



Sistemi di foratura
Sistemi di foratura
Sistemi di foratura

Made in Italy

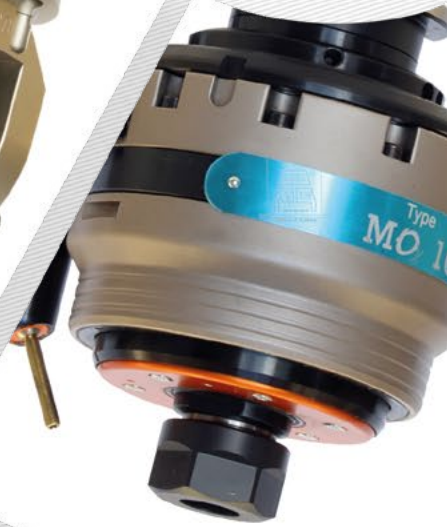
VH Variable axis heads · TS/TSX Twin spindle milling heads · T Adjustable joint multi spindle heads · MT-TC-TC3 Fixed multi spindle heads



HT Turret Heads



MOX Spindle Speeders



FH Facing Heads · TA,CP Angle Heads · BAH Big Angle Heads



Una realtà imprenditoriale caratterizzata da elevata esperienza, una forte attenzione verso nuove tecnologie e la continua ricerca di soluzioni sempre più avanzate: questi, in sintesi, i punti di forza di O.M.G. Srl, azienda che nasce negli anni '60 come laboratorio di piccole dimensioni e cresce fino a diventare oggi un'affermata realtà industriale a livello nazionale e internazionale.

Forte grazie alla vasta gamma di Teste ad Angolo in continua crescita, ma con la volontà di affrontare nuove sfide, allarga la propria produzione con l'introduzione di un nuovo prodotto: le Teste a Sfacciare. Prodotti sempre più innovativi che offrono soluzioni sempre più avanzate e personalizzate ad hoc, progettati e costruiti con quel know how tecnologico e culturale accumulato dall'azienda nel corso degli anni.

O.M.G. Srl

THE COMPANY












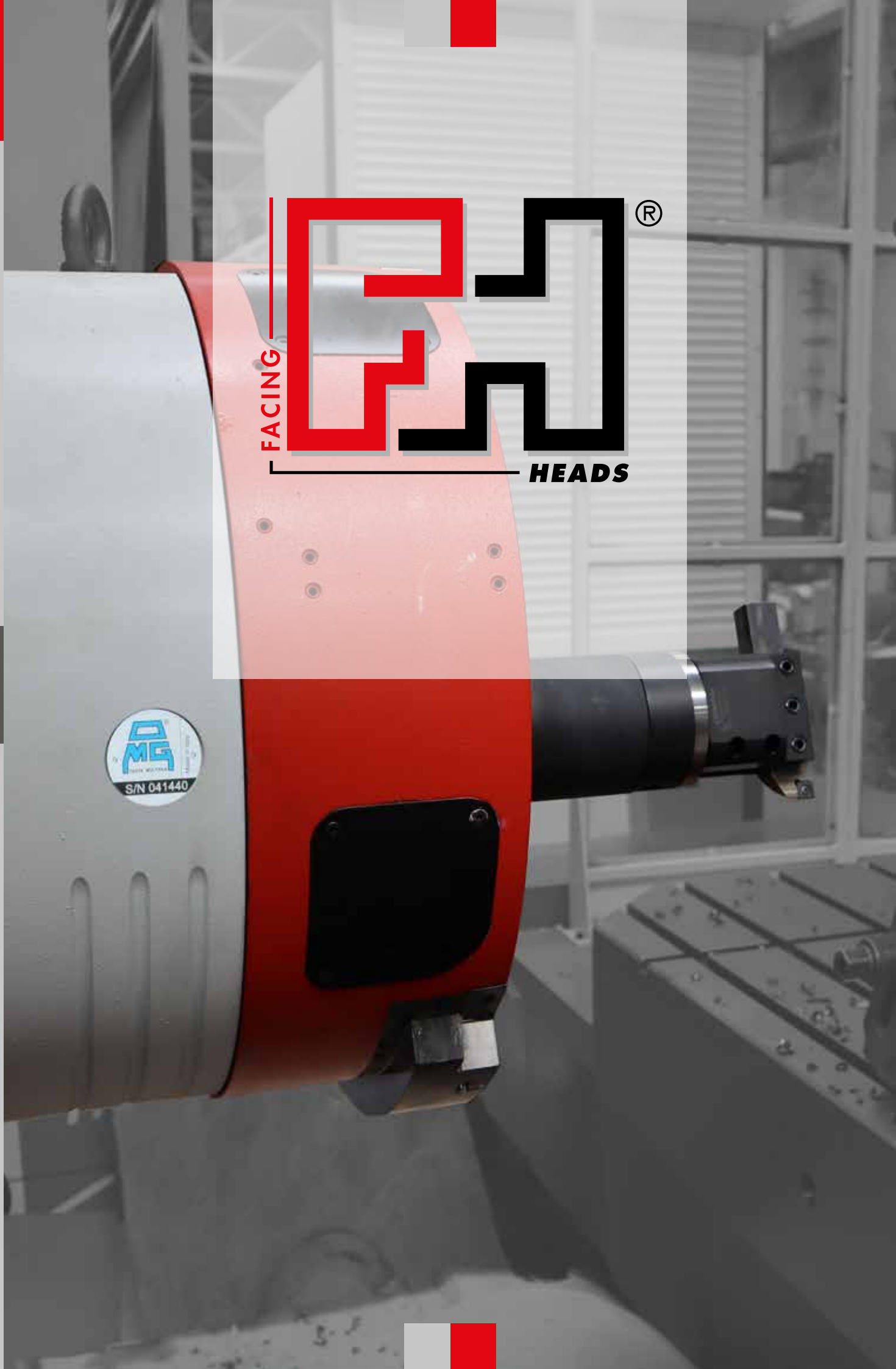
An enterprising culture, characterized by long experience, a strong focus on new technologies, and a continuous search for more and more advanced solutions. These are the strengths of O.M.G. Srl, a company that was founded in the 1960s as a small workshop and has grown to become a well established industrial presence at a national and international level.

Thanks to our vast, continuously growing range of Angle Heads, and our desire to face new challenges, our production capabilities have expanded with the introduction of a new product: the Facing Heads. New innovative products that offer increasingly advanced and customized solutions, designed and built with the technological and cultural know-how accumulated by O.M.G. Srl over many years.

O.M.G. Srl

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FACING



®

HEADS





Le teste a sfacciare serie FH possono essere applicate sia manualmente che automaticamente alle macchine utensili quali alesatrici, centri di lavoro o macchine speciali.

Le teste a sfacciare serie FH nascono con il preciso obiettivo di superare i limiti di coppia, precisione e manutenzione delle attuali soluzioni presenti sul mercato.

Grazie ad un'architettura brevettata ed all'esperienza e qualità che contraddistingue la OMG nella progettazione e produzione di teste accessorie, le teste a sfacciare serie FH permettono di eseguire le lavorazioni meccaniche richieste con assoluta precisione ed affidabilità.

