55 x 22	1	120887/8	184,915
	1” x 8	55 x 22	1	120881"	184,915

HSS DIN 223 - EN 22568

BSF

12087



	Ø	DxE	pcs	cod.	€ cad/each
BSF	**3/16** x 32	20 x 7	1	120873/16	33,515
	1/4 x 26	25 x 9	1	120871/4	37,465
	5/16 x 22	25 x 9	1	120875/16	37,465
	3/8 x 20	30 x 11	1	120873/8	45,743
	7/16 x 18	30 x 11	1	120877/16	45,743
	1/2 x 16	38 x 10	1	120871/2	53,305
	9/16 x 16	38 x 10	1	120879/16	57,907
	5/8 x 14	45 x 14	1	120875/8	73,106
	3/4 x 12	45 x 14	1	120873/4	76,582
	7/8 x 11	55 x 22	1	120877/8	121,894
	1” x 10	55 x 22	1	120871"	121,894

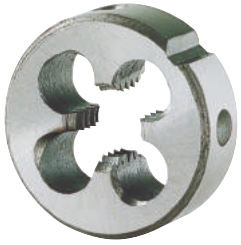
FILIERE TONDE AD IMBOCCO CORRETTO, FIL. AMERICANA UNC PASSO GROSSO ANSI B1.1

Round dies, spiral point, unified coarse thread UNC / Filières rondes, filetage americain à pas gros UNC
Cojinetes redondos, rosca unificada vasta UNC /Runde Schneideisen, amerikanisches grossgewinde UNC

HSS DIN 223 - EN 22568

UNC

12080



Applicazioni / Applications



	Ø	DxE	pcs	cod.	€ cad/each
N°	4 x 40	20 x 5	1	12080N04	36,620
	5 x 40	20 x 5	1	12080N05	31,709
	6 x 32	20 x 7	1	12080N06	31,709
	8 x 32	20 x 7	1	12080N08	31,709
	10 x 24	20 x 7	1	12080N10	31,709
	12 x 24	20 x 7	1	12080N12	31,709
UNC	1/4 x 20	20 x 7	1	120801/4	29,025
	5/16 x 18	25 x 9	1	120805/16	32,341
	3/8 x 16	30 x 11	1	120803/8	39,857
	7/16 x 14	30 x 11	1	120807/16	39,857
	1/2 x 13	38 x 14	1	120801/2	46,287
	9/16 x 12	38 x 14	1	120809/16	50,501
	5/8 x 11	45 x 18	1	120805/8	63,517
	3/4 x 10	45 x 18	1	120803/4	66,677
	7/8 x 9	55 x 22	1	120807/8	93,551
	1" x 8	55 x 22	1	120801"	96,722
	1.1/8 x 7	65 x 25	1	120801.1/8	140,305
	1.1/4 x 7	65 x 25	1	120801.1/4	140,305
	1.3/8 x 6	65 x 25	1	120801.3/8	140,305
	1.1/2 x 6	65 x 25	1	1208061.1/2	298,593
	1.1/2 x 6	75 x 30	1	1208071.1/2	298,593
	1.5/8 x 5	75 x 30	1	120801.5/8	298,593
	1.3/4 x 5	90 x 36	1	120801.3/4	400,516
	1.7/8 x 4,5	90 x 36	1	120801.7/8	400,516
	2" x 4,5	90 x 36	1	120802"	496,694

FILIERE TONDE A IMBOCCO CORRETTO, FILETTATURA AMERICANA UNC **SINISTRA**

Round dies, spiral point, left hand / Filières rondes, entrée gun, gauche
Cojinetes ridondo, entrada corregida, izquierda / Runde Schneideisen, linksgewinde

HSS-G DIN 223 – EN 22568

Sinistra - *Left hand - Gauche - Izquierda - Links*

UNC

12082





	Ø	DxE	pcs	cod.	€ cad/each
N°	6 x 32	20 x 7	1	12082NR06	49,821
	8 x 32	20 x 7	1	12082NR08	49,821
	10 x 24	20 x 7	1	12082NR10	49,821
UNC	1/4 x 20	20 x 7	1	120821/4	40,751
	5/16 x 18	25 x 9	1	120825/16	48,304
	3/8 x 16	30 x 11	1	120823/8	57,306
	7/16 x 14	38 x 14	1	120827/16	57,306
	1/2 x 13	38 x 14	1	120821/2	90,552
	9/16 x 12	38 x 14	1	120829/16	90,552
	5/8 x 11	45 x 18	1	120825/8	114,670
	3/4 x 10	45 x 18	1	120823/4	114,670
	7/8 x 9	55 x 22	1	120827/8	165,998
	1" x 8	55 x 22	1	120821"	165,998

FILIERE TONDE, FILETTATURA AMERICANA UNF A PASSO FINE ANSI B1.1

Round dies, unified fine thread UNF / Filières rondes, filetage americain à pas fin
Cojinetes redondos, rosca unificada fina UNF / Runde Schneideisen, amerikanisches fein-Gewinde

HSS DIN 223 - EN 22568

UNF

12085



Applicazioni / Applications



	Ø	DxE	pcs	cod.	€ cad/each
N°	2 x 64	16 x 5	1	12085N02	42,751
	3 x 56	16 x 5	1	12085N03	39,093
	4 x 48	20 x 5	1	12085N04	36,642
	5 x 44	20 x 5	1	12085N05	34,203
	6 x 40	20 x 5	1	12085N06	31,709
	8 x 36	20 x 7	1	12085N08	31,709
	10 x 32	20 x 7	1	12085N10	31,709
	12 x 28	20 x 7	1	12085N12	31,709
UNF	1/4 x 28	20 x 7	1	120851/4	29,025
	5/16 x 24	25 x 9	1	120855/16	32,341
	3/8 x 24	30 x 11	1	120853/8	39,857
	7/16 x 20	30 x 11	1	120857/16	39,857
	1/2 x 20	38 x 10	1	120851/2	46,287
	9/16 x 18	38 x 10	1	120859/16	50,501
	5/8 x 18	45 x 14	1	120855/8	66,544
	3/4 x 16	45 x 14	1	120853/4	69,847
	7/8 x 14	55 x 16	1	120857/8	93,551
	1” x 12	55 x 16	1	120851"X12	96,722
	*1” x 14	55 x 16	1	120851"X14	115,692
	1.1/8 x 12	65 x 18	1	120851.1/8	146,303
	1.1/4 x 12	65 x 18	1	120851.1/4	146,303
	1.3/8 x 12	65 x 18	1	120851.3/8	146,303
	1.1/2 x 12	65 x 18	1	1208561.1/2	328,572
	1.1/2 x 12	75 x 20	1	1208571.1/2	328,572

* Filettartura UNS / *UNS Thread*

HSS DIN 223 - EN 22568

Sinistra - *Left hand* - *Gauche* - *Izquierda* - *Links*

UNF

12086



LH

	Ø	DxE	pcs	cod.	€ cad/each
N°	10 x 32	20 x 7	1	12086NR10	54,297
UNF	1/4 x 28	20 x 7	1	120861/4	44,407
	5/16 x 24	25 x 9	1	120865/16	52,650
	3/8 x 24	30 x 11	1	120863/8	62,457
	7/16 x 20	30 x 11	1	120867/16	62,457
	1/2 x 20	38 x 10	1	120861/2	98,694
	9/16 x 18	38 x 10	1	120869/16	98,694
	5/8 x 18	45 x 14	1	120865/8	124,966
	3/4 x 16	45 x 14	1	120863/4	124,966
	7/8 x 14	55 x 16	1	120867/8	180,921
	1” x 12	55 x 16	1	120861”	180,921

FILIERE TONDE, FILETTATURA AMERICANA UNEF A PASSO EXTRAFINE ANSI B1.1

Round dies, unified extrafine thread UNEF / Filières rondes, filetage americain à pas extrafin
Cojinetes redondos, rosca unificada extrafina UNEF / Runde Schneideisen, amerikanisches fein-Gewinde

HSS DIN 223 - EN 22568

UNEF

12079



	Ø	DxE	pcs	cod.	€ cad/each
UNEF	1/4 x 32	20 x 7	1	120791/4	46,655
	3/8 x 32	30 x 11	1	120793/8	67,860
	1/2 x 28	38 x 10	1	120791/2	101,785
	9/16 x 24	38 x 10	1	120799/16	101,785
	5/8 x 24	45 x 14	1	120795/8	161,936
	3/4 x 20	45 x 14	1	120793/4	161,936
	7/8 x 20	55 x 16	1	120797/8	190,851
	1” x 20	55 x 16	1	120791"	207,447
	1.1/8 x 18	65 x 18	1	120791.1/8	305,366

FILIERE TONDE, FILETTATURA CONICA AMERICANA PER TUBI 1:16 NPT

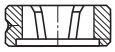
Round dies, taper pipe thread NPT / Filieres rondes, filetage conique pour tubes NPT
Cojinetes redondos, rosca conica americana NPT / Runde Schneideisen, amerikanisches kegeliges Rohrgewinde NPT

HSS

NPT

12091





Conicità **1:16**
Taper *1:16*

Ø	DxE	pcs	cod.	€ cad/each
1/16 x 27	25 x 9	1	120911/16	45,344
1/8 x 27	30 x 11	1	120911/8	55,688
1/4 x 18	38 x 14	1	120911/4	61,367
3/8 x 18	45 x 18	1	120913/8	79,426
1/2 x 14	45 x 18	1	120911/2	121,955
3/4 x 14	55 x 22	1	120913/4	133,828
1” x 11,5	65 x 25	1	120911"	191,023
1.1/4 x 11,5	75 x 26	1	120911.1/4	372,337
1.1/2 x 11,5	90 x 27	1	120911.1/2	636,751
2” x 11,5	105 x 28	1	120912"	960,524

Applicazioni / Applications



Acciaio *Steel* **Metals** **Alu**

FILIERE TONDE, FILETTATURA CONICA PER TUBI 1:16 BSPT

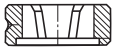
Round dies, Whitworth taper thread 1:16 BSPT / Filières rondes, filetage gaz de tuyauterie BSPT
Cojinetes redondos, rosca gas conica BSPT / Runde Schneideisen, britisches kegeliges Rohrgewinde BSPT

HSS

BSPT

12089





Conicità **1:16**
Taper *1:16*

Ø	DxE	pcs	cod.	€ cad/each
Rc 1/8 x 28	30 x 11	1	120891/8	55,688
1/4 x 19	38 x 14	1	120891/4	61,367
3/8 x 19	45 x 18	1	120893/8	79,426
1/2 x 14	45 x 18	1	120891/2	121,955
3/4 x 14	55 x 22	1	120893/4	133,828
1” x 11	65 x 25	1	120891"	191,023
1.1/4 x 11	75 x 26	1	120891.1/4	372,337
1.1/2 x 11	90 x 27	1	120891.1/2	636,751
2” x 11	105 x 28	1	120892"	960,524

Applicazioni / Applications



Acciaio *Steel* **Metals** **Alu**

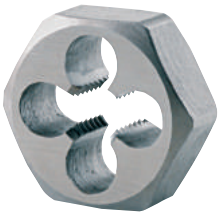
FILIERE ESAGONALI

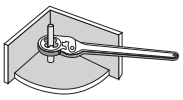
Exagonal round dies / Filières hexagonales
Cojinetes hexagonales / Sechseckschneideisen

HSS DIN 382 6g

M

12094





Applicazioni / Applications



Acciaio *Steel* **Metals** **Alu**

Ø	DxE	pcs	cod.	€ cad/each
M3 x 0,5	19 x 5	1	1209403x05	24,363
4 x 0,7	19 x 5	1	1209404x07	24,363
5 x 0,8	19 x 7	1	1209405x08	24,363
6 x 1	19 x 7	1	1209406x1	24,363
7 x 1	22 x 9	1	1209407x1	25,952
8 x 1,25	22 x 9	1	1209408x125	25,857
9 x 1,25	22 x 9	1	1209409x125	25,952
10 x 1,5	27 x 11	1	1209410x15	32,462
11 x 1,5	27 x 11	1	1209411x15	32,462
12 x 1,75	36 x 14	1	1209412x175	43,079
14 x 2	36 x 14	1	1209414x2	43,079
16 x 2	41 x 18	1	1209416x2	60,888
18 x 2,5	41 x 18	1	1209418x25	60,888
20 x 2,5	41 x 18	1	1209420x25	60,888
22 x 2,5	50 x 22	1	1209422x25	113,904
24 x 3	50 x 22	1	1209424x3	136,130
27 x 3	60 x 25	1	1209427x3	203,975
30 x 3,5	60 x 25	1	1209430x35	203,975
33 x 3,5	60 x 25	1	1209433x35	203,975
36 x 4	60 x 25	1	1209436x4	203,975
39 x 4	70 x 30	1	1209439x4	337,239
42 x 4,5	70 x 30	1	1209442x45	337,239
45 x 4,5	85 x 36	1	1209445x45	467,783
48 x 5	85 x 36	1	1209448x5	467,783
52 x 5	85 x 36	1	1209452x5	467,783
56 x 5,5	100 x 36	1	1209456x55	810,462
60 x 5,5	100 x 36	1	1209460x55	810,462
64 x 6	100 x 36	1	1209464x6	810,462
68 x 6	115 x 36	1	1209468x6	1060,672

- Per generare nuovi filetti e ripassare filettature danneggiate in punti di difficile accesso.
- To generate new threads and overhaul the damaged ones.

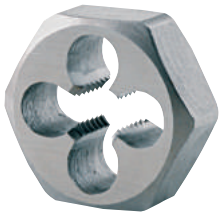
FILIERE ESAGONALI

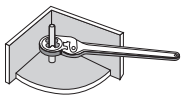
Exagonal round dies / Filières hexagonales
Cojinetes hexagonales / Sechseckschneideisen

HSS DIN 382 6g

MF

12096





Ø	DxE	pcs	cod.	€ cad/each
M 3 x 0,35	19 x 5	1	1209603x035	50,718
4 x 0,35	19 x 5	1	1209604x035	50,718
4 x 0,5	19 x 5	1	1209604x05	50,718
5 x 0,5	19 x 5	1	1209605x05	50,718
5 x 0,75	19 x 7	1	1209605x075	50,718
6 x 0,5	19 x 5	1	1209606x05	50,718
6 x 0,75	19 x 7	1	1209606x075	50,718
7 x 0,75	22 x 9	1	1209607x075	54,225
8 x 0,5	22 x 9	1	1209608x05	54,225
8 x 0,75	22 x 9	1	1209608x075	54,225
8 x 1	22 x 9	1	1209608x1	54,225
9 x 0,75	22 x 9	1	1209609x075	54,225
9 x 1	22 x 9	1	1209609x1	54,225
10 x 0,75	27 x 11	1	1209610x075	54,225
10 x 1	27 x 11	1	1209610x1	54,225
10 x 1,25	27 x 11	1	1209610x125	54,225
11 x 1	27 x 11	1	1209611x1	74,331
11 x 1,25	27 x 11	1	1209611x125	74,331
12 x 0,75	36 x 10	1	1209612x075	74,331
12 x 1	36 x 10	1	1209612x1	74,331
12 x 1,25	36 x 10	1	1209612x125	74,331
12 x 1,5	36 x 10	1	1209612x15	71,526
13 x 1	36 x 10	1	1209613x1	81,084
13 x 1,5	36 x 10	1	1209613x15	81,084
14 x 0,75	36 x 10	1	1209614x075	81,084
14 x 1	36 x 10	1	1209614x1	81,084
14 x 1,25	36 x 10	1	1209614x125	81,084
14 x 1,5	36 x 10	1	1209614x15	81,084
15 x 1	36 x 10	1	1209615x1	104,933
15 x 1,5	36 x 10	1	1209615x15	104,933
16 x 1	41 x 14	1	1209616x1	104,933
16 x 1,25	41 x 14	1	1209616x125	104,933
16 x 1,5	41 x 14	1	1209616x15	104,933
18 x 1	41 x 14	1	1209618x1	104,933
18 x 1,25	41 x 14	1	1209618x125	104,933
18 x 1,5	41 x 14	1	1209618x15	104,933
18 x 2	41 x 14	1	1209618x2	104,933
20 x 1	41 x 14	1	1209620x1	104,933
20 x 1,25	41 x 14	1	1209620x125	104,933
20 x 1,5	41 x 14	1	1209620x15	104,933
20 x 2	41 x 14	1	1209620x2	104,933

Applicazioni / Applications



HSS DIN 382

BSP

12098



Ø	DxE	pcs	cod.	€ cad/each
G 1/8 x 28	27 x 11	1	120981/8	51,265
1/4 x 19	36 x 10	1	120981/4	61,544
3/8 x 19	41 x 14	1	120983/8	91,411
1/2 x 14	41 x 14	1	120981/2	91,411
5/8 x 14	50 x 16	1	120985/8	175,561
3/4 x 14	50 x 16	1	120983/4	175,561
7/8 x 14	60 x 18	1	120987/8	215,851
1” x 11	60 x 18	1	120981”	215,851
1.1/8 x 11	70 x 20	1	120981.1/8	307,939
1.1/2 x 11	85 x 22	1	120981.1/2	492,137
2” x 11	100x 22	1	120982”	760,640



Kit per idraulici e installatori
For plumbers and journeymen
Pour plombiers et installateurs
Para fontaneros e instaladores
Für Rohrleger und installateurs

- Per generare nuovi filetti e ripassare filettature danneggiate in punti di difficile accesso.
- To generate new threads and overhaul the damaged ones.

*In esaurimento
To be discontinued

Cod.	€ cad/each	1 pc
* **12100500** BSP 1/8÷1”	791,451	G 1/8-1/4-3/8 1/2-3/4-1”

UTENSILE COMBINATO CON ATTACCO ESAGONALE 1/4“ PER AVVITATORI E TRAPANI REVERSIBILI

Combined bits for drilling-threading-deburring in one operation with 1/4” hexagon drive / Outil combiné pour percage-taraudage-ebavurage en unique operation / Utensilio combinado para taladrar – roscar y avellanar en una sola operacion / Kombi-bits zum kerlochbohren, gewindeschneiden und entgraten in einen Arbeitsgang

10212 10230



HSS-G



HSS-G+TiN



Art. **10213** Self
Disponibile su richiesta
On demand

Applicazioni / Applications



- Per forare, filettare e svasare in acciaio, alluminio, metalli non ferrosi in genere, plastica sino a R≤ 600 N/mm² e profondità 1xD.
- Drilling, threading and deburring in steel, aluminium, plastics with R≤ 600 N/mm² and depth 1xD
- Percage – taraudage, ebavurage en unique operation en acier, aluminium, plastic avec R≤ 600 N/mm² et spesseur de travaille1xD
- Para taladrar, roscar y avellanar acero, aluminio, plastico con R≤ 600 N/mm² y profundidad de corte 1xD.
- Kernochbohren, gewindeschneiden und entgraten in einem arbeitsgang in Stahl-ne-Metalle-Kunstoffe-bis 600 N/mm² zugfestigkeit bis 1xD Materialstärke

10212

	Ø	/	L	⬡	pcs	cod.	€ cad/each
M	**3** x 0,5	2,5	36	1/4	1	1021203x05	9,379
	4 x 0,7	3,3	39	1/4	1	1021204x07	9,379
	5 x 0,8	4,2	41	1/4	1	1021205x08	9,379
	6 x 1	5	44	1/4	1	1021206x1	9,379
	8 x 1,25	6,8	50	1/4	1	1021208x125	10,700
	10 x 1,5	8,5	59	1/4	1	1021210x15	10,700

10230

	Ø	/	L	⬡	pcs	cod.	€ cad/each
M	**3** x 0,5	2,5	36	1/4	1	1023003x05	13,660
	4 x 0,7	3,3	39	1/4	1	1023004x07	13,660
	5 x 0,8	4,2	41	1/4	1	1023005x08	13,660
	6 x 1	5	44	1/4	1	1023006x1	13,660
	8 x 1,25	6,8	50	1/4	1	1023008x125	17,901
	10 x 1,5	8,5	59	1/4	1	1023010x15	17,901

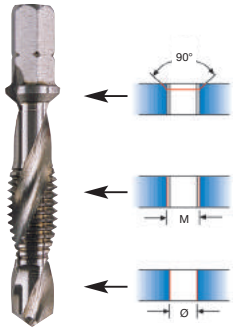


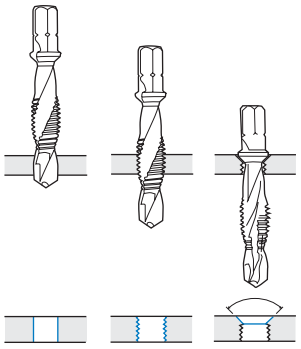
Attacco esagonale 1/4” per avvitatori, trapani a batteria, trapani portatili e stazionari reversibili
1/4 hex shank for battery powered screwdriver, reversible hand powered drills and stationary power drills

Svasatore
Deburrer

Maschio Filettatore
Threading tap

Punta per preforo con affilatura auto-centrante
Split point self-centering twist drill





MASCHI CON ATTACCO ESAGONALE 1/4“ PER FILETTARE CON AVVITATORI E TRAPANI REVERSIBILI

Threading bits with 1/4” hex drive /Tarauds avec 6 pans de 1/4”
Machos a roscar con mango esagonal 1/4” / Einschnittgewindebohrer-bits

HSS-G

10210



10210

	Ø	/	L	⬡	pcs	cod.	€ cad/each
M	**3** x 0,5	11	33	1/4	1	1021003x05	7,939
	4 x 0,7	12	35	1/4	1	1021004x07	7,939
	5 x 0,8	15	36	1/4	1	1021005x08	8,671
	6 x 1	18	39	1/4	1	1021006x1	8,671
	8 x 1,25	19	40	1/4	1	1021008x125	9,405
	10 x 1,5	21	41	1/4	1	1021010x15	9,729



PUNTA CON ATTACCO ESAGONALE 1/4“ PER AVVITATORI E TRAPANI REVERSIBILI.

Drill bits with 1/4 hexagon drive for power screwdrivers and cordless drills / Foret à queue 6 pans (1/4”) adaptable sur perceuse-visseuse Broca con mango esagonal 1/4" para taladros y atornilladores portatiles / Spiralbohrer-Bits mit 1/4” sechskant-Aufnahme für akku-Bohrmaschinen und Handbohrermaschinen

HSS-G

10211



Ø	L	/	⬡	pcs	cod.	€ cad/each
1	32	7	1/4	1	102110100	6,117
1,5	32	10	1/4	1	102110150	6,117
2	34	12	1/4	1	102110200	6,117
2,5 (M3)	36	14	1/4	1	102110250	6,117
3	38	16	1/4	1	102110300	6,117
3,3 (M4)	40	18	1/4	1	102110330	6,117
3,5	40	18	1/4	1	102110350	6,117
4	44	20	1/4	1	102110400	6,117
4,2 (M5)	45	20	1/4	1	102110420	6,117
4,5	46	24	1/4	1	102110450	6,117
5 (M6)	50	26	1/4	1	102110500	6,117
5,5	50	26	1/4	1	102110550	6,357
6	50	26	1/4	1	102110600	6,357
6,5	50	30	1/4	1	102110650	6,357
6,8 (M8)	50	30	1/4	1	102110680	6,357
7	50	30	1/4	1	102110700	6,357
7,5	51	32	1/4	1	102110750	7,484
8	51	32	1/4	1	102110800	7,484
8,5 (M10)	53	33	1/4	1	102110850	8,552
9	53	33	1/4	1	102110900	8,552
9,5	54	38	1/4	1	102110950	9,618
10	54	38	1/4	1	102111000	9,618
10,2 (M12)	54	38	1/4	1	102111020	9,618

SVASATORI A 90° CON ATTACCO ESAGONALE 1/4“

90° countersink with 1/4” hexagon shank / Fraise conique a 90° avec 6 pans de 1/4”
Avellanador a 90° con mango esagonal 1/4” / Kegelsenker-bits 90°, mit 1/4” sechskant-Aufnahme

HSS-G 90°

19001



Ø	L	⬡	pcs	cod.	€ cad/each
6,3	31	1/4	1	19001063	14,291
8,3	31	1/4	1	19001083	14,291
10,4	34	1/4	1	19001104	15,311
12,4	35	1/4	1	19001124	16,342
16,5	40	1/4	1	19001165	18,371
20,5	41	1/4	1	19001205	23,837

Art. **19002** Self
Disponibile su richiesta
On demand

Applicazioni - *Uses*

- Per forare e svasare acciaio R≤ 600 N/mm² leghe leggere, plastica.
- For cutting and countersink steel R≤ 600 N/mm², light alloys, plastics.
- Pour percer et évaser acier R≤ 600 N/mm² alliage léger, plastique.
- Para cortar y limpiar acero R≤ 600 N/mm², aleaciones ligeras, plastico
- Für Stahl mit R≤ 600 N/mm², Ne-Metalle, Kunststoffe

	ØxL	cod.	€ cad/each
	33x120	19001000	14,136

Magnetico
Magnetic

19003
1/4” HEX

133

SET DI UTENSILI CON ATTACCO ESAGONALE PER AVVITATORI E TRAPANI REVERSIBILI

1/4 hex bits sets for power screwdrivers and cordless drills / Outils coupants à queue 6 pans pour perceuse-visseuse
Juegos de utensilios de corte con mango esagonal para taladros y atornilladores portatiles / Birs mit 1/4" sechs kant
Aufnahme Satz für akku-Bohrmaschinen

19020213



Cod.	Composizione *Description*
19020213 HSS-G € 66,522	M 3-4-5-6-8-10 1 pc Magnetic 1/4

Disponibile anche la versione con utensile rivestito **TiN cod. 19020209**
On demand TiN coated tools cod. 19020209

19020210



Cod.	Composizione *Description*
19020210 HSS-G € 67,154	M 3-4-5-6-8-10

19020212



Cod.	Composizione *Description*
19020212 HSS-G € 99,527	Ø 2,5-3,3-4,2 5-6,8-8-5 M 3-4-5-6-8-10

19020211



Cod.	Composizione *Description*
19020211 HSS-G € 128,309	Ø 1÷10x0,5 19 pcs

19020214



Cod.	Composizione *Description*
19020214 HSS-G 90° € 141,491	Ø 6,3-8,3-10,4 12,4-16,5-20,5

SET DI UTENSILI CON ATTACCO ESAGONALE PER AVVITATORI E TRAPANI REVERSIBILI

1/4 hex bits sets for power screwdrivers and cordless drills / Outils coupants à queue 6 pans pour perceuse-visseuse
Juegos de utensilios de corte con mango esagonal para taladros y atornilladores portatiles / Birs mit 1/4" sechs kant
Aufnahme Satz für akku-Bohrmaschinen

***19020218**

*In esaurimento
To be discontinued



Cod.	Composizione *Description*				
19020218 HSS-G Ø 3÷10 19 pcs € 94,738	3-4-5 6-8-10	6 Bits: 2xPH1 3xPH2 1xPH3	6 Torx Bits: T10 - T15 T20 - T25 T30 - T40	Non Magnetic Quick change 1/4	Metals / Plastics

***19020219**



Cod.	Composizione *Description*				
19020219 HSS-G Ø 3÷10 19 pcs € 94,738	3-4-5 6-8-10	6 Bits: 2xPZ1 3xPZ2 1xPZ3	6 Torx Bits: T10 - T15 T20 - T25 T30 - T40	Non Magnetic Quick change 1/4	Plastics

***19020215**



Cod.	Composizione *Description*		
19020215 HSS-G M 3÷10 7 pcs € 158,288	M 3-4-5 6-8-10	Non Magnetic Quick change 1/4	

***19020216**



Cod.			Composizione *Description*
19020216 HSS-G M 3÷10 8 pcs € 118,719	M 3-4-5 6-8-10	Non Magnetic Quick change 1/4	Non Magnetic Quick change 1/4

ASSORTIMENTI A FILETTARE IN HSS-G IN ASTUCCI DI METALLO E ABS

HSS-G threading sets in metal and plastics cases / Assortiments à fileter HSS-G en coffret métallique et plastique
Juegos de utensilios de roscar HSS-G en caja metalica y plastico / Gewindebohrersätze HSS-G in Metallkassette

HSS-G

M

17020401



Abs

17020402



Metal

17020404



Abs

Cod.	Composizione *Description*	
17020401 HSS-G € 117,521	DIN 352 - 3 pcs M3-4-5-6-8-10-12	
17020402 HSS-G € 149,895	DIN 352 - 3 pcs M3-4-5-6-8-10-12	1.1/2 HSS-G 2,5-3,3-4,2-5-6,8 8,5-10,25
17020404 HSS-G € 80,138	DIN 352 - 1 pc M3-4-5-6-8-10-12	1.1/2 HSS-G 2,5-3,3-4,2-5-6,8 8,5-10,25

COBALT

17020408



Abs

17020407



Metal

17020408 HSS-CO € 177,479	DIN 352 - 3 pcs M3-4-5-6-8-10-12	
17020407 HSS-CO € 224,244	DIN 352 - 3 pcs M3-4-5-6-8-10-12	1.1/2 HSS-Co 2,5-3,3-4,2-5-6,8 8,5-10,25

HSS-G+TiN

17020414



Abs

17020415



Metal

447

17020414 HSS-G+TiN € 251,829	DIN 352 - 3 pcs M3-4-5-6-8-10-12	
17020415 HSS-G+TiN € 287,794	DIN 352 - 3 pcs M3-4-5-6-8-10-12	1.1/2 HSS-G+Tin 2,5-3,3-4,2-5-6,8 8,5-10,25

ASSORTIMENTI A FILETTARE IN HSS-G IN ASTUCCI DI PLASTICA RIGIDA

HSS-G threading sets / Assortiments à fileter HSS-G
Juegos de utensilios de roscar HSS-G / Gewindebohrersätze HSS-G

HSS-G Sinistri - *Left hand - Gauche - Izquierda - Links*

17020409



Abs

17020410



Metal

Cod.	Composizione *Description*	
17020409 HSS-G € 173,876	DIN 352 - 3 pcs M3-4-5-6-8-10-12	
17020410 HSS-G € 215,851	DIN 352 - 3 pcs M3-4-5-6-8-10-12	1.1/2 HSS-G 2,5-3,3-4,2-5-6,8 8,5-10,25

HSS-G

17023201



17023201 M 3÷12 HSS-G *30 pcs* € 191,870	DIN 352 3 pcs M 3-4-5-6-8-10-12	Ø 25	1.1/2 25x9

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA IN CASSETTA METALLICA

HSS-G threading sets in metal case / Assortiments à fileter HSS-G en coffret métallique
Juegos de utensilios a roscar HSS-G en caja metalica / Gewindebohrersätze HSS-G in Metalkassette

M

17020501 HSS-G



17020513 HSS-G+TiN



447

Cod.	Composizione *Description*		
17020501 M 3÷12 HSS-G *30 pcs* € 191,870	DIN 352 3 pcs M 3-4-5-6-8-10-12	Ø 25	N° 1.1/2 25x9
17020513 M 3÷12 HSS-G+TIN *30 pcs* € 347,753			

17020500 HSS-G



17020514 HSS-G+TiN



447

17020500 M 3÷12 HSS-G *43 pcs* € 329,769	DIN 352 3 pcs M 3-4-5-6-8-10-12	DIN 223	N° 1-2 20x5-20x7-25x9 30x11-38x14 Ø 2,5-3,3-4,2-5 6,8-8,5-10,25 N° 1
17020514 M 3÷12 HSS-G+TIN *43 pcs* € 539,622			

17020506 HSS-CO



17020507 HSS-G

SINISTRI / LEFT HAND
GAUCHE / IZQUIERDA
LINKS



17020506 M 3÷12 HSS-CO *43 pcs* € 401,724	DIN 352 3 pcs M 3-4-5-6-8-10-12	DIN 223	N° 1-2 20x5-20x7-25x9 30x11-38x14 Ø 2,5-3,3-4,2-5 6,8-8,5-10,25 N° 1
17020507 SIN. M 3÷12 HSS-G *43 pcs* € 437,689			

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G

Juegos de utensilios a roscar HSS-G / Gewindebohrersätze HSS-G



SINISTRI / LEFT HAND
GAUCHE / IZQUIERDA
LINKS

Cod.	Composizione *Description*		
17020503 M 3÷20 HSS-G € 713,499	DIN 352 3 pcs	DIN 223	N° 1-3
17020508 M 3÷20 HSS-CO € 947,333	M 3-4-5-6-8 10-12-14-16-18-20		20x5-20x7-25x9 30x11-38x14-45x18
17020509 SIN. M 3÷20 HSS-G € 983,310			N° 1 - N° 2



447

17020518 M 3÷20 HSS-G-TIN € 1175,181	DIN 352 3 pcs	DIN 223	N° 1-3
	M 3-4-5-6-8 10-12-14-16-18-20		20x5-20x7-25x9 30x11-38x14-45x18
			N° 1 - N° 2



17020504 M 3÷24 HSS-G € 1432,996	DIN 352 3 pcs	DIN 223	N° 1-4
17020544 M 3÷24 HSS-CO € 1729,193	M 3-4-5-6-8-10-12 14-16-18-20-22-24		20x5-20x7-25x9 30x11-38x14 45x18-55x22
17020505 M 5÷30 HSS-G € 2925,950	DIN 352 3 pcs	DIN 223	N° 1-3-5
	M 5-6-8-10-12-14-16 18-20-22-24-27-30		20x7-25x9 30x11-38x14 45x18-55x22-65x25

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G
Juegos de utensilios de roscar HSS-G / Gewindebohrersätze HSS-G

M+MF



Legno / *Wood*

Cod.	Composizione *Description*	
17025513 M + MF 4÷14 HSS-G € 677,523	M 3 pcs MF 2 pcs M 4x0,7-5x0,8-6x1 8x1-8x1,25-10x1,25 10x1,5-12x1,25-12x1,5 12x1,75-14x1,5 14x2	N° 1-3 25x9-38x14 N° 1
17025512 M + MF 3÷16 HSS-G € 1073,247	M 3 pcs MF 2 pcs M 3x0,5-4x0,7-5x0,8-6x1 7x1-8x1-8x1,25-10x1,25 10x1,5-12x1,25-12x1,5 12x1,75-14x1,25-14x1,5 14x2-16x1,5-16x2	N° 1-3 20x7-25x9-30x11 38x14-45x18 N° 1
17025511 M + MF 2÷18 HSS-G € 1127,207 FIAT HSS-G *special for automotive* 20 passi *Thread*	M 3 pcs MF 2 pcs M 2x0,4-3x0,5-4x0,7 5x0,8-6x1-7x1-8x1-8x1,25 10x1-10x1,25-10x1,5 12x1,25-12x1,5-12x1,75 14x1,25-14x1,5-14x2- 16x1,5-16x2-18x1,5	N° 1-3 25x9-38x14 N° 1



17012600

FIAT HSS — 35 passi *Thread* — 319

MF



Metallo / *Metal*

17020524 MF 3÷20 HSS-G € 737,479	2 pcs MF 3x0,35-4x0,5-5x0,75 6x0,75-8x1-10x1,25 12x1,5-14x1,5-16x1,5 18x1,5-20x1,5	N° 1-3 20x5-20x7 25x9-30x11 38x10-45x14
17020510 MF 6÷20 HSS-G € 1319,078	2 pcs MF 6x0,75-8x0,75-8x1 10x1-12x1-12x1,5-14x1,25 14x1,5-16x1,5-18x1,5-20x1,5	N° 1-3 20x7-25x9 30x11-38x10-45x14
17020511 MF 6÷24 HSS-G € 1774,761	2 pcs MF 6x0,75-8x0,75-8x1 10x1-12x1-12x1,5-14x1,25 14x1,5-16x1,5-18x1,5-20x1,5 22x1,5-24x1,5	N° 1-4 20x7-25x9 30x11-38x10-45x14 55x16

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G
Juegos de utensilios a roscar HSS-G / Gewindebohrersätze HSS-G

BSP



Legno / *Wood*

***Metallo** / *Metal*

Cod.	Composizione *Description*	
17025615 G 1/8÷1" HSS-G € 1379,035	2 pcs 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x10-45x14 55x16-65x18
***17025614** G 1/8÷1" HSS-G € 1552,911	2 pcs 1/8-1/4-3/8 1/2-5/8-3/4-7/8-1"	N° 1-3-5 30x11-38x10-45x14 55x16-65x18
17025616 G 1/4÷1.1/2 HSS-G € 2937,945	2 pcs 1/4-3/8-1/2 3/4-1"-1.1/4-1.1/2	N° 2-4-7 38x10-45x14-55x16 65x18-75x20-90x22
17025617 G 1/8÷1" HSS-CO € 1582,891	2 pcs 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x10-45x14 55x16-65x18
17025618 SIN. G 1/8÷1" HSS-G € 2038,574	2 pcs 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x10-45x14 55x16-65x18

SINISTRI / LEFT HAND
GAUCHE / IZQUIERDA
LINKS

BSPT



Legno / *Wood*

17025628 Rc 1/8÷1" HSS-G € 1582,891	1 pc 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x14-45x18 55x22-65x25
17025629 Rc 1/4÷1.1/2 HSS-G € 3837,315	1 pc 1/4-3/8-1/2 3/4-1"-1.1/4-1.1/2	N° 2-4-7 38x14-45x18-55x22 65x25-75x30-90x36

NPT



Legno / *Wood*

17025635 NPT 1/8÷1" HSS-G € 1582,891	1 pc 1/8-1/4-3/8 1/2-3/4-1"	N° 1-3-5 30x11-38x14-45x18 55x22-65x25
17020636 NPT 1/8÷2" HSS-G € 6095,339	1 pc 1/8-1/4-3/8-1/2 3/4-1"-1.1/4-1.1/2-2"	N° 2-4-7 30x11-38x14-45x14 45x18-55x22-65x25 75x30-90x36-105x36

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G
Juegos de utensilios de roscar HSS-G / Gewindebohrersätze HSS-G

BSW



Legno / *Wood*

***Metallo** / *Metal*

Cod.	Composizione *Description*	
***17025619** BSW 1/8÷1/2 HSS-G € 815,431	3 pcs 1/8-3/16-1/4-5/16 3/8-7/16-1/2	N° 1-2 20x5-20x7-25x9 30x11-38x14 N° 1
17025620 BSW 1/4÷3/4 HSS-G € 923,352	3 pcs 1/4-5/16-3/8-7/16-1/2 9/16-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x14-45x18
17025621 BSW 1/4÷1" HSS-G € 1379,035	3 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4-7/8-1"	N° 1-4 20x7-25x9-30x11 38x14-45x18-55x22
17025622 BSW 1/4÷1.1/2 HSS-G € 3795,341	3 pcs 1/4-5/16-3/8-7/16-1/2 5/8-3/4-7/8-1"-1.1/8 1.1/4-1.3/8-1.1/2	N° 1-3-6 20x7-25x9-30x11 38x14-45x18 55x22-65x25

BSF



Legno / *Wood*

17025630 BSF 1/4÷3/4 HSS-G € 875,390	2 pcs 1/4-5/16-3/8 7/16-1/2-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x10-45x14
17025631 BSF 1/4÷1" HSS-G € 1438,993	2 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4-7/8-1"	N° 1-4 20x7-25x9-30x11 38x10-45x14-55x22

COMBI BSW+BSF

***Metallo** / *Metal*

***17020523** BSW+BSF 1/4÷3/4 HSS-G € 1984,614	BSW 3 pcs BSF 2 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x14-45x18

ASSORTIMENTI A FILETTARE IN HSS-G PER L'INDUSTRIA

HSS-G threading sets / Assortiments à fileter HSS-G
Juegos de utensilios a roscar HSS-G / Gewindebohrersätze HSS-G



Legno / *Wood*

Metallo / *Metal

UNC

Cod.	Composizione *Description*	
*** 17020528** UNC 1/4÷1/2 HSS-G € 695,516	3 pcs 1/4-5/16-3/8-7/16-1/2	N° 1-2 20x7-25x9 30x11-38x14
17020525 UNC 1/4÷3/4 HSS-G € 959,330	3 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4	N° 1-3 20x7-25x9 30x11-38x14-45x18
17020526 UNC 1/4÷1" HSS-G € 1654,844	3 pcs 1/4-5/16-3/8-7/16- 1/2-5/8-3/4-7/8-1"	N° 1-4 20x7-25x9-30x11 38x14-45x18-55x22
17020527 UNC 1/4÷1.1/2 HSS-G € 4676,728	3 pcs 1/4-5/16-3/8-7/16-1/2 5/8-3/4-7/8-1"-1.1/8 1.1/4-1.3/8-1.1/2	N° 1-3-6 20x7-25x9-30x11 38x14-45x18 55x22-65x25



UNF

17020530 UNF 1/4÷3/4 HSS-G € 935,348	2 pcs 1/4-5/16-3/8 7/16-1/2-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x10-45x14
17020531 UNF 1/4÷1" HSS-G € 1606,872	2 pcs 1/4-5/16-3/8-7/16 1/2-5/8-3/4-7/8-1"	N° 1-4 20x7-25x9-30x11 38x10-45x14-55x16
17020532 UNF 1/4÷1.1/2 HSS-G € 4316,981	2 pcs 1/4-5/16-3/8-7/16-1/2 5/8-3/4-7/8-1"-1.1/8 1.1/4-1.3/8-1.1/2	N° 1-3-6 20x7-25x9-30x11 38x14-45x14 55x16-65x18

COMBI UNC+UNF

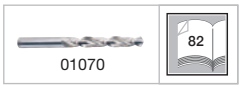
17020533 UNC+UNF 1/4÷3/4 HSS-G € 1984,614	UNC 3 pcs UNF 2 pcs 1/4-5/16-3/8 7/16-1/2-5/8-3/4	N° 1-3 20x7-25x9-30x11 38x14-45x18

KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Thread repair kit - Trousse pour rétablir taraudages endommagées
Juego para reparar rosca dañada - Gewinde-reparatur-Sätze

10600



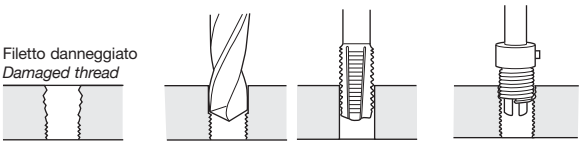


Metric **M**

Ø				1,5 d pcs	cod.	€ cad/each
M 2 x 0,4	2,1 mm	N° 2	N° 2	20	10600098	40,212
2,5 x 0,45	2,6 mm	3	3	20	10600099	40,212
3 x 0,5	3,2 mm	4	4	20	10600100	40,212
3,5 x 0,6	3,7 mm	5	5	20	10600101	40,212
4 x 0,7	4,2 mm	6	6	20	10600102	40,212
5 x 0,8	5,2 mm	8	8	20	10600103	39,602
6 x 1	6,3 mm	9	9	20	10600104	42,617
7 x 1	7,3 mm	10	11	20	10600105	48,128
8 x 1,25	8,3 mm	11	11	20	10600106	48,128
8 x 1	8,3 mm	11	11	20	10600107	48,128
9 x 1,25	9,3 mm	12	12	15	10600108	60,157
10 x 1,5	10,4 mm	13	13	15	10600109	58,139
10 x 1,25	10,3 mm	13	13	15	10600110	58,139
10 x 1	10,3 mm	13	13	15	10600111	58,139
11 x 1,5	11,4 mm	14	14	10	10600112	65,148
12 x 1,75	12,4 mm	15	15	10	10600113	65,148
12 x 1,5	12,4 mm	15	15	10	10600114	65,148
12 x 1,25	12,3 mm	15	15	10	10600115	65,148
12 x 1	12,3 mm	15	15	10	10600116	65,148
14 x 2		16		10	10600117	68,650
14 x 1,5		16		10	10600118	68,650
14 x 1,25		17		10	10600119	68,650
14 x 1		17		10	10600120	68,650
16 x 2		18		10	10600121	83,175
16 x 1,5		18		10	10600122	83,175
18 x 2,5		20		5	10600123	99,484
18 x 2		20		5	10600124	99,484
18 x 1,5		20		5	10600125	99,484
20 x 2,5		21		5	10600126	106,822
20 x 2		21		5	10600127	106,822
20 x 1,5		21		5	10600128	106,822
22 x 2,5		22		5	10600129	130,371
22 x 2		22		5	10600130	130,371
22 x 1,5		22		5	10600131	130,371
24 x 3		23		5	10600132	150,229
24 x 2		23		5	10600133	150,229
24 x 1,5		23		5	10600134	150,229



	pcs	1,5 d pcs	cod.	€ cad/each
M 26 x 1,5	1	10	10600135	452,713
27 x 3	1	10	10600136	452,713
27 x 2	1	10	10600137	452,713
27 x 1,5	1	10	10600138	452,713
28 x 1,5	1	10	10600139	525,520
30 x 3,5	1	10	10600140	552,960
30 x 2	1	10	10600141	552,960
30 x 1,5	1	10	10600142	552,960
33 x 3,5	1	10	10600143	577,228
33 x 2	1	10	10600144	577,228
36 x 4	1	10	10600145	627,886
36 x 3	1	10	10600146	627,886
36 x 2	1	10	10600147	627,886
36 x 1,5	1	10	10600148	627,886



KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE, SPECIALE PER CANDELE

Thread repair kit, special for spark plugs - Trousse pour rétablir les taraudages endommagées, spécial pour bougies
Juego para reparar roscas dañadas, especial para las roscas de las bujías - Gewindereparatur-Sätz für Kerzen

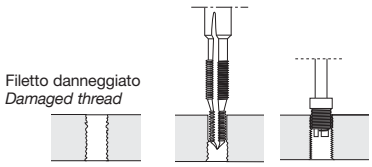


Metric

10631



Cod.	Composizione *Description*				
	STI		8,40 pcs	12,40 pcs	16,40 pcs
10631100 € 79,630	M 14 x 1,25	N° 17	5	5	5



Ricambi - *Spare parts*

Filetto *Thread*	L	pcs	cod.	€ cad/each
14 x 1,25	8,4	50	1060614x12508	1,308
14 x 1,25	12,4	50	1060614x12512	1,308
14 x 1,25	16,4	50	1060614x12516	1,308





Cod.	Composizione *Description*		
	STI		1,5d pcs
10631115 € 104,675	M 12 x 1,25	N° 15	10
10631114 € 79,630	10 x 1,5	N° 13	10
10631113 € 79,630	10 x 1,25	N° 13	10
10631112 € 79,630	10 x 1	N° 13	10
10631111 € 77,950	8 x 1,25	N° 11	10
10631110 € 64,638	6 x 1	N° 9	10

10606 292

KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Thread repair kit - Trousse pour rétablir taraudages endommagées
Juego para reparar rosca dañada - Gewinde-reparatur-Sätze

10600





BSW

Ø				1,5 d pcs	cod.	€ cad/each
1/8 x 40	3,4 mm	N° 4	N° 4	20	10600168	54,243
3/16 x 24	5,0 mm	8	8	20	10600169	54,243
1/4 x 20	6,7 mm	9	9	20	10600170	48,847
5/16 x 18	8,3 mm	10	11	20	10600171	59,853
3 /8 x 16	9,9 mm	12	12	15	10600172	63,852
7/16 x 14	11,5 mm	14	14	10	10600173	71,665
1/2 x 12	13,0 mm	15	15	10	10600174	78,673
9/16 x 12		16		10	10600175	105,641
5/8 x 11		18		10	10600176	105,641
3/4 x 10		20		5	10600177	134,242
7/8 x 9		22		5	10600178	163,628
1” x 8		23		4	10600179	155,692

BSF

Ø				1,5 d pcs	cod.	€ cad/each
3/16 x 32	5,0 mm	N° 7	N° 6	20	10600185	54,243
1/4 x 26	6,6 mm	9	9	20	10600180	48,847
5/16 x 22	8,3 mm	11	11	20	10600181	59,853
3 /8 x 20	9,9 mm	13	13	15	10600182	63,852
7/16 x 18	11,5 mm	14	14	10	10600183	71,665
1/2 x 16	13,0 mm	15	15	10	10600184	78,673
9/16 x 16		16		10	10600186	105,641
5/8 x 14		18		10	10600187	105,641
3/4 x 12		20		5	10600188	134,242
7/8 x 11		22		5	10600189	163,628
1” x 10		23		4	10600190	155,692

BSP

	Ø	pcs	1,5 d pcs	cod.	€ cad/each
G	**1/8** x 28	1	10	10600191	119,917
	1/4 x 19	1	10	10600192	130,471
	3/8 x 19	1	10	10600193	140,061
	1/2 x 14	1	10	10600194	169,808
	5/8 x 14	1	10	10600195	399,085
	3/4 x 14	1	10	10600196	399,085
	7/8 x 14	1	10	10600197	548,737
	1” x 11	1	10	10600198	548,737

Assortimenti - *Sets*

BSW-BSF

10605



BSW 1/4-1/2							
1/4 x 20	6,7 mm	N° 9	N° 9	25	**10605105**	€	306,762
5/16 x 18	8,3 mm	10	11	25			
3/8 x 16	9,9 mm	12	12	25			
7/16 x 14	11,5 mm	14	14	10			
1/2 x 12	13,0 mm	15	15	10			
BSF 1/4-1/2							
1/4 x 26	6,6 mm	N° 9	N° 9	25	**10605106**	€	306,762
5/16 x 22	8,3 mm	11	11	25			
3/8 x 20	9,9 mm	12	12	25			
7/16 x 18	11,5 mm	14	14	10			
1/2 x 16	13,0 mm	15	15	10			

KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Thread repair kit - Trousse pour rétablir taraudages endommagées
Juego para reparar rosca dañada - Gewinde-reparatur-Sätze

10600





UNC

	Ø				pcs	cod.	€ cad/each
No.	**6** x 32	3,8 mm	N°5	N°5	20	106001481	60,271
	8 x 32	4,4 mm	6	6	20	10600149	60,271
	10 x 24	5,2 mm	7	6	20	106001490	60,271
	12 x 24	5,8 mm	8	8	20	106001491	60,271
UNC	**1/4** x 20	6,7 mm	9	9	20	10600150	54,274
	5/16 x 18	8,3 mm	10	10	20	10600151	66,503
	3/8 x 16	9,9 mm	12	12	15	10600152	70,951
	7/16 x 14	11,6 mm	14	14	10	10600153	79,631
	1/2 x 13	13,0 mm	15	15	10	10600154	87,414
	9/16 x 12		16		10	10600155	117,381
	5/8 x 11		18		10	10600156	117,381
	3/4 x 10		20		5	10600157	149,154
	7/8 x 9		22		5	10600158	181,815
	1” x 8		23		4	10600159	172,991

			pcs	1,5 d pcs	cod.	€ cad/each
UNC	**1.1/8** x 7		1	10	106001590	489,598
	1.1/4 x 7		1	10	106001591	539,782
	1.1/2 x 6		1	10	106001592	723,310

UNF

	Ø				pcs	cod.	€ cad/each
No.	**6** x 40	3,8 mm	N°5	N°5	20	106001597	60,271
	8 x 36	4,4 mm	6	6	20	106001598	60,271
	10 x 32	5,1 mm	8	8	20	106001599	60,271
UNF	**1/4** x 28	6,7 mm	9	9	20	10600160	54,274
	5/16 x 24	8,3 mm	11	11	20	10600161	66,503
	3/8 x 24	9,8 mm	13	13	15	10600162	70,951
	7/16 x 20	11,5 mm	14	14	10	10600163	79,631
	1/2 x 20	13,0 mm	15	15	10	10600164	87,414
	9/16 x 18		16		10	10600165	117,381
	5/8 x 18		18		10	10600166	117,381
	3/4 x 16		21		5	10600167	149,154
	7/8 x 14		22		5	106001670	181,815
	1” x 12		23		4	106001671	172,991

			pcs	1,5 d pcs	cod.	€ cad/each
UNF	**1.1/8** x12		1	10	106001672	489,404
	1.1/4 x12		1	10	106001673	539,782
	1.1/2 x12		1	10	106001674	723,310

Assortimenti - *Sets*

UNC - UNF

10605



UNC 1/4-1/2							
1/4 x 20	6,7 mm	N° 9	N° 9	25	**10605103**	€	306,762
5/16 x 18	8,3 mm	10	11	25			
3/8 x 16	9,9 mm	12	12	25			
7/16 x 14	11,6 mm	14	14	10			
1/2 x 13	13,0 mm	15	15	10			
UNF 1/4-1/2							
1/4 x 28	6,7 mm	N° 9	N° 9	25	**10605104**	€	306,762
5/16 x 24	8,3 mm	11	11	25			
3/8 x 24	9,8 mm	13	13	25			
7/16 x 20	11,5 mm	14	14	10			
1/2 x 20	13,0 mm	15	15	10			

ASSORTIMENTO PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Thread repair workshops kit - Trousse pour rétablir taraudages endommagée
Juego para reparar rosca dañada - Gewinde-reparatur-Sortimente

Metric

10605



Ø				1,5 d pcs	cod.	€ cad/each
M 5 - M 12						
5 x 0,8	5,2 mm	N° 8	N° 8	25	**10605100**	242,470
6 x 1	6,3 mm	9	9	25		
8 x 1,25	8,3 mm	11	11	25		
10 x 1,5	10,4 mm	13	13	25		
12 x 1,75	12,4 mm	15	15	10		
M 6 - M 14 x 1,25						
6 x 1	6,3 mm	N° 9	N° 9	25	**10605101**	272,678
8 x 1,25	8,3 mm	11	11	25		
10 x 1,5	10,4 mm	13	13	25		
12 x 1,75	12,4 mm	15	15	10		
14 x 1,25		17		10		
M 6 - M 14 x 1,25						
6 x 1	6,3 mm	N° 9	N° 9	25	**10605102**	281,198
8 x 1,25	8,3 mm	11	11	25		
10 x 1,5	10,4 mm	13	13	25		
12 x 1,75	12,4 mm	15	15	10		
***14** x 1,25		17		10		







Ø				1,5 d pcs	cod.	€ cad/each
M 6 - M 10						
6 x 1	6,3 mm	N° 9	N° 9	25	**10605099**	150,279
8 x 1,25	8,3 mm	11	11	25		
10 x 1,5	10,4 mm	13	13	25		

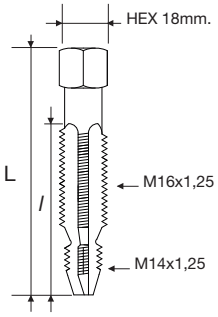
KIT PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE, SPECIALE PER CANDELE M14X1,25

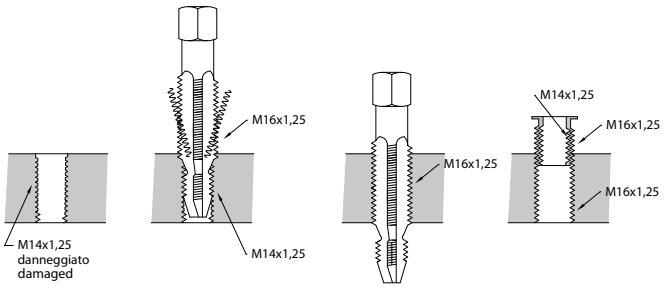
Thread repair kit, special for spark plugs M14X1,25 - Trousse pour rétablir les taraudages endommagées, spécial pour bougies M14X1,25
Juego para reparar roscas dañadas, especial para las roscas de las bujías M14X1,25 - Gewindereparatur-Sätz für Kerzen M14X1,25

10631130



Inserto solido
Solid thread insert





Ø	9,5 mm pcs	11,2 mm pcs	12,7 mm pcs	17,5 mm pcs	cod.	€ cad/each
M 16 x 1,25	4	4	4	4	**10631130**	92,612

Ricambi - *Spare parts*

Maschio combinato - *Combined tap*

Ø	L	l	pcs	cod.	€ cad/each
M 16 x 1,25	70	41	1	**1062616x125**	75,557

Inserto solido - *Solid insert*

Ø	mm	pcs	cod.	€ cad/each
M 14 x 1,25	9,5	50	**1062714x12509**	5,092
14 x 1,25	11,2	50	**1062714x12511**	5,261
14 x 1,25	12,7	50	**1062714x12512**	5,261
14 x 1,25	17,5	50	**1062714x12517**	5,587

10631205

NEW

Speciale per candelette 8-10-12 mm - *Special for glow plugs 8-10-12 mm* **Metric**

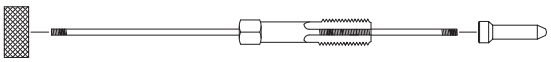
	12 mm pcs	cod.	€ cad/each
M 8x1 - M 10x1 - M 10x1,25 M 12x1 - M 12x1,25 - M 14x1,25	M 8x1 - M 10x1 -M 10x1,25 M 12x1	**10631205**	288,704



Abs

Inserto solido
Solid thread insert

il set contiene un'asta di montaggio, con relativa impugnatura, 3 tappi e 2 utensili inseritori.
This set contains 1 insert fitting rod, its grip handle, 3 plug end blanks and 2 insert fitting tools.



INSERTI FILETTATI IN ACCIAIO INOX PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Wire-thread insert in stainless steel / Ressorts filetées en acier inoxidable pour le retablissement des filets endommages
Inserto roscado para sustituir rosca danãda / Gewinde Einsätze aus rostfreiem Stahl



K-COIL
Acciaio inox austenitico 18/8
Austenitic stainless steel 18/8

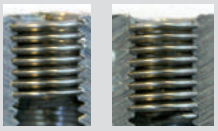
DIN 8140 - ISO 2/6H

M

10606

Filetto *Thread*		pcs	1xd cod.	1xd € cad/each	1,5xd cod.	1,5xd € cad/each	2xd cod.	2xd € cad/each	2,5xd cod.	2,5xd € cad/each	3xd cod.	3xd € cad/each
M 2	x 0,4	100	10606102x04	1,098	1060602x04	1,308	10606202x04	1,663	106062502X04	1,774	10606302x04	2,350
2,2	x 0,45	100	106061022x045	1,098	10606022x045	1,308	106062022x045	1,663	1060625022X04	1,774	106063022x045	2,350
2,5	x 0,45	100	106061025x045	1,098	10606025x045	0,444	106062025x045	0,665	1060625025X04	0,777	106063025x045	0,998
3	x 0,5	100	10606103x05	0,321	1060603x05	0,354	10606203x05	0,421	106062503X05	0,621	10606303x05	0,643
3,5	x 0,6	100	106061035x06	0,377	10606035x06	1,308	106062035x06	0,421	1060625035X06	0,777	106063035x06	0,887
4	x 0,7	100	10606104x07	0,321	1060604x07	0,321	10606204x07	0,377	106062504X07	0,565	10606304x07	0,676
5	x 0,8	100	10606105x08	0,333	1060605x08	0,266	10606205x08	0,421	106062505X08	0,487	10606305x08	0,577
6	x 1	100	10606106x1	0,333	1060606x1	0,277	10606206x1	0,487	106062506X1	0,500	10606306x1	0,632
7	x 1	100	10606107x1	0,354	1060607x1	0,477	10606207x1	0,588	106062507X1	0,721	10606307x1	1,032
8	x 1,25	100	10606108x125	0,387	1060608x125	0,354	10606208x125	0,632	106062508X125	0,676	10606308x125	0,942
8	x 1	100	10606108x1	0,387	1060608x1	0,354	10606208x1	0,588	106062508X1	0,676	10606308x1	0,798
9	x 1,25	100	10606109x125	0,555	1060609x125	0,643	10606209x125	0,798	106062509X125	1,275	10606309x125	1,519
10	x 1,5	100	10606110x15	0,510	1060610x15	0,533	10606210x15	0,676	106062510X15	0,798	10606310x15	1,032
10	x 1,25	100	10606110x125	0,510	1060610x125	0,533	10606210x125	0,676	106062510X125	0,798	10606310x125	1,032
10	x 1	100	10606110x1	0,510	1060610x1	0,533	10606210x1	0,676	106062510X1	0,798	10606310x1	1,032
11	x 1,5	100	10606111x15	0,843	1060611x15	0,898	10606211x15	1,075	-	-	-	-
12	x 1,75	100	10606112x175	0,721	1060612x175	0,731	10606212x175	0,920	106062512X175	0,975	10606312x175	1,464
12	x 1,5	100	10606112x15	0,721	1060612x15	0,731	10606212x15	0,920	106062512X15	0,975	10606312x15	1,464
12	x 1,25	100	10606112x125	0,721	1060612x125	0,731	10606212x125	0,920	106062512X125	0,975	10606312x125	1,464
12	x 1	100	10606112x1	0,721	1060612x1	0,731	10606212x1	0,920	106062512X1	0,975	10606312x1	1,464
14	x 2	50	10606114x2	1,065	1060614x2	0,920	10606214x2	1,198	106062514X2	1,331	10606314x2	2,118
14	x 1,5	50	10606114x15	1,065	1060614x15	0,920	10606214x15	1,198	106062514X15	1,331	10606314x15	1,939
14	x 1,25	50	10606114x125	1,065	1060614x125	0,920	10606214x125	1,198	106062514X125	1,331	10606314x125	1,939
14	x 1	50	10606114x1	1,065	1060614x1	0,920	10606214x1	1,198	106062514X1	1,331	10606314x1	1,939
16	x 2	50	10606116x2	1,221	1060616x2	1,042	10606216x2	1,575	106062516X2	1,939	10606316x2	2,329
16	x 1,5	50	10606116x15	1,221	1060616x15	1,042	10606216x15	1,575	106062516X15	1,939	10606316x15	2,329
18	x 2,5	25	10606118x25	1,774	1060618x25	1,663	10606218x25	2,806	106062518X25	3,104	10606318x25	3,758
18	x 2	25	10606118x2	1,774	1060618x2	1,663	10606218x2	2,806	106062518X2	3,104	10606318x2	3,758
18	x 1,5	25	10606118x15	1,774	1060618x15	1,663	10606218x15	2,806	106062518X15	3,104	10606318x15	3,758
20	x 2,5	25	10606120x25	2,329	1060620x25	2,107	10606220x25	3,570	106062520X25	4,268	10606320x25	4,778
20	x 2	25	10606120x2	2,329	1060620x2	2,107	10606220x2	3,570	106062520X2	4,268	10606320x2	4,778
20	x 1,5	25	10606120x15	2,329	1060620x15	2,107	10606220x15	3,570	106062520X15	4,268	10606320x15	4,778
22	x 2,5	10	10606122x25	2,660	1060622x25	2,773	10606222x25	4,002	106062522X25	4,801	10606322x25	5,122
22	x 2	10	10606122x2	2,660	1060622x2	2,773	10606222x2	4,002	106062522X2	4,801	10606322x2	5,122
22	x 1,5	10	10606122x15	2,660	1060622x15	2,773	10606222x15	4,002	106062522X15	4,801	10606322x15	5,122
24	x 3	10	10606124x3	3,104	1060624x3	3,104	10606224x3	4,667	106062524X3	5,599	10606324x3	5,765
24	x 2	10	10606124x2	3,104	1060624x2	3,104	10606224x2	4,667	106062524X2	5,599	10606324x2	5,765
24	x 1,5	10	10606124x15	3,104	1060624x15	3,104	10606224x15	4,667	106062524X15	5,599	10606324x15	5,765
26	x 1,5	5	-		1060626x15	5,156	-					
27	x 3	5	-		1060627x3	5,156	-					
27	x 2	5	-		1060627x2	5,156	-					
27	x 1,5	5	-		1060627x15	5,156	-					
28	x 1,5	5	-		1060628x15	5,821	-					
30	x 3,5	5	-		1060630x35	6,785	-					
30	x 2	5	-		1060630x2	6,785	-					
30	x 1,5	5	-		1060630x15	6,785	-					
33	x 3,5	5	-		1060633x35	8,115	-					
33	x 2	5	-		1060633x2	8,115	-					
36	x 4	5	-		1060636x4	7,450	-					
36	x 3	5	-		1060636x3	7,450	-					
36	x 2	5	-		1060636x2	7,450	-					
36	x 1,5	5	-		1060636x15	7,450	-					

Nota: la misura è riferita all'inserto posizionato nella sua sede
Note: *the coil length refers to the tool mounted inside its site*



1xd 1,5xd



287

INSERTI FILETTATI AUTOBLOCCANTI IN ACCIAIO INOX PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Stainless steel wire thread inserts, screw self-locking to renew damaged threads / Ressorts filetées en acier inoxidable autobloquants pour le retablir filets endommages / Inserto roscado, autoblocante in acero inoxidable para sustituir rosca danãda / Selbstsperrend Gewinde Einsätze aus rostfreiem Stahl

10625



Acciaio inox
Stainless steel

DIN 8140
ISO 2/6H

Filetto *Thread*		pcs	1xd cod.	€ cad/each	1,5xd cod.	€ cad/each	2xd cod.	€ cad/each
M 3	x 0,5	100	10625103x05	0,477	1062503x05	0,500	10625203x05	0,533
4	x 0,7	100	10625104x07	0,477	1062504x07	0,500	10625204x07	0,533
5	x 0,8	100	10625105x08	0,533	1062505x08	0,555	10625205x08	0,610
6	x 1	100	10625106x1	0,588	1062506x1	0,643	10625206x1	0,698
8	x 1,25	100	10625108x125	0,610	1062508x125	0,698	10625208x125	0,843
10	x 1,5	100	10625110x15	0,787	1062510x15	0,843	10625210x15	0,975
12	x 1,75	100	10625112x175	1,142	1062512x175	1,308	10625212x175	1,485
14	x 2	50	10625114x2	1,618	1062514x2	1,841	10625214x2	1,929
16	x 2	50	10625116x2	2,185	1062516x2	2,295	10625216x2	2,827

Consigli d'uso / *Use tips*

Si consiglia l'utilizzo di inserti autobloccanti nel caso di sollecitazioni cicliche del filetto o della necessità di una particolare resistenza agli impatti. Si consiglia inoltre l'uso con viti nichelate o ben lubrificate. L'inserto autobloccante è dotato di alcune spire poligonali inserite tra le spire circolari per tutta la sua lunghezza: tali spire poligonali esercitano una pressione radiale maggiore sulla vite inserita nell'inserto funzionando da bloccaggio. Rimuovendo la vite, le spire poligonali tornano nella loro forma originale garantendo un ottimo livello di pressione radiale per una serie di avvitature/svitature successive.

Screw locking inserts are of particular value in applications subject to the effects of cyclic vibration or impact. The prevailing locking torque they assure is achieved by the action of one or more polygonal grip coils positioned within the insert's length, which exert radial pressure on the male thread. As the male thread passes through these grip coils, the locking flats are displaced thus exerting radial pressure or prevailing torque on the male thread. When removing the male thread, the locking coils relax to their original form permitting repeated assembly while retaining a measurable level of prevailing torque. Please use only close fit plated or lubricated bolts or screws with the screw locking inserts.

Les filets rapportés à frein de vis sont extrêmement utiles pour les applications sujettes aux effets provoqués par les vibrations cycliques ou les chocs. Ils offrent une sécurité supplémentaire avec le couple de freinage permanent. Ceci est accompli par la pression radiale exercée sur le filetage extérieur par une ou plusieurs spires à déformation polygonale positionnées sur la longueur du filet rapporté. Tandis que le filetage extérieur passe à travers ces spires déformées, les vis à tête plate sont déplacées, exerçant ainsi une pression radiale ou couple permanent sur le filetage extérieur. Lorsque le filetage extérieur est retiré, les spires de freinage débandent pour atteindre leur forme originale, permettant des assemblages répétés tout en conservant un niveau mesurable de couple permanent. Il est recommandé que seuls des boulons ou vis lubrifiés ou à tête plate à ajustement serré soient utilisés avec les filets rapportés à frein de vis.

El inserto autoblocante está especialmente indicado en aplicationes sujetas a vibración cíclica o impactos. Los insertos autoblocantes ofrecen una seguridad adicional por su auto freno interno que lo hace más efectivo. Esto se consigue gracias a la acción de uno a varios hilos poligonales de la rosca del inserto posicionados a lo largo mismo, que ejercen presión radial o freno efectivo en la rosca del tornillo. En la medida en que la rosca pasa a través de estos hilos de seguridad, los dispositivos se expanden aplicando gradualmente presión radial o freno efectivo en la rosca del tornillo. Al retirar el tornillo roscado, los hilos de seguridad ralajan su expansión a su forma original permitiendo repetir el roscado del tornillo y manteniendo su nivel de presión radial de seguridad. Se recomienda que solamente se utilicen tornillos niquelados o bien lubricados, con los insertos de seguridad.

INSERTI FILETTATI IN ACCIAIO INOX PER IL RIPRISTINO DELLE FILETTATURE DANNEGGIATE

Wire-thread insert in stainless steel / Ressorts filetées en acier inoxidable pour le retablissement des filets endommages
Inserto roscado para sustituir rosca danãda / Gewinde Einsätze aus rostfreiem Stahl



K-COIL

Acciaio inox austenitico 18/8
Austenitic stainless steel 18/8

DIN 8140 - ISO 2/6H

10607 — UNC

	Ø	pcs	cod. (1,5 d)	€ cad/each
No.	8 x 32	100	10607N08	0,510
	10 x 24	100	10607N10	0,510
	12 x 24	100	10607N12	0,510
UNC	1/4 x 20	100	106071/4	0,731
	5/16 x 18	100	106075/16	0,731
	3/8 x 16	100	106073/8	0,942
	7/16 x 14	100	106077/16	1,254
	1/2 x 13	100	106071/2	1,254
	9/16 x 12	50	106079/16	4,401
	5/8 x 11	50	106075/8	4,401
	3/4 x 10	25	106073/4	5,199
	7/8 x 9	10	106077/8	7,616
	1” x 8	10	106071”	7,616
	1.1/8 x 7	5	106071.1/8	12,328
	1.1/4 x 7	5	106071.1/4	13,536
	1.1/2 x 6	5	106071.1/2	17,407

10608 — UNF

	Ø	pcs	cod. (1,5 d)	€ cad/each
No.	8 x 36	100	10608N08	1,164
	10 x 32	100	10608N10	0,731
UNF	1/4 x 28	100	106081/4	0,731
	5/16 x 24	100	106085/16	0,731
	3/8 x 24	100	106083/8	0,942
	7/16 x 20	100	106087/16	1,254
	1/2 x 20	100	106081/2	1,254
	9/16 x 18	50	106089/16	4,401
	5/8 x 18	50	106085/8	4,401
	3/4 x 16	25	106083/4	5,199
	7/8 x 14	10	106087/8	7,616
	1” x 12	10	106081”	7,616
	1.1/8 x 12	5	106081.1/8	12,328
	1.1/4 x 12	5	106081.1/4	13,536
	1.1/2 x 12	5	106081.1/2	17,407

10609 — BSW

Ø	pcs	cod. (1,5 d)	€ cad/each
1/8 x 40	100	106091/8	1,542
3/16 x 24	100	106093/16	1,542
1/4 x 20	100	106091/4	0,632
5/16 x 18	100	106095/16	0,777
3 /8 x 16	100	106093/8	1,286
7/16 x 14	100	106097/16	1,597
1/2 x 12	100	106091/2	1,597
9/16 x 12	50	106099/16	4,568
5/8 x 11	50	106095/8	4,568
3/4 x 10	25	106093/4	5,444
7/8 x 9	10	106097/8	7,616
1” x 8	10	106091"	8,704

10610 — BSF

Ø	pcs	cod. (1,5 d)	€ cad/each
3/16 x 32	100	106103/16	1,542
1/4 x 26	100	106101/4	1,542
5/16 x 22	100	106105/16	1,542
3 /8 x 20	100	106103/8	1,542
7/16 x 18	100	106107/16	1,597
1/2 x 16	100	106101/2	1,597
9/16 x 16	50	106109/16	4,568
5/8 x 14	50	106105/8	4,568
3/4 x 12	25	106103/4	5,444
7/8 x 11	10	106107/8	7,616
1” x 10	10	106101”	8,704

10604 — BSP

	Ø	pcs	cod. (1,5 d)	€ cad/each
G	1/8 x 28	50	106041/8	1,062
	1/4 x 19	50	106041/4	1,588
	3 /8 x 19	50	106043/8	1,866
	1/2 x 14	50	106041/2	2,392
	5/8 x 14	5	106045/8	5,971
	3/4 x 14	5	106043/4	5,971
	7/8 x 14	5	106047/8	18,323
	1” x 11	5	106041”	18,323

MASCHI STI PER L'INSERIMENTO DI INSERTI FILETTATI K-COIL ISO 2

STI taps for wire thread inserts ISO 2 / Tarauds STI pour l'insertion des ressorts filetées ISO 2
Machos STI para la inserciòn de filetes ISO 2 / Gewindebohrer STI für gewinde Einsätze ISO 2

10612
HSS-G **M**

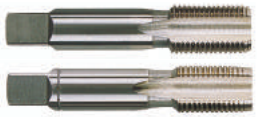


FORM D ISO 1/4H

Ø		cod.	€ cad/each
M 2	x 0,4	1061202X04	15,955
2,5	x 0,45	10612025X045	15,955
3	x 0,5	1061203X05	12,262
3,5	x 0,6	10612035X06	12,262
4	x 0,7	1061204X07	12,262
5	x 0,8	1061205X08	12,262
6	x 1	1061206X1	12,262
7	x 1	1061207X1	15,167
8	x 1,25	1061208X125	15,167
8	x 1	1061208X1	15,167
9	x 1,25	1061209X125	18,692
10	x 1,5	1061210X15	18,692
10	x 1,25	1061210X125	18,692
10	x 1	1061210X1	18,692
11	x 1,5	1061211X15	20,999
12	x 1,75	1061212X175	25,678
12	x 1,5	1061212X15	25,678
12	x 1,25	1061212X125	25,678
12	x 1	1061212X1	25,678
14	x 2	1061214X2	29,170
14	x 1,5	1061214X15	29,170
14	x 1,25	1061214X125	29,170
14	x 1	1061214X1	29,170
16	x 2	1061216X2	35,001
16	x 1,5	1061216X15	35,001
18	x 2,5	1061218X25	44,348
18	x 2	1061218X2	44,348
18	x 1,5	1061218X15	44,348
20	x 2,5	1061220X25	49,027
20	x 2	1061220X2	49,027
20	x 1,5	1061220X15	49,027
22	x 2,5	1061222X25	56,033
22	x 2	1061222X2	56,033
22	x 1,5	1061222X15	56,033
24	x 3	1061224X3	71,188
24	x 2	1061224X2	71,188
24	x 1,5	1061224X15	71,188

10612
HSS-G **M**

2 pcs set



ISO 1/4H

Ø		cod.	€ cad/each
M 26	x 1,5	1061226X15	282,041
27	x 3	1061227X3	282,041
27	x 2	1061227X2	282,041
27	x 1,5	1061227X15	282,041
28	x 1,5	1061228X15	318,494
30	x 3,5	1061230X35	318,494
30	x 2	1061230X2	318,494
30	x 1,5	1061230X15	318,494
33	x 3,5	1061233X35	318,494
33	x 2	1061233X2	318,494
36	x 4	1061236X4	353,030
36	x 3	1061236X3	353,030
36	x 2	1061236X2	353,030
36	x 1,5	1061236X15	353,030

MASCHIO COMBI PER L'INSERIMENTO DI INSERTI FILETTATI ISO 2 - SPECIALE PER CANDELE

Spark plug taps with pilot nose for wire thread insert ISO 2 / Tarauds indique pour bugies ISO 2
Machos indicado para bujias ISO 2 / Kombi-gewindebohrer für gewinde Einsätze ISO 2

10620
HSS-G **M**



ISO 1/4H

Ø		cod.	€ cad/each
M 6	x 1	1062006X1	24,380
8	x 1,25	1062008X125	24,380
10	x 1,5	1062010X15	30,799
10	x 1,25	1062010X125	42,130
10	x 1	1062010X1	42,130
12	x 1,25	1062012X125	44,325
14	x 1,25	1062014X125	51,410
18	x 1,5	1062018X15	73,573



MASCHI STI PER L'INSERIMENTO DI INSERTI FILETTATI K-COIL ISO 2

STI taps for wire thread inserts ISO 2 / Tarauds STI pour l'insertion des ressorts filetées ISO 2
Machos STI para la inserciòn de filetes ISO 2 / Gewindebohrer STI für gewinde Einsätze ISO 2

10613 HSS-G — UNC



FORM D

	Ø		cod.	€ cad/each
No.	8	x 32	10613NR08	21,276
	10	x 24	10613NR10	21,276
	12	x 24	10613NR12	21,276
UNC	1/4	x 20	106131/4	14,026
	5/16	x 18	106135/16	15,234
	3/8	x 16	106133/8	15,955
	7/16	x 14	106137/16	21,276
	1/2	x 13	106131/2	24,180
	9/16	x 12	106139/16	40,124
	5/8	x 11	106135/8	49,559
	3/4	x 10	106133/4	60,202
	7/8	x 9	106137/8	70,103
	1"	x 8	106131"	91,700

10614 HSS-G — UNF



FORM D

	Ø		cod.	€ cad/each
No.	8	x 36	10614NR08	21,276
	10	x 32	10614NR10	21,276
UNF	1/4	x 28	106141/4	14,026
	5/16	x 24	106145/16	15,234
	3/8	x 24	106143/8	15,955
	7/16	x 20	106147/16	21,276
	1/2	x 20	106141/2	25,145
	9/16	x 18	106149/16	40,124
	5/8	x 18	106145/8	49,559
	3/4	x 16	106143/4	60,202
	7/8	x 14	106147/8	70,103
	1"	x 12	106141"12	87,930
	1"	x 14	106141"14	87,930

10615 HSS-G — BSW



FORM D

	Ø		cod.	€ cad/each
BSW	1/8	x 40	106151/8	14,026
	3/16	x 24	106153/16	14,026
	1/4	x 20	106151/4	14,026
	5/16	x 18	106155/16	15,234
	3/8	x 16	106153/8	15,955
	7/16	x 14	106157/16	21,276
	1/2	x 12	106151/2	24,180
	9/16	x 12	106159/16	40,124
	5/8	x 11	106155/8	49,559
	3/4	x 10	106153/4	60,202
	7/8	x 9	106157/8	70,103
	1"	x 8	106151"	91,700

10616 HSS-G — BSF



FORM D

	Ø		cod.	€ cad/each
BSF	3/16	x 32	106163/16	14,701
	1/4	x 26	106161/4	14,026
	5/16	x 22	106165/16	15,234
	3/8	x 20	106163/8	15,955
	7/16	x 18	106167/16	21,276
	1/2	x 16	106161/2	24,180
	9/16	x 16	106169/16	42,064
	5/8	x 14	106165/8	51,931
	3/4	x 12	106163/4	63,096
	7/8	x 11	106167/8	73,462
	1"	x 10	106161"	91,700

10617 HSS-G — BSP

2 pcs set



	Ø		cod.	€ cad/each
BSP	1/8	x28	106171/8	46,565
	1/4	x19	106171/4	62,086
	3/8	x19	106173/8	77,453
	1/2	x14	106171/2	89,949
	5/8	x14	106175/8	124,174
	3/4	x14	106173/4	186,260
	7/8	x14	106177/8	234,689
	1"	x 11	106171"	289,712

ACCESSORI PER L'UTILIZZO DEGLI INSERTI FILETTATI K-COIL

Inserting tools for K-coil / Outils pour l'utilisation des K-coil
Herramientas para insertar K-coil - Werkzeuge für K-coil

10618



Punta elicoidale per prefori fil. danneggiate

Twist drill for damaged threads
Foret hélicoïdal pour taraudages endommagées
Broca helicoidal para roscas dañadas.

Ø	/	L	Per filetto *for thread*	cod.	€ cad/each
2,1	24	49	**M2** x 0,4	106180210	1,042
2,6	30	57	**2,5** x0,45	106180260	1,198
3,2	36	65	**3** x 0,5	106180320	1,286
3,7	39	70	**3,5** x0,6	106180370	1,408
4,2	43	75	**4** x 0,7	106180420	1,741
5,2	52	86	**5** x 0,8	106180520	2,284
6,3	63	101	**6** x 1	106180630	3,170
7,3	69	109	**7** x 1	106180730	4,058
8,3	75	117	**8** x1,25- 8 x 1	106180830	5,599
9,3	81	125	**9** x1,25	106180930	6,576
10,3	87	133	**10** x1,25-10 x 1	106181030	8,902
10,4	87	133	**10** x 1,5	106181040	20,051
11,4	94	133	**11** x 1,5	106181140	21,816
12,3	101	133	**12** x1,25-12 x 1	106181230	21,816
12,4	101	133	**12** x1,75-12 x 1,5	106181240	29,934
14,3	115	165	**14** x 1	106181430	24,414
14,4	115	165	**14** x1,5-14 x 1,25	106181440	24,414
16,4	115	170	**16** x 1,5	106181640	24,414

Ø›12,4 mm su richiesta / *On demand*

10611



Utensile per la rottura del perno di trascinamento K-coil

Tang break tool / Outil pour rompre le goujion
Herramienta rompe arrastre / Werkzeug für den bruch des Bolzen

	N°	cod.	€ cad/each
M2 x0,4	**2**	1061102	3,770
2,5 x 0,45	**3**	1061103	3,770
3 x0,5	**4**	1061104	3,770
3,5 x 0,6	**5**	1061105	3,770
4 x0,7	**6**	1061106	3,770
5 x0,8	**8**	1061108	3,770
6 x 1	**9**	1061109	3,770
7 x1- 8x1,25 - 8x1	**11**	1061111	4,235
9 x1,25	**12**	1061112	4,235
10 x1,5 - 10x1,25 -10x1	**13**	1061113	4,235
11 x1,5	**14**	1061114	5,111
12 x1,75 - 12x1,5 - 12x1,25 - 12x1	**15**	1061115	5,111

10622



Estrattore K-coil

Extracting tool / Outil pour enlever le K-coil
Herramienta extractora / K-coil Auszieher

N°		cod.	€ cad/each
2	**M 3÷10** 3/16÷3/8	1062202	34,813
3	**M 11÷24** 3/8÷1"	1062203	42,352

ACCESSORI PER L'UTILIZZO DEGLI INSERTI FILETTATI K-COIL

Inserting tools for K-coil / Outils pour l'utilisation des K-coil
Herramientas para insertar K-coil - Werkzeuge für K-coil

10621



Utensile manuale per inserire i K-coil

Inserting tool for K-coil /
Outil pour l'insertion des K-coil
Utensilio para insertar K-coil /
Werkzeug für K-coil

	N°	cod.	€ cad/each
M 2 x 0,4	**2**	1062102	11,541
2,5 x 0,45	**3**	1062103	11,541
3 x 0,5	**4**	1062104	11,021
3,5 x 0,6	**5**	1062105	11,021
4 x 0,7	**6**	1062106	11,021
5 x 0,8	**8**	1062108	12,395
6 x 1	**9**	1062109	12,395
7 x 1	**10**	1062110	14,147
8 x 1,25 - 8x1	**11**	1062111	14,147
9 x 1,25	**12**	1062112	15,234
10 x 1,5 - 10x1,25 -10x1	**13**	1062113	15,234
11 x 1,5	**14**	1062114	17,839
12 x 1,75 - 12x1,5 - 12x1,25 - 12x1	**15**	1062115	17,839
14 x 2 - 14x1,5	**16**	1062116	21,320
14 x 1,25 - 14x1	**17**	1062117	21,320
16 x 2 - 16x1,5	**18**	1062118	26,109
18 x 2,5 - 18x2 - 18x1,5	**20**	1062120	26,109
20 x 2,5 - 20x2 - 20x1,5	**21**	1062121	26,109
22 x 2,5 - 22x2 - 22x1,5	**22**	1062122	32,873
24 x 2,5 - 24x2 - 24x1,5	**23**	1062123	32,873

10623



Inseritore con attacco esagonale da 1/2"

Inserting tool with 1/2" hexagonal drive / Outil pour l'insertion avec attelage hexagonal 1/2" / Herramienta para insertar con ataque hexagonal 1/2" / Werkzeug für K-coil Eisezten mit hexagonalem Ansatz 1/2"

	cod.	€ cad/each
M 26 x 1,5	1062326X15	41,221
27 x 3	1062327X3	41,221
27 x 2	1062327X2	41,221
27 x 1,5	1062327X15	41,221
28 x 1,5	1062328X15	41,221
30 x 3,5	1062330X35	49,459
30 x 2	1062330X2	49,459
30 x 1,5	1062330X15	49,459
33 x 3,5	1062333X35	57,441
33 x 2	1062333X2	57,441
36 x 4	1062336X4	57,441
36 x 3	1062336X3	57,441
36 x 2	1062336X2	57,441
36 x 1,5	1062336X15	57,441

N°	cod.	€ cad/each
G * **1/8** x 28	10623G1/8	24,735
* **1/4** x 19	10623G1/4	24,735
* **3 /8** x 19	10623G3/8	28,727
* **1/2** x 14	10623G1/2	32,972
5/8 x 14	10623G5/8	41,221
3/4 x 14	10623G3/4	41,221
7/8 x 14	10623G7/8	57,441
1" x 11	10623G1	57,441

* **Attacco da 1/4"**/ 1/4" hexagonal drive
Queue 1/4" / Mango hexagonal 1/4"

10628

NEW



Inseritore con attacco ¼" QC

Inserting tool with ¼" QC hex shank / Outil pour l'insertion avec attelage hex ¼" QC / Herramienta para insertar con ataque hex ¼" QC

Per coil *for coil*	cod.	€ cad/each
M3	1062803X05	20,511
M4	1062804X07	20,511
M5	1062805X08	20,511
M6	1062806X1	20,511
M8	1062808X125	25,390
M10	1062810X15	27,939
M12	1062812X175	33,039

CV

CUTTING TOOLS **ENGINEERING**

In questa sezione, abbiamo dedicato un vasto capitolo ai maschi e filiere in acciaio rapido ed in acciaio da utensile, particolarmente adatti e convenienti nella filettatura manuale su ferro, leghe leggere, acciai non trattati e trattati termicamente a bassa durezza. Sono largamente utilizzati nella pulizia e ripristino di filettature danneggiate, sia nel campo automotive, che in tutti i lavori professionali.

This section contains a large chapter on HSS threading taps and dies, which are particularly suitable and practical for manually creating threads in iron, light alloys, untreated and heat-treated steel with low hardness. They are also widely used toclean and repair damaged threads in the automotive industry and other professional applications.

Dans cette section, nous avons consacré un vaste chapitre aux tarauds et filières en acier rapide et en acier pour outil, particulièrement appropriés et intéressants dans le filetage manuel sur fer, sur alliages légers, sur aciers non traités et traités thermiquement à basse dureté. De plus, ils sont largement utilisés dans le nettoyage et le rétablissement des filetages endommagés, tant dans le secteur de l'automobile que dans tous les secteurs professionnels.

En esta sección hemos dedicado un vasto apartado a las terrajas y a los machos de acero rápido y de acero para utensilios, especialmente aptos y convenientes en el roscado manual sobre hierro, aleaciones ligeras, aceros no tratados y tratados térmicamente de baja dureza. También se utilizan mucho en la limpieza y en la recuperación de roscas dañadas,ya sea en el campo de la automoción, que en todos los trabajos profesionales.



UTENSILI A FILETTARE PER USI PROFESSIONALI

Tool steel taps and dies for professional use

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA METRICA ISO A PASSO GROSSO

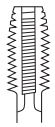
Standard 3 pcs hand taps, metric coarse pitch / Tarauds à main, jeux de 3 pieces, métrique, pas gros
Juego de machos a mano, rosca metrica normal / Dreiteiliger Handgewindebohrer für metrisches ISO-Gewinde.

C.V. UNI 4535 ≃ DIN 352

M

10001





HRC ≃ 62÷63

Art. **10002** Self
Disponibile su richiesta
On demand

Confezione / Packaging



Applicazioni / Applications

R ≤ 600 N/mm²



Metals



Alu



Cu Zn Ni Ms



	Ø	/	L	pcs	cod.	€ cad/each
M 2	x 0,4	11	36	1	1000102X04	6,825
2,5	x 0,45	12	40	1	10001025X045	8,114
3	x 0,5	12	40	1	1000103X05	4,580
3	x 0,6	12	43	1	1000103X06	6,336
3,5	x 0,6	14	45	1	10001035X06	6,336
4	x 0,7	14	45	1	1000104X07	4,580
4	x 0,75	14	48	1	1000104X075	6,786
4,5	x 0,75	16	48	1	10001045X075	6,786
5	x 0,8	16	48	1	1000105X08	4,829
5	x 0,9	16	50	1	1000105X09	5,428
6	x 1	18	50	1	1000106X1	4,829
7	x 1	18	50	1	1000107X1	6,357
8	x 1,25	22	56	1	1000108X125	6,107
9	x 1,25	22	63	1	1000109X125	8,561
10	x 1,5	25	70	1	1000110X15	8,143
11	x 1,5	25	70	1	1000111X15	10,806
12	x 1,75	30	75	1	1000112X175	10,247
14	x 2	32	80	1	1000114X2	13,272
16	x 2	32	80	1	1000116X2	16,234
18	x 2,5	40	95	1	1000118X25	20,834
20	x 2,5	40	95	1	1000120X25	25,684
22	x 2,5	40	100	1	1000122X25	31,172
24	x 3	50	110	1	1000124X3	37,020
27	x 3	50	110	1	1000127X3	83,427
30	x 3,5	56	132	1	1000130X35	111,167
33	x 3,5	60	132	1	1000133X35	131,673
36	x 4	60	132	1	1000136X4	145,702

Filettatura Speciale / Special thread / Filetage spécial / Rosca especial / Sonderegewinde

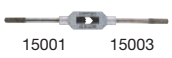
	Ø	/	L	pcs	cod.	€ cad/each
M 3	x 0,6	12	40	1	1000103X06	6,336
4	x 0,75	14	45	1	1000104X075	6,786
5	x 0,9	16	48	1	1000105X09	5,428



Maschio a mano finitore
Hand bottoming tap
Tarauds à main finisseur
Macho a mano acabado
Fertig Schneider Hand-gewindebohrer

	Ø	/	L	pcs	cod.	€ cad/each
M 2	x 0,4	11	36	1	1000102X043	2,783
3	x 0,5	12	40	1	1000103X053	1,874
4	x 0,7	14	45	1	1000104X073	1,874
5	x 0,8	16	48	1	1000105X083	1,962
6	x 1	18	50	1	1000106X13	1,962
8	x 1,25	22	56	1	1000108X1253	2,483
10	x 1,5	25	70	1	1000110X153	3,326
12	x 1,75	30	75	1	1000112X1753	4,169
14	x 2	32	80	1	1000114X23	5,411
16	x 2	32	80	1	1000116X23	6,619

- Per filettare fori passanti e ciechi in ferro, acciaio dolce ed a bassa resistenza sino R≤ 600 N/mm²
- For making thread in iron, steel up to R≤ 600 N/mm²
- Taraudage courant des aciers R≤ 600 N/mm²
- Para orificios ciegos y pasantes en materiales de hasta 600 N/mm².
- Für allgemeinen Einsatz in unlegierter und niederlegierter Stahl R≤ 600 N/mm²



15001 15003

309

MASCHI A MANO IN SERIE DI 2 PEZZI, FILETTATURA METRICA PASSO GROSSO E FINE

Two pieces hand taps, coarse and fine pitch / Tarauds à main, jeux de 2 pieces métrique, pas gros et fin

Juego machos a mano de dos piezos, rosca metrica fina y normal / Zweiteiliger Handgewindebohrer für ISO Regel und Feingewinde

C.V. UNI 4535 ≃ DIN 2181

10003



M-MF

Ø	/	L	pcs	cod.	€ cad/each
M 2 x 0,4	11	36	1	1000302X04	5,308
3 x 0,5	12	40	1	1000303X05	3,662
4 x 0,7	14	45	1	1000304X07	3,662
5 x 0,8	16	48	1	1000305X08	3,822
6 x 0,75	18	50	1	1000306X075	3,822
6 x 1	18	50	1	1000306X1	3,822
7 x 0,75	18	50	1	1000307X075	4,900
7 x 1	18	50	1	1000307X1	4,900
8 x 0,75	22	56	1	1000308X075	5,444
8 x 1	22	56	1	1000308X1	4,900
8 x 1,25	22	56	1	1000308X125	4,900
9 x 0,75	22	63	1	1000309X075	6,466
9 x 1	22	63	1	1000309X1	6,466
9 x 1,25	22	63	1	1000309X125	6,466
10 x 0,75	25	70	1	1000310X075	6,466
10 x 1	25	70	1	1000310X1	6,466
10 x 1,25	25	70	1	1000310X125	6,466
10 x 1,5	25	70	1	1000310X15	6,466
11 x 0,75	25	70	1	1000311X075	8,661
11 x 1	25	70	1	1000311X1	8,661
11 x 1,25	25	70	1	1000311X125	8,661
11 x 1,5	25	70	1	1000311X15	8,661
12 x 0,75	30	75	1	1000312X075	8,382
12 x 1	30	75	1	1000312X1	8,382
12 x 1,25	30	75	1	1000312X125	8,382
12 x 1,5	30	75	1	1000312X15	8,382
12 x 1,75	30	75	1	1000312X175	8,382
14 x 1	32	80	1	1000314X1	10,417
14 x 1,25	32	80	1	1000314X125	10,417
14 x 1,5	32	80	1	1000314X15	10,417
14 x 2	32	80	1	1000314X2	10,417
16 x 1	32	80	1	1000316X1	12,474
16 x 1,5	32	80	1	1000316X15	12,474
16 x 2	32	80	1	1000316X2	12,474
18 x 1,5	40	95	1	1000318X15	15,078
18 x 2	40	95	1	1000318X2	19,816
18 x 2,5	40	95	1	1000318X25	19,816
20 x 1,5	40	95	1	1000320X15	22,791
20 x 2	40	95	1	1000320X2	27,251
20 x 2,5	40	95	1	1000320X25	27,251
22 x 1,5	40	100	1	1000322X15	27,251
22 x 2	40	100	1	1000322X2	32,619
22 x 2,5	40	100	1	1000322X25	32,619
24 x 1,5	50	110	1	1000324X15	32,619
24 x 2	50	110	1	1000324X2	32,619
24 x 3	50	110	1	1000324X3	32,619
27 x 1,5	50	110	1	1000327X15	63,023
27 x 2	50	110	1	1000327X2	63,023
27 x 3	50	110	1	1000327X3	63,023
30 x 1,5	56	132	1	1000330X15	90,254
30 x 2	56	132	1	1000330X2	90,254



Maschio a mano finitore passo fine
Bottoming tap, fine thread
Taraud finisseur, pas fin
Macho acabado, rosca fina
Fertig Schneider Hand-gewindebohrer, Feingewinde

MF

Ø	/	L	pcs	cod.	€ cad/each
M 6 x 0,75	18	50	1	1000306X0753	2,318
7 x 0,75	18	50	1	1000307X0753	2,905
8 x 0,75	22	56	1	1000308X0753	2,905
8 x 1	22	56	1	1000308X13	2,905
9 x 0,75	22	63	1	1000309X0753	3,825
9 x 1	22	63	1	1000309X13	3,825
10 x 0,75	25	70	1	1000310X0753	3,825
10 x 1	25	70	1	1000310X13	3,825
10 x 1,25	25	70	1	1000310X1253	3,825
11 x 0,75	25	70	1	1000311X0753	5,023
11 x 1	25	70	1	1000311X13	5,023
11 x 1,25	25	70	1	1000311X1253	5,023
12 x 0,75	30	75	1	1000312X0753	5,011
12 x 1	30	75	1	1000312X13	5,011
12 x 1,25	30	75	1	1000312X1253	5,011
12 x 1,5	30	75	1	1000312X153	5,011
14 x 1	32	80	1	1000314X13	6,275
14 x 1,25	32	80	1	1000314X1253	6,275
14 x 1,5	32	80	1	1000314X153	6,275
16 x 1	32	80	1	1000316X13	7,506
16 x 1,5	32	80	1	1000316X153	7,506
18 x 1,5	40	95	1	1000318X153	9,213

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA GAS CILINDRICA PER TUBI.

Two pieces hand taps for cylindrical pipe-threads / Tarauds à main, filetage gaz cylindrique
Juegos de machos a mano, rosca gas cilindrica / Satzgewindebohrer für Rohrgewinde

C.V. UNI 338 ≃ DIN 5157 — **GAS (BSP)**

10015



Ø	/	L	pcs	cod.	€ cad/each
G 1/8 x 28	18	65	1	100151/8	7,218
1/4 x 19	24	70	1	100151/4	9,535
3/8 x 19	25	75	1	100153/8	11,908
1/2 x 14	31	80	1	100151/2	18,138
3/4 x 14	33	90	1	100153/4	31,254
1” x 11	39	100	1	100151”	52,273
1.1/4 x 11	32	125	1	100151.1/4	102,555
1.1/2 x 11	32	140	1	100151.1/2	173,876
2” x 11	32	140	1	100152”	368,142

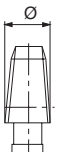
MASCHI CONICI PER TUBI, FILETTATURA GAS CONICA BSPT (CON. 1:16)

BSPT taper thread (1:16 taper) / Tarauds filetage gaz conique (1:16) / Machos rosca conica BSPT (1 :16)

C.V. UNI 6125 — **BSPT**

10017





BSPT
Conicità 1:16
Taper 1:16

Ø	/	L	pcs	cod.	€ cad/each
Rc 1/8 x 28	15	59	1	100171/8	9,689
1/4 x 19	19	67	1	100171/4	14,558
3/8 x 19	21	75	1	100173/8	17,222
1/2 x 14	26	87	1	100171/2	20,945
3/4 x 14	28	96	1	100173/4	60,867
1” x 11	33	109	1	100171”	88,127
1.1/4 x 11	36	119	1	100171.1/4	135,984
1.1/2 x 11	37	125	1	100171.1/2	198,576
2” x 11	41	140	1	100172”	297,870

MASCHI A MACCHINA E A MANO PER FORI PASSANTI, SPECIALI PER DADI, FIL. METRICA.

Hand and machine nut taps, metric coarse / Taraud à main et machine pour ecrous / Machos de mano y maquina tipo tuercas

C.V. ≃ DIN 357 — **M**

10030



Ø	/	L	pcs	cod.	€ cad/each
M 3 x 0,5	18	75	10	1003003X05	4,268
4 x 0,7	23	90	10	1003004X07	4,324
5 x 0,8	32	100	10	1003005X08	5,001
6 x 1	40	110	10	1003006X1	5,322
8 x 1,25	45	132	10	1003008X125	6,586
10 x 1,5	55	150	10	1003010X15	9,668
12 x 1,75	55	180	10	1003012X175	14,124

MASCHI A MANO SERIE DI 3 PEZZI, FILETTATURA WHITWORTH PASSO GROSSO

3 pcs hand taps, Whitworth coarse thread / Tarauds à main, jeux de 3 pieces , filetage Whitworth
Juegos machos de mano, rosca inglesa Whitworth / Dreiteiliger Handgewindebohrer für Whitworth Gewinde

C.V. UNI 2709 ≃ DIN 352

BSW

10010



R ≤ 600 N/mm²



	Ø	/	L	pcs	cod.	€ cad/each
BSW	**1/8** x 40	12	40	1	100101/8	6,064
	5/32 x 32	12	45	1	100105/32	6,064
	3/16 x 24	16	48	1	100103/16	6,064
	1/4 x 20	18	50	1	100101/4	6,852
	5/16 x 18	22	56	1	100105/16	7,173
	3/8 x 16	25	70	1	100103/8	8,671
	7/16 x 14	25	70	1	100107/16	10,200
	1/2 x 12	30	75	1	100101/2	12,584
	9/16 x 12	32	80	1	100109/16	14,136
	5/8 x 11	32	80	1	100105/8	16,486
	3/4 x 10	40	95	1	100103/4	22,485
	7/8 x 9	40	100	1	100107/8	30,767
	1” x 8	50	110	1	100101"	44,177
	1.1/8 x 7	56	125	1	100101.1/8	96,745
	1.1/4 x 7	56	125	1	100101.1/4	102,698
	1.3/8 x 6	63	150	1	100101.3/8	140,305
	1.1/2 x 6	63	150	1	100101.1/2	237,438
	1.3/4 x 5	70	160	1	100101.3/4	318,982
	2” x 4.1/2	80	190	1	100102"	476,072

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA WHITWORTH A PASSO FINE

2 pcs hand taps, british standard fine / Tarauds à main, jeux de 2 pcs, filetage Whitworth fin
Juegos machos de mano, rosca inglesa Whitworth fina / Zweiteiliger Handgewindebohrer für britisch Standard Feingewinde

C.V. UNI 2709 ≃ DIN 2181

BSF

10012



	Ø	/	L	pcs	cod.	€ cad/each
BSF	**3/16** x 32	16	48	1	100123/16	4,845
	1/4 x 26	18	50	1	100121/4	5,222
	5/16 x 22	22	56	1	100125/16	5,576
	3/8 x 20	25	70	1	100123/8	6,330
	7/16 x 18	25	70	1	100127/16	7,440
	1/2 x 16	30	75	1	100121/2	9,224
	9/16 x 16	32	80	1	100129/16	10,422
	5/8 x 14	32	80	1	100125/8	12,140
	3/4 x 12	40	95	1	100123/4	16,520
	7/8 x 11	40	100	1	100127/8	20,354
	1” x 10	50	110	1	100121"	32,342

MASCHI A MANO SERIE 3 PEZZI, FILETTATURA AMERICANA A PASSO GROSSO UNC

3 pcs hand taps, UNC coarse pitch /Tarauds à main, jeux de 3 pieces, filetage UNC

Juego machos de mano, rosca americana UNC / Handgewindebohrer, amerikanisches Grossgewinde

C.V. ANSI B1.1

UNC

10020



Ø		/	L	pcs	cod.	€ cad/each
N° 5	x 40	18	50	1	10020N05	10,277
6	x 32	18	50	1	10020N06	10,277
8	x 32	18	50	1	10020N08	10,277
10	x 24	30	70	1	10020N10	10,277
12	x 24	30	70	1	10020N12	10,277
UNC 1/4	x 20	30	70	1	100201/4	10,277
5/16	x 18	30	70	1	100205/16	11,642
3/8	x 16	35	75	1	100203/8	12,795
7/16	x 14	40	80	1	100207/16	16,564
1/2	x 13	45	85	1	100201/2	21,553
9/16	x 12	45	90	1	100209/16	26,155
5/8	x 11	47	100	1	100205/8	30,356
3/4	x 10	50	110	1	100203/4	41,299
7/8	x 9	60	120	1	100207/8	49,629
1”	x 8	60	130	1	100201"	67,046
1.1/8	x 7	60	130	1	100201.1/8	115,348
1.1/4	x 7	60	130	1	100201.1/4	142,700
1.3/8	x 6	65	150	1	100201.3/8	200,263
1.1/2	x 6	65	150	1	100201.1/2	285,400

MASCHI A MANO SERIE DI 2 PEZZI, FILETTATURA AMERICANA A PASSO FINE UNF

2 pcs hand taps, UNF fine pitch / Tarauds à main, jeux de 2 pieces UNF

Juego machos de mano, rosca americana UNF / Handgewindebohrer, amerikanisches Feingewinde

C.V. ANSI B1.1

UNF

10025



Ø		/	L	pcs	cod.	€ cad/each
N° 5	x 44	11	36	1	10025N05	6,576
6	x 40	12	40	1	10025N06	6,576
8	x 36	12	40	1	10025N08	6,576
10	x 32	14	45	1	10025N10	6,576
12	x 28	14	50	1	10025N12	6,576
UNF 1/4	x 28	30	70	1	100251/4	6,576
5/16	x 24	30	70	1	100255/16	7,804
3/8	x 24	35	75	1	100253/8	8,482
7/16	x 20	40	80	1	100257/16	11,120
1/2	x 20	45	85	1	100251/2	14,402
9/16	x 18	45	90	1	100259/16	17,429
5/8	x 18	47	100	1	100255/8	20,245
3/4	x 16	50	110	1	100253/4	27,573
7/8	x 14	60	120	1	100257/8	38,182
1”	x 12	60	130	1	100251"	52,544
1.1/8	x 12	60	130	1	100251.1/8	89,305
1.1/4	x 12	60	130	1	100251.1/4	100,470
1.3/8	x 12	65	150	1	100251.3/8	131,912
1.1/2	x 12	65	150	1	100251.1/2	191,870

MASCHI CONICI PER TUBI, FILETTATURA CONICA AMERICANA NPT

NPT taper thread /Tarauds conique NPT / Tarauds conique NPT

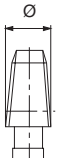
Macho rosca conica americana NPT / Einschnittgewindebohrer, amerikanisches kegeliges Rohrgewinde

C.V. ANSI B2.1

NPT

10032





Conicità 1:16
Taper 1:16

Ø		/	L	pcs	cod.	€ cad/each
NPT 1/8	x 27	19	54	1	100321/8	9,689
1/4	x 18	27	62	1	100321/4	14,558
3/8	x 18	27	65	1	100323/8	17,222
1/2	x 14	35	79	1	100321/2	20,945
3/4	x 14	35	83	1	100323/4	60,867
1”	x 11,5	44	95	1	100321"	88,127
1.1/4	x 11,5	44	102	1	100321.1/4	135,984
1.1/2	x 11,5	44	108	1	100321.1/2	198,576
2”	x 11,5	44	114	1	100322"	297,870

FILIERE TONDE AL CROMO, FILETTATURA METRICA ISO

C.V. round dies, metric thread / Filière ronde, filetage metrique
Cojinetes redondos C.V., rosca metrica / Runde Schneideisen C.V., metrisches ISO Gewinde

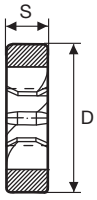
C.V. UNI 4535 ≃ DIN 223

Metrica passo grosso Metric coarse pitch-Pas gros metrique
Rosca metrica larga-Metrisches grossgewinde

M

12001

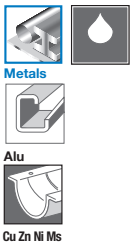




HRC ≃ 60÷61

Art. **12002** Self
Disponibile su richiesta
On demand

Applicazioni / Applications



R ≤ 600 N/mm²



Ø	DxS	pcs	cod.	€ cad/each
M 2 x 0,4	25,4 x 9	5	12001202X04	8,063
3 x 0,5	25,4 x 9	5	12001203X05	5,738
4 x 0,7	25,4 x 9	5	12001204X07	5,738
5 x 0,8	25,4 x 9	5	12001205X08	4,859
6 x 1	25,4 x 9	5	12001206X1	4,859
6 x 1	**38,1** x 14	5	12001306X1	4,980
7 x 1	25,4 x 9	5	12001207X1	4,859
8 x 1,25	25,4 x 9	5	12001208X125	5,009
8 x 1,25	**38,1** x 14	5	12001308X125	4,859
9 x 1,25	25,4 x 9	5	12001209X125	4,859
10 x 1,5	25,4 x 9	5	12001210X15	4,859
10 x 1,5	**38,1** x 14	5	12001310X15	6,955
11 x 1,5	**38,1** x 14	5	12001311X15	6,955
12 x 1,75	25,4 x 9	5	12001212X175	4,859
12 x 1,75	**38,1** x 14	5	12001312X175	6,955
14 x 2	**38,1** x 14	5	12001314X2	6,955
16 x 2	**38,1** x 14	5	12001316X2	6,955
16 x 2	50,8 x 16	3	12001516X2	8,042
18 x 2,5	**38,1** x 14	5	12001318X25	9,180
18 x 2,5	50,8 x 16	3	12001518X25	13,171
20 x 2,5	**38,1** x 14	5	12001320X25	9,180
20 x 2,5	50,8 x 16	3	12001520X25	13,591
22 x 2,5	50,8 x 16	3	12001522X25	14,678
24 x 3	50,8 x 16	3	12001524X3	14,937
27 x 3	63,5 x 19	1	12001627X3	42,269
30 x 3,5	63,5 x 19	1	12001630X35	42,269
33 x 3,5	63,5 x 19	1	12001633X35	50,729
36 x 4	63,5 x 19	1	12001636X4	50,729

C.V. UNI 4535 ≃ DIN 223

Metrica passo fine Metric fine - Metrique fin
Metrica fina - ISO Feingewinde

MF

12005



Ø	DxS	pcs	cod.	€ cad/each
MF 6 x 0,75	**25,4** x 9	5	12005206X075	5,867
7 x 0,75	25,4 x 9	5	12005207X075	5,867
8 x 0,75	25,4 x 9	5	12005208X075	5,867
8 x 1	25,4 x 9	5	12005208X1	5,867
9 x 0,75	25,4 x 9	5	12005209X075	5,867
9 x 1	25,4 x 9	5	12005209X1	5,867
10 x 1,25	25,4 x 9	5	12005210X125	5,867
12 x 1,5	25,4 x 9	5	12005212X15	5,867
10 x 0,75	**38,1** x 14	5	12005310X075	8,771
10 x 1	38,1 x 14	5	12005310X1	8,771
10 x 1,25	38,1 x 14	5	12005310X125	8,771
11 x 0,75	38,1 x 14	5	12005311X075	8,771
11 x 1	38,1 x 14	5	12005311X1	8,771
11 x 1,25	38,1 x 14	5	12005311X125	8,771
12 x 0,75	38,1 x 14	5	12005312X075	8,771
12 x 1	38,1 x 14	5	12005312X1	8,771
12 x 1,25	38,1 x 14	5	12005312X125	8,771
12 x 1,5	38,1 x 14	5	12005312X15	8,771
14 x 1	38,1 x 14	5	12005314X1	8,771
14 x 1,25	38,1 x 14	5	12005314X125	8,771
14 x 1,5	38,1 x 14	5	12005314X15	8,771
16 x 1	38,1 x 14	5	12005316X1	8,771
16 x 1,5	38,1 x 14	5	12005316X15	8,771
18 x 1,5	38,1 x 14	5	12005318X15	8,771
18 x 2	38,1 x 14	5	12005318X2	8,771
18 x 1,5	**50,8** x 16	3	12005518X15	17,213
18 x 2	50,8 x 16	3	12005518X2	17,213
20 x 1,5	50,8 x 16	3	12005520X15	17,701
20 x 2	50,8 x 16	3	12005520X2	17,701
22 x 1,5	50,8 x 16	3	12005522X15	18,191
22 x 2	50,8 x 16	3	12005522X2	18,191
24 x 1,5	50,8 x 16	3	12005524X15	18,449
24 x 2	50,8 x 16	3	12005524X2	18,449
27 x 1,5	**63,5** x 19	1	12005627X15	41,470
27 x 2	63,5 x 19	1	12005627X2	41,470
30 x 1,5	63,5 x 19	1	12005630X15	41,470
30 x 2	63,5 x 19	1	12005630X2	41,470
30 x 3	63,5 x 19	1	12005630X3	41,470

Confezione / Packaging



FILIERE TONDE, FILETTATURA GAS CILINDRICA PER TUBI BSP

Round dies, cylindrical BSP thread / Filières rondes, filetage gaz cylindrique
Cojinetes redondos, rosca gas BSP / Runde handschneideisen für zylindrisches Rohrgewinde

C.V. ≃ DIN 223 (EN 24231)

GAS (BSP)

12015



	Ø	DxS	pcs	cod.	€ cad/each
G	**1/8** x 28	38,1 x 14	5	1201531/8	7,434
	1/4 x 19	38,1 x 14	5	1201531/4	7,434
	3/8 x 19	38,1 x 14	5	1201533/8	7,434
	3/8 x 19	50,8 x 16	3	1201553/8	15,686
	1/2 x 14	50,8 x 16	3	1201551/2	15,686
	3/4 x 14	50,8 x 16	3	1201553/4	15,686
	1” x 11	63,5 x 19	1	1201561”	34,010
	1.1/4 x 11	75 x 20	1	1201571.1/4	64,760
	1.1/2 x 11	75 x 20	1	1201571.1/2	64,760
	2” x 11	90 x 36	1	1201592”	197,500

R ≤ 600 N/mm²



FILIERE TONDE, FILETTATURA GAS CONICA PER TUBI BSPT (CON 1:16)

Round dies, BSPT taper thread (taper 1:16) /Filières rondes, filetage gaz conique BSPT (cône 1 :16)
Cojinetes redondos, rosca conica gas BSPT / Runde Hand-und Maschinen-Schneideisen für Kegeliges Rohrgewinde; Reihe R

C.V. ≃ DIN 223 (EN 24230)

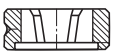
BSPT

12017



	Ø	DxS	pcs	cod.	€ cad/each
Rc	**1/8** x 28	30 x 11	1	1201731/8	31,102
	1/4 x 19	38 x 14	1	1201731/4	31,102
	3/8 x 19	45 x 18	1	1201743/8	31,102
	1/2 x 14	45 x 18	1	1201741/2	56,039
	3/4 x 14	55 x 22	1	1201753/4	56,039
	1” x 11	65 x 25	1	1201761”	68,580
	1.1/4 x 11	75 x 30	1	1201771.1/4	166,208
	1.1/2 x 11	90 x 27	1	1201791.1/2	166,208
	2” x 11	105 x 28	1	1201712”	344,279

BSPT
Conicità 1:16
Taper 1:16



FILIERE TONDE, FILETTATURA INGLESE WHITWORTH BSW

Round dies, Whitworth thread / Filières rondes, filetage Whitworth
Cojinetes redondos, rosca Whitworth / Runde Schneideisen für britisch standard Whitworth B.1

C.V. ≈ DIN 223 (EN 22568)

BSW

12010



	Ø	DxS	pcs	cod.	€ cad/each
BSW	**1/8** x 40	25,4 x 9	5	1201021/8	7,015
	5/32 x 32	25,4 x 9	5	1201025/32	6,696
	3/16 x 24	25,4 x 9	5	1201023/16	6,696
	1/4 x 20	25,4 x 9	5	1201021/4	7,015
	5/16 x 18	25,4 x 9	5	1201025/16	7,015
	3/8 x 16	38,1 x 14	5	1201033/8	8,063
	7/16 x 14	38,1 x 14	5	1201037/16	8,063
	1/2 x 12	38,1 x 14	5	1201031/2	8,063
	9/16 x 12	38,1 x 14	5	1201039/16	8,063
	5/8 x 11	50,8 x 16	3	1201055/8	14,798
	3/4 x 10	50,8 x 16	3	1201053/4	14,798
	7/8 x 9	50,8 x 16	3	1201057/8	18,116
	1” x 8	50,8 x 16	3	1201051"	18,116
	1.1/8 x 7	63,5 x 19	1	1201061.1/8	43,376
	1.1/4 x 7	63,5 x 19	1	1201061.1/4	43,376
	1.3/8 x 6	63,5 x 19	1	1201061.3/8	43,376
	1.1/2 x 6	63,5 x 19	1	1201061.1/2	43,376
	1.3/4 x 5	90 x 36	1	1201091.3/4	187,790
	2” x 4,5	90 x 36	1	1201092"	187,790

R ≤ 600 N/mm²



FILIERE TONDE, FILETTATURA INGLESE WHITWORTH A PASSO FINE BSF

2 pcs hand taps, british standard fine / Tarauds à main, jeux de 2 pcs, filetage Whitworth fin
Juegos machos de mano, rosca inglesa Whitworth fina / Zweiteiliger Handgewindebohrer für britisch Standard Feingewinde

C.V. ≈ DIN 223 (EN 22568)

BSF

12012



	Ø	DxS	pcs	cod.	€ cad/each
BSF	**3/16** x 32	25,4 x 9	5	1201223/16	7,015
	1/4 x 26	25,4 x 9	5	1201221/4	7,015
	5/16 x 22	25,4 x 9	5	1201225/16	7,015
	3/8 x 20	38,1 x 14	5	1201233/8	8,063
	7/16 x 18	38,1 x 14	5	1201237/16	8,063
	1/2 x 16	38,1 x 14	5	1201231/2	8,063
	9/16 x 16	38,1 x 14	5	1201239/16	8,063
	5/8 x 14	50,8 x 16	3	1201255/8	14,798
	3/4 x 12	50,8 x 16	3	1201253/4	14,798
	7/8 x 11	50,8 x 16	3	1201257/8	18,116
	1” x 10	50,8 x 16	3	1201251"	18,116

FILIERE TONDE, FILETTATURA AMERICANA A PASSO GROSSO UNC

Round dies, UNC coarse thread / Filières rondes, filetage UNC
Cojinetes redondos, rosca UNC / Runde Schneideisen, amerikanisches grosse Gewinde

C.V. ≃ DIN 223 (EN 22568)

UNC

12020



$R \leq 600\ N/mm^2$



Metals Alu Cu Zn Ni Ms Metals

	Ø	DxS	pcs	cod.	€ cad/each
N° 5	x 40	25,4 x 9	5	12020N05	6,565
6	x 32	25,4 x 9	5	12020N06	6,565
8	x 32	25,4 x 9	5	12020N08	6,565
10	x 24	25,4 x 9	5	12020N10	6,565
12	x 24	25,4 x 9	5	12020N12	6,565
UNC 1/4	x 20	25,4 x 9	5	1202021/4	6,565
5/16	x 18	25,4 x 9	5	1202025/16	6,565
3/8	x 16	38,1 x 14	5	1202033/8	9,111
7/16	x 14	38,1 x 14	5	1202037/16	9,111
1/2	x 13	38,1 x 14	5	1202031/2	9,111
9/16	x 12	38,1 x 14	5	1202039/16	9,111
5/8	x 11	50,8 x 16	3	1202055/8	19,957
3/4	x 10	50,8 x 16	3	1202053/4	19,957
7/8	x 9	50,8 x 16	3	1202057/8	21,065
1"	x 8	50,8 x 16	3	1202051"	21,065
1.1/8	x 7	63,5 x 19	1	1202061.1/8	56,926
1.1/4	x 7	63,5 x 19	1	1202061.1/4	56,926
1.3/8	x 6	63,5 x 19	1	1202061.3/8	56,926
1.1/2	x 6	63,5 x 19	1	1202061.1/2	56,926

FILIERE TONDE, FILETTATURA AMERICANA A PASSO FINE UNF

Round dies, UNF fine thread / Filières rondes, filetage UNF
Cojinetes redondos, rosca UNF / Runde Schneideisen, americanisches Feingewinde

C.V. ≃ DIN 223 (EN 22568)

UNF

12025



	Ø	DxS	pcs	cod.	€ cad/each
N° 5	x 44	25,4 x 9	5	12025N05	6,895
6	x 40	25,4 x 9	5	12025N06	6,895
8	x 36	25,4 x 9	5	12025N08	6,895
10	x 32	25,4 x 9	5	12025N10	6,895
12	x 28	25,4 x 9	5	12025N12	6,895
UNF 1/4	x 28	25,4 x 9	5	1202521/4	6,895
5/16	x 24	25,4 x 9	5	1202525/16	6,895
3/8	x 24	38,1 x 14	5	1202533/8	9,779
7/16	x 20	38,1 x 14	5	1202537/16	9,779
1/2	x 20	38,1 x 14	5	1202531/2	9,779
9/16	x 18	38,1 x 14	5	1202539/16	9,779
5/8	x 18	50,8 x 16	3	1202555/8	21,164
3/4	x 16	50,8 x 16	3	1202553/4	21,164
7/8	x 14	50,8 x 16	3	1202557/8	22,339
1"	x 12	50,8 x 16	3	1202551"	22,339
1.1/8	x 12	63,5 x 19	1	1202561.1/8	58,952
1.1/4	x 12	63,5 x 19	1	1202561.1/4	58,952
1.3/8	x 12	63,5 x 19	1	1202561.3/8	58,952
1.1/2	x 12	63,5 x 19	1	1202561.1/2	58,952

FILIERE TONDE, FILETTATURA CONICA AMERICANA PER TUBI NPT ANSI B 2.1

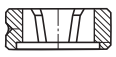
Round dies, NPT taper thread / Filières rondes, filetage conique NPT
Cojinetes redondos, rosca conica NPT / Runde handschneideisen, amerikanisches kegeliges Rohrgewinde NPT

C.V. ≃ DIN 223 (EN 22568)

NPT

12032





NPT
Conicità 1:16
Taper 1:16

	Ø	DxS	pcs	cod.	€ cad/each
1/8	x 27	30 x 11	1	1203231/8	31,102
1/4	x 18	38 x 14	1	1203231/4	31,102
3/8	x 18	45 x 18	1	1203243/8	31,102
1/2	x 14	45 x 18	1	1203241/2	56,039
3/4	x 14	55 x 22	1	1203253/4	56,039
1"	x 11-1/2	65 x 25	1	1203261"	68,511
1.1/4	x 11-1/2	75 x 26	1	1203271.1/4	116,555
1.1/2	x 11-1/2	90 x 27	1	1203291.1/2	116,555
2"	x 11-1/2	105 x 28	1	1203212"	412,270

GIRAMASCHI ESTENSIBILI, MODELLO AMERICANO

Adjustable tap wrenches / Tourne à gauche extensible
Giramachos ayustables /Verstellbare Windeisen

DIN 1814 ***Lega Leggera - Zinc die-cast / Alliage de zinc / Aleacione ligera / Körper aus Zinkdruckguss***

15001



Gr. N.	Per maschi *for taps* M	BSW-UNC-UNF	BSP-NPT	L	cod.	€ cad/each
0	1 ÷ 8	1/16 ÷ 1/4		130	1500100	10,277
1	1 ÷ 10	1/16 ÷ 3/8	1/8	180	1500101	11,031
1.1/2	1 ÷ 12	1/16 ÷ 1/2	1/8	180	1500101.1/2	12,716
2	4 ÷ 12	5/32 ÷ 1/2	1/8	280	1500102	17,750
3	5 ÷ 20	7/32 ÷ 3/4	1/8 ÷ 1/2	380	1500103	27,340
4	11 ÷ 27	7/16 ÷ 1"	1/4 ÷ 3/4	500	1500104	43,172
5	13 ÷ 32	1/2 ÷ 1.1/4	1/4 ÷ 1"	700	1500105	88,740
***6**	18 ÷ 42	3/4 ÷ 1.1/2	1/2 ÷ 1.1/4	780	1500106	194,021
***7**	25 ÷ 52	1" ÷ 2.1/8	3/4 ÷ 2.1/4	800	1500107	211,051
***8**	25 ÷ 64	1" ÷ 2.1/2	3/4 ÷ 3"	1200	1500108	473,666

* corpo in acciaio / *steel*

Art. **15002** Self
Disponibile su richiesta
On demand

DIN 1814 **Acciaio / *Steel / Acier / Acero / Stahl-Ausführung***

15003



Gr. N.	Per maschi *for taps* M	BSW-UNC-UNF	BSP-NPT	L	cod.	€ cad/each
0	1 ÷ 8	1/16 ÷ 1/4		170	1500300	16,786
1	1 ÷ 10	1/16 ÷ 3/8	1/8	200	1500301	17,984
1.1/2	1 ÷ 12	1/16 ÷ 1/2	1/8	200	1500301.1/2	20,389
2	4 ÷ 12	5/32 ÷ 1/2	1/8	260	1500302	26,387
3	5 ÷ 20	7/32 ÷ 3/4	1/8÷ 1/2	345	1500303	43,172
4	11 ÷ 27	7/16 ÷ 1"	1/4÷ 3/4	430	1500304	69,549
5	13 ÷ 32	1/2 ÷ 1.1/4	1/4÷ 1"	770	1500305	110,326
6	18 ÷ 42	3/4 ÷ 1.1/2	1/2÷ 1.1/4	870	1500306	205,108
7	25 ÷ 52	1"÷ 2.1/8	3/4÷ 2.1/4	1000	1500307	219,521
8	25 ÷ 64	1"÷ 2.1/2	3/4÷ 3"	1200	1500308	473,666

GIRAMASCHI FISSI A SFERA

Ball tap wrenches / Porte-tarauds / Giramacho fixo / Kugelwindeisen



15013

Gr. N.	Per maschi *for taps* M	L	cod.	€ cad/each
0	1 ÷ 4	200	1501300	12,938
1	3,5 ÷ 8	200	1501301	12,938
3	5 ÷ 12	200	1501303	23,980
4	10 ÷ 16	200	1501304	31,653
5	12 ÷ 20	200	1501305	37,563
6	18 ÷ 27	200	1501306	74,137

GIRAMASCHI A CRICCHETTO REVERSIBILE

Tap holder with ratchet / Porte-tarauds à cliquet / Giramachos de carraca / Werkzeugehalter mit knarre

15010
15011



Acciaio / *Steel*

Art. **15012** Self
Disponibile su richiesta
On demand

Art. 15010 Serie corta - *Short serie*

Gr. N.	Per maschi *for taps* M	BSW	L	pcs	cod.	€ cad/each
1	3 ÷ 10	1/8 ÷ 3/8	85	1	1501001	16,098
2	5 ÷ 12	7/32 ÷ 1/2	100	1	1501002	19,391

Art. 15011 Serie lunga - *Long serie*

Gr. N.	Per maschi *for taps* M	BSW	L	pcs	cod.	€ cad/each
1	3 ÷ 10	1/8 ÷ 3/8	250	1	1501101	23,072
2	5 ÷ 12	7/32 ÷ 1/2	300	1	1501102	29,037

		cod.	€ cad/each
Griffe per / *Jaws for*	1501001 - 1501101	1501110	1,675
Griffe per / *Jaws for*	1501002 - 1501102	1501112	2,095

GIRAMASCHI A MANDRINO TIPO GOODEL

Goodel tap holder without ratchet / Porte-tarauds goodel sans cliquet / Giramachos goodel sin carraca / Werkzeugehalter ohne knarre

15005
15006



Art. **15007** Self
Disponibile su richiesta
On demand

Art. 15005 Serie corta - *Short serie*

Gr. N.	Per maschi *for taps* M	BSW	L	pcs	cod.	€ cad/each
1	3 ÷ 5	1/8 ÷ 3/16	62	1	1500501	7,029
2	6 ÷ 8	1/4 ÷ 3/8	78	1	1500502	8,936
3	9 ÷ 10	3/8	102	1	1500503	11,908
4	10 ÷ 12	3/8 ÷ 1/2	102	1	1500504	17,507

Art. 15006 Serie lunga - *Long serie*

Gr. N.	Per maschi *for taps* M	BSW	L	pcs	cod.	€ cad/each
1	3 ÷ 5	1/8 ÷ 3/16	150	1	1500601	12,285
2	6 ÷ 8	1/4 ÷ 3/8	150	1	1500602	14,634
3	9 ÷ 10	3/8	150	1	1500603	20,089
4	10 ÷ 12	3/8 ÷ 1/2	150	1	1500604	28,782

PROLUNGA PER MASCHI *Tap extension / Rallong pour tarauds / Prolungador para machos / Verlängerung für Gewindebohrer*

10098



Quadro Square (mm)	L	Per maschi for taps DIN 352	cod.	€ cad/each	Quadro Square (mm)	L	Per maschi for taps DIN 352	cod.	€ cad/each
2.1		M 1-2.6	10098021	6,596	**10.0**	140		10098100	20,599
2.4			10098024	6,596	**11.0**	150	M 18	10098110	25,090
2.7		M 3	10098027	6,596	**12.0**	155	M 20	10098120	32,741
3.0		M 3.5	10098030	6,596	**13.0**	165		10098130	36,941
3.4		M 4	10098034	6,596	**14.5**	175	M 22-24	10098145	44,868
3.8			10098038	7,905	**16.0**	180	M 27	10098160	47,496
4.3			10098043	9,502	**18.0**	200	M 30	10098180	55,424
4.9		M 4.5-8	10098049	7,394	**20.0**	220	M 33	10098200	71,267
5.5		M 9-10	10098055	8,448	**22.0**	220	M 36	10098220	100,725
6.2		M 11	10098062	9,246	**24.0**	235	M39-42	10098240	129,506
7.0		M 12	10098070	11,353	**26.0**	250		10098260	165,483
8.0			10098080	14,257	**29.0**	265	M45-48	10098290	195,463
9.0		M 14-16	10098090	15,565	**32.0**	285	M52	10098320	274,611

PORTAFILIERE PER FILIERE TONDE

Round-die stock / Porte filières à main / Manerales para cojinetes / Schneideisenhalter

DIN 225 (EN 22568) *Lega Leggera / Zinc die-cast / Alliage de zinc / Aleacione ligera / Körper aus Zinkdruckguss*

15030
15035



Art. **15031** Inches Self
Art. **15036** Metric Self
Disponibile su richiesta
On demand

Art. 15030 In pollici - *Inch*

Gr. N.	Ø mm	Ø pollici/inch	L mm	pcs	cod.	€ cad/each
0	20,6 x 6,35	13/16 x 1/4	185	1	1503000	8,038
1	25,4 x 9,5	1" x 3/8	215	1	1503001	8,392
2/A	33,4 x 11,1	1.5/16 x 7/16	265	1	1503002/A	14,634
2	38,1 x 12,7	1.1/2 x 1/2	310	1	1503002	14,634
3	50,8 x 15,9	2" x 5/8	485	1	1503003	30,578
4	63,5 x 19	2.1/2 x 3/4	630	1	1503004	47,364
***5**	76,2 x 22	3" x 7/8	700	1	1503005	115,116
***6**	88,9 x 25,4	3.1/2 x 1"	940	1	1503006	210,453
***7**	101,6 x 25,4	4" x 1"	980	1	1503007	659,672

*** acciaio / steel**

Art. 15035 Per filiere DIN 223 - *For dies DIN 223*

Gr.	M	BSW-BSP	L	pcs	cod.	€ cad/each
16 x 5	M 1 ÷ 2,6	W 1/16 ÷ 3/32	160	1	1503516X5	7,073
20 x 5	M 3 ÷ 4	W 1/8 ÷ 5/32	185	1	1503520X5	7,440
20 x 7	M 4,5 ÷ 6	W 3/16 ÷ 1/4	185	1	1503520X7	7,440
25 x 9	M 7 ÷ 9	W 5/16	215	1	1503525X9	8,038
30 x 11	M 10 ÷ 11	W 3/8 ÷ 7/16	265	1	1503530X11	12,473
38 x 10	MF 12 ÷ 14	G 1/8 ÷ 1/4	315	1	1503538X10	13,792
38 x 14	M 12 ÷ 14	W 1/2 ÷ 9/16	315	1	1503538X14	13,792
45 x 14	MF 16 ÷ 20	G 3/8 ÷ 1/2	450	1	1503545X14	21,830
45 x 18	M 16 ÷ 20	W 5/8 ÷ 13/16	450	1	1503545X18	21,830
55 x 16	MF 22 ÷ 24	G 5/8 ÷ 3/4	560	1	1503555X16	33,582
55 x 22	M 22 ÷ 24	W 7/8 ÷ 1"	560	1	1503555X22	33,582
65 x 18	MF 26 ÷ 35	G 7/8 ÷ 1"	630	1	1503565X18	48,206
65 x 25	M 27 ÷ 36	W 1"1/8 ÷ 1"3/8	630	1	1503565X25	48,206
***75 x 20**	MF 38 ÷ 42	G 1"1/8 ÷ 1"1/4	710	1	1503575X20	115,116
***75 x 30**	M 39 ÷ 42	W 1"1/2 ÷ 1"5/8	710	1	1503575X30	123,408
***90 x 22**	MF 45 ÷ 52	G 1"3/8 ÷ 1"3/4	920	1	1503590X22	229,588
***90 x 36**	M 45 ÷ 52	W 1"3/4 ÷ 2"	920	1	1503590X36	229,588

*** acciaio / steel**

DIN 225 (EN 22568) **Acciaio / *Steel / Acier / Acero / Stahl-Ausführung***

15032
15037



Art. 15032 In pollici - *Inch*

Gr. N.	Ø mm	Ø pollici/inch	L mm	pcs	cod.	€ cad/each
1	25,4 x 9,5	1" x 3/8	210	1	1503201	20,988
2	38,1 x 12,7	1"1/2 x 1/2	300	1	1503202	25,477
3	50,8 x 15,9	2" x 5/8	490	1	1503203	38,970
4	63,5 x 19	2.1/2 x 3/4	520	1	1503204	66,522
5	76,2 x 22	3" x 7/8	700	1	1503205	127,500
6	88,9 x 25,4	3.1/2 x 1"	950	1	1503206	240,586
7	101,6 x 25,4	4" x 1"	890	1	1503207	725,085

Art. 15037 Per filiere DIN 223 - *For dies DIN 223*

Gr.	M	BSW-BSP	L	pcs	cod.	€ cad/each
16 x 5	M 1 ÷ 2,6	W 1/16 ÷ 3/32	160	1	1503716X5	14,390
20 x 5	M 3 ÷ 4	W 1/8 ÷ 5/32	190	1	1503720X5	17,273
20 x 7	M 4,5 ÷ 6	W 3/16 ÷ 1/4	190	1	1503720X7	17,273
25 x 9	M 7 ÷ 9	W 5/16	215	1	1503725X9	20,145
30 x 11	M 10 ÷ 11	W 3/8 ÷ 7/16	250	1	1503730X11	20,145
38 x 10	MF 12 ÷ 14	G 1/8 ÷ 1/4	310	1	1503738X10	23,028
38 x 14	M 12 ÷ 14	W 1/2 ÷ 9/16	310	1	1503738X14	23,028
45 x 14	MF 16 ÷ 20	G 3/8 ÷ 1/2	445	1	1503745X14	30,223
45 x 18	M 16 ÷ 20	W 5/8 ÷ 13/16	445	1	1503745X18	30,223
55 x 16	MF 22 ÷ 24	G 5/8 ÷ 3/4	495	1	1503755X16	37,418
55 x 22	M 22 ÷ 24	W 7/8 ÷ 1"	495	1	1503755X22	37,418
65 x 18	MF 26 ÷ 35	G 7/8 ÷ 1"	550	1	1503765X18	67,630
65 x 25	M 27 ÷ 36	W1.1/8 ÷ 1"3/8	550	1	1503765X25	67,630
75 x 20	MF 38 ÷ 42	G1.1/8 ÷ 1"1/4	735	1	1503775X20	127,954
75 x 30	M 39 ÷ 42	W1.1/2 ÷ 1"5/8	735	1	1503775X30	127,954
90 x 22	MF 45 ÷ 52	G1.3/8 ÷ 1"3/4	900	1	1503790X22	238,879
90 x 36	M 45 ÷ 52	W1.3/4 ÷ 2"	900	1	1503790X36	238,879
105 x 22	MF 54 ÷ 65	G 2" ÷ 2"1/4	980	1	15037105X22	364,605
105 x 36	M 56 ÷ 64	W 2" ÷ 2"1/4	980	1	15037105X36	364,605
120 x 22	MF 64 ÷ 71	G2.1/4 ÷ 2.3/4	960	1	15037120X22	942,943
120 x 36	M 64 ÷ 71	BSW 2.1/2 ÷ 2.3/4	960	1	15037120X36	942,943
130 x 25		G3"	960	1	15037130X25	1311,738
130 x 36			960	1	15037130X36	1311,738
140 x 22			980	1	15037140X22	1647,006
150 x 25		G3.1/2	1000	1	15037150X25	1873,313
160 x 25		G4"	1000	1	15037160X25	2568,995

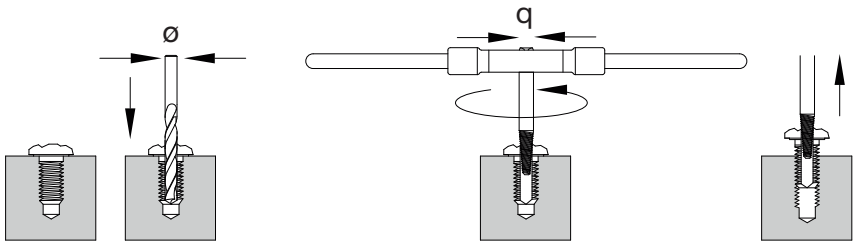
ESTRATTORI DI VITI E PRIGIONIERI IN ACCIAIO LEGATO

Screw extractors / Extracteur de vis
Extractores de tornillos / Schraubenausdreher

10065



Gr. N.	Viti *Screws*	ø	q	Giramaschi n. *Tap wrench n.*	pcs	cod.	€ cad/each
1	M 3 ÷ 6	3 ÷ 4	3	0-1-1.1/2	1	1006501	1,629
2	M 6 ÷ 8	4 ÷4,5	3,6	0-1-1.1/2	1	1006502	1,629
3	M 8 ÷ 11	5,5÷ 6	5,5	1-1.1/2	1	1006503	1,919
4	M 11 ÷ 14	6 ÷6,5	6,3	2-3-4	1	1006504	2,329
5	M 14 ÷ 18	9 ÷10	8,6	3-4-5	1	1006505	3,082
6	M 18 ÷ 24	12 ÷13	12	3-4-5-6	1	1006506	4,290
7	M 24 ÷ 33	14 ÷16	15	4-5-6	1	1006507	8,571
8	M 33 ÷ 50	20 ÷22	19	4-5-6	1	1006508	11,796



SERIE DI ESTRATTORI IN ASTUCCIO DI PLASTICA

Screw extractors sets in plastic cases / Jeux de extracteurs de vis
Juego de extractores de tornillos en estucho plastico / Schraubenausdreher – sätze in Kunststoffkassette

10067



cod.	Composizione *Description*	pcs	€ cad/each
10067101	5 pcs Ø 1÷5	1	10,433
10067102	6 pcs Ø 1÷6	1	14,990
10067103	8 pcs Ø 1÷8	1	34,780

CONTAFILETTI PER FILETTI METRICI ISO 60°-WH 55°

Screw pitch gauge ISO 60°-Wh 55° /Jeux de filetage - ISO 60°-Wh 55°
Cuentahilos - ISO 60°-Wh 55° / Gewindeschablonen ISO 60°-Wh 55°

41003



cod.	Composizione *Description*	pcs	€ cad/each
410031251	52 pcs M 0,25 ÷ 6 Wh 62 ÷ 4"	1	16,186
410031261	12 pcs M 0,5 ÷ 1,75	1	8,410

ESPOSITORE MAGAZZENO GIRAUTENSILI

Tool holders display / Assortiment de porte outils
Expositor de giramachos y manerales / Haltewerkzeuge Satz



DIN 1814 | **Lega leggera**
DIN 225 | ***zinc die-cast***

17001100 40 pcs | € 611,577

15001	15005	15006	15010	15030
GR. 1 6 pcs	GR. 1 3 pcs	GR. 1 2 pcs	GR. 1 2 pcs	Ø 25,4 6 pcs
GR. 2 6 pcs	GR. 2 2 pcs	GR. 2 2 pcs	GR. 2 2 pcs	Ø 38,1 4 pcs
GR. 3 3 pcs				Ø 50,8 2 pcs



DIN 1814 | **Lega leggera**
DIN 225 | ***zinc die-cast***

17001104 51 pcs | € 845,412

15001	15010	15011	15035	
GR. 1 6 pcs	GR. 1 2 pcs	GR. 1 2 pcs	16 x 5 2 pcs	38 x 14 4 pcs
GR. 2 5 pcs	GR. 2 2 pcs	GR. 2 2 pcs	20 x 5 2 pcs	45 x 14 2 pcs
GR. 3 2 pcs			20 x 7 2 pcs	45 x 18 1 pc
GR. 4 1 pc			25 x 9 6 pcs	55 x 16 1 pc
			30 x 11 6 pcs	55 x 22 1 pc
			38 x 10 2 pcs	



DIN 1814 | **In acciaio**
DIN 225 | ***forged steel***

17001108 51 pcs | € 1283,101

15003	15010	15011	15037	
GR. 1 6 pcs	GR. 1 2 pcs	GR. 1 2 pcs	16 x 5 2 pcs	38 x 14 4 pcs
GR. 2 5 pcs	GR. 2 2 pcs	GR. 2 2 pcs	20 x 5 2 pcs	45 x 14 2 pcs
GR. 3 2 pcs			20 x 7 2 pcs	45 x 18 1 pc
GR. 4 1 pc			25 x 9 6 pcs	55 x 16 1 pc
			30 x 11 6 pcs	55 x 22 1 pc
			38 x 10 2 pcs	

ASSORTIMENTI A FILETTARE IN VALIGETTA DI PLASTICA RIGIDA

C.V. threading sets in blow-mould cases / Assortiments à fileter en acier au chrome en coffret plastique
Juego de utensilios a roscar en caja de plastico / Gewindeschneidwerkzeugesätze in Kunststoffkassette

C.V.

Coperchio trasparente
Transparent lid



17008201



17008203

Cod.	€ cad/each	3 pcs	25.4	N°1.1/2
17008201 M3÷12 7 passi *threads*	88,497	M 3-4-5-6 8-10-12		25,4

Cod.	€ cad/each	1 pc	25.4	N°1.1/2
17008203 M+MF 3÷12 30 *pcs* 11 passi *threads*	107,920	M 3x0,5-4x0,7 5x0,8-6x1-7x1 8x1-8x1,25 10x1,25-10x1,5 12x1,5-12x1,75		25,4 1 contafiletti - *pitch gauge* 2,5-3,3-4,2-5-6,8

Astucci metallo / *metal case*



17005401



17005402

Cod.	€ cad/each	3 pcs	
17005401 M 3÷12 21 *pcs*	48,560	M 3-4-5-6 8-10-12	

Cod.	€ cad/each	3 pcs	N°1.1/2
17005402 M 3÷12 29 *pcs*	75,546	M 3-4-5-6 8-10-12	2,5-3,3-4,2-5-6,8 8,5-10,25

Abs



17005404

Cod.	€ cad/each	1 pc	N°1.1/2
17005404 M3÷12	43,410	M3-4-5-6-8-10-12	2,5-3,3-4,2-5-6,8 8,5-10,25

ASSORTIMENTI A FILETTARE IN CASSETTE DI LEGNO

C.V. threading sets in wooden cases / Assortiments à fileter en acier au chrome en coffrets de bois
Juegos de utensilios a roscar en caja de madera / Gewindeschneideisenwerkzeugesätze in Holzkassette

C.V.

METRIC



Cod.	€ cad/each	3 pcs 25,4	N°1
17012530 M3÷10 6 passi *threads*	157,090	M 3-4-5 6-8-10	25,4
Cod.	**€ cad/each**	**3 pcs 25,4**	**N°1**
17012531 M3÷10 8 passi *threads*	185,873	M 3-4-5-6 7-8-9-10	25,4



Cod.	€ cad/each	3 pcs 25,4	N°1.1/2
17012532 M3÷12 7 passi *threads*	189,464	M 3-4-5 6-8-10-12	25,4
Cod.	**€ cad/each**	**3 pcs 25,4(7) 38,1(3)**	**N°1-2**
17012533 M3÷12 10 passi *threads*	275,809	M 3-4-5-6 7-8-9-10 11-12	25,4 - 38,1
Cod.	**€ cad/each**	**2 pcs 25,4(7) 38,1(5)**	**N°0-2**
17012543 M+MF 3÷12 12 passi *threads*	305,788	3x0.5-4x0,7-5x0,8 6x1-7x1-8x1-8x1,25 10x1,25-10x1,5-12x1,25 12x1,5-12x1,75	25,4 - 38,1 N°1



Cod.	€ cad/each	3 pcs 25,4(5) 38,1(5)	N°1-3
17012534 M3÷18 10 passi *threads*	357,353	M 3-4-5 6-8-10-12 14-16-18	25,4 - 38,1
Cod.	**€ cad/each**	**3 pcs 25,4(5) 38,1(6)**	**N°1-3**
17012535 M3÷20 11 passi *threads*	418,510	M 3-4-5 6-8-10-12 14-16-18-20	25,4 - 38,1

ASSORTIMENTI A FILETTARE IN CASSETTE DI LEGNO

C.V. threading sets in wooden cases / Assortiments à fileter en acier au chrome en coffrets de bois
Juegos de utensilios a roscar en caja de madera / Gewindeschneideisenwerkzeugesätze in Holzkassette

C.V.



METRIC

Cod.	€ cad/each	3 pcs	N°2-4
17012536 M6÷24 10 passi *threads*	509,644	M 6-8-10-12 14-16-18 20-22-24	38,1-50,8
Cod.	**€ cad/each**	**3 pcs**	**N°1-2-4**
17012537 M3÷24 13 passi *threads*	545,621	M 3-4-5-6-8 10-12-14 16-18-20 22-24	25,4-38,1-50,8



Cod.	€ cad/each	3 pcs	N°1-3-5
17012538 M3÷30 15 passi *threads*	1516,935	M 3-4-5-6 8-10-12-14 16-18-20-22 24-27-30	25,4-38,1 50,8-63,5
Cod.	**€ cad/each**	**3 pcs**	**N°1-3-6**
17012539 M3÷33 19 passi *threads*	2187,272	M 3-4-5-6-7-8 9-10-11-12-14 16-18-20-22 24-27-30-33	25,4-38,1 50,8-63,5



Cod.	€ cad/each	3 pcs	COMBI M+BSW M+UNC
17012541 M+BSW M3÷24 + BSW **1/8÷1"**	1444,992	M 3-4-5-6-8 10-12-14-16 18-20-22-24 BSW 1/8-5/32-3/16 1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	N°1-2-4 25,4-38,1-50,8
17012542 M+UNC M3÷24 + UNC **1/4÷1"**	1456,976	M 3-4-5-6-8 10-12-14-16 18-20-22-24 UNC 1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	N°1-2-4 25,4-38,1-50,8

ASSORTIMENTI A FILETTARE PER GARAGE TIPO “FIAT RIDOTTO” IN CASSETTA DI LEGNO

Threading set in wooden case for automotive / Assortiment à fileter pour garage en coffret de bois
Juego de utensilios a roscar para garages en caja de madera / Gewindeschneidwerkzeugesätze für Garage

C.V.

Speciale per garage
Special for automotive



M+MF 2÷18 65 pcs
635x335x48mm.
Kg 5,8

METRIC

Cod.	€ cad/each	2 pcs — 25,4(8) 38,1(12)	N°1-3
17012510 M+MF 2÷18 65 *pcs* 20 passi *threads*	401,724	M 2x0,4-3x0,5 4x0,7-5x0,8-6x1 7x1-8x1-8x1,25 10x1-10x1,25-10x1,5 12x1,25-12x1,5 12x1,75-14x1,25 14x1,5-14x2-16x1,5 16x2-18x1,5	25,4-38,1 N°1

ASSORTIMENTI A FILETTARE PER GARAGE TIPO “FIAT GRANDE” IN CASSETTA DI LEGNO

Threading set in wooden case for trucks / Assortiment à fileter pour garage en coffret de bois
Juego de utensilios a roscar para garages en caja de madera / Gewindeschneidwerkzeugesätze für Garage

C.V.

Speciale per camion
Special for trucks



M+MF 3÷24
600x430x65mm.
Kg 13,8

Cod.	€ cad/each	3 pcs	N°1-2-3-4
17012512 M+MF 3÷24 111 pcs 26 passi pitch	976,115	3 x 0,5 4 x 0,7 5 x 0,8 6 x 1 7 x 1 8 x 0,75 8 x 1 8 x 1,25 10 x 1 10 x 1,5 11 x 0,75 12 x 1 12 x 1,5 12 x 1,75 14 x 1 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5 20 x 1,5 20 x 2,5 22 x 1,5 24 x 1,5 24 x 2	25,4-38,1-50,8

Cod.	€ cad/each	3 pcs	N°1-3-4
17012513 M+MF 3÷24 108 pcs 30 passi pitch	1073,247	3 x 0,5 4 x 0,7 5 x 0,8 6 x 1 7 x 1 8 x 1 8 x 1,25 9 x 1 9 x 1,25 10 x 1 10 x 1,25 10 x 1,5 12 x 1 12 x 1,25 12 x 1,5 12 x 1,75 14 x 1 14 x 1,25 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5 20 x 1,5 20 x 2,5 22 x 1,5 22 x 2 24 x 1,5 24 x 2	25,4-38,1-50,8

ASSORTIMENTI A FILETTARE PER GARAGE TIPO FIAT IN CASSETTA DI LEGNO

Threading set in wooden case for automotive / Assortiment à fileter pour garages en coffret de bois
Juego de utensilios a roscar para garages en caja de madera / Gewindeschneidwerkzeugesätze für Garage in Holzkassette

C.V.

Speciale per garage
Special for automotive

CLASSIC



FIAT

M+MF 2÷18 110 pcs
500x340x60mm.
Kg 7,9

Cod.	€ cad/each	M-MF 2 pcs	25,4(14) 38,1(21)	
17012500 M+MF 2÷18 110 *pcs* 35 passi *pitch*	520,431	2 x 0,4 3 x 0,5 4 x 0,7 5 x 0,8 6 x 0,75 6 x 1 7 x 0,75 7 x 1 8 x 0,75 8 x 1 8 x 1,25 9 x 0,75 9 x 1 9 x 1,25 10x 0,75 10x 1 10x 1,25 10x 1,5	11 x 0,75 11 x 1 11 x 1,25 11 x 1,5 12 x 0,75 12 x 1 12 x 1,25 12 x 1,5 12 x 1,75 14 x 1 14 x 1,25 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5	N°1-3 25,4-38,1 N°1

Per ravvivare i filetti di:
to renew threads of:
FIAT, ALFA ROMEO, LANCIA, VOLKSWAGEN,BMW, MERCEDES, FORD, OPEL G.M., PEUGEOT, RENAULT, VOLVO, CITROEN, TOYOTA, NISSAN, HONDA, ETC.

PLUS



FIAT

M+MF 2÷18 111 pcs
500x340x60mm.
Kg 8,0

Cod.	€ cad/each	M-MF 2 pcs	25,4(14) 38,1(21)	
17012505 M+MF 2÷18 111 *pcs* 35 passi *pitch*	575,600	2 x 0,4 3 x 0,5 4 x 0,7 5 x 0,8 6 x 0,75 6 x 1 7 x 0,75 7 x 1 8 x 0,75 8 x 1 8 x 1,25 9 x 0,75 9 x 1 9 x 1,25 10x 0,75 10x 1 10x 1,25 10x 1,5	11 x 0,75 11 x 1 11 x 1,25 11 x 1,5 12 x 0,75 12 x 1 12 x 1,25 12 x 1,5 12 x 1,75 14 x 1 14 x 1,25 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5	N°1-3 25,4-38,1 N°1 0÷150 mm 0,01 *Digital*



ASSORTIMENTI A FILETTARE PER GARAGE TIPO FIAT IN CASSETTA DI LEGNO

Threading set in wooden case for automotive / Assortiment à fileter pour garages en coffret de bois
Juego de utensilios a roscar para garages en caja de madera / Gewindeschneidwerkzeugesätze für Garage in Holzkassette

Per tutti gli utilizzi professionali ed industriali
For professional and industrial use

HSS

Speciale per garage
Special for automotive



FIAT HSS

Cod.	€ cad/each	M-MF 2 pcs	25,4(14) 38,1(21)	N°1-3	25,4-38,1	N°1
17012600 M+MF 2÷18 110 *pcs* 35 passi *pitch*	972,789	2 x 0,4 3 x 0,5 4 x 0,7 5 x 0,8 6 x 0,75 6 x 1 7 x 0,75 7 x 1 8 x 0,75 8 x 1 8 x 1,25 9 x 0,75 9 x 1 9 x 1,25 10x 0,75 10x 1 10x 1,25 10x 1,5	11 x 0,75 11 x 1 11 x 1,25 11 x 1,5 12 x 0,75 12 x 1 12 x 1,25 12 x 1,5 12 x 1,75 14 x 1 14 x 1,25 14 x 1,5 14 x 2 16 x 1 16 x 1,5 16 x 2 18 x 1,5			

M+MF 2÷18 110 pcs
500x340x60mm.
Kg 7,9

Per generare e ravvivare i filetti di:
To make and renew threads of:
FIAT, ALFA ROMEO, LANCIA, VOLKSWAGEN,BMW, MERCEDES, FORD, OPEL G.M., PEUGEOT, RENAULT, VOLVO, CITROEN, TOYOTA, NISSAN, HONDA, ETC.



Ricambi / *Spare parts*

10097	(2 pcs) HSS		12057		HSS	
	Cod.	€ cad/each 2 pcs set			Cod.	€ cad/each
M 2 x 0,4	1009702X04	5,466	M 2 x 0,4	25,4x9	1205702X04	6,406
3 x 0,5	1009703X05	4,889	3 x 0,5		1205703X05	6,406
4 x 0,7	1009704X07	4,889	4 x 0,7		1205704X07	6,406
5 x 0,8	1009705X08	4,889	5 x 0,8		1205705X08	6,406
6 x 0,75	1009706X075	4,889	6 x 0,75		1205706X075	6,406
6 x 1	1009706X1	4,889	6 x 1		1205706X1	6,406
7 x 0,75	1009707X075	5,887	7 x 0,75		1205707X075	6,406
7 x 1	1009707X1	5,887	7 x 1		1205707X1	6,406
8 x 0,75	1009708X075	7,218	8 x 0,75		1205708X075	6,406
8 x 1	1009708X1	7,218	8 x 1		1205708X1	6,406
8 x 1,25	1009708X125	7,218	8 x 1,25		1205708X125	6,406
9 x 0,75	1009709X075	8,038	9 x 0,75		1205709X075	6,406
9 x 1	1009709X1	8,038	9 x 1		1205709X1	6,406
9 x 1,25	1009709X125	8,038	9 x 1,25		1205709X125	6,406
10x 0,75	1009710X075	8,803	10x 0,75	38,1x14	1205710X075	11,664
10x 1	1009710X1	8,803	10x 1		1205710X1	11,664
10x 1,25	1009710X125	8,803	10x 1,25		1205710X125	11,664
10x 1,5	1009710X15	8,803	10x 1,5		1205710X15	11,664
11x 0,75	1009711X075	12,340	11x 0,75		1205711X075	11,664
11x 1	1009711X1	12,340	11x 1		1205711X1	11,664
11x 1,25	1009711X125	12,340	11x 1,25		1205711X125	11,664
11x 1,5	1009711X15	12,340	11x 1,5		1205711X15	11,664
12x 0,75	1009712X075	13,006	12x 0,75		1205712X075	11,664
12x 1	1009712X1	13,006	12x 1		1205712X1	11,664
12x 1,25	1009712X125	13,006	12x 1,25		1205712X125	11,664
12x 1,5	1009712X15	13,006	12x 1,5		1205712X15	11,664
12x 1,75	1009712X175	13,006	12x 1,75		1205712X175	11,664
14x 1	1009714X1	16,985	14x 1		1205714X1	11,664
14x 1,25	1009714X125	16,985	14x 1,25		1205714X125	11,664
14x 1,5	1009714X15	16,985	14x 1,5		1205714X15	11,664
14x 2	1009714X2	16,985	14x 2		1205714X2	11,664
16x 1	1009716X1	17,971	16x 1		1205716X1	11,664
16x 1,5	1009716X15	17,971	16x 1,5		1205716X15	11,664
16x 2	1009716X2	17,971	16x 2		1205716X2	11,664
18x 1,5	1009718X15	25,311	18x 1,5		1205718X15	11,664

ASSORTIMENTI A FILETTARE WHITWORTH PER GARAGE ED INDUSTRIA

BSW-BSF threading set for garages and industries in wooden case / Assortiments à fileter pour usines et garages, filetage Whitworth
Juego de utensilios a roscar para garages y industria, rosca Whitworth / Gewindeschneidewerkzeugesätze für Garage und Industrie in Holzkassette

C.V.



BSW

Cod.	€ cad/each	3 pcs	N°1-2
17012520 BSW 1/8÷1/2	317,774	1/8-5/32-3/16 1/4-5/16-3/8 7/16-1/2	25,4-38,1
Cod.	€ cad/each	3 pcs	N°1-2-4
17012521 BSW 1/8÷1"	634,361	1/8-5/32-3/16 1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	25,4-38,1-50,8
Cod.	€ cad/each	3 pcs	N°1-3-6
17012522 BSW1/8÷1.1/2	1933,049	1/8-5/32-3/16-1/4 5/16-3/8-7/16-1/2 9/16-5/8-3/4-7/8-1" 1.1/8-1.1/4-1.3/8-1.1/2	25,4-38,1 50,8-63,5

BSF

Cod.	€ cad/each	2 pcs	N°1-4
17012525 BSF 1/4÷1"	625,967	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	25,4-38,1-50,8



BSW+BSF

Cod.	€ cad/each	BSW 3 pcs BSF 2 pcs	N°1-3
17012528 BSW+BSF 1/4÷3/4	729,087	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4	25,4-38,1-50,8
Cod.	€ cad/each	BSW 3 pcs BSF 2 pcs	N°1-4
17012529 BSW+BSF 1/4÷1"	990,506	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	25,4-38,1-50,8

ASSORTIMENTI A FILETTARE, FILETTATURA GAS CILINDRICA PER TUBI, IN CASSETTA DI LEGNO.

BSP threading set in wooden case / Assortiments à fileter, filetage gaz cylindrique
Juego de utensilios a roscar en caja de madera, rosca BSP/ Gewindeschneidwerkzeugesätze, Rohrgewinde BSP

C.V.



BSP

Cod.	€ cad/each	2 pcs	N°3-5
17012515 BSP 1/8÷1"	767,459	1/8-1/4-3/8 1/2-3/4-1"	38,1-50,8-63,5
Cod.	**€ cad/each**	**2 pcs**	**N°4-7**
17012516 BSP 1/4÷1.1/2	1732,785	1/4-3/8-1/2 3/4-1"-1.1/4-1.1/2	38,1-50,8 63,5-76,2

ASSORTIMENTI A FILETTARE, FILETTATURA GAS CONICA PER TUBI

Taper threading set in wooden case / Assortiments à fileter pour usines, filetage gaz conique
Juego de utensilios a roscar en caja de madera, rosca conica gas / Gewindeschneidwerkzeugesätze, kegeliges Rohrgewinde



BSPT

Cod.	€ cad/each	1 pc	N°1-3-5
17012540 BSPT 1/8÷1"	1028,877	1/8-1/4-3/8 1/2-3/4-1"	30x11-38x14 45x18-55x22-65x25



NPT

Cod.	€ cad/each	1 pc	N°1-3-5
17012545 NPT 1/8÷1"	1028,877	1/8-1/4-3/8 1/2-3/4-1"	30x11-38x14-45x18 55x22-65x25

ASSORTIMENTI A FILETTARE UNC E UNF PER GARAGES ED INDUSTRIA

UNC threading set for garages and industries / Assortiments à fileter pour usines et garages, filetage Americain UNC-UNF
Juego de utensilios a roscar para garages y industria, rosca Americana UNC-UNF / Gewindeschneidewerkzeugesätze, amerikanischer gewinde UNC-UNF

C.V.



UNC

Cod.	€ cad/each	3 pcs	N°1-3
17012560 UNC 1/4÷3/4	568,404	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4	25,4-38,1-50,8
Cod.	**€ cad/each**	**3 pcs**	**N°1-4**
17012561 UNC 1/4÷1"	726,693	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	25,4-38,1-50,8
Cod.	**€ cad/each**	**3 pcs**	**N°1-3-6**
17012562 UNC 1/4÷1.1/2	2277,209	1/4-5/16-3/8-7/16 1/2-9/16-5/8-3/4 7/8-1"-1.1/8-1.1/4 1.3/8-1.1/2	25,4-38,1 50,8-63,5



UNF

Cod.	€ cad/each	2 pcs	N°1-3
17012565 UNF 1/4÷3/4	537,228	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4	25,4-38,1-50,8
Cod.	**€ cad/each**	**2 pcs**	**N°1-4**
17012566 UNF 1/4÷1"	661,933	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	25,4-38,1-50,8
Cod.	**€ cad/each**	**2 pcs**	**N°1-3-6**
17012567 UNF 1/4÷1.1/2	2193,271	1/4-5/16-3/8-7/16 1/2-9/16-5/8-3/4 7/8-1"-1.1/8-1.1/4 1.3/8-1.1/2	25,4-38,1 50,8-63,5

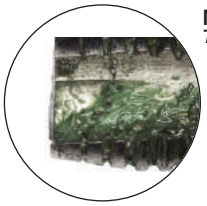


UNC+UNF

Cod.	€ cad/each	UNC 3 pcs UNF 2 pcs	N°1-3
17012570 UNC+UNF 1/4÷3/4	1109,225	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4	25,4-38,1-50,8
Cod.	**€ cad/each**	Rottura multipla del maschio UNC 3 pcs UNF 2 pcs	**N°1-4**
17012571 UNC+UNF 1/4÷1"	1377,838	1/4-5/16-3/8 7/16-1/2-9/16 5/8-3/4-7/8-1"	25,4-38,1-50,8

GUIDA ALLA RISOLUZIONE DEI PROBLEMI DI FILETTATURA
THREADING TROUBLESHOOTING GUIDE

Immagine del difetto / Photo of the defect



Maschio
Tap

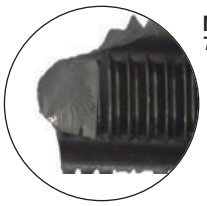
Descrizione del difetto
Description of the defect

Intasamento dei residui di lavorazione di maschiatura nelle scanalature
Clogging of grooves with residues from the tapping process

Possibili soluzioni del problema
Possible solutions to the problem

Utilizzare un lubrorefrigerante più fluido (meno viscoso) oppure aumentarne il flusso.
Use more fluid coolant (less viscous) or increase the flow.

Immagine del difetto / Photo of the defect



Maschio
Tap

Descrizione del difetto
Description of the defect

Rottura del maschio in prossimità della punta
Breaking of the tap near the tip

Possibili soluzioni del problema
Possible solutions to the problem

Praticare un preforo di diametro idoneo o leggermente sovradimensionato nel caso di filettature di materiali con elevata componente elastica (es. inox).
Drill a pilot-hole with a suitable diameter or slightly larger if threading materials with high elastic component (e.g. stainless steel).

Immagine del difetto / Photo of the defect



Maschio a macchina
Machine tap

Descrizione del difetto
Description of the defect

Rottura multipla del maschio
Multiple breaks in the tap

Possibili soluzioni del problema
Possible solutions to the problem

Diminuire la velocità di filettatura e/o avanzamento. Filettare spessori non superiori a 1.5 volte il diametro nominale del maschio.
Utilizzare teste a maschiare con frizione (specialmente nella maschiatura di fori ciechi). Mantenere pulito il fondo del foro cieco per evitare intasamento dei trucioli e conseguente danneggiamento del maschio. Verificare il corretto allineamento assiale maschio-preforo.
Decrease the threading and/or advancement speed. Thread thicknesses should not exceed 1.5 times the nominal diameter of the tap. Use tapping heads with friction (especially when tapping blind holes). Keep the bottom of the blind hole clean in order to prevent clogging with chips and consequent damage to the tap. Check the correct alignment of the tap-pilot hole axis.

Immagine del difetto / Photo of the defect



Maschio
Tap

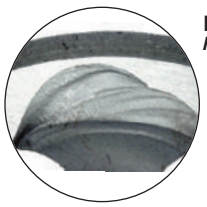
Descrizione del difetto
Description of the defect

Craterizzazione del maschio (distacco di una porzione di tagliente)
Pitting of the tap (detachment of a portion of the cutting edge)

Possibili soluzioni del problema
Possible solutions to the problem

Diminuire la velocità di maschiatura.
Reduce the tapping speed.

Immagine del difetto / Photo of the defect



Filiera
Round die

Descrizione del difetto
Description of the defect

Craterizzazione della filiera (distacco di una porzione di tagliente
Pitting of threading die (detachment of a portion of the cutting edge)

Possibili soluzioni del problema
Possible solutions to the problem

Controllare la dimensione nominale della barra in filettatura. Utilizzare un girafiliere manuale.
Check the nominal size of the thread in the bar. Use a manual die stock.

Immagine del difetto / Photo of the defect



Maschio a macchina
Machine tap

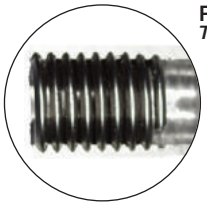
Descrizione del difetto
Description of the defect

Rottura del maschio in prossimità del termine dell'area filettata
Breaking of the tap near the end of the threaded area

Possibili soluzioni del problema
Possible solutions to the problem

Filettare spessori non superiori a 1.5 volte il diametro nominale del maschio.
Utilizzare teste a maschiare con frizione (specialmente nella maschiatura di fori ciechi). Mantenere pulito il fondo del foro cieco per evitare intasamento dei trucioli e conseguente danneggiamento del maschio.
Thread thicknesses should not exceed 1.5 times the nominal diameter of the tap. Use tapping heads with friction (especially when tapping blind holes). Keep the bottom of the blind hole clean in order to prevent clogging with chips and consequent damage to the tap.

Immagine del difetto / Photo of the defect



Particolare filettato
Threaded part

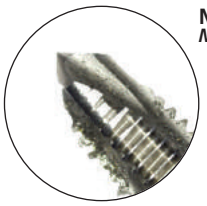
Descrizione del difetto
Description of the defect

Difficoltà di inserimento di coil o di vite nell'area filettata (filetto sovra o sotto dimensionato)
Difficulty in inserting coils or screws in the threaded area (thread too small or too big)

Possibili soluzioni del problema
Possible solutions to the problem

Sostituire il maschio usurato e/o controllare la dimensione effettiva del preforo.
Replace the worn tap and/or check the actual size of the pilot-hole.

Immagine del difetto / Photo of the defect



Maschio a macchina
Machine tap

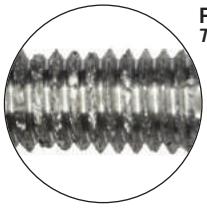
Descrizione del difetto
Description of the defect

Imbocco del maschio scheggiato
Entrance of the tap is chipped

Possibili soluzioni del problema
Possible solutions to the problem

Controllare la dimensione del preforo e/o diminuire la velocità di filettatura e/o avanzamento.
Check the size of the pilot hole and/or decrease the threading and/or advancement speed.

Immagine del difetto / Photo of the defect



Particolare filettato
Threaded part

Descrizione del difetto
Description of the defect

Filettatura realizzata con finitura scadente
Threading made with poor finishing

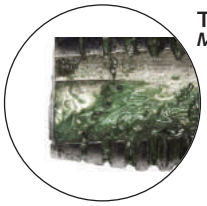
Possibili soluzioni del problema
Possible solutions to the problem

Sostituire la filiera con una non usurata. Verificare la corretta ortogonalità filiera-barra in filettatura. Effettuare mezzo giro in senso anti-orario ad ogni rotazione oraria della filiera, per rompere il truciolo prodotto.
Replace the threading die with a new one. Check the correct orthogonality of the threading die-bar. At every clockwise rotation of the die, make a half-turn in a counter-clockwise direction to break the chip produced.

GUIDE DE DÉPANNAGE POUR LES PROBLÈMES DE FILETAGE

Guía para la resolución de problemas de roscado

Image du dèfaut / Foto del defecto



Taraud
Macho

Description du dèfaut
Descripción del defecto

Obstruction suite aux résidus de taraudage dans les rainures
Atasco de restos de material trabajado procedente del roscado en las acanaladuras

Solutions possibles au problème
Posibles soluciones del problema

Utiliser un liquide de refroidissement plus fluide (moins visqueux) ou augmenter le débit.
Usar un lubricante-refrigerante más fluido (de menor viscosidad) o aumentar el flujo.

Image du dèfaut / Foto del defecto



Taraud
Macho

Description du dèfaut
Descripción del defecto

Cratérisation de l'élément mâle (détachement d'une partie de l'arête de coupe)
Formación de cráteres en el machuelo (separación de una parte del borde cortante)

Solutions possibles au problème
Posibles soluciones del problema

Diminuire la velocità di maschiatura.
Disminuir la velocidad de roscado.

Image du dèfaut / Foto del defecto



Détail fileté
Detalle roscado

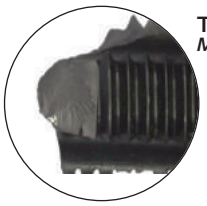
Description du dèfaut
Descripción del defecto

Difficultés d'insertion de la bobine ou des vis dans le filetage (filet sur ou sous dimensionné)
Dificultad a introducir el inserto o el tornillo en la zona roscada (rosca demasiado grande o demasiado pequeña)

Solutions possibles au problème
Posibles soluciones del problema

Remplacer l'élément mâle usé et/ou contrôler la taille réelle du pré-percement.
Sustituir el machuelo gastado y/o controlar el tamaño real del orificio piloto.