La soluzione OMG si contraddistingue per 4 caratteristiche fondamentali:

- Rapporto di riduzione 3:1, 4:1 o 6:1 che consente un aumento importante della coppia di uscita
- Sistema di azionamento della slitta montato direttamente sulla parte rotante per la massima rigidità di trasmissione e l'assenza di giochi
- Sistema di misura diretto per la lettura della posizione dell'asse U che permette lavorazioni di estrema precisione
- Bloccaggio idraulico della slitta per la massima rigidità e precisione nelle operazioni di barenatura

The FH Facing Heads can be applied manually or automatically to the machine tool spindle of boring machines, machining centers and special machines.

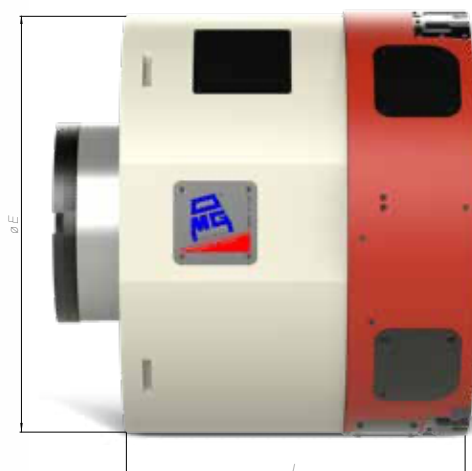
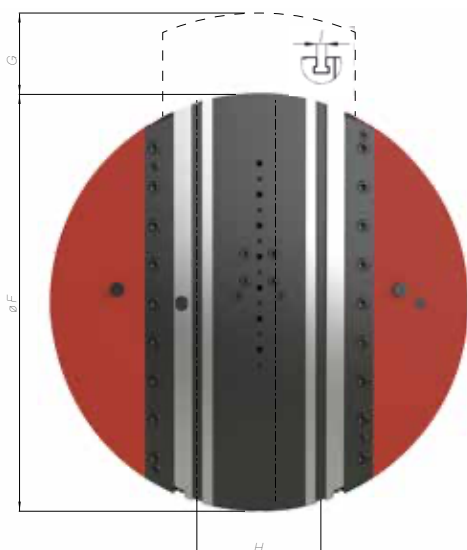
The FH series heads are designed to overcome the torque, precision and maintenance limits of the current solutions available on the market.

Thanks to a patented design and the experience and quality that characterize OMG in the design and production of Heads, the FH series Facing Heads allow you to perform the required machining operations with absolute precision and reliability.

O.M.G.'s solution stands out for 4 main features:

- *Gear reduction ratios 3:1, 4:1 or 6:1 allow applications on machine tools with relatively low spindle torque*
- *The radial positioning system of the slide is directly mounted to the rotating area of the head for maximum rigidity and no backlash*
- *A direct measurement system for reading the position of the U axis allows extremely precise machining*
- *Hydraulic clamping of the slide for extreme rigidity and precision during boring operations*

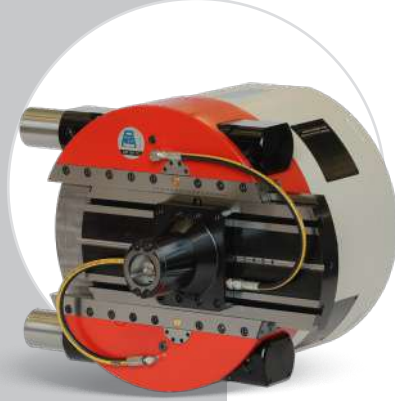
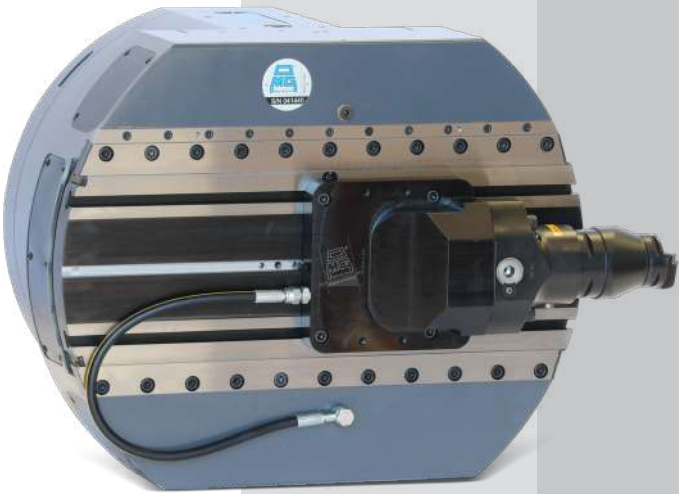



**FH400
SERIES**
**FH540
SERIES**
**FH640
SERIES**
**FH800
SERIES**

1-3



**CARATTERISTICHE TECNICHE
TECHNICAL DATA**

			FH400 SERIES				FH540 SERIES			FH640 SERIES			FH800 SERIES	
			400	540/540	540/640	540/800	640/640	640/800	640/1000	800/800	800/1000			
DIAMETRO BASE BASE DIAMETER	E	mm	460	540			640			800				
DIAMETRO DIAMETER	F	mm	400	540	640	800	640	800	1000	800	1000			
RAPPORTO DI RIDUZIONE RATIO			3:1	4:1			4:1			4/6:1				
CORSA RADIALE RADIAL STROKE	G	mm	115	160	205	290	205	290	390	290	390			
DISTANZA CAVE A T T SLOT DISTANCE	H	mm	125	160			160			200				
CAVA T T SLOT	I	mm	10	12			12			14				
ALTEZZA HEIGHT	L	mm	380	420			420			538				
VELOCITÀ MASSIMA IN USCITA MAXIMUM OUTPUT SPEED		RPM	500	300	280	260	280	260	200	200	170			
VELOCITÀ IN TRASLAZIONE RADIAL SPEED		mm/ min	400											
MASSIMA COPPIA IN USCITA MAXIMUM OUTPUT TORQUE		Nm	4000	6000			8000			10000				
MASSIMA FORZA RADIALE MAXIMUM RADIAL FORCE		N	15000	20000			25000			30000				
MASSIMA SEZIONE DI TRUCIOLO MAXIMUM CHIP REMOVAL		mm ²	5	9			10			15				
PRECISIONE POSIZIONAMENTO POSITION ACCURACY		µm	2											
RIPETIBILITÀ DI POSIZIONAMENTO REPEATABILITY		µm	2											
DIREZIONE POSIZIONAMENTO POSITIONING DIRECTION			BIDIREZIONALE/BIDIRECTIONAL											
PESO WEIGHT		kg	280	480	530	620	590	670	760	1300	1400			
DIAMETRO MASSIMO DI TORNITURA MAX. TURNING DIAMETER		mm	640	870	1060	1390	1060	1390	1750	1390	1790			
DIAMETRO MASSIMO DI SFACCIATURA MAX. FACING DIAMETER		mm	910	1200	1400	1740	1400	1740	2140	1740	2140			



FH

GALLERY

- 
- 
- MT-TC-TC3
- T
- TSI/TSX
- VH
- 1-4
- HT
- MOX
- TA
- TA.CP
- BAH
- FH

FH

BAH

TA.CP

TA

MOX

HT

2-1

VH

TSI/TSX

T

MT-TC-TC3



BAH

B I G A N G L E H E A D S





Le teste ad angolo qui esposte, sono state progettate e costruite per soddisfare le esigenze di equipaggiamento di macchine utensili di grandi dimensioni utilizzate in diversi settori:

Trasporto Pesante, Aeronautico, Navale, Militare, Ferroviario, Energetico, Stampi, Automotive.