Image du dèfaut / Foto del defecto



Taraud
Macho

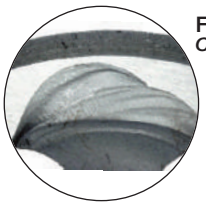
Description du dèfaut
Descripción del defecto

Rupture de l'élément mâle près de la pointe
Ruptura del machuelo cerca de la punta

Solutions possibles au problème
Posibles soluciones del problema

Effectuer le pré-percement au diamètre approprié ou légèrement surdimensionné dans le cas de filetage des matériaux avec un composant élastique élevé (par exemple en acier inoxydable).
Realizar un orificio piloto de diámetro idóneo o ligeramente mayor en el caso de roscados sobre materiales con características elásticas (por ejemplo el acero).

Image du dèfaut / Foto del defecto



Filiere ronde
Cojinete redondo

Description du dèfaut
Descripción del defecto

Cratérisation de la filière (détachement d'une partie de l'arête de coupe)
Formación de cráteres en la terraja de roscar (separación de una parte del borde cortante)

Solutions possibles au problème
Posibles soluciones del problema

Contrôler la taille nominale de la barre en filetage. Utiliser un porte-filière manuel.
Controlar el tamaño nominal de la barra de roscado. Usar una terraja para roscar manual.

Image du dèfaut / Foto del defecto



Taraud machine
Macho de maquina

Description du dèfaut
Descripción del defecto

Bouche de de l'élément mâle ébréché
Entrada del machuelo desportillada

Solutions possibles au problème
Posibles soluciones del problema

Contrôler la taille du pré-percement et/ou diminuer la vitesse du filetage et/ou de l'avancement.
Controlar el tamaño del orificio piloto y/o disminuir la velocidad de roscado y/ avance.

Image du dèfaut / Foto del defecto



Taraud machine
Macho de maquina

Description du dèfaut
Descripción del defecto

Rupture multiple de l'élément mâle
Ruptura múltiple del machuelo

Solutions possibles au problème
Posibles soluciones del problema

Diminuer la vitesse de filetage et/ou d'avancement. Fileter des épaisseurs ne dépassant pas 1,5 fois le diamètre nominal de l'élément mâle. Utiliser des têtes de taraudage avec embrayage (spécialement dans le taraudage des trous borgnes). Conserver le fond du trou borgne propre pour éviter l'obstruction par le biais de copeaux et dommages consécutifs de l'élément mâle. Vérifier l'alignement correct axial élément mâle-pré-percement.
Disminuir la velocidad de roscado y/o de avance. Roscar espesores que no sean superiores a 1,5 veces el diámetro nominal del machuelo. Usar cabezas para el roscado con embrague (especialmente en los roscados de orificios ciegos). Mantener limpio el fondo del orificio ciego para evitar el atasco de las virutas y el consiguiente deterioro del machuelo. Controlar la correcta alineación axial machuelo-orificio piloto.

Image du dèfaut / Foto del defecto



Taraud machine
Macho de maquina

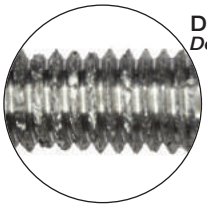
Description du dèfaut
Descripción del defecto

Rupture de l'élément mâle près de l'extrémité du filetage
Ruptura del machuelo casi al final del área roscada

Solutions possibles au problème
Posibles soluciones del problema

Fileter des épaisseurs ne dépassant pas 1,5 fois le diamètre nominal de l'élément mâle. Utiliser des têtes de taraudage avec embrayage (spécialement dans le taraudage des trous borgnes). Conserver le fond du trou borgne propre pour éviter 'obstruction par le biais de copeaux et dommages consécutifs de l'élément mâle.
Roscar espesores que no sean superiores a 1,5 veces el diámetro nominal del machuelo. Usar siempre cabezas para roscar con embrague (especialmente en los roscados de orificios ciegos). Mantener limpio el fondo del orificio ciego para evitar el atasco de virutas y el consiguiente deterioro del machuelo.

Image du dèfaut / Foto del defecto



Détail fileté
Detalle roscado

Description du dèfaut
Descripción del defecto

Filetage réalisé avec une finition médiocre
Roscado realizado con acabado de baja calidad

Solutions possibles au problème
Posibles soluciones del problema

Remplacer la filière avec une filière non usée.
Vérifier l'orthogonalité correcte filière-barre en filetage. Effectuer un demi-tour vers la gauche à chaque rotation vers la droite de la filière, pour briser le copeau du produit.
Sustituir la terraja para roscar con una que no esté gastada. Controlar la correcta ortogonalidad terraja-barra de roscado. Dar media vuelta en el sentido contrario a las agujas del reloj por cada rotación en sentido horario de la terraja, para romper la viruta que se haya producido.

CUTTING TOOLS **ENGINEERING**

Con questo capitolo di utensili per alesare e fresare è compiuta la gamma più importante degli utensili da taglio per asportazione di truciolo. Una particolare attenzione è stata dedicata alle frese frontali, nelle versioni in acciaio superrapido HSS-CO8% ed in metallo duro integrale di grande qualità, con e senza rivestimento, per operazioni di sgrossatura, finitura e superfinitura.

This chapter of boring and milling tools completes the wide range of chip removal tools presented in this new catalogue. Special attention was given to the section relating to frontal burrs in HSS-CO8% steel, also with TiAlN surface coating, and in high-quality carbide for the roughing, finishing and super-finishing operations.

Ce chapitre, qui comprend les outils pour aléser et fraiser différentes classes d'acier, nous permet de compléter l'importante gamme d'outils de découpe pour l'enlèvement des copeaux présentée dans ce nouveau catalogue. Une attention particulière a été dédiée à la section des fraises frontales dans les versions en acier super rapide HSS-CO8%, présentées aussi avec le revêtement de surface TiAlN, et en métal dur intégral de grande qualité pour les opérations de dégrossissage, finition et superfinition.

Con este apartado, que incluye los utensilios para escariar y fresar en diferentes tipos de acero, completamos ulteriormente la importante gama de utensilios de corte para eliminar virutas, ilustrada en este nuevo catálogo. Se ha dedicado una atención especial a la sección de fresas frontales, en las versiones de acero super rápido HSS-CO8%, presentadas también con revestimiento superficial TiAlN, y de metal duro integral de gran calidad para operaciones de desbaste, acabado y superacabado.



ALESATORI E FRESE FRONTALI

Hand reamers & end mills
Alésoirs et fraises à rainurer
Escariadores y fresas frontales
Reibahlen und langlochfräser

ALESATORI A MACCHINA HSS-CO A CODOLO CILINDRICO

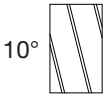
HSS-CO machine reamers / Alésoirs machine HSS-CO
Escariadores a maquina HSS-CO / Maschinenreibahlen HSS-CO

HSS-CO

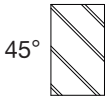
29020 **29021**







DIN 212/2B



DIN 212/2C
Per centri a controllo numerico CNC

Confezione / Packaging



Applicazioni / Applications

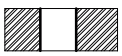


Acciaio
Steel



Metals





H7

- Per operazioni di finitura di fori passanti in tolleranza H7 di materiali ferrosi e non ferrosi.
- *Suitable for finishing operations, inside through holes with H7 tolerance.*

Ø g6	d h9	/ mm	L mm	pcs	Art. 29020 z	Art. 29020 cod.	Art. 29020 € cad/each	Art. 29021 z	Art. 29021 cod.	Art. 29021 € cad/each
3	3,0	15	61	1	6	290200300	25,279	3	290210300	29,801
4	4,0	19	75	1	6	290200400	25,205	3	290210400	40,801
5	5,0	23	86	1	6	290200500	26,942	3	290210500	42,190
6	6,0	26	93	1	6	290200600	27,420	3	290210600	44,157
7	7,0	30	109	1	6	290200700	32,449	3	290210700	49,308
8	8,0	32	117	1	6	290200800	33,527	3	290210800	52,607
9	9,0	36	125	1	6	290200900	42,388	3	290210900	54,411
10	10,0	38	133	1	6	290201000	39,574	3	290211000	63,199
10,5	10,0	38	133	1	6	290201050	56,696	3	-	-
11	10,0	41	142	1	8	290201100	56,696	3	290211100	83,628
12	10,0	44	151	1	8	290201200	60,588	3	290211200	94,276
13	10,0	44	151	1	8	290201300	67,592	3	290211300	83,530
14	12,5	47	160	1	8	290201400	69,808	3	290211400	104,305
15	12,5	50	162	1	8	290201500	72,083	3	-	-
16	12,5	52	170	1	8	290201600	75,555	3	290211600	122,923
17	14,0	54	175	1	8	290201700	95,431	3	-	-
18	14,0	56	182	1	8	290201800	97,646	3	290211800	169,628
19	16,0	58	189	1	10	290201900	115,009	3	-	-
20	16,0	60	195	1	10	290202000	110,160	3	290212000	176,167

Art. 29020: decimali e centesimali su richiesta
Decimal reamers and centesimal ones on demand

Art. 29021: Il numero dispari di taglienti genera fori con minori errori di circolarità ed evita imperfezioni dovute a vibrazioni. /
The odd number of cutting edges generates holes with less circular errors and prevents imperfections due to vibrations.

Consigli d'uso / *Use tips*

Per evitare un'usura precoce dell'utensile, è buona norma fare ruotare l'alesatore sempre e solo nel verso corretto di rotazione e lavorare con uno spessore corretto di sovrametallo da asportare. Di seguito si riporta lo spessore di sovrametallo consigliato:
Please always rotate the reamer according to the correct sense of rotation to prevent early tool wear. Please refer to the previous table to learn the right removable stock thickness to be used.

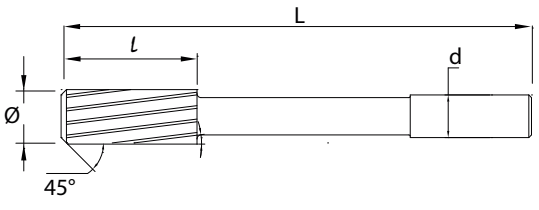
Diametro foro (mm) *Hole diameter*	*Spessore consigliato di sovrametallo (mm)* *Removable stock thichness*
ø≤4	0,1
4<ø≤11	0,2
11<ø≤38	0,3
40<ø≤50	0,4

Lo spessore di sovrametallo non deve essere troppo limitato, perché in tal modo l'alesatore comprime il materiale invece di tagliarlo. D'altro canto lo spessore non deve essere troppo elevato, perché l'utensile rischia di incollarsi e/o il foro generato risulta sottodimensionato.

Fori sottodimensionati si ottengono anche con velocità e avanzamenti troppo bassi o con apporti troppo limitati di lubrorefrigerante, mentre fori sovradimensionati si ottengono con parametri di taglio troppo elevati. Parametri di lavoro scorretti generano tra l'altro anche fori con una cattiva finitura.

If the removable stock thickness is too little, the reamer compresses the work-piece material instead of cutting it; on the other hand, if the removable stock thickness is too high, the tool tries to stick and/or the hole you produce is too little.

You'll produce little holes also with low cutting parameters (low cutting speed, low feed, low lubricant content), whereas you'll drill bigger holes than expected if you use high cutting parameters. Please use the recommended cutting parameters to avoid any bad finishing.



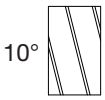
ALESATORI A MACCHINA A CODOLO CONICO MORSE

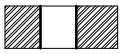
Morse taper shank machine reamers / Alésoirs machine queue conique
Escariadores a maquina mango conico Morse / Morsekegelmaschinenreibahlen

HSS-CO DIN 208 B

29026

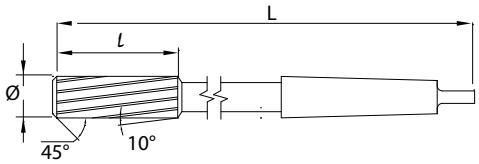






- Per operazioni di finitura di fori passanti in tolleranza H7 di materiali ferrosi e non ferrosi.
- *Suitable for finishing operations, inside through holes with H7 tolerance.*

Ø g6	M.K	/ mm	L mm	z	pcs	cod.	€ cad/each
5	1	23	133	6	1	290260500	40,695
6	1	26	138	6	1	290260600	39,515
7	1	31	150	6	1	290260700	40,110
8	1	33	156	6	1	290260800	40,695
9	1	36	162	6	1	290260900	41,290
10	1	38	168	6	1	290261000	41,875
11	1	41	175	8	1	290261100	44,822
12	1	44	182	8	1	290261200	46,597
13	1	44	182	8	1	290261300	48,363
14	1	47	189	8	1	290261400	54,256
15	2	50	204	8	1	290261500	61,339
16	2	52	210	8	1	290261600	66,647
17	2	54	214	8	1	290261700	67,827
18	2	56	219	8	1	290261800	73,135
19	2	58	223	10	1	290261900	77,261
20	2	60	228	10	1	290262000	86,111
21	2	62	232	10	1	290262100	87,877
22	2	64	237	10	1	290262200	93,779
23	2	66	241	10	1	290262300	100,268
24	3	68	268	10	1	290262400	121,498
25	3	68	268	10	1	290262500	121,498
26	3	70	273	10	1	290262600	136,825
27	3	71	277	10	1	290262700	138,006
28	3	71	277	10	1	290262800	150,982
30	3	73	281	10	1	290263000	166,903
31	3	75	285	12	1	290263100	178,701
32	4	77	317	12	1	290263200	208,779
34	4	78	321	12	1	290263400	232,965
35	4	78	321	12	1	290263500	241,219
36	4	79	325	12	1	290263600	255,375
38	4	81	329	12	1	290263800	278,372
40	4	81	329	12	1	290264000	307,271
45	4	83	336	12	1	290264500	373,674
50	4	86	344	12	1	290265000	423,432



HSS DIN 311

29039

NEW





Ø g6	M.K.	/ mm	L mm	z	pcs	cod.	€ cad/each
10	1	95	171	4	1	290391000	53,418
11	1	100	176	4	1	290391100	58,116
12	2	105	199	5	1	290391200	68,092
13	2	105	199	5	1	290391300	71,630
14	2	115	209	5	1	290391400	78,648
15	2	125	209	5	1	290391500	87,464
16	2	135	219	5	1	290391600	92,104
17	3	135	229	5	1	290391700	103,878
18	3	145	251	5	1	290391800	113,970
19	3	145	261	5	1	290391900	128,586
20	3	155	261	5	1	290392000	139,780
21	3	155	271	5	1	290392100	144,304
22	3	165	271	5	1	290392200	158,340
23	3	165	281	5	1	290392300	165,068
24	3	180	281	5	1	290392400	183,570
25	3	180	296	5	1	290392500	194,010
26	3	180	296	5	1	290392600	196,156
27	3	195	311	5	1	290392700	219,704
28	3	195	311	5	1	290392800	230,434
30	3	195	311	5	1	290393000	254,562
31	3	210	326	5	1	290393100	283,504
32	4	210	354	5	1	290393200	309,198
34	4	220	364	5	1	290393400	350,494
36	4	220	364	5	1	290393600	390,978

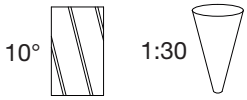
ALESATORI A MANICOTTO IN HSS CON TAGLIENTI ELICOIDALI E FORO CONICO 1:30

HSS shell reamers with taper bore 1:30 / Alésoirs creux à alesage conique 1:30 /
Escariadores huecos a maquina HSS conicidad 1:30 / Aufsteckreibahlen mit kegeliger Borhung 1:30

HSS DIN 219 B

29040





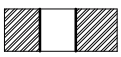
Confezione / Packaging



Applicazioni / Applications



Ø g6	Ø foro/*hole* mm	/ mm	L mm	Z	pcs	cod.	€ cad/each
30	13,0	32	45	10	1	290403000	101,438
32	16,0	36	50	12	1	290403200	113,828
34	16,0	36	50	12	1	290403400	126,210
35	16,0	36	50	12	1	290403500	126,805
36	19,0	40	56	12	1	290403600	144,493
38	19,0	40	56	12	1	290403800	153,929
40	19,0	40	56	12	1	290404000	161,597
42	19,0	40	56	12	1	290404200	175,168
45	22,0	45	63	12	1	290404500	205,833
46	22,0	45	63	12	1	290404600	218,223
48	22,0	45	63	12	1	290404800	231,190
50	22,0	45	63	12	1	290405000	248,394
52	27,0	50	71	12	1	290405200	277,543
55	27,0	50	71	12	1	290405500	307,869
58	27,0	50	71	12	1	290405800	324,778
60	27,0	50	71	12	1	290406000	341,097



- Per operazioni di finitura di fori passanti in tolleranza H7 di materiali ferrosi e non ferrosi. Da utilizzare con apposito mandrino porta alesatore.
- *Suitable for finishing operations, inside through holes with H7 tolerance. Use with proper drill chuck.*

MANDRINO PORTA ALESATORE A MANICOTTO CON ESTRATTORE

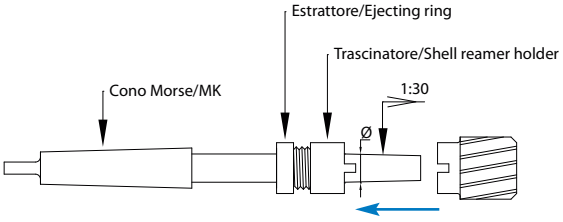
Drill chuck for shell reamers with ejecting tool / Mandrin porte-alésoir creux avec extracteur /
Mandrino para corona de escariador a maquina / Bohrfutter für Aufsteckreibahlen mit Abzieher

DIN 217

29041



M.K.	Ø foro/*hole* mm	L mm	cod.	€ cad/each
3	13	250	290410313	243,480
3	16	261	290410316	262,197
4	19	298	290410419	319,406
4	22	312	290410422	360,232
5	27	359	290410527	519,815



ALESATORI A MANO IN HSS A CODOLO CILINDRICO

MorsHSS hand reamers / Alésoirs à main HSS
Escariadores a mano HSS / Handreibahlen HSS.

HSS DIN 206 B

29001





Ø g6	d e9	q mm	l mm	L mm	z	pcs	cod.	€ cad/each
4	4	3,0	38	76	6	1	290010400	22,741
5	5	3,8	44	87	6	1	290010500	26,058
6	6	4,9	47	93	6	1	290010600	28,111
7	7	5,5	54	107	6	1	290010700	31,545
8	8	6,2	58	115	6	1	290010800	34,284
9	9	7,0	62	124	6	1	290010900	37,717
10	10	8,0	66	133	6	1	290011000	41,825
11	11	9,0	71	142	8	1	290011100	56,223
12	12	9,0	76	152	8	1	290011200	61,711
13	13	10,0	76	152	8	1	290011300	67,197
14	14	11,0	81	163	8	1	290011400	75,423
15	15	12,0	81	163	8	1	290011500	82,280
16	16	12,0	87	175	8	1	290011600	92,571
17	17	13,0	87	175	8	1	290011700	93,940
18	18	14,5	93	188	8	1	290011800	95,309
19	19	14,5	93	188	10	1	290011900	100,112
20	20	16,0	100	201	10	1	290012000	117,934
21	21	16,0	100	201	10	1	290012100	118,618
22	22	18,0	107	215	10	1	290012200	131,647
23	23	18,0	107	215	10	1	290012300	139,187
24	24	18,0	115	231	10	1	290012400	162,507
25	25	20,0	115	231	10	1	290012500	163,192
26	26	20,0	115	231	10	1	290012600	181,707
27	27	22,0	124	247	10	1	290012700	195,421
28	28	22,0	124	247	10	1	290012800	216,676
30	30	24,0	124	247	10	1	290013000	237,931
32	32	24,0	133	265	12	1	290013200	279,071
34	34	26,0	142	284	12	1	290013400	322,950
35	35	29,0	142	284	12	1	290013500	340,781
36	36	29,0	142	284	12	1	290013600	353,810
38	38	29,0	152	305	12	1	290013800	411,402
40	40	32,0	152	305	12	1	290014000	447,055

Confezione / Packaging



Applicazioni / Applications

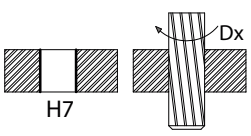


Acciaio
Steel



Metals

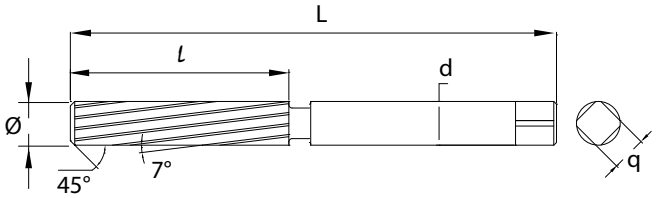




- Per operazioni di calibratura, lavori di manutenzione o riparazione di fori passanti in tolleranza H7.
- *Suitable for gauging operations, maintenance and recovery of through holes with H7 tolerance.*

Sovrametallo consigliato
Recommended removable stock

Diametro foro (mm) *Hole diameter*	*Spessore consigliato di sovrametallo (mm)* *Removable stock thickness*
ø≤11	0,2
11<ø≤38	0,3
ø=40	0,4



ALESATORI REGOLABILI A MANO A ESPANSIONE IN HSS A CODOLO CILINDRICO

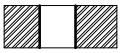
HSS adjustable hand reamers / Alésoirs à main réglables HSS /
Escariadores extensibles en HSS con guia / Handreibahlen mit verschiebbaren Messen

HSS DIN 859/B

29006

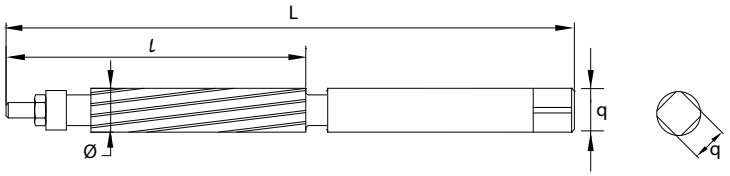






Piccola espansione 1/100 del diametro nominale
Adjustable hand reamer 1/100 nominal diameter

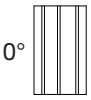
Ø mm	d e9	q mm	l mm	L mm	z	pcs	cod.	€ cad/each
4	4	3,0	24	76	6	1	29006001	118,833
5	5	3,8	30	87	6	1	29006002	120,173
6	6	4,9	33	93	6	1	29006003	121,256
7	7	5,5	38	107	9	1	29006004	147,858
8	8	6,2	42	115	9	1	29006005	146,414
9	9	7,0	46	124	9	1	29006006	156,777
10	10	8,0	50	133	9	1	29006007	161,984
11	11	9,0	51	142	9	1	29006008	193,071
12	12	9,0	56	152	9	1	29006009	182,862
13	13	10,0	56	152	9	1	29006010	211,012
14	14	11,0	61	163	9	1	29006011	216,888
15	15	12,0	61	163	9	1	29006012	227,870
16	16	12,0	67	175	9	1	29006013	283,342
19	19	14,5	68	188	9	1	29006014	300,356
20	20	16,0	75	201	9	1	29006015	309,273
22	22	18,0	82	215	12	1	29006016	369,179
24	24	18,0	85	231	12	1	29006017	406,247
25	25	20,0	85	231	12	1	29006018	406,557
30	30	24,0	94	247	12	1	29006019	525,750
33	33	26,0	99	265	12	1	29006020	830,550
38	38	29,0	111	305	12	1	29006021	1024,691

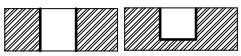


HSS

29005



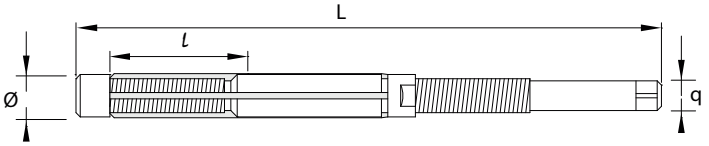




Grande espansione, lame corte - *Expanding hand reamer short type*

Ø capacità range	q mm	l mm	L mm	z	pcs	cod.	€ cad/each
6,4-7,2	3,0	32	110	4	1	29005001	169,206
7,2-8	3,4	32	110	4	1	29005002	171,102
8-9	3,8	34	115	5	1	29005003	172,998
9-10	4,3	34	115	5	1	29005004	182,266
10-11	4,9	34	115	5	1	29005005	189,534
11-12	4,9	35	125	5	1	29005006	187,480
12-13,5	6,2	41	135	5	1	29005007	211,757
13,5-15,5	7,0	50	146	5	1	29005008	231,295
15,5-18	8,0	60	166	5	1	29005009	233,244
18-21	9,0	65	178	5	1	29005010	255,888
21-24	11,0	76	195	5	1	29005011	315,662
24-27,5	12,0	82	218	5	1	29005012	336,937
27,5-31,5	14,5	86	245	5	1	29005013	404,292
31,5-37	18,0	98	280	6	1	29005014	552,538
37-45	20,0	108	325	6	1	29005015	714,004
45-55	26,0	118	370	6	1	29005016	964,890
55-65	32,0	125	400	6	1	29005017	1256,788
67-80	39,0	140	435	8	1	29005018	1768,380

- Per eseguire riparazioni e lavorazioni leggere in fori ciechi e/o passanti in tolleranza H7.
- *Suitable for recovery and light works inside blind and/or through holes with H7 tolerance.*



ALESATORI A MANO IN HSS A CODOLO CILINDRICO, CONICITÀ 1:50, PER FORI DI SPINE CONICHE

Taper pin hand reamers, taper 1:50 / Alésoirs à main pour trous de goupilles coniques, conicité 1:50 / Escariadores a mano HSS, conicidad 1:50 / Handreibahlen für Kegelstiftbohrungen, Kegel 1:50

HSS DIN 9 B

29010



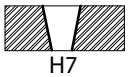
Ø mm	Ø min mm	Ø max mm	q mm	l mm	L mm	z	pcs	cod.	€ cad/each
4	3,90	5,25	4,00	68	93	5	1	290100400	40,920
5	4,90	6,36	5,00	73	100	5	1	290100500	41,569
6	5,90	8,00	6,30	105	135	6	1	290100600	50,669
8	7,90	10,80	8,00	145	180	7	1	290100800	77,950
10	9,90	13,40	10,00	175	215	7	1	290101000	96,140
12	11,80	16,00	11,20	210	255	7	1	290101200	131,214
16	15,80	20,40	14,00	230	280	9	1	290101600	200,723
20	19,80	24,80	18,00	250	310	9	1	290102000	279,321

Confezione / Packaging

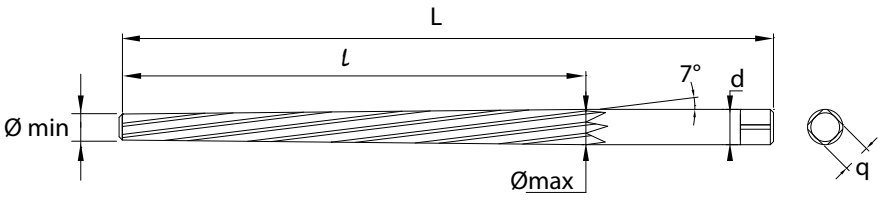


Applicazioni / Applications





- Per operazioni di alesatura in fori di spine coniche con tolleranza H7. Scaricare ripetutamente i trucioli durante la lavorazione.
- *Suitable for reaming in taper pin holes with H7 tolerance. Please remove the chips while reaming.*



FRESE FRONTALI CILINDRICHE A 4 TAGLIENTI IN HSS-CO8% CON ATTACCO WELDON

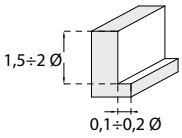
HSS-CO8% four flutes end mills, Weldon shank / Fraises à rainurer HSS-CO8%, quatre dents, queue Weldon / Fresas frontales HSS-CO8%, mango Weldon /Vierschneider Langlochfräser

Universal

DIN 844 K

24013 24015





Finitura
Finishing

Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

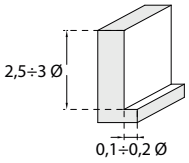
Ø k10	d mm	L mm	/ mm	z	pcs	Art. 24013 HSS-Co8% cod.	€ cad/each	Art. 24015 HSS-Co8%+TiAlN cod.	€ cad/each
3	6	52	8	4	1	240130300	15,019	240150300	23,182
4	6	55	11	4	1	240130400	15,019	240150400	22,059
5	6	57	13	4	1	240130500	15,019	240150500	22,059
6	6	57	13	4	1	240130600	15,019	240150600	21,894
7	10	66	16	4	1	240130700	21,915	240150700	30,109
8	10	69	19	4	1	240130800	20,371	240150800	28,762
9	10	69	19	4	1	240130900	21,915	240150900	29,893
10	10	72	22	4	1	240131000	20,371	240151000	28,821
12	12	83	26	4	1	240131200	28,435	240151200	38,158
14	12	83	26	4	1	240131400	35,977	240151400	46,373
16	16	92	32	4	1	240131600	38,743	240151600	56,617
18	16	92	32	4	1	240131800	50,647	240151800	68,101
20	20	104	38	4	1	240132000	58,502	240152000	77,114
22	20	104	38	6	1	240132200	71,059	240152200	94,842

Universal

DIN 844 L

24014 24016





Finitura
Finishing

Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung

Ø k10	d mm	L mm	/ mm	z	pcs	Art. 24014 HSS-Co8% cod.	€ cad/each	Art. 24016 HSS-Co8%+TiAlN cod.	€ cad/each
4	6	63	19	4	1	240140400	20,869	240160400	30,264
5	6	68	24	4	1	240140500	20,869	240160500	29,754
6	6	68	24	4	1	240140600	20,869	240160600	28,545
8	10	88	38	4	1	240140800	29,375	240160800	38,633
10	10	95	45	4	1	240141000	29,375	240161000	39,895
12	12	110	53	4	1	240141200	41,006	240161200	51,478
14	12	110	53	4	1	240141400	49,425	240161400	65,069
16	16	123	63	4	1	240141600	60,356	240161600	81,629
18	16	123	63	4	1	240141800	74,698	240161800	97,153
20	20	141	75	4	1	240142000	84,558	240162000	105,193

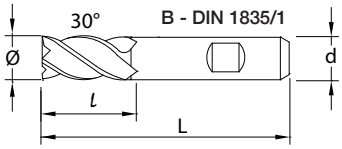
Confezione / Packaging



- Acciai e metalli con R<850 N/mm^2, alluminio con Si 3÷12%, ghisa con durezza HB30<200
- Steel and metals with R<850 N/mm^2, aluminium with Si 3÷12%, cast iron with HB30<200.

Applicazioni / Applications



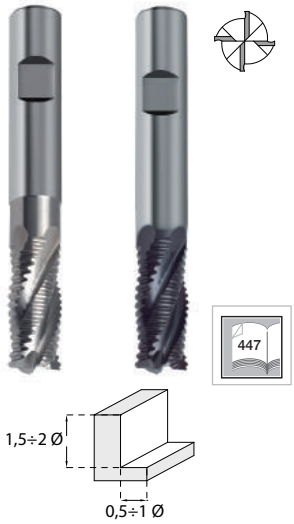


FRESE FRONTALI CILINDRICHE A 4 TAGLIENTI A SGROSSARE IN HSS-CO8% CON ATTACCO WELDON

HSS-CO8% four flutes end mills, Weldon shank for roughing purpose / Fraises à rainurer HSS-CO8% pour dégrossissage, quatre dents, queue Weldon
Fresas frontales HSS-CO8%, mango Weldon / Vierischneider Langlochfräser

DIN 844 K

24017 24019



Sgrossatura
Roughing

Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

Ø k12	d mm	L mm	/ mm	z	pcs	Art. 24017 HSS-Co8% cod.	€ cad/each	Art. 24019 HSS-Co8%+TiAlN cod.	€ cad/each
6	6	57	13	4	1	240170600	29,453	240190600	36,685
8	10	69	19	4	1	240170800	33,344	240190800	42,246
10	10	72	22	4	1	240171000	33,344	240191000	47,979
12	12	79	22	4	1	240171200	40,977	240191200	51,178
14	12	83	26	4	1	240171400	47,288	240191400	58,494
16	16	92	32	4	1	240171600	53,508	240191600	70,011
18	16	92	32	4	1	240171800	60,053	240191800	76,585
20	20	104	38	4	1	240172000	75,968	240192000	94,376

DIN 844 L

24018 24020



Sgrossatura
Roughing

Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung

Ø k12	d mm	L mm	/ mm	z	pcs	Art. 24018 HSS-Co8% cod.	€ cad/each	Art. 24020 HSS-Co8%+TiAlN cod.	€ cad/each
6	6	68	24	4	1	240180600	41,380	240200600	47,135
8	10	88	38	4	1	240180800	42,533	240200800	52,274
10	10	95	45	4	1	240181000	43,629	240201000	52,418
12	12	110	53	4	1	240181200	58,132	240201200	72,388
14	12	110	53	4	1	240181400	58,265	240201400	70,163
16	16	123	63	4	1	240181600	73,265	240201600	92,038
18	16	123	63	4	1	240181800	88,632	240201800	108,536
20	20	141	75	4	1	240182000	97,446	240202000	131,360
22	20	141	75	4	1	240182200	166,431	240202200	204,333
25	25	166	90	4	1	240182500	198,227	240202500	251,602
28	25	166	90	4	1	240182800	227,555	240202800	285,248

Confezione / Packaging

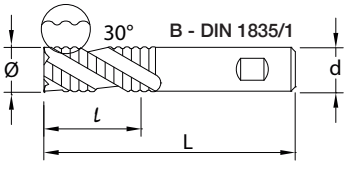


- Acciai e metalli con R<850 N/mm^2, ghisa con durezza HB30<200, acciai molto duri con R<1000 N/mm^2.
- Steel and metals with R<850 N/mm^2, cast iron with HB30<200, hard steel with R<1000 N/mm^2.

Applicazioni / Applications



Rompitruciolo tipo NR
Chip-breaker NR type



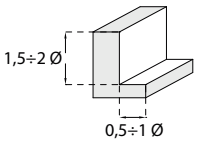
FRESE FRONTALI CIL. A 4 TAGLIENTI PER SEMIFINITURA IN HSS-CO8% CON ATTACCO WELDON

HSS-CO8% four flutes end mills, Weldon shank for finishing purpose / Fraises à rainurer HSS-CO8% pour semi-finissage, quatre dents, queue Weldon
Fresas frontales HSS-CO8%, mango Weldon /Vierschneider Langlochfräser

DIN 844 K

24021 24023





Semifinitura
Semifinishing

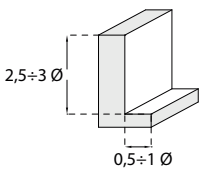
Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

Ø k12	d mm	L mm	/ mm	z	pcs	Art. 24021 HSS-Co8% cod.	€ cad/each	Art. 24023 HSS-Co8%+TiAlN cod.	€ cad/each
6	6	57	13	4	1	240210600	41,221	240230600	51,178
8	10	69	19	4	1	240210800	43,405	240230800	54,982
10	10	72	22	4	1	240211000	53,376	240231000	64,210
12	12	83	26	4	1	240211200	59,115	240231200	72,447
14	12	83	26	4	1	240211400	70,777	240231400	85,715
16	16	92	32	4	1	240211600	81,153	240231600	102,831
18	16	92	32	4	1	240211800	85,693	240231800	109,256
20	20	104	38	4	1	240212000	97,575	240232000	121,571

DIN 844 L

24022 24024





Semifinitura
Semifinishing

Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung

Ø k12	d mm	L mm	/ mm	z	pcs	Art. 24022 HSS-Co8% cod.	€ cad/each	Art. 24024 HSS-Co8%+TiAlN cod.	€ cad/each
6	6	68	24	4	1	240220600	53,326	240240600	64,957
8	10	88	38	4	1	240220800	56,942	240240800	68,446
10	10	95	45	4	1	240221000	64,211	240241000	76,394
12	12	110	53	4	1	240221200	84,475	240241200	101,130
14	12	110	53	4	1	240221400	93,572	240241400	114,460
16	16	123	63	4	1	240221600	110,726	240241600	133,272
18	16	123	63	4	1	240221800	114,700	240241800	144,760
20	20	141	75	4	1	240222000	131,138	240242000	163,865
22	20	141	75	4	1	240222200	323,084	240242200	399,116
25	25	166	90	4	1	240222500	382,080	240242500	481,700
28	25	166	90	4	1	240222800	478,007	240242800	598,817

Confezione / Packaging

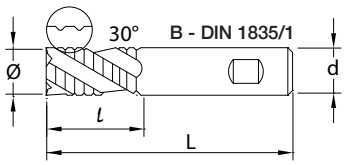


- Acciai e metalli con R<850 N/mm^2, ghisa con durezza HB30<200, acciai molto duri con R<1000 N/mm^2.
- Steel and metals with R<850 N/mm^2, cast iron with HB30<200, hard steel with R<1000 N/mm^2.

Applicazioni / Applications



Rompitruciolo tipo NF
Chip-breaker NF type

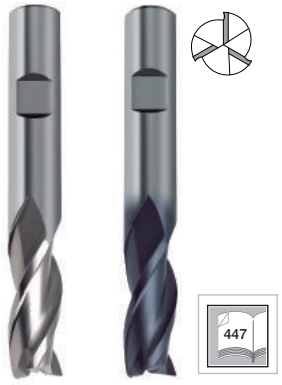


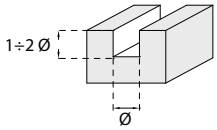
FRESE FRONTALI CILINDRICHE A 3 TAGLIENTI IN HSS-CO8% CON ATTACCO WELDON

HSS-CO8% three flutes end mills, Weldon shank / Fraises à rainurer HSS-CO8%, trois dents, queue Weldon / Fresas frontales HSS-CO8%, mango Weldon /Dreischneider Langlochfräser

DIN 844 K

24009 24011





Fresa per cave
Slot end mills

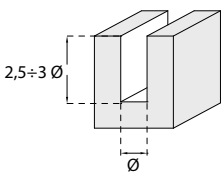
Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

Ø e8	d mm	L mm	/ mm	z	pcs	Art. 24009 HSS-Co8% cod.	€ cad/each	Art. 24011 HSS-Co8%+TiAlN cod.	€ cad/each
3	6	52	13	3	1	240090300	14,967	240110300	20,533
4	6	55	13	3	1	240090400	14,967	240110400	20,533
5	6	57	13	3	1	240090500	14,967	240110500	20,533
6	6	57	13	3	1	240090600	15,019	240110600	19,640
8	10	69	19	3	1	240090800	20,371	240110800	25,600
10	10	72	22	3	1	240091000	19,903	240111000	25,865
12	12	79	22	3	1	240091200	26,434	240111200	34,333
14	12	83	26	3	1	240091400	33,306	240111400	40,759
16	16	92	32	3	1	240091600	37,758	240111600	48,312
18	16	92	32	3	1	240091800	48,721	240111800	58,180
20	20	104	38	3	1	240092000	55,649	240112000	67,942

DIN 844 L

24010 24012





Fresa per cave
Slot end mills

Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung

Ø h10	d mm	L mm	/ mm	z	pcs	Art. 24010 HSS-Co8% cod.	€ cad/each	Art. 24012 HSS-Co8%+TiAlN cod.	€ cad/each
3	6	68	13	3	1	240100300	23,948	240120300	27,799
4	6	68	13	3	1	240100400	23,948	240120400	27,799
5	6	68	13	3	1	240100500	23,948	240120500	27,799
6	6	68	24	3	1	240100600	19,523	240120600	26,521
8	10	88	38	3	1	240100800	27,480	240120800	33,864
10	10	95	45	3	1	240101000	27,480	240121000	34,877
12	12	110	53	3	1	240101200	37,758	240121200	46,315
14	12	110	53	3	1	240101400	47,995	240121400	60,477
16	16	123	63	3	1	240101600	52,795	240121600	72,574
18	16	123	63	3	1	240101800	65,309	240121800	90,282
20	20	141	75	3	1	240102000	79,724	240122000	102,407

Confezione / Packaging

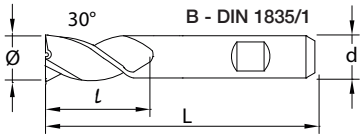


- Acciai e metalli con R<850 N/mm^2.
- Steel and metals with R<850 N/mm^2.

Applicazioni / Applications



Acciaio *Steel* | Metals



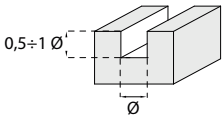
FRESE FRONTALI CILINDRICHE A 2 TAGLIENTI IN HSS-CO8% CON ATTACCO WELDON

HSS-CO8% two flutes end mills, Weldon shank / Fraises à rainurer HSS-CO8%, deux dents, queue Weldon
Fresas frontales HSS-CO8%, mango Weldon /Zweischneider Langlochfräser

DIN 327 D

24001 24003





Fresa per cave
Slot end mills

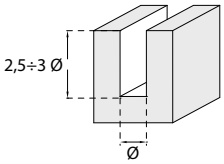
Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

Ø	tol.	d mm	L mm	/ mm	z	pcs	Art. 24001 HSS-Co8% cod.	€ cad/each	Art. 24003 HSS-Co8%+TiAlN cod.	€ cad/each
2	e8	6	48	4	2	1	240010200	12,739	240030200	19,417
2,5	e8	6	49	5	2	1	240010250	13,749	240030250	21,433
3	e8	6	49	5	2	1	240010300	12,739	240030300	19,523
3,5	h10	6	51	7	2	1	240010350	13,689	240030350	20,160
4	e8	6	51	7	2	1	240010400	12,739	240030400	18,732
4,5	h10	6	52	8	2	1	240010450	13,689	240030450	20,535
5	e8	6	52	8	2	1	240010500	12,739	240030500	18,626
5,5	h10	6	52	8	2	1	240010550	13,689	240030550	19,841
6	e8	6	52	8	2	1	240010600	12,739	240030600	18,142
6,5	h10	10	60	10	2	1	240010650	19,696	240030650	25,307
7	e8	10	60	10	2	1	240010700	19,696	240030700	25,159
7,5	h10	10	61	11	2	1	240010750	19,696	240030750	26,577
8	e8	10	61	11	2	1	240010800	18,289	240030800	24,146
8,5	h10	10	61	11	2	1	240010850	19,696	240030850	26,070
9	h10	10	61	11	2	1	240010900	19,696	240030900	26,843
9,5	h10	10	63	13	2	1	240010950	19,696	240030950	27,693
10	e8	10	63	13	2	1	240011000	18,289	240031000	27,985
11	h10	12	73	16	2	1	240011100	26,143	240031100	34,355
12	e8	12	73	16	2	1	240011200	24,347	240031200	32,379
13	h10	12	73	16	2	1	240011300	28,162	240031300	37,319
14	e8	12	73	16	2	1	240011400	27,601	240031400	35,233
15	h10	12	79	19	2	1	240011500	33,272	240031500	41,440
16	e8	16	79	19	2	1	240011600	33,772	240031600	46,425
18	e8	16	79	19	2	1	240011800	40,504	240031800	52,791
20	e8	20	88	22	2	1	240012000	48,358	240032000	63,980

DIN 844 L

24002 24004





Fresa per cave
Slot end mills

Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung

Ø h10	d mm	L mm	/ mm	z	pcs	Art. 24002 HSS-Co8% cod.	€ cad/each	Art. 24004 HSS-Co8%+TiAlN cod.	€ cad/each
3	6	56	12	2	1	240020300	20,645	240040300	29,036
4	6	63	19	2	1	240020400	20,645	240040400	29,716
5	6	68	24	2	1	240020500	20,645	240040500	29,716
6	6	68	24	2	1	240020600	20,645	240040600	28,417
8	10	88	38	2	1	240020800	29,059	240040800	37,319
10	10	95	45	2	1	240021000	29,059	240041000	37,560
12	12	110	53	2	1	240021200	38,597	240041200	47,746
14	12	110	53	2	1	240021400	44,635	240041400	61,832
16	16	123	63	2	1	240021600	54,555	240041600	81,954
18	16	123	63	2	1	240021800	72,565	240041800	98,052
20	20	141	75	2	1	240022000	81,457	240042000	113,541

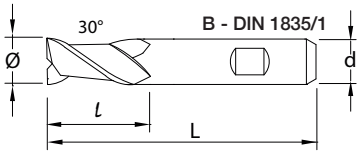
Confezione / Packaging



- Acciai e metalli con R<850 N/mm^2, ghisa con durezza HB30<200.
- Steel and metals with R<850 N/mm^2, cast iron with HB30<200.

Applicazioni / Applications





FRESE FRONTALI CILINDRICHE A RAGGIO IN HSS-CO8% CON ATTACCO WELDON

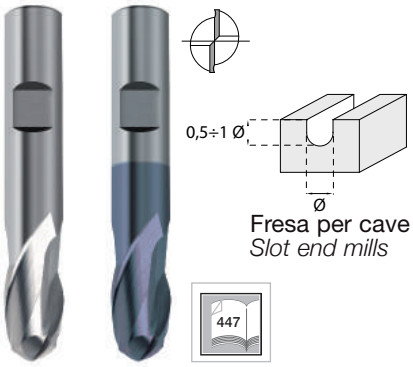
HSS-CO8% round edges end mills, Weldon shank / Fraises à rainurer à bout hémisphérique HSS-CO8%, queue Weldon
Fresas frontales HSS-CO8%, mango Weldon /Zweischneider Langlochfräser

DIN 327 D

24005 24007

Serie corta / Short serie / Sèrie courte
Serie corta / Kurze Ausführung

Ø e8/h10	d mm	L mm	/ mm	z	pcs	Art. 24005 HSS-Co8% cod.	€ cad/each	Art. 24007 HSS-Co8%+TiAlN cod.	€ cad/each
2	6	48	4	2	1	240050200	24,368	240070200	32,665
3	6	49	5	2	1	240050300	24,037	240070300	32,500
4	6	51	7	2	1	240050400	24,368	240070400	31,063
5	6	52	8	2	1	240050500	23,818	240070500	31,480
6	6	52	8	2	1	240050600	24,368	240070600	32,109
7	10	60	10	2	1	240050700	31,891	240070700	40,122
8	10	61	11	2	1	240050800	28,194	240070800	37,512
9	10	61	11	2	1	240050900	31,591	240070900	40,099
10	10	63	13	2	1	240051000	29,143	240071000	37,977
12	12	73	16	2	1	240051200	38,695	240071200	48,725
14	12	73	16	2	1	240051400	43,212	240071400	52,635
16	16	79	19	2	1	240051600	49,678	240071600	64,320
18	16	79	19	2	1	240051800	61,195	240071800	71,953
20	20	88	22	2	1	240052000	66,004	240072000	84,032



Fresa per cave
Slot end mills

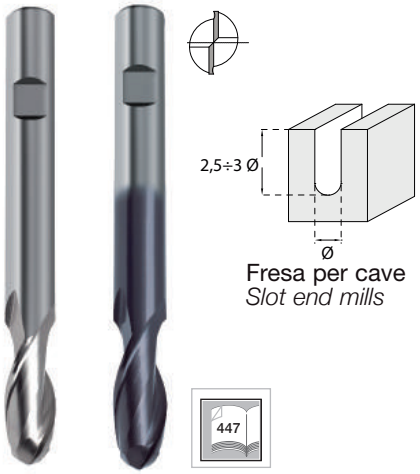
447

Norma Krino

24006 24008

Serie lunga / Long serie / Sèrie longue
Serie larga / Lange Ausführung

Ø h10	d mm	L mm	/ mm	z	pcs	Art. 24006 HSS-Co8% cod.	€ cad/each	Art. 24008 HSS-Co8%+TiAlN cod.	€ cad/each
3	6	56	8	2	1	240060300	29,805	240080300	37,319
4	6	63	11	2	1	240060400	29,256	240080400	37,362
5	6	68	13	2	1	240060500	31,122	240080500	37,977
6	6	68	13	2	1	240060600	29,805	240080600	37,362
8	10	88	19	2	1	240060800	35,867	240080800	44,155
10	10	95	22	2	1	240061000	38,037	240081000	48,325
12	12	110	26	2	1	240061200	46,752	240081200	58,162
14	12	110	26	2	1	240061400	53,185	240081400	65,478
16	16	123	32	2	1	240061600	62,015	240081600	81,941
18	16	123	32	2	1	240061800	76,503	240081800	98,736
20	20	141	38	2	1	240062000	83,138	240082000	113,772



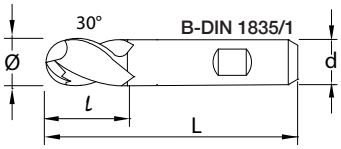
Fresa per cave
Slot end mills

447

- Acciai e metalli con R<850 N/mm^2, ghisa con durezza HB30<200.
- Steel and metals with R<850 N/mm^2, cast iron with HB30<200.

Applicazioni / Applications

Acciaio *Steel* | Metals | Ghisa *Cast iron*



FRESA FRONTALE PER PANTOGRAFI A UN DENTE PER ALLUMINIO

One flute end mills for aluminium

Alu

26100

Ø mm	d mm	L mm	/ mm	z	cod.	€ cad/each
3	8	60	12	1	2610003060	21,110
4	8	60	12	1	2610004060	21,110
4	8	80	16	1	2610004080	29,820
5	8	60	12	1	2610005060	21,110
5	8	80	16	1	2610005080	29,820
6	8	60	14	1	2610006060	21,110
6	8	90	16	1	2610006090	29,820
8	8	80	15	1	2610008080	25,757
8	8	100	28	1	2610008100	33,093
10	10	80	15	1	2610010080	26,529



1 Dente
1 Cutting edge

HSS-G

Applicazioni / Applications: Alu

Confezione / Packaging



FRESE FRONTALI CILINDRICHE A 4 TAGLIENTI IN HSS-CO5% CON ATTACCO CONICO MORSE

HSS-CO5% Morse taper end mills / Fraises à rainurer HSS-CO5%, queue Morse
Fresas frontales HSS-CO5%, mango Morse / Vierschneider Langlochfräser

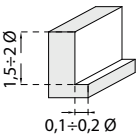
24025

Art. 24025
Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

HSS-CO5%



DIN 845K



Finitura
Finishing

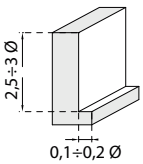
Ø k10	MK	M	FORM	L mm	/ mm	z	pcs	cod.	€ cad/each
16	2	M10	A	117	32	4	1	240251600	61,059
18	2	M10	A	117	32	4	1	240251800	64,237
20	2	M10	A	123	38	4	1	240252000	72,366
25	3	M12	A	147	45	6	1	240252500	96,980
28	3	M12	A	147	45	6	1	240252800	108,660
30	3	M12	A	147	45	6	1	240253000	117,074
32	4	M16	A	178	53	6	1	240253200	141,266
40	4	M16	A	178	63	6	1	240254000	204,646

24026

Art. 24026
Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung



DIN 845L



Finitura
Finishing

Ø k10	MK	M	FORM	L mm	/ mm	z	pcs	cod.	€ cad/each
16	2	M10	A	148	63	4	1	240261600	69,239
20	2	M10	A	160	75	4	1	240262000	87,135
25	3	M12	A	192	90	6	1	240262500	129,917
28	3	M12	A	192	90	6	1	240262800	148,636
32	4	M16	A	231	106	6	1	240263200	208,369
40	4	M16	A	250	125	6	1	240264000	325,901

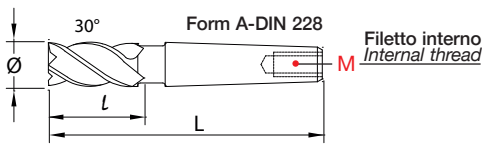
Confezione / Packaging



- Acciai e metalli con R<850 N/mm^2, ghisa con durezza HB30<200.
- Steel and metals with R<850 N/mm^2, cast iron with HB30<200.

Applicazioni / Applications





FRESE FRONTALI CILINDRICHE A 4 TAGLIENTI A SGROSSARE IN HSS-CO5% CON ATTACCO CONICO MORSE

HSS-CO5% Morse taper end mills for roughing purpose / Fraises à rainurer HSS-CO5%, queue Morse, pour dégrossissage
Fresas frontales HSS-CO5%, mango Morse / Vierschneider Langlochfräser

24029

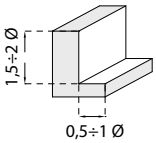
Art. 24029
Serie corta / Short serie / Sèrie courte / Serie corta / Kurze Ausführung

HSS-CO5%

Ø k12	MK	M	FORM	L mm	/ mm	z	pcs	cod.	€ cad/each
16	2	M10	A	117	32	4	1	240291600	82,196
18	2	M10	A	117	32	4	1	240291800	85,296
20	2	M10	A	123	38	4	1	240292000	101,260
25	3	M12	A	147	45	6	1	240292500	139,257
28	3	M12	A	147	45	6	1	240292800	157,661
30	3	M12	A	147	45	6	1	240293000	169,931
40	4	M12	A	147	45	6	1	240294000	399,000



DIN 845K



Sgrossatura
Roughing

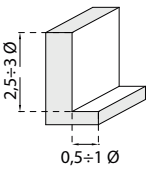
24030

Art. 24030
Serie lunga / Long serie / Sèrie longue / Serie larga / Lange Ausführung

Ø k12	MK	M	FORM	L mm	/ mm	z	pcs	cod.	€ cad/each
16	2	M10	A	148	63	4	1	240301600	110,429
20	2	M10	A	160	75	4	1	240302000	140,511
25	3	M12	A	192	90	6	1	240302500	200,013
28	3	M12	A	192	90	6	1	240302800	229,434



DIN 845L



Sgrossatura
Roughing

Confezione / Packaging

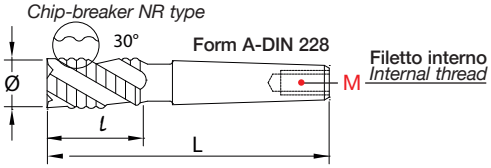


- Acciai e metalli con R<850 N/mm^2, ghisa con durezza HB30<200.
- Steel and metals with R<850 N/mm^2, cast iron with HB30<200.

Applicazioni / Applications



Rompitruciolo tipo NR
Chip-breaker NR type

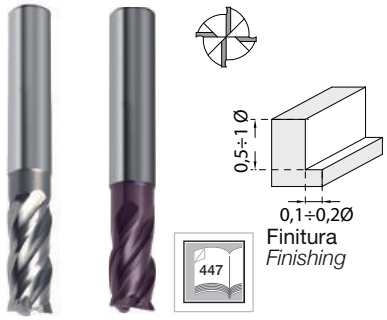


FRESE FRONTALI A 4 TAGLIENTI IN METALLO DURO INTEGRALE

*Four flutes **carbide** end mills / Fraise carbure quatre dents*
Fresas frontales de metal duro cuatro dientes / Hartmetall Vierschneider Langlochfräser

DIN 6527 K

24165 24167

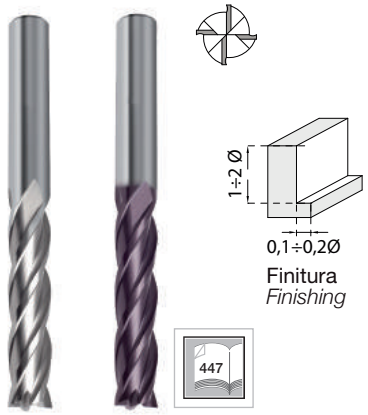


Serie corta / Short serie

Ø h10	d mm	L mm	/ mm	z	pcs	Art. 24165 VHM Carbide cod.	€ cad/each	Art. 24167 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
2	6	50	4	4	1	241650200	30,327	241670200	34,902
3	6	50	5	4	1	241650300	27,370	241670300	31,500
4	6	54	8	4	1	241650400	24,540	241670400	29,437
5	6	54	9	4	1	241650500	24,540	241670500	29,437
6	6	54	10	4	1	241650600	27,235	241670600	35,728
8	8	58	12	4	1	241650800	34,301	241670800	51,038
10	10	66	14	4	1	241651000	52,320	241671000	74,857
12	12	73	16	4	1	241651200	78,230	241671200	96,974
14	14	75	18	4	1	241651400	100,797	241671400	129,298
16	16	82	22	4	1	241651600	129,975	241671600	166,727
18	18	84	24	4	1	241651800	192,334	241671800	246,687
20	20	92	26	4	1	241652000	204,246	241672000	261,999

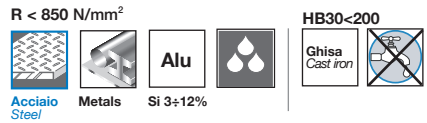
DIN 6527 L

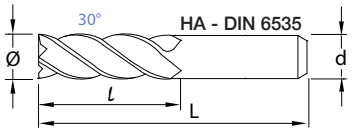
24166 24168



Serie lunga / Long serie

Ø h10	d mm	L mm	/ mm	z	pcs	Art. 24166 VHM Carbide cod.	€ cad/each	Art. 24168 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
2	6	57	7	4	1	241660200	40,072	241680200	46,049
3	6	57	8	4	1	241660300	34,062	241680300	39,603
4	6	57	11	4	1	241660400	31,293	241680400	37,518
5	6	57	13	4	1	241660500	30,830	241680500	37,016
6	6	57	13	4	1	241660600	30,755	241680600	42,532
8	8	63	19	4	1	241660800	37,715	241680800	61,390
9	10	72	19	4	1	241660900	67,222	241680900	85,272
10	10	72	22	4	1	241661000	59,931	241681000	86,445
12	12	83	26	4	1	241661200	81,372	241681200	112,567
14	14	83	26	4	1	241661400	116,048	241681400	139,300
16	16	92	32	4	1	241661600	140,715	241681600	173,221
18	18	92	32	4	1	241661800	197,819	241681800	245,295
20	20	104	38	4	1	241662000	217,293	241682000	275,889





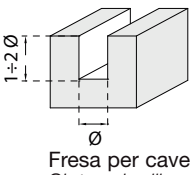
DIN 6527 L

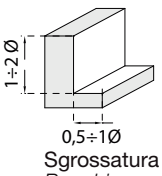
24182

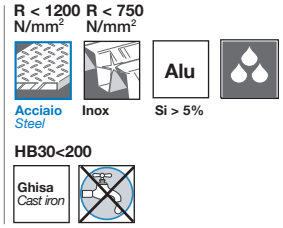
Serie lunga / Long serie

Ø h10	d mm	L mm	/ mm	z	pcs	VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
6	6	57	13	4	1	241820600	109,191
8	8	63	19	4	1	241820800	124,898
10	10	72	22	4	1	241821000	136,731
12	12	83	26	4	1	241821200	162,179
14	14	83	26	4	1	241821400	226,694
16	16	92	32	4	1	241821600	308,067
18	18	92	32	4	1	241821800	342,560
20	20	104	38	4	1	241822000	376,329

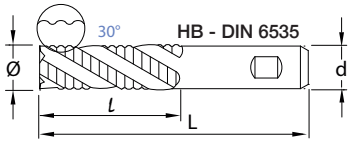








Rompitruciolo tipo NRF
Chip-breaker NRF type



FRESE FRONTALI A 4 TAGLIENTI AD ELICA VARIABILE IN METALLO DURO INTEGRALE

*Four flutes **carbide** end mills with variable helix / Fraise carbure quatre dents avec helice variable*

Fresas frontales de metal duro cuatro dientes con helica variable / Hartmetall Vierschneider Langlochfräser

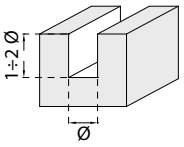
DIN 6527 L

24169 24171

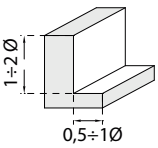


Serie lunga / *Long serie*

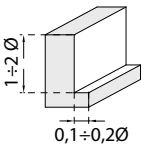
Ø h10	d mm	d_1 mm	L mm	/ mm	z	pcs	Art. 24169 VHM Carbide cod.	€ cad/each	Art. 24171 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
4	6	3,7	57	11	4	1	241690400	37,892	241710400	43,031
5	6	4,7	57	13	4	1	241690500	37,892	241710500	43,031
6	6	5,5	57	13	4	1	241690600	37,119	241710600	52,385
8	8	7,5	63	19	4	1	241690800	43,305	241710800	72,342
10	10	9,2	72	22	4	1	241691000	72,693	241711000	109,761
12	12	11,2	83	26	4	1	241691200	103,624	241711200	139,695
14	14	13,2	83	26	4	1	241691400	140,743	241711400	188,339
16	16	15,0	92	32	4	1	241691600	171,676	241711600	241,972
18	18	17,0	92	32	4	1	241691800	247,460	241711800	334,271
20	20	19,0	104	38	4	1	241692000	286,127	241712000	376,678



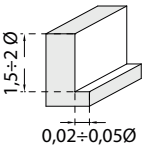
Fresa per cave
Slot end mills



Sgrossatura
Roughing



Finitura
Finishing



Superfinitura
Superfinishing

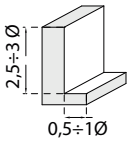
Norma Krino
Krino norm

24170 24172

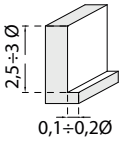


Serie extra lunga / *Extra long serie*

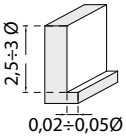
Ø mm	d mm	d_1 mm	L mm	/ mm	z	pcs	Art. 24170 VHM Carbide cod.	€ cad/each	Art. 24172 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
10	10	9,2	100	40	4	1	241701000	147,456	241721000	180,735
12	12	11,2	150	45	4	1	241701200	235,930	241721200	259,647
14	14	13,2	150	45	4	1	241701400	312,607	241721400	440,816
16	16	15,0	150	65	4	1	241701600	418,775	241721600	476,826
18	18	17,0	150	65	4	1	241701800	471,859	241721800	670,572
20	20	19,0	150	65	4	1	241702000	551,485	241722000	672,866



Sgrossatura
Roughing

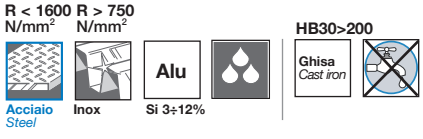


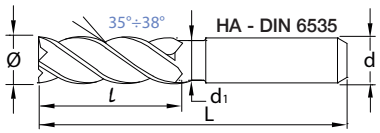
Finitura
Finishing



Superfinitura
Superfinishing

Le eliche variabili garantiscono minori vibrazioni, migliore finitura, maggiore rendimento.
The variable helix ensures less vibration, better finishing, higher efficiency.





Eliche variabili 35°-38°
Variable helix 35°-38°

FRESE FRONTALI A 4 E 3 TAGLIENTI IN METALLO DURO INTEGRALE RIV. TiAlN

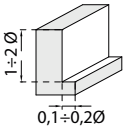
*Four and three flutes **carbide** end mills TiAlN coated / Fraise carbure quatre et trois dents TiAlN*
Fresas frontales de metal duro cuatro y tres dientes, TiAlN

DIN 6527 L

24183



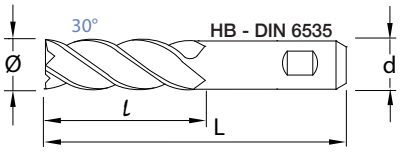




Finitura
Finishing

Serie lunga / Long serie

Ø h10	d mm	L mm	l mm	z	pcs	cod.	€ cad/each
2	2	57	7	4	1	241830200	47,167
3	3	57	8	4	1	241830300	41,156
4	4	57	11	4	1	241830400	39,933
5	5	57	13	4	1	241830500	39,933
6	6	57	13	4	1	241830600	39,933
8	8	63	19	4	1	241830800	50,643
9	9	72	19	4	1	241830900	80,527
10	10	72	22	4	1	241831000	74,833
12	12	83	26	4	1	241831200	103,887
14	14	83	26	4	1	241831400	141,882
16	16	92	32	4	1	241831600	171,229
18	18	92	32	4	1	241831800	248,777
20	20	104	38	4	1	241832000	272,685



DIN 6527 L

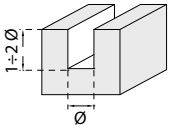
24184



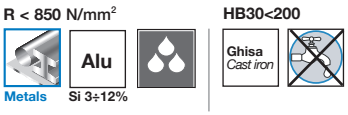


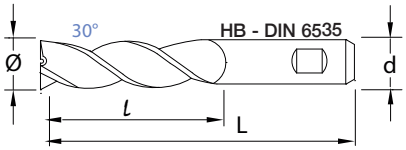
Serie lunga / Long serie

Ø h10	d mm	L mm	l mm	z	pcs	cod.	€ cad/each
2	6	57	6	3	1	241840200	46,148
3	6	57	7	3	1	241840300	46,148
4	6	57	8	3	1	241840400	44,170
5	6	57	10	3	1	241840500	44,170
6	6	57	10	3	1	241840600	44,170
8	8	63	16	3	1	241840800	57,100
9	10	72	16	3	1	241840900	79,114
10	10	72	19	3	1	241841000	81,853
12	12	83	22	3	1	241841200	116,684
14	14	83	22	3	1	241841400	150,501
16	16	92	26	3	1	241841600	188,091
18	18	92	26	3	1	241841800	264,906
20	20	104	32	3	1	241842000	295,159



Fresa per cave
Slot end mills





FRESE FRONTALI A 3 TAGLIENTI IN METALLO DURO INTEGRALE

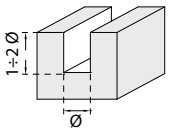
*Three flutes **carbide** end mills / Fraise carbure trois dents*

Fresas frontales de metal duro tres dientes / Hartmetall Dreischneider Langlochfräser

DIN 6527 L

24161 24163





Fresa per cave
Slot end mills



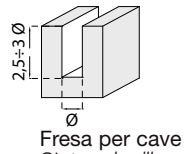
Serie lunga / Long serie

Ø h10	d mm	L mm	/ mm	z	pcs	Art. 24161 VHM Carbide cod.	€ cad/each	Art. 24163 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
3	6	57	7	3	1	241610300	35,035	241630300	40,991
4	6	57	8	3	1	241610400	33,438	241630400	39,131
5	6	57	10	3	1	241610500	33,438	241630500	39,131
6	6	57	10	3	1	241610600	33,438	241630600	39,131
8	8	63	16	3	1	241610800	41,077	241630800	51,282
9	10	72	16	3	1	241610900	58,503	241630900	73,821
10	10	72	19	3	1	241611000	59,704	241631000	74,545
12	12	83	22	3	1	241611200	87,375	241631200	108,918
14	14	83	22	3	1	241611400	113,498	241631400	141,513
16	16	92	26	3	1	241611600	142,567	241631600	173,302
18	18	92	26	3	1	241611800	203,334	241631800	244,002
20	20	104	32	3	1	241612000	223,924	241632000	272,190

Norma Krino /Krino norm

24162 24164



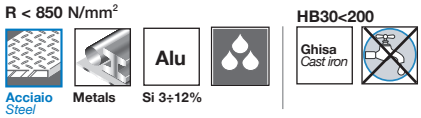


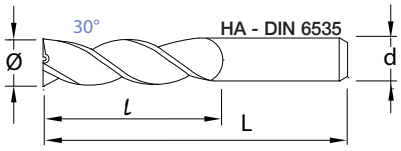
Fresa per cave
Slot end mills



Serie extra lunga / Extra long serie

Ø h10	d mm	L mm	/ mm	z	pcs	Art. 24162 VHM Carbide cod.	€ cad/each	Art. 24164 VHM+TiAlN Carbide + TiAlN cod.	€ cad/each
3	3	75	20	3	1	241620300	40,213	241640300	55,679
4	4	75	25	3	1	241620400	44,104	241640400	61,067
5	5	75	30	3	1	241620500	48,644	241640500	67,354
6	6	75	30	3	1	241620600	63,561	241640600	88,007
8	8	100	40	3	1	241620800	81,722	241640800	113,153
10	10	100	40	3	1	241621000	107,665	241641000	149,074
12	12	150	45	3	1	241621200	158,322	241641200	213,734
16	16	150	65	3	1	241621600	295,355	241641600	398,730
20	20	150	65	3	1	241622000	388,486	241642000	524,456



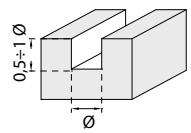


Norma Krino /Krino norm

24181



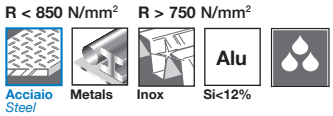


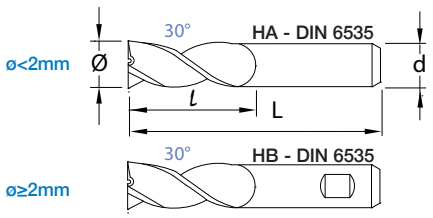


Mini fresa per cave
Mini slot end mills

Minifresa / Mini end mills

Ø e8	d mm	L mm	/ mm	z	pcs	VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
0,5	3	38	1,5	3	1	241810050	26,210
1	3	38	2	3	1	241810100	23,860
1,5	3	38	2	3	1	241810150	23,860
2	6	38	4	3	1	241810200	26,863
2,5	6	38	5	3	1	241810250	28,696
3	6	38	5	3	1	241810300	26,863
3,5	6	38	6	3	1	241810350	28,696
4	6	38	7	3	1	241810400	27,683
4,5	6	38	8	3	1	241810450	31,542
5	6	38	8	3	1	241810500	30,384
6	6	38	8	3	1	241810600	30,384
8	8	43	11	3	1	241810800	42,006
10	10	50	13	3	1	241811000	60,671
12	12	55	15	3	1	241811200	73,211





FRESE FRONTALI IN METALLO DURO INTEGRALE PER ALLUMINIO

Carbide *end mills for aluminium / Fraise carbure pour aluminium / Fresas frontales de metal duro para aluminium / Hartmetall Langlochfräser für Aluminium*

~ DIN 6527 L

24156

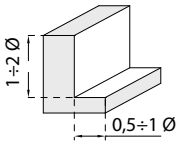


Taglienti raggiati
Corner radius

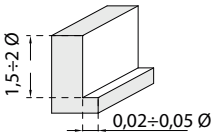
Serie lunga / *Long serie*

Canalina di lubrorefrigerazione
Cooling System

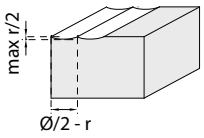
Ø h10	d mm	d_1 mm	L mm	l mm	r mm	z	pcs	cod.	€ cad/each
6	6	5,7	57	10	1	3	1	241560600	73,617
8	8	7,7	63	16	1	3	1	241560800	82,819
10	10	9,5	72	19	1,5	3	1	241561000	147,235
12	12	11,5	83	22	1,5	3	1	241561200	213,490
16	16	15,5	92	26	2	3	1	241561600	340,479
20	20	19,5	104	32	2,5	3	1	241562000	482,193



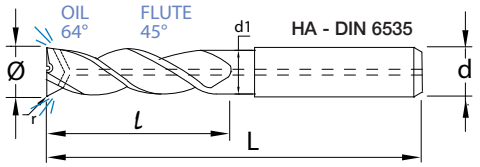
Sgrossatura
Roughing



Superfinitura
Superfinishing



Fresa per copiatori
Ball nose end mills



Alu
Si<12%

DIN 6527 K

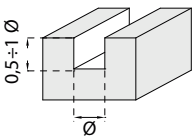
24154



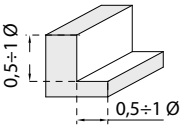
Serie corta / *Short serie*

Alu

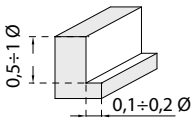
Ø e8	d mm	L mm	l mm	z	pcs	cod.	€ cad/each
3	6	50	4	2	1	241540300	27,026
4	6	54	5	2	1	241540400	27,026
5	6	54	6	2	1	241540500	27,026
6	6	54	7	2	1	241540600	27,026
8	8	58	9	2	1	241540800	32,429
10	10	66	11	2	1	241541000	43,655
12	12	73	12	2	1	241541200	69,639
14	14	75	14	2	1	241541400	96,665
16	16	82	16	2	1	241541600	103,940
18	18	84	18	2	1	241541800	141,359
20	20	92	20	2	1	241542000	187,092



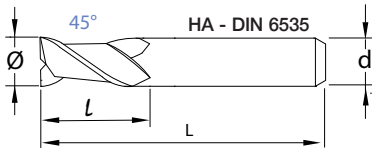
Frese per cave
Slot end mills



Sgrossatura
Roughing



Finitura
Finishing



Alu
Si<3%

Norma Krino

Krino norm

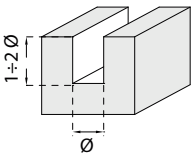
24155



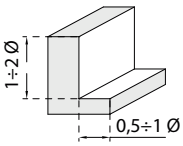
Serie extra lunga / *Extra long serie*

Alu

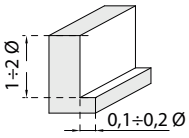
Ø h10	d mm	L mm	l mm	z	pcs	cod.	€ cad/each
5	5	75	30	2	1	241550500	52,907
6	6	75	30	2	1	241550600	71,843
8	8	100	40	2	1	241550800	86,833
10	10	100	40	2	1	241551000	121,734
12	12	150	45	2	1	241551200	191,582
16	16	150	65	2	1	241551600	351,234



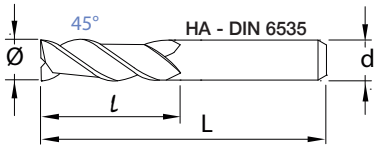
Frese per cave
Slot end mills



Sgrossatura
Roughing



Finitura
Finishing



Alu
Si<3%

Nella lavorazione di alluminio, superleghe di titanio e quando ci sia pericolo di incollaggio trucioli si consiglia l'uso di fresatura concorde, che è anche indicata nel caso di lavorazioni di spessori sottili, perché le forze di taglio aiutano a tenere saldo il pezzo in lavorazione.
When machining aluminum, titanium superalloys and whenever there is a risk of chip bonding, we recommend the use of concordant milling, which is also suitable for thin-wall machining, because the cutting forces help to keep the workpiece firmly in place.

FRESE FRONTALI A 2 TAGLIENTI IN METALLO DURO INTEGRALE

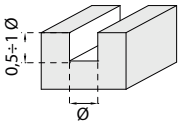
*Two-flutes **carbide** end mills / Fraise carbure deux dents*

Fresas frontales de metal duro dos dientes / Hartmetall Zweischneider Langlochfräser

DIN 6527 K

24150 24152

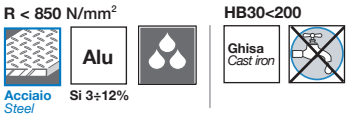




Frese per cave
Slot end mills

Serie corta / Short serie

Ø mm	d mm	L mm	l mm	z	pcs	Art. 24150 VHM Carbide cod.	€ cad/each	Art. 24152 VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
2	6	50	3	2	1	241500200	27,850	241520200	32,602
3	6	50	4	2	1	241500300	27,141	241520300	31,737
4	6	54	5	2	1	241500400	26,254	241520400	30,700
5	6	54	6	2	1	241500500	26,254	241520500	30,700
6	6	54	7	2	1	241500600	25,190	241520600	29,489
8	8	58	9	2	1	241500800	34,946	241520800	40,904
10	10	66	11	2	1	241501000	51,443	241521000	60,189
12	12	73	12	2	1	241501200	75,391	241521200	88,208
14	14	75	14	2	1	241501400	104,660	241521400	122,453
16	16	82	16	2	1	241501600	120,626	241521600	141,132
18	18	84	18	2	1	241501800	184,486	241521800	215,849
20	20	92	20	2	1	241502000	196,904	241522000	230,378

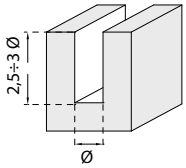


Norma Krino

Krino norm

24151 24153

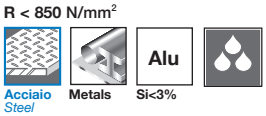


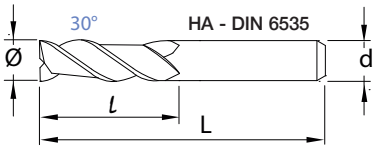


Frese per cave
Slot end mills

Serie extra lunga / Extra long serie

Ø mm	d mm	L mm	l mm	z	pcs	Art. 24151 VHM Carbide cod.	€ cad/each	Art. 24153 VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
3	3	75	20	2	1	241510300	42,926	241530300	57,561
4	4	75	25	2	1	241510400	47,355	241530400	63,511
5	5	75	30	2	1	241510500	49,617	241530500	66,566
6	6	75	30	2	1	241510600	55,454	241530600	70,069
8	8	100	40	2	1	241510800	93,731	241530800	123,431
10	10	100	40	2	1	241511000	113,277	241531000	155,856
12	12	150	45	2	1	241511200	174,280	241531200	242,249
14	14	150	45	2	1	241511400	221,226	241531400	290,457
16	16	150	65	2	1	241511600	293,554	241531600	385,419
18	18	150	65	2	1	241511800	350,003	241531800	434,848
20	20	150	65	2	1	241512000	395,237	241532000	491,045





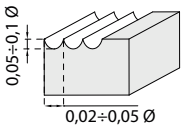
FRESE FRONTALI A RAGGIO IN METALLO DURO INTEGRALE

Carbide *end mills with ball end / Fraise carbure à bout hémisphérique*
Fresas frontales radiales de metal duro / Hartmetall Langlochfräser

DIN 6527 L

24157 **24159**





Frese per copiatori
Ball nose end mills

447

Serie lunga / Long serie

Ø h10	d mm	L mm	/ mm	z	pcs	Art. 24157 VHM Carbide cod.	€ cad/each	Art. 24159 VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
2	6	57	6	2	1	241570200	37,951	241590200	50,224
3	6	57	7	2	1	241570300	37,696	241590300	46,411
4	6	57	8	2	1	241570400	36,853	241590400	46,411
5	6	57	10	2	1	241570500	37,696	241590500	46,411
6	6	57	10	2	1	241570600	36,853	241590600	46,411
8	8	63	16	2	1	241570800	43,860	241590800	55,273
10	10	72	19	2	1	241571000	55,967	241591000	70,546
12	12	83	22	2	1	241571200	83,596	241591200	105,330
14	14	83	22	2	1	241571400	107,499	241591400	135,458
16	16	92	26	2	1	241571600	132,157	241591600	166,517
18	18	92	26	2	1	241571800	158,898	241591800	200,183
20	20	104	32	2	1	241572000	210,652	241592000	265,421

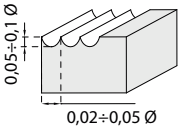
R < 1200 N/mm² R < 750 N/mm²

Acciaio *Steel* | Metals | Inox

Norma Krino / Krino norm

24158 **24160**





Frese per copiatori
Ball nose end mills

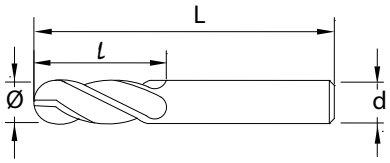
447

Serie extra lunga / Extra long serie

Ø h10	d mm	L mm	/ mm	z	pcs	Art. 24158 VHM Carbide cod.	€ cad/each	Art. 24160 VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
3	3	75	20	2	1	241580300	66,407	241600300	94,961
4	4	75	25	2	1	241580400	67,864	241600400	97,083
5	5	75	30	2	1	241580500	75,916	241600500	108,561
6	6	75	30	2	1	241580600	84,698	241600600	121,101
8	8	100	40	2	1	241580800	96,394	241600800	137,884
10	10	100	40	2	1	241581000	129,981	241601000	185,872
12	12	150	45	2	1	241581200	172,269	241601200	246,398

R < 850 N/mm²

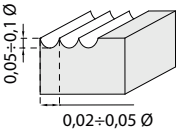
Acciaio *Steel* | Metals | Alu Si<12%



DIN 6528

24179





Frese per copiatori
Ball nose end mills

447

Serie lunga / Long serie

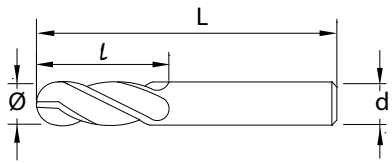
Ø h10	d mm	L mm	/ mm	z	pcs	VHM +TiAlN Carbide + TiAlN cod.	€ cad/each
4	4	50	11	4	1	241790400	43,754
5	5	50	13	4	1	241790500	47,308
6	6	57	13	4	1	241790600	48,782
8	8	63	19	4	1	241790800	61,422
10	10	72	22	4	1	241791000	84,616
12	12	83	26	4	1	241791200	115,570
14	14	83	26	4	1	241791400	142,222
16	16	92	32	4	1	241791600	179,609
18	18	92	32	4	1	241791800	226,927
20	20	104	38	4	1	241792000	278,637

R < 1200 N/mm²

Acciaio *Steel* | Metals | Alu Si3÷12%

HB30>200

Ghisa *Cast iron*



FRESE FRONTALI A 6 E PIÙ TAGLIENTI PER SUPERFINITURA IN METALLO DURO INTEGRALE RIV. TIALN

*Two-flutes **carbide** end mills / Fraise carbure deux dents*

Fresas frontales de metal duro dos dientes / Hartmetall Zweischneider Langlochfräser

≈DIN 6527 L

24177 24185

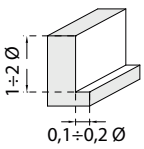
Serie lunga / Long serie

Per materiali con HRC < 50
Suitable for materials with HRC < 50

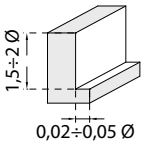
Ø h10	d mm	L mm	/ mm	z	pcs	24177 cod.	24177 € cad/each	24185 cod.	24185 € cad/each
3	6	57	8	6	1	241770300	52,494	-	-
4	6	57	11	6	1	241770400	49,732	-	-
5	6	57	13	6	1	241770500	47,660	-	-
6	6	57	13	6	1	241770600	47,660	241850600	52,262
8	8	63	19	6	1	241770800	56,639	241850800	62,148
10	10	72	22	6	1	241771000	91,174	241851000	98,873
12	12	83	26	6	1	241771200	122,947	241851200	131,359
14	14	83	26	6	1	241771400	168,534	241851400	183,622
16	16	92	32	6	1	241771600	221,029	241851600	233,057
18	18	92	32	8	1	241771800	258,328	241851800	274,020
20	20	104	38	8	1	241772000	310,589	241852000	336,169
25	25	121	45	10	1	241772500	510,446	241852500	548,039



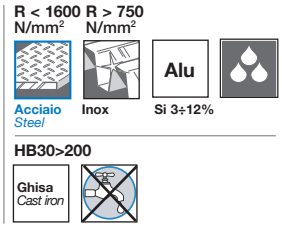


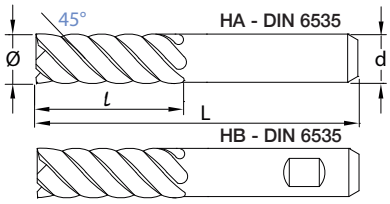


Finitura
Finishing



Superfinitura
Superfinishing







Norma Krino / Krino norm

24178

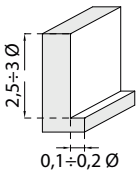
Serie extra lunga / Extra long serie

Per materiali con HRC < 50
Suitable for materials with HRC < 50

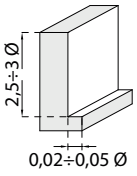
Ø h10	d mm	L mm	/ mm	z	pcs	cod.	€ cad/each
6	6	75	30	6	1	241780600	73,884
8	8	100	40	6	1	241780800	85,946
10	10	100	40	6	1	241781000	152,290
12	12	150	45	6	1	241781200	211,094
16	16	150	65	6	1	241781600	379,971
20	20	150	65	8	1	241782000	579,003
25	25	150	75	10	1	241782500	1181,755



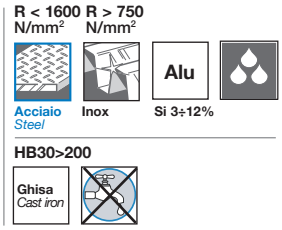


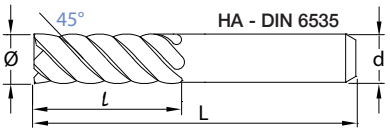


Finitura
Finishing



Superfinitura
Superfinishing





≈DIN 6527 L

24186

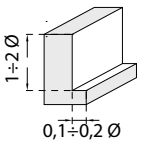
Serie lunga / Long serie

Per materiali con HRC < 62
Suitable for materials with HRC < 62

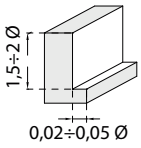
Ø h10	d mm	L mm	/ mm	z	pcs	cod.	€ cad/each
3	6	57	8	6	1	241860300	76,833
4	6	57	11	6	1	241860400	78,935
5	6	57	13	6	1	241860500	80,782
6	6	57	13	6	1	241860600	81,186
8	8	63	19	6	1	241860800	98,467
10	10	72	22	6	1	241861000	158,321
12	12	83	26	6	1	241861200	213,011
14	14	83	26	6	1	241861400	285,461
16	16	92	32	6	1	241861600	394,016
18	18	92	32	8	1	241861800	416,128
20	20	104	38	8	1	241862000	534,208



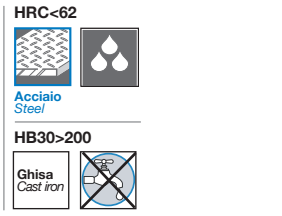


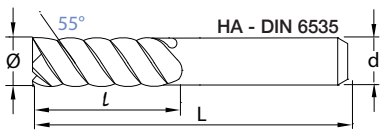


Finitura
Finishing



Superfinitura
Superfinishing





FRESE FRONTALI A ELICA VARIABILE IN METALLO DURO INTEGRALE RIV. TiAlN

Carbide *end mills with variable helix, TiAlN coated / Fraises carbure avec helice variable*

Fresas frontales de metal duro con helica variable

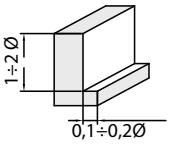
≈DIN 6527 L

24176

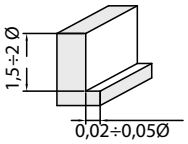
Serie lunga / *Long serie* — **Universale** / *Universal*

Ø h10	d mm	d_1 mm	L mm	l mm	z	pcs	cod.	€ cad/each
8	8	7,5	63	19	6	1	241760800	94,337
10	10	9,2	72	22	6	1	241761000	151,420
12	12	11,2	83	26	6	1	241761200	203,514
16	16	15,0	92	32	6	1	241761600	364,912
20	20	19,0	104	38	6	1	241762000	526,185
25	25	23,5	121	45	6	1	241762500	848,067





Finitura
Finishing



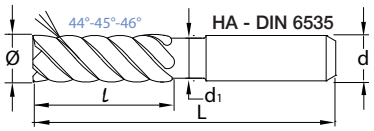
Superfinitura
Superfinishing

R < 1600 N/mm² — R > 750 N/mm²

Acciaio / *Steel* — Inox — Alu — Si 3÷12%

HB30>200

Ghisa / *Cast iron*



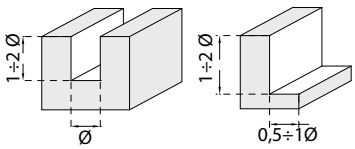
DIN 6527 L

24174 24175

Serie lunga / *Long serie* — **Speciale inox** / *Stainless steel*

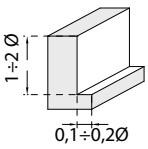
Ø h10	d mm	d_1 mm	L mm	l mm	z	pcs	cod.	€ cad/each	cod.	€ cad/each
4	6	3,7	57	11	4	1	241740400	61,341	241750400	63,364
5	6	4,7	57	13	4	1	241740500	61,341	241750500	63,364
6	6	5,5	57	13	4	1	241740600	75,063	241750600	77,538
8	8	7,5	63	19	4	1	241740800	104,927	241750800	108,386
10	10	9,2	72	22	4	1	241741000	156,583	241751000	161,745
12	12	11,2	83	26	4	1	241741200	200,168	241751200	206,767
16	16	15,0	92	32	4	1	241741600	345,451	241751600	356,839
20	20	19,0	104	38	4	1	241742000	532,704	241752000	550,266



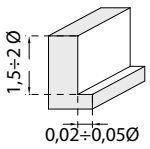


Fresa per cave
Slot end mills

Sgrossatura
Roughing



Finitura
Finishing



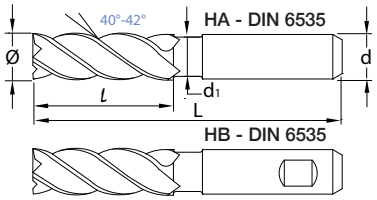
Superfinitura
Superfinishing

R < 1000 N/mm² — R < 750 N/mm²

Acciaio / *Steel* — Inox — Alu — Si<3%

HB30<200

Ghisa / *Cast iron*



Norma Krino /Krino norm

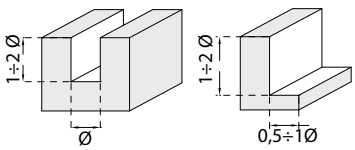
24180

Serie lunga / *Long serie* — **Speciale alluminio** / *Aluminium*

Ø h10	d mm	d_1 mm	L mm	l mm	z	pcs	cod.	€ cad/each
3	6	2,7	57	8	3	1	241800300	48,595
4	6	3,7	57	11	3	1	241800400	49,333
5	6	4,7	57	13	3	1	241800500	49,570
6	6	5,5	57	13	3	1	241800600	47,457
8	8	7,5	63	16	3	1	241800800	62,574
10	10	9,2	72	19	3	1	241801000	87,486
12	12	11,2	83	22	3	1	241801200	126,275
16	16	11,2	92	32	3	1	241801600	215,984
20	20	19,0	104	38	3	1	241802000	343,280

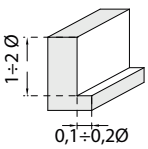


Metallo duro
Carbide



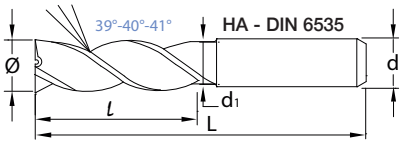
Fresa per cave
Slot end mills

Sgrossatura
Roughing



Finitura
Finishing

Alu



senza rivestimento / *no coating*

Le eliche variabili garantiscono minori vibrazioni, migliore finitura, maggiore rendimento.
The variable helix ensures less vibration, better finishing, higher efficiency.