La tecnologia applicata, i materiali, i componenti, il montaggio sono ai massimi livelli ed i collaudi statici e dinamici certificati garantiscono nel tempo le migliori performance. Le caratteristiche principali di questi prodotti, si possono così sinteticamente riassumere:

- corpo ricavato dal pieno per ottenere la massima precisione e stabilità
- la trasmissione del moto è con ingranaggi Gleason ad evolvente rettificato. Normalmente il rapporto di trasmissione è 1:1, ma può essere sia in moltiplica che in riduzione a seconda delle esigenze di trasmissione di coppia
- attacchi portautensili standard: DIN69871 - DIN 2080 - BT - HSK - Coromant Capto® o altri a richiesta
- il bloccaggio del portautensile sul mandrino può essere di due tipologie: manuale o automatico
- la adduzione del refrigerante può essere per il centro del portautensile. La pressione raggiungibile è di 100 Bar ed è prevista la pulizia del portautensile tramite aria. In ogni caso, attorno al mandrino, vi sono sempre alcuni ugelli direzionabili. Inoltre il mandrino è sempre pressurizzato onde evitare intrusioni
- cuscinetti mandrino a contatto obliquo di precisione lubrificati con grasso long life
- ingranaggi normalmente lubrificati a grasso, separato dal grasso cuscinetti. In caso di alta velocità la lubrificazione è a circolazione di olio
- i controlli elettrici sono interni alla testa e con accesso facilitato.

The angle heads exhibited here are designed and built to satisfy the tooling requirements of very large machines used in a variety of industries:

Heavy goods vehicles, Aeronautics, Shipping, Military, Railroad, Energy, Moulds and Automotive.

The applied technology, the materials, the parts and assembly all ensure top levels; the certified static and dynamic tests guarantee the best possible performance over time. The main features of these products may be summarised as follows:

- *body made of cast iron to ensure maximum precision and stability*
- *motion transmitted by means of Gleason ground in volute gears. The transmission ratio is normally 1:1, but it may be in both multiplication and in reduction based on torque transmission requirements*
- *standard tool-holder couplings: DIN69871 - DIN 2080 - BT - HSK - Coromant Capto® or others on request*
- *the tool holder can be locked on the spindle in two ways: manually or automatically*
- *the coolant may be supplied in the centre of the tool holder. The pressure currently reached is 100 Bar and the tool holder is cleaned with air. Whatever the case, there are always some turning nozzles around the spindle. Furthermore, the spindle is always pressurised to avoid intrusions*
- *spindle oblique contact precision bearings lubricated with long life grease*
- *gears normally lubricated with grease separated from the grease of the bearings. For high speeds, the lubrication system is oil circulation*
- *all the electrical control devices are inside the head and are easily accessed.*





SERIE BAH

TIPOLOGIE DI TESTE - HEADS TYPE

FA
FORK
AUTOMATIC

OH
ORTOGONAL
WITH
HIRTH

TWA
TWIN
AUTOMATIC

YA
Y-AXIS

SE
SPINDLE
EXTENSION
WITH ATC BY
MACHINE SPINDLE

SEH
SPINDLE
EXTENSION
WITH HYDRAULIC
ATC



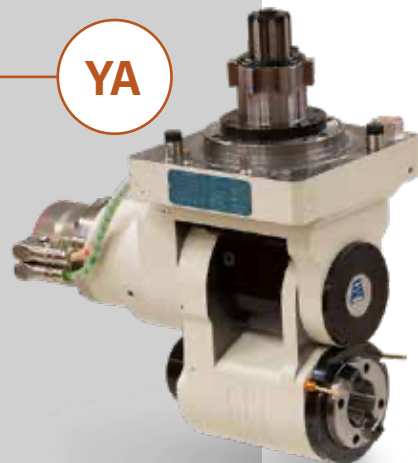
FA



OH



TWA



YA



FT



SE



SEH



OC



EXA



FM



EXM



FA



RA

SERIE BAH

TIPOLOGIE DI TESTE • HEADS TYPE

FH

BAH

TA.CP

TA

MOX

HT

2-4

VH

TSI/TSX

T

MT-TC-TC3



OC
ORTOGONAL
CONTINUOUS

EXA
EXTENDED
AUTOMATIC

FM
FORK
MANUAL

EXM
EXTENDED
MANUAL

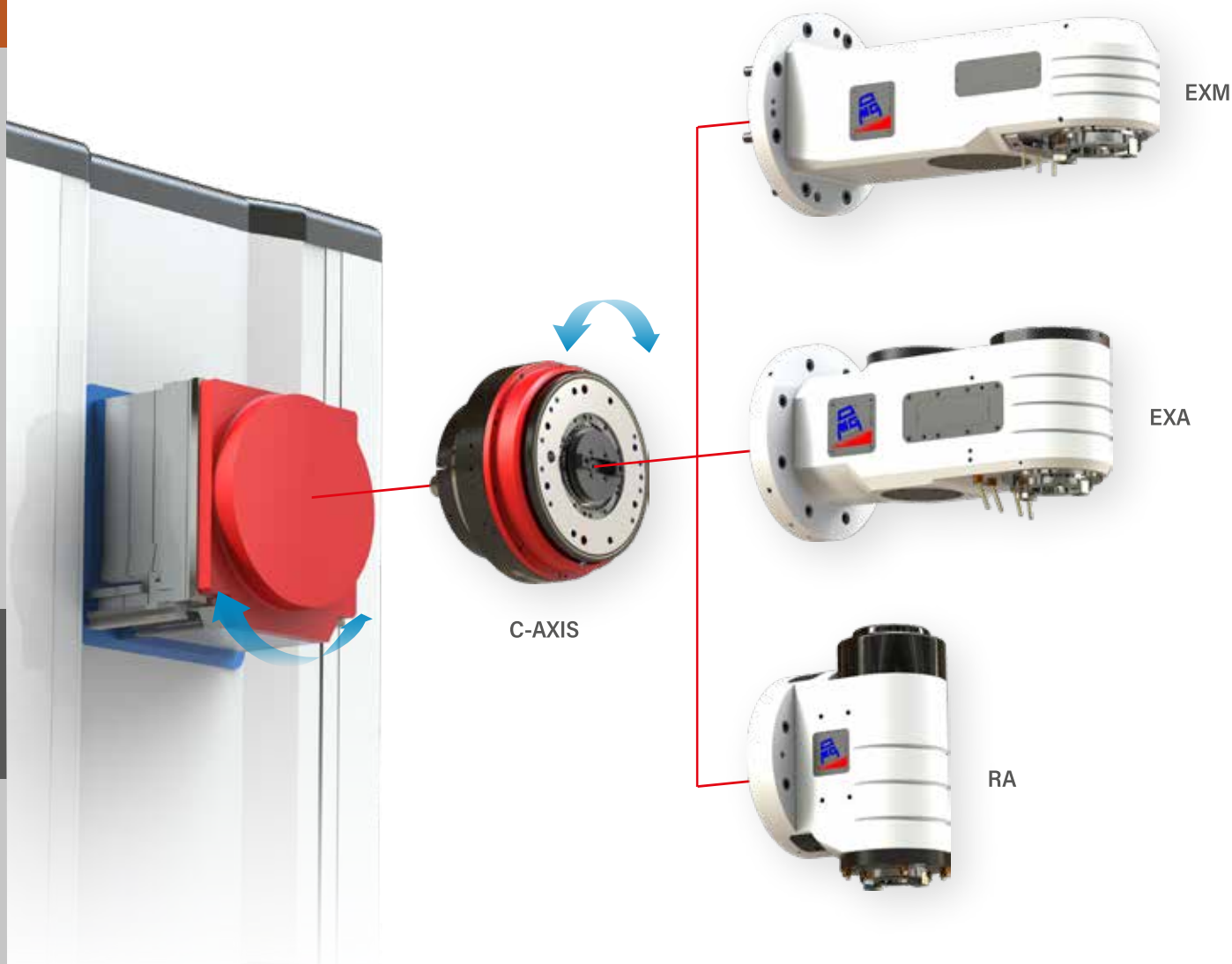
FA
FORK
AUTOMATIC

RA
RIGHT
ANGLE HEAD



SISTEMA MODULARE PER APPLICAZIONI FLESSIBILI

MODULAR SYSTEM FOR FLEXIBLE APPLICATION



Con il sistema modulare si possono eseguire varie combinazioni, scegliendo di conseguenza tra varie opzioni:

Asse C: con corona Hirth o con vite senza fine di alta precisione

EXM: Testa ad Angolo slim design con cambio utensile manuale

EXA: Testa ad Angolo slim design con cambio utensile automatico

RA: Testa ad Angolo con cambio utensile automatico

La posizione di lavoro può essere sia orizzontale che verticale. I vari componenti possono essere riutilizzati sia in altre applicazioni che su macchine diverse.

With the modular system different combinations are possible:

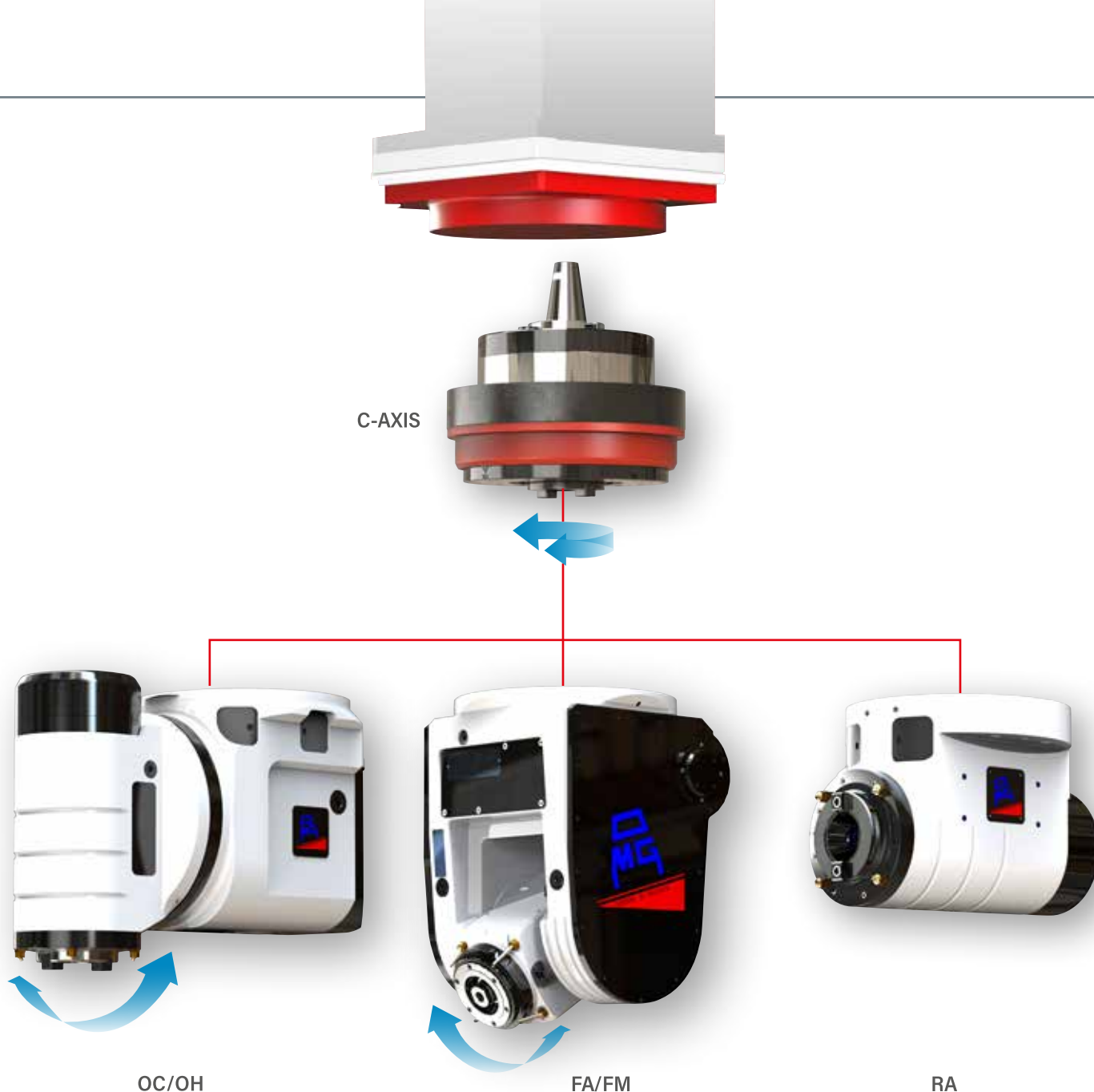
C Axis: Manual, with Hirth crown or with high precision worm screw

EXM: slim design Angle Head with manual tool change

EXA: slim design Angle Head with automatic tool change

RA: Angle Head with automatic tool change

The working position can be both horizontal and vertical. The components can be reused both in other applications and on different machines.



Con il sistema modulare si possono eseguire varie combinazioni, scegliendo di conseguenza tra varie opzioni:

Asse C: con corona Hirth o con vite senza fine di alta precisione

OC/OH: Testa ad angolo Tilting Automatic con cambio utensile automatico e rotazione asse mandrino

FA/FM: Testa ad angolo Fork Automatic con cambio utensile automatico e rotazione asse mandrino

RA: Testa ad Angolo con cambio utensile automatico

La posizione di lavoro può essere sia orizzontale che verticale. I vari componenti possono essere riutilizzati sia in altre applicazioni che su macchine diverse.

With the modular system different combinations are possible:

C Axis: Manual, with Hirth crown or with high precision worm screw

OC/OH: Tilting Automatic Angle Head, automatic tool change and spindle axis rotation

FA/FM: Fork Automatic Angle Head, automatic tool change and spindle axis rotation

RA: Angle Head with automatic tool change

The working position can be both horizontal and vertical. The components can be reused both in other applications and on different machines.





SERIE TA CP

**LIGHT
DUTY**





Teste ad Angolo innovative, nate per tutte le macchine utensili, anche di piccole dimensioni e dagli ingombri contenuti, dove si richiedono performances elevate nonostante la capacità di peso limitata sul cambio utensile. Quindi Teste ad Angolo più leggere ma con qualità e affidabilità tipiche dei nostri prodotti.

L'obiettivo di contenere il peso è stato raggiunto costruendo il corpo in lega di alluminio aeronautico e adottando un sistema antirotante semplificato e alleggerito, pur rimanendo inalterata la modularità dei coni di attacco tipica della serie Heavy Duty.

La caratteristica principale di questa nuova generazione è di potere eseguire forature, maschiature e lamature su quelle macchine utensili dove il peso del cambio utensile ha forti limitazioni o quando i costi di produzione devono essere estremamente competitivi.