BUILDING

CUTTING TOOLS **ENGINEERING**

Le operazioni di taglio nei materiali per edilizia richiedono utensili speciali per le varie e molteplici esigenze che incontrano gli utilizzatori del settore. Nelle applicazioni altamente professionali sui martelli leggeri e pesanti, le offerte di punte con attacchi speciali, resistenti alle sollecitazioni torsionali, risolvono tutte le esigenze di alte prestazioni nell'utilizzo intensivo. I fori di grandi dimensioni nel muro, per il passaggio di tubi, per l'aerazione ed altri usi, così come le forature in materiali duri e fragili, quali ceramica, gres, gres porcellanato, sono ora possibili grazie all'offerta di nuove frese a tazza.

Drilling operations into building and construction materials require special tools for the needs of professional hand users for intensive applications. The range of drills with special shanks capable of withstanding a high degree of torsional stress for ultra-professional light and heavy duty hammers are suited to all intensive performance requirements. The wide holes on wall for pipes, ventilation and other applications, as well as the cutting into sandware and special hard ceramics are possible thanks to the offer of new hole saws series.



UTENSILI DA TAGLIO PER EDILIZIA

Hand reamers & end mills
Alésoirs et fraises à rainurer
Escariadores y fresas frontales
Reibahlen und langlochfräser

High Quality professional

PUNTE "SUPERIOR" A ROTOPERCUSSIONE PER EDILIZIA AD ELEVATO RENDIMENTO

Professional quality masonry drills "Superior" / Forets à béton professionnel, qualité "Superior"
Broca professional "Superior" para hormigon / Superior Betonschlagbohrer

DIN 8039 - ISO 5468





HVA ≃ 1650

Corpo fresato con scanalatura ad "L" ad alta evacuazione. Placchetta M.D. resistente alla forte percussione, brasatura con lega saldante a 1100° C
- *Brazing temperature at 1100° C. Large milled flute type "L" for a faster dust removal*

Confezione / *Packaging*



Applicazioni / *Applications*



Muro
Masonry



Calcestruzzo
Concrete



Pietra
Natural stones

- Per forare a forte percussione il muro, il cemento, il calcestruzzo, marmo, pietre. *Uso intensivo ed alto rendimento.*
- For use, with rotary percussion, in masonry, concrete, natural stones. *High performances in intensive uses.*
- Pour percér à fort percussion, béton, ciment, carrelage, pierre. *Haute rendement en emploi intensif.*
- Para cortes professionales en muro, hormigon, cemento, marmol, piedra, suelos. *Elevado rendimiento en empleo intensivo.*
- Um Beton und Mauerwerk in Schlagbohrmaschinen zu bohren.



Art. **03061** Self
Disponibile su richiesta
On demand

Art. 03060 Serie Corta - *Short serie*

Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
3	1/8	2,8	40	70	10	030600300	2,413
4	5/32	3,8	40	75	10	030600400	2,413
5	3/16	4,5	40	85	10	030600500	2,441
5,5	7/32	4,8	57	100	10	030600550	2,516
6	15/64	5,5	57	100	10	030600600	2,516
6,5	1/4	6	57	100	10	030600650	2,788
7	9/32	6,5	55	100	10	030600700	2,687
8x107	5/16	7,5	55	107	10	030600800C	2,891
8	5/16	7,5	70	120	10	030600800	2,891
9	11/32	8	70	120	6	030600900	3,242
10	3/8	9	70	120	6	030601000	3,760
11	7/16	10	90	150	6	030601100	5,558
12x120	15/32	10	90	120	6	030601200C	6,052
12	15/32	10	90	150	6	030601200	6,052
13	1/2	10	90	150	6	030601300	7,592
14	9/16	10	90	150	6	030601400	8,129
15	19/32	10	90	150	6	030601500	9,612
16	5/8	10	90	150	6	030601600	9,612
18	23/32	13	100	160	1	030601800	11,456
20	25/32	13	100	160	1	030602000	14,037

Art. 03063 L=150-200 mm.

Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
5	3/16	4,7	90	150	1	030630500	3,703
6	15/64	5,5	90	150	1	030630600	4,271
8	5/16	7,5	150	200	1	030630800	5,270
10	3/8	9	150	200	1	030631000	6,565
12	15/32	10	150	200	1	030631200	8,251
14	9/16	10	150	200	1	030631400	10,029
16	5/8	10	150	200	1	030631600	12,064
18	23/32	10	150	200	1	030631800	14,798
20	25/32	13	150	200	1	030632000	17,293

Art. 03065 L=400 mm.

Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
8	5/16	7,5	320	400	1	030650800	8,362
10	3/8	9,5	320	400	1	030651000	10,177
12	15/32	10	320	400	1	030651200	12,433
14	9/16	10	320	400	1	030651400	14,456
16	5/8	10	320	400	1	030651600	18,395
18	23/32	10	320	400	1	030651800	23,372
20	25/32	13	320	400	1	030652000	29,827
22	7/8	13	320	400	1	030652200	36,696
24	15/16	13	320	400	1	030652400	38,751

Art. 03067 L=600 mm.

Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
8	5/16	7,5	500	600	1	030670800	10,139
10	3/8	9,5	500	600	1	030671000	12,742
12	15/32	10	500	600	1	030671200	15,236
14	9/16	10	500	600	1	030671400	20,219
16	5/8	10	500	600	1	030671600	21,853
18	23/32	10	500	600	1	030671800	30,046
20	25/32	13	500	600	1	030672000	35,638
22	7/8	13	500	600	1	030672200	41,792
24	15/16	13	500	600	1	030672400	48,566

ASSORTIMENTI PUNTE “**SUPERIOR**” PER EDILIZIA

“Superior” masonry drills sets / Assortiments forets à béton professionnel “Superior”
Juego brocas “Superior” para hormigon / “Superior” Spiralbohrersätze



4 pcs
Ø 5-6-8-10 mm.

03070201	€ 10,639



7 pcs
Ø 3-4-5-6-8-9-10 mm.

03070202	€ 16,272



8 pcs
Ø 3-4-5-6-8-9-10-12 mm.

03070203	€ 19,822



12 pcs
Ø 3-4-4-5-5-6-6-7-8-8-9-10

03070101	€ 26,081



390x150x225

141 pcs **Ø 3÷16 mm**

Ø	pcs
3	7
4	7
5	14
6	28
7	7
8	28
9	10
10	15
12	10
13	5
14	5
16	5

cod.	€
03070504	584,235

142 pcs **Ø 3÷18 mm**

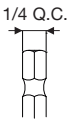
Ø	pcs
3	9
4	9
5	9
6	27
7	9
8	18
9	6
10	12
12	6
13	6
14	6
16	6
8x400	6
10x400	3
12x400	3
14x400	3
16x400	2
18x400	2

cod.	€
03070503	714,644

PUNTE “**SUPERIOR**” A ROTOPERCUSSIONE PER EDILIZIA CON ATTACCO HEX 1/4”

Professional quality masonry drills “Superior” 1/4” q.c. shank / Forets à béton professionnel avec 1/4” q.c. queue, qualité “Superior”
Broca professional “Superior” con mango 1/4” q.c. para hormigon / Superior Betonschlagbohrer







Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
3	1/4	33	75	1	030590300	3,544
4	1/4	35	83	1	030590400	3,704
5	1/4	46	93	1	030590500	4,081
6	1/4	56	97	1	030590600	4,458
7	1/4	48	97	1	030590700	4,618
8	1/4	70	120	1	030590800	4,910
9	1/4	70	120	1	030590900	5,278
10	1/4	70	120	1	030591000	5,466

03059



Ø 4-5-6-8-10 mm

03057700	€ 19,04

PUNTE ROTOBATTENTI "**MAX 4**" A 4 TAGLIENTI E 4 ELICHE PER FORARE AD ALTO RENDIMENTO TUTTI I MATERIALI EDILI

Rotary percussion drill bits "max 4" with 4 cutting edges and 4 flutes for cutting concrete and building materials / Foret rotation percussion "max 4" avec 4 tranchantes et 4 spirales pour percer concret e tous le matériaux de bâtiment / Broca rotacion, percucion "max 4" con 4 cortadores y 4 espirales para trabajar en el concreto y todol los materiales de construcion /Betonschlagbohrer "max 4" mit 4 schneiden und 4 schrauben für Mauerwerk

K-MAX4

03072



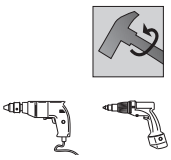


4 taglienti-*cutting edges* HVA 1650
Placchetta integrale a 4 taglienti in metallo duro resistente alla forte percussione, brasatura con lega saldante a 1100°C. *One-piece 4 cutting edges carbide tip resisting to percussion. Brazing temperature at 1000°C*



4 eliche-*flutes*
Corpo fresato con **scanalatura a "L" ad alta evacuazione**. *Large milled flute type "L" for a faster dust removal.*

Ø mm	d mm	l mm	L mm	pcs	cod.	€ cad/each
4	3,8	40	75	1	030720400	3,194
5	4,8	40	85	1	030720500	3,194
6	5,4	57	100	1	030720600	3,374
7	6,3	55	100	1	030720700	3,704
8	7	70	120	1	030720800	3,806
9	8	70	120	1	030720900	4,174
10	8,5	70	120	1	030721000	4,712
11	10	90	150	1	030721100	5,561
12	10	90	150	1	030721200	5,862
13	10	90	150	1	030721300	7,407
14	10	90	150	1	030721400	8,746
15	10	90	150	1	030721500	11,111
16	10	90	150	1	030721600	12,345



Confezione / *Packaging*



Applicazioni / *Applications*



Muro *Masonry*



Calcestruzzo *Concrete*



Pietra *Natural stones*



- +30%PRESTAZIONI - *+30% performances*
- FORO PERFETTAMENTE CIRCOLARE -
rispetto a una comune punta a 2 taglienti
circular hole compared to a 2 cutting edges drill

- La placchetta in metallo duro monoblocco a 4 taglienti garantisce una grande capacità di taglio e un'ottima precisione di foratura. L'asportazione dei detriti è assicurata dalla combinazione delle 4 eliche e della geometria a "L" dello scarico. Grande rendimento di taglio in tutti i materiali edili, cemento, granito, pietre in genere, mattoni.
- One-piece 4 cutting edges carbide tip assures great drilling performances and perfect circular holes. Faster dust removal due to the 4 "L" type flutes. Drilling in every building material, concrete, granite, stones.



4 pcs
Ø 5 - 6 - 8 - 10 mm
03073201 € 13,650



6 pcs
Ø 4 - 5 - 6 - 8 - 9 - 10 mm
03073202 € 19,921



7 pcs
Ø 4 - 5 - 6 - 8 - 9 - 10 - 12 mm
03073203 € 23,611



390x150x225

134 pcs **Ø 4÷16 mm**

Ø	pcs
4	7
5	14
6	28
7	7
8	28
9	10
10	15
12	10
13	5
14	5
16	5

cod.	€
03073504	586,089

PUNTE A ROTOPERCUSSIONE “**SUPERSPEED**” PER LA FORATURA VELOCE AD ALTO RENDIMENTO NEL GRANITO, CEMENTO ARMATO, MATTONI, PIETRE NATURALI ED ARTIFICIALI.

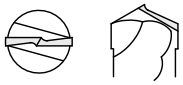
“Superspeed” rotary percussion twist drills for fast drilling into granite , cement , brics , natural and artificial stones. / Brocas a roto-percucion “Superspeed” para taladrar con alto rendimento granito , cemento , ladrillos , piedra artificial y natural. / Forets a rotopercusion “Superspeed” pour perçage haute rendement en granit , ciment , carrelage , pierre artificielle et naturelle.

DIN 8039 – ISO 5468

SuperSpeed

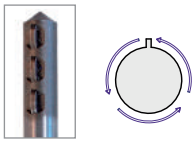
03075





HVA ≃1650

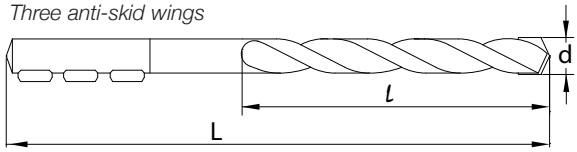
Punta autocentrante *Self centering point*



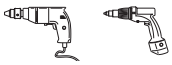
100% trasmissione della potenza grazie alle 3 alette antisdrucciolo
100% power transmission thanks to 3 anti-skid wings

Ø mm	d	l	L	pcs	cod.	€ cad/each
3	2,8	50	90	1	030750900300	5,021
4	3,8	50	90	1	030750900400	5,021
5	4,5	50	100	1	030751000500	5,145
6	5,5	50	100	1	030751000600	5,331
6	5,5	100	150	1	030751500600	8,863
6,5	6	100	150	1	030751500650	10,167
7	6,5	50	100	1	030751000700	6,287
8	7,5	50	100	1	030751000800	6,829
8	7,5	200	250	1	030752500800	12,378
9	8	50	100	1	030751000900	7,529
10	9	100	150	1	030751501000	8,266
10	9	200	250	1	030752501000	14,979
12	10	90	150	1	030751501200	11,416
14	10	90	150	1	030751501400	18,215

Tre alette antiscivolo
Three anti-skid wings







Confezione / *Packaging*



Applicazioni / *Applications*



Muro
Masonry



Calcestruzzo
Concrete



Pietra
Natural stones



390x150x225

131 pcs **Ø 3÷14 mm**

Ø	pcs
3x90	7
4x90	7
5x100	14
6x100	28
7x100	7
8x100	28
9x100	10
10x150	15
12x150	10
14x150	5

cod.	€
03070510	997,823

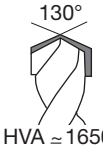
High Quality professional

PUNTE **"HIGH PERFORMER"** ROTOBATTENTI PER MURATURA PROFESSIONALI

Concrete percussion drill bit "High Performer" / Forets à béton professionnel "High Performer"
Broca professional para hormigon "High Performer" / "High Performer" Betonschlagbohrer

DIN 8039 - ISO 5468





Corpo fresato con scanalatura ad "U" Saldobrasatura 1120° C. Placchetta in metallo duro ISO Euronorm resistente a forti percussioni.
- *Large milled flute type "U" for an efficient dust removal. Brazing temperature at 1120° C.*

Confezione / *Packaging*



Applicazioni / *Applications*



- Per forare a forte percussione muro, cemento, calcestruzzo, marmo e pietre. Uso intensivo.
- For use, with rotary percussion, in masonry, concrete, cement, marble, stone. Intensive uses.
- Pour percer à fort percussion, béton, ciment, carrelage, pierre. Emploi intensif.
- Para cortes professionales en muro, hormigon, cemento, marmol, piedra, suelos. Empleo intensivo.
- Um Beton und Mauerwerk in Schlagbohrermaschinen zu bohren



Art. 03090 Serie Corta - *Short serie*

Art. **03091** Self
Disponibile su richiesta
On demand

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
3	1/8	2,8	40	70	10	030900300	2,528
4	5/32	3,8	40	75	10	030900400	2,528
5	3/16	4,5	40	85	10	030900500	2,528
5,5	7/32	4,8	55	100	10	030900550	2,750
6	15/64	5,5	55	100	10	030900600	2,750
6,5	1/4	6	70	120	10	030900650	3,137
7	9/32	6,5	70	120	10	030900700	2,893
8x107	5/16	7,5	70	107	10	030900800C	3,459
8	5/16	7,5	70	120	10	030900800	4,147
9	11/32	8	90	120	10	030900900	4,147
10	3/8	9	90	120	10	030901000	4,380
11	7/16	10	90	150	5	030901100	5,521
12x120	15/32	10	90	120	5	030901200C	5,666
12	15/32	10	90	150	5	030901200	5,666
13	1/2	10	90	150	5	030901300	8,327
14	9/16	10	90	150	5	030901400	10,311
15	19/32	10	90	150	5	030901500	11,630
16	5/8	10	90	150	5	030901600	12,662
18	23/32	10	100	160	5	030901800	16,264
20	25/32	13	100	160	5	030902000	16,696

Art. 03092 L=150-200 mm.

Art. **03093** Self
Disponibile su richiesta / *On demand*

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
5	3/16	4,7	90	150	5	030920500	3,284
5,5	7/32	4,8	90	150	5	030920550	3,386
6	15/64	5,5	90	150	5	030920600	3,428
8	5/16	7,5	150	200	5	030920800	4,192
10	3/8	9	150	200	5	030921000	5,090
12	15/32	10	150	200	5	030921200	5,997
14	9/16	10	150	200	5	030921400	12,149
16	5/8	10	150	200	5	030921600	13,821
18	23/32	10	150	200	5	030921800	16,351
20	25/32	13	150	200	5	030922000	19,084

Art. 03094 L=400 mm.

Art. **03097** Self
Disponibile su richiesta / *On demand*

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
8	5/16	7,5	320	400	1	030940800	8,384
10	3/8	9	320	400	1	030941000	10,209
12	15/32	10	320	400	1	030941200	12,526
14	9/16	10	320	400	1	030941400	15,392
16	5/8	10	320	400	1	030941600	19,748
18	23/32	10	320	400	1	030941800	24,827
20	25/32	13	320	400	1	030942000	30,895
22	7/8	13	320	400	1	030942200	38,617
24	15/16	13	320	400	1	030942400	40,820

Art. 03096 L=600 mm.

Art. **03099** Self
Disponibile su richiesta / *On demand*

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
8	5/16	7,5	500	600	1	030960800	9,925
10	3/8	9	500	600	1	030961000	12,689
12	15/32	10	500	600	1	030961200	15,392
14	9/16	10	500	600	1	030961400	22,062
16	5/8	10	500	600	1	030961600	25,928
18	23/32	10	500	600	1	030961800	31,998
20	25/32	13	500	600	1	030962000	37,505
22	7/8	13	500	600	1	030962200	43,575
24	15/16	13	500	600	1	030962400	50,745

ASSORTIMENTI PUNTE “**HIGH PERFORMER**” ROTOBATTENTI

“High Performer" concrete percussion drill bits sets / Jeux forets à béton professionel “High Performer"
Juego brocas professionales para hormigon “High Performer" / Betonschlag bohrersätze “High Performer"



4 pcs
Ø 5 - 6 - 8 - 10 mm
03095202 € 13,426



7 pcs
Ø 3 - 4 - 5 - 6 - 8 - 9 - 10 mm
03095204 € 22,307



8 pcs
Ø 3 - 4 - 5 - 6 - 8 - 9 - 10 - 12 mm
03095205 € 25,778



390x150x225

112 pcs **Ø 3÷16 mm**

Ø	pcs
3	10
4	10
5	10
6	20
7	5
8	10
9	5
10	5
12	5
14	3
16	2
5x150	3
6x150	3
8x200	3
10x200	3
12x200	2
8x400	3
10x400	3
12x400	3
14x400	2
16x400	2

cod.	€
03095503	713,499

PUNTE “**HIGH PERFORMER**”, SERIE EXTRA CORTA PER PIETRE NATURALI DURE

“High Performer" extra short percussion drill bits for natural stones/ Forets à béton "High Performer” série courte pour pierres naturelles dures et matériaux de construction / Brocas “High Performer” extra cortas para piedras naturales duras y materiales de construccion - “High Performer” Betonschlagbohrer zum Bearbaiten von hartem Naturstein und Baumaterialen

*In esaurimento / *To be discontinued*

03098

Ø mm	d	/	L	pcs	cod.	€ cad/each
4	3,8	18	60	10	030980400	3,293
6	5,5	25	70	10	030980600	3,481





Corpo fresato con scanalatura ad “U” Saldobrasatura 1120° C. Placchetta in metallo duro ISO Euronorm resistente a forti percussioni.
- *Large milled flute type “U” for an efficient dust removal. Brazing temperature at 1120° C.*

Confezione / *Packaging*



Applicazioni / *Applications*



Pietra
Natural stones



Muro
Masonry



Calcestruzzo
Concrete



- Per forare a forte percussione muro, cemento, calcestruzzo, marmo e pietre. Uso intensivo.
- For use, with rotary percussion, in masonry, concrete, cement, marble, stone. Intensive uses.
- Pour percer à fort percussion, béton, ciment, carrelage, pierre. Emploi intensif.
- Para cortes professionales en muro, hormigon, cemento, marmol, piedra, suelos. Empleo intensivo.
- Um Beton und Mauerwerk in Schlagbohrermaschinen zu bohren

High Quality professional

PUNTE ROTOBATTENTI "**SUPER GRANIT**" PER FORARE LE PIETRE PIÙ DURE E I MATERIALI EDILI DURISSIMI

Rotary percussion drill bits "Super Granit" for extreme hard stones and building materials / Forets à béton "Super Granit" pour percer granit, la pierre naturelle, concrete, etc. / Brocas a percusion "Super Granit" para taladrar granito y la piedra natural, hormigon / Betonschlagbohrer "Super Granit" für Granit, Naturstein, Mauerwerk

DIN 8039 - ISO 5468

Art. **03111** Self
Disponibile su richiesta
On demand





HVA ≃1650

Placchetta affilata
con diamante.
Corpo rettificato
con scarico ad "U",
in acciaio legato
HRC 40÷50.
Saldobrasatura a 1100° C.
*- Large milled flute type "U"
for an efficient dust removal.
Diamond sharpened. Body in
alloy steel with HRC 40÷50.
Brazing temperature at 1100° C.*

Art. 03110

Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
3	1/8	2,8	30	60	1	031100300	6,241
4	5/32	3,8	40	75	1	031100400	6,241
5	3/16	4,5	50	75	1	031100500	6,395
5,5	7/32	4,5	50	85	1	031100550	7,083
6	15/64	5,5	60	100	1	031100600	6,626
7	9/32	6,5	60	100	1	031100700	7,813
8	5/16	7,5	80	120	1	031100800	7,967
9	23/64	8	80	120	1	031100900	9,375
10	25/64	9	80	120	1	031101000	10,610
11	7/16	10	90	150	1	031101100	12,732
12	15/32	10	90	150	1	031101200	14,189
13	1/2	10	90	150	1	031101300	19,715
14	9/16	10	90	150	1	031101400	22,638
15	19/32	10	100	160	1	031101500	27,239
16	5/8	12	100	160	1	031101600	29,216
18	23/32	12	100	160	1	031101800	34,426
20	25/32	12	100	160	1	031102000	45,594

Art. 03112 L=150-250 mm.

Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
5	3/16	4,5	90	150	1	031121500500	10,031
5,5	7/32	4,5	90	150	1	031121500550	11,070
6	15/64	5,5	90	150	1	031121500600	11,070
6,5	1/4	5,5	90	150	1	031121500650	13,434
8	5/16	7,5	90	150	1	031121500800	13,434
10	3/8	9	90	150	1	031121501000	14,429
8	5/16	7,5	200	250	1	031122500800	14,834
10	3/8	9	200	250	1	031122501000	16,426
12	15/32	10	200	250	1	031122501200	20,733
14	9/16	12	200	250	1	031122501400	25,178

Confezione / Packaging



Applicazioni / Applications


Granito
Granite


Pietra
Natural stones


Calcestruzzo
Concrete



- Taglio del granito a rotopercussione con grandi rendimenti, taglio delle pietre naturali e artificiali, calcestruzzo e materiali da edilizia vari, fino al 7° scala MOHS.
- Rotary percussion cuts in granit, natural stone, concrete, masonry, up to 7° MOHS.
- Pour percage à fort percussion in granit, pierre naturelle et artificielle, ciment, carrelage (7° MOHS).
- Corte professional a percussion de grande rendimiento en granito, piedra, materiales de construccion muy duros (7° MOHS).
- Extrem robuster Schlagbohrer für höchste Beansruchung, für Granit, Beton, Mauerwerk, Naturstein



4 pcs
Ø 5 - 6 - 8 - 10 mm
03116202 € 38,372



7 pcs
Ø 3 - 4 - 5 - 6 - 8 - 9 - 10 mm
03116204 € 61,156



8 pcs
Ø 3 - 4 - 5 - 6 - 8 - 9 - 10 - 12 mm
03116205 € 77,941



390x150x225

112 pcs **Ø 3÷16 mm**

Ø	pcs
3	10
4	10
5	10
6	20
7	5
8	15
9	4
10	8
12	6
14	2
16	2
5x150	4
6x150	6
8x250	3
10x250	3
12x250	2
14x250	2

cod.	€
03116503	1175,214

PUNTE “**EXTREME HARD CUT**” ALTAMENTE PROFESSIONALI PER FORARE A SOLA ROTAZIONE TUTTI I MATERIALI EDILI DURISSIMI

Professional masonry drills “Extreme Hard Cut” for rotary cutting of hard building materials / Foréts béton professionelles “Extreme Hard Cut” pour percage rotation / Brocas “Extreme Hard Cut” altamente profesionales para cortar a sola rotaciòn todos los materiales de construcciòn muy duros / Drehbohrer “Extreme Hard Cut” für drehenden Einsatz in Bohr- und Schlagbohrmaschinen

DIN 8039 - ISO 5468



Affilatura positiva
Positive Rake



HVA ≃ 1650

Corpo fresato con scanalatura ad “U”. Saldobrasatura a 1120° C. Placchetta in metallo duro ISO Euronorm resistente a forti abrasioni, affilata con diamante ed autocentrante
- Large milled flute type “U”, with self-centering positive clearance. Brazing temperature over 1120° C. Special carbide grain tip.

Art. **03101** Self
Disponibile su richiesta
On demand

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
3	1/8	2,8	30	70	1	031000300	3,614
4	5/32	3,8	40	75	1	031000400	3,925
5	3/16	4,5	50	85	1	031000500	3,925
6	15/64	5,5	60	100	1	031000600	4,002
7	9/32	6,5	60	100	1	031000700	4,934
8	5/16	7,5	80	120	1	031000800	4,934
10	3/8	9	80	120	1	031001000	6,930
12	15/32	10	90	150	1	031001200	10,733
14	9/16	10	200	250	1	031001400	15,832

03100



Confezione / *Packaging*



Applicazioni / *Applications*



Pietre naturali e artificiali
Natural and artificial stones



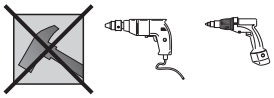
Ceramica
Ceramics



Piastrelle, mattoni durissimi
Tiles, Hard burnt brick



Pietra-Granito
Natural stones granit



- Taglio preciso e senza sbavature a rotazione nel marmo, pietre, granito, ceramica, tutti i materiali da edilizia durissimi (sino a 7 gradi scala MOHS)
- Precise rotary cut in hard building materials (marble, natural stones, ceramic, granit) up to 7° MOHS
- Pour percage à rotation granit, pierre, ceramic 7° grado MOHS
- Corte preciso y rapido a rotacion en materiales de construccion muy duros y abrasivos (7°MOHS)
- Drehenden Einsatz in harten Baumaterialen wie Dachziegel, Dachpfannen, Klinker, Keramik.



4 pcs
Ø 5 - 6 - 8 - 10 mm
03105202 € 22,184



390x150x225

117 pcs Ø 3÷14 mm

Ø	pcs
3	10
4	10
5	10
6	28
7	10
8	20
10	15
12	8
14	6

cod.	€
03105503	742,824

High Quality professional

PUNTA UNIVERSALE SDD PER IL TAGLIO DI TUTTI I MATERIALI

Univeral SDD drill / Forets universels SDD
Broca universal SDD / SDD Mehrzweckbohrer

DIN 8039 - ISO 5468

SDD

03069

NEW



Ø mm	d	/	L	pcs	cod.	€ cad/each
3	2,8	20	60	10	030690600300	2,697
4	3,8	35	75	10	030690750400	2,697
5	4,5	45	85	10	030690850500	2,742
6	5,5	60	100	10	030691000600	2,787
6	5,5	210	250	1	030692500600	8,316
6	5,5	360	400	1	030694000600	12,542
7	6,4	60	100	10	030691000700	2,922
8	7,2	80	120	10	030691200800	3,102
8	7,2	210	250	1	030692500800	8,946
8	7,2	360	400	1	030694000800	12,812
9	8,3	80	120	10	030691200900	3,506
10	9,2	80	120	10	030691201000	4,164
10	9,2	210	250	1	030692501000	9,665
10	9,2	360	400	1	030694001000	13,441
10	9,2	560	600	1	03069601000	14,340
11	9,9	110	150	6	030691501100	6,483
12	10	110	150	6	030691501200	7,148
12	10	210	250	1	030692501200	13,441
12	10	360	400	1	030694001200	16,138
12	10	560	600	1	030696001200	21,623
13	10	110	150	6	030691501300	8,182
14	10	110	150	6	030691501400	8,946
14	10	210	250	1	030692501400	14,790
14	10	360	400	1	030694001400	17,937
15	10	110	150	6	030691501500	9,530
16	10	110	150	6	030691501600	10,564
16	10	210	250	1	030692501600	17,038
16	10	360	400	1	030694001600	20,634
16	10	560	600	1	030696001600	22,432
18	10	120	160	1	030691601800	12,542
20	13	120	160	1	030691602000	15,689

Confezione / *Packaging*



Applicazioni / *Applications*



Pietre naturali e artificiali
Natural and artificial stones



Ceramica
Ceramics



Metalli
Metals



Piastrelle, mattoni durissimi
Tiles, Hard burnt brick



Pietra-Granito
Natural stones granit



4 pcs
Ø 4x75-5x85
6x100-8x120 mm
03068201 € 13,488

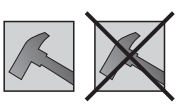
5 pcs
Ø 4x75-5x85-6x100
8x120-10x120 mm
03068203 € 17,436

7 pcs
Ø 3x70-4x75-5x85-6x100
8x120-9x120-10x120 mm
03068204 € 24,344



Ø	pcs
3x60	5 pcs
4x75	5 pcs
5x85	10 pcs
6x100	20 pcs
8x120	20 pcs
10x120	14 pcs
12x150	14 pcs

cod.	€
03068505	348,000



- Taglio preciso a rotazione in metalli, ceramica e in tutti i materiali da edilizia fragili e a rotopercussione in marmo, granito, pietre. *Precise cut, rotation only, into metals, ceramic and fragile building materials. Rotary percussion cut into marble, granit, stones. Pour percer à rotation acier dur, ceramic, bâtiment (8° Mohs) et à percussion in granit, pierre. Corte preciso en materiales de construccion. Corte a percussion en granito, piedra.*

PUNTA“**FORATUTTO**” UNIVERSALE MULTIK AD ALTE PRESTAZIONI PER IL TAGLIO DI TUTTI I MATERIALI

High performance multi-purpose drill bit / Forets universels pour materiaux

Broca universal para todos los materiales / Mehrzweckbohrer

DIN 8039 - ISO 5468





HVA ≃1650

Placchetta affilata con diamante con geometria innovativa. Corpo rettificato con scarico ad “U”, in acciaio legato HRC 40÷50. Saldobrasatura a 1100° C.
- *Large milled flute type “U” for an efficient dust removal. Diamond sharpened. Body in alloy steel with HRC 40÷50. Brazing temperature at 1100° C.*

Ø mm	d	l	L	pcs	cod.	€ cad/each
3	2,8	40	70	1	030760300070	4,570
4	3,8	40	75	1	030760400075	4,598
5	4,5	50	85	1	030760500085	4,714
5	4,5	90	150	1	030760500150	6,767
5,5	4,5	50	85	1	030760550085	4,885
6	5,5	60	100	1	030760600100	4,960
6	5,5	90	150	1	030760600150	7,556
6	5,5	200	250	1	030760600250	9,242
6,5	5,5	60	100	1	030760650100	5,812
7	6,5	60	100	1	030760700100	6,285
8	7,2	80	120	1	030760800120	6,758
8	7,2	90	150	1	030760800150	8,287
8	7,2	200	250	1	030760800250	9,483
8	7,2	350	400	1	030760800400	37,562
9	8	80	120	1	030760900120	7,485
10	9	80	120	1	030761000120	7,935
10	9	90	150	1	030761000150	9,977
10	9	200	250	1	030761000250	12,394
10	9	350	400	1	030761000400	40,649
11	10	90	150	1	030761100150	10,985
12	10	90	150	1	030761200150	11,217
12	10	200	250	1	030761200250	14,360
12	10	350	400	1	030761200400	43,106
14	12,3	150	200	1	030761400200	15,537
14	12,3	200	250	1	030761400250	16,037
16	14	150	200	1	030761600200	25,400

03076 NEW



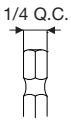
4 pcs
Ø 4x75-5x85
6x100-8x120 mm
03078201 € 27,759

5 pcs
Ø 4x75-5x85-6x100
8x120-10x120 mm
03078203 € 35,937

7 pcs
Ø 3x70-4x75-5x85-6x100
8x120-9x120-10x120 mm
03078204 € 51,263

DIN 8039 - ISO 5468







HVA ≃1650

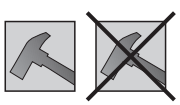
Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
3	1/8	1/4	45	90	1	030770300090	5,441
4	5/32	1/4	45	90	1	030770400090	5,480
5	3/16	1/4	50	100	1	030770500100	5,594
5,5	7/32	1/4	60	100	1	030770550100	6,025
6	15/64	1/4	60	100	1	030770600100	6,159
6	15/64	1/4	200	250	1	030770600250	11,160
6,5	1/4	1/4	200	250	1	030770650250	11,715
7	9/32	1/4	50	100	1	030770700100	7,558
8	5/16	1/4	50	100	1	030770800100	7,424
10	3/8	1/4	90	150	1	030771000150	10,853

Confezione / *Packaging*



Applicazioni / *Applications*





- Taglio preciso e senza sbavature a rotazione in metalli, ceramica e in tutti i materiali da edilizia durissimi (sino 8° Mohs) e a rotopercussione in marmo, granito, pietre.
- Precise cut, rotation only, into hardened steel, metals, ceramic and hard building materials (up to 8° Mohs). Rotary percussion cut into marble, granit, stones.
- Pour percer à rotation acier dur, ceramic, bâtiment (8° Mohs) et à fort percussion in granit, pierre. Corte preciso y rapido en materiales de construccion muy duros (8° Mohs). Corte a percussion en granito, piedra.

03077 NEW



4 pcs
Ø 4 - 5 - 6 - 8 mm
03078301 € 33,475

6 pcs
Ø 3 - 4 - 5 - 6 - 8 - 10 mm
03078302 € 50,161



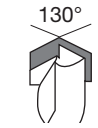
Professional

PUNTA UNIVERSALE "**FORATUTTO®**"

Multi-purpose drill bits / Forets universels pour materiaux
Broca universal para todos los materiales / Mehrzweckbohrer

DIN 8039 - ISO 5468





HVA ≃ 1750

Affilatura positiva
Positive relief



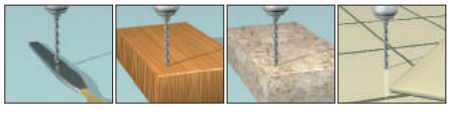
Art. **03081** Self
Disponibile su richiesta
On demand

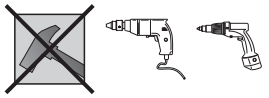
Art. 03080 **Universale** - *Multipurpose*

Ø mm	*Inch*	d	/	L	pcs	cod.	€ cad/each
3	1/8	2,8	40	70	10	030800300	2,528
4	5/32	3,8	40	75	10	030800400	2,528
5	3/16	4,5	40	85	10	030800500	2,528
6	15/64	5,5	55	100	10	030800600	2,639
7	9/32	6,5	55	100	10	030800700	2,994
8X107	5/16	7,5	70	107	10	030800800C	3,193
8	5/16	7,5	70	120	10	030800800	3,193
9	11/32	8	70	120	10	030800900	3,770
10	3/8	9	70	120	10	030801000	4,014
11	7/16	10	90	150	6	030801100	5,478
12X120	15/32	10	90	120	6	030801200C	5,478
12	15/32	10	90	150	6	030801200	5,478
13	1/2	10	90	150	6	030801300	7,905
14	9/16	10	90	150	6	030801400	9,379
15	19/32	10	90	150	6	030801500	12,318
16	5/8	10	90	150	6	030801600	12,318

Art. 03082 **Serie lunga / *long serie* L = 250 mm.**

ØxL mm	d	/	L	pcs	cod.	€ cad/each
6 x 150	5,5	125	150	10	030820600	6,475
8 x 250	7,5	130	250	10	030820800	9,545
10 x 250	9	130	250	10	030821000	9,945
12 x 250	10	130	250	6	030821200	12,517
14 x 250	10	130	250	6	030821400	19,491







- Per forare **a sola rotazione**: acciaio duro, acciai in genere, ghisa, tutti i metalli, muro, calcestruzzo, ceramica, pavimenti in genere, legno e derivati, plastica, laminati.
- For rotary cutting in hardened steel, metals, cement, brick, tiles, ceramic, wood, plastics.
- Pour percer à rotation: acier dur, béton, ceramic, bois, plastique.
- Para cortar a rotation : acero tratado, hormigon, ceramica, madera, plastica.
- Für drehenden Einsatz in Mauerwerk, Fliesen, Holz, hart Stahl, Kunststoffe.



4 pcs
Ø 5-6-8-10 mm.
03085201 € 12,595



7 pcs
Ø 3-4-5-6-8-9-10 mm.
03085202 € 19,192



8 pcs
Ø 3-4-5-6-8-9-10-12 mm.
03085203 € 23,382



12 pcs
Ø 3-4-4-5-5-6-6-7-8-8-9-10
03085101 € 29,978



390x150x225

156 pcs **Ø 3÷16 mm**

Ø	pcs
3	9
4	9
5	18
6	27
7	9
8	18
9	6
10	18
11	6
12	12
13	6
14	6
15	6
16	6

cod.	€
03085503	707,501

PUNTA UNIVERSALE “**FORATUTTO**®” CON ATTACCO HEX 1/4”

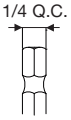
Multi-purpose drill bits / Forets universels pour materiaux
Broca universal para todos los materiales / Mehrzweckbohrer





HVA ≃1750

Affilatura
positiva
Positive
relief



Confezione / Packaging



Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
3	1/4	33	75	1	030890300	3,882
4	1/4	40	83	1	030890400	4,101
5	1/4	46	93	1	030890500	4,101
6	1/4	56	97	1	030890600	4,430
7	1/4	48	97	1	030890700	4,769
8	1/4	70	120	1	030890800	4,859
9	1/4	70	120	1	030890900	5,239
10	1/4	70	120	1	030891000	5,508



03089



Ø 4-5-6-8-10 mm
03085700 € 23,980

PUNTE PER **VETRO E CERAMICA**

Glass drill bits / Forets verre / Broca para vidrio / Glasbohrer





HRA 90

Art. **03143** Self
Disponibile su richiesta
On demand

Ø mm	d	L	pcs	cod.	€ cad/each
3	3	58	1	031400300	4,061
4	3	58	1	031400400	4,212
5	4	58	1	031400500	4,372
6	5	58	1	031400600	4,807
7	5	78	1	031400700	5,278
8	6	78	1	031400800	5,278
9	6	98	1	031400900	6,032
10	7	98	1	031401000	7,539
12	8	98	1	031401200	9,424

03140



Ø 4 - 5 - 6 - 8 - 10 mm
03146700 € 24,117

Confezione / Packaging



Applicazioni / Applications







- Taglio a sola rotazione nel vetro, selezionando la velocità di taglio più bassa possibile e refrigerando con acqua o trementina. Riaffilare frequentemente nel taglio di vetri duri.
- Rotary cut in glass, with water cooling, at low speed.
- Pour percer le verre, à bas rotation, avec lubrification à l’eau.
- Para taladrar a rotation vidrio, refrigeracion por agua.
- Spezialbohrer zum Bohren von Glass, Wasser Schmierung.

PUNTE PER TRACCIARE CON RIPORTO IN METALLO DURO

Carbide scribers / Pointe carbure à tracer / Punta para trazar / Hartmetall Reißspitze

0314201



0314202



cod.	L	€ cad/each
0314201	200	6,696
0314202	150	5,825



03142

147

PUNTE CILINDRICHE PER MURO **STANDARD PLUS**

Quality rotary percussion masonry drills / Forets à béton de qualitè
Broca de qualidad para hormigon / Profi Steinbohrer

DIN 8039 - ISO 5468

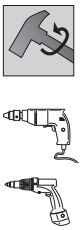




Corpo con placchetta di alta qualità.
Flute with high resistant carbide tips.

Art. 03052 Serie Corta - *Short serie*

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
3	1/8	2,8	40	70	10	030520300	1,530
4	5/32	3,8	40	75	10	030520400	1,530
5	3/16	4,5	40	85	10	030520500	1,563
6	15/64	5,5	55	100	10	030520600	1,675
7	9/32	6,5	55	100	10	030520700	1,929
8X107	5/16	7,5	70	107	10	030520800C	2,350
8	5/16	7,5	70	120	10	030520800	2,350
9	11/32	8	70	120	10	030520900	2,539
10	3/8	9	70	120	10	030521000	3,005
11	7/16	10	90	150	5	030521100	3,714
12X120	15/32	10	90	120	5	030521200C	3,714
12	15/32	10	90	150	5	030521200	3,714
13	1/2	10	90	150	5	030521300	4,157
14	9/16	10	90	150	5	030521400	4,601
16	5/8	10	90	150	5	030521600	6,109
18	23/32	10	100	160	5	030521800	6,320
20	25/32	13	100	160	5	030522000	7,804



Art. 03053 L=200 mm.

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
6	15/64	5,5	150	200	5	030530600	4,102
8	5/16	7,5	150	200	5	030530800	4,690
10	3/8	9	150	200	5	030531000	5,433
12	15/32	10	150	200	5	030531200	6,264
14	9/16	10	150	200	5	030531400	7,738

Art. 03054 L=400 mm.

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
8	5/16	7,5	240	400	5	030540800	7,029
10	3/8	9	240	400	5	030541000	9,512
12	15/32	10	240	400	5	030541200	11,308
14	9/16	10	240	400	5	030541400	11,852
16	5/8	10	240	400	5	030541600	21,076
18	23/32	10	240	400	5	030541800	27,009
20	25/32	13	240	400	5	030542000	32,929

Confezione / *Packaging*



Applicazioni / *Applications*



ASSORTIMENTI PUNTE CILINDRICHE PER MURO **STANDARD PLUS**

Quality rotary percussion masonry drills sets / Jeux forets à béton de qualité
Juego brocas de qualidad para hormigon / Betonschlag bohrersätze



4 pcs
Ø 5 - 6 - 8 - 10 mm

03057202 € 10,189



7 pcs
Ø 3 - 4 - 5 - 6 - 8 - 9 - 10 mm

03057204 € 15,588



8 pcs
Ø 3 - 4 - 5 - 6 - 8 - 9 - 10 - 12 mm

03057205 € 18,471



390x150x225

177 pcs **Ø 3÷16 mm**

Ø	pcs
3	10
4	10
5	10
6	45
7	10
8	20
9	10
10	20
12	10
14	5
16	5
8x400	5
10x400	6
12x400	6
14x400	5

cod.	€
03057503	653,540

Professional

PUNTE CILINDRICHE PER MURO, QUALITÀ STANDARD

Carbide tipped masonry drills / Forets à béton au carbure de tungstene
Brocas para hormigon / Steinbohrer

DIN 8039-ISO 5468 Serie Corta

Short serie / Série courte / Serie corta / Kurz Serie

03001





HVA ≃ 1600

Art. **03002** Self
Disponibile su richiesta
On demand

Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
3	1/8	2,8	40	70	10	030010300	0,777
3,5	9/64	3,2	40	75	10	030010350	0,877
4	5/32	3,2	40	75	10	030010400	0,821
4,5	11/64	3,8	40	85	10	030010450	0,898
5	3/16	3,8	40	85	10	030010500	0,821
5,5	7/32	4,7	50	85	10	030010550	0,987
6	15/64	4,7	55	100	10	030010600	0,898
6,5	1/4	5,4	55	100	10	030010650	1,120
7	9/32	5,4	55	100	10	030010700	1,009
7,5	19/64	5,8	70	100	10	030010750	1,231
8X107	5/16	7,5	70	107	10	030010800C	1,208
8	5/16	6	70	120	10	030010800	1,208
8,5	21/64	7,1	70	120	10	030010850	1,464
9	11/32	7,1	70	120	10	030010900	1,331
9,5	3/8	8	70	120	10	030010950	1,608
10	3/8	8	70	120	10	030011000	1,530
11	7/16	10	90	150	5	030011100	2,383
12X120	15/32	10	90	120	5	030011200C	2,383
12	15/32	10	90	150	5	030011200	2,383
13	1/2	10	90	150	5	030011300	3,204
14	9/16	10	90	150	5	030011400	3,293
15	19/32	10	90	150	5	030011500	4,124
16	5/8	10	90	150	5	030011600	4,124
18	23/32	10	100	160	5	030011800	5,034
20	25/32	13	100	160	5	030012000	5,832
22	7/8	13	100	160	1	030012200	8,082
24	15/16	13	100	160	1	030012400	9,579
25	1"	13	100	160	1	030012500	11,763
26	1. 1/32	13	100	160	1	030012600	16,919
28	1. 1/8	13	100	160	1	030012800	17,628
30	1. 3/16	13	100	160	1	030013000	19,913
32	1. 1/4	13	100	160	1	030013200	22,041

Confezione / *Packaging*



Applicazioni / *Applications*



Muro
Masonry



Calcestruzzo
Concrete



Pietra
Natural stones

- Per forare a rotopercussione muro, cemento, marmo e pietre. Utilizzo non intensivo.
- Rotary percussion in masonry, concrete, cement, marble, stone. Non intensive use.
- Pour percer à rotation percussion en pierre, béton, ciment, carrelage, marbre. Emploi non intensif.
- Para taladrar a roto-percussion muro, hormigon, cemento, marmol, piedra, suelos. Empleo non intensivo.
- Um Mauerwerk und Beton in Schlagbohrermaschinen zu bohren



PUNTE CILINDRICHE PER MURO, SERIE LUNGA 200-300MM, QUALITÀ STANDARD

Carbide tipped masonry drills, 200-300mm. length / Forets à béton au carbure de tungstene, série longue 200-300m.
Brocas para hormigon, serie larga 200-300mm. / Steinbohrer, 200-300 mm Ausführung

DIN 8039 - ISO 5468



Art. 03005 L=200 mm

03005

Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
6	15/64	4,7	115	200	5	030050600	2,683
8	5/16	6	115	200	5	030050800	2,972
9	11/32	7,1	115	200	5	030050900	3,747
10	3/8	8	115	200	5	030051000	3,747
12	15/32	10	120	200	5	030051200	4,590
13	1/2	10	120	200	5	030051300	5,134
14	9/16	10	120	200	5	030051400	5,666
16	5/8	10	120	200	5	030051600	7,040
18	23/32	10	120	200	5	030051800	9,025
20	25/32	13	120	200	5	030052000	10,720

Art. **03021** Self
Disponibile su richiesta
On demand

Art. 03009 L=300 mm

03009

Ø mm	*Inch*	d	l	L	pcs	cod.	€ cad/each
6	15/64	4,7	180	300	5	030090600	3,237
8	5/16	6	180	300	5	030090800	3,660
9	11/32	7,1	180	300	5	030090900	4,679
10	3/8	8	180	300	5	030091000	4,679
12	15/32	10	180	300	5	030091200	5,378
13	1/2	10	180	300	5	030091300	6,497
14	9/16	10	180	300	5	030091400	6,907
16	5/8	10	180	300	5	030091600	8,814
18	23/32	10	180	300	5	030091800	11,275
20	25/32	13	180	300	5	030092000	13,404

PUNTE CILINDRICHE PER MURO, SERIE LUNGA 400-600MM, QUALITÀ STANDARD

Carbide tipped masonry drills, 400-600mm. length / Forets à béton au carbure de tungstene, série longue 400-600m.
Brocas para hormigon, serie larga 400-600mm. /Steinbohrer, 400-600 mm Ausführung.

DIN 8039 - ISO 5468



Art. 03011 L=400 mm

Art. **03022** Self
Disponibile su richiesta
On demand

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
6	15/64	5	240	400	5	030110600	3,581
8	5/16	7	240	400	5	030110800	4,157
9	11/32	8	240	400	5	030110900	5,699
10	3/8	9	240	400	5	030111000	5,699
11	7/16	10	240	400	5	030111100	6,109
12	15/32	10	240	400	5	030111200	6,109
13	1/2	10	240	400	5	030111300	7,284
14	9/16	10	240	400	5	030111400	7,284
15	19/32	10	240	400	5	030111500	9,269
16	5/8	10	240	400	5	030111600	9,269
18	23/32	10	240	400	5	030111800	11,864
20	25/32	13	240	400	5	030112000	15,167
22	7/8	13	240	400	1	030112200	21,287
24	15/16	13	250	400	1	030112400	24,646
25	1"	13	250	400	1	030112500	27,939
26	1" 1/32	13	250	400	1	030112600	31,243
28	1" 1/8	13	250	400	1	030112800	33,527
30	1" 3/16	13	250	400	1	030113000	38,050
32	1" 1/4	13	250	400	1	030113200	43,639

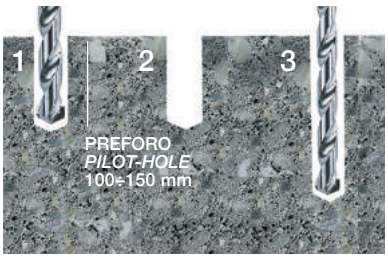
Art. 03015 L=600 mm

Art. **03023** Self
Disponibile su richiesta
On demand

Ø mm	*Inch*	d	*l*	L	pcs	cod.	€ cad/each
6	>15/64	5	370	600	5	030150600	6,353
8	5/16	7	370	600	5	030150800	7,073
9	11/32	8	370	600	5	030150900	8,814
10	3/8	9	370	600	5	030151000	9,236
11	7/16	10	370	600	5	030151100	9,535
12	15/32	10	370	600	5	030151200	10,133
13	1/2	10	370	600	5	030151300	11,864
14	9/16	10	370	600	5	030151400	12,639
15	19/32	10	370	600	5	030151500	15,988
16	5/8	10	370	600	5	030151600	17,606
18	23/32	10	370	600	5	030151800	20,443
20	25/32	13	370	600	5	030152000	24,003
22	7/8	13	370	600	1	030152200	35,134
24	15/16	13	370	600	1	030152400	43,394
25	1"	13	370	600	1	030152500	47,918
26	1" 1/32	13	370	600	1	030152600	49,836
28	1" 1/8	13	370	600	1	030152800	56,444
30	1" 3/16	13	370	600	1	030153000	64,980
32	1" 1/4	13	370	600	1	030153200	73,872
35	1" 3/8	13	370	600	1	030153500	82,109

Si consiglia di eseguire un preforo di 100÷150 mm. dello stesso diametro.
Use same size pilot drill for 100÷150 mm. depth.

Applicazioni / Applications



ASSORTIMENTI PUNTE PER MURO, QUALITÀ STANDARD

Masonry drills in plastic cases / Assortiments forets à béton
Juego brocas para hormigon / Steinbohrersätze



15 pcs
Ø 3÷10 x 0,5 mm

03050101	€ 17,384



13 pcs
Ø 3-4-4-5-5-5,5
6-6-7-8-8-9-10 mm

03050102	€ 16,309



7 pcs
Ø 3-4-5-6-8-9-10 mm.

03050204	€ 9,713



8 pcs
Ø 3-4-5-6-8-9-10-12 mm.

03050205	€ 11,398



4 pcs
Ø 4-5-6-8

03050201	€ 5,998



4 pcs
Ø 5-6-8-10 mm

03050202	€ 6,475



5 pcs
Ø 4-5-6-8-10 mm

03050203	€ 6,840



390x150x225

281 pcs **Ø 3÷20**

Ø	pcs
3	20
4	20
5	20
6	60
7	20
8	30
9	10
10	20
12	10
14	10
16	5
18	3
8x400	10
10x400	10
12x400	10
14x400	10
16x400	5
18x400	5
20x400	3

cod.	€
03050503	755,473

High Quality professional

PUNTE PER TRAPANI A MARTELLO SDS-PLUS, QUALITÀ SUPER PROFESSIONALE "K 4"

SDS-PLUS hammer drills "K 4" / Forets à marteau SDS-PLUS "K 4"
Brocas para martillo SDS-PLUS "K 4" / Hammerbohrer SDS-PLUS "K 4"

03160



K4
"SUPERPRO"



2 taglienti
cutting edges

4 spirali
4 spirals

HVA ≃ 1650

- Corpo a 4 spirali indipendenti per un avanzamento più veloce (+35%) ed un maggior scarico dei detriti. Corpo in acciaio legato con HRC 50÷55. Geometria della testa più snella e più aggressiva, per un'ottima trasmissione della potenza. Saldobrasatura a 1100°C in atmosfera di gas protettivo.
- *Higher speed and durability due to the unique 4-fold spirals (more dust removal, more feeding speed); unique and aggressive head geometry for a smooth power transmission. Body in alloy steel with HRC 50÷55. Brazing temperature at 1100°C.*



Placchetta "attiva" con gole di scarico
Ø ≤ 10 mm



Placchetta con puntina di centraggio
10<Ø ≤ 16 mm

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete

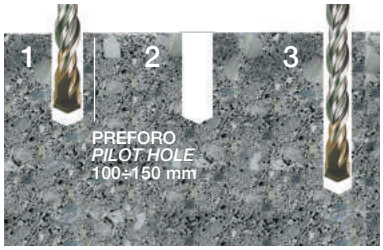


Muro
Masonry

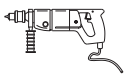


Pietra
Natural stones

L ≥ 300 mm







** 2 eliche - 2 Flutes*

Ø mm	L	/	pcs	cod.	€ cad/each
* 3,5	110	50	1	031601100350	9,015
* 3,5	135	75	1	031601350350	14,524
* 4	110	50	1	031601100400	7,583
* 4	160	100	1	031601600400	9,867
5	110	50	1	031601100500	4,778
5	160	100	1	031601600500	6,596
5	210	150	1	031602100500	11,187
5	310	250	1	031603100500	12,762
5,5	110	50	1	031601100550	5,100
5,5	160	100	1	031601600550	6,797
5,5	210	150	1	031602100550	8,638
5,5	260	200	1	031602600550	17,396
5,5	310	250	1	031603100550	25,190
5,5	460	400	1	031604600550	42,740
6	110	50	1	031601100600	4,435
6	160	100	1	031601600600	5,421
6	210	150	1	031602100600	6,342
6	260	200	1	031602600600	8,304
6	460	400	1	031604600600	18,589
6,5	110	50	1	031601100650	5,288
6,5	160	100	1	031601600650	5,488
6,5	210	150	1	031602100650	9,280
6,5	260	200	1	031602600650	9,679
6,5	310	250	1	031603100650	12,428
7	110	50	1	031601100700	6,996
7	160	100	1	031601600700	8,105
7	210	150	1	031602100700	9,015
8	110	50	1	031601100800	5,421
8	160	100	1	031601600800	6,863
8	210	150	1	031602100800	7,063
8	260	200	1	031602600800	8,638
8	310	250	1	031603100800	10,587
8	460	400	1	031604600800	17,339
8	610	550	1	031606100800	24,842
9	160	100	1	031601600900	10,200
9	210	150	1	031602100900	11,120
9,5	160	100	1	031601600950	12,428
10	110	50	1	031601101000	5,821
10	160	100	1	031601601000	6,797
10	210	150	1	031602101000	7,972
10	260	200	1	031602601000	9,357
10	310	250	1	031603101000	9,357
10	360	300	1	031603601000	12,428
10	460	400	1	031604601000	14,790
10	610	550	1	031606101000	29,450
10	1000	950	1	0316010001000	54,846
11	160	100	1	031601601100	8,559
11	210	150	1	031602101100	12,099
11	260	200	1	031602601100	13,505
12	160	100	1	031601601200	9,545
12	210	150	1	031602101200	11,775
12	260	200	1	031602601200	12,950
12	310	250	1	031603101200	16,809
12	460	400	1	031604601200	21,787
12	610	550	1	031606101200	30,167
12	1000	950	1	0316010001200	63,950
13	160	100	1	031601601300	13,992
13	210	150	1	031602101300	15,244
13	260	200	1	031602601300	16,809
13	460	400	1	031604601300	25,522
14	160	100	1	031601601400	11,574
14	210	150	1	031602101400	13,992
14	260	200	1	031602601400	14,845
14	310	250	1	031603101400	18,715
14	460	400	1	031604601400	23,815
14	610	550	1	031606101400	37,818
14	1000	950	1	0316010001400	75,014
15	160	100	1	031601601500	17,273
15	260	200	1	031602601500	20,933
15	460	400	1	031604601500	34,103
16	210	150	1	031602101600	19,823
16	260	200	1	031602601600	23,560
16	310	250	1	031603101600	24,014
16	460	400	1	031604601600	33,184
16	610	550	1	031606101600	39,137
16	1000	950	1	0316010001600	80,259
17	210	150	1	031602101700	31,874
18	200	150	1	031602001800	25,655
18	300	250	1	031603001800	29,646
18	450	400	1	031604501800	38,360
18	600	550	1	031606001800	52,791
18	1000	950	1	0316010001800	86,999
19	200	150	1	031602001900	41,110
19	450	400	1	031604501900	61,732
20	200	150	1	031602002000	29,514
20	300	250	1	031603002000	34,293
20	450	400	1	031604502000	43,205
20	600	550	1	031606002000	57,624
20	1000	950	1	0316010002000	99,107
22	250	200	1	031602502200	36,775
22	450	400	1	031604502200	66,178
22	600	550	1	031606002200	64,257
22	1000	950	1	0316010002200	113,918
24	250	200	1	031602502400	44,646
24	450	400	1	031604502400	62,453
25	250	200	1	031602502500	45,157
25	300	250	1	031603002500	80,979
25	450	400	1	031604502500	69,516
25	1000	950	1	0316010002500	141,502
26	250	200	1	031602502600	52,697
26	450	400	1	031604502600	69,060
30	450	400	1	031604503000	116,800

Corpo a doppia spirale per ø ≤ 4 mm e ø > 16 mm

- Taglio ad **altissimo rendimento** a rotopercussione, su martelli SDS-plus, nel muro, cemento, calcestruzzo, pietre. **Taglia anche il tondino di acciaio** del cemento armato incontrato nella foratura.
- Superprofessional hammer drills for intensive usage in concrete, masonry, bricks, natural stone, etc..
- Forets à marteau Superprofessionel pour percage in ciment, carrelage, pierre naturelle et artificielle, etc..
- Brocas para martillo Superprofessionales para cortar hormigon, cemento, marmo, piedra, suelos.
- Superprofi Einsatz in Bohrhammer mit SDS-PLUS aufnahme für Beton, Mauerwerk, Naturstein.

ASSORTIMENTI PUNTE SDS-PLUS “K 4”

“K 4” Hammer drills sets / Assortiments forets à marteau “K 4”
Juegos brocas martillo "K 4 " / "K 4" Hammerbohrersätze

Abs



7 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 - 12 x 160 mm

03163403 € 47,850

Plastic



6 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 x 160 mm

03163202 € 41,975



5 pcs
Ø 5 - 6 x 110 mm
Ø 8 - 10 - 12 x 160 mm

03163203 € 38,372



cod.	€
03163460	266,798

30 pcs **Ø 6÷14 mm**

Ø	pcs
6x160	5
8x160	5
10x160	5
12x160	5
10x210	5
12x210	3
14x210	2



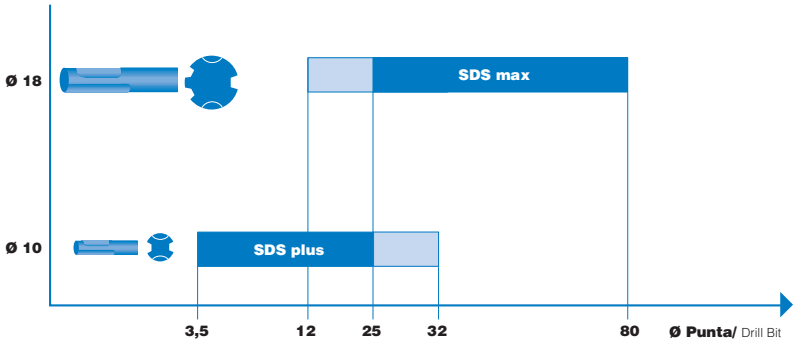
390x150x225

cod.	€
03163503	701,510

71 pcs **Ø 5÷16 mm**

Ø	pcs
5x110	3
6x110	8
5x160	3
6x160	8
8x160	8
9x160	3
10x160	5
12x160	5
6x210	4
8x210	4
10x210	3
12x210	3
14x210	2
16x210	2
8x260	2
10x260	2
12x260	2
14x260	2
16x260	2

Campo di applicazione raccomandato per gli attacchi SDS per martelli
Range of applications for the SDS shanks



SDS-MAX
03170
380

High Quality professional

PUNTE PER TRAPANI A MARTELLO SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI

SDS-PLUS hammer drills, 4 flutes, 4 cutting edges / Forets á marteau SDS-PLUS avec 4 tranchantes et 4 spirales
Brocas para martillo SDS-PLUS con 4 cortadores y 4 espirales / Hammerbohrer SDS-PLUS mit 4 Schneiden und 4 Schrauben

374

Saldatura per diffusione elettronica / *Electronic diffusion bond*

HAMMER

03169

NEW





ø 3,5÷4 mm



ø 5÷16 mm



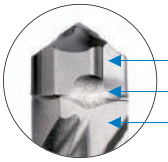
ø 18÷30 mm

4 taglienti-*cutting edges*
HVA 1650

Placchetta integrale a 4 taglienti in metallo duro resistente alla forte percussione, è saldato al corpo per diffusione elettronica.
One-piece 4 cutting edges carbide tip resisting to percussion. welded to the body by electronic diffusion bond

4 eliche-*flutes*

Corpo fresato con scanalatura a "L" ad alta evacuazione. *Large milled flute type "L" for a faster dust removal.*



Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete

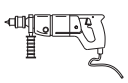


Muro
Masonry



Pietra
Natural stones







Ø mm	L	/	pcs	cod.	€ cad/each
3,5	115	50	1	031691150350	10,626
3,5	165	100	1	031691650350	11,814
4	115	50	1	031691150400	11,484
4	165	100	1	031691650400	11,993
5	115	50	1	031691150500	8,241
5	165	100	1	031691650500	9,310
5	215	150	1	031692150500	11,591
5	265	200	1	031692650500	13,790
5	315	250	1	031693150500	19,251
5	465	400	1	031694650500	33,600
5,5	115	50	1	031691150550	8,778
5,5	165	100	1	031691650550	9,916
5,5	215	150	1	031692150550	11,591
5,5	265	200	1	031692650550	14,578
5,5	315	250	1	031693150550	19,251
5,5	465	400	1	031694650550	35,280
6	115	50	1	031691150600	8,645
6	165	100	1	031691650600	9,500
6	215	150	1	031692150600	11,658
6	265	200	1	031692650600	13,731
6	315	250	1	031693150600	19,460
6	465	400	1	031694650600	33,600
6,5	115	50	1	031691150650	8,778
6,5	165	100	1	031691650650	11,658
6,5	215	150	1	031692150650	15,708
6,5	265	200	1	031692650650	18,904
6,5	315	250	1	031693150650	23,240
7	115	50	1	031691150700	11,484
7	165	100	1	031691650700	12,502
7	215	150	1	031692150700	15,120
8	115	50	1	031691150800	9,842
8	165	100	1	031691650800	10,064
8	215	150	1	031692150800	11,832
8	265	200	1	031692650800	13,930
8	315	250	1	031693150800	18,720
8	365	300	1	031693650800	28,560
8	465	400	1	031694650800	30,720
9	165	100	1	031691650900	11,658
9	215	150	1	031692150900	13,396
10	115	50	1	031691151000	10,138
10	165	100	1	031691651000	11,136
10	215	150	1	031692151000	12,935
10	265	200	1	031692651000	15,708
10	315	250	1	031693151000	18,904
10	365	300	1	031693651000	30,240
10	465	400	1	031694651000	33,189
11	165	100	1	031691651100	15,360
11	215	150	1	031692151100	17,856
11	265	200	1	031692651100	21,896
12	165	100	1	031691651200	12,596
12	215	150	1	031692151200	15,246
12	265	200	1	031692651200	17,680
12	315	250	1	031693151200	23,904
12	365	300	1	031693651200	33,600
12	465	400	1	031694651200	35,121
13	165	100	1	031691651300	17,353
13	215	150	1	031692151300	23,832
13	265	200	1	031692651300	28,512
14	165	100	1	031691651400	17,420
14	215	150	1	031692151400	23,240
14	265	200	1	031692651400	26,649
14	315	250	1	031693151400	29,394
14	365	300	1	031693651400	36,960
14	465	400	1	031694651400	37,398
15	165	100	1	031691651500	25,200
15	265	200	1	031692651500	31,388
15	465	400	1	031694651500	44,928
16	215	150	1	031692151600	30,672
16	265	200	1	031692651600	34,632
16	315	250	1	031693151600	39,024
16	465	400	1	031694651600	47,088
18	250	200	1	031692501800	47,872
18	450	400	1	031694501800	56,210
20	250	200	1	031692502000	53,399
20	450	400	1	031694502000	63,210
22	250	200	1	031692502200	62,682
22	450	400	1	031694502200	79,740
24	450	400	1	031694502400	87,000
25	450	400	1	031694502500	94,798
28	450	400	1	031694502800	101,308
30	450	400	1	031694503000	119,340

- La placchetta in metallo duro **monoblocco a 4 taglienti** garantisce una grande capacità di taglio, una perfetta trasmissione della potenza e un'ottima asportazione dei detriti grazie alla combinazione dei 4 taglienti, della placchetta integrale e delle 4 eliche.
La punta a 4 taglienti e 4 spirali taglia sempre e senza problemi il tondino nel cemento armato. Garantisce un grande rendimento di taglio in tutti i materiali edili, cemento, granito, cemento armato, pietre in genere, mattoni. Grande precisione di foratura, grande durata della vita dell'utensile, massima limitazione delle vibrazioni del martello.
- The solid carbide tip assures high performances, a good power transmission and a great debris removal thanks to 4 flutes and 4 cutting edges one-piece solid carbide.
The hammer drill 4x4 Speedmaster always cuts the steel bar into reinforced concrete. You can drill into all the building materials, concrete, masonry, reinforced concrete, stones, bricks. It assures thorough holes, long tool life cycle, low hammer vibrations.

ASSORTIMENTI PUNTE SDS-PLUS CON 4 TAGLIENTI E 4 ELICHE

SDS/PLUS hammer drills sets, 4 flutes, 4 cutting edges

Assortiments forets à marteau SDS-PLUS / Juegos brocas martillo SDS-PLUS



6 pcs

Ø 5 - 6 - 8 x 115 mm

Ø 6 - 8 - 10 x 165 mm

03174202	€ 60,577



5 pcs

Ø 5 - 6 x 115 mm

Ø 8 - 10 - 12 x 165 mm

03174203	€ 53,641



7 pcs

Ø 5 - 6 - 8 x 115 mm

Ø 6 - 8 - 10 - 12 x 165 mm

03174403	€ 77,430



390x150x225

cod.	€
03174503	874,000

68 pcs **Ø 5÷16 mm**

Ø	pcs
5x115	3
6x115	8
5x165	3
6x165	8
8x165	8
10x165	5
12x165	5
6x215	4
8x215	4
10x215	3
12x215	3
14x215	2
16x215	2
8x265	2
10x265	2
12x265	2
14x265	2
16x265	2

High Quality professional

PUNTE PER TRAPANI A MARTELLO SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI

SDS-PLUS hammer drills, 4 flutes, 4 cutting edges / Forets á marteau SDS-PLUS avec 4 tranchantes et 4 spirales
Brocas para martillo SDS-PLUS con 4 cortadores y 4 espirales / Hammerbohrer SDS-PLUS mit 4 Schneiden und 4 Schrauben

4x4 Speedmaster®

SDS plus

03167





Solid
carbide head
ø 5-10 mm



Single
carbide tip
ø 12-16 mm



Multi-part
carbide tip
ø 18-32 mm

HVA ≃ 1650

4 taglienti-*cutting edges*
HVA 1650
Placchetta integrale a 4 taglienti in metallo duro resistente alla forte percussione, brasatura con lega saldante a 1100°C. *One-piece 4 cutting edges carbide tip resisting to percussion. Brazing temperature at 1000°C*

4 eliche-*flutes*
Corpo fresato con scanalatura a "L" ad alta evacuazione. *Large milled flute type "L" for a faster dust removal.*

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete

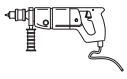


Muro
Masonry



Pietra
Natural stones





Ø mm	L	/	pcs	cod.	€ cad/each	Ø mm	L	/	pcs	cod.	€ cad/each
5	110	50	1	031671100500	9,943	12	1000	950	1	0316710001200	150,405
5	160	100	1	031671600500	10,702	13	160	100	1	031671601300	19,580
5,5	110	50	1	031671100550	10,574	13	210	150	1	031672101300	32,757
5,5	160	100	1	031671600550	11,459	13	260	200	1	031672601300	36,864
6	110	50	1	031671100600	10,070	13	310	250	1	031673101300	39,465
6	160	100	1	031671600600	11,017	14	160	100	1	031671601400	21,213
6	210	150	1	031672100600	13,808	14	210	150	1	031672101400	28,365
6	260	200	1	031672600600	16,589	14	260	200	1	031672601400	31,283
6	310	250	1	031673100600	23,687	14	310	250	1	031673101400	35,148
6,5	160	100	1	031671600650	13,997	14	450	400	1	031674501400	44,142
6,5	210	150	1	031672100650	18,875	14	600	550	1	031676001400	63,964
6,5	260	200	1	031672600650	24,256	14	1000	950	1	0316710001400	156,103
6,5	310	250	1	031673100650	28,238	15	160	100	1	031671601500	33,189
7	110	50	1	031671100700	13,292	15	210	150	1	031672101500	38,634
7	160	100	1	031671600700	14,061	15	260	200	1	031672601500	42,046
8	110	50	1	031671100800	11,712	15	450	400	1	031674501500	55,728
8	160	100	1	031671600800	12,356	16	160	100	1	031671601600	35,148
8	210	150	1	031672100800	14,061	16	210	150	1	031672101600	39,582
8	260	200	1	031672600800	17,094	16	260	200	1	031672601600	42,120
8	310	250	1	031673100800	24,383	16	310	250	1	031673101600	47,491
8	460	400	1	031674600800	34,452	16	450	400	1	031674501600	56,370
9	160	100	1	031671600900	12,987	16	600	550	1	031676001600	78,278
10	110	50	1	031671101000	12,155	16	1000	950	1	0316710001600	164,645
10	160	100	1	031671601000	12,987	18	250	200	1	031672501800	57,687
10	210	150	1	031672101000	15,324	18	450	400	1	031674501800	68,135
10	260	200	1	031672601000	18,685	20	250	200	1	031672502000	64,470
10	310	250	1	031673101000	22,476	20	450	400	1	031674502000	74,160
10	450	400	1	031674501000	39,329	22	250	200	1	031672502200	68,325
10	600	550	1	031676001000	57,192	22	450	400	1	031674502200	85,999
10	1000	950	1	0316710001000	142,495	24	250	200	1	031672502400	78,973
11	160	100	1	031671601100	15,567	24	450	400	1	031674502400	95,182
11	210	150	1	031672101100	18,780	25	250	200	1	031672502500	81,765
12	160	100	1	031671601200	15,009	25	450	400	1	031674502500	100,249
12	210	150	1	031672101200	18,306	28	250	200	1	031672502800	96,384
12	260	200	1	031672601200	20,770	28	450	400	1	031674502800	105,947
12	310	250	1	031673101200	28,501	30	250	200	1	031672503000	101,587
12	450	400	1	031674501200	42,816	30	450	400	1	031674503000	138,640
12	600	550	1	031676001200	58,950	32	450	400	1	031674503200	149,204

*** ø 18÷32 mm: 4 taglienti – 2 eliche**

- La placchetta in metallo duro **monoblocco a 4 taglienti** garantisce una grande capacità di taglio, una perfetta trasmissione della potenza e un'ottima asportazione dei detriti grazie alla combinazione dei 4 taglienti, della placchetta integrale e delle 4 eliche.
La punta a 4 taglienti e 4 spirali taglia sempre e senza problemi il tondino nel cemento armato. Garantisce un grande rendimento di taglio in tutti i materiali edili, cemento, granito, cemento armato, pietre in genere, mattoni. Grande precisione di foratura, grande durata della vita dell'utensile, massima limitazione delle vibrazioni del martello.
- The solid carbide tip assures high performances, a good power transmission and a great debris removal thanks to 4 flutes and 4 cutting edges one-piece solid carbide.
The hammer drill 4x4 Speedmaster always cuts the steel bar into reinforced concrete. You can drill into all the building materials, concrete, masonry, reinforced concrete, stones, bricks. It assures thorough holes, long tool life cycle, low hammer vibrations.

ASSORTIMENTI PUNTE SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI

SDS/PLUS hammer drills sets, 4 flutes, 4 cutting edges

Assortiments forets à marteau SDS-PLUS / Juegos brocas martillo SDS-PLUS

4x4 Speedmaster®

SDS plus

Metal



7 pcs

Ø 5 - 6 - 8 x 110 mm

Ø 6 - 8 - 10 - 12 x 160 mm

03168401 € 86,577

Plastic



6 pcs

Ø 5 - 6 - 8 x 110 mm

Ø 6 - 8 - 10 x 160 mm

03168202 € 71,906



5 pcs

Ø 5 - 6 x 110 mm

Ø 8 - 10 - 12 x 160 mm

03168203 € 64,765



cod.	€
03168460	463,172

30 pcs **Ø 6÷14 mm**

Ø	pcs
6x160	5
8x160	5
10x160	5
12x160	5
10x210	5
12x210	3
14x210	2



390x150x225

cod.	€
03168503	1152,821

68 pcs **Ø 5÷16 mm**

Ø	pcs
5x110	3
6x110	8
5x160	3
6x160	8
8x160	8
10x160	5
12x160	5
6x210	4
8x210	4
10x210	3
12x210	3
14x210	2
16x210	2
8x260	2
10x260	2
12x260	2
14x260	2
16x260	2

cod.	€
03168500	860,666

46 pcs **Ø 5÷16 mm**

Ø	pcs
5x110	4
6x110	6
6x160	6
8x160	6
10x160	4
12x160	4
8x210	4
10x210	2
12x210	2
14x210	2
16x210	2
14x260	2
16x260	2

High Quality professional

PUNTE PER TRAPANI A MARTELLO SDS-PLUS A TESTA INTEGRALE IN METALLO DURO, QUALITÀ SUPER PROFESSIONALE **"K5L"**

SDS-PLUS hammer drills "K5L" / Forets à marteau SDS-PLUS "K5L"
Brocas para martillo SDS-PLUS "K5L" / Hammerbohrer SDS-PLUS "K5L"

*In esaurimento / *To be discontinued*

03157



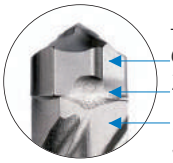
K5L



HVA ≃1650

2 taglienti
cutting edges

- Testa dell'utensile in metallo duro integrale; è saldato al corpo per diffusione elettronica.
- *One-piece carbide tip is welded to the body by electronic diffusion bond.*



Testa in metallo duro integrale
Carbide tip
Zona di transizione
Transition area
Corpo in acciaio
Steel body

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete



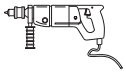
Muro
Masonry



Pietra
Natural stones







Ø mm	L	/	pcs	cod.	€ cad/each
5	110	50	1	031571100500	8,195
5	210	150	1	031572100500	12,840
5,5	110	50	1	031571100550	9,228
5,5	160	100	1	031571600550	10,210
6	115	50	1	031571150600	8,195
6	165	100	1	031571650600	11,602
6	215	150	1	031572150600	13,198
6	265	200	1	031572650600	15,008
6,5	115	50	1	031571150650	10,569
6,5	165	100	1	031571650650	17,842
6,5	265	200	1	031572650650	17,842
7	115	50	1	031571150700	11,192
7	165	100	1	031571650700	12,114
8	115	50	1	031571150800	10,723
8	165	100	1	031571650800	10,723
8	215	150	1	031572150800	12,737
8	265	200	1	031572650800	16,144
8	365	300	1	031573650800	25,167
8	465	400	1	031574650800	36,821
10	115	50	1	031571151000	12,533
10	165	100	1	031571651000	12,686
10	215	150	1	031572151000	15,008
10	265	200	1	031572651000	18,773
10	465	400	1	031574651000	32,175
12	165	100	1	031571651200	14,906
12	215	150	1	031572151200	17,484
12	265	200	1	031572651200	22,640
12	465	400	1	031574651200	40,217
14	165	100	1	031571651400	22,426
14	215	150	1	031572151400	25,372
14	265	200	1	031572651400	28,360
14	365	300	1	031573651400	38,109
14	465	400	1	031574651400	47,799

La speciale testa dell'utensile **è saldata al corpo per diffusione**: questa nuova tecnologia garantisce un legame estremamente stabile tra placchetta in metallo duro e corpo della punta, perché la giunzione avviene allo stato solido per diffusione degli atomi del reticolo cristallino all'interfaccia tra i due pezzi. La puntina di centraggio agevola la foratura in fase iniziale di taglio. La nuova punta "K5L" garantisce un taglio ad altissimo rendimento a rotopercussione su martelli SDS-PLUS nel muro, cemento, calcestruzzo, pietre, cemento armato. Garantisce fori precisi e massima vita utile dell'utensile.Taglia anche le armature del cemento armato. One-piece carbide tip is welded to the body by electronic diffusion bonding: this new technology assures a very stable link between the carbide tip and the drill body, because the bonding is made between solid phases through the atoms diffusion. The centering tip eases the start of the cutting operation. aNew "K5L" drill assures high performances with SDS-PLUS hammer in cutting masonry, concrete, stones, reinforced concrete; it cuts also the steel bar inside the reinforced concrete. It assures precise holes and a very long tool life cycle.

ASSORTIMENTI PUNTE SDS-PLUS “**K5L**”

“K5L” Hammer drills sets / Assortiments forets à marteau “K5L”
Juegos brocas martillo "K5L " / "K5L" Hammerbohrersätze

Metal



7 pcs

Ø 5 x 110 mm
Ø 6 - 8 x 115 mm
Ø 6 - 8 - 10 - 12 x 165 mm

03158401 € 109,129



cod.	€
03158460	602,585

30 pcs **Ø 6÷14 mm**

Ø	pcs
6x165	5
8x165	5
10x165	5
12x165	5
10x215	5
12x215	3
14x215	2



390x150x225

64 pcs Ø 5÷14 mm

Ø	pcs
5x110	3
6x115	8
5x160	3
6x165	8
8x165	8
10x165	5
12x165	5
6x215	4
8x215	4
10x215	3
12x215	3
14x215	2
8x265	2
10x265	2
12x265	2
14x265	2

cod.	€
03158503	1241,735

PUNTE PER TRAPANI A MARTELLO SDS-PLUS, QUALITÀ STANDARD

Hammer drills / Forets à marteau
Brocas para martillo / Hammerbohrer

Standard quality

03155





– **2 taglienti**
cutting edges

– **4 spirali**
spirals

HVA ≃ 1650

Ø mm	L	/	pcs	cod.	€ cad/each
4	110	50	1	031551100400	3,293
4	160	50	1	031551600400	3,481
5	110	50	1	031551100500	3,049
5	160	100	1	031551600500	3,237
5	210	150	1	031552100500	3,827
5,5	110	50	1	031551100550	3,215
5,5	160	100	1	031551600550	3,393
5,5	210	150	1	031552100550	4,025
6	110	50	1	031551100600	3,071
6	160	100	1	031551600600	3,359
6	210	150	1	031552100600	4,511
6	260	200	1	031552600600	5,288
6,5	160	100	1	031551600650	3,481
6,5	210	150	1	031552100650	4,822
6,5	260	200	1	031552600650	5,742
7	110	50	1	031551100700	3,481
7	160	100	1	031551600700	3,903
8	110	50	1	031551100800	3,337
8	160	100	1	031551600800	3,747
8	210	150	1	031552100800	4,845
8	260	200	1	031552600800	5,742
8	310	250	1	031553100800	8,304
8	460	400	1	031554600800	13,093
9	160	100	1	031551600900	4,202
9	210	150	1	031552100900	5,776
10	110	50	1	031551101000	3,891
10	160	100	1	031551601000	4,302
10	210	150	1	031552101000	5,332
10	260	200	1	031552601000	6,252
10	310	250	1	031553101000	9,246
10	360	300	1	031553601000	11,929
10	460	400	1	031554601000	13,670
10	610	550	1	031556101000	19,391
11	160	100	1	031551601100	4,801
11	210	150	1	031552101100	6,785
11	260	200	1	031552601100	7,284
12	160	100	1	031551601200	4,557
12	210	150	1	031552101200	6,275
12	260	200	1	031552601200	7,284
12	310	250	1	031553101200	10,943
12	460	400	1	031554601200	14,303
12	600	550	1	031556001200	20,733
13	160	100	1	031551601300	6,297
13	210	150	1	031552101300	9,213
13	260	200	1	031552601300	9,457
13	460	400	1	031554601300	14,646
14	160	100	1	031551601400	6,353
14	210	150	1	031552101400	7,384
14	260	200	1	031552601400	8,404
14	310	250	1	031553101400	11,220
14	460	400	1	031554601400	14,646
14	600	550	1	031556001400	22,673
15	160	100	1	031551601500	7,794
15	260	200	1	031552601500	10,455
16	160	100	1	031551601600	8,515
16	210	150	1	031552101600	9,457
16	260	200	1	031552601600	12,272
16	310	250	1	031553101600	14,446
16	460	400	1	031554601600	16,719
16	600	550	1	031556001600	30,301
18	210	150	1	031552101800	11,630
18	260	200	1	031552601800	13,914
18	310	250	1	031553101800	15,522
18	460	400	1	031554601800	18,904
18	600	550	1	031556001800	31,021
20	200	150	1	031552002000	13,093
20	310	250	1	031553102000	18,348
20	460	400	1	031554602000	24,093
20	600	550	1	031556002000	38,305
22	250	200	1	031552502200	17,451
22	460	400	1	031554602200	27,340
22	600	550	1	031556002200	41,210
24	260	200	1	031552602400	20,611
24	460	400	1	031554602400	31,686
25	260	200	1	031552602500	20,611
25	460	400	1	031554602500	32,474
26	460	400	1	031554602600	38,305
28	460	400	1	031554602800	47,031
30	460	400	1	031554603000	57,198

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete

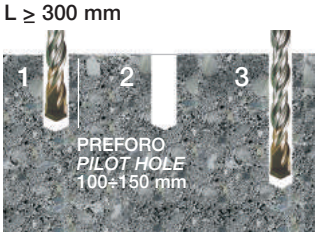


Muro
Masonry

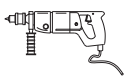


Pietra
Natural stones

L ≥ 300 mm







- Taglio a rotopercussione, su martelli con attacco SDS-PLUS, nel muro, cemento, calcestruzzo, pietre.
- Rotary percussion cut, with SDS plus hammers, in masonry, cement, reinforced concrete, natural and artificial stone.
- Forets à marteau SDS pour percer béton, ciment, pierre.
- Brocas para martillo SDS-plus para cortar hormigon, cemento, marmo, piedra.
- Einsatz in Bohrhammer mit SDS-plus aufnahme für Beton, Mauerwerk, Naturstein.

ASSORTIMENTI PUNTE PER TRAPANI A MARTELLO SDS-PLUS

Hammer drills sets / Assortiments forets à marteau
Juegos brocas para martillo / Hammerbohrersätze

Metal



7 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 - 12 x 160 mm

03165401 € 28,039

Plastic



6 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 x 160 mm

03165202 € 24,213



5 pcs
Ø 5 - 6 x 110 mm
Ø 8 - 10 - 12 x 160 mm

03165203 € 22,385



cod.	€
03165460	155,071

30 pcs **Ø 6÷14 mm**

Ø	pcs
6x165	5
8x165	5
10x165	5
12x165	5
10x215	5
12x215	3
14x215	2



390x150x225

cod.	€
03165503	464,078

71 pcs **Ø 5÷16 mm**

Ø	pcs
5x110	3
6x110	8
5x160	3
6x160	8
8x160	8
9x160	3
10x160	5
12x160	5
6x210	4
8x210	4
10x210	3
12x210	3
14x210	2
16x210	2
8x260	2
10x260	2
12x260	2
14x260	2
16x260	2

PUNTE PER TRAPANI A MARTELLO SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI **K8**

SDS-PLUS hammer drills, 4 flutes, 4 cutting edges K8 / Forets marteau SDS-PLUS avec 4 tranchantes et 4 spirales K8
Brocas para martillo SDS-PLUS con 4 cortadores y 4 espirales K8 / Hammerbohrer SDS-PLUS mit 4 Schneiden und 4 Schrauben K8

K-8

Standard quality **SDS-PLUS**

03156





HVA ≃ 1650



4 taglienti
cutting edges

4 spirali
spirals

Ø mm	L	/	pcs	cod.	€ cad/each	Ø mm	L	/	pcs	cod.	€ cad/each
5	110	50	1	031561100500	3,981	**13**	160	100	1	031561601300	7,063
5	160	100	1	031561600500	4,645	**13**	210	150	1	031562101300	9,069
5,5	160	100	1	031561600550	5,011	**13**	260	200	1	031562601300	9,391
6	110	50	1	031561100600	4,247	**13**	460	400	1	031564601300	15,400
6	160	100	1	031561600600	5,011	**14**	160	100	1	031561601400	8,316
6	210	150	1	031562100600	6,963	**14**	210	150	1	031562101400	9,246
6	260	200	1	031562600600	7,960	**14**	260	200	1	031562601400	9,812
6,5	160	100	1	031561600650	5,134	**14**	310	250	1	031563101400	14,336
6,5	210	150	1	031562100650	6,963	**14**	460	400	1	031564601400	15,988
6,5	260	200	1	031562600650	7,960	**14**	600	550	1	031566001400	31,033
7	110	50	1	031561100700	4,501	**15**	160	100	1	031561601500	9,800
7	160	100	1	031561600700	5,134	**15**	260	200	1	031562601500	10,743
8	110	50	1	031561100800	4,645	**16**	160	100	1	031561601600	11,386
8	160	100	1	031561600800	5,278	**16**	210	150	1	031562101600	12,018
8	210	150	1	031562100800	7,106	**16**	260	200	1	031562601600	15,256
8	260	200	1	031562600800	8,105	**16**	310	250	1	031563101600	16,409
8	310	250	1	031563100800	9,800	**16**	460	400	1	031564601600	17,207
8	460	400	1	031564600800	16,131	**16**	600	550	1	031566001600	35,644
9	160	100	1	031561600900	5,365	**18**	210	150	1	031562101800	15,754
9	210	150	1	031562100900	7,561	**18**	260	200	1	031562601800	18,437
10	110	50	1	031561101000	4,768	**18**	310	250	1	031563101800	17,240
10	160	100	1	031561601000	5,444	**18**	460	400	1	031564601800	20,611
10	210	150	1	031562101000	7,561	**18**	600	550	1	031566001800	35,623
10	260	200	1	031562601000	8,238	**20**	200	150	1	031562002000	21,297
10	310	250	1	031563101000	11,985	**20**	310	250	1	031563102000	22,961
10	360	300	1	031563601000	14,857	**20**	460	400	1	031564602000	26,764
10	460	400	1	031564601000	16,176	**20**	600	550	1	031566002000	39,702
10	610	550	1	031566101000	26,155	**22**	250	200	1	031562502200	23,693
11	160	100	1	031561601100	6,165	**22**	460	400	1	031564602200	30,179
11	210	150	1	031562101100	7,938	**22**	600	550	1	031566002200	45,823
11	260	200	1	031562601100	8,548	**24**	260	200	1	031562602400	25,821
12	160	100	1	031561601200	6,165	**24**	460	400	1	031564602400	32,229
12	210	150	1	031562101200	8,304	**25**	260	200	1	031562602500	27,961
12	260	200	1	031562601200	8,881	**25**	460	400	1	031564602500	34,957
12	310	250	1	031563101200	14,181	**26**	460	400	1	031564602600	43,715
12	460	400	1	031564601200	17,329	**28**	460	400	1	031564602800	46,776
12	600	550	1	031566001200	28,715	**30**	460	400	1	031564603000	54,415

Confezione / *Packaging*



Applicazioni / *Applications*

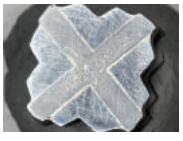


Calcestruzzo
Concrete

Muro
Masonry

Pietra
Natural stones



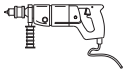


Sez. AA

Immagine ottenuta al microscopio sezionando la testa dell'utensile
Picture of the carbide tip







- Placchetta in metallo duro integrale con 4 taglienti, 4 eliche rapide, corpo in acciaio ad alta resistenza.
La punta a 4 taglienti e 4 spirali **taglia sempre il tondino in cemento armato e non si blocca mai.**
Grande durata dell'utensile, precisione e circolarità del foro.
- One-piece solid carbide with 4 cutting edges, 4 flutes, steel body with high resistance.
One-piece solid carbide tip always cuts the steel bar into reinforced concrete and it never stops.
Long life cycle, thoroughness and roundness of the hole.

ASSORTIMENTI PUNTE SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI **K8**

SDS-PLUS hammer drills sets, 4 flutes, 4 cutting edges K8
Assortiments forets à marteau SDS-PLUS / Juegos brocas martillo SDS-PLUS

Metal



7 pcs
Ø 5 - 6 - 8 x 110 mm
Ø 6 - 8 - 10 - 12 x 160 mm

03166401	€ 34,555



cod.	€
03166460	198,906

30 pcs **Ø 6÷14 mm**

Ø	pcs
6x160	5
8x160	5
10x160	5
12x160	5
10x210	5
12x210	3
14x210	2



cod.	€
03165310	67,630

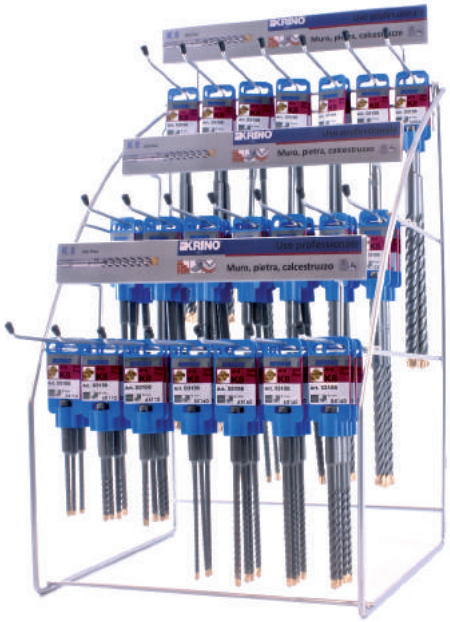
13 pcs



Ø	pcs
6x160	1
8x160	1
10x160	1
8x210	1
10x210	1
12x210	1
10x260	1
12x260	1
14x260	1
L=250	1
L=250	1
L=250	1
L=250	1

ESPOSITORE PUNTE SDS-PLUS CON 4 ELICHE E 4 TAGLIENTI **K8**

SDS-PLUS hammer drills display, 4 flutes, 4 cutting edges K8
Display avec forets à marteau SDS-PLUS / Expositor brocas para martillo SDS-PLUS.



390x150x225

cod.	€
03166503	719,859

107 pcs **Ø 5÷16 mm**

Ø	pcs
5x110	5
6x110	10
5x160	5
6x160	10
8x160	10
10x160	10
12x160	10
6x210	5
8x210	5
10x210	5
12x210	5
14x210	5
16x210	3
8x260	5
10x260	5
12x260	3
14x260	3
16x260	3

High Quality professional

PUNTE PER MARTELLI SDS-MAX SUPERPROFESSIONALI

Super professional hammer drills bits SDS-MAX / Forets à marteau superprofessionelles SDS-MAX
Brocas para martillo super professionales SDS-MAX / Berufshammerbohrer SDS-MAX

Super Pro

03170





HVA ≃1650



Caratteristiche/*Features*

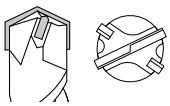
- Speciali placchette in M.D.per resistere all'urto sulla nuova generazione dei martelli pesanti da 5 Kg. ed oltre. Testa più snella ma compatta per la geometria dei taglienti, facile penetrazione nel cemento. Elica "vario flute", per una più rapida evacuazione dei materiali.
  Risultati: + 30% di efficienza nella foratura, maggiore durata dell'utensile, più resistenza agli impatti, minori vibrazioni, fori più profondi e precisi.

- *Special cutting edges for a quick penetration into the hardest concrete. Large flute for a fast removal, strong reinforced web for a smooth cutting (no breakage, no vibrations).*

Ø mm	L	/	pcs	cod.	€ cad/each	Ø mm	L	/	pcs	cod.	€ cad/each
* 12	340	200	1	031703401200	49,170	20	720	600	1	031707202000	95,170
* 12	540	400	1	031705401200	69,028	20	920	800	1	031709202000	115,116
* 12	740	600	1	031707401200	96,655	20	1320	1200	1	0317013202000	298,593
** 13	540	400	1	031705401300	79,372	22	320	200	1	031703202200	72,763
* 14	340	200	1	031703401400	50,080	22	520	400	1	031705202200	93,285
* 14	540	400	1	031705401400	69,028	22	720	600	1	031707202200	98,785
* 14	740	600	1	031707401400	96,655	22	920	800	1	031709202200	129,506
* 14	940	800	1	031709401400	124,717	22	1320	1200	1	0317013202200	298,593
* 15	340	200	1	031703401500	55,557	24	320	200	1	031703202400	84,748
* 15	540	400	1	031705401500	74,892	24	520	400	1	031705202400	100,725
16	340	200	1	031703401600	61,987	25	320	200	1	031703202500	100,725
16	540	400	1	031705401600	71,766	25	520	400	1	031705202500	109,063
16	740	600	1	031707401600	96,655	25	720	600	1	031707202500	113,874
16	940	800	1	031709401600	127,112	25	920	800	1	031709202500	175,073
16	1340	1200	1	0317013401600	265,011	25	1320	1200	1	0317013202500	316,576
18	340	200	1	031703401800	58,429	26	520	400	1	031705202600	143,976
18	540	400	1	031705401800	79,150	28	320	200	1	031703202800	115,714
18	740	600	1	031707401800	96,655	28	520	400	1	031705202800	150,373
18	940	800	1	031709401800	127,112	28	720	600	1	031707202800	176,758
18	1340	1200	1	0317013401800	285,400	28	920	800	1	031709202800	176,758
19	520	400	1	031705201900	94,183	28	1320	1200	1	0317013202800	305,966
20	320	200	1	031703202000	68,406	30	320	200	1	031703203000	130,704
20	520	400	1	031705202000	85,624	30	520	400	1	031705203000	158,288

continua

Super PRO



HVA ≃1650

- 4 taglienti – 2 eliche ampie nuovo disegno dei denti
- *4 cutting edges - 2 wide flutes new teeth design*

* 2 taglienti - *2 cutting edges*

** Ad esaurimento - *To be discontinued*

Confezione / *Packaging*



Applicazioni / *Applications*



Calcestruzzo
Concrete



Muro
Masonry



Pietre naturali e artificiali
Natural and artificial stones

- Taglio ad **altissimo rendimento**, su martelli SDS-MAX, nel muro, cemento, calcestruzzo, pietre, grazie alla placchetta estremamente aggressiva. L'accurata geometria della testa favorisce il centraggio e la perfetta circolarità del foro. La placchetta snella, con taglienti laterali inclinati e gli ampi canali di rimozione dei detriti consentono una velocità di foratura elevatissima, mantenendo un basso tenore di vibrazioni sul martello. Per fori superiori a 400 mm, utilizzare un preforo di 150÷200 mm dello stesso diametro.
- Superprofessional cut for hammer drills with SDS-MAX chucking in concrete, masonry and natural stone.Smooth running, accurate hole, reduced vibrations due to its high quality.
- Forets à marteau SDS-MAX superprofessionnel pour perçage in carrelage, ciment, pierre naturelle et artificielle.
- Brocas para martillo SDS-MAX siperprofessionales para corta hormigon, cemento, piedra, suelos.

03170

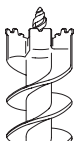
Ø mm	L	/	pcs	cod.	€ cad/each	Ø mm	L	/	pcs	cod.	€ cad/each
32	320	200	1	031703203200	136,703	**37**	920	800	1	031709203700	352,554
32	520	400	1	031705203200	167,879	**38**	370	250	1	031703703800	178,677
32	720	600	1	031707203200	205,562	**38**	520	400	1	031705203800	219,444
32	920	800	1	031709203200	257,815	**38**	720	600	1	031707203800	229,045
32	1320	1200	1	0317013203200	350,524	**40**	520	400	1	031705204000	251,829
35	370	250	1	031703703500	161,891	**40**	720	600	1	031707204000	257,815
35	520	400	1	031705203500	190,662	**40**	920	800	1	031709204000	354,947
35	720	600	1	031707203500	229,045	**40**	1320	1200	1	0317013204000	486,860
35	920	800	1	031709203500	273,326	**45**	520	400	1	031705204500	313,627
35	1320	1200	1	0317013203500	350,524	**50**	570	450	1	031705705000	538,424
37	570	450	1	031705703700	251,829	**52**	570	450	1	031705705200	538,424

PUNTA DI GRANDE DIAMETRO PER MARTELLI SDS-MAX

Breakthrough drill bit SDS-MAX / Forets à défoncer SDS-MAX / Broca para hendiduras SDS-MAX / Durchbruchbohrer SDS-MAX

03171





Integrale
One piece

SDS max

Ø mm	L	/	pcs	cod.	€ cad/each
45	550	100	1	031715504500	392,344
45	990	100	1	031719904500	457,237
55	550	100	1	031715505500	442,490
55	990	100	1	031719905500	521,158
65	550	100	1	031715506500	490,674
65	990	100	1	031719906500	558,523
80	550	100	1	031715508000	550,659
80	990	100	1	031719908000	700,119

Applicazioni / Applications



Calcestruzzo
Concrete



Muro
Masonry



- Adatta per la foratura di grandi dimensioni (ø 45÷80 mm) con martelli SDS-MAX in cemento, muratura, arenaria. Speciale per forature passanti per il passaggio di cavi e tubature.
- Useful for drilling into large diameters (ø 45÷80 mm) with SDS-MAX hammer tools into concrete, masonry, sandstone. Special for breakthrough cuts for cables and pipes.
- Adapte au perçage des grandes dimensions (ø 45÷80 mm) avec machines à marteaux SDS-MAX dans le cément, béton, pierre. Spécial pour trous passants pour les passages des câbles et tuyaux.
- Adecuado para agujeros de grandes dimensiones (ø 45÷80 mm) con taladros de martillos SDS-MAX en concreto, hormigon, arenisca. Especial para agujeros para los pasajes des cables y tubos.





Professional

PUNTE PER MARTELLI SDS-MAX QUALITÀ PROFESSIONALE

Professional quality hammer drills bits SDS-MAX / Forets à marteau SDS-MAX
Brocas para martillo SDS-MAX

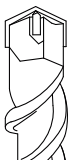
*In esaurimento / *To be discontinued*

Pro

SDS max

03173





HVA ≃1650



4 taglienti
cutting edges

2 eliche ampie
Wide flutes

Confezione / Packaging



Applicazioni / Applications



Calcestruzzo
Concrete



Muro
Masonry



Pietre
Stones

Ø mm	L	/	pcs	cod.	€ cad/each
18	540	400	1	031735401800	64,082
20	320	200	1	031733202000	55,679
22	320	200	1	031733202200	59,094
22	520	400	1	031735202200	75,325
25	320	200	1	031733202500	81,212
25	520	400	1	031735202500	87,720
28	320	200	1	031733202800	92,964
28	520	400	1	031735202800	109,583
30	320	200	1	031733203000	104,206
30	520	400	1	031735203000	126,080
32	320	200	1	031733203200	81,145
32	520	400	1	031735203200	133,719
35	520	400	1	031735203500	152,179
40	520	400	1	031735204000	196,470

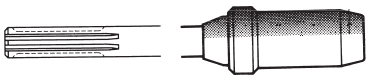


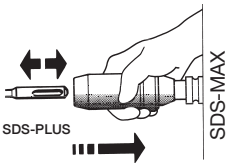


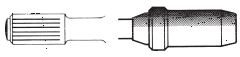
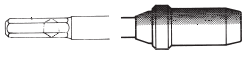
ADATTATORE A CAMBIO RAPIDO SDS-MAX / SDS-PLUS

SDS-MAX / SDS-PLUS adapter / Adaptateurs pour meches SDS-MAX / SDS-PLUS / Adaptatores con salida SDS-MAX / SDS-PLUS



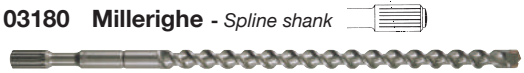
			cod.	L	€
SDS-MAX		SDS PLUS	**03184101**	220	73,173



Millerighe 19,3 mm *Large spline shank*		SDS PLUS	**03184102**	220	122,733
Attacco esagonale SW 13 (corto) *Hexagonal shank SW 13 (short)*		SDS PLUS	**03184103**	208	171,005

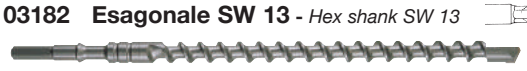
PUNTE PER MARTELLI* *Hammer drill bits / Forets à marteaux / Brocas para martillo / Wendelhammerbohrer*

03180 Millerighe - *Spline shank*



15x330 - 16x380 - 18x380 - 35x380 - 12x530
16x530 - 20x530 - 24x530 - 28x380 - 16x930

03182 Esagonale SW 13 - *Hex shank SW 13*



20x400 - 16x550 - 18x550 - 20x550 - 25x550
30x550 - 32x550 -

* ad esaurimento
to be discontinued



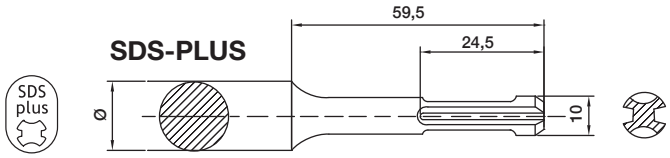


High Quality professional

SCALPELLI DI QUALITÀ PER MARTELLI ELETTRICI PERFORATORI

High quality chisels for electric hammers / Burins et pics pour marteaux perforateurs
Cincels para martillos / Einsteckwerkzeuge für Elektrohämmer

SDS-PLUS

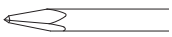


Qualità Standard - *Standard quality*

03220



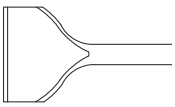
Scalpelli a punta
Pointed chisels / Pics
Punteros / Spitzmeißel

L mm	Ø	cod.	€ cad/each	
250	14	0322002250	11,725	

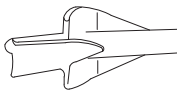
Scalpelli piatti
Flat cold chisels / Burins
Cinceles / Flachmeißel

mm	L mm	Ø	cod.	€ cad/each	
20	250	14	0322001020250	11,725	
20	250	14	0322006020250	13,388	

Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel

mm	L mm	Ø	cod.	€ cad/each	
40	250	14	0322003040250	17,725	

Scalpelli a sgorbia
Grooving chisels / Gouges
Rozadores / Hohlmeißel

L mm	Ø	cod.	€ cad/each	
22	250	14	0322004022250	20,480	
22	250	16	0322005022250	64,759	

Alta Qualità - *High performance*

03221 NEW

Auto affilante
Self-Sharpening

Scalpelli a punta
Pointed chisels / Pics
Punteros / Spitzmeißel

L mm	Ø	cod.	€ cad/each	
250	14	0322102250	14,750	

Scalpelli piatti
Flat cold chisels / Burins
Cinceles / Flachmeißel

mm	L mm	Ø	cod.	€ cad/each	
20	250	14	0322106020250	14,750	

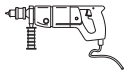
Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel

mm	L mm	Ø	cod.	€ cad/each	
40	250	14	0322103040250	24,898	
40	260	14	0322103040260	33,689	
60	250	14	0322103060250	38,798	



Confezione / Packaging





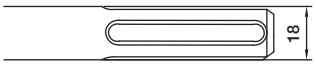
High Quality professional

SCALPELLI DI QUALITÀ PER MARTELLI ELETTRICI PERFORATORI

High quality chisels for electric hammers / Burins et pics pour marteaux perforateurs
Cincels para martillos / Einsteckwerkzeuge für Elektrohämmer

SDS max

SDS-MAX



Qualità Standard - *Standard quality*

03210



Scalpelli a punta
Pointed chisels / Pics
Punteros / Spitzmeißel

L mm	Ø	cod.	€ cad/each
280	18	0321002280	16,942
400	18	0321002400	18,759
600	18	0321002600	26,193



Scalpelli piatti
Flat cold chisels / Burins
Cinceles / Flachmeißel

mm	L mm	Ø	cod.	€ cad/each
27	280	18	0321001027280	16,942
27	400	18	0321001027400	18,759
27	600	18	0321001027600	26,193

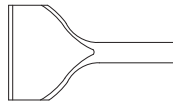


Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel

mm	L mm	Ø	cod.	€ cad/each
50	400	18	0321003050400	44,295
80	300	18	0321003080300	52,295
115	350	22	0321003115350	58,423



50	300	18	0321003050300	53,235
38	280	18	0321005038280	78,682
38	280	18	0321006038280	209,517



Scalpelli a sgorbia
Grooving chisels / Gouges
Rozadores / Hohlmeißel

mm	L mm	Ø	cod.	€ cad/each
26	300	18	0321004026300	39,789
32	300	18	0321004032300	63,861
35	380	23	0321007035380	113,530



Alta Qualità - *High performance*

03211

NEW

Auto affilante
Self-Sharpening

Confezione / Packaging





Scalpelli a punta
Pointed chisels / Pics
Punteros / Spitzmeißel

L mm	Ø	cod.	€ cad/each
400	18	0321102400	24,128



Scalpelli piatti
Flat cold chisels / Burins
Cinceles / Flachmeißel

mm	L mm	Ø	cod.	€ cad/each
25	400	18	0321101025400	24,128



Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel

mm	L mm	Ø	cod.	€ cad/each
50	350	18	0321103050350	36,712
80	400	18	0321103080400	64,480
115	400	22	0321103115400	143,676

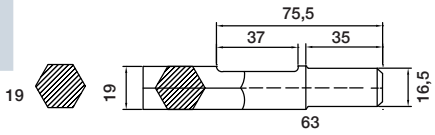


SCALPELLI DI QUALITÀ PER MARTELLI ELETTRICI PERFORATORI*

Quality chisels for electric hammers / Burins et pics pour marteaux perforateurs
Cincels para martillos / Einsteckwerkzeuge für Elektrohämmer

*ad esaurimento / *to be discontinued*

Art. 03215*



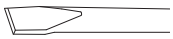
BOSCH - AEG - Atlas Copco - Black & Decker
KANGO - HITACHI - MAKITA - RYOBI ® all trade marks

Scalpelli a punta
Pointed chisels / Pics / Punteros / Spitzmeißel



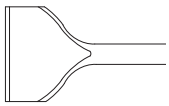
L mm	⬡	cod.	€ cad/each
300	19	0321502300	18,502
600	19	0321502600	29,976

Scalpelli piatti
Flat cold chisels / Burins / Cinceles / Flachmeißel



mm	L mm	⬡	cod.	€ cad/each
25	300	19	0321501025300	18,502
25	600	19	0321501025600	29,976

Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel



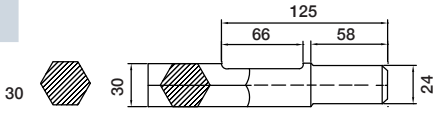
mm	L mm	⬡	cod.	€ cad/each
50	300	19	0321503050300	37,327
50	400	19	0321503050400	46,764

Scalpelli a sgorbia
Grooving chisels / Gouges / Rozadores /Hohlmeißel

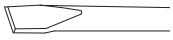


mm	L mm	⬡	cod.	€ cad/each
22	250	19	0321504022250	35,073

Art. 03242*

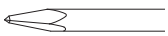


Scalpelli piatti
Flat cold chisels / Burins / Cinceles / Flachmeißel



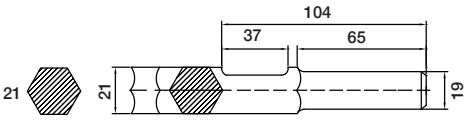
mm	L mm	⬡	cod.	€ cad/each
35	400	30	0324202410	56,660

Scalpelli a punta
Pointed chisels / Pics / Punteros / Spitzmeißel



L mm	⬡	cod.	€ cad/each
400	30	0324201410	53,386

Art. 03240*



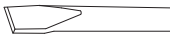
BOSCH - AEG - Atlas Copco - Black & Decker
KANGO - HITACHI - MAKITA - RYOBI ® all trade marks

Scalpelli a punta
Pointed chisels / Pics / Punteros / Spitzmeißel



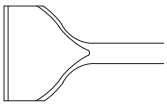
L mm	⬡	cod.	€ cad/each
600	21	0324002600	35,972

Scalpelli piatti
Flat cold chisels / Burins / Cinceles / Flachmeißel



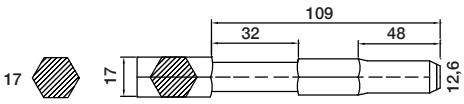
mm	L mm	⬡	cod.	€ cad/each
25	380	21	0324001025380	28,390

Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel



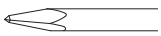
mm	L mm	⬡	cod.	€ cad/each
50	400	21	0324003050400	62,057

Art. 03250*



MAKITA ®

Scalpelli a punta
Pointed chisels / Pics / Punteros / Spitzmeißel



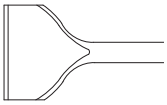
L mm	⬡	cod.	€ cad/each
280	17	0325002280	23,034

Scalpelli piatti
Flat cold chisels / Burins / Cinceles / Flachmeißel



mm	L mm	⬡	cod.	€ cad/each
22	280	17	0325001022280	23,499
22	450	17	0325001022450	30,783

Scalpelli piatti larghi
Spade chisels / Burins larges
Cinceles anchos / Spatmeißel



mm	L mm	⬡	cod.	€ cad/each
50	280	17	0325003050280	45,867

Scalpelli a sgorbia
Grooving chisels / Gouges
Rozadores / Hohlmeißel



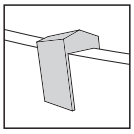
mm	L mm	⬡	cod.	€ cad/each
22	250	17	0325004022250	50,366

High Quality professional

FRESE PERFORATRICI A TAZZA "IMPACT" PER EDILIZIA PER MARTELLI LEGGERI

Masonry impact core bits for light hammers / Trépans pour marteau légér
Broca corona para martillo / Schlagbohrkronen





Uso rotopercussione su trapani e piccoli martelli sino 40 N
Rotary percussion use

Confezione / *Packaging*



Applicazioni / *Applications*



Muro
Masonry



Calcestruzzo
Concrete

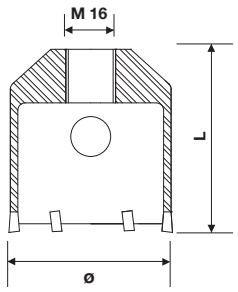


Pietre naturali e artificiali
Natural and artificial stones

- Foratura a rotopercussione su trapani e piccoli martelli nel calcestruzzo, cemento, pietre. Massima profondità di foratura 60 mm.
- Use with hammer drills up to 40 N in masonry and concrete (60 mm drill depth)
- Pour percage béton avec marteau léger (40 N Max).
- Coronas para construccion, hormigon-piedra con martillo 40 N max
- Für Beton und Mauerwerk mit Bohrhammer bis max 40 N

Art. 21110

Ø fresa *hole cutter*	L	Z N° denti *Tips*	pcs	cod.	€ cad/each
25	75	4	1	2111002500	24,724
30	75	4	1	2111003000	28,150
35	75	4	1	2111003500	33,726
40	75	4	1	2111004000	37,019
45	75	4	1	2111004500	39,304
50	75	6	1	2111005000	41,520
65	75	6	1	2111006500	51,609
80	75	6	1	2111008000	75,758
90	75	6	1	2111009000	80,879
100	75	8	1	2111010000	97,976
112	75	8	1	2111011200	112,776
125	80	10	1	2111012500	140,128
150	80	12	1	2111015000	189,110

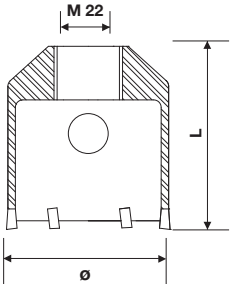




Ø ≤ 50 mm 600W
Ø > 50 mm 800W (3J)
F ≤ 40 N

Art. 21111

Ø fresa *hole cutter*	L	Z N° denti *Tips*	pcs	cod.	€ cad/each
50	75	6	1	2111105000	41,520
55	75	6	1	2111105500	47,696
60	75	6	1	2111106000	49,215
65	75	6	1	2111106500	51,609
68	75	6	1	2111106800	61,521
80	75	6	1	2111108000	75,758
90	75	6	1	2111109000	80,879
100	75	8	1	2111110000	97,976
112	75	8	1	2111111200	112,776
125	80	10	1	2111112500	140,128
150	80	12	1	2111115000	189,110





Ø ≥ 50 mm 800W (3J)
F ≤ 40 N



GAMBI PER FRESE PERFORATRICI A TAZZA "IMPACT"

Chucking shanks for "Impact" core bits / Arbres de montage pour trépans "Impact"
Husillos para coronas perforadoras "Impact" / "Impact" Fräserschäfte

		cod.	Attacco filettato *Thread attachment*	Lunghezza tot. *Overall length*	€
Gambo esagonale - *Hex. shank*					
M 16 x 2		21115501	M 16 x 2	100 mm.	12,672
		21115502	M 16 x 2	220 mm.	18,715
		21115503	M 16 x 2	370 mm.	28,782
M 22 x 2,5		21115521	M 22 x 2,5	100 mm.	17,040
		21115522	M 22 x 2,5	220 mm.	25,323
		21115523	M 22 x 2,5	370 mm.	35,855
Gambo SDS PLUS - *SDS PLUS shank*					
M 16 x 2		21115504	M 16 x 2	100 mm.	17,040
		21115505	M 16 x 2	220 mm.	25,323
		21115507	M 16 x 2	370 mm.	32,274
		21115509	M 16 x 2	460 mm.	51,132
M 22 x 2,5		21115524	M 22 x 2,5	100 mm.	17,040
		21115525	M 22 x 2,5	220 mm.	25,323
		21115527	M 22 x 2,5	370 mm.	35,855
		21115529	M 22 x 2,5	460 mm.	56,366
Gambo SDS MAX* *SDS MAX shank**					
M 16 x 2		21115510	M 16 x 2	370 mm.	67,364
M 22 x 2,5		21115520	M 22 x 2,5	370 mm.	67,364
Punta pilota - *Pilot drill*		21115506		Ø 8 x 120	4,590

*** Usare solo per materiali da costruzione leggeri come arenaria, mattoni forati.**
Non usare per cemento armato, calcestruzzo e pietre -
Use with light building materials only.

ESPOSITORE FRESE "IMPACT" PER EDILIZIA

Masonry core bits set / Assortiments trépans pour marteau lèger
Surtido brocas coronas para martillo / Schlagbohrkronen Sortimente



cod.	Attacco filettato *Thread attachment*		€
21116112	Ø **30** ÷ **100** mm **24 pcs**		707,501
21110	M 16		Ø 30 35 40 pcs 1 1 1
21111	M 22		Ø 50 65 80 90 100 pcs 1 1 1 1 1
21115501	(M 16)		L = 100 mm N° 1 pc
21115502	(M 16)		L = 220 mm N° 1 pc
21115521	(M 22)		L = 100 mm N° 1 pc
21115522	(M 22)		L = 220 mm N° 1 pc
21115504	(M 16)		L = 100 mm N° 1 pc
21115505	(M 16)		L = 220 mm N° 1 pc
21115524	(M 22)		L = 100 mm N° 1 pc
21115525	(M 22)		L = 220 mm N° 1 pc
21115506			Ø = 8 mm N° 8 pcs

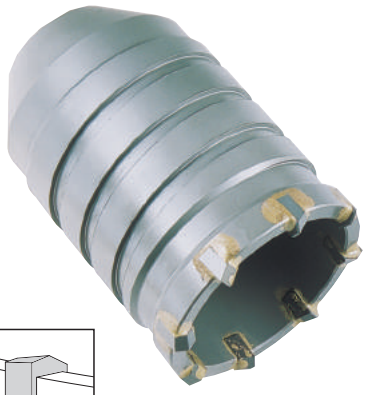
High Quality professional

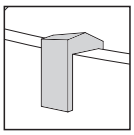
CORONE PERFORATRICI PER EDILIZIA CON ATTACCO CONICO PER MARTELLI PESANTI

Hammer core bits with taper chucking - Trépans marteau pour béton cône 1/8

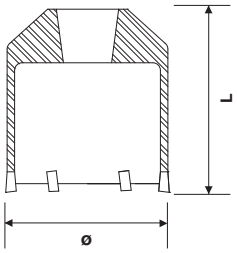
Brocas coronas para martillo potente, mango conico - Hammerbohrkronen mit Konus-Verbindung 1:8

21120





Attacco conico 1:8
1:8 taper attachment



Ø Corona *Core bit*	L	Z N° denti *Tips*	pcs	cod.	€ cad/each
35	100	4	1	2112003500	51,632
40	100	5	1	2112004000	58,018
45	100	5	1	2112004500	67,996
50	100	6	1	2112005000	79,249
60	100	6	1	2112006000	81,278
66	100	7	1	2112006600	95,691
70	100	8	1	2112007000	106,511
80	100	8	1	2112008000	119,617
90	100	8	1	2112009000	136,703
100	100	10	1	2112010000	160,627
110	100	12	1	2112011000	176,581
125	100	12	1	2112012500	203,922
130	100	12	1	2112013000	251,762
150	100	14	1	2112015000	275,688

Asta porta corona senza asola - *Shank without slot*

	cod.	L (mm)	€
SDS Max	21130211	250	56,554
	21130220	450	61,942
	21130225	600	75,069
Millerighe Ø 19,3 mm. *Large spline shank*	21130235	250	52,652
	21130240	450	56,843
	21130245	600	71,545
HEX SW 13	21130255	250	52,652
	21130260	450	56,843
	21130265	600	71,545

Asta porta corona con asola - *Shank with slot*

	cod.	L (mm)	€
SDS Max	21130011	250	56,554
	21130020	450	61,942
	21130025	600	75,069
Millerighe Ø 19,3 mm. *Large spline shank*	21130035	250	52,652
	21130040	450	56,843
	21130045	600	71,545
HEX SW 13	21130055	250	52,652
	21130060	450	56,843
	21130065	600	71,545

Punta pilota - Pilot drill	cod.	Ø (mm)	€
10,25 mm	21130110	12x135	10,766

Estrattore per punte pilota - Drill drift	cod.	€
	281580102	7,262

Confezione / *Packaging*



Applicazioni / *Applications*



Muro
Masonry



Calcestruzzo
Concrete



Pietre naturali e artificiali
Natural and artificial stones

- Grandi rendimenti nel calcestruzzo, muro, pietre calcaree.
- High performances in masonry-concrete, sand-lime brick, natural stone.
- Haute rendement en béton-carrelage.
- Elevado rendimiento in hormigon, piedra.
- Einsatz in Bohrhammer für Beton, Mauerwerk, Naturstein.

Uso rotopercussione su trapani pesanti ≥ 45 N e con potenza ≥ 900W (fino a 1500W)
Hammer drill use ≥ 45 N and electrical power ≥ 900W





ASSORTIMENTO CORONE PERFORATRICI PER EDILIZIA CON ATTACCO CONICO

Hammer core bits set with taper attachment / Assortiments trépans marteau conique
Surtido brocas coronas para martillo potente, mango conico / Hammerbohrkronen mit Konus-Sortimente



cod.	Attacco filettato *Thread attachment*	€
21116115	Ø **35** ÷ **100** mm **20** pcs	1277,103

21120	Frese *Core bits*	Ø	35	40	50	60	66	80	90	100
		pcs	1	1	1	1	1	1	1	1
21130211	Gambo SDS Max *SDS Max shank*	L = 250 mm N° 2 pcs								
21130220	Gambo SDS Max *SDS Max shank*	L = 450 mm N° 2 pcs								
21130235	Gambo millerighe *Large spline shank*	L = 250 mm N° 1 pc								
21130240	Gambo millerighe *Large spline shank*	L = 450 mm N° 1 pc								
21130110	Punta pilota *Pilot drill*	Ø 12 mm N° 6 pcs								

CORONE PERFORATRICI PER EDILIZIA CON ATTACCO FILETTATO LARGO PER MARTELLI PESANTI

Hammer core bits with special threaded shank / Trépans marteaux pour béton avec queue filetée
Brocas coronas para martillo potente, mango roscado / Hammerbohrkronen mit gewindeaufnahme



Robusti, potenti, facili da montare e smontare
Strong and powerful, easy to fit and remove

21131

Ø Corona *Core bit*	L	pcs	cod.	€ cad/each
45	80	1	2113104500	328,543
50	80	1	2113105000	328,543
55	80	1	2113105500	343,861
82	80	1	2113108200	422,641
125	80	1	2113112500	591,360
150	80	1	2113115000	889,781

Confezione / *Packaging*

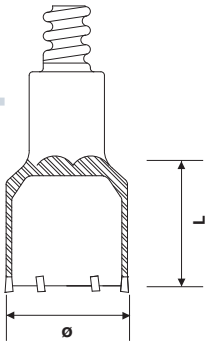


Applicazioni / *Applications*


Muro *Masonry*


Calcestruzzo *Concrete*


Pietre naturali e artificiali *Natural and artificial stones*



- L'attacco filettato molto robusto permette una versatilità d'uso sui diversi martelli. Grandi rendimenti nel calcestruzzo, muro, pietre calcaree. Speciale per passaggio tubi
- High performances with hammer drills for cutting masonry, concrete, natural stone.
- Haute rendement et versatilité en percage béton avec marteau
- Coronas potente en cortar a forte percussion hormignon, cemento.
- Einsatz in Bohrhammer für Beton, Mauerwerk, Naturstein.

Uso rotopercussione su martelli pesanti
Hammer drill use





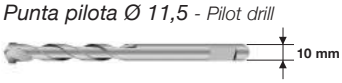
Asta porta corona - *Shank*

SDS Max



cod.	L (mm)	€
2113220	460	207,326

Punta pilota Ø 11,5 - *Pilot drill*



Ø x L		
2113270	11,5x136	39,359

High Quality professional

CORONE PERFORATRICI PER EDILIZIA CON FILETTO A MOLLA PER MARTELLI PESANTI SDS-MAX

Hammer core bits with spring thread for hammer SDS-MAX / Trépans marteau pour béton avec filet à ressort pour marteaux SDS MAX/
Coronas perforadoras para martillo SDS-MAX con rosca e resorte de acoplamiento

SDS max

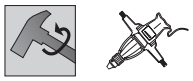
21122



Ø mm	L mm	Z tips	pcs	cod.	€ cad/each
40	100	5	1	2112204000	58,052
50	100	6	1	2112205000	79,826
60	100	6	1	2112206000	96,389
66	100	7	1	2112206600	113,918
70	100	8	1	2112207000	150,073
80	100	8	1	2112208000	153,354
90	100	8	1	2112209000	165,406
100	100	10	1	2112210000	180,739
110	100	12	1	2112211000	190,595
125	100	12	1	2112212500	235,508
150	100	14	1	2112215000	291,375



Uso rotopercussione su trapani pesanti > 45 N e con potenza > 900W
Hammer drill use > 45 N and electrical power > 900W



Asta porta corona - *Shank*		cod.	L mm	€
SDS-MAX	Con molla - *With spring*	21130300	250	72,298
		21130305	450	93,108
		21130310	600	125,970



Molla di accoppiamento - *Coupling spring*	cod.	€
	21130316	0,821



Punta pilota - *Pilot drill*	cod.	Ø mm	€
	21130315	12x135	9,224



Estrattore per punte pilota - *Drill drift*	cod.	Ø x L mm	€
	21130317	9,5x100	4,380

Confezione / *Packaging*



Applicazioni / *Applications*



Muro
Masonry



Calcestruzzo
Concrete



Pietre naturali e artificiali
Natural and artificial stones

Espositore corone perforatrici per edilizia con filetto a molla
Hammer core bits with spring thread set



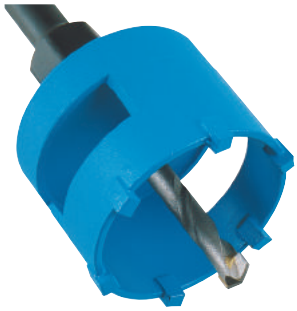
Cod.	Composizione *Description*
21116117 29 pcs - Ø 40÷100	Ø 40-50-60-66-80-90-100 (1x)
€ 1383,647	21130300 (3x) 21130305 (3x)
	21130315 (6x)
	21130316 (10x)

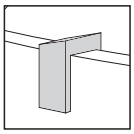
- Grandi rendimenti nel calcestruzzo, muro, pietre calcaree. Corona sempre smontabile grazie alla molla di accoppiamento.
- High performances in masonry- concrete, sand-lime brick, natural stone. Easy removable core bits thanks to the coupling spring.
- Haute rendement en béton-carrelage. Trepans marteaux toujours dèmontable par le ressort
- Elevado rendimiento in hormigon, piedra. Corona perforadora siempre desmontable por el resorte de acopliamento.

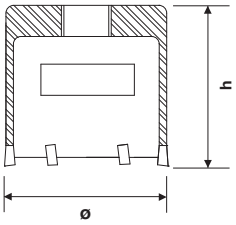
FRESE PERFORATRICI A TAZZA CON TAGLIENTI IN METALLO DURO PER EDILIZIA

Carbide tipped hole cutters for masonry, rotation only / Scies trepans pour beton à rotation uniquement
Coronas para construccion, dientes de metal duro / H.M. Lochsäge für Fliesen, Mauerwerk, Leichtbaustoffe

21015







Confezione / Packaging



Applicazioni / Applications

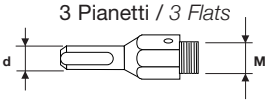


- Forano a sola rotazione calcestruzzo leggero, muro, piastrelle, ceramica, laminati plastici. Adatti per fori precisi a pavimento di porte blindate, fori per condotte, scatole di derivazione, etc….
- Rotary use in masonry, tiles, light construction materials.
- Trépans à utiliser en rotation, pour couper le sol pour les portes blindés, boîtes de déviation, etc…
- Para cortar a rotacion muro, ladrillos, ceramica, cemento.
- Drehend Einsatz für Mauerwerk, Leichtbaustoffe, Fliesen.

Ø Fresa *Hole cutter*	h Altezza tazza *Cup*	Z N° denti *Tips*	d Gambo *Shank*	pcs	cod.	€ cad/each
16	40	2	10	1	2101501600	20,766
22	40	3	10	1	2101502200	22,108
25	40	3	10	1	2101502500	29,058
27	40	3	10	1	2101502700	30,079
30	40	4	10	1	2101503000	30,811
35	40	4	10	1	2101503500	33,494
38	40	5	10	1	2101503800	36,842
40	40	5	10	1	2101504000	39,513
45	40	5	10	1	2101504500	43,538
50	40	6	10	1	2101505000	46,887
55	40	6	12	1	2101505500	56,931
60	40	7	12	1	2101506000	62,297
65	40	7	12	1	2101506500	70,335
70	40	8	12	1	2101507000	75,004
80	40	9	12	1	2101508000	92,432
85	40	10	12	1	2101508500	110,082
100	40	11	12	1	2101510000	138,143
125	40	12	12	1	2101512500	178,079
150	40	15	12	1	2101515000	265,498

GAMBO *Arbor*

3 Pianetti / *3 Flats*



cod.	Per frese *Fit hole cutters*	d	M	€
21020100	Ø 16 ÷ 35	10	12x1,25	4,967
21020101	Ø 38 ÷ 150	12	16x1,5	14,634

PUNTA PILOTA *Pilot drill*



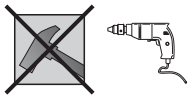
cod.	Per frese *Fit hole cutters*	d	Ø mm	€
21020110	Ø 16 ÷ 50	5,85	6	2,140
21020111	Ø 55 ÷ 150	7,25	8	2,483

PROLUNGA 400 mm. *Extension*

3 Pianetti / *3 Flats*



cod.	Per frese *Fit hole cutters*	d	M	€
21020120	Ø 16 ÷ 50	12	12x1,25	28,350
21020121	Ø 55 ÷ 150	12	16x1,5	42,330



Utilizzo a rotazione
Rotary use only

21030110



Cod.

21030110
12 pcs
Ø 22 25 27 30 35 38 40 45 50 55 60 65

€ 581,598



Cod.

21030300
8 pcs
Ø 16 22 25 27 30 35 40 50

€ 281,807

21030301
6 pcs
Ø 16 22 25 27 30 35

€ 191,870

Set frese a tazza per impiantisti, idraulici, etc..
Hole cutters set for journeymen and plumbers
Jeu de scie trépans pour ouvriers spécialistes et plombiers Juego de coronas perforadoras para obreros especialistas y fontaneros
Lochsägensortiment für Facharbeiter und Installateurs

High Quality professional

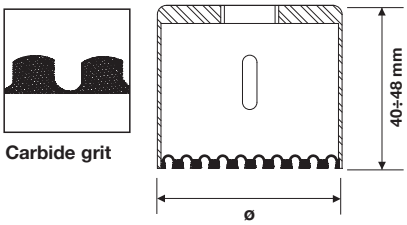
FRESE A TAZZA CON DENTI RIVESTITI IN CARBURO DI TUNGSTENO IN GRANI

Carbide grit hole saws, high quality / Scies trépans au carbure de tungstene
Coronas de carburo de tungsteno / H.M. Lochsäge

21105



Art. **21135** Self
Disponibile su richiesta
On demand



Carbide grit

Ø mm	Pollici Inch	d Filetto *Thread*	pcs	cod.	€ cad/each
16	5/8	UNF 1/2 x 20	1	2110501600	15,198
19	3/4		1	2110501900	15,198
20	-		1	2110502000	15,554
22	7/8		1	2110502200	15,554
25	1"		1	2110502500	15,554
29	1-1/8		1	2110502900	16,177
32	1-1/4	UNF 5/8 x 18	1	2110503200	17,126
35	1-3/8		1	2110503500	17,687
38	1-1/2		1	2110503800	18,931
44	1-3/4		1	2110504400	20,726
48	1-7/8		1	2110504800	20,726
51	2"		1	2110505100	20,726
54	2-1/8		1	2110505400	20,726
57	2-1/4		1	2110505700	21,033
60	2-3/8		1	2110506000	21,992
64	2-1/2		1	2110506400	21,992
70	2-3/4		1	2110507000	26,255
76	3"		1	2110507600	27,162
83	3-1/4		1	2110508300	28,051
86	3-3/8		1	2110508600	28,917
95	3-3/4		1	2110509500	29,234
102	4"		1	2110510200	29,234
114	4-1/2		1	2110511400	34,598







Confezione / Packaging



Applicazioni / Applications



Ceramica
Ceramics



Pietre naturali Marmo
Stones Marble



Piastrelle Mattoni durissimi
Tiles Hard burnt brick



Fibra di vetro Laminati plastici
Fiberglass

Per frese - *Fit hole saws*	Ø	cod.	€
	16 ÷ 29	210706519	11,342
	32 ÷ 114	210706546	19,846
Punta pilota - *Pilot drill* 	Ø 7x80	21020112	11,153

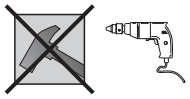


03121002

397

- Per tagliare : Ceramica, gres, granito, marmo, ardesia, fibre di vetro, ghisa, laminati e tutti i materiali abrasivi. Max profondità di foratura: 40 mm.
- Cuts: Ceramic tile, laminates, composition board, marble, fiberglass, cast iron, and other abrasive materials. Maximum cutting depth: 40 mm.
- Pour percer: Ceramic, marbre, fonte, tous les materiales abrasifs. Profondeur de coupe: 40 mm.
- Aplicaciones : Gres, marmol, ladrillo, fibra cemento, aglomerados, fibra de vidrio, todos los materiales abrasivos. Profondidad de corte: 40 mm.
- Allgemeinen Einsatz in Beton leicht armierten Beton, Klinker, Fliesen, Mauerwerk, Kalksandstein. Maximale Bohrtiefe: 40 mm.

Utilizzo a rotazione
Rotary use only



ASSORTIMENTI FRESE A TAZZA CON DENTI RIVESTITI IN CARBURO DI TUNGSTENO IN GRANI

Carbide grit hole saws, high quality / Scies trépans au carbure de tungstene
Coronas de carburo de tungsteno / H.M. Lochsäge

HSS-G DIN 338



cod. **21107301** € 99,184

Composizione:
6 pcs Art. 21105: Ø 16, 20, 22, 25, 32, 35 mm (1x)
Art. 210706519: (Ø 16÷29 N. 1 pc)
Art. 210706546: (Ø 32÷114 N. 1 pc),

cod. **21107300** € 133,953

Composizione:
8 pcs Art. 21105: Ø 16, 20, 22, 25, 32, 35, 38, 51 mm (1x)
Art. 210706519: (Ø 16÷29 N. 1 pc)
Art. 210706546: (Ø 32÷114 N. 1 pc),



cod. **21107600** € 74,838

Composizione:
10 pcs: Ø 33, 53, 67, 73, 83 mm (1x)



FRESA A TAZZA MULTIPLA PER EDILIZIA IN CARBURO DI TUNGSTENO IN GRANI

Multiple sizes carbide grit hole saw

21108

Ø mm	pcs	cod.	€ cad/each
33-43-53-67-83	1	21108100	64,758



Standard quality

Confezione / Packaging



High Quality professional

FRESA A TAZZA A CORONA CONTINUA PER IL TAGLIO DEL GRES PORCELLANATO E DEI MATERIALI EDILI DURISSIMI

Diamond drill bit and core drills with continuous edge for sandware and very strong building materials / Forets diamantées et scies trépans avec couronne continue pour grès céram et matériaux de construction très durs / Brocas diamantadas y coronas perforadoras con corona continua para gres porcelanico y materiales de construccion durisimos / Diamantbesetzter Spiralbohrer und Lochsägen mit endloser Kranz für Feinsteinzeug und sehr harte Baumaterialen

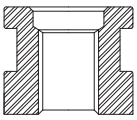
21106

NEW





Matrice metallica altofondente brasata che trattiene i diamanti a grana medio-fine
The high-melting brazed bond keeps medium-fine grain diamonds



Attacco M14 speciale per smerigliatrici angolari M14 shank
M14 shank to fit angular grinding machine

Ø mm	Pollici Inch	L	pcs	cod.	€ cad/each
* 6	15/64	62	1	211060600	36,580
* 8	5/16	62	1	211060800	37,213
*10	25/64	62	1	211061000	37,213
*12	15/32	62	1	211061200	38,952
*14	35/64	62	1	211061400	41,787
*16	5/8	62	1	211061600	43,387
*18	23/32	62	1	211061800	44,653
20	25/32	60	1	211062000	46,530
22	7/8	60	1	211062200	48,822
25	1"	60	1	211062500	53,217
28	1-1/16	60	1	211062700	58,692
30	1-3/16	60	1	211063000	63,167
32	1-1/4	60	1	211063200	67,447
35	1-3/8	60	1	211063500	73,810
40	1-9/16	60	1	211064000	84,454
45	1-49/64	60	1	211064500	94,865
50	2"	60	1	211065100	101,920
55	2-11/64	60	1	211065500	115,690
60	2-3/8	60	1	211066000	126,102
65	2-9/16	60	1	211066500	136,514
67	2-5/8	60	1	211066700	141,141
70	2-3/4	60	1	211067000	148,083
80	3-5/32	60	1	211068000	167,750
90	3-9/16	60	1	211069000	183,590
100	4"	60	1	2110610000	204,150

* **Con cera vegetale all'interno** - *With internal coolant*



cod. **21103315** €197,400

Composizione:
5 pcs: Ø 6, 8, 10, 12, 14 mm



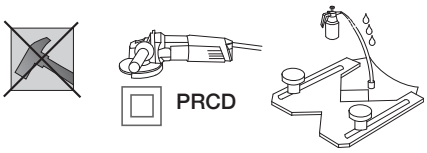
cod. **21103310** €533,570

Composizione:
6 pcs: Ø 22, 35, 40, 45, 50, 67 mm

Confezione / Packaging



Massima profondità di foratura 10 mm. Velocità di rotazione consigliata 10.000-13.000 giri/min.
Massima profondità di foratura 10 mm. Velocità di rotazione consigliata 10.000-13.000 giri/min.



Prestazioni di una fresa diamantata di ø 6 mm a corona continua nella foratura di una piastrella in gres porcellanato con raffreddamento ad acqua: invertendo periodicamente il senso di rotazione della fresa da orario ad antiorario si ravvivano i diamanti e la fresa continua a lavorare per un ciclo di vita utile più lungo.
Nel grafico si mostra come, all'inversione del senso di rotazione, la fresa completa il foro con un tempo comparabile ai primi fori effettuati quando l'utensile era nuovo.
Performances of ø 6 mm diamond core bit with continuous edge when water cooled cutting into sandware: if you cyclically change from clockwise to anti-clockwise rotation you can revive the diamonds thus assuring a longer tool life. Here below the graphics that shows you that, starting the anti-clockwise rotation, the tool can complete the hole briefly, just as it were new.

Applicazioni / Applications



Gres porcellanato Sandware/Grès céram/Gres porcelanico

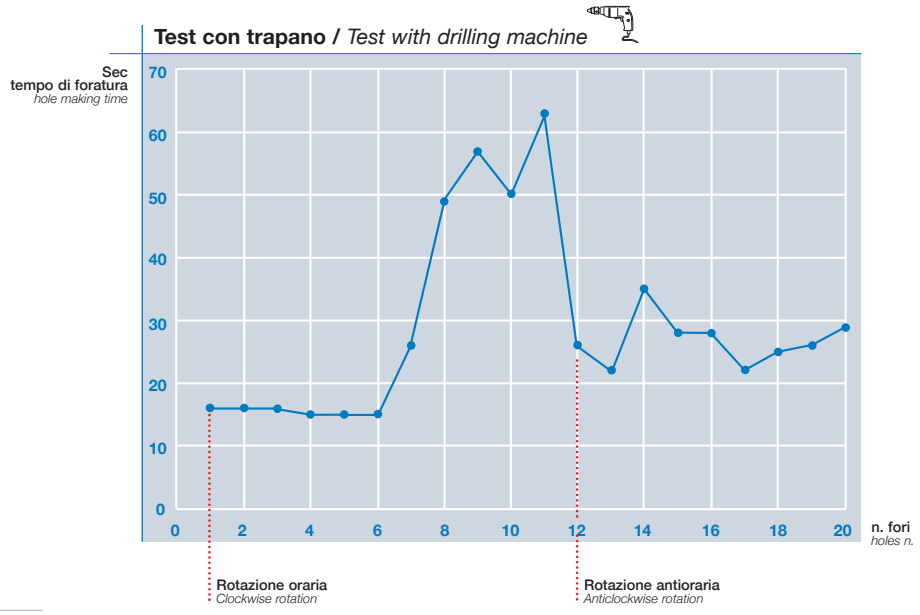
Gres smaltato Glazed sandstone/Grès emaillé/Gres esmaltado

Gres/Sandstone/Grès/Gres Fragranite®/Clinker

Marmo/Marble/Marbre Mármol

Piastrella standard Standard ceramics/Carrelage standard/Azulejo estándar

Test con trapano / *Test with drilling machine*

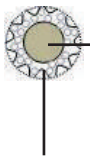


PUNTA DIAMANTATA A CORONA CONTINUA PER IL TAGLIO A SECCO E UMIDO DEL GRES PORCELLANATO E DI TUTTE LE PIASTRELLE *Diamond drill bit with continuous edge for dry cutting of sandware and very hard building materials / Forets diamantées avec couronne continue pour percer à sec grès céram et matériaux de construction très durs / Brocas diamantadas con corona continua para taladrar en seco gres porcelanico y materiales de construccion durisimos / Diamantbesetzter Spiralbohrer mit endloser kranz für Feinsteinzeug und sehr harte Baumaterialen.*

Keramaster® Plus

03122

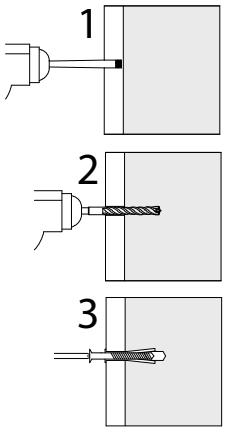




Refrigerante vegetale
Internal cooling system

Matrice metallica altofondente brasata che trattiene i diamanti a grana medio-fine
The high-melting brazed bond keeps medium-fine grain diamonds

Ø mm	d ○	L	pcs	cod.	€ cad/each
5	9,5	80	1	031220500	39,434
6	9,5	80	1	031220600	39,434
8	9,5	80	1	031220800	39,434
10	9,5	80	1	031221000	39,434
12	9,5	80	1	031221200	43,816
14	12,5	80	1	031221400	54,171
16	12,5	80	1	031221600	60,188
18	12,5	80	1	031221800	67,211
20	12,5	80	1	031222000	74,233
22	12,5	80	1	031222200	81,255
25	12,5	80	1	031222500	92,290



Movimento circolare
Circular movement



Foratura a secco a sola rotazione. Funzionamento ottimale su pareti verticali (ottimizzato il sistema di refrigerazione interna). Si consiglia di non asportare la carota, che funge da tappo-dosatore per il refrigerante. L'utilizzo con refrigerazione ad acqua allunga la vita utile dell'utensile.
***Dry cutting, rotation use only.** Best performances on walls to better fit the internal cooling system. Do not remove the deposits: they work as a plug to stop the lubricant. Water cooling extends the tool life cycle.*
Istruzioni d'uso: Iniziare il taglio inclinando la fresa di 30° per agevolare la centratura (oppure utilizzare l'apposita guida). Portarsi gradualmente in posizione verticale. Usare una velocità di taglio di 1000÷3000 giri/min in funzione del diametro decrescente della fresa. Durante il taglio applicare un lieve movimento circolare per agevolare l'evacuazione dei detriti. Invertendo periodicamente il senso di rotazione della fresa, si ravvivano i diamanti e si allunga la vita utile dell'utensile. Utilizzando trapani elettrici e raffreddando ad acqua, dotarsi di dispositivo PRCD.
Nel caso si voglia inserire un tassello(3), terminato il taglio nel gres(1), continuare con una punta per muro tradizionale a rotopercussione(2).
***Use tips:** To achieve an easy centering, please start the cut at 30° (or use the proper guide) and then go on vertically. Use 1000÷3000 rpm as cutting speed, depending on the decreasing tool diameter. Please use a circular movement during cutting to better evacuate the deposits. For longer tool life, please use alternatively right and left hand rotation. When water cooling, always use PRCD safety system.*

Confezione / Packaging



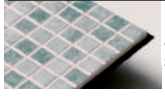
Applicazioni / Applications


Gres porcellanato
Sandware/Grès céram/Gres porcelanico


Gres smaltato
Glazed sandstone/Grès emaillé/Gres esmaltado


Gres/Sandstone/Grès/Gres Fragranite®/Clinker


Marmo/Marble/Marbre Mármol


Piastrella standard
Standard ceramics/Carrelage standard/Azulejo estándar

Riferirsi a video di utilizzo su WWW.KRINO.IT
Please refer to use tip on our website


03121001


03121002


03121005

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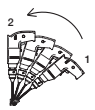
cod. 03120210 €119,800

Composizione:
3 pcs: Ø 6, 8, 10 mm

Utilizzando trapani elettrici adottare il sistema di sicurezza PRCD
PRCD safety system
Système de sécurité PRCD
Despositivo de seguridad PRCD



PRCD







A SECCO
DRY CUTTING
(REFRIGERANTE VEGETALE)

cod.03120300 € 830,972

15 pcs Ø 5÷25 mm

Ø	5	6	8	10	12	14	16	18	20	22	25
pcs	2	2	2	2	1	1	1	1	1	1	1

cod.03120301 € 590,991

11 pcs Ø 5÷20 mm

Ø	5	6	8	10	12	14	16	20
pcs	1	2	2	2	1	1	1	1

High Quality professional

PUNTA DIAMANTATA E FRESE A TAZZA A CORONA CONTINUA PER IL TAGLIO DEL GRES PORCELLANATO E DEI MATERIALI EDILI DURISSIMI

Diamond drill bit and core drills with continuous edge for sandware and very strong building materials / Forets diamantées et scies trépans avec couronne continue pour grès céram et matériaux de construction très durs / Brocas diamantadas y coronas perforadoras con corona continua para gres porcelanico y materiales de construccion durisimos / Diamantbesetzter Spiralbohrer und Lochsägen mit endloser Kranz für Feinsteinzeug und sehr harte Baumaterialen

Ekeramaster®

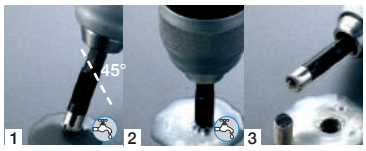
03117

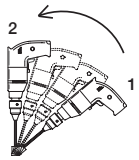


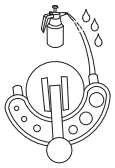


Matrice metallica altofondente brasata che trattiene i diamanti a grana medio-fine
The high-melting brazed bond keeps medium-fine grain diamonds

Ø mm	d ⬡	L	pcs	cod.	€ cad/each
5	9,5	56	1	031170500	22,882
6	9,5	56	1	031170600	22,882
7	9,5	56	1	031170700	22,882
8	9,5	56	1	031170800	22,882
10	9,5	56	1	031171000	25,256
12	9,5	56	1	031171200	29,624
14	9,5	56	1	031171400	40,535





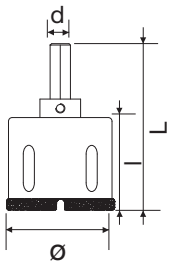


Confezione / Packaging



21104

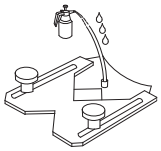


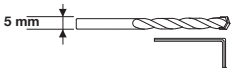


Ø mm	d ⬡	L	l	pcs	cod.	€ cad/each
16	12,5	90	50	1	211041600	55,158
18	12,5	90	50	1	211041800	55,158
20	12,5	90	50	1	211042000	59,958
22	12,5	90	50	1	211042200	65,956
25	12,5	90	50	1	211042500	73,750
28	12,5	90	50	1	211042800	81,544
30	12,5	90	50	1	211043000	87,543
32	12,5	90	50	1	211043200	89,937
35	12,5	90	50	1	211043500	105,525
40	12,5	90	50	1	211044000	118,719
45	12,5	90	50	1	211044500	133,109
50	12,5	90	50	1	211045000	146,303
60	12,5	90	50	1	211046000	172,678
65	12,5	90	50	1	211046500	185,873
67	12,5	90	50	1	211046700	194,958
70	12,5	90	50	1	211047000	206,742
80	12,5	90	50	1	211048000	226,639

Confezione / Packaging







Punta pilota - *Pilot drill* Ø 6x100 **21020113** € 2,750

Si sconsiglia l'uso della punta pilota come centraggio nel gres porcellanato; la dima a ventosa consente un'agevole centratura e sicurezza di taglio.
We dissuade to use the pilot drill as centering into sandware; the suction guide allows an easy centering with a safe cut.
Nous déconseillons l'utilisation du foret pilote pour le centrage pendant grés cèram; la guide a ventouse permet une facile centrage et une perçage en sécurité.
Disuadimos de utilizar la broca pilota come centradora en gres porcelanico; la guia permite una facil centradura con un corte en seguridad.

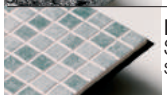
Applicazioni / Applications


Gres porcellanato
Sandware/Grès céram/
Gres porcelanico


Gres smaltato
Glazed sandstone/Grès
emaillé/Gres esmaltado


Gres/Sandstone/Grès/Gres
Fragranite®/Clinker

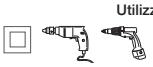

Marmo/Marble/Marbre
Mármol

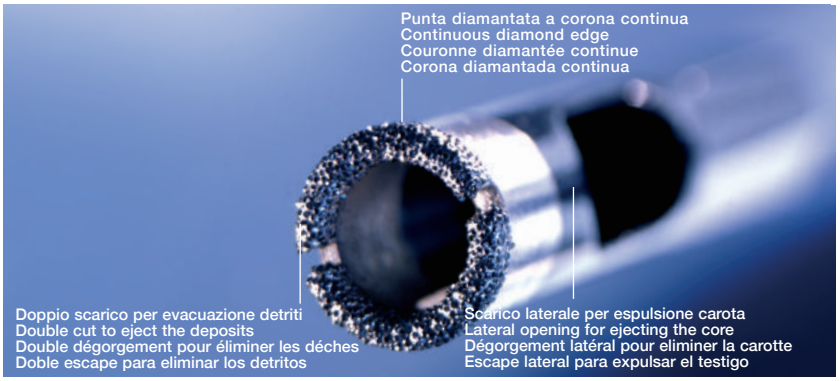

Piastrella standard
Standard ceramics/Carrelage
standard/Azulejo estándar



FORATURA AD ACQUA
WET DRILLING
PERÇAGE À EAU
PERFORACIÓN CON AGUA

Utilizzando trapani elettrici adottare il sistema di sicurezza PRCD
PRCD safety system
Système de sécurité PRCD
Despositivo de seguridad PRCD





Diametro fresa Core drill diameter	5÷7	8÷10	12÷14	16÷25	28÷35	40÷50	60÷80
Velocità giri/min. Speed r.p.m.	3000	2000	1500	1000	600	400	300

ASSORTIMENTI FRESE A TAZZA DIAMANTATE Keramaster®

"Keramaster ®" diamond core drills sets / Jeux de fraises diamants "Keramaster ®"
Juegos de coronas diamantadas "Keramaster ®" /

Keramaster®



3 pcs
Ø 6-8-10 mm.
03120199 € 74,313

4 pcs
Ø 5-6-8-10 mm.
03120200 € 95,935

5 pcs
Ø 5-6-8-10-12 mm.
03120201 € 123,519



6 pcs
Ø 16 22 25 28 30 35
21103300 € 455,683





Retrodidattica
Back side

230x510x170

Cod.		Cod.	
03120101		**03120100**	
Ø 5÷14 *36 pcs*		Ø 5÷14 *30 pcs*	
Ø/pcs 5/8 - 6/8 - 7/3 - 8/6 10/5 - 12/3 - 14/3	€ 908,962	Ø/pcs 5/6 - 6/6 - 7/2 - 8/6 10/5 - 12/3 - 14/2	€ 799,545



400x650x320

Cod.		Cod.	
21103100		**21103101**	
Ø 5÷35 *21 pcs*		Ø 5÷80 *29 pcs*	
Ø 5-6-7-8-10-12-14 (2x)		Ø 5-6-7-8-10-12-14	
Ø 16-20-25-28-30-32-35 (1x)	€ 1064,344	16-18-20-25-30 (2x)	€ 1822,723
		Ø 35-50-60-65-80 (1x)	

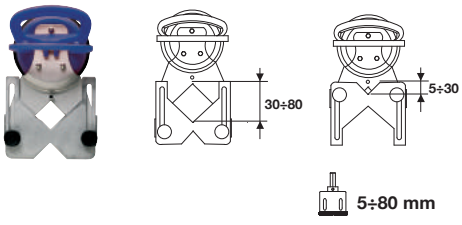
Dima a ventosa per forare / Drilling suction cup / Guide ventouse à percer / Guia ventosa para taladrar



6 fori/holes
Ø 5 - 6 - 7 - 8 - 10 - 12 mm

03121001 € 35,679

Dima a ventosa regolabile per forare / Drilling suction cup / Guide ventouse à percer / Guia ventosa para taladrar



03121002 € 52,999

Bottiglia per refrigerazione / Cooling bottle
Bouteille à réfrigérer / Contenidor para refrigeración



03121005 € 20,383

- Taglio preciso e pulito con trapani e con raffreddamento ad acqua in tutti i materiali edili difficili da lavorare: gres porcellanato, gres smaltato, marmo, granito, ceramica, ardesia, materiali compositi quali poliestere, fibre di vetro, ecc. Nel caso si voglia inserire un tassello, terminato il taglio nel gres, continuare con una punta per muro tradizionale a rotopercussione. Per idraulici, installatori, elettricisti, ecc. / For an accurate and sharp cut with drilling machines of all hard materials: sandware, glazed sandstone, marble, granite, ceramics, slate, composites such as polyester, fiber glass, etc. Ideal for plumbers, journeymen, electricians, etc. Water cooling. / Pour une coupe soignée et nette avec perceuses de tous les matériaux durs: grès céram, grès émaillée, marbre, granit, céramique, ardoise, matériaux composites comme polyester, fibre de verre, etc. Pour plombiers, installateurs et électriciens. Refroidissement à eau. / Para un corte exacto y limpio con taladros de todos los materiales duros: gres porcelanico, gres esmaltado, mármol, ceramica, pizarra, materiales compuestos como poliéster, hebra de vidrio, etc. Ideal para hidráulicos, instaladores, electricistas. Refrigeración por agua.

High Quality professional

PUNTA DIAMANTATA A CORONA CONTINUA PER IL TAGLIO DI PIASTRELLE, GRES E DEI MATERIALI DURI

Diamond drill bit with continuous edge for sandware and strong building materials / Forets diamantées avec couronne continue pour grès et matériaux de construction durs / Broca diamantada con corona continua para gres y materiales de construccion duros / Diamantbesetzter Spiralbohrer mit endloser Kranz für Feinsteinzeug und sehr harte Baumaterialen

Standard quality

03125



Matrice metallica elettrodepositata che trattiene diamanti a grana fine.
The electroplated bond keeps fine grain diamonds.

Ø mm	d mm	L	pcs	cod.	€ cad/each
5	6	65	1	031250500	10,555
6	6	65	1	031250600	10,555
8	6	65	1	031250800	10,555
10	6	65	1	031251000	10,555
12	6	65	1	031251200	12,665
14	6	65	1	031251400	14,776

FORATURA AD ACQUA
WET DRILLING
PERÇAGE A EAU
PERFORACIÓN CON AGUA

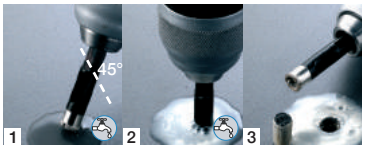
Utilizzando trapani elettrici adottare il sistema di sicurezza PRCD
PRCD safety system
Système de sécurité PRCD
Despositivo de seguridad PRCD
PRCD

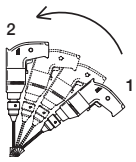
- La corona diamantata a spessore sottile garantisce tagli senza sbavature. Questa caratteristica agevola i lavori di foratura su piastrelle dure in posa, dove sia necessario realizzare un foro pulito, senza scheggiare la piastrella.
- The thin diamond continuous edge guarantees cuts without smudging. This feature facilitates the drilling work on hard tiles in laying, where it is necessary to make a clean hole, without splintering the tile.
- La couronne en diamant mince garantit des coupes sans bavures. Cette caractéristique facilite le travail de perçage sur des dalles dures en pose, où il est nécessaire de faire un trou propre, sans fendre la dalle.
- La corona de diamante de calibre delgado garantiza cortes sin manchas. Esta característica facilita el trabajo de perforación en las baldosas duras en el tendido, donde es necesario hacer un agujero limpio, sin astillar la baldosa.

Confezione / Packaging



Diametro fresa Core drill diameter	*5÷7*	*8÷10*	*12÷14*
Velocità giri/min. Speed r.p.m.	3000	2000	1500

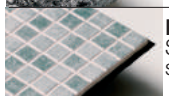




Applicazioni / Applications


Gres/Sandstone/Grès/Gres Fragranite®/Clinker


Marmo/Marble/Marbre Mármol


Piastrella standard
Standard ceramics/Carrelage standard/Azulejo estándar

DISCHI DIAMANTATI PER GRES PORCELLANATO, CERAMICA E PIASTRELLE IN GENERE

Diamond discs for sandware, tiles and ceramics / Disques diamant pour grés, carrelage et céramiques
Discos diamantados para gres porcelanico, azulejos y ceramicas / Diamanttrennscheiben für das emailliert Steingut, Fliesen und Ton.

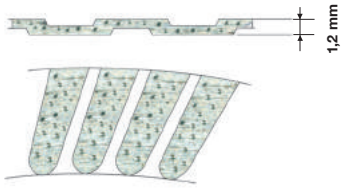
PROFESSIONAL SUPER

SPECIALE GRES PORCELLANATO *SPECIAL GRES*

Corona Turbo - Turbo continuous rim - Couronne continue Turbo - Corona continua Turbo

03515





Ø mm	d	cod.	€ cad/each
115	22.2	03515115	40,766

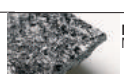


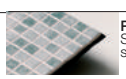
Applicazioni / Applications


Gres porcellanato
Sandware/Grès cèram/Gres porcelanico


Gres smaltato
Glazed sandstone/Grès emaillé/Gres esmaltado


Gres/Sandstone/Grès/Gres


Marmo/Marble/Marbre Mármol


Piastrella standard
Standard ceramics/Carrelage standard/Azulejo estándar

- Taglio preciso e pulito in tutti i materiali edili difficili da lavorare: gres porcellanato, gres smaltato, marmo, granito, ceramica, ardesia etc.
- For an accurate and sharp cut of all hard materials: sandware, glazed sanstone, marble, granite, ceramics, slate etc.
- Puor une coupe soignée et nette de tous les matériaux durs: grès porcellanato, grès émaillé, marbre, granit, céramique, ardoise etc.
- Para un corte exacto y limpio de todos los materiales duros: gres porcelanico, gres esmaltado, mármol, ceramica, pizarra etc.
- Für einen sauberen undgenauren Schnitt von allen harten Materialen: Feinsteinzeug, glasiertem Steinzeug, Marmor, Granit, Keramik, Schiefer.

DISCHI DIAMANTATI PER MATERIALI EDILI

Diamond discs for building materials / Disc diamantes pour batimant
Discos diamantados para construciones / Diamanttrennscheiben für Baumaterialen

PROFESSIONAL | **PROFESSIONAL SUPER**

PRCD

Corona Turbo - Turbo continuous rim - Couronne continue Turbo - Corona continua Turbo

Muro - Cemento - Piastrelle - Pietre naturali /Masonry - Concrete - Tiles - Natural stones
Béton - Ciment - Carellage - Pierres naturelles / Hormigon - Concreto - Azulejos - Piedras naturales

03405



03505



Ø mm	d	cod.	€ cad/each	cod.	€ cad/each
115	22.2	03405115	11,996	03505115	20,389
230	22.2	03405230	56,366	03505230	101,933



Corona continua - Continuous rim - Couronne continue - Corona continua

Ceramica - Marmo - Pietre naturali / Ceramics - Marble - Natural stones
Céramique - Marbre - Pierres naturelles / Ceramica - Marbol - Piedras naturales

03400



03500



Ø mm	d	cod.	€ cad/each	cod.	€ cad/each
115	22.2	03400115	10,311	03500115	17,030
230	22.2	03400230	45,568	03500230	88,740



Corona segmentata - Segmented rim - Couronne segmentée - Corona segmentada

Muro - Cemento - Marmo - Pietre naturali / Masonry - Concrete - Marble - Natural stones
Béton - Ciment - Marbre - Pierres naturelles / Hormigon - Concreto - Marbol - Piedras naturales

03410



03510



Ø mm	d	cod.	€ cad/each	cod.	€ cad/each
115	22.2	03410115	10,677	03510115	19,790
230	22.2	03410230	52,763	03510230	95,935





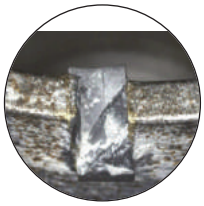
N. 1 cod. 03405115 TURBO
N. 1 cod. 03400115 CONTINUE
N. 1 cod. 03410115 SEGMENTED

cod. **03412100** € 32,374

GUIDA ALLA RISOLUZIONE DEI PROBLEMI DI FORATURA DEI MATERIALI EDILI

Troubleshooting guide for drilling of building materials

Immagine del difetto / Photo of the defect



Fresa a tazza
Hole saw

Descrizione del difetto
Description of the defect

Si rompe o si scheggia un dente in metallo duro a causa di urti (es. cadute accidentali, urto contro tondino del ceemnto armato o pezzi duri inglobati nel materiale in lavorazione).
A tooth in hard metal breaks or chips due to impacts (e.g. accidental falls, knock against reinforced cement or hard pieces incorporated into work materials).

Possibili soluzioni del problema
Possible solutions to the problem

Procedere con cautela durante la foratura, evitando il più possibile urti accidentali:
-quando si maneggia l'utensile,
-in fase di inizio foratura,
-durante la foratura, soprattutto nel caso di lavorazioni di materiali stratificati o compositi.
Proceed carefully during the drilling, and avoid accidental knocks as much as possible:
- when handling the tool,
- at the start of drilling
- during the drilling in particular of laminated or composite materials.

Immagine del difetto / Photo of the defect



Fresa diamantata
Diamond core bit

Descrizione del difetto
Description of the defect

Si usura precocemente la corona diamantata a causa di un uso intensivo dell'utensile in assenza di una corretta refrigerazione.
The diamond crown wears prematurely due to intensive use of the tool without proper refrigeration.

Possibili soluzioni del problema
Possible solutions to the problem

Aumentare la refrgerazione della zona in lavorazione, per evitare il surriscaldamento della lega che trattiene i diamanti sul corpo dell'utensile.
Increase refrigeration in the drilling area to prevent overheating of the alloy that holds the diamonds on the body of the tool.