Caratteristiche comuni della Teste ad Angolo serie CP sono:

- perno antirotante conico che, al contrario dei perni cilindrici, elimina i giochi angolari
- possibilità di utilizzo su macchine dove già presente Stop-Block della serie Heavy Duty per una perfetta compatibilità di tutta la gamma
- sistema di orientamento testa ad angolo in macchina ottimizzato, per una più facile e rapida registrazione
- ingranaggi Gleason con evolvente rettificato
- lubrificazione a vita
- peso estremamente ridotto per Teste ad Angolo con queste capacità di lavoro
- utilizzo su centri di lavoro di piccole dimensioni
- versioni anche prolungate per una maggiore flessibilità di gamma
- coni disponibili: DIN69871, BT, BBT, HSK, CAT.

These angle heads introduce an innovative line targeting all the small machine-tools with restrained size, but with high performances despite limited weight on tool changer. Therefore TA.CP angle heads are lighter but with both quality and reliability typical of our products.

Highlight of this line is the head body in aeronautical aluminium alloy combined with a simplified and lightened torque-arm system, allowing to maintain unchanged the back-end shank modularity characteristic of our Heavy Duty range.

The major feature of this new generation of angle heads is to be able to perform drilling, tapping and reaming operations on machine-tools with high limitations on tool changer weight, or when production costs must be extremely competitive.

The major specifications of the new TA.CP range are:

- conical (V-shape) torque-arm pin which eliminates any angular backlashes, unlike cylindrical type of pins
- possibility of using them on machines which are already equipped with a Stop-Block of the Heavy Duty range, getting them fully compatible with our complete range
- optimized indexing set-up for an easier and faster adjustment on machine-tools
- lubricated-for-life
- ground involute Gleason type gears
- extremely reduced weight in comparison to the capabilities and performances of this new range of angle heads
- usable on small size machining centres
- extended length versions available further completing this new range
- DIN69871, BT, BBT, HSK and CAT back-end shanks available

FH

BAH

TA.CP

TA

MOX

HT

3-3

VH

TSI/TSX

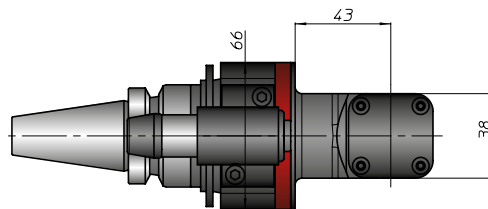
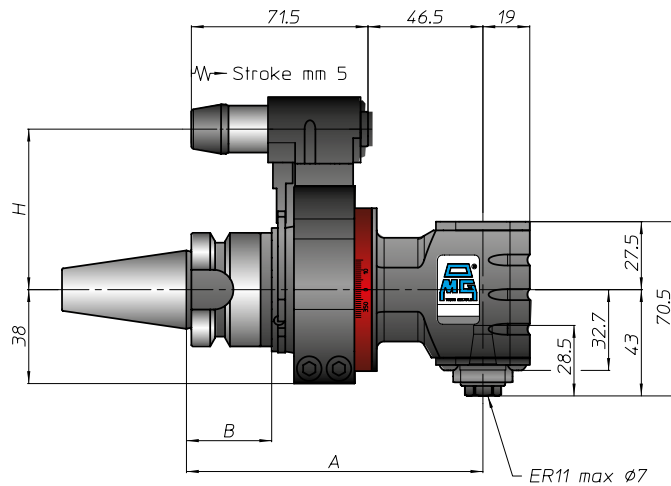
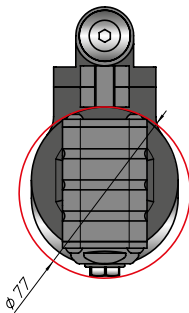
T

MT-TC-TC3



TA07.CP

TESTA AD ANGOLO - ANGLE HEAD



30

2,1 KG

40

2,5 KG

IN

INPUT

OUT

OUTPUT

ROTAZIONE
ROTATION



Ø7



M6



150 N



1-1



8000



5,6

CARATTERISTICHE
FEATURES

CONO
SHANK

SIZE

A

B

H STANDARD

H OPTIONAL



DIN69871



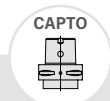
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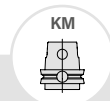
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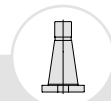
DIN69893



ISO26623



KM



DIN2080



ANSIB5.18

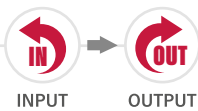
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120	120	120	129					
35	35	35	44					
65	65	65	65					



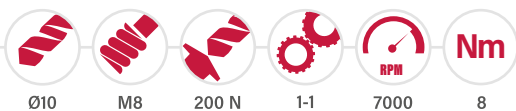
PESO
WEIGHT



ROTAZIONE
ROTATION

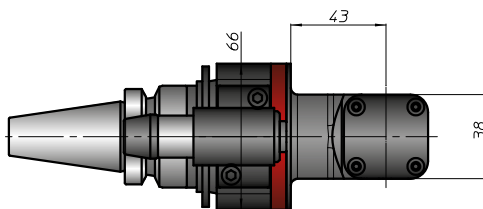
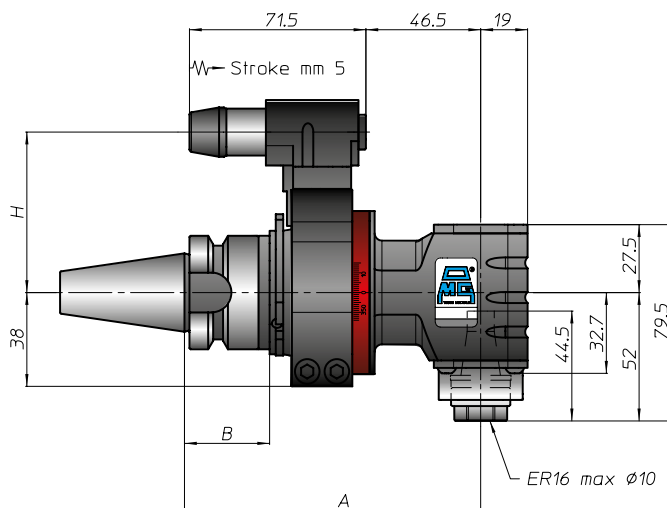
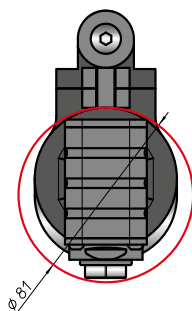