Immagine del difetto / Photo of the defect



Denti con carburo in grani
Carbide gritted teeth

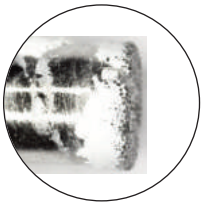
Descrizione del difetto
Description of the defect

Si impasta il materiale in lavorazione sui grani di carburo di tungsteno. Il materiale lavorato è tenero e pastoso.
The material being drilled blends with the tungsten carbide grains. The material being drilled is soft and mushy.

Possibili soluzioni del problema
Possible solutions to the problem

Scegliere un altro utensile maggiormente idoneo allo scopo. Aumentare la refrigerazione dell'area in lavorazione. Aumentare la velocità di foratura.
Choose another tool which is more suitable for the purpose. Increase the refrigeration of the area being drilled. Increase the drilling speed.

Immagine del difetto / Photo of the defect



Fresa diamantata
Diamond core bit

Descrizione del difetto
Description of the defect

Si impasta il materiale in lavorazione sui diamanti. Il materiale lavorato è tenero e pastoso.
The material being drilled blends with the diamonds. The material being drilled is soft and mushy.

Possibili soluzioni del problema
Possible solutions to the problem

Scegliere un altro utensile maggiormente idoneo allo scopo. Aumentare la refrigerazione dell'area in lavorazione. Aumentare la velocità di foratura.
Choose another tool which is more suitable for the purpose. Increase the refrigeration of the area being drilled. Increase the drilling speed

PUNTE PER LA FORATURA DI MATERIALI EDILI

DRILL BITS FOR DRILLING BUILDING MATERIALS

Immagine del difetto / Photo of the defect



Punta per muro
Masonry drill

Descrizione del difetto
Description of the defect

Si usura la testa dell'utensile.
The head of the tool wears away.

Possibili soluzioni del problema
Possible solutions to the problem

Evitare qualsiasi urto durante la foratura. Scegliere il martello con potenza idonea al tipo di punta che si utilizza (attacco SDS-PLUS, attacco SDS-MAX, codolo cilindrico).
Avoid any kind of impact during the drilling process. Choose a hammer strong enough for the type of bit used (SDS-PLUS connection, SDS-MAX connection, cylindrical shank).

Immagine del difetto / Photo of the defect



Attacco SDS-PLUS
SDS-PLUS shank

Descrizione del difetto
Description of the defect

Si rompe/deforma l'attacco dell'utensile.
The connection of the tool breaks/deforms.

Possibili soluzioni del problema
Possible solutions to the problem

Sostituire il mandrino usurato, che inevitabilmente danneggia l'attacco dell'utensile.
Disminuir la velocidad de roscado y/o de avance. Roscar espesores que no sean superiores a 1,5 veces el diámetro nominal del machuelo.
Replace the worn spindle, which inevitably damages the tool connection.

Immagine del difetto / Photo of the defect



Punta per muro
Masonry drill

Descrizione del difetto
Description of the defect

Si rompe la punta all'inizio dell'elica, a causa dell'applicazione di un momento flettente eccessivo.
The tip at the start of the screw snaps due to excessive bending.

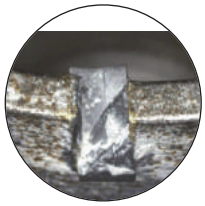
Possibili soluzioni del problema
Possible solutions to the problem

Evitare movimenti oscillatori al fine di allargare il diametro del foro che si sta realizzando. Non eccedere con la profondità del foro che si intende realizzare: utilizzare allo scopo un utensile con lunghezza totale più elevata.
Avoid swinging movements to widen the diameter of the hole that is being made.
Do not go beyond the depth of the hole that needs to be made: for this purpose, use a tool with a longer overall length.

GUIDE DE DÉPANNAGE POUR LES PROBLÈMES DE PERÇAGE DES MATÉRIAUX DE CONSTRUCTION

Guía para la resolución de problema de perforación de los materiales de edilicia

Image du dèfaut / Foto del defecto



Description du dèfaut
Descripción del defecto

Une dent en métal dur se brise ou se fend à cause des chocs (par exemple chutes accidentelles, impact de la tige contre le rond en béton armé ou pièces dures incorporées dans les matériaux usinés).
Se rompe o se desportilla un diente de metal duro debido a golpes (por ejemplo en caso de caídas accidentales, golpe contra redondos de hormigón o piezas duras que se encuentran dentro de los materiales que se están trabajando).

Solutions possibles au problème
Posibles soluciones del problema

Procéder avec prudence lors du perçage, en évitant autant que possible les chocs accidentels :
- lors de la manipulation de l'outil,
- au début du perçage,
- pendant le perçage, notamment dans le cas d'usinages de matériaux stratifiés ou composites.

Actuar con cuidado durante la perforación, evitando lo máximo posible golpes accidentales:
-cuando se usa el utensilio,
-en la fase de inicio perforación,
-durante la perforación, sobre todo en caso de trabajos sobre materiales estratificados o compuestos.

Image du dèfaut / Foto del defecto



Description du dèfaut
Descripción del defecto

La couronne diamant s'use prématurément en raison d'une utilisation intensive de l'outil en l'absence de réfrigération appropriée.
Se gasta de forma precoz la corona de diamante debido a un uso intenso del utensilio sin adecuada refrigeración.

Solutions possibles au problème
Posibles soluciones del problema

Augmenter le refroidissement dans la zone d'usinage, afin d'éviter une surchauffe de l'alliage qui contient les diamants sur le corps de l'outil.
Aumentar la refrigeración de la zona trabajada para evitar el recalentamiento de la aleación que atrapa a los diamantes sobre el cuerpo del utensilio.

Image du dèfaut / Foto del defecto



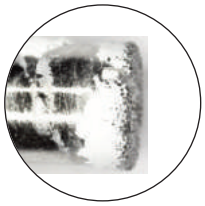
Description du dèfaut
Descripción del defecto

Le matériau usiné doit être pétri sur des grains de carbure de tungstène. Le matériau usiné est tendre et pâteux.
Se amasa el material que se tiene que trabajar sobre granos de carburo de tungsteno. El material trabajado es tierno y pastoso.

Solutions possibles au problème
Posibles soluciones del problema

Choisir un autre outil plus approprié au but.
Augmenter le refroidissement de la zone d'usinage.
Augmenter la vitesse de perçage.
Escoger otro utensilio que sea más idóneo para el trabajo. Aumentar la refrigeración del área trabajada. Aumentar la velocidad de perforación.

Image du dèfaut / Foto del defecto



Description du dèfaut
Descripción del defecto

Le matériau usiné doit être pétri sur des diamants. Le matériau usiné est tendre et pâteux.
Se amasa el material que se tiene que trabajar sobre diamantes. El material trabajado es tierno y pastoso.

Solutions possibles au problème
Posibles soluciones del problema

Choisir un autre outil plus approprié au but.
Augmenter le refroidissement de la zone d'usinage. Augmenter la vitesse de perçage.
Escoger otro utensilio que sea más idóneo para el trabajo. Aumentar la refrigeración del área trabajada. Aumentar la velocidad de perforación.

FORETS POUR LE PERÇAGE DES MATÉRIAUX DE CONSTRUCTION

BROCAS PARA LA PERFORACIÓN DE MATERIALES DE EDILICIA

Image du dèfaut / Foto del defecto



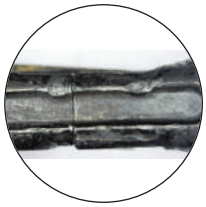
Description du dèfaut
Descripción del defecto

La tête de l'outil s'use.
Se gasta la cabeza del utensilio.

Solutions possibles au problème
Posibles soluciones del problema

Éviter tout impact pendant le perçage.
Choisir le marteau avec une puissance adaptée au type de foret utilisé (raccord SDS-PLUS, raccord SDS-MAX attaque, cône cylindrique).
Evitar cualquier tipo de golpe durante la perforación. Escoger el martillo de potencia adecuada al tipo de broca que se usa (empalme SDS-PLUS, empalme SDS-MAX, mango cilíndrico).

Image du dèfaut / Foto del defecto



Description du dèfaut
Descripción del defecto

Le raccord de l'outil se brise ou se déforme.
Se rompe/deforma el empalme del utensilio.

Possibili soluzioni del problema
Description of the defect

Remplacer le mandrin usé qui endommage inévitablement le raccord de l'outil.
Sustituir el mandril gastado que inevitablemente daña al empalme del utensilio.

Image du dèfaut / Foto del defecto



Description du dèfaut
Descripción del defecto

Le foret au début de de l'hélice se brise, en raison de l'application d'une flexion excessive.
Se rompe la punta del principio del hélice, debido a la aplicación de un momento de flexión excesivo.

Solutions possibles au problème
Posibles soluciones del problema

Éviter les mouvements oscillatoires afin d'agrandir le diamètre du trou en cours de réalisation. Ne pas exagérer avec la profondeur du trou à réaliser : utiliser un outil dans ce but avec une longueur totale plus élevée.
Evitar oscilaciones con el fin de anchar el diámetro del orificio que se está realizando. No exagerar con la profundidad del orificio que se quiere realizar: usar para ello un utensilio con una longitud total mayor.



UTENSILI PER TAGLIO LEGNO

Woodworking tools
Outils à bois
Utensilios para madera
Holzwerkzeuge

WOOD

CUTTING TOOLS ENGINEERING

The wood drilling is more important than what you can imagine and often is undervalued. The Krino wood working tools are undeformable steel made, they have the appropriate heat treatment and geometries for a precise and safe cut. For extreme uses, we developed new lines of tools made with High speed steel, allied steel and carbide tips for high temperatures resistance and special profiles with smooth surface for an easy and fast chips evacuation. Almost all wood working tools have an hexagonal shank for more grip and a safer work. A special care has been dedicated for final users sets and displays for retail shops in order to offer a stock and a useful selection for the customers. The range enlargement has been developed with a wide offer of new sets contained into convenient and attractive wooden boxes, for professional use. There are now available, new wall and bench displays for retailers.

La coupe du bois est une opération plus importante de ce qu'il peut paraître qui est sous-évaluée la plupart du temps. Les outils de coupe Krino sont en acier indéformable ayant subi un traitement thermique adéquat, dans les formes géométriques les plus adaptées pour un travail sûr et précis. Pour les utilisations plus ardues et intenses, des versions avec tranchant en métal dur, acier super rapide et profils spéciaux pour l'évacuation rapide des copeaux sont également disponibles. La plus part des outils sont équipés avec queue hexagonale. Les jeux pour les utilisateurs finals ont été étudiés attentivement comme aussi les présentoires pour les magasins au détail afin d'offrir un stock et une exposition utile pour la clientèle. L'élargissement de la gamme a été développé avec une offre de nouveaux assortiments dans des pratiques et attractives confections en bois pour toutes les utilisations professionnelles. Pour la vente ou détails sont aussi disponibles des nouveaux présentoirs étudiés pour chaque classe de produit.

El corte de la madera es más importante de lo que parece, en la mayoria de los casos está subestimado. Las herramientas de corte Krino están fabricadas en acero indeformable, con apropriado tratamiento térmico, en las geometrias más adecuadas para un trabajo seguro y preciso. Para las utilizaciones más laboriosas y intensivas, también están disponibles ejecuciones con filo de metal duro, acero super rapido y perfil para la evacuación rapida de las virutas. La mayoria de los utensilios para madera son con mango hexagonal. La realización de los juegos para utilizatores finales y expositores para tiendas al detalle offrecen un stock completo y una exposición para los clientes.

Il taglio del legno è più importante di quanto possa sembrare e spesso è sottovalutato. Gli utensili da taglio Krino sono costruiti in acciaio indeformabile, con appropriato trattamento termico, nelle geometrie più adatte per un lavoro sicuro e preciso. Per gli usi più impegnativi ed intensivi sono state sviluppate nuove linee di utensili con caratteristiche adatte a resistere alle alte temperature, quali gli acciai superrapidi, acciai legati, placchette in metallo duro, e con speciali profili ad alto scarico con superfici altamente levigate al fine di permettere una facile evacuazione dei trucioli. Gran parte degli utensili da taglio per legno sono costruiti con attacco esagonale antisdrucciolo, per un lavoro più sicuro. L'ampliamento della gamma dei prodotti si è sviluppato anche nella vasta offerta di nuovi assortimenti in pratiche ed attrattive confezioni di legno, per tutti gli utilizzi professionali. Sono pure disponibili, per le vendite al dettaglio, nuovi espositori self-service ed espositori da banco per classe di prodotto.

PUNTE ELICOIDALI PER LEGNO A 2 TAGLIENTI CON PUNTA GUIDA A CENTRARE

Wood working drills, brad point / Forets à bois
Broca para madera / Holzspiralbohrer

W.S. ~DIN 7487

05001





HRC ≅ 50

Confezione / Packaging



Applicazioni / Applications



- Per forare legno e i suoi derivati.
- For drilling wood.
- Pour percer tous les bois.
- Para maderas y sus derivaciones.
- Zum Bohren in Holz.

Art. **05002** Self
Disponibile su richiesta
On demand

Ø mm	Ø Inch	d	l	L	pcs	cod.	€ cad/each
3	1/8	3	33	61	10	050010300	0,754
4	5/32	4	43	75	10	050010400	0,864
5	3/16	5	52	86	10	050010500	0,898
6	15/64	6	57	93	10	050010600	1,108
7	9/32	7	69	109	10	050010700	1,275
8	5/16	8	75	117	10	050010800	1,341
9	11/32	9	81	125	10	050010900	1,508
10	3/8	10	87	133	10	050011000	1,751
11	7/16	10	94	142	5	050011100	2,572
12	15/32	10	101	151	5	050011200	2,639
13	1/2	10	101	151	5	050011300	3,581
14	9/16	10	108	160	5	050011400	3,969
15	19/32	10	114	169	5	050011500	4,712
16	5/8	10	120	178	5	050011600	5,001
18	23/32	10	130	191	5	050011800	8,448
20	3/4	10	140	205	5	050012000	10,244
22	7/8	13	140	210	1	050012200	12,051
24	15/16	13	140	215	1	050012400	14,158
26	1.1/32	13	140	215	1	050012600	16,452
28	1.1/8	13	140	220	1	050012800	20,001
30	1.3/16	13	140	220	1	050013000	23,493



5 pcs W.S.
Ø 4-5-6-8-10 mm
05010201 € 6,951



8 pcs W.S.
Ø 3-4-5-6-7 - 8-9-10 mm
05010202 € 10,311



390x150x225

05010503 € 575,600
137 pcs Ø **3÷16** mm

05001		05020		05025	
Ø	pcs	Ø	pcs	Ø	pcs
3	10	6x245	5	6x400	5
4	10	8x245	5	8x400	5
5	10	10x245	5	10x400	5
6	10	12x245	5	12x400	3
7	10	14x245	3	14x400	3
8	10				
9	10				
10	10				
12	5				
14	5				
16	3				

PUNTE ELICOIDALI PER LEGNO A 2 TAGLIENTI CON PUNTA GUIDA A CENTRARE, SERIE LUNGA

Wood working drills, long serie / Forets à bois, série longue

Brocas para madera, serie larga / Holzspiralbohrer, extralang

W.S.

05020 **05025**







HRC ≅ 50

L=245 mm

Art. **05021** Self
Disponibile su richiesta
On demand

05020

Ø mm	d	/	L	pcs	cod.	€ cad/each
6	6	160	245	5	050200600	5,742
7	7	160	245	5	050200700	5,742
8	8	160	245	5	050200800	5,742
9	9	160	245	5	050200900	6,375
10	10	160	245	5	050201000	6,375
11	10	160	245	5	050201100	8,281
12	10	160	245	5	050201200	8,281
13	10	160	245	5	050201300	9,723
14	10	160	245	5	050201400	9,723
15	10	160	245	5	050201500	11,286
16	10	160	245	5	050201600	11,286
18	10	160	245	5	050201800	14,347
20	10	160	245	5	050202000	17,861
22	13	160	245	1	050202200	22,340
24	13	160	245	1	050202400	24,868

L=400 mm

Art. **05026** Self
Disponibile su richiesta
On demand

05025

Ø mm	d	/	L	pcs	cod.	€ cad/each
6	6	230	400	5	050250600	7,938
8	8	230	400	5	050250800	10,167
10	10	230	400	5	050251000	10,521
12	10	230	400	5	050251200	11,796
13	10	230	400	5	050251300	14,724
14	10	230	400	5	050251400	14,724
15	10	230	400	5	050251500	17,384
16	10	230	400	5	050251600	17,384
18	10	230	400	5	050251800	23,272
20	10	230	400	5	050252000	28,061
22	13	230	400	1	050252200	36,998
24	13	230	400	1	050252400	47,364
26	13	230	400	1	050252600	53,061
28	13	230	400	1	050252800	55,922
30	13	230	400	1	050253000	70,236

Confezione / *Packaging*



Applicazioni / *Applications*



- Forano legno dolce, stratificati, tutti i suoi derivati. Speciali per mensole a scomparsa e travi in legno.
- For soft wood, plywood, non coated chipboards. Special for wood beams.
- Pour tous les bois, contreplaques. Special pour poutres de bois.
- Para taladrar viga de madera y sus derivaciones.
- Einsatz in Weichholz, Tischlerplatten und unbeschichteten Spanplatten.

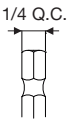
High Quality professional

PUNTE ELICOIDALI PER LEGNO A 2 TAGLIENTI CON ATTACCO HEX 1/4”

Wood working drills, 1/4 Q.C. shank / Forets à bois avec 1/4 Q.C. queue
Broca para madera con mango 1/4 Q.C. / Holzspiralbohrer

05009





Confezione / Packaging



Applicazioni / Applications



Ø mm	d ⬡	l	L	pcs	cod.	€ cad/each
3	1/4	31	80	1	050090300	2,086
4	1/4	42	92	1	050090400	2,255
5	1/4	53	106	1	050090500	2,336
6	1/4	57	113	1	050090600	2,505
8	1/4	75	137	1	050090800	2,754
10	1/4	87	153	1	050091000	3,192

- Per forare legno e i suoi derivati.
- For drilling wood.
- Pour percer tous les bois.
- Para maderas y sus derivaciones.
- Zum Bohren in Holz.



5 pcs
Ø 4-5-6-8-10 mm
05010700 € 13,194

PUNTE ELICOIDALI PER LEGNO A 2 TAGLIENTI, ALTA QUALITÀ HSS

HSS wood working drills / Forets à bois HSS
Broca HSS para madera / HSS Holzspiralbohrer

HSS ~DIN 7487

05200





HSS
HRC ≃ 63

Art. **05201** Self
Disponibile su richiesta
On demand

Confezione / Packaging



Applicazioni / Applications



Ø mm	d	/	L	pcs	cod.	€ cad/each
3	3	33	61	1	052000300	1,038
4	4	43	75	1	052000400	1,272
5	5	52	86	1	052000500	1,508
6	6	57	93	1	052000600	2,036
7	7	69	109	1	052000700	2,507
8	8	75	117	1	052000800	3,449
9	9	81	125	1	052000900	4,033
10	10	87	133	1	052001000	5,004
11	10	94	142	1	052001100	6,219
12	10	101	151	1	052001200	7,916
13	10	101	151	1	052001300	9,189
14	10	108	160	1	052001400	10,979
15	10	114	169	1	052001500	13,534
16	10	120	178	1	052001600	15,587

Per forare legno, derivati, kevlar, fibre aramidiche senza sbavature.
For drilling wood, derivatives, kevlar, aramidic fibers without smudging.
Pour le perçage du bois, des dérivés, du kevlar, des fibres d'aramide sans bavures.
Para perforar madera, derivados, kevlar, fibras de aramida sin manchas.



5 pcs HSS
Ø 4-5-6-8-10 mm
05010206 € 15,955

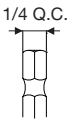


8 pcs HSS
Ø 3-4-5-6-7- 8-9-10 mm
05010207 € 24,580

PUNTE ELICOIDALI PER LEGNO A 4 TAGLIENTI CON ATTACCO HEX ¼”

Hex ¼” shank drill bits for wood with 4 cutting edges /Forets hélicoïdaux pour bois avec 4 tranchants avec connexion hex ¼ "
Brocas helicoidales para madera con 4 filos de corte con conexión hex ¼ "





Ø mm	d	/	L	pcs	cod.	€ cad/each
10	1/4	65	165	1	050541000	12,093
12	1/4	65	165	1	050541200	12,458
14	1/4	65	165	1	050541400	15,007
16	1/4	65	165	1	050541600	15,951
18	1/4	65	165	1	050541800	17,334
20	1/4	65	165	1	050542000	17,847
22	1/4	65	165	1	050542200	20,032
24	1/4	65	165	1	050542400	22,433
25	1/4	65	165	1	050542500	24,693
26	1/4	65	165	1	050542600	25,205
28	1/4	65	165	1	050542800	26,804
30	1/4	65	165	1	050543000	28,699
32	1/4	65	165	1	050543200	29,940

05054 NEW

Confezione / *Packaging*



Applicazioni / *Applications*



Per forare a grande rendimento il legno e i suoi derivati.
For drilling wood and its derivatives with high efficiency.
Pour percer le bois et ses dérivés avec une grande efficacité.
Para la perforación de madera y sus derivados con alta eficiencia.



6 pcs
Ø 16-18-20-22-25-32 mm

05055300 € 137,540

High Quality professional

PUNTE ELICOIDALI PER LEGNO CON PUNTA GUIDA A CENTRARE ED ELICHE AD ALTO SCARICO DEI TRUCIOLI. QUALITÀ SUPERPROFESSIONALE, SERIE LUNGA

High performing wood working drills / Forets à bois superprofessionnel / Brocas para madera de alta calidad / profi Holzspiralbohrer

W.S.

05210 **05212**







W.S.
HRC ≃ 55

L=245 mm

Ø mm	d	/	L	pcs	cod.	€ cad/each
6	6	160	245	1	052100600	19,177
8	8	160	245	1	052100800	20,195
10	10	160	245	1	052101000	21,627
12	10	160	245	1	052101200	22,815
14	10	160	245	1	052101400	24,954
16	10	160	245	1	052101600	27,583
18	10	160	245	1	052101800	31,599
20	10	160	245	1	052102000	36,065
22	13	160	245	1	052102200	40,674
24	13	160	245	1	052102400	46,677

L=400 mm

Ø mm	d	/	L	pcs	cod.	€ cad/each
6	6	160	400	1	052120600	24,041
8	8	160	400	1	052120800	26,199
10	10	160	400	1	052121000	27,763
12	10	250	400	1	052121200	30,618
14	10	250	400	1	052121400	35,245
16	10	250	400	1	052121600	42,700
18	10	250	400	1	052121800	50,192
20	10	250	400	1	052122000	57,617
22	13	250	400	1	052122200	64,874
24	13	250	400	1	052122400	72,620

Confezione / *Packaging*



Applicazioni / *Applications*



- Forano legno duro e dolce, stratificati, tutti i suoi derivati. Speciali per mensole a scomparsa e travi in legno.
- For soft and tough wood, plywood, non coated chipboards. Special for wood beams.
- Pour tous les bois, contreplaques. Special pour poutres de bois.
- Para taladrar viga de madera y sus derivaciones.
- Einsatz in Weichholz und Hartholz, Tischlerplatten und unbeschichteten Spanplatten.

PUNTE ELICOIDALI PER LEGNO, SERIE LUNGA

Wood working drills for plankings / Forets pour coffrages
Broca para madera / Schalungsbohrer

W.S.





HRC ≅ 50



Art. 05030 - L=400 mm

Art. **05031** Self
Disponibile su richiesta
On demand

05030

Ø mm	d	/	L	pcs	cod.	€ cad/each
6	5	100	400	5	050300600	7,705
8	7	100	400	5	050300800	9,889
10	9	100	400	5	050301000	10,233
12	10	100	400	5	050301200	12,639
14	10	100	400	5	050301400	15,012
16	10	100	400	5	050301600	17,196
18	13	100	400	5	050301800	24,557
20	13	100	400	5	050302000	30,012
22	13	100	400	1	050302200	39,570
24	13	100	400	1	050302400	40,766
26	13	100	400	1	050302600	54,503
28	13	100	400	1	050302800	59,681
30	13	100	400	1	050303000	67,564

Art. 05033 - L=600 mm

Art. **05034** Self
Disponibile su richiesta
On demand

05033

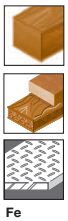
Ø mm	d	/	L	pcs	cod.	€ cad/each
6	5	100	600	5	050330600	11,474
8	7	100	600	5	050330800	12,362
10	9	100	600	5	050331000	13,747
12	10	100	600	5	050331200	15,222
14	10	100	600	5	050331400	16,719
16	10	100	600	5	050331600	18,183
18	13	100	600	5	050331800	26,242
20	13	100	600	5	050332000	31,110
22	13	100	600	1	050332200	40,932
24	13	100	600	1	050332400	49,914
26	13	100	600	1	050332600	62,176
28	13	100	600	1	050332800	67,875
30	13	100	600	1	050333000	79,150

- Per forare legno e i suoi derivati, ferro, acciaio dolce, pannelli in gesso, pannelli isolanti. ***Speciali per casseformi***, installazioni, carpenteria.
- For holes in beams, boards, soft metal sheets, special for journeyman's.
- Pour percer tous les bois, métals légers. Special pour coffrages.
- Para maderas y sus derivaciones, planchas de hierro no duros.
- Zum Bohren in Schlungen, Brettern, Dielen, Leichtmetall.

Confezione / *Packaging*



Applicazioni / *Applications*



Fe

Professional

PUNTE PER LEGNO PROFESSIONALI A SPIRALE SINGOLA TIPO LEWIS, GAMBO ESAGONALE

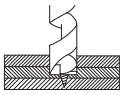
Hexagonal shank auger bits, Lewis type, for professional use / Mèche à bois à spirale unique pour percage professionnel
Broca para madera tipo Lewis para cortes professionales / Profi-Schlangenbohrer

W.S.





HRC ≅ 55



Art. 05035 L=155 mm

Ø mm	d ⬡	/	L	pcs	cod.	€ cad/each
6	6	90	155	1	050350600	6,608
8	8	90	155	1	050350800	7,040
10	10	90	155	1	050351000	8,260
12	10	90	155	1	050351200	9,479
14	10	90	155	1	050351400	10,521
16	10	90	155	1	050351600	11,398
18	13	90	155	1	050351800	13,049
20	13	90	155	1	050352000	15,034
22	13	90	155	1	050352200	15,998
24	13	90	155	1	050352400	17,040

Art. 05036 L=235 mm

Ø mm	d ⬡	/	L	pcs	cod.	€ cad/each
6	6	160	235	1	050360600	7,483
8	8	160	235	1	050360800	8,082
10	10	160	235	1	050361000	9,479
12	10	160	235	1	050361200	11,508
14	10	160	235	1	050361400	13,060
16	10	160	235	1	050361600	14,069
18	13	160	235	1	050361800	16,153
20	13	160	235	1	050362000	18,448
22	13	160	235	1	050362200	18,715
24	13	160	235	1	050362400	21,364

Art. 05040 - L=300 mm

Ø mm	d ⬡	/	L	pcs	cod.	€ cad/each
6	6	220	300	1	050400600	10,521
8	8	220	300	1	050400800	10,521
9	9	220	300	1	050400900	11,420
10	10	220	300	1	050401000	12,140
11	10	220	300	1	050401100	13,404
12	10	220	300	1	050401200	14,413
13	10	220	300	1	050401300	14,103
14	10	220	300	1	050401400	15,466
15	10	220	300	1	050401500	16,863
16	10	220	300	1	050401600	16,863
18	13	220	300	1	050401800	18,937
20	13	220	300	1	050402000	20,910
22	13	220	300	1	050402200	23,670
24	13	220	300	1	050402400	25,944
25	13	220	300	1	050402500	28,627
26	13	220	300	1	050402600	28,925
28	13	220	300	1	050402800	32,894
30	13	220	300	1	050403000	37,064
32	13	220	300	1	050403200	45,844

Art. 05042 - L=460 mm

Ø mm	d ⬡	/	L	pcs	cod.	€ cad/each
6	6	360	460	1	050420600	19,956
8	8	360	460	1	050420800	20,477
10	10	360	460	1	050421000	20,954
12	10	360	460	1	050421200	25,977
13	10	360	460	1	050421300	27,740
14	10	360	460	1	050421400	27,806
16	10	360	460	1	050421600	29,636
18	13	360	460	1	050421800	33,205
20	13	360	460	1	050422000	37,862
22	13	360	460	1	050422200	41,022
24	13	360	460	1	050422400	42,685
25	13	360	460	1	050422500	46,631
26	13	360	460	1	050422600	48,517
28	13	360	460	1	050422800	55,080
30	13	360	460	1	050423000	64,271
32	13	360	460	1	050423200	77,343
35	13	360	460	1	050423500	102,443
40	13	360	460	1	050424000	136,369

Art. 05044 - L=600 mm

Ø mm	d ⬡	/	L	pcs	cod.	€ cad/each
8	8	400	600	1	050440800	26,708
10	10	400	600	1	050441000	32,684
12	10	400	600	1	050441200	35,634
13	10	400	600	1	050441300	41,542
14	10	400	600	1	050441400	39,337
16	10	400	600	1	050441600	41,032
18	13	400	600	1	050441800	48,727
20	13	400	600	1	050442000	51,166
22	13	400	600	1	050442200	55,346
24	13	400	600	1	050442400	55,712
25	13	400	600	1	050442500	62,352
26	13	400	600	1	050442600	65,557
28	13	400	600	1	050442800	77,343
30	13	400	600	1	050443000	88,141
32	13	400	600	1	050443200	106,722

Confezione / *Packaging*



Applicazioni / *Applications*



- Per forature di travi in legno. Foratura precisa e veloce grazie al centrino autoavvitante ed alla grande capacità di evacuazione dei trucioli.
- For drilling wood beams and plankings
- Percage en tous les bois, poutre de bois.
- Para taladrar vigas de madera.
- Für präzise Bohren in Weich und Hartholz, Leimbinder sowie für Stir-Holz.



05240300

Cassetta in legno o in metallo
Metal or wooden case

7 pcs ⬡
L = 300 mm
Ø 8-10-12-14-16-18-20

05240300 € 179,608



05240301

Cassetta in legno o in metallo
Metal or wooden case

6 pcs ⬡
L = 460 mm
Ø 10-12-14-16-18-20

05240301 € 199,565

PUNTE PER LEGNO PROFESSIONALI A SPIRALE SINGOLA TIPO LEWIS CON GAMBO SDS-PLUS

SDS-PLUS shank auger bits, Lewis type / Mèche à bois Lewis à spirale unique avec queue SDS-PLUS
Broca para madera tipo Lewis con mango SDS-PLUS / Schlangenbohrer Lewis für Holz mit SDS-PLUS Kegel







Art. 05037 L=235 mm

Ø mm	/	L	pcs	cod.	€ cad/each
8	160	235	1	050370800	8,349
10	160	235	1	050371000	9,823
12	160	235	1	050371200	11,398
14	160	235	1	050371400	12,950
16	160	235	1	050371600	14,347
18	160	235	1	050371800	15,998
20	160	235	1	050372000	18,981
22	160	235	1	050372200	19,879
24	160	235	1	050372400	22,329

Art. 05038 L=460 mm

Ø mm	/	L	pcs	cod.	€ cad/each
8	360	460	1	050380800	15,655
10	360	460	1	050381000	15,909
12	360	460	1	050381200	18,427
14	360	460	1	050381400	21,908
16	360	460	1	050381600	24,957
18	360	460	1	050381800	29,458
20	360	460	1	050382000	32,984
22	360	460	1	050382200	35,157
24	360	460	1	050382400	38,073



05240307

Cassetta in legno o in metallo
Metal or wooden case

7 pcs SDS-PLUS
L = 235 mm
Ø 8-10-12-14-16-18-20 mm

05240307 € 186,260



05240308

Cassetta in legno o in metallo
Metal or wooden case

6 pcs SDS-PLUS
L = 460 mm
Ø 10-12-14-16-18-20 mm

05240308 € 203,855

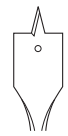
MECCHIE PIATTE PER LEGNO, CODOLO ESAGONALE

Hexagonal shank wood spade bits / Mèche à bois plate
Broca plana para madera / Flach Zentrums Bohrer

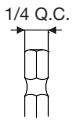
W.S.

05045





HRC ≅ 48÷50



Art. **05047** Self
Disponibile su richiesta
On demand

Confezione / *Packaging*



Applicazioni / *Applications*



Serie corta - *Short serie*

Ø mm	d ⬡	L	pcs	cod.	€ cad/each
6	6,35	150	5	050450600	2,617
8	6,35	150	5	050450800	2,617
9	6,35	150	5	050450900	2,639
10	6,35	150	5	050451000	2,639
11	6,35	150	5	050451100	2,672
12	6,35	150	5	050451200	2,672
13	6,35	150	5	050451300	2,827
14	6,35	150	5	050451400	2,827
15	6,35	150	5	050451500	2,916
16	6,35	150	5	050451600	2,916
18	6,35	150	5	050451800	3,127
19	6,35	150	5	050451900	3,237
20	6,35	150	5	050452000	3,237
22	6,35	150	5	050452200	3,680
24	6,35	150	5	050452400	3,969
25	6,35	150	5	050452500	4,147
26	6,35	160	5	050452600	4,468
28	6,35	160	5	050452800	4,657
30	6,35	160	5	050453000	4,934
32	6,35	160	5	050453200	5,177
34	6,35	160	5	050453400	5,920
35	6,35	160	5	050453500	6,142
36	6,35	160	5	050453600	6,142
38	6,35	160	5	050453800	6,264
40	6,35	160	5	050454000	6,486



6 pcs
Ø 10-12-16 -18
20-25 mm

05055100 € 17,663

PROLUNGA PER MECCHIE L = 300 MM

Spade bit extension

05046



Confezione
Packaging



Ø mm	d ⬡	L	pcs	cod.	€ cad/each
13	6,35	300	1	05046	17,750

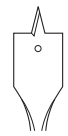
MECCHIE PIATTE PER LEGNO, CODOLO ESAGONALE

Hexagonal shank wood spade bits / Mèche à bois plate
Broca plana para madera / Flach Zentrums Bohrer

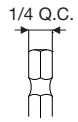
Serie lunga - L=400 mm *Long serie*

05048





HRC ≅ 48÷50



Ø mm	d ⬡	L	pcs	cod.	€ cad/each
*6	4,50	400	5	050480600	8,349
8	6,35	400	5	050480800	9,346
10	6,35	400	5	050481000	9,746
12	6,35	400	5	050481200	11,176
14	6,35	400	5	050481400	12,174
16	6,35	400	5	050481600	12,750
18	6,35	400	5	050481800	13,016
20	6,35	400	5	050482000	13,426
22	6,35	400	5	050482200	13,860
24	6,35	400	5	050482400	14,147
25	6,35	400	5	050482500	14,546
26	6,35	400	5	050482600	15,578
28	6,35	400	5	050482800	15,578
30	6,35	400	5	050483000	16,264
32	6,35	400	5	050483200	16,696
34	6,35	400	5	050483400	17,007
35	6,35	400	5	050483500	17,683
36	6,35	400	5	050483600	18,094
38	6,35	400	5	050483800	18,404
40	6,35	400	5	050484000	19,102

*Attacco esagonale / *Hexagonal shank*

Confezione / *Packaging*



Applicazioni / *Applications*



- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso.
- For drilling wood - Pour percer les bois
- Para taladrar madera - Zum Bohren in Holz

MECCHIE REGOLABILI PER LEGNO

Espansive wood bit / Mèche à bois extensible
Barrena extensible para madera / Holzbohrer-Verstellbar

W.S.

05050

Ø min-max mm	d ⬡	pcs	cod.	€ cad/each
Ø **14,5 ÷ 45**	10	1	0505001	22,485
Ø **23 ÷ 75**	10	1	0505002	27,462

Ricambi / *Spare parts*

Ø **14,5 ÷ 45**	(2pcs)	1	0505011	5,388
Ø **23 ÷ 75**	(2pcs)	1	0505012	6,064



Art. **05051** Self
Disponibile su richiesta
On demand

Confezione
Packaging



Applicazioni / Applications



- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso.
- For drilling wood - Pour percer les bois
- Para taladrar madera - Zum Bohren in Holz

FRESE TIPO FORSTNER A DUE TAGLIENTI CON PUNTA DA CENTRO ED INCISORI PER FORI NEL LEGNO

Wood center bits, Forstner type / Mèche à faconner
Broca Forstner / Forstnerbohrer

~ DIN 7483

05063





W.S.
HRC ≅ 48÷50

Confezione Packaging



Applicazioni / Applications



- Legno dolce e derivati
- Mild wood
- Bois
- Madera
- Leichtholz

Art. 05063

Ø mm	d	L	pcs	cod.	€ cad/each
10	10	90	1	050631000	6,874
12	10	90	1	050631200	6,874
14	10	90	1	050631400	8,792
15	10	90	1	050631500	8,792
16	10	90	1	050631600	9,734
17	10	90	1	050631700	9,923
18	10	90	1	050631800	9,923
20	10	90	1	050632000	10,865
22	10	90	1	050632200	11,487
24	10	90	1	050632400	11,996
25	10	90	1	050632500	12,340
26	10	90	1	050632600	12,772
28	10	90	1	050632800	16,796
30	10	90	1	050633000	18,781
32	10	90	1	050633200	20,323
34	10	90	1	050633400	21,087
35	10	90	1	050633500	21,087
36	10	90	1	050633600	22,661
38	10	90	1	050633800	25,057
40	10	100	1	050634000	26,442
45	13	100	1	050634500	30,268
50	13	100	1	050635000	34,369



5 pcs
Ø 15-20-25-30-35 mm
05100600 € 71,955

~ DIN 7483

05067





W.S.
HRC ≅ 55

Confezione Packaging



Art. 05067

Ø mm	d	L	pcs	cod.	€ cad/each
15	8	90	1	050671500	17,894
18	8	90	1	050671800	18,127
20	8	90	1	050672000	19,646
22	8	90	1	050672200	20,012
24	8	90	1	050672400	20,212
25	8	90	1	050672500	20,212
26	8	90	1	050672600	20,212
28	8	90	1	050672800	20,389
30	8	90	1	050673000	20,389
35	10	90	1	050673500	20,910
40	10	90	1	050674000	23,183
45	10	90	1	050674500	25,301
48	10	90	1	050674800	25,301
50	10	90	1	050675000	29,481



5 pcs
Ø 15-20-25-30-35 mm
05100605 € 83,939

H.M. ~ DIN 7483

05065





Metallo duro
Carbide tip

Confezione Packaging



Art. 05065 - Metallo duro - *carbide*

Ø mm	d	L	pcs	cod.	€ cad/each
15	8	90	1	050651500	30,279
20	8	90	1	050652000	32,474
25	8	90	1	050652500	34,624
26	8	90	1	050652600	36,808
30	8	90	1	050653000	38,948
35	10	90	1	050653500	41,122

Applicazioni / Applications



- Legno duro e derivati
- Tough wood - Bois dur
- Madera duro - Hartholz

FRESE PER CERNIERE INVISIBILI

Wood center bits / Mèche pour charnière invisible
Barrena para madera / Scharnier Lochbohrer

Art. 05058 - *Acciaio W.S. - WS Steel*

Ø mm	d	L	pcs	cod.	€ cad/each
26	8	55	1	050582600	8,182
30	8	55	1	050583000	9,357
35	10	60	1	050583500	10,521

Art. 05060 - *Metallo duro H.M. - Carbide edges*

Ø mm	d	L	pcs	cod.	€ cad/each
26	8	55	1	050602600	31,232
30	8	55	1	050603000	33,671
35	10	60	1	050603500	34,436

05058
05060



Confezione Packaging



FRESE PER TASSELLI

Tenon dowel plug cutters / Fraises pour goujions
Fresas para cuñas / Scheibenschneider-zapfenfräser

DIN 7489 W.S.

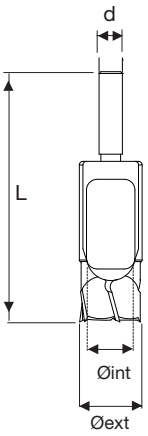
Ø int mm	Ø ext mm	n.taglienti	d	L	pcs	cod.	€ cad/each
8	**17,5**	4	11	140	1	050770800	34,331
10	**20,5**	4	11	140	1	050771000	38,101
12	**23,5**	4	13	140	1	050771200	41,955
15	**26,5**	4	13	140	1	050771500	47,694
16	**28**	4	13	140	1	050771600	49,579
20	**32**	4	13	140	1	050772000	57,194
22	**34**	5	13	140	1	050772200	61,048
25	**37**	5	13	140	1	050772500	66,787
26	**38**	5	13	140	1	050772600	68,672
30	**42**	5	13	140	1	050773000	76,446
35	**47**	6	16	160	1	050773500	85,616
40	**52**	6	16	160	1	050774000	95,812

05077



Confezione Packaging





TRIVELLINO PROFESSIONALE PER LEGNO

Two flute gimlet / Vrille professionnel

Ø mm	L	pcs	cod.	€ cad/each
2		1	050760200	2,939
3		1	050760300	3,037
4		1	050760400	3,481

Ø mm	L	pcs	cod.	€ cad/each
5		1	050760500	4,734
6		1	050760600	6,897
7		1	050760700	6,897

05076 NEW



SVASATORE 90° PER LEGNO

90°Wood countersink / Fraise à ébavurer pour bois
Avellanadores para madera / Senker für Holz

05440

Art. 05440 - *W.S.*

Ø mm	d	L	pcs	cod.	€ cad/each
8	8	50	1	05440500800	4,679
10	6	50	1	05440501000	5,111
12	8	50	1	05440501200	5,299
16	8	50	1	05440501600	5,832
20	8	50	1	05440502000	6,453





Confezione Packaging



Art. **05442** Self
Disponibile su richiesta
On demand

Applicazioni / Applications



- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso.
- For drilling wood - Pour percer les bois
- Para taladrar madera - Zum Bohren in Holz

FRESA A 90° PER LEGNO

90° milling cutters / Fraise a 90° pour bois / Fresas de avellanar para madera / Aufstecksenker

05070 05072

05072 **05070**



Confezione Packaging



Art. 05072

Ø mm	D	L	pcs	cod.	€ cad/each
3	16	25	1	050720300	9,854
4	16	25	1	050720400	9,854
5	16	25	1	050720500	9,952
6	16	25	1	050720600	10,146
7	16	25	1	050720700	10,378
8	20	25	1	050720800	11,646
10	20	25	1	050721000	12,187
12	20	25	1	050721200	13,474

Art. 05070

Ø mm	D	L	pcs	cod.	€ cad/each
3	16	25	1	050700300	9,526
4	16	25	1	050700400	9,526
5	16	25	1	050700500	9,526
6	16	25	1	050700600	9,526
7	16	25	1	050700700	9,526
8	20	25	1	050700800	9,526
9	20	25	1	050700900	9,526
10	20	25	1	050701000	9,526
11	20	25	1	050701100	9,526
12	20	25	1	050701200	9,526



4 pcs
Ø 4-5-6-8 mm
05010200 € 39,570

5 pcs
Ø 4-5-6-8-10 mm
05010205 € 45,568

PUNTA FRESA UNIVERSALE PER FORATURA O FRESATURA DI LEGNO SOTTILE

Universal milling drill for cutting and milling thin wooden materials

05432

CV



ØxL mm	pcs	cod.	€ cad/each
6 x 90	1	05432120	3,836

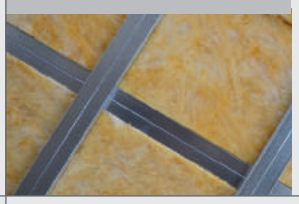
Applicazioni / Applications



- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso.
- For drilling wood - Pour percer les bois
- Para taladrar madera - Zum Bohren in Holz

UTENSILI PER MACCHINE AD OSCILLAZIONE *Tools for oscillating machines*

Di seguito una breve guida alla scelta dell'utensile in funzione della tipologia di lavoro da effettuare
Below is a brief guide to the choice of tool depending on the type of work to be carried out

Rif. Bosch	Pavimento *Floor* 	Costruzioni *Buildings* 	Automotive 	Superfici piastrellate *Tiled surfaces* 
ASZ32SC	Materiali flessibili *Flexible materials*	Materiali isolanti *Insulating materials*		
ATZ52SC	Residui di moquette e colla *Residues of carpet and glue*			Malta per piastrelle *Tile mortar*
AVZ93G	Legno dolce, legno duro, parquet, vernici e pitture *Softwood, hardwood, parquet, paints* Compensato, truciolato, laminato, pannelli rivestiti in plastica, materiali plastici teneri *Plywood, chipboard, laminate, plastic coated panels, soft plastics*		Compositi *Composites* Profili in metalli non ferrosi, lamiere fino a 1 mm *Profiles in non-ferrous metals, sheets up to 1 mm*	
AIZ32BSPB	Legno duro, compensato, truciolato, parquet, laminato, pannelli rivestiti in plastica *Hardwood, plywood, chipboard, parquet, laminate, plastic coated panels* Legno dolce, materiali plastici teneri *Soft wood, soft plastic materials*	Cartongesso, materiali stratificati *Drywall, laminated materials*	Compositi *Composites*	
AIZ32BSPC	Legno dolce *Softwood* Legno duro, compensato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, parquet, plastic-coated panels, soft plastics*			
AII65BSPC	Legno dolce *Softwood* Legno duro, compensato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, parquet, plastic-coated panels, soft plastics*			
AIZ32EPC	Legno dolce *Softwood* Legno duro, compensato, truciolato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, chipboard, parquet, plastic-coated panels, soft plastics*			
ACZ85EB	Legno dolce *Softwood* Legno duro, compensato, truciolato, parquet, laminato, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, chipboard, parquet, laminate, plastic coated panels, soft plastics*	Materiali stratificati *Multilayer materials* Cartongesso, pannelli in fibra e cemento *Drywall, fiber and cement panels*	Profili in metallo non ferrosi, chiodi e viti non temprati *Non-ferrous metal profiles, nails and screws not hardened* Compositi, Lamiere fino a 1 mm *Composites, sheets up to 1 mm*	Materiale sigillante *Sealing material*
AIZ20AB	Legno duro, compensato, truciolato, laminato, pannelli rivestiti in plastica *Hardwood, plywood, chipboard, laminate, plastic coated panels* Parquet, materiali teneri *Parquet, soft materials*	Cartongesso *Drywall* Materiali stratificati, pannelli in fibra e cemento *Laminated materials, fiber and cement panels*	Profili in metalli non ferrosi, lamiere fino a 1 mm, chiodi e viti non temprati *Profiles in non-ferrous metals, sheets up to 1 mm, nails and screws not hardened* Compositi *Composites*	
AIZ32APB	Legno duro, compensato, truciolato, laminato, pannelli rivestiti in plastica *Hardwood, plywood, chipboard, laminate, plastic coated panels* Parquet, materiali plastici teneri *Parquet, soft plastics*	Materiali stratificati *Multilayer materials* Cartongesso, pannelli in fibra e cemento *Drywall, fiber and cement panels*	Lamiere fino a 1 mm, chiodi e viti non temprati *Plates up to 1 mm, nails and screws not hardened* Compositi, profili in metalli non ferrosi *Composites, profiles in non-ferrous metals*	
AII65APB	Legno dolce *Softwood* Legno duro, compensato, truciolato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Hardwood, plywood, chipboard, parquet, plastic-coated panels, soft plastics*			
AIZ32AB	Legno dolce, legno duro, compensato, truciolato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Softwood, hardwood, plywood, chipboard, parquet, plastic-coated panels, soft plastics*	Cartongesso. *Drywall* Materiali stratificati, pannelli in fibra e cemento *Laminated materials, fiber and cement panels*	Profili in metalli non ferrosi, lamiere fino a 1 mm, chiodi e viti non temprati *Profiles in non-ferrous metals, sheets up to 1 mm, nails and screws not hardened* Compositi. *Composites*	
AIZ20AT	Legno dolce, legno duro, compensato, truciolato, parquet, pannelli rivestiti in plastica, materiali plastici teneri *Softwood, hardwood, plywood, chipboard, parquet, plastic-coated panels, soft plastics*	Cartongesso, pannelli in fibra e cemento *Drywall, fiber and cement panels* Materiali stratificati *Mulitlayers*	Compositi, profili in metalli non ferrosi, lamiere fino a 1 mm, chiodi e viti temprati e non. *Composites, profiles in non-ferrous metals, sheets up to 1 mm, hardened and nails and screws*	Calcestruzzo poroso *Porous concrete*
ACZ85RT3		Pannelli in fibra e cemento *Fiber and cement panels* Cartongesso *Drywall*	Compositi *Composites*	Malta per fughe (2-3 mm), malta per piastrelle. *Mortar for joints (2-3 mm), grout for tiles* Piastrelle da parete tenere. *Wall tiles*
AVZ70RT4	Residui di moquette e colla *Residues of carpet and glue*	Pannelli in fibra e cemento *Fiber and cement panels* Cartongesso *Drywall*	Compositi *Composites*	Malta per fughe (2-3 mm), malta per piastrelle. *Mortar for joints (2-3 mm), grout for tiles* Piastrelle da parete tenere *Wall tiles*
AVZ78RT2		Pannelli in legno *Wood panels*		Malta per fughe (2-3 mm), malta per piastrelle. *Mortar for joints (2-3 mm), grout for tiles* Piastrelle da parete tenere *Wall tiles*

In nero le applicazioni ottimali, in blu le applicazioni adatte
The recommended applications in black, the basic applications in blue color.

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ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE

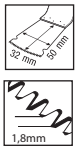
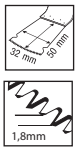
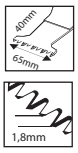
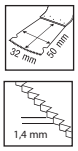
Accessories for multi-function oscillating tools / Accessoires pour outils oscillants multifonctions
Accesorios para herramientas oscilantes multifunción

23405

NEW

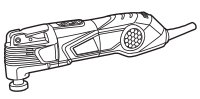
Attacco Starlock®
Starlock® tools

LEGNO - *Wood*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni *Dimensions*	Caratteristiche *Features*	Impieghi *Applications*
23405100  € 23,856	AIZ32BSPB	Bimetal Curved TECH		long LIFE clean CUT Precise	 Legno duro, multistrato, plastica Hard wood, plywood, plastic. *Bois franc, multicouche, plastique* *Madera dura, multicapa, plástico.*
23405105  € 18,432	AIZ32BSPC	HCS Curved TECH		clean CUT Precise	 Legno dolce, multistrato, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Soft wood, plywood, plastic (eg center cut in massive wood for mounting an aeration grid). Bois résineux, contreplaqué, plastique (par exemple coupe en bois massif pour le montage d'une grille d'aération).* *Madera blanda, madera contrachapada, plástico (por ejemplo, corte central en madera maciza para montar una rejilla de aireación).*
23405110  € 22,992	AII65BSPC Flat Konvex	HCS Curved TECH		clean CUT Precise	 Legno dolce, multistrato, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Soft wood, plywood, plastic (eg center cut in massive wood for mounting an aeration grid). Bois résineux, contreplaqué, plastique (par exemple coupe en bois massif pour le montage d'une grille d'aération). Madera blanda, madera contrachapada, plástico (por ejemplo, corte central en madera maciza para montar una rejilla de aireación)*
23405115  € 18,432	AIZ32EPC	HCS Curved TECH		Precise	 Legno dolce, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Soft wood, plastic (eg center cut in massive wood for mounting an aeration grid). Bois résineux, plastique (par exemple coupe en bois massif pour le montage d'une grille d'aération). Madera blanda, plástico (por ejemplo, corte central en madera maciza para montar una rejilla de aireación)*

Confezione / Packaging





Per macchine multifunzione
To fit multipurpose machines
Starlock, Starlock Plus, Starlock Max, Milwaukee, Fein, Craftsman, Ridgid, Einhell, Westfalia, Chicago Electric, (®)... Dremel, Dewalt, B&D, Porter Cable, Rockwell, Worx, Multi2pro, Mastercraft (®) con adattatore/with adapter...

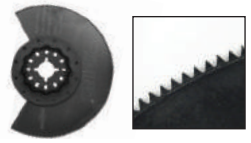
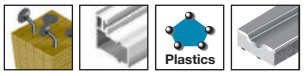
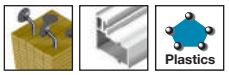
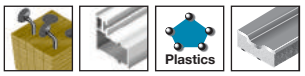
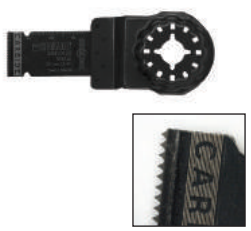
Tabella di comparazione / *Choosing chart*

Codice Bosch *Bosch code*	Codice Krino *Krino code*	Codice Bosch *Bosch code*	Codice Krino *Krino code*
ACZ85EB	23410100	AIZ32BSPB	23410100
ACZ85RT3	23415100	AIZ32BSPC	23415100
AII65APB	23410115	AIZ32EPC	23410115
AII65BSPC	23405110	ASZ32SC	23405110
AIZ20AB	23410105	ATZ52SC	23410105
AIZ20AT	23410125	AVZ70RT4	23410125
AIZ32AB	23410120	AVZ78RT2	23410120
AIZ32APB	23410110	AVZ93G	23410110

ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE

Accessories for multi-function oscillating tools / Accessoires pour outils oscillants multifonctions
Accesorios para herramientas oscilantes multifunción

23410 NEW Attacco Starlock® *Starlock® tools* LEGNO, METALLO, PLASTICHE - *Wood, metal, plastics*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni *Dimensions*	Caratteristiche *Features*	Impieghi *Applications*
23410100  € 31,396	ACZ85EB	BIM		long LIFE	 Parquet, multistrato s<20 mm, plastica epossidica. Tagli troncati e tagli dal centro, anche per tagli vicino ai bordi, negli angoli e in settori difficilmente accessibili (es. tagli di zoccolini già montati oppure telai delle porte). *Parquet, plywood s <20 mm, epoxy plastic. Truncated cuts and cuts from the center, also for cuts near the edges, in the corners and in sectors that are difficult to access (eg cuts of assembled skirting boards or door frames).*
23410105  € 14,016	AIZ20AB	Bimetal	 	long LIFE	 Legno con chiodi, legno duro, cartongesso, plastica epossidica, sandwich isolanti (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, hardwood, plasterboard, epoxy plastic, insulating sandwiches (eg door frame cuts, paneled cuts, non-ferrous pipe cuts and small profiles).*
23410110  € 23,856	AIZ32APB	Bimetal Curved TECH	 	long LIFE Precise	 Legno con chiodi, legno duro, sandwich isolanti, alluminio, plastica epossidica (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, hardwood, insulating sandwich, aluminum, epoxy plastic (eg cuts of door frames, cuts in coated panels, pipe cuts in non-ferrous material and small profiles). Bois avec clous, bois dur, sandwich isolant, aluminium, plastique époxy (par ex. coupes de cadres de portes, découpes de panneaux revêtus, coupes de tuyaux en matériaux non ferreux et petits profilés). Madera con clavos, madera dura, sándwich aislante, aluminio, plástico epoxi (por ejemplo, cortes de marcos de puertas, cortes en paneles revestidos, cortes de tuberías en materiales no ferrosos y perfiles pequeños).*
23410115  € 29,234	AII65APB Flat	Bimetal Curved TECH	 	long LIFE Precise	 Legno con chiodi, legno duro, sandwich isolanti, plastica epossidica (es. tagli di telai di porte, aperture per un ripiano). *Wood with nails, hardwood, insulating sandwiches, epoxy plastic (eg cuts of door frames, openings for a shelf). Bois avec clous, bois franc, sandwichs isolants, plastique époxy (par exemple coupes de cadres de portes, ouvertures pour une étagère). Madera con clavos, madera dura, sándwiches aislantes, plástico epoxi (por ejemplo, cortes de marcos de puertas, aberturas para un estante).*
23410120  € 21,216	AIZ32AB	BIM	 	long LIFE	 Legno con chiodi, alluminio, plastica epossidica, sandwich isolanti (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, aluminum, epoxy plastic, insulating sandwiches (eg cuts of door frames, cuts in coated panels, pipe cuts in non-ferrous material and small profiles). Bois avec clous, aluminium, plastique époxy, sandwichs isolants (par exemple coupes de cadres de portes, coupes de panneaux revêtus, coupes de tuyaux en matériaux non ferreux et petits profilés). Madera con clavos, aluminio, plástico epoxi, sándwiches aislantes (por ejemplo, cortes de marcos de puertas, cortes en paneles revestidos, cortes de tuberías en materiales no ferrosos y perfiles pequeños).*
23410125  € 32,101	AIZ20AT	TC/HM	 	extra long LIFE	 Legno con chiodi, metallo con HRC 40÷50, acciaio inox, polimeri rinforzati con fibre. *Wood with nails, metal with HRC 40 ÷ 50, stainless steel, polymers reinforced with fibers. Bois avec clous, métal avec HRC 40 ÷ 50, acier inoxydable, polymères renforcés avec des fibres. Madera con clavos, metal con HRC 40 ÷ 50, acero inoxidable, polímeros reforzados con fibras.*

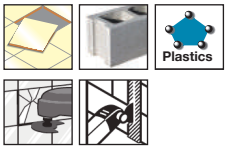
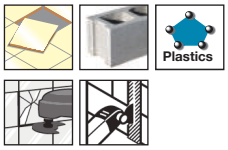
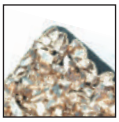
High Quality professional

ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE

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23415 NEW **Attacco Starlock®** *Starlock® tools*

MATERIALI ABRASIVI - *abrasives*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni *Dimensions*	Caratteristiche *Features*	Impieghi *Applications*
23415100   € 44,390	ACZ85RT3	TC/HM	 		 Mattoni e cemento, piastrelle, plastica epossidica (es. rimuovere fughe tra piastrelle, tagliare cavità in piastrelle, pannelli di gesso o plastiche rinforzate). *Bricks and cement, tiles, epoxy plastics (eg removing joints between tiles, cutting tile cavities, gypsum boards or reinforced plastics). Briques et ciment, carreaux, plastiques époxydes (par ex. Enlever les joints entre les carreaux, découper les cavités des carreaux, les panneaux de gypse ou les plastiques renforcés). Ladrillos y cemento, baldosas, plásticos epoxídicos (por ejemplo, eliminación de juntas entre baldosas, corte de cavidades de baldosas, paneles de yeso o plásticos reforzados.*
23415105   € 62,330	AVZ70RT4	TC/HM	 		 Mattoni e cemento, piastrelle, plastica epossidica (es. rimozione di colla per piastrelle e malta per fughe, raspatura e levigatura di superfici dure). *Bricks and cement, tiles, epoxy plastic (eg tile glue and grout removal, buffing and sanding of hard surfaces). Briques et ciment, tuiles, plastique époxy (p. Ex. Enlèvement de la colle à carrelage et du coulis, polissage et ponçage des surfaces dures). Ladrillos y cemento, baldosas, plástico epoxi (por ejemplo, eliminación de pegamento y lechada, pulido y lijado de superficies duras).*
23415115   € 36,049	AVZ78RT2	TC/HM	 		 Malta, residui di calcestruzzo, legno, materiali abrasivi (es. rimozione di malta o colla per piastrelle, rimozione di residui di colla per moquette). *Mortar, residues of concrete, wood, abrasive materials (eg removal of mortar or tile adhesive, removal of residues of glue for carpet). Mortier, résidus de béton, bois, matériaux abrasifs (par ex. Enlèvement de mortier ou colle à carrelage, enlèvement de résidus de colle pour tapis). Mortero, residuos de hormigón, madera, materiales abrasivos (por ejemplo, eliminación de adhesivo de mortero o baldosas, eliminación de residuos de pegamento para alfombras).*

Kit per piastrelle
Tile set



23430100
€ 78,792

4 pcs

Art. 23415100
Art. 23400105
Art. 23415115
Art. 23410105

Kit per pavimenti e installazioni
Flooring set



23430101
€ 60,354

4 pcs

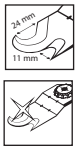
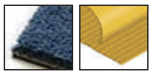
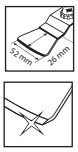
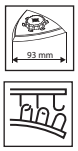
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Art. 23400105
Art. 23405115
Art. 23405100

ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE

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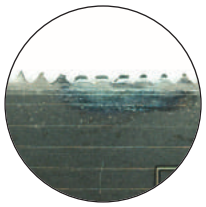
23400 NEW Attacco Starlock® *Starlock® tools*

MULTIMATERIALE - *multitasking*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni *Dimensions*	Caratteristiche *Features*	Impieghi *Applications*
23400100  € 30,127	ASZ32SC	HCS Lama (Multi knife)		long LIFE	 Moquette, tappeti, carta catramata, prato sintetico, cartone, tutti i materiali teneri e abrasivi flessibili. *Carpet, tar paper, synthetic grass, cardboard, all soft materials and flexible abrasives.* *Tapis, papier goudronné, gazon synthétique, carton, tous matériaux mous et abrasifs flexibles.* *Alfombras, papel alquitranado, hierba sintética, cartón, todos los materiales blandos y abrasivos flexibles.*
23400105  € 14,016	ATZ52SC	HCS Raschietto (Rigid scraper)			 Moquette, malta, calcestruzzo, colla per piastrelle. *Carpet, mortar, concrete, tile adhesive.* *Tapis, mortier, béton, colle à carrelage.* *Alfombra, mortero, hormigón, adhesivo para azulejos.*
23400110  € 16,560	AVZ93G	Platorello per carte abrasive (Sanding Plate for delta sanding paper)			 Levigatura di superfici piane sui bordi, negli angoli o in settori difficilmente accessibili (es. levigare legno, pittura, vernice, pietra, disossidare metalli, asportare vernici). *Sanding flat surfaces on edges, corners or in sectors that are difficult to access (eg sanding wood, painting, varnish, stone, deoxidising metals, removing varnishes).* *Ponçage des surfaces planes sur les bords, les coins ou dans des secteurs difficiles d'accès (par ex. Ponçage du bois, peinture, vernis, pierre, désoxydation des métaux, enlèvement des vernis).* *Lijado de superficies planas en bordes, esquinas o en sectores de difícil acceso (por ejemplo, lijado de madera, pintura, barniz, piedra, metales desoxidantes, eliminación de barnices).*

GUIDA ALL'USO DEGLI UTENSILI PER MACCHINE AD OSCILLAZIONE

Guide to the use of tools for oscillating machines / Guide d'utilisation des outils pour machines oscillantes
Guía de uso de herramientas para máquinas oscilantes



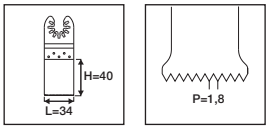
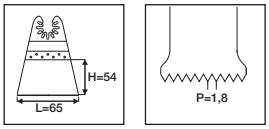
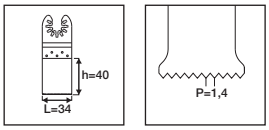
Si raccomanda l'uso delle lame per utensili multifunzione con una lieve pressione. La dentatura è appositamente studiata per fornire un'operazione di taglio senza sforzo e con ottima finitura. Nel caso si esercitasse una pressione eccessiva il prodotto potrebbe perdere prematuramente il filo tagliente oppure potrebbe surriscaldarsi eccessivamente, perdendo di conseguenza capacità tagliente
The use of oscillating tools with light pressure is recommended. The tooth set is specially designed to provide a cutting operation effortlessly and with excellent finish. If excessive pressure is exerted, the product may prematurely lose the cutting edge or it may overheat excessively, thus losing its cutting capacity.
L'utilisation de lames multi-outils avec une légère pression est recommandée. La denture est spécialement conçue pour permettre une opération de coupe sans effort et avec une excellente finition. Si une pression excessive est exercée, le produit risque de perdre prématurément le tranchant ou de surchauffer excessivement, perdant ainsi sa capacité de coupe.
Se recomienda el uso de cuchillas multiherramientas con ligera presión. El dentado está especialmente diseñado para proporcionar una operación de corte sin esfuerzo y con un excelente acabado. Si se ejerce una presión excesiva, el producto puede perder prematuramente el filo de corte o puede sobrecalentarse excesivamente, perdiendo así su capacidad de corte.

ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE UNIVERSAL QUICK CHANGE

Universal Quick Change accessories for multi-function oscillating tools / Accessoires pour outils oscillants multifonctions Universal Quick Change
Accesorios para herramientas oscilantes multifunción Universal Quick Change

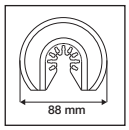
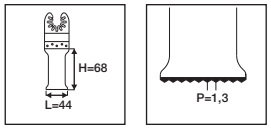
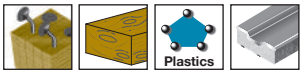
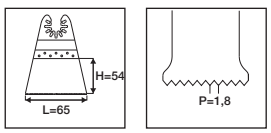
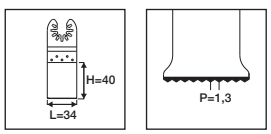
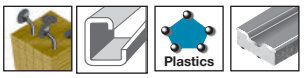
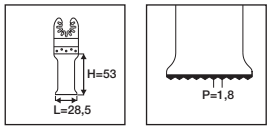
23505 NEW

LEGNO - *Wood*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni (mm) *Dimensions*	Impieghi *Applications*
23505105  € 6,752	≈AIZ32BSPC	HCS		 Legno dolce, multistrato, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Softwood, plywood, plastic (eg center cut in massive wood for mounting an aeration grid).*
23505110  € 7,385	≈AII65BSPC	HCS		 Legno dolce, multistrato, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Softwood, multilayer, plastic (eg center-cut in massive wood for mounting an aeration grid).*
23505115  € 5,346	≈AIZ32EPC	HCS		 Legno dolce, plastica (es. taglio dal centro in legno massivo per montaggio di una griglia di aerazione). *Softwood, plastic (eg cut from the center in massive wood to fit an aeration grid).*

23510 NEW

LEGNO, METALLO, PLASTICHE - *Wood, metal, plastics*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni (mm) *Dimensions*	Impieghi *Applications*
23510100  € 15,017	≈ACZ85EB	BIM		 Parquet, multistrato s<20 mm, plastica epossidica. Tagli troncati e tagli dal centro, anche per tagli vicino ai bordi, negli angoli e in settori difficilmente accessibili (es. tagli di zoccolini già montati oppure telai delle porte). *Parquet, multilayer s <20 mm, epoxy plastic. Truncated cuts and cuts from the center, also for cuts near the edges, in the corners and in sectors that are difficult to access (eg cuts of assembled skirting boards or door frames).*
23510105  € 9,925	≈AIZ20AB	BIM		 Legno con chiodi, legno duro, cartongesso, plastica epossidica, sandwich isolanti (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, hardwood, plasterboard, epoxy plastics, insulating sandwiches (eg cuts of door frames, cuts in coated panels, pipe cuts in non-ferrous material and small profiles).*
23510115  € 6,999	≈AII65APB	HCS		 Legno dolce, plastica. *Soft wood, plastics.*
23510120  € 9,038	≈AIZ32AB	BIM		 Legno con chiodi, alluminio, plastica epossidica, sandwich isolanti (es. tagli di telai di porte, tagli in pannelli rivestiti, tagli di tubi in materiale non ferroso e profili di piccole dimensioni). *Wood with nails, aluminum, epoxy plastic, insulating sandwiches (eg cuts of door frames, cuts in coated panels, pipe cuts in non-ferrous material and small profiles).*
23510125  € 9,003	≈AIZ32BSPB	BIM		 Legno duro, multistrato, plastica. *Hardwood, multilayer, plastic.*

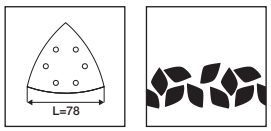
Confezione / Packaging 

ACCESSORI PER UTENSILI MULTIFUNZIONE AD OSCILLAZIONE UNIVERSAL QUICK CHANGE

Universal Quick Change accessories for multi-function oscillating tools / Accessoires pour outils oscillants multifonctions Universal Quick Change
Accesorios para herramientas oscilantes multifunción Universal Quick Change

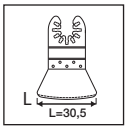
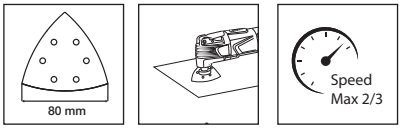
23515 NEW

MATERIALI ABRASIVI - *abrasives*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni (mm) *Dimensions*	Impieghi *Applications*
23515100  € 10,945	≈ACZ85RT3	TC/HM		 Mattoni e cemento, piastrelle, plastica epossidica (es. rimuovere fughe tra piastrelle, tagliare cavità in piastrelle, pannelli di gesso o plastiche rinforzate). *Bricks and cement, tiles, epoxy plastics (eg to remove joints between tiles, cut tile cavities, gypsum boards or reinforced plastics).*
23515105  € 9,925	≈AVZ70RT4	TC/HM		 Mattoni e cemento, piastrelle, plastica epossidica (es. rimozione di colla per piastrelle e malta per fughe, raspatura e levigatura di superfici dure). *Bricks and cement, tiles, epoxy plastics (eg tile glue and grout removal, buffing and sanding of hard surfaces).*

23500 NEW

MULTIMATERIALE - *multitasking*

Cod.	Rif. Bosch	Materiale *Material*	Dimensioni (mm) *Dimensions*	Impieghi *Applications*
23500105  € 4,994	≈ATZ52SC	HCS Raschietto (Rigid scraper)		 Moquette, malta, calcestruzzo, colla per piastrelle. *Carpet, mortar, concrete, tile adhesive.*
23500110  € 5,733	≈AVZ93G	Platorello per carte abrasive (Sanding Plate for delta sanding paper)		Levigatura di superfici piane sui bordi, negli angoli o in settori difficilmente accessibili (es. levigare legno, pittura, vernice, pietra, disossidare metalli, asportare vernici). *Smoothing flat surfaces on edges, in corners or in sectors that are difficult to access (eg sanding wood, painting, varnish, stone, deoxidising metals, removing painting).*

23529 NEW

23529010 
€ 0,640
Adattatore per macchine Dremel®
Adapter to fit Dremel® machine

23529015 
€ 0,640
Adattatore per macchine Bosch® (non Starlock®)
Adapter to fit Bosch® (non Starlock®) machine

23529020 **20 pcs** 
€ 5,922
Carte abrasive per legno/vernici
Abrasive paper for wood/paint

23529025 **20 pcs** 
€ 6,450
Carte abrasive per legno/metallo
Abrasive paper for wood/metal



23530100
€ 33,101

4 pcs

Art. 23505115
Art. 23500105
Art. 23510100
Art. 23500110



23530101
€ 45,572

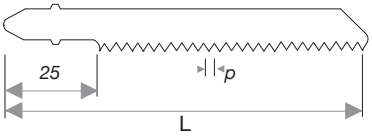
7 pcs

Art. 23510115 Art. 23505115
Art. 23510120 Art. 23500105 Inox
Art. 23515105 Art. 23510100 HCS
Art. 23500110

Professional

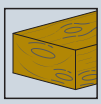
LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BOSCH® PER LEGNO

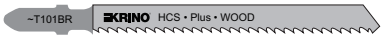
Jig saw blades BOSCH® type for wood and plywood / Lame de scies sauteuses modèle BOSCH® pour bois et dérivés
Hojas de sierra de calar tipo BOSCH® para madera y derivados / Sägeblatt für abwechselnden Metallsägen mit BOSCH®
Verbindungsstück für Holz und Nebenprodukten



23600 NEW

Legno dolce
Mild wood



Cod. € 3 pcs	Simile a *Similar to*	L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
 23600100 € 3,319	≃ T119B	76x2	HCS Fresata *Milled*		<15 <15 <15
 23600105 € 3,319	≃T119BO	76x2	HCS Fresata *Milled*		<15 <15 <15
 23600110 € 2,568	≃ T111C	100x3	HCS Fresata *Milled*		<50 <50 <50 Plastics <5 Ø<30
 23600130 € 4,635	≃ T144D	100x4	HCS Rettificata *Ground*		<50 <50 <50 Plastics <5 Ø<50
 23600135 € 5,010	≃ T244D	100x4	HCS Rettificata *Ground*		<50 <50 <50 Plastics <5 Ø<50
 23600140 € 6,138	≃ T344D	132x4	HCS Rettificata *Ground*		<100 <100
 23600150 € 4,760	≃T101AO	76x1,4	HCS Rettificata *Ground*		<15 <15 <15
 23600155 € 5,699	≃ T101B	100x2,5	HCS Rettificata *Ground*		<30 <30 <30 Plastics <5 Ø<30
 23600160 € 9,645	≃ T101BR	100x2,5	HCS Rettificata *Ground*		<30 <30 <30 <30 Plastics <5 Ø<30

Confezione / Packaging



3pcs



AEG, ATLAS COPCO, BOSCH, DE WALT, ELU, FESTOOL, HITACHI, MAKITA, METABO, HILTI, MAFELL, MILWAUKEE, RYOBI, SKIL,...(®)

Esempio di interpretazione della colonna "Impieghi (mm)":
How to read the "Application (mm)" column:


<50

Idoneo al taglio di legno stratificato dello spessore massimo di 50 mm
Suitable for cutting stratified wood – max thickness 50 mm

Plastics
<5
Ø<50

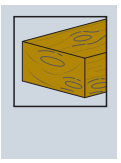
Idoneo al taglio di plastica in lastre con spessori fino a 5 mm e profili con dimensione massima 50 mm
Suitable for cutting plastics sheet (max thickness 5 mm) and plastics pipes / structural (max dimension 50 mm)

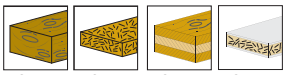
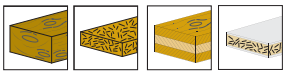
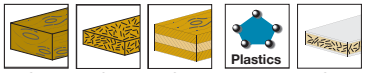
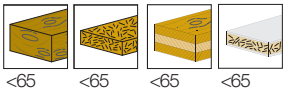
LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BOSCH® PER LEGNO

Jig saw blades BOSCH® type for wood and plywood / Lame de scies sauteuses modèle BOSCH® pour bois et dérivés
Hojas de sierra de calar tipo BOSCH® para madera y derivados / Sägeblatt für abwechselnden Metallsägen mit BOSCH® Verbindungsstück für Holz und Nebenprodukten

23600 NEW

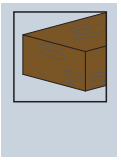
Legno dolce
Mild wood

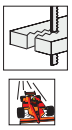
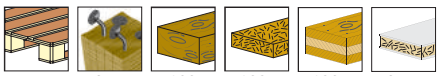
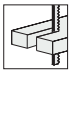
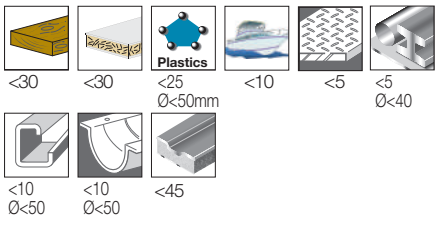
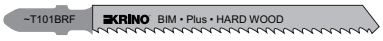
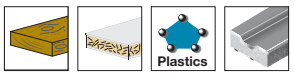
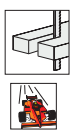


Cod. € 3 pcs	Simile a *Similar to*		L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
						
23600170 € 7,597	≃ T308B	Pro	116x2,2	HCS Rettificata *Ground*		 <65 <65 <65 <65
						
23600175 € 7,597	≃ T308BO	Pro	116x2,2	HCS Rettificata *Ground*		 <65 <65 <65 <65
						
23600180 € 3,006	≃ T144DP	Ultra	100x4	HCS Rettificata *Ground*		 <50 <50 <50 Plastics <5 Ø<30 <50
						
23600190 € 7,597	≃ T234X	Variable	116x2÷3	HCS Rettificata *Ground*		 <65 <65 <65 <65

23610 NEW

Legno duro
Hard wood



Cod. € 3 pcs	Simile a *Similar to*		L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
						
23610105 € 13,885	≃T344DF	Fast	152x4	BIM HSS Rettificata *Ground*		 <65 <100 <100 <100 <65
						
23610120 € 8,768	≃T101BF	Plus	100x2,5	BIM HSS Rettificata *Ground*		 <30 <30 <25 Ø<50mm Plastics <10 <5 <5 Ø<40 <10 Ø<50 <10 Ø<50 <45
						
23610125 € 8,768	≃T101BRF	Reverse	100x2,5	BIM HSS Rettificata *Ground*		 <30 <30 <25 Ø<50m Plastics <45
						
23610140 € 7,904	≃T101BIF	Laminate	82x1,7	BIM HSS Rettificata *Ground*		 <15 <15 <15 Plastics
						
23610150 € 10,397	≃T345XF	Variable	132x2,4÷5	BIM HSS Fresata *Milled*		 <65 <30 Ø<65 Plastics <10 <10 <6 Ø<65 <2

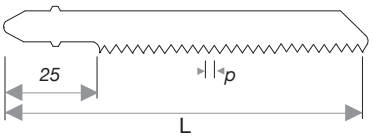
Professional

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BOSCH® PER METALLI

Jig saw blades BOSCH® type for metals /Lame de scies sauteuses modèle BOSCH® pour métaux

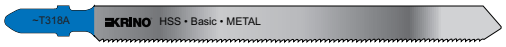
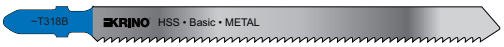
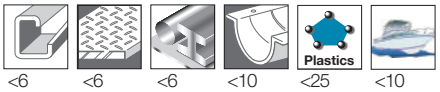
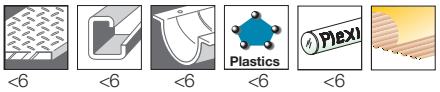
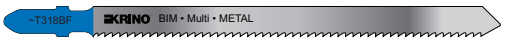
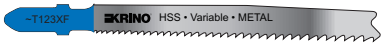
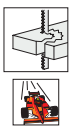
Hojas de sierra de calar tipo BOSCH® para metales / Sägeblatt für abwechselnden Metallsägen mit BOSCH® Verbindungsstück für Metalls

23620 NEW



Metalli *Metals*



Cod. € 3 pcs	Simile a *Similar to*		L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
 23620100 € 4,509	≃ T118G	Basic	76x0,8	HSS Fresata *Milled*		 <1,5 <1,5 <1,5
 23620110 € 4,447	≃ T218A	Basic	76x1,2	HSS Fresata *Milled*		 <3 <3 <3
 23620115 € 7,703	≃ T318A	Basic	132x1,2	HSS Fresata *Milled*		 <65 <3 <3 Ø<65 <3 Ø<65 <3 Ø<65 Plastics <10 Ø<65
 23620125 € 7,891	≃ T318B	Basic	132x2	HSS Fresata *Milled*		 <6 Ø<65 <6 <6 Ø<65 <10 Ø<50 Plastics <25 Ø<65 <10
 23620130 € 7,916	≃T318AF	Multi	132x1,2	BIM HSS Fresata *Milled*		 <65 <6 <6 Ø<65 <6 Ø<65 <6 Ø<65 Plexi <6
 23620150 € 4,509	≃T118BF	Multi	76x2	BIM HSS Fresata *Milled*		 <6 <6 <6 Plastics <6 Plexi <6
 23620155 € 7,916	≃ T318BF	Multi	132x2	BIM HSS Fresata *Milled*		 <65 <6 <6 Ø<65 <6 Ø<65 <6 Ø<65 Plastics <15 Ø<65 Plexi <10
 23620170 € 5,950	≃ T123XF	Variable	100x1,2÷2,6	HSS Fresata *Milled*		 <10 <10 <10 <10 <10
 23620175 € 7,090	≃T118GFS	Inox	82x0,8	BIM HSS Fresata *Milled*		 <1,5
 23620180 € 6,232	≃ T127D	Alu	100x3	HSS Fresata *Milled*		 <15 <15 <15 <15 Ø<30
 23620185 € 4,760	≃T227D	Alu	100x3	HSS Fresata *Milled*		 <15 <15 <15 <15 Ø<30

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BOSCH® **PER APPLICAZIONI SPECIALI**

Jig saw blades BOSCH® type for abrasive materials /Lame de scies sauteuses modèle BOSCH® pour matériaux abrasif
Hojas de sierra de calar tipo BOSCH® para materiales abrasivos / Sägeblatt für abwechselnden Metallsägen mit BOSCH® Verbindungsstück für abrasiven Materialien

23630 NEW

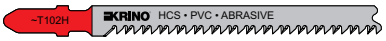
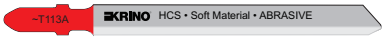
Cod. € 3 pcs	Simile a *Similar to*		L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
						
23630090 € 3,921	≃ T102H	PVC	100x2,3	HCS  Rettificata *Ground*		 <15 Ø<30
						
23630100 € 6,889	≃ T101A	PC	76x1,4	HSS  Rettificata *Ground*		 <15  <15  <15
						
23630130 € 31,666	≃ T341HM	Hard plastics	132x4	 Con inserti in MD *Carbide tip*		 <50  <80  <20
						
23630150 € 10,397	≃ T150RIFF	Grit 50	76 grana 50	 Con grani in MD *Carbide grit*		 <10  <10  <10  <4
						
23630160 € 4,090	≃ T113A	Soft	100	HCS  Rettificata *Ground*		 <50  <10

Tabella di comparazione / *Choosing chart*

Codice Bosch *Bosch code*	Codice Krino *Krino code*	Codice Bosch *Bosch code*	Codice Krino *Krino code*
≈T101A	23630100	≈T144D	23600130
≈T101AO	23600150	≈T144DP	23600180
≈T101B	23600155	≈T150RIFF	23630150
≈T101BF	23610120	≈T218A	23620110
≈T101BIF	23610140	≈T227D	23620185
≈T101BR	23600160	≈T234X	23600190
≈T101BRF	23610125	≈T244D	23600135
≈T102H	23630090	≈T308B	23600170
≈T111C	23600110	≈T308BO	23600175
≈T113A	23630160	≈T318A	23620115
≈T118BF	23620150	≈T318AF	23620130
≈T118G	23620100	≈T318B	23620125
≈T118GFS	23620175	≈T318BF	23620155
≈T119B	23600100	≈T341HM	23630130
≈T119BO	23600105	≈T344D	23600140
≈T123XF	23620170	≈T344DF	23610105
≈T127D	23620180	≈T345XF	23610150

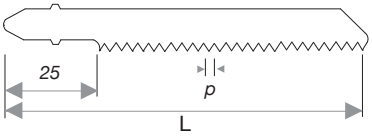
Professional

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BLACK&DECKER® PER LEGNO

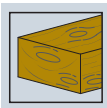
Jig saw blades BOSCH® type for wood and plywood / Lame de scies sauteuses modèle BOSCH® pour bois et dérivés
Hojas de sierra de calar tipo BOSCH® para madera y derivados / Sägeblatt für abwechselnden Metallsägen mit BOSCH®
Verbindungsstück für Holz und Nebenprodukten

23700

NEW



Legno dolce
Mild wood



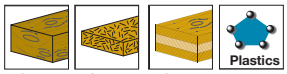
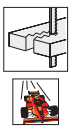
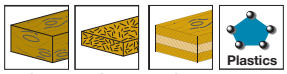
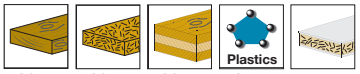
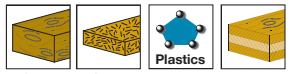
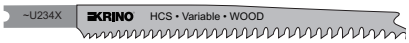
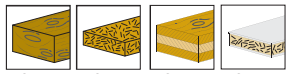
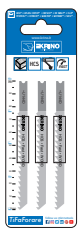
Cod. € 3 pcs	Simile a *Similar to*		L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
 23700100 € 2,568	≃U111C	Basic	100x3			<50 <50 <50 <5 Ø<30
 23700105 € 2,574	≃U111D	Basic	100x4			 <65 <65 <65 <5 Ø<50
 23700110 € 3,119	≃U144D	Fast	100x4			 <50 <50 <50 <5 Ø<30
 23700115 € 5,054	≃ U1AO	Plus	76x1,4			 <15 <15 <15 <15
 23700120 € 5,449	≃U101B	Plus	100x2,5			 <30 <30 <30 <3 Ø<30 <30
 23700125 € 5,449	≃U101D	Plus	100x4			 <45 <45 <5 <45
 23700130 € 8,204	≃U234X	Variable	106x2÷3			 <65 <65 <65 <65

Tabella di comparazione / *Choosing chart*

Codice Bosch *Bosch code*	Codice Krino *Krino code*	Codice Bosch *Bosch code*	Codice Krino *Krino code*
≃U101B	23700120	**≃U118B**	23710105
≃U101D	23700125	**≃U127D**	23710115
≃U111C	23700100	**≃U144D**	23700110
≃U111D	23700105	**≃U1AO**	23700115
≃U118A	23710100	**≃U234X**	23700130

Confezione / *Packaging*



3pcs



BLACK&DECKER, KRESS, RYOBI, SKIL,...(®)

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO BLACK&DECKER® PER METALLO

Jig saw blades BLACK & DECKER® type for metals /Lame de scies sauteuses modèle BLACK & DECKER® pour métaux
Hojas de sierra de calar tipo BLACK & DECKER® para metales / Sägeblatt für abwechselnden Metallsägen mit BLACK & DECKER® Verbindungsstück für Metalls

23710 NEW

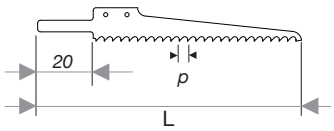
Metalli *Metals*



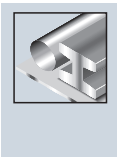
Cod. € 3 pcs	Simile a *Similar to*		L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
 23710100 € 4,948	≃ U118A	Basic	76X1,2	HSS Fresata *Milled*		 <3 <3 <3
 23710105 € 4,948	≃ U118B	Basic	76X2	HSS Fresata *Milled*		 <6 <6 <6
 23710115 € 6,263	≃ U127D	Alu	100X3	HSS Fresata *Milled*		 <15 <15 <15 <15 <30 <30

SEGHETTI BIMETAL CON ATTACCO SPECIALE SIG PER MACCHINE PNEUMATICHE ED ELETTRICHE, SPECIALI PER CARROZZERIA Compressed-air saw blades / Lame de scies a air comprimé / Hojas de sierra de calar para maquinas pneumaticas/ Druckluftsägeblatter

23720 NEW



Metalli *Metals*



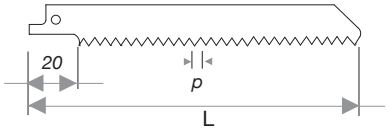
Cod. € 5 pcs	Simile a *Similar to*	L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
 23720100 € 9,964	≃ SIG1150	95x1,8	BIM HSS Fresata *Milled*		
 23720105 € 9,964	≃ SIG1152	95x1	BIM HSS Fresata *Milled*		
 23720110 € 9,964	≃ SIG1153	95x0,7	BIM HSS Fresata *Milled*		

Professional

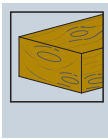
LAME PER SEGHETTI ALTERNATIVI CON ATTACCO UNIVERSALE SABRE® PER LEGNO

Jig saw blades SABRE® universal type for wood and plywood / Lame de scies sauteuses modèle universelle SABRE® pour bois et dérivés / Hojas de sierra de calar tipo universale SABRE® para madera y derivados / Sägeblatt für abwechselnden Metallsägen mit SABRE® Universalverbindungsstück für Holz und Nebenprodukten

23800 NEW



Legno dolce
Mild wood



Cod. € 2 pcs	Simile a *Similar to*	L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
 23800100 € 11,449	≃ S1617K	300x8,5	HCS Fresata *Milled*		<250 <250
 23800105 € 12,420	≃ S2345X	200x2,5÷4,3	HCS Rettificata *Ground*		<150 <60 Plastics <150
 23800110 € 7,346	≃ S644D	150x4,3	HCS Rettificata *Ground*		<100 <60 Plastics <100
 23800115 € 9,802	≃ S1531L	240x5	HCS Fresata *Milled*		<190 <190

Tabella di comparazione / *Choosing chart*

Codice Bosch *Bosch code*	Codice Krino *Krino code*	Codice Bosch *Bosch code*	Codice Krino *Krino code*
≈S1120CF	23810170	≈S2243HM	23820130
≈S1122BF	23810110	≈S2345X	23800105
≈S1122HF	23815100	≈S511DF	23815150
≈S1122VFR	23815130	≈S522BF	23810190
≈S1126CHF	23810150	≈S528DF	23820160
≈S1136BEF	23810180	≈S628DF	23820100
≈S123XF	23810120	≈S644D	23800110
≈S1411DF	23815115	≈S711DF	23815110
≈S1531L	23800115	≈S922EF	23810100
≈S1617K	23800100	≈S925VF	23810160
≈S2041HM	23820120	≈S936BEF	23810175

Confezione / Packaging



2pcs

Codolo universale 1/2“
Universal shank 1/2“

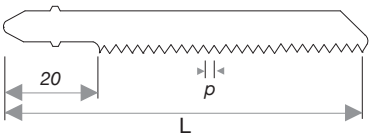
AEG, ATLAS COPCO, BOSCH, DE WALT, ELU, FESTOOL, HITACHI, MAKITA, METABO, FEIN, FLEX, HILTI, MILWAUKEE, PORTER CABLE, RIDGID, ROTHEN BERGER, RYOBI SKIL,...(®)

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO UNIVERSALE SABRE® PER METALLO

Jig saw blades SABRE® universal type for metals /Lame de scies sauteuses modèle universelle SABRE® pour métaux
Hojas de sierra de calar tipo universale SABRE® para metales / Sägeblatt für abwechselnden Metallsägen mit SABRE®
Universalverbindungsstück für Metalls

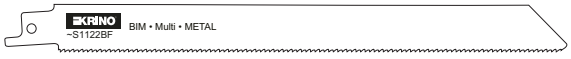
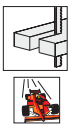
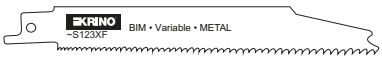
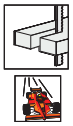
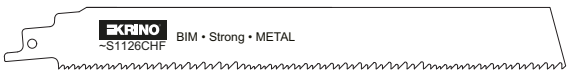
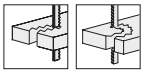
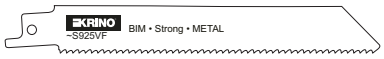
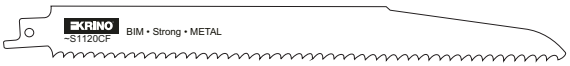
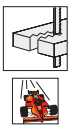
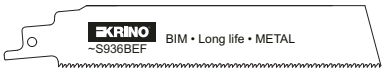
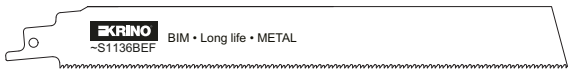
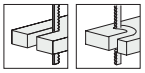
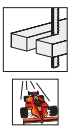
23810

NEW



Metalli
Metals



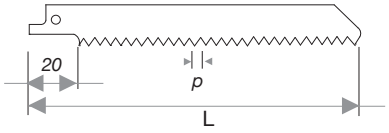
Cod. € 2 pcs	Simile a *Similar to*	L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
					
23810100 € 7,929	≃ S922EF	150x1,4	BIM HSS Fresata *Milled*		 <4 <4 Ø<100 Ø<100
					
23810110 € 10,472	≃ S1122BF	230x1,8	BIM HSS Fresata *Milled*		 <8 <8 Ø<175 Ø<175
					
23810120 € 7,891	≃ S123XF	150x1,8÷3,2	BIM HSS Fresata *Milled*		 <8 <8 Ø<100 Ø<100
					
23810150 € 14,987	≃ S1126CHF	230x2,5÷3,2	BIM HSS Fresata *Milled*		 <12 <12 Ø<250 Ø<250
					
23810160 € 9,777	≃ S925VF **Extreme**	150x1,8÷2,6	BIM HSS Fresata *Milled*		 <10 <10 Ø<150 Ø<150
					
23810170 € 18,012	≃ S1120CF **Extreme**	230x2,5÷3,2	BIM HSS Fresata *Milled*		 <12 <12 Ø<175 Ø<175
					
23810175 € 9,031	≃ S936BEF	150x1,4÷1,8	BIM HSS Fresata *Milled*		 <8 <8 Ø<100 Ø<100
					
23810180 € 12,432	≃ S1136BEF	230x1,4÷1,8	BIM HSS Fresata *Milled*		 <8 <8 Ø<175 Ø<175
					
23810190 € 14,681	≃ S522BF Ideale con macchine compatte cordless. *Suitable for compact cordless machines*	100x1,8	BIM HSS Fresata *Milled*		 <8

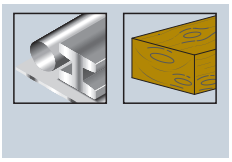
Professional

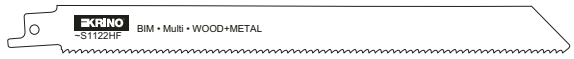
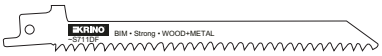
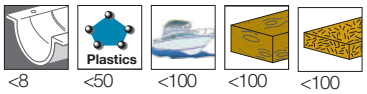
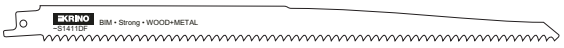
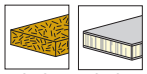
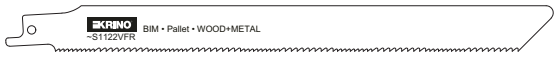
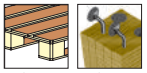
LAME PER SEGHETTI ALTERNATIVI CON ATTACCO UNIVERSALE SABRE® PER LEGNO E METALLO

Jig saw blades SABRE® universal type for wood and metals / Lame de scies sauteuses modèle universelle SABRE® pour bois et metaux / Hojas de sierra de calar tipo universale SABRE® para madera y metales / Sägeblatt für abwechselnden Metallsägen mit SABRE® Universalverbindungsstück für Holz und Metalls

23815 NEW

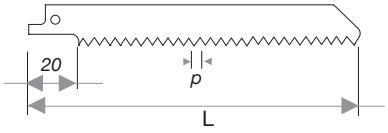




Cod. € 2 pcs	Simile a *Similar to*	L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
		230x2,5	BIM HSS  Fresata *Milled*		
23815100 € 10,497	≃ S1122HF				
		150x4,3	BIM HSS  Fresata *Milled*	 	 
23815110 € 8,048	≃ S711DF				
		300x4,3	BIM HSS  Fresata *Milled*	 	 
23815115 € 16,741	≃ S1411DF				
		230x1,8÷2,6	BIM HSS  Fresata *Milled*		
23815130 € 10,628	≃S1122VFR **No vibrations**				
		100x4,3	BIM HSS  Fresata *Milled*	 	
23815150 € 14,681	≃ S511DF **Ideale con macchine compatte cordless.** *Suitable for compact cordless machines*				

LAME PER SEGHETTI ALTERNATIVI CON ATTACCO UNIVERSALE SABRE® **PER APPLICAZIONI SPECIALI** *Jig saw blades SABRE® universal type for abrasive materials /Lame de scies sauteuses modèle universelle SABRE® pour matériaux abrasif / Hojas de sierra de calar tipo universale SABRE® para materiales abrasivos Sägeblatt für abwechselnden Metallsägen mit SABRE® Universalverbindungsstück für abrasiven Materialien*

23820 NEW



Cod. € 2 pcs	Simile a *Similar to*	L x p (mm)	Acciaio *Steel*	Tipo di taglio Finitura *Type of cut-Finish*	Impieghi *Application* (mm)
 23820100 € 9,939	≃ S628DF	150x4,3	BIM HSS  Fresata *Milled* 	 **Long lasting**	 <100
 23820120 € 35,073 **(1 pc)**	≃ S2041HM	**Carbide 400x8,5**	 Con inserti in MD *Carbide tip* 	 	 <350  <350  150
 23820125 € 62,541	≃ S1543HM	**Carbide 240x12,7**	 Con inserti in MD *Carbide tip*	 	 <150
 23820130 € 55,309 **(1 pc)**	≃ S2243HM **Extreme**	**Carbide 455x12,7**	 Con inserti in MD *Carbide tip*	 	 <365
 23820160 € 14,681	≃ S528DF **Ideale con macchine compatte cordless.** *Suitable for compact cordless machines*	**100x4,3**	BIM HSS  Fresata *Milled*	 **Long lasting**	 <50

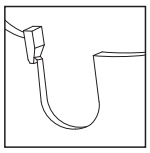
Professional

FRESE A TAZZA CON DENTI IN METALLO DURO PER LEGNO, TRUCIOLATI, AGGLOMERATI, ETC.

Carbide tipped hole saws for wood / Scies cloches avec dents en metal dur pour le bois
Corona con diente de metal duro para madera / Hartmetallochsägen für Holz

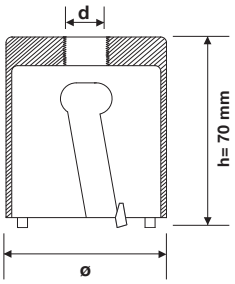
05078





Art. **05081** Self
Disponibile su richiesta
On demand

Inserti in metallo duro
Carbide tips



Confezione / Packaging



Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	Z	cod.	€ cad/each
19	3/4”	UNF 1/2 x 20	1	0507801900	11,309
22	7/8”		1	0507802200	11,781
25	1”		1	0507802500	12,439
29	1.1/8”		1	0507802900	13,194
32	1.1/4”	UNF 5/8 x 18	2	0507803200	14,316
35	1.3/8”		2	0507803500	15,663
38	1.1/2”		2	0507803800	16,935
41	1.5/8”		2	0507804100	18,282
44	1.3/4”		2	0507804400	19,639
48	1.7/8”		3	0507804800	21,468
51	2”		3	0507805100	22,740
54	2.1/8”		3	0507805400	24,087
57	2.1/4”		3	0507805700	25,445
60	2.3/8”		3	0507806000	26,801
64	2.1/2”		3	0507806400	28,545
67	2.5/8”		3	0507806700	29,892
68	2.23/32”		3	0507806800	32,032
70	2.3/4”		3	0507807000	32,032
73	2.7/8”		4	0507807300	33,389
76	3”		4	0507807600	34,821
79	3.1/8”		4	0507807900	36,179
83	3.1/4”		4	0507808300	37,997
89	3.1/2”		4	0507808900	40,711
95	3.3/4”		4	0507809500	43,491
102	4”		5	0507810200	51,360
114	4.1/2”		5	0507811400	57,410
127	5”		5	0507812700	63,997
140	5.1/2”		5	0507814000	70,528
152	6”		5	0507815200	76,559



Per frese / *Fit hole saws*	Ø	d mm	cod.	€
	**Ø 19÷29**	HEX 8,5	210705580	11,342
	**Ø 32÷152**	HEX 8,5	210705581	19,846
		6,35x100	21070204	4,468

Cod.

05079504
Ø 19÷102 mm **32 pcs**
Ø 19-22-25-29-32-35-38-41
44-48-51-57-60-70-83-102 (2x)

14÷29 **4 pcs**
32÷152 **6 pcs**

5580
5581

5 pcs 21070204

€ 1019,288



Cod.

05079300
Ø 19÷64 mm 9 pcs
Ø 19-22-29-35
38-44-51-57-64

5580 - 5581

€ 230,242

Cod.

05079301
Ø 19÷57 mm 6 pcs
Ø 19-22-29
38-44-57

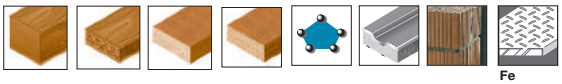
5580 - 5581

€ 155,893



400x650x320

Applicazioni / Applications



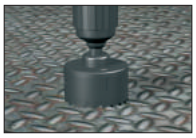
- Per forare con grande rendimento legno duro e dolce, stratificati, truciolati, agglomerati, laminati, materiali sandwich. Taglia anche plastica dura, mattoni forati e porosi, lamiera sottile dolce. max profondità di foratura 50 mm.
- High performance on drilling into tough and soft wood, plywood, chipboards, agglomerates, laminated, porous bricks and thin metal sheet. Maximum cutting depth 50mm.
- Grande performance pour percer bois doux et bois dures, bois stratifiés, copeaux, agglomérés, laminés, briques et dans la tôle légère. Profondeur de coupe 50 mm.
- Grande rendimiento para cortar madera dura y douce, estratificados, aglomerados, laminados, ladrillos furados y chapa douce y delgada. Profondidad de corte 50 mm.

High Quality professional

FRESE A TAZZA MULTIUSO PROFESSIONALI, CON TAGLIENTI CON PLACCHETTE IN METALLO DURO

Carbide tipped professional multi-purpose hole saws / Scies trépan universel, qualité professionnelle
Coronas de metal duro professionales multiuso / Profi Mehrzweck-Lochsäge

Universale - *Multipurpose*

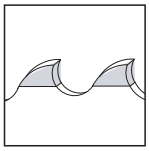




Ø mm	Ø Pollici *Inch*	d Filetto *Thread*	cod.	€ cad/each
19	3/4	UNF 1/2 x 20	2110001900	23,429
22	7/8		2110002200	25,404
25	1”		2110002500	27,450
29	1-1/8		2110002900	30,753
32	1-1/4	UNF 5/8 x 18	2110003200	32,080
35	1-3/8		2110003500	34,166
38	1-1/2		2110003800	36,760
44	1-3/4		2110004400	42,307
51	2”		2110005100	46,460
57	2-1/4		2110005700	50,151
64	2-1/2		2110006400	54,841
68	2-23/32		2110006800	64,490
76	3”		2110007600	64,490
89	3-1/2		2110008900	73,530
108	4-1/4		2110010800	89,795

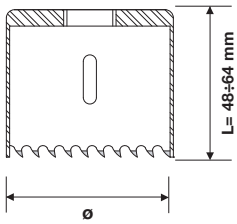
21100





Inserti in metallo duro
Carbide tips

Per frese / *Fit hole saws*	Ø	d mm	cod.	€
	**Ø 19÷29**	HEX 8,5	210707519	14,147
	**Ø 32÷108**	HEX 8,5	210707546	25,178
		6,35x90	21070202	4,468



Art. **21101** Self
Disponibile su richiesta
On demand

Cod.



21109300
Ø 19÷64 mm 9 pcs
Ø 19-22-29-35
38-44-51-57-64

7519 - 7546

€ 343,695

Cod.



21109301
Ø 19÷57 mm 6 pcs
Ø 19-22-29-38-44-57

5519 - 5546

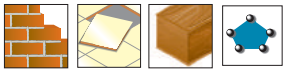
2 pcs Ø 7X100

€ 254,999



Confezione / Packaging 

Applicazioni / Applications



- Taglio professionale nel legno, plastica, fibre di vetro, ceramica, piastrelle, materiali edili leggeri, acciaio inox. Max profondità di foratura: 40 mm.
- Multi purpose hole saws for wood, plastics, tiles, light construction materials, stainless steel. Maximum cutting depth: 40 mm.
- Scies trépans professionnels universels pour ceramiques, briques, plastiques, bois, acier inox. Profondeur de coupe: 40 mm.
- Coronas universales para cortar ceramica, suelos, plastica, madera, acero inox. Profondidad de corte: 40 mm.
- Nur drehend Einsatz für Massivholz, Spanplatten, Kunststoffe, Fliesen, Gasbeton, Acrylglass, V2A-V4A Stahl. Maximale Bohrtiefe: 40 mm.

SEGHE A TAZZA PER LEGNO CON LAME INTERCAMBIABILI IN ACCIAIO W.S.

Tool steel hole-saw kit for wood / Scies trépans pour bois en acier outil
Coronas perforadoras para madera / W.S. Lochsägen für Holz

05080



Composizione *Sizes*	H mm	pcs	cod.	€ cad/each
7 pcs Ø 26-32-38-45-50-56-63	25	1	05080100	8,803
7 pcs Ø 26-32-38-45-50-56-63	50	1	05080101	10,567
5 pcs Ø 60-67-74-81-95	40	1	05080102	27,939

Confezione / Packaging



Applicazioni / Applications



- Foratura nel legno, nei suoi derivati e nel cartongesso.
- *For drilling wood - Pour percer les bois*
- *Para taladrar madera - Zum Bohren in Holz*

KIT PER LEGNO E CARTONGESSO

Tool steel hole-saw kit for wood / Scies trépans pour bois en acier outil / Coronas perforadoras para madera / W.S. Lochsägen für Holz



NEW

- **n.1** sega regolabile a compasso con punta a centrare, due incisori e attacco hex per uso su trapani con mandrino a cremagliera / *adjustable compass saw with centering tip, two engravers and hex attachment to fit drill chuck with key velocità massima consigliata di utilizzo 300 giri/min / recommended max speed 300 rpm*
   – ø 4-5-6-8-10 mm
   – ø 4-5-6-8-10 mm
- **n.1** campana protettiva antipolvere trasparente ø 280 mm / *transparent dustproof protective bell ø 280 mm*
- **n.1** matita / pencil
  n.1 flessometro / *measuring tape*

Ø 40÷200 mm.

05079600 € 143,685

ASSORTIMENTI FRESE IN METALLO DURO PER LEGNO

Carbide router bits sets / Assortiment fraise carbure pour bois
Juego fresas de metal duro para madera / Hartmetall Profilfräser Sortimente

In esaurimento / *To be discontinued*



15 pcs

05450310 € 112,720



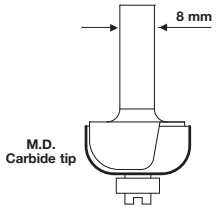
12 pcs

05450311 € 94,738



4 pcs

05450210 € 18,232



Applicazioni / Applications



- Foratura nel legno dolce e legno duro, nei suoi derivati e nel cartongesso.

- *For drilling wood - Pour percer les bois*
- *Para taladrar madera - Zum Bohren in Holz*

FRESE A PROFILO IN ACCIAIO DA UTENSILE PER TRAPANI E FRESATRICI

Tool bits for power drills / Fraise pour bois
Fresas para madera / Profilfräser für Holz

WS

05400

NEW

		Cod.	Ø mm.	pcs	€ cad/each
	**Fresa a mortasare** *Straight bit* 	05400100	6	3	8,415
	**Sega circolare** *Slotting saw* 	05400170	50	3	9,746
	**Frese per incastri** *Tongue cutter* 	05400110	30	3	10,544
	**Fresa conica 45°** *45° Chamfering bit* 	05400180	35	3	10,311
	**Fresa cilindrica per spianare e levigare** *Cylindrical cutter* 	05400120	25	3	10,544
	**Frese a raggio convesso** *Round cutter* 	05400190	35	3	10,311
	**Fresa per profili tondi** *Rounding off cutter* 	05400130	25	3	10,544
	**Frese a raggio concavo** *Round cutter* 	05400200	35	3	10,311
	**Fresa per scanalature** *Flute cutter* 	05400140	35	3	10,544
	**Frese a raggio convesso esterno** *Beading cutter* 	05400210	35	3	10,865
	**Frese per intagli** *Slotting cutter* 	05400150 05400160	35 S.2,5 35 S.1,5	3	6,209 6,209
	**Frese a raggio concavo interno** *Beading cut* 	05400220	35	3	10,865

- Profilatura nel legno dolce e duro su trapani montati su supporto o su fresatrici.
- *Tool steel end mills for use in power drills with drill stand or with milling machines, for soft and medium hard wood.*
- *Utilisation avec perceuse à table et fraiseuse*
- *Utilizo por taladros y fresadoras*
- *Amwendung in stationär Bohrmaschinen und Fräsmaschinen*

05430 05432

NEW

		Cod.	Ø mm.	pcs	€ cad/each
	**Raspa cilindrica** *Cylindrical rasp* 	05430100	15	3	4,734
	**Raspa cilindrica a testa semisferica** *Cylindrical rasp* 	05430110	13	3	4,945
	**Raspa conica** *Conical rasp* 	05430120	6/15	3	4,878
	**Raspa cilindrica** *Cylindrical rasp* 	05432100	15	3	4,468
	**Raspa conica** *Conical rasp* 	05432110	6/15	3	4,546
	**Punta raspa** *Deburring drill bit* 	05432120	6	3	3,836

SET



5 pcs

05450201 € 35,977



MANDRINI E ACCESSORI

Accessories
Accessories
Accessorios
Zubehürteilen

ACCESSORI

CUTTING TOOLS ENGINEERING



BUSSOLA DI RIDUZIONE PER CONI MORSE, TEMPRATA E RETTIFICATA INTERNAMENTE ED ESTERNAMENTE

Hardened and ground morse taper sleeve / Douilles de reduction trempé et rectifié pour cône morse
Cono de reducción tratado y rectificado / Reduzierhülsen, ganz gehärtet und geschliffen

DIN 2185

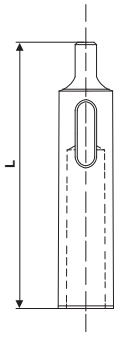
28150





DIN 228 Esterno External	DIN 228 Interno Internal	Cono Morse *Morse taper*	L	cod.	€ cad/each
1	0		80	281500100	15,344
2	1		92	281500201	13,792
3	1		99	281500301	16,786
3	2		112	281500302	16,786
4	1		124	281500401	22,606
4	2		124	281500402	22,606
4	3		140	281500403	22,606
5	1		156	281500501	50,124
5	2		156	281500502	50,124
5	3		156	281500503	50,124
5	4		171	281500504	50,124
6	4		219	281500604	88,740
6	5		219	281500605	88,740

Cono esterno-*External* Morse DIN 228



Cono interno-*Internal* Morse DIN 228

PROLUNGHE PER UTENSILI CONO MORSE, TEMPRATE E RETTIFICATE INTERNAMENTE ED ESTERNAMENTE

Morse taper sleeve extension, hardened and ground / Douilles de reductions rallongué, trempé et rectifié
Cono de reducciòn prolongado, tratado y rectificado / Verlängerungshülsen, ganz gehärtet und geschliffen

DIN 2187

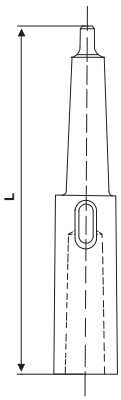
28154





DIN 228 Esterno External	DIN 228 Interno Internal	Cono Morse *Morse taper*	L	cod.	€ cad/each
1	1		145	281540101	41,532
1	2		160	281540102	44,082
2	1		160	281540201	33,383
2	2		175	281540202	43,172
2	3		196	281540203	55,579
3	1		175	281540301	45,323
3	2		194	281540302	45,323
3	3		215	281540303	61,632
3	4		240	281540304	94,970
4	1		200	281540401	94,970
4	2		215	281540402	71,955
4	3		240	281540403	71,955
4	4		265	281540404	94,970
4	5		300	281540405	134,307
5	1		232	281540501	140,305
5	2		247	281540502	127,112
5	3		268	281540503	123,519
5	4		300	281540504	100,126
5	5		335	281540505	155,893
6	1		294	281540601	222,281
6	2		309	281540602	291,132
6	3		330	281540603	291,132
6	4		355	281540604	291,132
6	5		390	281540605	298,393

Cono esterno-*External* Morse DIN 228



Cono interno-*Internal* Morse DIN 228

ATTACCHI CONICI MORSE PER MANDRINI, TEMPRATI E RETTIFICATI

Taper drill chuck arbors / Cône de montage pour mandrins
Mango conico para portabrocas / Kegeldorne für Bohrfutter

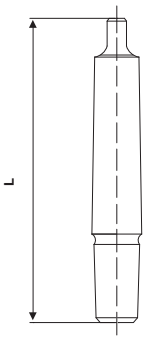
28160





Cono Morse *Morse taper*	Attacco conico mandrino *Drill chuck taper*	L	cod.	€ cad/each
DIN 228	DIN 238			
1	**B10**	86	281600110	11,021
1	**B12**	89	281600112	11,021
1	**B16**	99	281600116	11,021
1	**B18**	99	281600118	11,021
2	**B10**	105	281600210	13,792
2	**B12**	105	281600212	13,792
2	**B16**	112	281600216	13,792
2	**B18**	119	281600218	13,792
2	**B22**	130	281600222	13,792
3	**B12**	127	281600312	19,491
3	**B16**	134	281600316	19,491
3	**B18**	140	281600318	19,491
3	**B22**	147	281600322	19,491
3	**B24**	157	281600324	19,491
4	**B16**	157	281600416	30,478
4	**B18**	164	281600418	30,478
4	**B22**	176	281600422	30,478
4	**B24**	186	281600424	30,478
5	**B16**	198	281600516	45,568
5	**B18**	198	281600518	45,568
5	**B22**	207	281600522	45,568
5	**B24**	217	281600524	45,568

Cono esterno-*External* Morse DIN 228



Cono DIN 238 per mandrino-*For chuck*

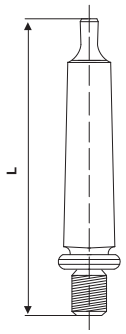
28165





Cono Morse *Morse taper*	Attacco filettato mandrino *Drill chuck thread*	L	cod.	€ cad/each
DIN 228				
2	**3/8x24 UNF**	95	28165023/8	18,348
2	**1/2x20 UNF**	110	28165021/2	18,348
2	**5/8x16 UNF**	135	28165025/8	22,784
3	**3/8x24 UNF**	115	28165033/8	25,178
3	**1/2x20 UNF**	125	28165031/2	25,178
3	**5/8x16 UNF**	150	28165035/8	25,178

Cono esterno-*External* Morse DIN 228



Per mandrino-*For chuck*

ESTRATTORI PER UTENSILI CON CONO MORSE DIN 228 IN ACCIAIO TRATTATO

Ejector drifts / Chass-cône/Extractores para utensilios cono morse / Austreiber für Kegelschäfte

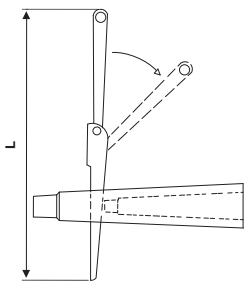
DIN 317

28158



Cono Morse *Morse taper*	L	cod.	€ cad/each
1-2	140	281580102	7,262
3	190	281580300	11,275
4	225	281580400	16,985
5-6	265	281580506	23,382





DIN 318

Semiautomatic



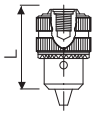
Cono Morse *Morse taper*	L	cod.	€ cad/each
1-2-3	320	28158A0103	72,786
4-5-6	380	28158A0406	88,740

MANDRINI A CREMAGLIERA DI QUALITÀ COMPLETI DI CHIAVE PER ELETTROUTENSILI PORTATILI E PER MACCHINE UTENSILI

Quality drill chucks with key / Mandrins à crémaillère avec clé
Portabrocas con llave / Zahnkranz Bohrfutter

DIN 6349 **Professional**



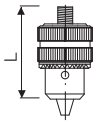


Art. 28001

Cod.	Capacità size mm	Attacco Attachment	L	Chiave Key	pcs	€ cad/each
2800110	**1÷10 R.**	3/8x24 UNF	62	S 1	5	16,730
2800120	**1÷10 R.**	1/2x20 UNF	62	S 1	5	16,730
2800130	**1,5÷13 R.**	3/8x24 UNF	78	S 2	5	18,560
2800140	**1,5÷13 R.**	1/2x20 UNF	78	S 2	5	18,560
2800160	**3÷16 R.**	1/2x20 UNF	87	S 3	5	24,480
2800150	**3÷16 R.**	5/8x16 UNF	87	S 3	5	38,804



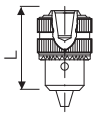
R. Con foro interno passante per l'inserimento della vite sinistra di bloccaggio per rotazione destra e sinistra con trapani reversibili
R. With through hole for left screw for use with reversible drilling machines



Art. 28002

2800210	**1÷10**	3/8x24 UNF	74	S 1	5	18,593
2800220	**1÷10**	1/2x20 UNF	74	S 1	5	18,593
2800230	**1,5÷13**	3/8x24 UNF	89	S 2	5	20,622
2800240	**1,5÷13**	1/2x20 UNF	89	S 2	5	20,622
2800250	**3÷16**	5/8x16 UNF	99	S 3	5	33,582





Art. 28003

2800310	**1÷10**	B 12	62	S 1	5	18,593
2800320	**1,5÷13**	B 16	78	S 2	5	20,622
2800325	**3÷16**	B 16	87	S 3	5	33,582
2800330	**3÷16**	B 18	87	S 3	5	33,582



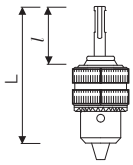
Solo rotazione
No percussion



2800910 **2800930**



Autoserrante
Self tighten



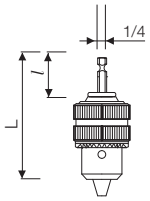
Cod.	Capacità size mm	Attacco Attachment	l	L	Chiave Key	pcs	€ cad/each
Art. 28009							
2800910	**1,5÷13**	SDS	52	107	S2	5	20,511
2800930	**1÷13**	SDS	52	115	–	5	47,962





2800920





2800920	**1÷10**	1/4 Q.C.	28	84	S1	5	19,790



Confezione / Packaging



5 pcs



Cod.	Tipo/Size DIN	pcs	€ cad/each
Art. 28010			
2801009	**S1**	1	2,516
2801010	**S2**	1	3,481
2801020	**S3**	1	4,557

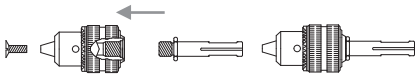
Confezione / Packaging



RACCORDO DI ADATTAMENTO PER MANDRINO SDS-1/2 UNF

Mandrel adapter SDS-1/2 UNF / Adaptateur pour mandrin SDS-1/2 UNF
Adaptadores de portabrocas SDS-1/2 UNF - Adapter SDS-1/2 für Bohrfutter

Attacco *Attachment*		Attacco *Attachment*	Cod.	pcs	€ cad/each
SDS		1/2 x 20 UNF	**28186100**	10	10,788
Ricambio / *Spare part*					
	 M6		**28186101**		0,810



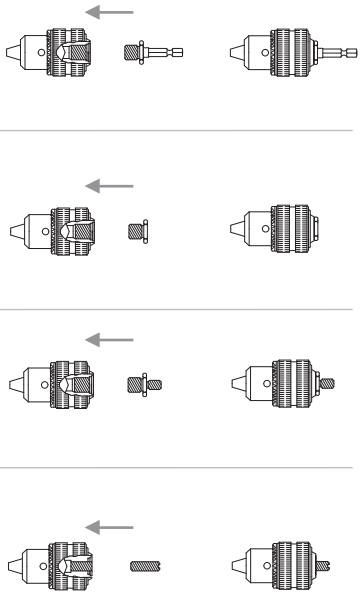
Confezione / Packaging



RACCORDO DI ADATTAMENTO PER MANDRINO 3/8 UNF

Mandrel adapter 3/8 UNF / Adaptateur pour mandrin 3/8 UNF
Adaptadores de portabrocas 3/8 UNF / Adapter für Bohrfutter 3/8 UNF

Attacco *Attachment*		Attacco *Attachment*	Cod.	€ cad/each
1/4 Q.C.		3/8 x 24 UNF	**28186200**	7,671
1/2 x 20 UNF		3/8 x 24 UNF	**28186204**	6,719
1/2 x 20 UNF		3/8 x 24 UNF	**28186203**	6,719
3/8 x 24 UNF		3/8 x 24 UNF	**28186205**	3,660



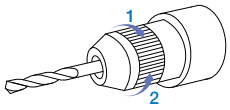
Confezione / Packaging



Professional

MANDRINI SENZA CHIAVE CON SISTEMA DI BLOCCAGGIO PER ELETTROUTENSILI PORTATILI REVERSIBILI ED A PERCUSSIONE

Keyless drill chucks with locking system for portable power drills with percussion / Mandrins sans clé avec système de verrouillage pour embout et perceuse portatives /Portabroca sin llave con sistema de cierre de seguridad para atornilladores y taladro portatiles / Schlüsselloses Bohrfutter für Handbohrmaschinen



28054

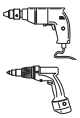




Camicia plastica
Plastic sleeve

Cod.	Capacità *size* mm	Attacco *Attachment*	L	pcs	€ cad/each
2805410	1 ÷ 10	3/8x24 UNF	64	1	26,767
2805420	1 ÷ 10	1/2x20 UNF	64	1	26,767
2805430	1,5 ÷ 13	3/8x24 UNF	75	1	28,994
2805440	1,5 ÷ 13	1/2x20 UNF	75	1	28,994





Confezione / Packaging



28053

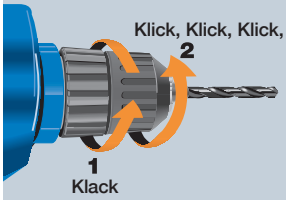






Camicia metallica
Metal sleeve

Cod.	Capacità *size* mm	Attacco *Attachment*	L	pcs	€ cad/each
2805330	1,5÷13	3/8x24 UNF	75	1	40,150
2805340	1,5÷13	1/2x20 UNF	75	1	40,150



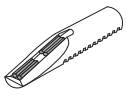
Istruzioni / *Instructions*

1 **Klack** **Bloccaggio percussione inserito.**
Percussion locking system on.

2 **Klick** **Continuate a serrare: serraggio punta effettuato quando non sentite più "click".**
Continue to tighten: the drills are tightened when you don't hear "click" anymore.

28055





Griffe in metallo duro
Carbide jaws



Camicia metallica
Metal sleeve

Cod.	Capacità *size* mm	Attacco *Attachment*	L	pcs	€ cad/each
2805540	1,5÷13	1/2x20 UNF	75	1	43,831

Confezione / Packaging



MANDRINI SENZA CHIAVE SENZA SISTEMA DI BLOCCAGGIO PER ELETTROUTENSILI REVERSIBILI

Keyless drill chucks without locking system for reversible power drills / Mandrins sans clé sans système de verrouillage pour perceuses portatives / Portabroca sin llave sin sistema de cierre convencional para taladros portatiles / Schlüsselloses Bohrfutter für Handbohrmaschinen

28058

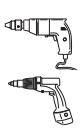




Camicia plastica
Plastic sleeve

Cod.	Capacità *size* mm	Attacco *Attachment*	L	pcs	€ cad/each
2805810	0,5÷10	3/8x24 UNF	61	1	16,186
2805820	0,5÷10	1/2x20 UNF	61	1	16,186
2805830	2÷13	3/8x24 UNF	72	1	19,424
2805840	2÷13	1/2x20 UNF	72	1	19,424





Confezione / Packaging



MANDRINI AUTO-SERRANTI CON GHIERA DI BLOCCAGGIO PER TRAPANI PORTATILI

Self tighten keyless drill chucks with lock system for percussion power drills / Mandrins auto-serrant avec système de verrouillage pour perceuses portatives à percussion / Portabroca sin llave con sistema de seguridad para taladros portatiles a percusión

28031



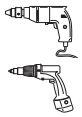


Confezione / Packaging



Cod.	Capacità *size* mm	Attacco *Attachment*	L	€ cad/each
2803140	1÷13	1/2x20 UNF	82	95,935





MANDRINI AUTO-SERRANTI PER ELETTROUTENSILI PORTATILI E PER TRAPANI STAZIONARI

Keyless drill chucks / Mandrins autoserrants pour perceuse
Portabroca autoajustable para taladro / Schnell Spann-Bohrfutter

28030 28032





Confezione / Packaging



Art. 28030 Professional

Cod.	Capacità *size* mm	Attacco *Attachment*	L	€ cad/each
2803010	1÷10	3/8x24 UNF	86	62,352
2803020	1÷10	1/2x20 UNF	86	62,352
2803030	1÷13	3/8x24 UNF	102	69,549
2803040	1÷13	1/2x20 UNF	102	69,549
2803050	1÷16	1/2x20 UNF	102	82,143
2803060	1÷16	5/8X16 UNF	102	82,143

Art. 28032 Professional

2803210	1÷10	B 12	86	77,941
2803220	1÷10	B 16	86	77,941
2803229	1÷13	B 12	102	83,939
2803230	1÷13	B 16	102	83,939
2803231	1÷13	B 18	108	83,939
2803240	1÷16	B 16	108	101,933
2803250	1÷16	B 18	108	101,933







MANDRINI AUTO-SERRANTI DI PRECISIONE PER TRAPANI A COLONNA E MACCHINE UTENSILI

Industrial quality keyless drill chucks / Mandrins auto-serrant pour perceuses industrielle
Portabroca autoajustable para taladro, calidad industrial / Genauigkeits-Schnellspann-Bohrfutter

28034





Confezione / Packaging



Art. 28034 Professional Super

Cod.	Capacità *size* mm	Attacco *Attachment*	L	€ cad/each
2803410	1÷10	B 12	70	95,935
2803420	1÷10	B 16	87	95,935
2803430	1÷13	B 16	90	103,131
2803440	1÷16	B 16	103	117,521
2803450	1÷16	B 18	105	117,521
2803460	5÷20	B 22	124	117,521





Caratteristiche del rivestimento TiN
Il rivestimento monostrato TiN ha lo scopo di incrementare la resistenza a fenomeni di usura e ossidazione cui gli utensili sono sottoposti durante le lavorazioni di foratura: ha ottime caratteristiche di microdurezza (HV 0.05 2300), un basso coefficiente di attrito (0.4), una temperatura massima di esercizio pari a 500°C. Il rivestimento di pochi µm, depositato per via fisica mediante vapore (Physical Vapour Deposition), consente pertanto di aumentare la vita utile degli utensili da taglio, migliorando anche la finitura superficiale ed il conseguente scorrimento dei trucioli di lavorazione.

Caratteristiche del rivestimento TiAlN
É un esclusivo rivestimento PVD che permette il taglio a secco con elevatissimi parametri di taglio e, quindi, con grandissimi rendimenti. Sopporta, infatti temperature di lavoro elevatissime, sino a 800° C, grazie alle caratteristiche uniche del rivestimento TiAlN: supercompatto e durissimo (3300 HV 0,05), con conducibilità termica molto bassa (0,05), basso coefficiente di attrito (0,3), ottima tenacità. Il forte calore sviluppato nella foratura (> 400° C), genera, in ambiente ossidante, Al2 03, particolarmente resistente alle elevate sollecitazioni termiche, mentre il substrato di TiAlN garantisce una elevata resistenza meccanica. È pertanto adatto al taglio dei materiali fortemente abrasivi (ghisa, leghe Si-Al) degli acciai duri e pastosi come l'acciaio inossidabile, ma anche degli acciai basso legati purché si incrementino notevolmente i 2 parametri di taglio fondamentali: la velocità e l'avanzamento (sino a 2 volte i valori di un utensile HSS convenzionale non rivestito).

TECHNICAL

Technical tables
Tableaux techniques
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TABELLE

CUTTING TOOLS ENGINEERING

Features of TiN coating
TiN monolayer coating can increase both wear and oxidation resistance of every tool. It has high hardness (HV 0.05 2300), low friction coefficient (0.4), maximum working temperature 500°C. The coating thickness is very low (µm) and it's produced by Physical Vapour Deposition. TiN coating increases the life cycle of the tool, also improving the surface finishing and the drilling chips removal.

Caractéristiques du revêtement TiN
Le revêtement monocouche TiN sert à augmenter la résistance aux phénomènes d'usure et d'oxydation auxquels les outils sont soumis pendant les travaux de perçage : il possède des caractéristiques optimales de microdureté (HV 0,05 2300), un coefficient de frottement faible (0,4), une température maximale de fonctionnement égale à 500°C. Le revêtement de quelques µm, déposé par un procédé physique par le biais de la vapeur (Physical Vapour Deposition), permet donc d'augmenter la vie utile des outils de coupe, en améliorant aussi la finition de la surface et donc l'évacuation des copeaux d'usinage produits.

Caracteristicas del recubrimiento TiN
El recubrimiento monocapa TiN tiene la finalidad de aumentar la resistencia al desgaste y a la oxidación que sufren los utensilios durante los trabajos de perforado: tiene óptimas características de microdureza (HV 0.05 2300), un bajo coeficiente de fricción (0.4), una temperatura máxima de funcionamiento equivalente a 500°C. El recubrimiento de pocos µm, depositado físicamente con vapor (Physical Vapour Deposition), consiente aumentar la duración de los utensilios de corte, mejorando también el acabado superficial y el consiguiente deslizamiento de las virutas generadas durante la actividad.



Features of TiAlN coating
This exclusive PVD coating makes dry cutting possible to the highest cutting standards and performance levels. The drill can withstand extremely high working temperatures of up to 800° C on account of the unique properties of the TiAlN coating, namely, it is ultra-thin and exceptionally hard (3300 HV 0,05) with extremely low thermal conductivity (0,05) low friction coefficient (0,3) and excellent toughness. The phenomenal heat created during drilling (>400°C) generates Al2 03, in oxidizing environments which is particularly resilient to high temperatures whilst the substrate in TiAlN guarantee high mechanical resistance. It is thus suitable for cutting highly abrasive materials (cast iron, Si-Al alloys) and hard, pasty steel such as stainless steel. Nonetheless, it is equally suitable for low alloy steel providing the most important cutting settings (speed and feed) are increased by up to twice the values used for conventional, uncoated HSS tools.

Caractéristiques du Revêtement TiAlN
Il s'agit d'un revêtement exclusif PVD qui permet une coupe à sec avec des paramètres de coupe très pointus et donc des rendements très élevés. Il support en effet des températures de travail très élevées, jusqu'à 800°C, grâce aux caractéristiques uniques du revêtement TiAlN : ultracompact et très dur (3300 HV 0,05) avec une conductibilité thermique très basse (0,05), un faible coefficient de frottement (0,3), une excellente ténacité. La forte chaleur se dégageant lors du perçage (>400° C) génère, dans un milieu oxydant, de l'Al2 03 particulièrement résistant aux sollicitations thermiques élevées, tandis que la sous-couche de TiAlN garantit une grande résistance méchanique.
Il convient par conséquent à la coupe de matériaux fortement abrasifs (fonte, alliages Si-Al), des acier durs et pâteux comme l'acier inoxydable mais aussi des aciers à faible teneur en alliage à condition d'augmenter sensiblement les 2 paramètres fondamentaux de coupe : la vitesse et l'avance (jusqu'à 2 fois les valeurs d'un outil HSS conventionnel sans revêtement).

Caracteristicas del recubrimiento TiAlN
Es un exclusivo revestimiento PVD que permite el corte seco con parámetros de corte elevadísimos y, por lo tando, con rendimientos muy grandes. En efecto, soporta temperaturas de trabajo mui elevadas hasta 800° C, gracias a las características únicas de revestimiento TiAlN : supercompacto y durísimo (3300 HV 0,05), con conductibilidad térmica muy baja (0,05) bajo coeficiente de roce (0,3), optima tenacidad. El fuerte calor desarrollado durante el taladrado (>400° C) genera, en ambiente oxidante, Al2 03, particularmente resistente a los elevados esfuerzos térmicos, mientras que el substrato de TiAlN garantiza una elevada resistencia mecánica. Por lo tanto es adecuado para el corte de los materiales fuertemente abrasivos (hierro fundido, aleaciones Si-Al), de los aceros duros y pastosos como el acero inoxidable, pero también de los aceros bajo aleados, con tanto de que se incrementen notablemente los 2 parámetros de corte fundamentales: la velocidad y el avance (hasta 2 veces los valores de una herramiente HSS convencional no revestida).

SCELTA DELLA PUNTA PER METALLO E DEI PARAMETRI DI TAGLIO DA USARE IN FUNZIONE DEL MATERIALE DA LAVORARE

Chart for metal drills selection and relative cutting speeds in accordance with the materials to work

1 

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Twist drills made of high speed steel

Materiale da lavorare Work-piece material	**Qualità punta** Drill quality	**Velocità periferica** Peripherical speed **Mt/min**	*Diametro punta* / Drill size - *mm* 2	5	8	12	16	25	*Refrigerante* Coolant
			Avanzamento/Feed (mm/giro)						
Acciaio non legato da costruzione Common steel / Acier non alliées / Acero no aliado R<600N/mm²	HSS HSS-CO	20÷25 25÷30	0.05	0.12	0.20	0.25	0.30	0.40	
Acciaio da costruzione basso legato Low alloy steel / Acier bas alliées / Acero bajo aliado R<700÷900N/mm²	HSS HSS-CO	10÷12 15÷18	0.03	0.07	0.10	0.16	0.20	0.25	
Acciaio legato al Ni Cr Ni Cr Steel / Acier au Ni Cr / Acero Ni Cr R<1100÷1300N/mm²	HSS HSS-CO	6÷8 8÷10	0.02	0.05	0.08	0.12	0.14	0.18	
Acciaio Inox martensitico ed austenitico Stainless steel / Acier inox / Acero inoxidable **Acciaio refrattario Acciaio resistente alla corrosione** Heat resistant steel, corrosion resistant steel / Acier réfractaire, acier résistent à la corrosion / Acero refractario y resistente à la corrosión	HSS-CO 5% HSS-CO 8%	6÷8 8÷10	0.02	0.05	0.08	0.12	0.14	0.18	
Acciaio alto legato con tenore di manganese >10% High manganese content steel / Acier haute percentage de manganese /Acero con elevada percentual de manganese	HSS-CO 8%	3÷5	0.02	0.05	0.08	0.12	0.14	0.18	
Superleghe Nimonic, Hastelloy, Inconel	HSS-CO 5% HSS-CO 8%	3÷8	0.02	0.05	0.08	0.12	0.14	0.18	
Titanio e leghe di titanio Titanium alloys / Titan / Titanio	HSS-CO 5% HSS-CO 8%	3÷6	0.02	0.05	0.08	0.12	0.14	0.18	
Nichel, Monel	HSS-CO	10÷12	0.02	0.05	0.08	0.12	0.14	0.18	
Ghisa Grigia 200 HB Cast Iron / Fonte grise / Fundición	HSS HSS-CO	15÷20 20÷25	0.02	0.12	0.20	0.25	0.30	0.40	
Ghisa Grigia 350 HB Cast Iron / Fonte grise / Fundición	HSS HSS-CO	5÷10 20÷25	0.03	0.07	0.10	0.16	0.20	0.25	
Bronzo dolce Soft bronze / Bronze doux / Bronce douce	HSS HSS-CO	20÷35	0.05	0.08	0.14	0.20	0.25	0.30	
Bronzo duro Tough bronze / Bronze dur / Bronce duro	HSS HSS-CO	15÷30	0.05	0.08	0.14	0.20	0.25	0.30	
Ottone dolce Soft brass / Laiton doux / Oton douce	HSS HSS-CO	60÷80	0.08	0.18	0.25	0.30	0.35	0.40	
Ottone tenace Tough brass / Laiton dur / Oton duro	HSS HSS-CO	30÷50	0.05	0.15	0.20	0.25	0.35	0.40	
Rame puro Copper / Cuivre / Cobre	HSS	30÷60	0.05	0.14	0.18	0.22	0.30	0.40	
Rame elettrolitico Electrolite copper / Cuivre electrolite / Cobre elettrolitico	HSS	20÷35	0.05	0.14	0.18	0.22	0.30	0.40	
Alluminio Aluminium / Aluminium / Aluminio	HSS	40÷80	0.05	0.14	0.18	0.22	0.30	0.40	
Leghe alluminio Aluminium alloys / Alliages de alu / Aleaciones de aluminio	HSS	30÷60	0.05	0.14	0.18	0.22	0.30	0.40	
Silumin - Leghe Al-Si Silumin	HSS	30÷50	0.05	0.08	0.14	0.20	0.25	0.30	
Leghe al manganese Manganese alloys / Alliage de manganese / Aleaciones de manganese	HSS	60÷90	0.08	0.18	0.25	0.30	0.35	0.40	
Zinco e sue leghe Zinc alloys / Alliages de Zingue/ Aleaciones de cinc	HSS	30÷50	0.05	0.14	0.18	0.20	0.25	0.30	
Resine termoplastiche (dolci) Soft plastic / Plastique doux / Plastico douce	HSS	20÷40	0.05	0.08	0.14	0.20	0.25	0.30	
Resine termoindurenti (dure) Hard plastic / Plastique dure / Plastico duro	HSS	10÷20	0.05	0.08	0.14	0.20	0.25	0.30	
Plexiglass	HSS	15÷20	0.05	0.08	0.14	0.20	0.25	0.30	
Gomma dura Hard rubber / Caoutchouc dur / Goma dura	HSS	15÷35	0.08	0.18	0.25	0.30	0.35	0.40	
Grafite Graphite / Graphite / Grafite	HSS	3÷6	a mano / by hand /à main / a mano						

acqua emulsionata con olio *oil+water*
olio da taglio - *cutting oil*
acqua - *water*
a secco - *dry*

Nota: Le punte elicoidali cilindriche rettificate garantiscono la realizzazione di fori di tolleranza H10÷H12
Fully ground twist drills made holes with H10÷H12 tolerance

CONVERSIONE DELLA VELOCITÀ PERIFERICA DI TAGLIO DA M/MIN IN GIRI/MIN IN FUNZIONE DEL DIAMETRO DELLA PUNTA

Cutting speed chart into revolution per minute (RPM), according to the twist drill diameter

2

Diametro punta Drill size Ø		Velocità di taglio / *Cutting speed Vt (mt/min)*													
		3	**4**	**5**	**6**	**8**	**10**	**12**	**15**	**18**	**20**	**25**	**30**	**35**	**40**
(mm)	*pollici (inch)*	Velocità di taglio / *Cutting speed*							*n. giri/min (rpm)*						
2	5/64	480	640	800	960	1270	1590	1910	2390	2870	3180	3980	4780	5570	6370
3	1/8	320	420	530	640	850	1060	1270	1590	1910	2120	2650	3180	3720	4250
4	5/32	240	320	400	480	640	800	960	1190	1430	1590	1990	2390	2790	3180
5	13/64	190	250	320	380	510	640	760	960	1150	1270	1590	1910	2230	2550
6	15/64	160	210	270	320	420	530	640	800	960	1060	1330	1590	1860	2120
8	5/16	120	160	200	240	320	400	480	600	720	800	1000	1190	1390	1590
10	25/64	95	130	160	190	250	320	380	480	570	640	800	960	1110	1270
12	15/32	80	110	130	160	210	270	320	400	480	530	660	800	930	1060
14	35/64	70	90	110	140	180	230	270	340	410	450	570	680	800	910
16	5/8	60	80	100	120	160	200	240	300	360	400	500	600	700	800
18	23/32	55	70	90	110	140	180	210	270	320	350	440	530	620	710
20	25/32	50	65	80	100	130	160	190	240	290	320	400	480	560	640
22	7/8	45	60	70	85	120	140	170	220	260	290	360	430	510	580
24	15/16	40	55	65	80	110	130	160	200	240	270	330	400	460	530
27	1" 1/16	35	45	60	70	95	120	140	180	210	240	290	350	410	470
30	1" 1/8	30	40	55	65	85	110	130	160	190	210	270	320	370	420
32	1" 1/4	30	40	50	60	80	100	120	150	180	200	250	300	350	400
34	1" 3/8	30	35	45	55	75	95	110	140	170	190	230	280	330	370
36	1" 7/16	25	35	45	55	70	90	110	130	160	180	220	270	310	350
38	1" 1/2	25	35	40	50	65	85	100	130	150	170	210	250	290	340
40	1" 9/16	25	30	40	50	65	80	100	120	140	160	200	240	280	320
42	1" 5/8	25	30	40	45	60	75	90	110	140	150	190	230	270	300
44	1" 3/4	20	30	35	45	60	70	85	110	130	140	180	220	250	290
46	1" 13/16	20	30	35	40	55	70	85	100	120	140	170	210	240	280
48	1" 7/8	20	25	35	40	55	65	80	100	120	130	170	200	230	270
50	2"	20	25	30	40	50	65	75	100	110	130	160	190	220	250

$$\text{n° giri/min (r.p.m.)} = \frac{\text{Vt (Mt/min) x 1000}}{\text{3,14 x Ø (mm)}}$$

Formula di conversione della velocità periferica di taglio da mt/min in n.giri/min in funzione del diametro dell'utensile

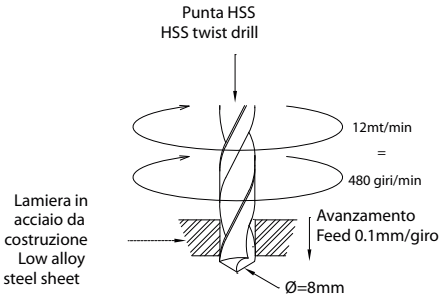
Cutting tip speed conversion formula, from Meter Per Min. to RPM, in accordance with the tool size

Esempio di utilizzo delle tabelle:

Se si vuole praticare un foro del diametro di 8 mm con una punta HSS, in una lamiera in acciaio comune e si desidera conoscere i parametri di taglio adeguati alla foratura, si dovrà consultare la tabella n. 1 nella quale è indicato che una punta HSS da mm 8 avrà un avanzamento consigliato di 0,1 mm/giro ed una velocità di taglio di 10÷12 mt/min. Per la conversione della velocità da mt/min in giri/min, si consulterà la tabella n.2 ; incrociando la riga riferita al diametro 8 mm con la colonna che contiene la velocità 12 mt/min si troverà il valore di 480 giri/min. Il foro quindi andrà eseguito con una velocità di 480 giri/min e con un avanzamento di 0,1 mm/giro. Una buona lubrorefrigerazione infine garantirà un ottimo risultato di foratura.

Charts use example:

If you want to make a hole of 8 mm with an HSS bit into a metal sheet and you wish to know the correct cutting parameters, have a look on the chart n.1 where you can see that an HSS bit has a suggested feed of 0,1 mm/revolution and a cutting speed of 10÷12 mt/minute. For the speed conversion mt/min and rpm, please look at the chart n. 2; crossing the line containing the size 8 mm and the column of speed 10÷12 mt/min, you will find the value of 480 rpm .So that the drill should be made with a speed of 480 rpm with 0,1 mm/revolution feed. An appropriate lubricating finally guarantee the best cutting results.



PARAMETRI DI TAGLIO PER PUNTE IN METALLO DURO O CON PLACCHETTE IN METALLO DURO PER IL TAGLIO DEI METALLI

Recommended cutting parameter chart for tungsten carbide drill bits and carbide tipped twist drills on metals cuttings

3 

58 78

Metallo duro
H.M.

Materiale da lavorare Work-piece material	*Resistenza a trazione/Durezza* Tensile strenght/hardness	*Velocità di taglio* Cutting speed *Mt/min*	*Diametro punta* / Drill size - *mm*						*Refrigerante* Coolant
			2	2,5	4	5	8	10	
			Avanzamento - Feed - mm/giro						
Acciaio basso legato Low alloy steel	fino / up to 700 N/mm²	80-100	0,025	0,0315	0,05	0,05	0,08	0,1	
Acciaio legato e alto legato High alloy steel	fino / up to 900 N/mm² oltre / beyond 900 N/mm²	70-90 60-70	0,02 0,0125	0,025 0,016	0,04 0,025	0,05 0,025	0,063 0,04	0,08 0,05	
Acciaio per utensili Tool steel	fino / up to 1000 N/mm² oltre / beyond 1000 N/mm²	50-60 20-40	0,0125 0,01	0,016 0,0125	0,025 0,02	0,025 0,025	0,04 0,0315	0,05 0,04	
Acciaio temprato Tempered steel	fino / up to 60 HRC	10-30	0,0063	0,008	0,0125	0,0125	0,02	0,025	
Acciaio per molle Spring steel		20-50	0,01	0,0125	0,02	0,025	0,0315	0,04	
Acciaio austenitico Cr-Ni, Inox, resistente agli acidi e al calore Austenitic stainless steel, acid resistant steel, heat resistant steel		20-40	0,008	0,01	0,016	0,02	0,025	0,0315	
Acciaio ferritico, inox, resistente al calore Ferritic steel, stainless steel, heat resistant steel		40-60	0,0125	0,016	0,025	0,025	0,04	0,05	
Acciaio duro al Mn Hard Mn steel		20-40	0,0063	0,008	0,0125	0,0125	0,02	0,025	
Acciaio fuso Cast steel	fino / up to 500 N/mm² oltre / beyond 500 N/mm²	60-80 30-60	0,025 0,016	0,0315 0,02	0,05 0,0315	0,05 0,0315	0,08 0,05	0,1 0,08	
Acciaio fuso legato / Ghisa in conchiglia Alloy cast steel / Chilled iron	fino / up to 350 HB oltre / beyond 350 HB	40-60 20-40	0,0125 0,0063	0,016 0,008	0,025 0,0125	0,025 0,0125	0,04 0,02	0,05 0,025	
Ghisa grigia Grey cast iron	fino / up to GG 40	70-100	0,025	0,0315	0,05	0,05	0,08	0,1	
Ghisa sferoidale / Ghisa malleabile Spheroidal cast iron / Malleable cast iron	fino / up to GGG 60 fino / up to GTW / GTS 55	50-80	0,02	0,025	0,04	0,05	0,063	0,08	
Rame Copper		80-110	0,02	0,025	0,04	0,05	0,063	0,08	
Bronzo Bronze	duro / hard tenero / soft	60-80 100-120	0,016 0,025	0,02 0,0315	0,0315 0,05	0,0315 0,05	0,05 0,08	0,063 0,1	
Leghe di alluminio fino a 11% Si Aluminium alloy up to 11% Si		100-140	0,0135	0,04	0,063	0,063	0,1	0,125	
Leghe di alluminio oltre 11% Si Aluminium alloy beyond 11% Si		60-100	0,02	0,025	0,04	0,05	0,063	0,08	
Ottone, Zn, Bronzo per getti Brass, Zn, Cast bronze		80-110	0,02	0,025	0,04	0,05	0,063	0,08	
Titanio e sue leghe Titanium alloy		20-40	0,01	0,0125	0,02	0,025	0,0315	0,04	
Leghe di magnesio Magnesium alloy		100-150	0,0315	0,04	0,063	0,063	0,1	0,125	
Materie plastiche dure Hard plastics		60-100	0,0315	0,04	0,063	0,063	0,1	0,125	
Materie plastiche tenere, laminati, termoplastici Soft plastics, thermoplastics, laminates		80-150	0,04	0,05	0,08	0,1	0,125	0,16	
Resine epossidiche rinforzate Reinforced epoxy resins		60-100	0,0315	0,04	0,063	0,063	0,1	0,125	

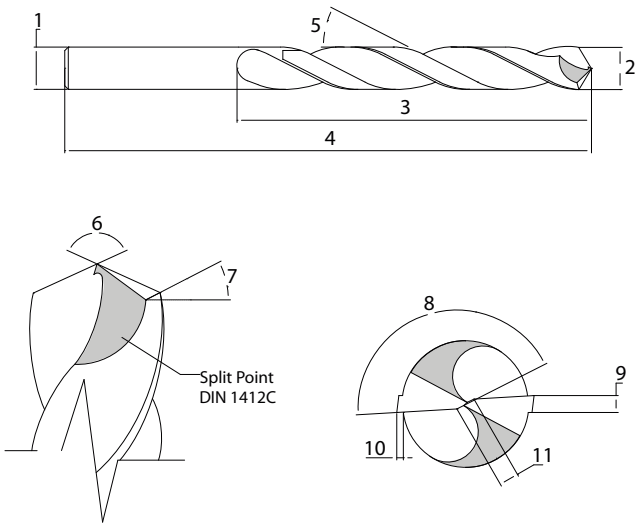
$$\text{n° giri/min (r.p.m.)} = \frac{\text{Vt (Mt/min) x 1000}}{\text{3,14 x Ø (mm)}}$$

Formula di conversione della velocità periferica di taglio da mt/min in n.giri/min in funzione del diametro dell'utensile
Cutting tip speed conversion formula, from Meter Per Min. to RPM, in accordance with the tool size

NOMENCLATURA PER PUNTE ELICOIDALI CILINDRICHE

Twist drill nomenclature

4

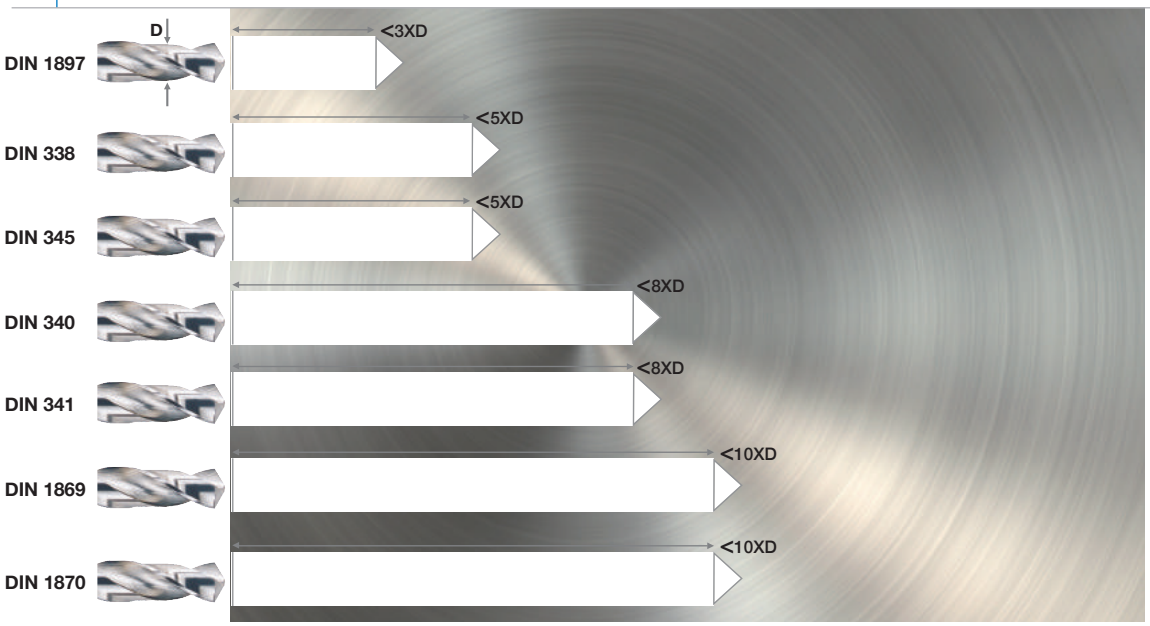


1	(d) Codolo - Shank Queue - Schaft
2	(Ø) Diametro - Diameter Diamètre - Bohrerdurchmesser
3	(l) Elica - Flute Goujure - Spannut
4	(L) Lunghezza totale - Overall length Longueur totale - Gesamttäge
5	(α) Angolo dell'elica - Helix angle Angle d'hèlice - Draliwinkel
6	Angolo dei taglienti - Point angle Angle au sommet - Spitzenwinkel
7	Angolo di spoglia - Lip clearance angle Angle de coupe - Spanwinkel
8	Angolo del tagliente centrale - Chisel edge angle Angle de l'arète centrale - Querschniden winkel
9	Fase - Land Largeur de listel - Fasenbreite
10	Profondità dello scarico - Depth of body clearance Profondeur du dègagement - Rűckentiefe
11	Nocciolo - Web thickness Épaisseur de l'âme - Kerndicke

PROFONDITÀ DI FORATURA INDICATIVE PER PUNTE ELICOIDALI

Cutting depth according to twist drill standard.

5



RELAZIONE TEORICA TRA LA VELOCITÀ DI TAGLIO E LA VITA UTILE DELL'UTENSILE

theoretical link between the cutting speed and the tool life cycle

6

LEGGE DI TAYLOR

$$Vt \times T^n = C$$

Vt è la velocità di taglio espressa in m/min / **T** è la vita utile dell'utensile espressa in min / **C** (m/min) e **n** sono costanti che dipendono dalla tipologia di utensile. In particolare, per utensili HSS C=60 m/min e n=0.15, per utensili in metallo duro C=300 m/min e n=0.3

Vt is the cutting speed in m/min / T is the tool life cycle in min / C=60 m/min, n=0,15 for HSS cutting tools, C=300 m/min, n=0,3 for hard metal cutting tools. C (m/min) and n are constant values depending on the tool type. /

Una punta HSS di diametro 8 mm ha un ciclo di vita teorico di: 2500 h se usata a 400 giri/min - 25 h se usata a 800 giri/min

HSS twist drill Ø 8 mm has a theorical tool life cycle of 2500h at 400rpm, 25h at 800rpm

VELOCITÀ DI TAGLIO PER FRESE A INCASSARE, SVASARE E SBAVARE IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for countersinks and deburring tools in accordance with the materials to work

7 

132

Frese a svasare
Deburring tools

Materiale da lavorare Work-piece material	*Velocità di taglio* Cutting speet *Mt/min*	*Refrigerante* Coolant
Acciaio non legato Carbon steel	20	●
Acciaio legato fino a 700 N/mm² Alloy steel up to 700 N/mm²	15	●
Acciaio legato fino a 1000 N/mm² Alloy steel up to 1000 N/mm²	10	●
Ghisa fino a 250 N/mm² Cast iron up to 250 N/mm²	10	⊗
Ghisa oltre 250 N/mm² Cast iron beyond 250 N/mm²	8	⊗
Ottone fragile Fragile brass	40	⊗
Ottone plastico Tough brass	20	⊗
Leghe di alluminio fino a 11% Si Aluminium alloys up to 11% Si	20	●
Materiale termoplastico Thermoplastics	15	○
Materiale termoindurente Thermosetting plastics	10	⊗

PARAMETRI DI TAGLIO PER UTENSILI CONICI IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for conical drill bits in accordance with the materials to work

8 

137

Utensili conici
Conical drill bits

Materiale da lavorare Work-piece material	*Profondità di foratura* Cutting depth *mm*	*Grandezza* / Size 1	2	3	4	5	6	7	8	*Refrigerante* Coolant
		3÷14	6÷20	16÷30,5	26÷40	36÷50	40÷61	3÷31	3÷22,5	
		Giri/min - rpm								
Acciaio inox e alto legato Stainless steel high alloy steel	1	750	500	280	200	150	130	400	500	●
Acciaio basso legato Low alloy steel	2	1100	740	420	300	220	190	580	740	●
Ghisa fino a 250 N/mm² Cast iron up to 250 N/mm²	3	560	360	200	150	110	100	300	360	⊗
Ghisa oltre 250 N/mm² Cast iron beyond 250 N/mm²	3	380	240	140	100	80	60	200	240	⊗
Ottone fragile Fragile brass	3	2200	1500	830	600	440	400	1100	1500	⊗
Ottone tenace Tough brass	3	1300	860	480	340	260	220	680	860	⊗
Leghe leggere Light alloys	5	1100	740	420	300	220	190	580	740	●
Plastica Plastics	5	1300	860	480	340	260	220	680	860	⊗

PARAMETRI DI TAGLIO PER UTENSILI A GRADINO IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for step drills in accordance with the materials to work

9 

142

Utensili a gradino
Step drill bits

Materiale da lavorare Work-piece material	*Profondità di foratura* Cutting depth *mm*	*Grandezza* / Size 1	2	3	4	5	6	7	8	9	10	11	21	22	23	24	*Refrigerante* Coolant
		4÷12	4÷12	12÷20	4÷20	20÷30	4÷30	30÷40	40÷50	6÷36	6÷58	4÷39	6,3÷26,75	6÷30,5	6÷37	6÷38	
		Giri/min - rpm															
Acciaio inox e alto legato Stainless steel high alloy steel	3÷4	800	800	400	530	250	380	180	140	300	200	300	400	350	300	300	●
Acciaio basso legato Low alloy steel	3÷4	1200	1200	600	800	380	560	280	200	450	300	450	600	530	450	450	●
Ghisa fino a 250 N/mm² Cast iron up to 250 N/mm²	3÷4	600	600	300	400	190	280	140	100	230	150	230	300	260	230	230	⊗
Ghisa oltre 250 N/mm² Cast iron beyond 250 N/mm²	3÷4	400	400	200	260	130	190	90	70	150	100	150	200	180	150	150	⊗
Ottone fragile Fragile brass	3÷4	2400	2400	1200	1600	760	1100	550	420	900	600	900	1200	1000	900	900	⊗
Ottone tenace Tough brass	3÷4	1400	1400	700	920	450	650	320	240	530	350	530	700	620	530	530	⊗
Leghe leggere Light alloys	3÷4	1200	1200	600	800	380	560	280	200	450	300	450	600	530	450	450	●
Plastica Plastics	3÷4	1400	1400	700	920	450	650	320	240	530	350	530	700	620	530	530	⊗

VELOCITÀ DI TAGLIO PER FRESE A TAZZA IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for hole cutters in accordance with the materials to work

10 

148

Frese a tazza
Hole cutters

Materiale da lavorare Work-piece material	*Ø Fresa* / Hole cutter *mm.*												*Refrigerante* Coolant
	12÷17	18÷24	25÷32	33÷38	39÷44	46÷51	52÷57	58÷64	65÷70	71÷80	81÷90	91÷100	
	n. giri/min - r.p.m												
Acciaio basso legato Low alloy steel	550	380	300	240	200	170	150	130	120	110	100	90	
Acciaio inox Acciaio alto legato Stainless steel High alloy steel	230	160	130	100	80	70	60	60	50	50	40	40	
Ghisa Cast iron	280	190	150	120	100	90	80	70	60	60	50	40	
Leghe leggere Light alloys	870	590	470	370	310	270	240	210	190	170	150	140	
Alluminio Aluminium	870	590	470	370	310	270	240	210	190	170	150	140	
Plastica Plastics	660	450	350	280	240	210	180	160	150	130	120	100	

VELOCITÀ DI TAGLIO PER FRESE A CAROTARE IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for core bits in accordance with the materials to work

11 

156

Frese a carotare in HSS
HSS Core drills

Materiale da lavorare Work-piece material	*Ø Fresa* / Hole cutter *mm.*							*Refrigerante* Coolant
	12÷15	16÷20	21÷25	26÷30	31÷35	36÷45	50÷60	
	n. giri/min - r.p.m							
Acciaio basso legato Low alloy steel	660	480	370	310	260	200	160	
Acciaio inox Acciaio alto legato Stainless steel High alloy steel	290	210	170	140	120	90	70	
Ghisa Cast iron	340	250	190	160	140	110	80	
Leghe leggere Light alloys	1030	740	580	480	410	320	240	

VELOCITÀ DI TAGLIO PER FRESE A CAROTARE CON DENTI IN METALLO DURO

Recommended cutting parameter chart for core bits in accordance with the materials to work

12 

159

Frese a carotare in HM
HM Core drills

Materiale da lavorare Work-piece material	*Ø Fresa* / Hole cutter *mm.*							*Refrigerante* Coolant
	12÷15	16÷20	21÷25	26÷30	31÷35	36÷45	50÷60	
	n. giri/min - r.p.m							
Acciaio basso legato Low alloy steel	1220	880	690	570	480	380	290	
Acciaio inox Acciaio alto legato Stainless steel High alloy steel	860	620	480	400	340	270	200	
Ghisa Cast iron	980	710	550	450	390	300	230	
Leghe leggere Light alloys	1470	1060	830	680	580	450	350	

VELOCITÀ DI TAGLIO PER FRESE A TAZZA TCT IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for TCT hole cutters in accordance with the materials to work

13 

154

Frese a tazza T.C.T.
T.C.T. Hole cutters

Materiale da lavorare Work-piece material	*Spessore di foratura* Cutting depth mm.	*Ø Frese TCT* / TCT hole cutter *mm.*.						*Refrigerante* Coolant
		15÷20	21÷25	26÷30	31÷40	41÷50	51÷70	
		n. giri/min - r.p.m						
Acciaio basso legato Low alloy steel	4	710	550	450	360	280	210	
Acciaio inox **Acciaio alto legato** Stainless steel High alloy steel	2	530	420	340	270	210	160	
Ghisa Cast iron	4	620	480	400	320	250	190	
Ottone Brass	4	800	620	510	410	320	240	
Alluminio Aluminium	4	880	690	570	450	350	270	
Plastica Plastics	4	740	580	480	380	300	220	

VELOCITÀ DI TAGLIO PER SEGHE A TAZZA IN FUNZIONE DEL MATERIALE DA LAVORARE

Recommended cutting parameter chart for bimetal hole saws in accordance with the materials to work

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174

Seghe a tazza
Bimetal hole saws

Materiale da lavorare Work-piece material	*Ø Sega* / Hole saw *mm.*.																*Refrigerante* Coolant
	14÷17	19÷24	25÷32	33÷38	40÷44	46÷51	52÷57	59÷64	65÷70	73÷79	83÷89	92÷98	102÷108	111÷121	127÷140	146÷152	160÷210	
	n. giri/min - r.p.m																	
Ferro / Acciaio dolce Low alloy steel	530	360	280	230	190	170	140	130	120	110	90	80	80	70	60	50	40	
Acciai trattati **Acciai inox** Stainless steel High alloy steel	210	140	110	90	80	70	60	50	50	40	40	30	30	30	20	20	20	
Ghisa Cast iron	250	170	140	110	90	80	70	60	60	50	40	40	40	30	30	30	20	
Ottone Brass	740	510	400	320	270	230	200	180	170	150	130	120	110	100	80	70	60	
Alluminio e leghe leggere Aluminium Light alloys	850	580	450	360	300	270	230	210	190	170	150	130	120	110	100	80	70	
Legno Wood	960	650	510	410	340	300	260	230	210	190	170	150	140	120	110	100	80	
Plastica Plastics	640	430	340	270	230	200	170	150	140	130	110	100	90	80	70	60	50	
Cartongesso Gypsum board	960	650	510	410	340	300	260	230	210	190	170	150	140	120	110	100	80	

VELOCITÀ DI TAGLIO IN FUNZIONE DEL DIAMETRO DELLA FRESA ROTATIVA IN HSS

Recommended cutting parameter chart for HSS rotary files

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Z2: Vt 220 ÷ 250 m/min
Z3: Vt 80 ÷ 220 m/min

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Frese Rotative HSS
HSS rotary files

Diametro Fresa Rotary burr diameter *mm*	*Velocità di taglio* - Cutting speed *Mt/min*							
	80	100	150	200	220	230	240	250
	n. giri/min - r.p.m							
6	4250	5310	7960	10620	11680	12210	12740	13270
8	3180	3980	5970	7960	8760	9160	9550	9950
10	2550	3180	4780	6370	7010	7320	7640	7960
12	2120	2650	3980	5310	5840	6100	6370	6630
15	1700	2120	3180	4250	4670	4880	5100	5310

VELOCITÀ DI TAGLIO IN FUNZIONE DEL DIAMETRO DELLA FRESA ROTATIVA IN METALLO DURO

Recommended cutting parameter chart for carbide rotary files

Tutti i tipi di taglio (HM1,HM3 PLUS, HM3, HM4): Vt 300 ÷ 400 m/min
All cut types (HM1,HM3 PLUS, HM3, HM4): Vt 300 ÷ 400 m/min

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166

Frese Rotative H.M.
H.M. rotary files

Diametro Fresa Rotary burr diameter *mm*	*Velocità di taglio* - Cutting speed *Mt/min*					
	300	320	340	360	380	400
	n. giri/min - r.p.m					
6	15930	16980	18050	19100	20170	21230
8	11950	12740	13535	14330	15130	15920
10	9550	10190	10830	11465	12100	12740
12	7960	8490	9020	9560	10085	10620
16	5970	6370	6770	7160	7570	7960

PARAMETRI DI TAGLIO DELLA SEGA CIRCOLARE IN HSS

Recommended cutting parameter chart for HSS band saw blades

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198

Seghe Circolari HSS
HSS circular blades

Materiale da lavorare Work-piece material	*Velocità avanzamento* Feed rate (*mm/min*)	*Velocità periferica di taglio* Cutting speed (*mt/min*)	*Refrigerante* Coolant
Acciaio con R<500 N/mm² Steel with R<500 N/mm²	15÷25	70÷100	
Acciaio con R<800 N/mm² Steel with R<800 N/mm²	10÷15	25÷35	
Acciaio con R<1000 N/mm² Steel with R<1000 N/mm²	5÷10	30÷40	
Acciaio con R<1400 N/mm² Steel with R<1400 N/mm²	5÷7	15÷25	
Acciaio inox Stainless steel	5÷7	25÷35	
Ghisa Cast iron	10÷15	50÷70	
Alluminio Aluminium	20÷40	70÷150	
Ottone e Bronzo Brass and bronze	20÷40	70÷150	
Rame Copper	20÷40	70÷150	
Plastica Plastics	20÷50	100÷200	

PARAMETRI DI TAGLIO DELLA SEGA CIRCOLARE IN METALLO DURO

Recommended cutting parameter chart for carbide band saw blades

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Seghe Circolari H.M.
H.M. circular blades

Materiale da lavorare Work-piece material	*Velocità periferica di taglio* Cutting speed (*mt/sec.*)	*Velocità di avanzamento* Feed rate (*mt/min.*)	*Art 27050*	*Art 27055*	*Art 27060*	*Art 27070*	*Refrigerante* Coolant
Legno tenero Soft wood	60÷90	10÷40					
Legno duro Hard wood	50÷70	10÷30					
Compensato truciolare Plywood-chipboard	60÷80	10÷20					
Plastica Plastics	25÷60	5÷10					
Alluminio Aluminium	20÷30	5÷8					
Ferro, Acciaio dolce Iron, Steel	20÷30	5÷8					
Leghe leggere Light alloys	20÷30	5÷8					

SCELTA DELLA LAMA E DEI SUOI PARAMETRI DI TAGLIO IN FUNZIONE DEL MATERIALE DA LAVORARE

Chart for blades selection and relative cutting speed in accordance with the materials to work



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Materiale da lavorare Work-piece material	*Valori DIN*	*M-42* *Art 25016*	*M-42* *Art 25010*	*M-42* *Art 25011*	*ASP* *Art 25018*	*Velocità di taglio* Cutting speed *Mt/min*	*Raffreddamento* *Rapporto di emulsione* Emulsion
Acciai da costruzione Structurall steels	St 37 / St 44 St 50 / St 60	■	■	■		80-100 50-70	1:20
Acciai da cementazione Case-Hardening steels	C 10 / C 15 14 NiCr14 21 NiCRMo 2 16 MnCr 5	■	■	■		80-100 40-55 50-60 50-60	1:15
Acciai automatici Free-Machining steels	9 S20	■	■	■		80-100	1:15
Acciai da bonifica Heat treating steels	C 35 / C 40 / C 45 40 Mn 4 36 NiCr 6 2 34 CrNiMo 42 CrMo 4		■	■	■	60-70 60-70 50-65 50-65 50-65	1:10
Acciai per cuscinetti a sfera Ball bearing tool steels	100 Cr 6 100 CrMn 6		■	■	■	35-50	1:10
Acciai per molle Spring steels	60 Si 7 50 Cr V4		■	■	■	45-60	1:10
Acciai per utensili per lavorazioni a freddo Cold-working tool steels	125 Cr 1 X 210 Cr 12 X 155 CrVMo 12 1 100 MnCrW 4 90 MnCrV 8		■	■	■	40-50 20-30 20-30 40-50 30-35	1:30 1:30 1:30 1:30 1:30
Acciai per utensili per lavorazioni a caldo Hot-working tool steels	40 CrMnMo 7 X 40 CrMoV 5 1 56 NiCrMoV 7 40 CrMnNiMo 8 6 4		■	■	■	20-25 18-22 25-30 20-25	1:20 1:20 1:20 1:20
Acciai rapidi High speed steels	S 6-5-2-5 S 6-5-2 S 3-3-2 S 18-0-1 S 18-1-2-10			■	■	35-45	1:10
Acciai per valvole Valve steels	W 45 CrSi 9 3 X 45 CrNiW 18 9			■	■	30-40	1:10
Acciai per alte temperature Heat resistant steels	X 20 CrMoV 12 1 X 5 NiCrTi 26 15			■	■	15-25	1:8
Acciai resistenti al calore Heat resistant steels	X 10 CrSi 6 X 10 CrAl 18 X 15 CrNiSi 25 30		■		■	15-25	1:8
Acciai inossidabili Stainless steels	X 5 CrNi 18 9 X 10 CrNiMoTi 1810	■	■	■	■	30-40	1:8
Acciai legati Alloyed steels	1000-1500 N/mm²			■	■	25-35	1:10
Leghe speciali a base di Nichel Nichel-Base Alloys	Nimonic Nimonic Hastelloy Hastelloy Incoloy Inconel				■	10-20 10-20 10-20 10-20 10-25 10-25	1:6
Plastiche Plastics	Teflon PVC		■	■		100-400	1:50 a secco/dry
Bronzo Bronze	CuSn 6 G-CuSn 8				■	80-150	1:30
Bronzo Alluminio Bronze-Aluminium	CuAl 8 CuAl 8 Fe G-CuAl 10 Fe				■	50-70 35-50 35-50	1:30
Alluminio Aluminium	Al-99,5		■	■		80-800	1:30
Ghise Cast irons	G-AlSiCu 4 GG - 15 GG - 30 GTW - 40 GTS - 65 GGG - 50		■	■		50-70	a secco/dry
Fusioni d'acciaio Casting iron	GS - 38 GS - 60		■	■		40-60	1:30
Ottone Brass	CuZn10 CuZn408b 2		■	■		100-600	1:30
Rame Copper	Cu 99,0 Cu Be 2		■	■		100-400	1:10
Titanio Titanium	Ti 1		■	■	■	10-20	1:10