CARATTERISTICHE
FEATURES

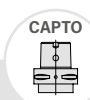


TA10.CP

TESTA AD ANGOLO - ANGLE HEAD



CONO
SHANK



SIZE

30 40

40

30 40

63

63

63

63

A

120

120

120

129

B

35

35

35

44

H STANDARD

65

65

65

65

H OPTIONAL

FH

BAH

TA.CP

TA

MOX

HT

3-4

VH

TSI/TSX

T

MT-TC-TC3



FH

BAH

TA-CP

TA

MOx

HT

3-5

VH

TSI/TSX

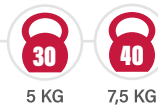
T

MT-TC-TC3

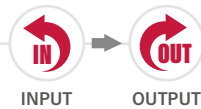


TA13.CP

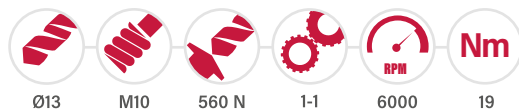
TESTA AD ANGOLO - ANGLE HEAD



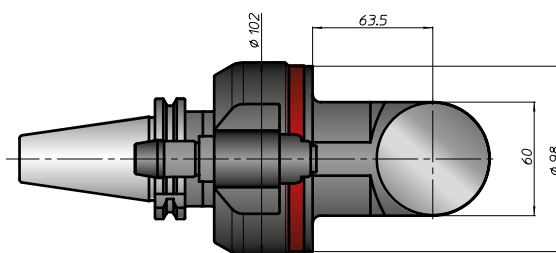
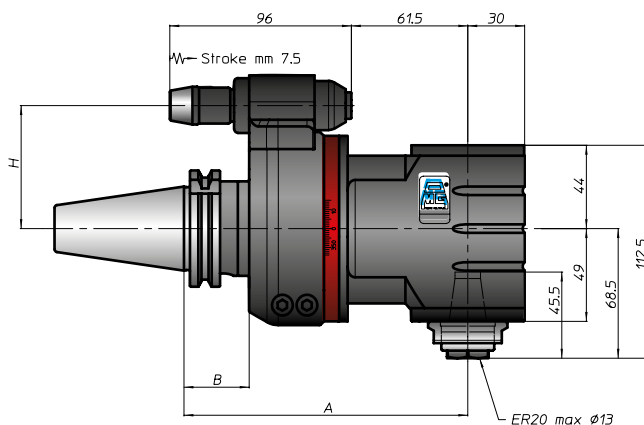
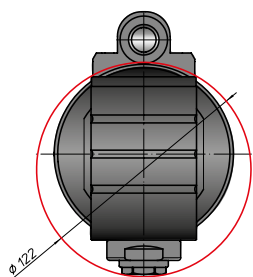
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



CONO
SHANK



DIN69871



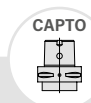
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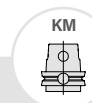
BT



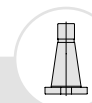
DIN69893



ISO26623



KM



DIN2080



ANSIB5.18

SIZE

30 40 45 50 40 50 40 50 63 80 100

A

150 150 150 158 159

B

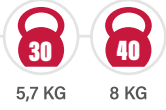
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H STANDARD

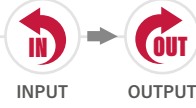
65 80 65 80 65 80

H OPTIONAL

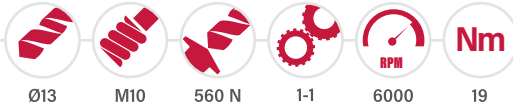
PESO
WEIGHT



ROTAZIONE
ROTATION

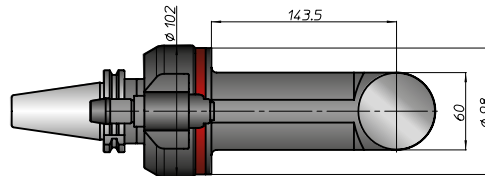
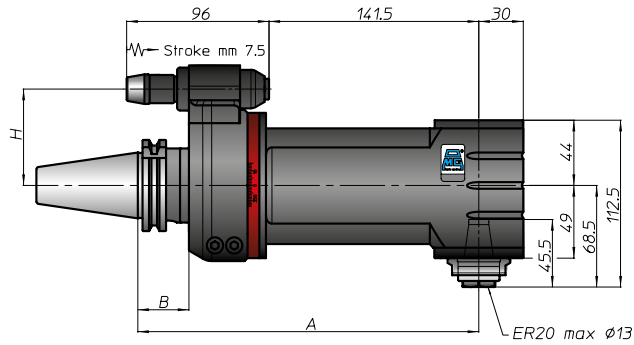
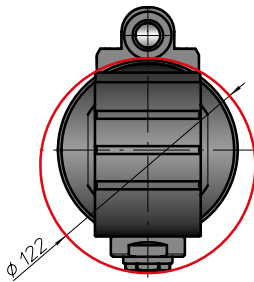


CARATTERISTICHE
FEATURES



TA13.CPL

TESTA AD ANGOLO - ANGLE HEAD



CONO
SHANK

SIZE

A
B
H STANDARD
H OPTIONAL

	DIN69871		ANSIB5.50		BT		DIN69893			ISO26623		DIN2080		ANSIB5.18	
	30	40	45	50	40	50	40	50	63	80	100				
A	230		230		230	238	239								
B	35		35		35	45	44	46							
H STANDARD	65	80	65	80	65	80	65	80							
H OPTIONAL															

FH

BAH

TA.CP

TA

MOX

HT

3-6

VH

TSI/TSX

T

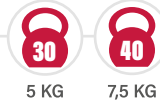
MT-TC-TC3



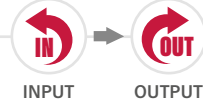


TA16.CP

TESTA AD ANGOLO - ANGLE HEAD



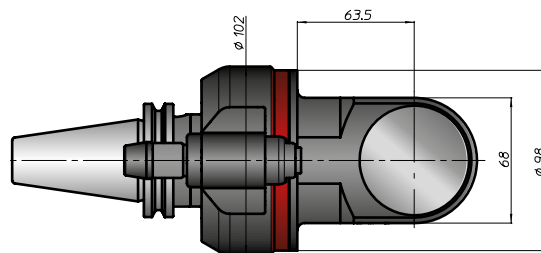
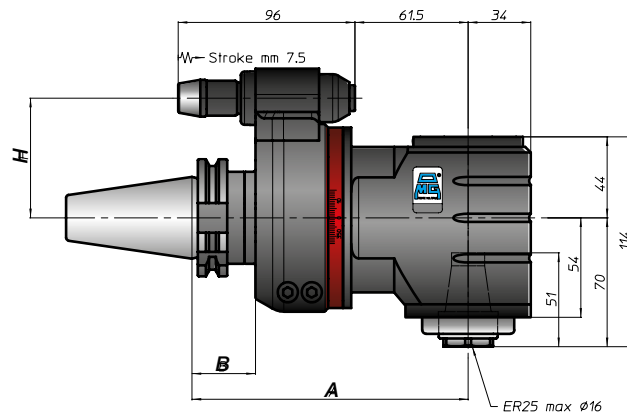
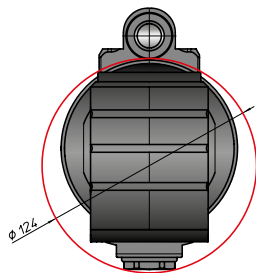
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



CONO
SHANK

SIZE

A

B

H STANDARD

H OPTIONAL



DIN69871



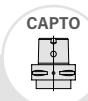
ANSIB5.50



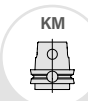
BT



DIN69893



ISO26623



KM



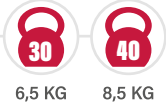
DIN2080



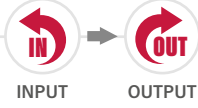
ANSIB5.18

40	45	50	40	50	40	50	63	80	100				
150		150		150	158	159							
35		35		35	45	44	46						
65	80		65	80	65	80	80						