Consigli / Tips:



A = Trucioli sottili e/o spezzettati indicano una pressione di taglio insufficiente
Thin or powdery chips: increase feed pressure
B = Trucioli spessi, compressi e con una colorazione bluastra segnalano un eccessivo carico di lavoro
Heavy thick blue chips: reduce feed rate
C = Trucioli sottili e morbidamente arricciati rilevano un corretto utilizzo dei parametri di taglio
Loosely curled chips: correct feed speed

SCELTA DELLE VELOCITÀ DI TAGLIO DEI MASCHI A MACCHINA, IN FUNZIONE DEL MATERIALE DA FILETTARE

Chart for machine taps selection and relative cutting speed in accordance with the materials to work

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Maschi a macchina
Machine taps

Materiale da lavorare Work-piece material	*Velocità di taglio* Cutting speed *(m/min.)*	*Refrigerante* Coolant
Acciaio basso legato Low alloy steel	10÷20	
Acciai refrattari, Acciai per utensili Heat resistant steel, Tool steel	4÷8	
Acciai R>1200 N/mm² Steel R>1200N/mm²	2÷5	
Acciaio inox Stainless steel	5÷10	
Leghe speciali Nimonic, Hastelloy	2÷4	
Ghisa sferoidale Spheroidal cast iron	6÷20	
Ghisa malleabile Malleable cast iron	6÷12	
Ottone truciolo corto Brass short chipping	20÷30	
Ottone truciolo lungo, Leghe di rame, leghe di zinco Brass long chipping, Cu alloy, Zn alloy	10÷15	
Bronzo Bronze	6÷15	
Alluminio truciolo corto Alu Short chipping	15÷30	
Alluminio truciolo lungo, Leghe di magnesio Alu long-chipping, Mg alloy	10÷20	
Titanio Titanium	3÷4	
Plastica e materiali termoplastici Thermoplastics	5÷15	
Materiali termoindurenti Thermosetting materials	5÷10	

Note / Notes: Valido per i fori ciechi e passanti / Suited for blind and through holes **Consigli** / Tips: Utilizzare per spessori <1,5 Ø dell'utensile To be used with thickness < 1,5 Ø of the tool

SCELTA DEI MASCHI A MACCHINA CON ANELLI COLORATI IN FUNZIONE DEL MATERIALE DA FILETTARE

Chart for colored rings machine taps selection and relative cutting speed in accordance with the materials to work

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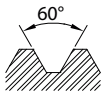
Maschi a macchina
Machine taps

Materiale da lavorare Work-piece material	*Velocità di taglio* Cutting speed *(m/min.)*	*Refrigerante* Coolant	*Art. 10500*	*Art. 10504*	*Art. 10508*	*Art. 10510*	*Art. 10511*	*Art. 10513*
Acciaio basso legato Low alloy steel	10÷20			■				
Acciai refrattari, Acciai per utensili Heat resistant steel, Tool steel	4÷8		■	■		■		
Acciai R>1200 N/mm² Steel R1200>N/mm²	2÷5					■		
Acciaio inox Stainless steel	5÷10		■	■				
Leghe speciali Nimonic, Hastelloy	2÷4							
Ghisa sferoidale Spheroidal cast iron	6÷20		■		■			
Ghisa malleabile Malleable cast iron	6÷12				■			
Ottone truciolo corto Brass short chipping	20÷30				■			■
Ottone truciolo lungo Leghe di rame, leghe di zinco Brass long chipping, Cu alloy, Zn alloy	10÷15			■				
Bronzo Bronze	6÷15			■	■			
Alluminio truciolo corto Alu Short chipping	15÷30		■		■			
Alluminio truciolo lungo Leghe di magnesio Alu long-chipping, Mg alloy	10÷20			■			■	
Titanio Titanium	3÷4		■	■				
Plastica e materiali termoplastici Thermoplastics	5÷15				■	■		
Materiali termoindurenti Thermosetting materials	5÷10				■			

Note / Notes: Valido per i fori ciechi e passanti / Suited for blind and through holes **Consigli** / Tips: Utilizzare per spessori <1,5 Ø dell'utensile To be used with thickness < 1,5 Ø of the tool

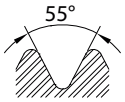
TABELLA DI CONVERSIONE DELLE FILETTATURE A POLLICE IN MISURE METRICHE

Conversion chart from metric to inch threads



M-MF

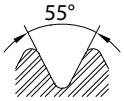
BSW



BSP-BSW-BSF

pollici inches	mm	pollici inches	mm	pollici inches	mm	pollici inches	mm
1/16-60	1,59	7/16-14	11,11	1.3/8-6	34,92	3”-3,5	76,20
3/32-48	2,38	1/2-12	12,70	1.1/2-6	38,10	3.1/4-3 1/4	82,55
1/8-40	3,17	9/16-12	14,28	1.5/8-5	41,28	3.1/2-3 1/4	88,90
5/32-32	3,96	5/8-11	15,87	1.3/4-5	44,45	3.3/4-3	95,24
3/16-24	4,76	3/4-10	19,05	1.7/8-4,5	47,63	4”-3	101,60
7/32-24	5,55	7/8-9	22,22	2”-4,5	50,80	4.1/2-2 7/8	114,30
1/4-20	6,35	1”-8	25,40	2.1/4-4	57,15	5”-2 3/4	127,00
5/16-18	7,93	1.1/8-7	28,57	2.1/2-4	63,50	5.1/2-2 5/8	139,70
3/8-16	9,52	1.1/4-7	31,75	2.3/4-3,5	69,85	6” 2,5	152,40

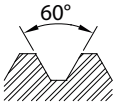
BSP - BSPT



BSPT 1:16

pollici inches	mm	dist. di misura per BSPT dist. of the measure BSPT	pollici inches	mm	dist. di misura per BSPT dist. of the measure BSPT	pollici inches	mm	dist. di misura per BSPT dist. of the measure BSPT
1/8-28	9,72	10,10	1”-11	33,24	26,00	2.1/4-11	65,71	36,10
1/4-19	13,15	15,00	1.1/8-11	37,89	-	2.1/2-11	75,18	37,10
3/8-19	16,66	15,40	1.1/4-11	41,91	28,30	2.3/4-11	81,53	-
1/2-14	20,95	20,50	1.3/8-11	44,32	-	3”-11	87,88	40,20
5/8-14	22,90	20,10	1.1/2-11	47,80	28,30	4”-11	113,03	-
3/4-14	26,44	21,80	1.3/4-11	53,74	30,30	5”-11	138,43	-
7/8-14	30,20	24,45	2”-11	59,61	32,70			

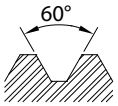
NPT



NPT-NPTF 1:16

pollici inches	mm	dist. di misura dist. of the measure	pollici inches	mm	dist. di misura dist. of the measure	pollici inches	mm	dist. di misura dist. of the measure
1/16-27	7,77	9,85	5/8-14	22,71	20,05	1.3/4-11,5	56,04	27,75
1/8-27	10,12	9,85	3/4-14	26,40	21,35	2”-11,5	59,91	32,15
1/4-18	13,46	14,65	1”-11,5	33,05	25,45	2.1/2-8	72,51	36,30
3/8-18	16,90	15,05	1.1/4-11,5	41,80	27,45	3”-8	88,42	39,40
1/2-14	21,06	20,05	1.1/2-11,5	47,87	27,45			

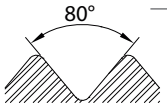
UNC-UNF



UNC-UNF

pollici inches	UNC	UNF	mm	pollici inches	UNC	UNF	mm	pollici inches	UNC	UNF	mm
n.1	64	72	1,85	n.12	24	28	5,48	5/8	11	18	15,87
n.2	56	64	2,18	3/16	24	32	4,76	3/4	10	16	19,05
n.3	48	56	2,51	1/4	20	28	6,35	7/8	9	14	22,22
n.4	40	48	2,84	5/16	18	24	7,93	1”	8	14	25,40
n.5	40	44	3,17	3/8	16	24	9,52	1.1/8	7	12	28,40
n.6	32	40	3,50	7/16	14	20	11,11	1.1/4	7	12	31,75
n.8	32	36	4,16	1/2	13	20	12,70	1.3/8	6	12	34,92
n.10	24	32	4,82	9/16	12	18	14,28	1.1/2	6	12	38,10

PG



Pg

n.	fil. per pollice threads per inch	mm	n.	fil. per pollice threads per inch	mm	n.	fil. per pollice threads per inch	mm
PG 7	20	12,50	PG 16	18	22,50	PG 42	16	54,00
PG 9	18	15,20	PG 21	16	28,30	PG 48	16	59,30
PG 11	18	18,60	PG 29	16	37,00			
PG 13,5	18	20,40	PG 36	16	47,00			

TABELLA RELATIVA AI PREFORI DI MASCHIATURA

Tapping drill sizes chart

M

M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm
M 1 x 0,25	0,75	M 2,3 x 0,4	1,9	M 7 x 1	6	M 20 x 2,5	17,5	M 45 x 4,5	40,5
M 1,1 x 0,25	0,85	M 2,5 x 0,45	2,05	M 8 x 1,25	6,8	M 22 x 2,5	19,5	M 48 x 5	43
M 1,2 x 0,25	0,95	M 2,6 x 0,45	2,1	M 9 x 1,25	7,8	M 24 x 3	21	M 52 x 5	47
M 1,4 x 0,3	1,1	M 3 x 0,5	2,5	M 10 x 1,5	8,5	M 27 x 3	24		
M 1,6 x 0,35	1,25	M 3,5 x 0,6	2,9	M 11 x 1,5	9,5	M 30 x 3,5	26,5	M 3 x 0,6	2,4
M 1,7 x 0,35	1,3	M 4 x 0,7	3,3	M 12 x 1,75	10,2	M 33 x 3,5	29,5	M 3,5 x 0,75	2,75
M 1,8 x 0,35	1,45	M 4,5 x 0,75	3,7	M 14 x 2	12	M 36 x 4	32	M 4 x 0,75	3,25
M 2 x 0,4	1,6	M 5 x 0,8	4,2	M 16 x 2	14	M 39 x 4	35	M 5 x 0,9	4,1
M 2,2 x 0,45	1,75	M 6 x 1	5	M 18 x 2,5	15,5	M 42 x 4,5	37,5		

MF

MF	Ø mm	MF	Ø mm	MF	Ø mm	MF	Ø mm	MF	Ø mm
M 3 x 0,35	2,65	M 12 x 1	11	M 20 x 1,5	18,5	M 30 x 1,5	28,5	M 42 x 2	40
M 3,5 x 0,35	3,15	M 12 x 1,25	10,8	M 20 x 2	18	M 30 x 2	28	M 42 x 3	39
M 4 x 0,35	3,65	M 12 x 1,5	10,5	M 22 x 1	21	M 32 x 1,5	30,5	M 45 x 1,5	43,5
M 4 x 0,5	3,5	M 13 x 1	12	M 22 x 1,5	20,5	M 33 x 1,5	31,5	M 45 x 2	43
M 5 x 0,5	4,5	M 13 x 1,5	11,5	M 22 x 2	20	M 33 x 2	31	M 45 x 3	42
M 6 x 0,5	5,5	M 13 x 1,75	11,2	M 24 x 1	23	M 34 x 1,5	32,5	M 48 x 1,5	46,5
M 6 x 0,75	5,2	M 14 x 1	13	M 24 x 1,5	22,5	M 35 x 1,5	33,5	M 48 x 2	46
M 7 x 0,75	6,2	M 14 x 1,25	12,8	M 24 x 2	22	M 36 x 1,5	34,5	M 48 x 3	45
M 8 x 0,5	7,5	M 14 x 1,5	12,5	M 25 x 1	24	M 36 x 2	34	M 50 x 1,5	48,5
M 8 x 0,75	7,2	M 15 x 1	14	M 25 x 1,5	23,5	M 36 x 3	33	M 50 x 2	48
M 8 x 1	7	M 15 x 1,5	13,5	M 26 x 1	25	M 38 x 1,5	36,5	M 50 x 3	47
M 9 x1	8	M 15 x 2	13	M 26 x 1,5	24,5	M 39 x 1,5	37,5	M 52 x 1,5	50,5
M 10 x 0,5	9,5	M 16 x 1	15	M 27 x 1	26	M 39 x 2	37	M 52 x 2	50
M 10 x 0,75	9,2	M 16 x 1,5	14,5	M 27 x 1,5	25,5	M 39 x 3	36	M 52 x 3	49
M 10 x 1	9	M 18 x 1	17	M 27 x 2	25	M 40 x 1,5	38,5		
M 10 x 1,25	8,8	M 18 x 1,5	16,5	M 28 x 1,5	26,5	M 40 x 2	38		
M 11 x 1	10	M 18 x 2	16	M 28 x 2	26	M 40 x 3	37		
M 12 x 0,75	10,2	M 20 x 1	19	M 30 x 1	29	M 42 x 1,5	40,5		

BSW

BSW	Ø mm	BSW	Ø mm	BSW	Ø mm	BSW	Ø mm	BSW	Ø mm
W 3/32	1,8	W 1/4	5,1	W 9/16	12	W 1.1/8	24,75	W 2”	44,5
W 1/8	2,6	W 5/16	6,5	W 5/8	13,5	W 1.1/4	27,75		
W 5/32	3,1	W 3/8	7,9	W 3/4	16,5	W 1.3/8	30,2		
W 3/16	3,6	W 7/16	9,3	W 7/8	19,25	W 1.1/2	33,5		
W 7/32	4,4	W 1/2	10,5	W 1”	22	W 1.3/4	38,5		

BSF

BSF	Ø mm	BSF	Ø mm	BSF	Ø mm	BSF	Ø mm	BSF	Ø mm
BSF 1/4	5,2	BSF 3/8	8,1	BSF 1/2	11	BSF 3/4	16,5	BSF 1”	22,5
BSF 5/16	6,6	BSF 7/16	9,5	BSF 5/8	14	BSF 7/8	19,5		

UNC	Ø mm	UNC	Ø mm	UNC	Ø mm	UNC	Ø mm	UNC	Ø mm
No. 1-64	1,5	No. 10-24	3,9	1/2 - 13	12,2	1.1/4 - 7	30,75	2.3/4 - 4	70
No. 2-56	1,8	No. 12-24	4,5	9/16 - 12	13,5	1.3/8 - 6	34	3” - 4	76,2
No. 3-48	2,1	1/4 - 20	5,2	5/8 - 11	16,5	1.1/2 - 6	39,5	3.1/4 - 4	82,6
No. 4-40	2,3	5/16 -	6,6	3/4 - 10	19,5	1.3/4 - 5	51,5	3.1/2 - 4	
No. 5-40	2,6	18	8	7/8 - 9	22,25	2” -4,5	51,5		
No. 6-32	2,85	3/8 - 16	9,4	1” - 8	25	2.1/4 - 4,5	51,5		
No. 8-32	3,5	7/16 - 14	10,8	1.1/8 - 7	28,25	2.1/2 - 4	63,5		

UNF	Ø mm	UNF	Ø mm	UNF	Ø mm	UNF	Ø mm	UNF	Ø mm
No. 0-80	1,3	No. 5-44	2,7	1/4-20	5,15	9/16-18	12,9	1.1/8-12	26,5
No. 1-72	1,6	No. 6-40	3	5/16-24	6,9	5/8-18	14,5	1.1/4-12	29,5
No. 2-64	1,9	No. 8-36	3,5	3/8-24	8,5	3/4-16	17,5	1.3/8-12	32,5
No. 3-56	2,1	No. 10-32	4,1	7/16-20	9,9	7/8-14	20,25	1.1/2-12	36
No. 4-48	2,4	No. 12-28	4,7	1/2-20	11,5	1”-12	23,25		

BSP	Ø mm	BSP	Ø mm	BSP	Ø mm	BSP	Ø mm	BSP	Ø mm
G 1/8	8,8	G 5/8	21	G 1.1/8	35,3	G 1.3/4	51,3	G 2.3/4	78,9
G 1/4	11,8	G 3/4	24,5	G 1.1/4	39,3	G 2”	57	G 3”	85,3
G 3/8	15,25	G 7/8	28,25	G 1.3/8	41,7	G 2.1/4	63,1		
G 1/2	19	G 1”	30,75	G 1.1/2	45,2	G 2.1/2	72,6		

BSPT	Ø mm	BSPT	Ø mm	BSPT	Ø mm	BSPT	Ø mm	BSPT	Ø mm
1/8-28	8,20	1/2-14	18,00	7/8-14	27,50	1.1/2-11	44,00	3”-11	84,00
1/4-19	11,00	5/8-14	20,25	1”-11	29,50	2”-11	56,00		
3/8-19	14,50	3/4-14	23,50	1.1/4-11	38,50	2.1/2-11	71,00		

NPT	Ø mm	NPT	Ø mm	NPT	Ø mm	NPT	Ø mm
1/16-27	6,25	3/8-18	14,5	1”-11,5	29	2”-11,5	56
1/8-27	8,5	1/2-14	18	1.1/4-11,5	38	2.1/2-8	67
1/4-18	11,2	3/4-14	23	1.1/2-11,5	44	3”-8	83

PG	Ø mm	PG	Ø mm	PG	Ø mm	PG	Ø mm	PG	Ø mm
PG 7	11,4	PG 11	17,25	PG 16	21,25	PG 29	35,5	PG 42	52,5
PG 9	14	PG 13,5	19	PG 21	26,9	PG 36	45,5	PG 48	58

TABELLA RELATIVA AI PREFORI DI MASCHIATURA PER MASCHI A RULLARE

Drill size cutting taps chart for forming ta

M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm
M 3 x 0,35	2,80	M 5 x 0,5	4,80	M 8 x 1	7,50	M 10 x 1,25	9,40	M 12 x 1,5	11,25
M 4 x 0,5	3,80	M 6 x 0,75	5,60	M 10 x 1	9,50	M 12 x 1,25	11,50	M 14 x 1,5	13,25

TABELLA PER FILETTATURA ESTERNA

External thread chart

M

M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm	M	Ø mm
M 1 x 0,25	0,97	M 2,3 x 0,4	2,23	M 4,5 x 0,75	4,41	M 12 x 1,75	11,83	M 33 x 3,5	32,73
M 1,1 x 0,25	1,07	M 2,5 x 0,45	2,43	M 5 x 0,8	4,90	M 14 x 2	13,82	M 36 x 4	35,70
M 1,2 x 0,25	1,17	M 2,6 x 0,45	2,53	M 5 x 0,9	4,89	M 16 x 2	15,82	M 39 x 4	38,70
M 1,4 x 0,3	1,36	M 3 x 0,5	2,92	M 6 x 1	5,88	M 18 x 2,5	17,79	M 42 x 4,5	41,69
M 1,6 x 0,35	1,54	M 3 x 0,6	2,91	M 7 x 1	6,88	M 20 x 2,5	19,79	M 45 x 4,5	41,69
M 1,7 x 0,35	1,64	M 3,5 x 0,6	3,41	M 8 x 1,25	7,87	M 22 x 2,5	21,79	M 48 x 5	47,66
M 1,8 x 0,35	1,74	M 3,5 x 0,75	3,41	M 9 x 1,25	8,87	M 24 x 3	23,77	M 52 x 5	51,66
M 2 x 0,4	1,93	M 4 x 0,7	3,91	M 10 x 1,5	9,85	M 27 x 3	26,77		
M 2,2 x 0,45	2,13	M 4 x 0,75	3,91	M 11 x 1,5	10,85	M 30 x 3,5	29,73		

MF

MF	Ø mm	MF	Ø mm	MF	Ø mm	MF	Ø mm	MF	Ø mm
M 3 x 0,35	2,94	M 12 x 1	11,88	M 20 x 1,5	19,85	M 30 x 1,5	29,85	M 42 x 2	41,82
M 3,5 x 0,35	3,44	M 12 x 1,25	11,86	M 20 x 2	19,82	M 30 x 2	29,82	M 42 x 3	41,76
M 4 x 0,35	3,94	M 12 x 1,5	11,85	M 22 x 1	21,88	M 32 x 1,5	31,85	M 45 x 1,5	44,85
M 4 x 0,5	3,93	M 13 x 1	12,88	M 22 x 1,5	21,85	M 33 x 1,5	32,85	M 45 x 2	44,82
M 5 x 0,5	4,93	M 13 x 1,5	12,85	M 22 x 2	21,82	M 33 x 2	32,82	M 45 x 3	44,76
M 6 x 0,5	5,93	M 13 x 1,75	12,83	M 24 x 1	23,88	M 34 x 1,5	33,85	M 48 x 1,5	47,85
M 6 x 0,75	5,90	M 14 x 1	13,88	M 24 x 1,5	23,85	M 35 x 1,5	34,85	M 48 x 2	47,82
M 7 x 0,75	6,90	M 14 x 1,25	13,86	M 24 x 2	23,82	M 36 x 1,5	35,85	M 48 x 3	47,46
M 8 x 0,5	7,93	M 14 x 1,5	13,85	M 25 x 1	24,88	M 36 x 2	35,82	M 50 x 1,5	49,85
M 8 x 0,75	7,90	M 15 x 1	14,88	M 25 x 1,5	24,85	M 36 x 3	35,76	M 50 x 2	49,82
M 8 x 1	7,83	M 15 x 1,5	14,85	M 26 x 1	25,88	M 38 x 1,5	37,85	M 50 x 3	49,76
M 9 x 1	8,88	M 15 x 2	14,82	M 26 x 1,5	25,85	M 39 x 1,5	38,85	M 52 x 1,5	51,85
M 10 x 0,5	9,93	M 16 x 1	15,88	M 27 x 1	26,88	M 39 x 2	38,82	M 52 x 2	51,82
M 10 x 0,75	9,90	M 16 x 1,5	15,85	M 27 x 1,5	26,85	M 39 x 3	38,76	M 52 x 3	51,76
M 10 x 1	9,88	M 18 x 1	17,88	M 27 x 2	26,82	M 40 x 1,5	39,85		
M 10 x 1,25	9,86	M 18 x 1,5	17,85	M 28 x 1,5	27,85	M 40 x 2	39,82		
M 11 x 1	10,88	M 18 x 2	17,82	M 28 x 2	27,82	M 40 x 3	39,76		
M 12 x 0,75	11,90	M 20 x 1	19,88	M 30 x 1	29,88	M 42 x 1,5	41,85		

BSW

BSW	Ø mm	BSW	Ø mm	BSW	Ø mm	BSW	Ø mm
W 1/4	6,16	W 7/16	10,89	W 5/8	15,62	W 1”	25,08
W 5/16	7,76	W 1/2	12,43	W 3/4	18,76	W 1.1/8	28,21
W 3/8	9,30	W 9/16	13,92	W 7/8	21,89		

BSF

BSF	Ø mm	BSF	Ø mm	BSF	Ø mm	BSF	Ø mm
BSF 3/16	4,67	BSF 3/8	9,39	BSF 9/16	14,12	BSF 7/8	22,02
BSF 1/4	6,25	BSF 7/16	10,97	BSF 5/8	15,71	BSF 1”	25,17
BSF 5/16	7,82	BSF 1/2	12,54	BSF 3/4	18,85		

25 ...continua

UNC	Ø mm	UNC	Ø mm	UNC	Ø mm	UNC	Ø mm	UNC	Ø mm
No. 1-64	1,79	No. 8-32	4,07	7/16-14	10,95	1”-8	25,16	2”-4.5	50,45
No. 2-56	2,12	No. 10-24	4,71	1/2-13	12,52	1.1/8-7	28,31	2.1/4-4.5	56,80
No. 3-48	2,44	No. 12-24	5,37	9/16-12	14,10	1.1/4-7	31,49	2.1/2-4	63,10
No. 4-40	2,76	1/4-20	6,22	5/8-11	15,68	1.3/8-6	34,63	2.3/4-4	69,45
No. 5-40	3,09	5/16-18	7,80	3/4-10	18,84	1.1/2-6	37,81	3”-4	75,80
No. 6-32	3,41	3/8-16	9,37	7/8-9	22	1.3/4-5	44,12		

UNF	Ø mm	UNF	Ø mm	UNF	Ø mm	UNF	Ø mm	UNF	Ø mm
No. 0-80	1,47	No. 5-44	3,10	1/4-28	6,24	9/16-18	14,14	1.1/8-12	28,38
No. 1-72	1,79	No. 6-40	3,42	5/16-24	7,82	5/8-18	15,73	1.1/4-12	31,56
No. 2-64	2,12	No. 8-36	4,08	3/8-24	9,41	3/4-16	18,89	1.3/8-12	34,73
No. 3-56	2,44	No. 10-32	4,73	7/16-20	10,98	7/8-14	22,05	1.1/2-12	37,91
No. 4-48	2,77	No. 12-28	5,38	1/2-20	12,56	1”-12	25,21		

BSP	Ø mm	BSP	Ø mm	BSP	Ø mm	BSP	Ø mm	BSP	Ø mm
G 1/8	9,62	G 1/2	20,81	G 7/8	30,06	G 1.1/4	41,73	G 1.3/4	53,56
G 1/4	13,03	G 5/8	22,77	G 1”	33,07	G 1.3/8	44,14	G 2”	59,43
G 3/8	16,53	G 3/4	26,30	G 1.1/8	37,71	G 1.1/2	47,62		

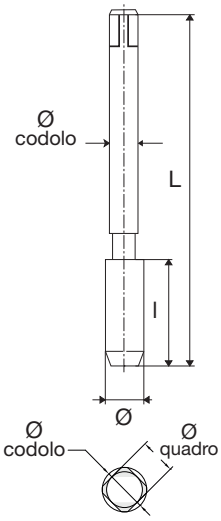
NPT	Ø mm	NPT	Ø mm	NPT	Ø mm	NPT	Ø mm	NPT	Ø mm
1/16	8,17	1/4	14,10	1/2	21,85	1”	34,16	1.1/2	48,87
1/8	10,55	3/8	17,52	3/4	27,16	1.1/4	42,74	2”	60,95

PG	Ø mm	PG	Ø mm	PG	Ø mm	PG	Ø mm	PG	Ø mm
PG 7	12,4	PG 11	18,5	PG 16	22,4	PG 29	36,85	PG 42	53,85
PG 9	15,1	PG 13,5	20,3	PG 21	28,15	PG 36	46,85	PG 48	59,15

DIMENSIONI TIPICHE DI CODOLO E QUADRO DEI MASCHI, IN FUNZIONE DELLA NORMA DI PRODUZIONE

Dimension of shank and square depending on the applicable standard

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Ø Codolo /Shank	Ø Quadro /Square	DIN 352	DIN 371	DIN 376	DIN 374
2,5	2,1	M1÷1,8	M1÷1,8	M3,5	M3,5
2,8	2,1	M2÷2,5	M2÷2,5	M4	M4
3,2	2,4				
3,5	2,7	M3	M3	M5	M5
4	3	M3,5	M3,5		
4,5	3,4	M4	M4	M6	M5,5÷6
6	4,9	M5÷8	M5÷6	M8	M8
7	5,5	M10		M10	M9÷10
8	6,2		M8		
9	7	M12		M12	M12
10	8		M10		
11	9	M14		M14	M14
12	9	M16		M16	M16
14	11	M18		M18	M18
16	12	M20		M20	M20
18	14,5	M22÷24		M22÷24	M22÷24
20	16	M27		M27	M27÷28
22	18	M30		M30	M30
25	20	M33		M33	M33
28	22	M36		M36	M36
32	24	M39÷42		M39÷42	M39÷42
36	29	M45÷48		M45÷48	M45÷48
40	32	M52		M52	

DIAMETRO DELLA PUNTA IN FUNZIONE DELLE DIMENSIONI DEL FILETTO DA RIPRISTINARE

Drill diameter according to thread dimension to be restored

27

DIN 8140 - ISO 2/6H

286

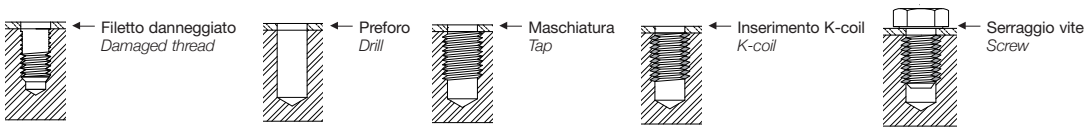


K-COIL

Acciaio inox austenitico 18/8
Austenitic stainless steel 18/8

10606 - M/MF

	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.
M	2 x 0,4	2,10	10 x 1,25	10,30	18 x 2,5	18,60	27 x 3	27,75
	2,2 x 0,45	2,30	10 x 1	10,30	18 x 2	18,50	27 x 2	27,50
	2,5 x 0,45	2,60	11 x 1,5	11,40	18 x 1,5	18,50	27 x 1,5	27,50
	3 x 0,5	3,20	12 x 1,75	12,40	20 x 2,5	20,60	28 x 1,5	28,50
	3,5 x 0,6	3,70	12 x 1,5	12,40	20 x 2	20,50	30 x 3,5	31,00
	4 x 0,7	4,20	12 x 1,25	12,30	20 x 1,5	20,50	30 x 2	30,50
	5 x 0,8	5,20	12 x 1	12,30	22 x 2,5	22,60	30 x 1,5	30,50
	6 x 1	6,30	14 x 2	14,50	22 x 2	22,50	33 x 3,5	34,00
	7 x 1	7,30	14 x 1,5	14,40	22 x 1,5	22,50	33 x 2	33,50
	8 x 1,25	8,30	14 x 1,25	14,40	24 x 3	24,75	36 x 4	37,00
	8 x 1	8,30	14 x 1	14,30	24 x 2	24,50	36 x 3	37,00
	9 x 1,25	9,30	16 x 2	16,50	24 x 1,5	24,50	36 x 2	36,50
	10 x 1,5	10,40	16 x 1,5	16,40	26 x 1,5	26,50	36 x 1,5	36,50



10607 - UNC

	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.
N.	8 x 32	4,40	5/16 x 18	8,30	9/16 x 12	14,80	1" x 8	26,25
	10 x 24	5,10	3/8 x 16	9,90	5/8 x 11	16,50	1.1/8 x 7	29,50
	12 x 24	5,70	7/16 x 14	11,60	3/4 x 10	19,75	1.1/4 x 7	33,00
UNC	1/4 x 20	6,70	1/2 x 13	13,00	7/8 x 9	23,00	1.1/2 x 6	39,50

10608 - UNF

	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.
N.	8 x 36	4,40	3/8 x 24	9,80	5/8 x 18	16,25	1.1/8 x 12	29,00
	10 x 32	5,10	7/16 x 20	11,50	3/4 x 16	19,50	1.1/4 x 12	32,50
	1/4 x 28	6,60	1/2 x 20	13,00	7/8 x 14	22,75	1.1/2 x 12	38,50
UNF	5/16 x 24	8,20	9/16 x 18	14,80	1" x 12	26,00		

10609 - BSW

Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.
1/8 x40	3,40	5/16 x18	8,30	1/2 x12	13,00	3/4 x10	20,00
3/16 x24	5,10	3/8 x16	9,90	9/16 x12	14,80	7/8 x 9	23,00
1/4 x20	6,70	7/16 x14	11,60	5/8 x11	16,70	1" x 8	26,50

10610 - BSF

Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.
3/16 x32	5,00	3/8 x20	9,90	9/16 x16	14,80	7/8 x11	22,70
1/4 x26	6,60	7/16 x18	11,60	5/8 x14	16,40	1" x10	26,50
5/16 x22	8,30	1/2 x16	13,00	3/4 x12	19,50		

10604 - BSP

	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.	Filetto Thread	Ø Drill size mm.
G	1/8 x28	10,00	3/8 x19	17,10	5/8 x14	23,40	7/8 x14	30,60
	1/4 x19	13,60	1/2 x14	21,50	3/4 x14	27,00	1" x11	33,70

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI METRICI

Metric wire-thread insert dimensions

28  **1.5 d**

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Metric

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *Ø Coil free min*	Diametro Coil non installato max (mm) *Ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*
2X0,4	2,1	2,49	2,70	4,80	4,40	3,00
2,2x0,45	2,3	2,76	3,00	5,33	4,88	3,30
2,5X0,45	2,6	3,05	3,70	5,78	5,33	3,75
3X0,5	3,2	3,61	4,35	6,75	6,25	4,50
3,5X0,6	3,7	4,24	4,95	7,95	7,35	5,25
4X0,7	4,2	4,86	5,60	9,15	8,45	6,00
5X0,8	5,2	5,98	6,80	11,10	10,30	7,50
6X1	6,3	7,23	7,95	13,50	12,50	9,00
7X1	7,3	8,22	9,20	15,00	14,00	10,50
8X1,25	8,3	9,53	10,35	17,63	16,38	12,00
8X1	8,3	9,39	10,25	16,50	15,50	12,00
9X1,25	9,4	10,52	11,16	19,13	17,88	13,50
10X1,5	10,4	11,83	12,50	21,75	20,25	15,00
10X1,25	10,3	11,74	12,65	20,63	19,38	15,00
10X1	10,3	11,41	12,50	19,50	18,50	15,00
11X1,5	11,4	12,82	13,59	23,25	21,75	16,50
12X1,75	12,5	14,13	15,00	25,88	24,13	18,00
12X1,5	12,4	14,09	15,20	24,75	23,25	18,00
12X1,25	12,3	13,76	15,00	23,63	22,38	18,00
12X1	12,3	13,43	14,49	22,50	21,50	18,00
14X2	14,5	16,43	17,35	30,00	28,00	21,00
14X1,5	14,4	16,11	17,25	27,75	26,25	21,00
14X1,25	14,3	15,78	17,03	26,63	25,38	21,00
14X1	14,3	15,45	16,68	25,50	24,50	21,00
16X2	16,5	18,41	19,60	33,00	31,00	24,00
16X1,5	16,5	18,13	19,60	30,75	29,25	24,00
18X2,5	18,8	21,04	22,00	38,25	35,75	27,00
18X2	18,5	20,80	21,85	36,00	34,00	27,00
18X1,5	18,5	20,15	21,75	33,75	32,25	27,00
20X2,5	20,8	23,02	24,40	41,25	38,75	30,00
20X2	20,5	22,82	24,05	39,00	37,00	30,00
20X1,5	20,5	22,17	24,00	36,75	35,25	30,00
22X2,5	22,8	25,00	26,90	44,25	41,75	33,00
22X2	22,5	24,84	26,50	42,00	40,00	33,00
22X1,5	22,5	24,19	26,45	39,75	38,25	33,00
24X3	25,0	27,62	29,00	49,50	46,50	36,00
24X2	24,5	26,86	29,10	45,00	43,00	36,00
24X1,5	24,5	26,21	28,28	42,75	41,25	36,00
26X1,5	26,5	28,23	30,46	45,75	44,25	39,00
27X3	28,0	30,59	32,40	54,00	51,00	40,50
27X2	27,5	29,89	32,30	49,50	47,50	40,50
30X3,5	31,0	34,20	35,81	60,75	57,25	45,00
30X2	30,5	32,92	35,70	54,00	52,00	45,00
33X3,5	34,0	37,17	38,80	65,25	61,75	49,50
33X2	33,5	35,95	39,20	58,50	56,50	49,50
36X4	37,0	40,78	42,67	72,00	68,00	54,00
36X3	37,0	40,30	42,70	67,50	64,50	54,00

NUMERO DI SPIRE DEGLI INSERTI FILETTATI METRICI IN FUNZIONE DELLA LUNGHEZZA DELL'INSERTO

Number of turns of the coil depending on the insert length

29

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	N. spire max *N max*	N. spire max *N max*	N. spire max *N max*	N. spire max *N max*	N. spire max *N max*	N. spire max *N max*	N. spire max *N max*	N. spire max *N max*	N. spire max *N max*	N. spire max *N max*
	1 D		1,5 D		2 D		2,5 D		3 D	
2X0,4	3,3	3,0	5,7	5,2	8,1	7,4	10,5	9,6	13,0	11,8
2,2x0,45	3,2	2,9	5,5	5,0	7,9	7,1	10,3	9,3	12,6	11,2
2,5X0,45	3,8	3,1	6,5	5,2	9,2	7,4	11,9	9,5	14,6	11,9
3X0,5	4,3	3,4	7,2	5,8	10,1	8,2	13,1	10,5	16,0	12,2
3,5X0,6	4,1	3,4	7,0	5,8	9,8	8,2	12,6	10,5	15,5	12,2
4X0,7	4,0	3,4	6,8	5,7	9,6	8,1	12,3	10,5	15,1	12,2
5X0,8	4,5	3,9	7,6	6,5	10,6	9,2	13,7	11,8	16,7	14,6
6X1	4,3	3,8	7,2	6,4	10,1	9,1	13,1	11,7	16,0	14,5
7X1	5,3	4,6	8,7	7,7	12,1	10,7	15,6	13,7	19,0	16,8
8X1,25	4,7	4,2	7,8	7,1	10,9	9,9	14,1	12,8	17,2	15,9
8X1	6,1	5,6	10,0	9,1	13,8	12,5	17,7	16,0	21,5	19,5
9X1,25	5,5	5,1	9,0	8,4	12,5	11,7	16,1	15,0	19,6	18,3
9X1	7,1	6,5	11,5	10,5	15,8	14,5	20,2	18,5	24,5	22,5
10X1,5	4,9	4,6	8,2	7,7	11,5	10,8	14,7	13,8	18,0	16,9
10X1,25	6,1	5,6	10,0	9,2	13,8	12,7	17,7	16,3	21,5	19,8
10X1	8,1	7,3	12,9	11,7	17,8	16,1	22,6	20,5	27,5	24,9
11X1,5	5,6	5,2	9,2	8,6	12,8	12,0	16,4	15,4	20,0	18,7
11X1,25	6,9	6,4	11,2	10,3	15,4	14,2	19,7	18,1	23,9	22,0
11X1	9,1	8,4	14,4	13,3	19,8	18,2	25,1	23,1	30,4	28,0
12X1,75	5,1	4,8	8,5	7,9	11,9	11,1	15,2	14,2	18,6	17,3
12X1,5	6,1	5,6	10,0	9,2	13,8	12,7	17,7	16,2	21,5	19,8
12X1,25	7,7	7,0	12,4	11,2	17,0	15,5	21,6	19,7	26,3	23,9
12X1	10,1	9,3	15,9	14,7	21,7	20,0	27,6	25,4	33,4	30,8
13X1,75	5,7	5,3	9,4	8,7	13,0	12,2	16,7	15,6	20,3	19,0
13X1,5	6,8	6,2	11,0	10,1	15,2	13,9	19,3	17,8	23,5	21,6
13X1,25	8,5	7,8	13,5	12,5	18,6	17,1	23,6	21,7	28,7	26,4
14X2	5,3	5,0	8,7	8,2	12,1	11,4	15,6	14,6	19,0	17,9
14X1,5	7,5	6,9	12,0	11,1	16,5	15,3	21,0	19,4	25,5	23,6
14X1,25	9,3	8,6	14,7	13,6	20,2	18,6	25,6	23,6	31,0	28,6
14X1	12,1	11,1	18,9	17,4	25,7	23,7	32,5	30,0	39,3	36,2
15X2	5,8	5,4	9,5	8,8	13,1	12,3	16,8	15,7	20,5	19,2
15X1,25	8,1	7,5	12,9	11,9	17,8	16,4	22,6	20,8	27,5	25,3
16X2	6,3	5,9	10,2	9,5	14,2	13,2	18,1	16,9	22,0	20,5
16X1,5	8,8	8,0	13,9	12,8	19,1	17,5	24,3	22,3	29,4	27,0
18X2,5	5,5	5,2	9,0	8,6	12,5	11,9	16,1	15,3	19,6	18,6
18X2	7,1	6,7	11,5	10,9	15,8	15,0	20,2	19,1	24,5	23,2
18X1,5	10,1	9,3	15,9	14,6	21,7	20,0	27,6	25,4	33,4	30,7
20X2,5	6,3	5,9	10,2	9,6	14,2	13,3	18,1	16,9	22,0	20,6
20X2	8,1	7,7	12,9	12,2	17,8	16,8	22,6	21,4	27,5	25,9
20X1,5	11,4	10,5	17,9	16,4	24,4	22,4	30,9	28,3	37,4	34,3
22X2,5	7,1	6,5	11,4	10,5	15,8	14,5	20,1	18,5	24,5	22,5
22X2	9,1	8,5	14,4	13,4	19,8	18,4	25,1	23,4	30,4	28,4
22X1,5	12,7	11,6	19,9	18,1	27,0	24,6	34,2	31,1	41,3	37,6
24X3	6,3	5,9	10,2	9,7	14,2	13,4	18,1	17,1	22,0	20,9
24X2	10,1	9,2	15,9	14,6	21,7	19,9	27,6	25,3	33,4	30,6
24X1,5	14,0	12,9	21,8	20,1	29,7	27,3	37,5	34,5	45,3	41,7
26X1,5	15,4	14,2	23,8	22,0	32,3	29,8	40,8	37,6	49,2	45,4
27X3	7,3	6,8	11,7	11,0	16,2	15,2	20,6	19,3	25,1	23,5
27X2	11,6	10,6	18,1	16,7	24,7	22,7	31,3	28,8	37,9	34,8
30X3,5	6,9	6,5	11,1	10,5	15,3	14,5	19,5	18,6	23,8	22,6
30X3	8,1	7,6	12,9	12,2	17,8	16,8	22,6	21,3	27,5	25,9
30X2	13,0	12,0	20,4	18,7	27,7	25,4	35,0	32,1	42,3	38,8
33X3,5	7,7	7,4	12,4	11,8	17,0	16,2	21,7	20,7	26,4	25,1
33X3	9,1	8,5	14,4	13,5	19,8	18,5	25,1	23,6	30,4	28,6
33X2	14,5	13,3	22,6	20,6	30,6	28,0	38,7	35,3	46,8	42,7
36X4	7,3	6,9	11,7	11,2	16,2	15,4	20,6	19,6	25,1	23,8
36X3	10,1	9,5	15,9	14,9	21,7	20,4	27,6	25,9	33,4	31,4
39X4	8,0	7,7	12,9	12,2	17,7	16,8	22,5	21,4	27,3	26,0
42X4,5	7,6	7,3	12,2	11,8	16,8	16,2	21,5	20,7	26,1	25,1
42X3	12,1	11,4	18,9	17,8	25,7	24,2	32,5	30,6	39,3	37,1

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI UNC

UNC wire-thread insert dimensions

30  294 **UNC**

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *Ø Coil free min*	Diametro Coil non installato max (mm) *Ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
NO. 8 X32	4,4	5,08	5,59	9,83	9,02	6,25	5,50	6,10
NO.10 X24	5,1	6,10	6,60	11,99	10,92	7,24	4,60	5,00
NO.12 X24	5,7	6,86	7,11	12,98	11,94	8,23	5,60	6,00
1/4 X20	6,7	7,87	8,38	15,24	13,97	9,53	5,30	5,70
5/16 X18	8,3	9,65	10,16	18,24	16,84	11,91	6,30	6,70
3/8 X16	9,9	11,43	11,94	21,44	19,84	14,27	6,80	7,20
7/16 X14	11,6	13,21	13,97	24,82	23,01	16,66	7,00	7,40
1/2 X13	13,0	14,99	15,75	27,84	25,88	19,05	7,50	8,00
9/16 X12	15,0	16,76	17,53	30,96	28,83	21,44	7,90	8,40
5/8 X11	16,5	18,80	19,56	34,21	31,90	23,80	8,10	8,50
3/4 X10	19,8	22,10	23,11	40,01	37,47	28,58	9,00	9,50
7/8 X9	23,0	25,65	26,67	46,02	43,21	33,32	9,60	10,00
1' X8	26,2	29,21	30,48	52,37	49,20	38,10	9,80	10,20
1.1/8 X7	29,5	33,02	34,54	59,18	55,55	42,85	9,60	10,10
1.1/4 X7	32,5	36,07	37,59	63,96	60,33	47,63	10,90	11,40
1.1/2 X6	39,5	43,18	44,96	76,20	71,96	57,15	11,20	11,70

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI UNF

UNF wire-thread insert dimensions

31  294 **UNF**

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *Ø Coil free min*	Diametro Coil non installato max (mm) *Ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
NO. 8X36	4,4	5,08	5,59	9,42	8,71	6,25	6,1	6,9
NO.10X32	5,1	5,84	6,60	10,82	10,01	7,24	6,4	7,2
1/4 X28	6,6	7,62	8,38	13,61	12,70	9,53	7,7	8,5
5/16 X24	8,2	9,40	10,16	16,66	15,60	11,91	8,5	9,2
3/8 X24	9,8	10,92	11,94	19,05	17,98	14,27	10,5	11,4
7/16 X20	11,5	12,95	13,97	22,38	21,11	16,66	10,2	11,1
1/2 X20	13,0	14,48	15,75	24,77	23,50	19,05	11,9	12,9
9/16 X18	14,7	16,26	17,53	27,76	26,37	21,44	12,2	13,3
5/8 X18	16,3	17,78	19,30	30,15	28,75	23,80	13,8	14,9
3/4 X16	19,5	21,34	22,86	35,71	34,14	28,58	14,7	15,9
7/8 X14	22,5	24,89	26,67	41,50	39,67	33,32	15,1	16,3
1' X12	26,0	28,45	30,48	47,63	45,52	38,10	14,8	16
1.1/8X12	29,5	31,75	33,78	52,37	50,27	42,85	16,9	18,2
1.1/4X12	32,5	34,80	37,34	57,15	55,04	47,63	19	20,4
1.1/2X12	38,5	41,15	44,45	66,68	64,57	57,15	23,1	24,9

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI BSW

BSW wire-thread insert dimensions

32 

294

BSW

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *Ø Coil free min*	Diametro Coil non installato max (mm) *Ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
1/8X40	3,4	3,81	4,32	7,62	6,99	4,75	5,1	5,8
3/16X24	5,0	5,84	6,60	11,91	10,85	7,14	4,6	5,1
1/4 X20	6,7	7,87	8,38	15,24	13,97	9,53	5,4	5,9
5/16 X18	8,3	9,40	10,16	18,24	16,84	11,91	6,4	6,9
3/8 X16	10,0	11,18	11,94	21,44	19,84	14,27	6,9	7,4
7/16 X14	11,6	13,21	13,97	24,82	23,01	16,66	7,1	7,6
1/2 X12	13,0	14,99	16,00	28,58	26,47	19,05	7,0	7,4
9/16X12	14,8	16,51	17,53	30,96	28,83	21,44	8,0	8,6
5/8X11	16,7	18,29	19,56	34,21	31,90	23,80	8,2	8,7
3/4X10	20,0	21,84	22,86	40,01	37,47	28,58	9,2	9,7
7/8X9	23,2	25,15	26,67	46,02	43,21	33,32	9,7	10,2
1"X8	26,5	28,70	30,48	52,37	49,20	38,10	9,9	10,4

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI BSF

BSF wire-thread insert dimensions

33 

294

BSF

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *Ø Coil free min*	Diametro Coil non installato max (mm) *Ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
3/16X32	5,0	5,84	6,35	10,72	9,91	7,14	6,5	7,2
1/4 X26	6,6	7,62	8,38	13,92	12,95	9,53	7,1	7,9
5/16 X22	8,3	9,40	10,16	17,09	15,95	11,91	7,7	8,5
3/8 X20	9,8	11,18	12,19	19,99	18,72	14,27	8,6	9,4
7/16 X18	11,6	12,95	14,22	23,01	21,62	16,66	9,1	10,0
1/2 X16	13,2	14,73	16,00	26,19	24,61	19,05	9,3	10,2
9/16X16	14,8	16,26	17,78	28,58	26,97	21,44	10,6	11,7
5/8X14	16,3	18,29	19,56	31,98	30,15	23,80	10,4	11,3
3/4X12	19,5	21,84	23,37	38,10	35,99	28,58	10,8	11,7
7/8X11	22,8	25,15	27,18	43,74	41,43	33,32	11,6	12,6
1"X10	26,2	28,70	30,99	49,53	46,99	38,10	12,1	13,2

DIMENSIONI CARATTERISTICHE DEGLI INSERTI FILETTATI BSP

BSP wire-thread specific insert dimensions

34 

294

BSP

	Diametro Punta per preforo (mm) *Drill size*	Diametro Coil non installato min (mm) *Ø Coil free min*	Diametro Coil non installato max (mm) *Ø Coil free max*	Profondità di foratura min (mm) *Drilling depth*	Profondità di filettatura min (mm) *Threading depth*	Lunghezza nominale Coil installato (mm) *Coil lenght inside its site*	N. spire del Coil min *N coil min*	N. spire del Coil max *N coil max*
1/8X28	10,0	10,92	11,94	8,84	7,92	4,75	3,2	3,6
1/4X19	13,6	14,99	16,26	15,54	14,20	9,53	5	5,4
3/8X19	17,1	18,54	20,07	20,29	18,97	14,27	8,2	8,9
1/2X14	21,5	23,37	25,15	27,20	25,40	19,05	8,1	8,8
5/8X14	23,4	25,40	27,43	31,95	30,15	23,80	10,4	11,3
3/4X14	27,0	28,96	31,24	36,73	34,93	28,58	12,9	13,9
7/8X14	30,5	32,77	35,31	41,50	39,67	33,32	15,3	16,5
1"X11	33,7	36,32	39,12	48,49	46,18	38,10	13,6	14,7

VELOCITÀ DI TAGLIO ESPRESSE IN M/MIN PER ALESATORI IN FUNZIONE DEL MATERIALE DA LAVORARE

Cutting speed chart in m/min for reamers according to the work-piece material

35 

326

Alesatori
Reamers

Materiale da lavorare *Work-piece material*	**Velocità di taglio** *Cutting speed (m/min)*
Acciaio con R<550 MPa *Steel with R<550 MPa*	10÷15
Acciaio con 550<R<850 MPa *Steel with 550<R<850 MPa*	12÷15
Acciaio 850<R<1200 MPa *Steel with 850<R<1200 MPa*	7÷10
Acciaio inox austenitico *Austenitic stainless steel*	6÷8
Acciaio inox ferritico o martensitico *Ferrtici and martensitic stailess steel*	5÷6
Acciaio inox duplex o alto legato *Duplex and high alloy stainless steel*	4÷5
Ghisa nodulare *Nodular cast iron*	9÷11
Ghisa lamellare *Lamellar cast iron*	13÷15
Rame e sue leghe a truciolo lungo *Copper and long chip alloys*	16÷20
Rame e sue leghe a truciolo corto *Copper and short chip alloys*	20÷24
Plastica *Plastics*	11÷13
Polimeri termoindurenti *Thermosetting polymers*	7÷10

Utilizzare valori di avanzamento più elevati rispetto alle operazioni di foratura, perché in alesatura si asporta un minor volume di materiale. Inoltre si utilizzano velocità di taglio inferiori per evitare il surriscaldamento dell'utensile e del pezzo in lavorazione.
Use higher feed rates than drilling operations, because a smaller volume of material is removed in reaming. Furthermore, lower cutting speeds are used to prevent overheating of the tool and the work-piece material.)

VELOCITÀ DI TAGLIO ESPRESSE IN M/MIN PER FRESE FRONTALI IN FUNZIONE DEL MATERIALE DA LAVORARE

Cutting speed chart in m/min for end mills according to the work-piece material

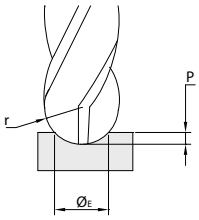
36 

332

Frese frontali
End mills

Materiale da lavorare *Work-piece material*	**Velocità di taglio** *Cutting speed (m/min)* **HSS-CO**	**Velocità di taglio** *Cutting speed (m/min)* **HSS-CO+TiAlN**	**Velocità di taglio** *Cutting speed (m/min)* **HM**
Acciaio con R<550 MPa *Steel with R<550 MPa*	15÷25	25÷40	40÷80
Acciaio con 550<R<850 MPa *Steel with 550<R<850 MPa*	10÷15	15÷30	30÷45
Acciaio 850<R<1200 MPa *Steel with 850<R<1200 MPa*	12÷20	20÷25	25÷30
Acciaio inox austenitico *Austenitic stainless steel*	12÷15	15÷20	20÷25
Acciaio inox ferritico o martensitico *Ferrtici and martensitic stailess steel*	8÷12	12÷20	20÷22
Acciaio inox duplex o alto legato *Duplex and high alloy stainless steel*	5÷8	8÷10	10÷12
Ghisa nodulare *Nodular cast iron*	20÷30	30÷40	40÷50
Ghisa lamellare *Lamellar cast iron*	15÷20	20÷30	30÷60
Rame e sue leghe a truciolo lungo *Copper and long chip alloys*	50÷100	100÷110	110÷220
Plastica *Plastics*	50÷100	100÷170	170÷300
Alluminio *Aluminium*	50÷100	100÷170	170÷300
Polimeri termoindurenti *Thermosetting polymers*	20÷30	30÷45	45÷60

$$\text{n° giri/min (r.p.m.)} = \frac{\text{Vt (Mt/min) x 1000}}{\text{3,14 x Ø (mm)}}$$



Nel caso di frese frontali raggiate usare $Ø_E$ al posto di Ø
When using ball nose end mills please insert $Ø_E$ instead of Ø

$$Ø_E = 2\sqrt{P(2r-P)}$$

Tasso di rimozione del materiale T
Material removing rate T

$$T = \frac{P \times R \times A}{1000} \quad \frac{Cm^3}{min}$$

P Profondità assiale (mm)
Axial depth
R Profondità radiale (mm)
Radial depth
A Avanzamento (mm/min)
Feed

CORRISPONDENZA MISURE METRICHE E MISURE IN POLLICI PER PUNTE DA EDILIZIA

Correspondence of metric and inches dimensions for construction tips

37



Dimensioni in mm *Dimensions (mm)*	Dimensioni in pollici *Dimensione (inches)*
3,5X110	9/64x4
3,5X135	9/64x5
4X110	5/32x4
4X160	5/32x6
5X110	3/16x4
5X160	3/16x6
5X210	13/64x8
5X310	3/16x12
5,5X110	7/32x4
5,5X160	7/32x6
5,5X210	7/32x8
5,5X260	7/32x10
5,5X310	7/32x12
5,5X460	7/32x18
6X110	15/64x4
6X160	15/64x6
6X210	15/64x8
6X260	15/64x10
6X460	15/64x18
6,5X110	1/4x4
6,5X160	1/4x6
6,5X210	1/4x8
6,5X260	1/4x10
6,5X310	1/4x12
7X110	9/32x4
7X160	9/32x6
7X210	9/32x8
8X110	5/16x4
8X160	5/16x6
8X210	5/16x8
8X260	5/16x10
8X310	5/16x12
8X410	5/16x16
8X460	5/16x18
8X610	5/16x24
9X160	11/32x6
9X210	11/32x8
9,5X160	3/8x6
10X1000	3/8x40
10X110	3/8x4
10X160	3/8x6
10X210	3/8x8
10X260	3/8x10
10X310	3/8x12
10X360	3/8x14
10X460	3/8x18
10X610	3/8x24
11X160	7/16x6
11X210	7/16x8
11X260	7/16x10
11X310	7/16x12
12X1000	15/32x40
12X160	15/32x6
12X210	15/32x8
12X260	15/32x10
12X310	15/32x12

Dimensioni in mm *Dimensions (mm)*	Dimensioni in pollici *Dimensione (inches)*
12X360	15/32x14
12X460	15/32x18
12X610	15/32x24
13X160	1/2x6
13X210	1/2x8
13X260	1/2x10
13X310	1/2x12
13X460	1/2x18
14X1000	9/16x40
14X160	9/16x6
14X210	9/16x8
14X260	9/16x10
14X310	9/16x12
14X460	9/16x18
14X610	9/16x24
15X160	19/32x6
15X210	19/32x8
15X260	19/32x10
15X460	19/32x18
16X1000	5/8x40
16X160	5/8x6
16X210	5/8x8
16X260	5/8x10
16X310	5/8x12
16X460	5/8x18
16X610	5/8x24
16X800	5/8x32
17X210	11/16x8
18X1000	23/32x40
18X200	23/32x8
18X250	23/32x10
18X300	23/32x12
18X450	23/32x18
18X600	23/32x24
19X200	24/32x8
19X450	24/32x18
20X1000	25/32x40
20X200	25/32x8
20X300	25/32x12
20X450	25/32x18
20X600	25/32x24
22X1000	7/8x40
22X250	7/8x10
22X300	7/8x12
22X450	7/8x18
22X600	7/8x24
24X250	15/16x10
24X450	31/32x18
25X1000	1"x40
25X250	1"x10
25X300	1"x12
25X450	1"x18
26X250	1-1/32x10
26X450	1-1/32x18
28X450	1-1/8x18
30X450	1-3/16x18

VELOCITÀ DI TAGLIO ESPRESSE IN GIRI AL MINUTO PER LA FORATURA NEL MURO E NEL CEMENTO

Cutting speed chart in RPM for drilling into concrete and bricks

38 

350

Muro
Masonry

Diametro punta Drill size	3	4	5	6	8	10	12	14	16
Velocità giri/min. Speed r.p.m.	2000	1800	1400	1200	900	700	600	500	400

Consigli / Tips **Granito e pietre dure: ridurre la velocità del 40÷60%**
Granite and hard stones: reduce speed (-40÷60%)

VELOCITÀ DI TAGLIO ESPRESSE IN GIRI AL MINUTO NELL'IMPIEGO DELLE PUNTE UNIVERSALI "FORATUTTO"

Cutting speed chart in RPM for drilling with universal drills

39 

360

Foratutto
Multi-Purpose

Materiale da lavorare Work-piece material	*Diametro punta* / Drill size (mm)	
	3÷7	8÷12
	Velocità di taglio - Cutting speed (r.p.m.)	
Acciaio duro Hard steel	1800÷800	800÷500
Muro, Marmo Masonry, Marble	2000÷800	800÷500
Vetro, Ceramica* Glass, Tiles	1000÷400	400÷300
Legno, Plastica Wood, Plastics	1200÷600	600÷300

* **Consigli** / Tips **Velocità più bassa possibile. Lubrificare con trementina**
Lowest speed possible. Use kerosene as lubricant

VELOCITÀ DI TAGLIO PER FRESE A TAZZA PER EDILIZIA A SOLA ROTAZIONE,IN FUNZIONE DEL MATERIALE DA LAVORARE

Cutting speed chart in RPM for drilling into concrete and bricks on rotation only

40 

391

Frese a tazza con denti in MD
Carbide tipped hole cutters

Materiale da lavorare Work-piece material	*Diametro fresa* / Core bit diameter (mm)			
	16÷35	38÷55	60÷85	100÷150
	Velocità di taglio - Cutting speed (r.p.m.)			
Calcestruzzo - Muro Concrete - Masonry	2800÷1600	1500÷1000	950÷680	580÷380
Ceramica - Marmo Tile - Marble	2500÷1100	1000÷700	650÷450	400÷250
Pietra Stone	1800÷800	750÷500	470÷340	300÷200

VELOCITÀ DI TAGLIO PER FRESE A ROTOPERCUSSIONE PER EDILIZIA IN FUNZIONE DEL MATERIALE DA LAVORARE

Chart for percussion core bits selection and relative cutting speed in accordance with the materials to work

41 

386

Rotopercussione
Rotary percussion

Materiale da lavorare Work-piece material	*Diametro fresa* / Core bit diameter (mm)			
	25÷40	45÷65	70÷100	110÷130
	Velocità di taglio - Cutting speed (r.p.m.)			
Calcestruzzo - Muro Concrete - Masonry	2150÷1350	1200÷850	770÷550	500÷400
Cemento armato Armoured concrete	1600÷1000	900÷600	550÷400	360÷300
Pietre dure Hard stone	760÷470	420÷300	270÷200	170÷150

VELOCITÀ DI TAGLIO PER FRESE A TAZZA CON DENTI RIVESTITI IN CARBURO DI TUNGSTENO IN GRANI

Chart for carbide grit hole saw selection and relative cutting speed

42 

392

Frese a tazza con denti rivestiti in grani di carburo di tungsteno

Carbide grit hole saws

Materiale da lavorare Work-piece material	*Diametro fresa* / Core bit diameter (mm)							
	16÷20	22÷29	32÷38	44÷51	54÷60	64÷76	83÷95	102÷114
	Velocità di taglio - Cutting speed (r.p.m.)							
Mattoni - Ceramica Brick - Ceramic	500	350	260	190	160	130	100	80
Ardesia Slate	1200	850	650	480	400	320	260	220
Plastica rinforzata Reinforced plastics	1700	1200	900	670	570	450	350	300
Fibre Fiber	710	510	390	290	250	190	160	125

Consigli / Tips **Assicurare una continua refrigerazione ad acqua**
Keep a continuos water cooling

VELOCITÀ DI TAGLIO PER PUNTE E FRESE A TAZZA DIAMANTATE NELLA FORATURA DI PIASTRELLE IN GRES PORCELLANATO

Chart for carbide grit hole saw selection and relative cutting speed for sandware

43 

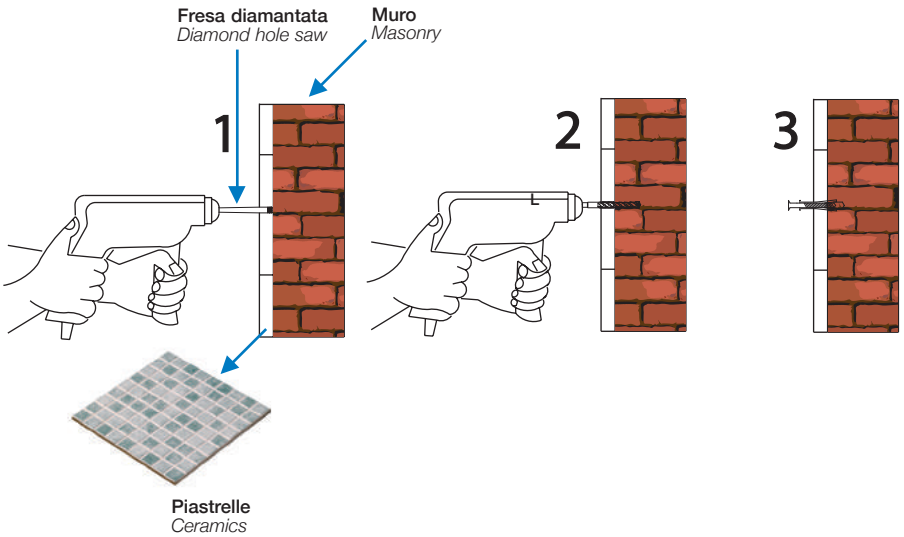
395

Frese a tazza diamantate

Diamond core drills

Diametro fresa Core drill diameter	4÷6	8÷10	12÷16	18÷25	28÷35	40÷50	60÷80
Velocità giri/min. Speed r.p.m.	3000	2000	1500	1000	600	400	300

Consigli / Tips **Assicurare una continua refrigerazione ad acqua**
Keep a continuos water cooling



VELOCITÀ DI TAGLIO PER PUNTE PER LEGNO NELLA FORATURA DI LEGNI DURI E TENERI

Chart for woodworking drills selection and relative cutting speed into soft and hard wood e

44

404

	Articolo Item	*Materiale da lavorare* Work-piece material	*Velocità di taglio* Cutting speed *(r.p.m.)*
	**Punta per legno con punta guida a centrare** Wood working drills brad point *Art. 05001, 05020, 05025, 05200, 05210, 05212*	legno tenero / soft wood legno duro / tough wood	800÷1400 700÷1200
	**Punta elicoidale per legno per casseformi** Wood working drills for plankings *Art. 05030, 05033*	legno tenero / soft wood legno duro / tough wood	700÷1200 600÷1000
	Punta a spirale tipo Lewis Auger bits, Lewis type *Art. 05035, 05036, 05037, 05038, 05040, 05042, 05044*	legno tenero / soft wood legno duro / tough wood	400÷1200 300÷1000

Consigli / Tips **Per articoli professionali, aumentare la velocità di + 25%**
For professional use, increse cutting speed + 25%

VELOCITÀ DI TAGLIO PER UTENSILI PER LEGNO NELLA FORATURA DI LEGNI DURI E TENERI

Chart for woodworking drills selection and relative cutting speed into soft and hard wood

45

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	Articolo Item	*Materiale da lavorare* Work-piece material	*Velocità di taglio* Cutting speed *(r.p.m.)*
	**Mecchia piatta** Wood spade bit *Art. 05045, 05048*	legno tenero / soft wood legno duro / tough wood	500-1500 400-1300
	**Mecchia regolabile** Expansive wood bit *Art. 05050*	legno tenero / soft wood legno duro / tough wood	400-1300 300-1200
	**Frese Forstner in WS** Wood center bits, forstner type (WS) *Art. 05063, 05067*	legno tenero / soft wood legno duro / tough wood	600-2000 500-1700
	**Frese Forstner in MD** Wood center bits, forstner type (HM) *Art. 05065*	legno tenero / soft wood legno duro / tough wood	800-2200 700-2000

VELOCITÀ DI TAGLIO PER FRESE A TAZZA NELLA FORATURA DI LEGNI DURI E TENERI

Chart for hole saws selection and relative cutting speed into soft and hard wood

46

434

	Articolo Item	*Materiale da lavorare* Work-piece material	*Velocità di taglio* Cutting speed *(r.p.m.)*
	**Frese a tazza** Hole saws for wood *Art. 05078*	legno tenero / soft wood legno duro / tough wood	300-600 200-500

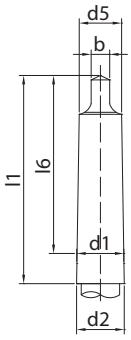
DIMENSIONI CARATTERISTICHE DEI CONI MORSE IN ACCORDO ALLA NORMA DIN 228

Morse taper drill chucks dimensions in accordance with the DIN 228 standards

47

440 441

Coni Morse
Morse taper



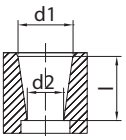
Cono Morse	l_1 mm.	l_6 mm.	d_1 mm.	d_5 mm.	b mm.	d_2 mm.	*Conicità* %
0	59,5	56,5	9,045	6,1	3,9	9,2	5.205
1	65,5	62,0	12,065	9,0	5,2	12,2	4,988
2	80,0	75,0	17,780	14,0	6,3	18,0	4,995
3	99,0	94,0	23,825	19,1	7,9	24,1	5,020
4	124,0	117,5	31,267	25,2	11,9	31,6	5,194
5	156,0	149,5	44,339	36,5	15,9	44,7	5,263
6	218,0	210,0	63,348	52,4	19,0	63,8	5,214

DIMENSIONI CARATTERISTICHE DEI CONI DI ATTACCO DEI MANDRINI IN ACCORDO ALLE NORME DIN 238 E JACOBS®

Taper drill chucks dimensions in accordance with the DIN 238 standards and Jacobs®

48

Coni di attacco dei mandrini
Taper drill chuck shank



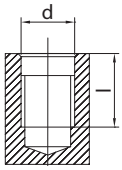
Tipo di norma	*Cono del mandrino*	d_1 mm.	d_2 mm.	l mm.
DIN 238	B6	6,35	5,85	10,0
	B10	10,094	9,4	14,5
	B12	12,065	11,1	18,5
	B16	15,733	14,5	24,0
	B18	17,780	16,2	32,0
	B22	21,793	19,8	40,5
	B24	23,825	21,3	50,5
JACOBS	J0	6,350	5,803	11,11
	J1	9,754	8,468	16,67
	J2	14,2	12,39	22,23
	J2 corto	13,94	12,39	19,05
	J33	15,85	14,24	25,4
	J6	17,17	15,85	25,4
	J3	20,6	18,95	30,96
	J4	28,55	26,35	42,07

DIMENSIONI CARATTERISTICHE DEGLI ATTACCHI FILETTATI DEI MANDRINI

Thread drill chucks dimensions

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Attacchi filettati dei mandrini
Threaded drill chuck shank



Tipo	*Classe*	d mm.	*Passo* mm.	l mm.
3/8" x 24 UNF	3B	9,525	1,058	14,5
1/2" x 20 UNF	3B	12,700	1,270	16,0
5/8" x 16 UNF	3B	15,875	1,588	19,0
3/4" x 16 UNF	3B	19,050	1,588	19,0
M14 x 2	MA	14,00	2,00	19,0
M18 x 2.5	MA	18,00	2,50	19,0

VALORI DI TOLLERANZA ESPRESSI IN MM IN FUNZIONE DEL DIAMETRO DELL'UTENSILE

Tolerance values according to the tool diameter

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Gradi di tolleranza Tolerance grade	*Diametro dell'utensile (mm)* / Tool diameter (mm)					
	0÷3	**3÷6**	**6÷10**	**10÷18**	**18÷30**	**30÷50**
h8 (toll. costruttiva delle punte per metallo in acciaio superrapido rettificate) Production tolerance of hss ground twist drills	0 -0,014	0 -0,018	0 -0,022	0 -0,027	0 -0,027	0 -0,039
H10 (toll. minima sul foro creato dalle punte per metallo rettificate) Minimum tolerance of the hole made by ground twist drills	+0,040 0	+0,048 0	+0,058 0	+0,070 0	+0,070 0	+0,100 0
H12 (toll. massima sul foro creato dalle punte per metallo rettificate) Maximum tolerance of the hole made by ground twist drills	+0,100 0	+0,120 0	+0,150 0	+0,180 0	+0,180 0	+0,250 0
h7 (toll. costruttiva delle punte in metallo duro) Production tolerance of carbide twist drills	0 -0,010	0 -0,012	0 -0,015	0 -0,018	0 -0,018	0 -0,025
h10 (toll. costruttiva di svasatori e frese frontali in metallo duro) Production tolerance of carbide end mills and deburring tools	0 -0,040	0 -0,048	0 -0,058	0 -0,070	0 -0,070	0 -0,100
G6 (toll. sul filetto creato dai maschi sovradimensionati in acciaio superrapido) Production tolerance of the thread made by hss oversized taps	+0,008 +0,002	+0,012 +0,004	+0,014 +0,005	+0,017 +0,006	+0,017 +0,006	+0,025 +0,009
G7 (toll. sul filetto creato dai maschi sovradimensionati in acciaio superrapido) Production tolerance of the thread made by hss oversized taps	+0,012 +0,002	+0,016 +0,004	+0,020 +0,005	+0,024 +0,006	+0,024 +0,006	+0,034 +0,009
H7 (toll. sul foro creato dagli alesatori) Tolerance of the hole made by the reamers	+0,010 0	+0,012 0	+0,015 0	+0,018 0	+0,018 0	+0,025 0
e8 (toll. costruttiva delle frese frontali in acciaio superrapido) Production tolerance of hss end mills	-0,014 -0,028	-0,020 -0,038	-0,025 -0,047	-0,032 -0,059	-0,032 -0,059	-0,050 -0,089
k10 (toll. costruttiva delle frese frontali in acciaio superrapido) Production tolerance of hss end mills	+0,040 0	+0,048 0	+0,058 0	+0,070 0	+0,070 0	+0,100 0
k12 (toll. costruttiva delle frese frontali in acciaio superrapido) Production tolerance of hss end mills	+0,100 0	+0,120 0	+0,150 0	+0,180 0	+0,180 0	+0,250 0

Nota: I gradi di tolleranza IT5÷IT13 sono idonei agli usuali accoppiamenti meccanici
IT5÷IT13 tolerance range are suitable for the common mechanical coupling

TABELLA DI CONVERSIONE DELLE DUREZZE (ROCKWELL E VICKERS) E DI COMPARAZIONE CON I VALORI DI RESISTENZA A TRAZIONE

Hardness (Rockwell and Vickers) and traction resistance conversion chart

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HV (Vickers hardness)	*HRC* (Rockwell hardness)	*Carico di resistenza* Tensile strength Carbon steel (N/mm²)	*Carico di resistenza* Tensile strength Stainless steel (N/mm²)
940	68		
920	67,5		
900	67	2521	2374
880	66,4		
864	66		
860	65,9		
840	65,3		
829	65	2413	2276
820	64,7		
800	64		
782	63,5		
780	63,3		
773	63	2305	2178
760	62,5		
745	62		
740	61,8		
737	61,7	2217	2089
720	61		
700	60,1		
698	60		
690	59,7	2119	2001
680	59,2		
675	59		
670	58,8		
667	58,7		
660	58,3		
655	58	2040	1923
650	57,8		
639	57		

HV (Vickers hardness)	*HRC* (Rockwell hardness)	*Carico di resistenza* Tensile strength Carbon steel (N/mm²)	*Carico di resistenza* Tensile strength Stainless steel (N/mm²)
630	56,8		
620	56,3		
615	56	1962	1854
610	55,7		
600	55,2		
596	55		
590	54,7	1883	1785
580	54,1		
570	53,6		
569	53,5		
560	53	1815	1707
550	52,3		
547	52,1		
544	52		
540	51,7		
530	51,1		
528	51	1746	1648
520	50,5		
510	49,8		
508	49,6		
500	49,1		
491	48,5	1628	1540
490	48,4		
480	47,7		
472	47,1	1560	1481
470	46,9		
460	46,1		
455	45,7	1511	1432
450	45,3		

Nota: la durezza è la misura della resistenza di un materiale alla deformazione plastica. Si misura valutando l'area dell'impronta che lascia un penetratore sottoposto a un carico specifico. Il penetratore è una piramide di diamante con angolo al vertice di 136° per la durezza Vickers, mentre è un cono di diamante con angolo al vertice di 120° per la durezza Rockwell. / *Note: hardness is the measure of material strenght to plastic deformation. Push the indenter against the material at a certain load and measure the impression area to find the hardness value. The indenter can be a diamond pyramid with 136° angle at the top for Vickers hardness test or it can be a diamond cone with 120° angle at the top for Rockwell hardness test.*

52 Scala Mohs di durezza - Mohs hardness scale

Valore di durezza Mohs value	1	2	3	4	5	6	7	8	9	10
Materiali Materials	TALCO *Talc*	GESSO *Gypsum*	CALCITE *Calcite*	FLUORITE *Fluorite*	APATITE *Apatite*	ORTOCLASIO *Orthoclase*	QUARZO *Quartz*	TOPAZIO *Topaz*	CORINDONE *Corundum*	DIAMANTE *Diamond*


KRINO
CUTTING TOOLS

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CONDIZIONI GENERALI DI VENDITA

Le condizioni di seguito riportate si intendono accettate dal committente in fase di ordinazione.

1. ORDINI: con il conferimento dell'ordine si intendono approvate dal committente tutte le condizioni di vendita in vigore, salvo accordi particolari accettati dai contraenti. Tutti gli ordini sono irrevocabili da parte del committente ma potranno non essere da noi evasi a nostro insindacabile giudizio e senza obbligo di comunicazione o giustificazione. Nell'ordine è necessario specificare il codice dell'articolo.
2. PREZZI: i prezzi si intendono per merce franco nostro magazzino (imballo,iva, trasporto esclusi) e non sono impegnativi. I prezzi che avranno valore saranno quelli in vigore al momento della spedizione.
3. IMBALLO: gratuito, salvo specifiche richieste del committente, che verranno fatturate al costo.
4. SPEDIZIONE: verrà effettuata come segue:
a) a mezzo nostro corriere di fiducia, in porto franco con addebito in fattura, in tal caso la merce sarà parzialmente assicurata.
b) a mezzo pacco postale o a mezzo corriere di fiducia del committente: la resa sarà franco ns stabilimento di Monticello e la merce viaggia a totale rischio e pericolo del committente. Pertanto in caso di ritardi, ammanchi, avaria, furti, etc. i reclami devono essere indirizzati al Vettore, solo ed unico responsabile.
5. CONSEGNE: il termine di consegna, qualora venisse indicato, è puramente indicativo e pertanto solleva la nostra società da ogni qualsivoglia rivalsa.
6. RECLAMI: debbono pervenire per iscritto entro 8 giorni dalla data di ricevimento merce. Trascorso tale termine, i reclami non verranno accettati. I reclami di qualsiasi natura non sospendono l'obbligo di effettuare i pagamenti nella forma convenuta. L'acquirente, nel caso che la merce sia da noi ritenuta non idonea, ha diritto esclusivamente alla sostituzione della stessa o all'accredito dell'importo. Ogni altro tipo di indennizzo si intende privo di valore. Per qualsiasi contestazione si elegge unico foro competente quello del Tribunale di Lecco.
7. RESI: ogni reso o sostituzione dovrà essere preventivamente autorizzato da KRINO SPA. La merce sarà accettata di ritorno, salvo verifica all'arrivo in magazzino. Questa dovrà essere inviata in porto franco e accompagnata dalla bolla di consegna, con indicati gli estremi della fattura con la quale è stata precedentemente fornita.
8. PAGAMENTI: debbono essere effettuati esclusivamente alla nostra sede, secondo le forme concordate. Nel caso di ritardato pagamento, verranno addebitati gli interessi bancari dalla data di scadenza concordata sino all'avvenuto pagamento, maggiorati delle eventuali spese accessorie.
9. CARATTERISTICHE DEI PRODOTTI: Le immagini contenute nel presente catalogo sono puramente indicative, pertanto la nostra azienda si riserva il diritto di apportare modifiche migliorative dei prodotti senza nessun obbligo di preavviso.
LA RIPRODUZIONE ANCHE PARZIALE DEL PRESENTE CATALOGO E' VIETATA
10. VALORE DELL'ORDINE: Non si assumono ordini di valore inferiore a EURO 250

Ogni qualsivoglia clausola contenuta nel Vs foglio di ordinazione, in contrasto con quanto sopra, si intende priva di valore.

GENERAL SALES CONDITIONS

1. ORDERS: when an order is placed, all conditions are automatically accepted by the client. The order is irrevocable but we reserve the right to accept it. All orders should specify the items numbers.
2. PRICES: all prices are ex works (packing, VAT and freight excluded).
3. PACKAGING: is free, a part of special requirements extra charged.
4. SHIPMENT: It can be CIF with invoice charge, by parcel post or with a forwarding agent suggested by the customer.
5. DELIVERY TIME: is purely indicative.
6. CLAIMS: They should be notified within 8 days from the date of goods receipt. We shall only arrange free replacement of the tools acknowledged as defective ones by us. In case of dispute, the Civil Court of LECCO will be competent.
7. GOODS RETURNED: Any goods return should be authorized by us.
8. PAYMENTS: to be made directly to our head office. In case of late payment, we charge the bank interest rate, including additional expenses.
9. PRODUCTS CARACTERISTICS: The images of this catalogue are purely indicatives, we reserve the right to make modifications without any notice. THE REPRODUCTION OF THIS CATALOGUE IS PROHIBITED.

Any clause contained into your order sheets which is in contrast with the above mentioned conditions it is not valid.

CONDITIONS GENERAL DE VENTE

1. COMMANDES: Chaque commande envoyée accepte automatiquement
nos conditions de vente. Les commandes sont irrévocables mais nous nous réservons le droit de les accepter. Dans les commandes signalez les codes des références.
2. PRIX: Les prix sont pour marchandise franco départ (emballage, VAT et transport exclus).
3. EMBALLAGE: gratuit, sauf spécifique demande du client et qui sera chargée sur la facture.
4. EXPEDITION: CIF avec charge sur facture, par plis postal ou par le transporteur du client.
5. DELAI DE LIVRAISON: Le délai est seulement indicatif.
6. RECLAMATIONS: Ils doivent être notifiés par écrit dans 8 jours de la date de réception de la marchandise. Ils seront pris en considération si les outils seront reconnues pour nous défectueux. Le Tribunal de LECCO sera compétent en cas de n'importe quelle contestation.
7. MERCHANDISE RENDUE: Chaque envoi doit être autorisé par nous.
8. PAIEMENTS: devront parvenir exclusivement à notre siège en respect des accords pris. En cas de retards nous débiterons les intérêts de banque et tous les frais accessoires.
9. CARACTERISTIQUES DES PRODUITS: Les images contenues dans ce catalogue là sont indicatives. Notre société se réserve le droit d'apporter des modifications aux produits sans aucune notification. LA REPRODUCTION DE CE CATALOGUE C'EST INTERDIT.

N'importe quelle clause contenue dans Vos commandes et en contradictions avec les conditions ci-dessus n'est pas valable.

CONDICIONES GENERALES DE VENTA

1. PEDIDOS: con el envio del pedido el cliente acepta automáticamente todas las condiciones de venta.
2. PRECIOS: Los precios son porte debidos (embalajes, IVA y transporte excluidos)
3. EMBALAJE: gratuito. salvo embalaje especial cargado en factura.
4. PORTES: Pagado con cargo en factura, paquete postal, con trasportista del cliente.
5. PLAZO DE ENTREGA: aproximado
6. RECLAMACIONES: Se atenderán todas aquellas reclamaciones que se planten dentro del plazo de los 8 días siguientes a la recepción del material y comunicados sus discrepancias. En caso de litigio el fuero competente es el Tribunal de Lecco.
7. DEVOLUCIONES DE MATERIAL: Es obligatoria autorización de la Empresa para devolución del material.
8. PAGO: El pago debe ser enviado directamente a nuestra casa central.
9. CARACTERISTICAS DE LOS PRODUCTOS: Las imagines de este catalogo son indicativas. Nos reservamos el derecho de modificar cualquier articulo sin previo aviso. LA REPRODUCION DE ESTE CATALOGO ES PROHIBIDA.

Las clausolas contenidas en sus pedidos y en contra de nuestras condiciones no seran aceptadas.

ALLGEMEINE VERKAUFSBEDINGUNGEN

1. BESTELLUNGEN: Wenn Sie eine Bestellung unterbreiten, nehmen Sie alle Bedingungen an.
Die Bestellung ist unwiderruflich aber wir sind berechtigt sie anzunehmen.
Alle Auftrage müssen die Kodes des Artikels zeigen.
2. PREISE: Alle Preise sind ab Lager (Verpackung, Vat und Transport ausschluss).
3. VERPACKUNG: kostenlos, Sonder-Verpackung ausschluss (gegen Bezahlung).
4. LIEFERUNG: Die kann „Versicherung und Fracht Kosten" mit Stellung in Rechnung sein, bei Post oder bei eine Vertrauens-Spediteur der Kunde.
5. LIEFERUNGSZEIT: die Datum ist nur ein Zeigen.
6. BESCHWERDE: Die Kunden müssen in 8 Tagen , nach dem Empfang der Waren, solche Beschwerde anzeigen. Wir konnen die defekten Werkzeuge kostenlos ersetzen, aber nur wenn die bei uns züruckkommen. Erfüllungsort für sämtliche Verbindlichkeiten ist das Lecco Gericht.
7. WARENRÜCKGABEN: Alle Warenrückgaben müssen bei uns autorisiert sein.
8. ZAHLUNGEN: Die Zahlungen müssen direkt an die Firma vornehmen. Wenn es ein Zahlungverzug gibt, belasten die Firma Sie die Bankzins, inklusive Zusatz-Kosten.
9. KENNZEICHEN DER ARTIKEL: Die Bilde des Katalogs sind nur Kennzahl. Wir sind berechtigt Abänderung ohne Angabe zu machen. DIE REPRODUKTION DIESES KATALOGS IST VERBOTEN.

Jede Klausel enthältet in Ihrer Bestellungen, die in Kontrast mit die überzeichen Bedingungen ist, wird ungültig.

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