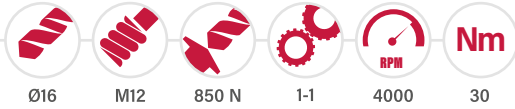
PESO
WEIGHT



ROTAZIONE
ROTATION

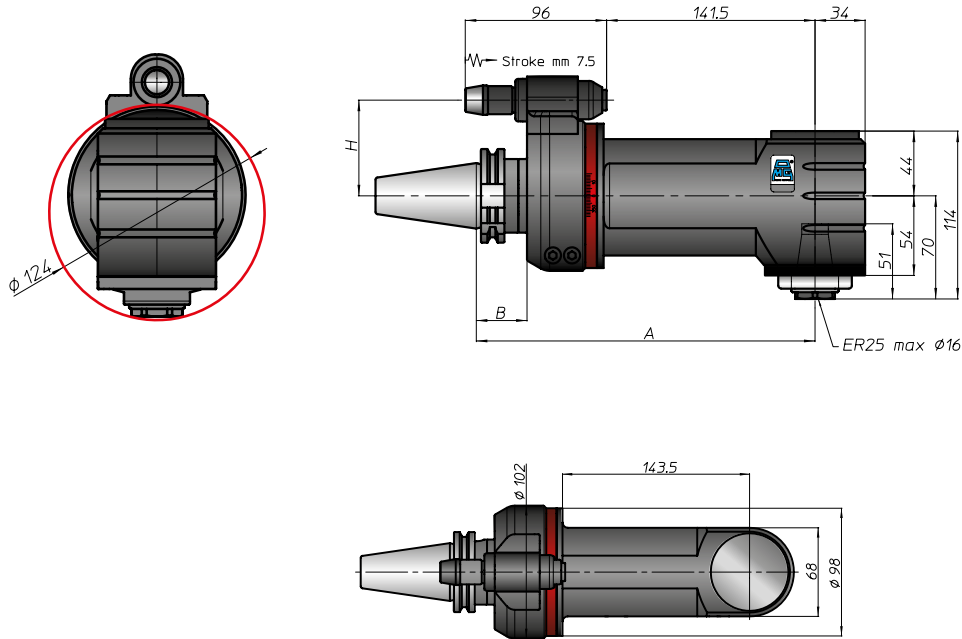


CARATTERISTICHE
FEATURES



TA16.CPL

TESTA AD ANGOLO - ANGLE HEAD



CONO
SHANK

SIZE

A

B

H STANDARD

H OPTIONAL

	ANSIB5.50			BT		DIN69893			ISO26623		DIN2080		ANSIB5.18	
SIZE	40	45	50	40	50	63	80	100						
A	230			230	238	239								
B	35			35	45	44	46							
H STANDARD	65	80	65	80	65	80	65	80						
H OPTIONAL														

FH

BAH

TA.CP

TA

MOX

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3-8

VH

TSI/TSX

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MT-TC-TC3





TAVO7.CP

TESTA AD ANGOLO - ANGLE HEAD



30
2,2 KG

40
2,6 KG

PESO
WEIGHT

IN
INPUT

OUT
OUTPUT

ROTAZIONE
ROTATION

Ø7

M6

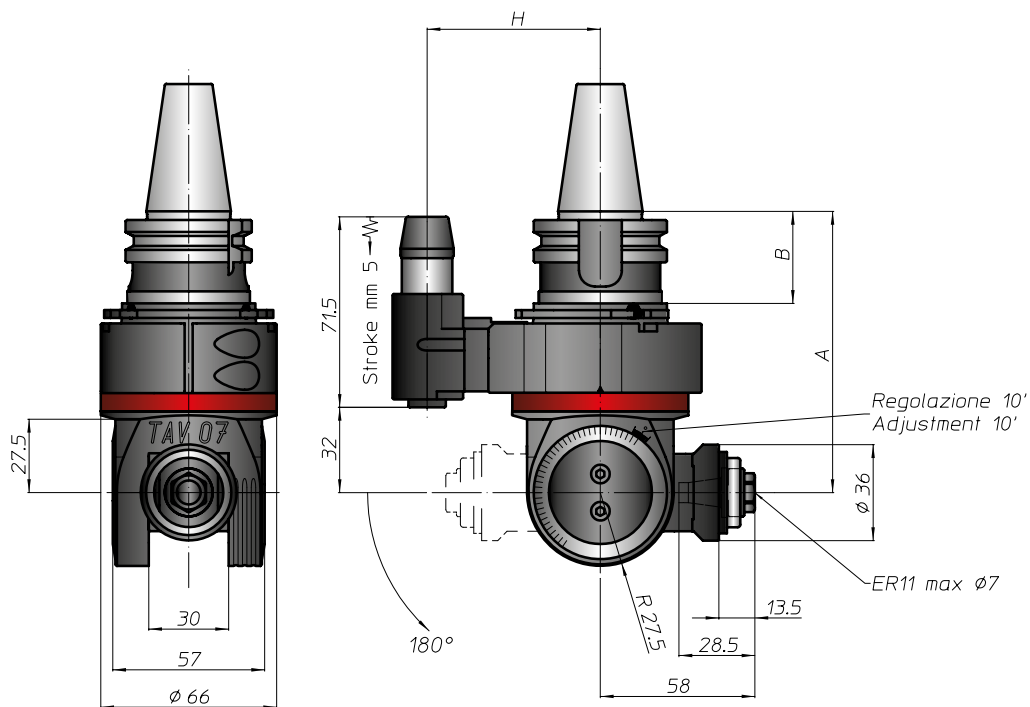
85 N

1-1

8000

5,6

CARATTERISTICHE
FEATURES



CONO
SHANK

SIZE

A

B

H STANDARD

H OPTIONAL



DIN69871



ANSIB5.50



30 | 40



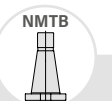
DIN69893



ISO26623



DIN2080



ANSIB5.18

30	40	40	30 40	63			
105,5		105,5		114,5			
35		35		44			
65		65		65			



TA.CP

GALLERY

BAH

TA.CP

TA

MOX

HT

3-10

VH

TSI/TSX

T

MT-TC-TC3



FH

BAH

TA.CP

TA

MOX

HT

3-10

VH

TSI/TSX

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MT-TC-TC3





ANTIROTANTE TORQUE ARM



Il gruppo antirotante ricopre una funzione di fondamentale importanza nella qualità di lavorazione della testa ad angolo. Per questo motivo i tecnici della OMG hanno studiato e messo a punto un antirotante di nuova concezione i cui punti salienti sono:

- il perno conico
- registrazione flangia di fasatura semplice, veloce e precisa.

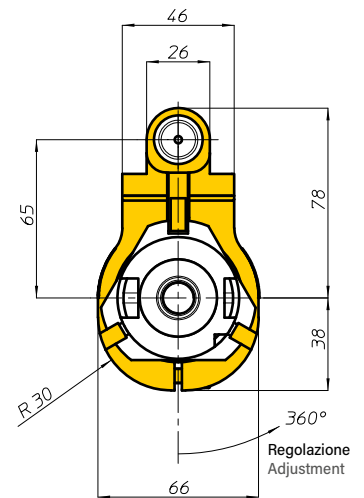
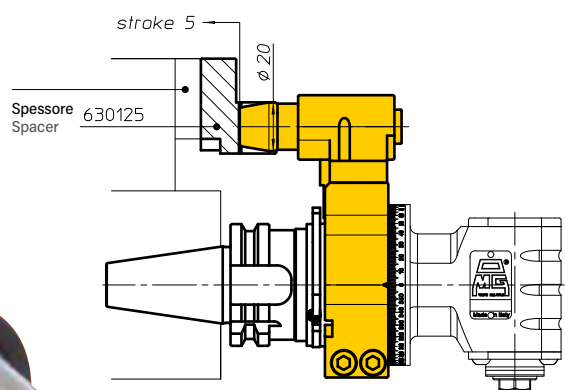
Il perno conico permette una maggiore rigidità del sistema antirotante rispetto ai tradizionali, dotati di perni di $\varnothing 18$ mm, perché si eliminano i giochi. Conseguenza un miglioramento della rigidità sia angolare che assiale.

Il perno conico è forato e perciò predisposto per il passaggio del liquido refrigerante ad un max di 10 bar. Qualora il cliente volesse portare il liquido vicino all'utensile, occorre semplicemente installare un piccolo tubo.

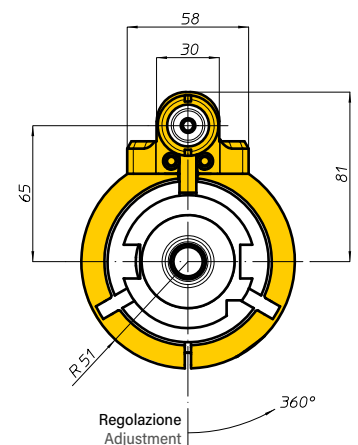
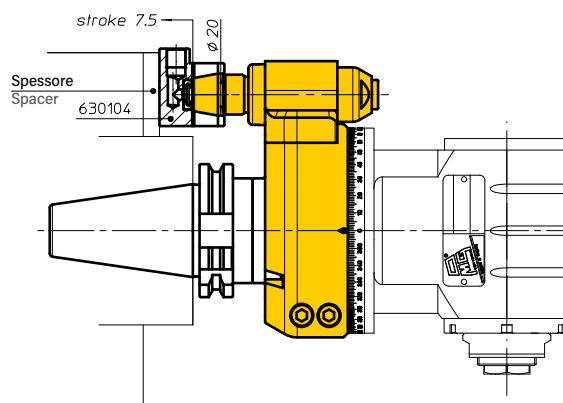


Quando possibile, nella Vostra applicazione, posizionate il perno conico dalla parte opposta al mandrino della testa ad angolo.

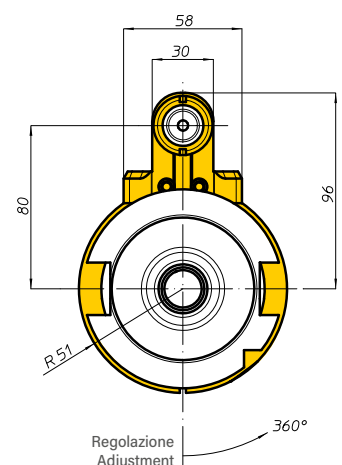
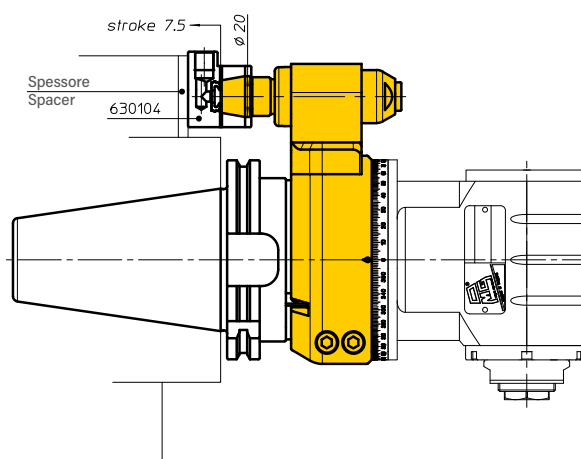
TESTE AD ANGOLO TA07.CP, TAV07.CP ANGLE HEADS TA07.CP, TAV07.CP



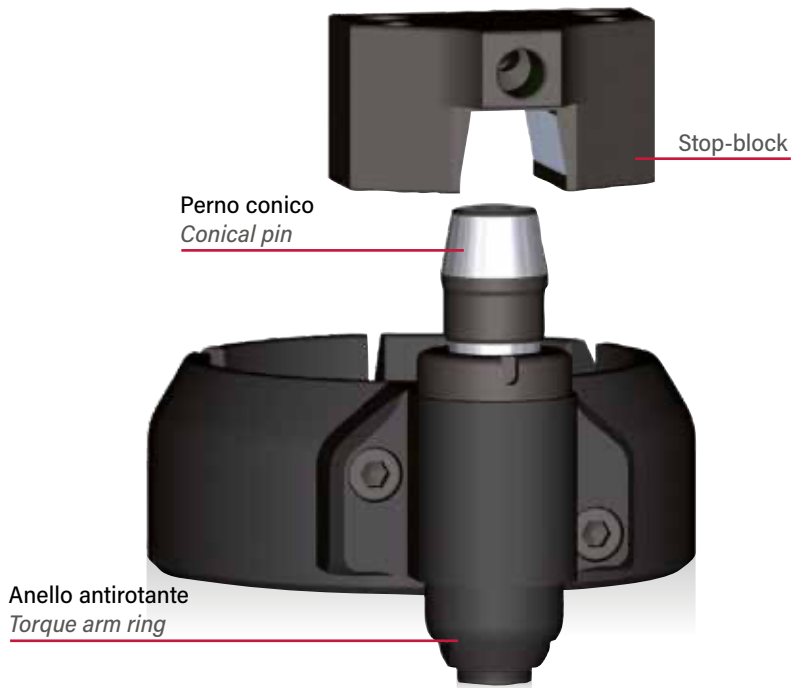
TESTE AD ANGOLO TA13.CP, TA16.CP CON INTERASSE H=65 ANGLE HEADS TA13.CP, TA16.CP WITH CENTRE DISTANCE H=65



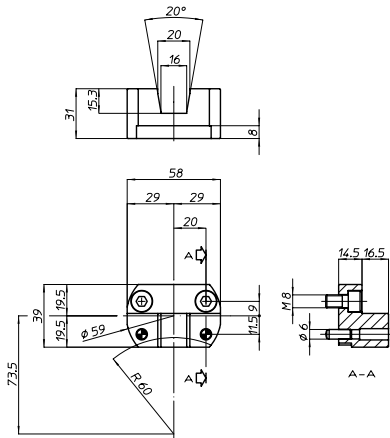
TESTE AD ANGOLO TA13.CP, TA16.CP CON INTERASSE H=80 ANGLE HEADS TA13.CP, TA16.CP WITH CENTRE DISTANCE H=80



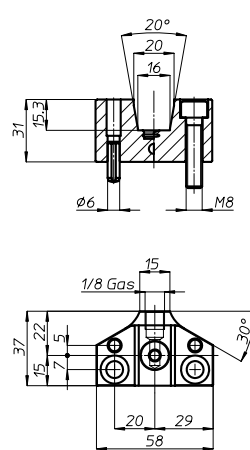
STOP-BLOCK



STOP-BLOCK (COD. 630125)



STOP-BLOCK (COD. 630104)



The torque-arm system is fundamental to achieve high quality machining results.

This is why the OMG technicians have engineered and fine tuned a new generation torque-arm system with following characteristics:

- conical (V-shape) timing pin
- simple, fast and precise timing pin adjustment

The conical (V-shaped) pin ensures a higher rigidity to the torque-arm system (than the traditional ones equipped with $\varnothing 18$ mm pins) because cancelling backlashes. The result is the enhancement of both angular and axial rigidity.

The conical timing pin is equipped with a hole and therefore prepared to let coolant through it up to max 10 bar. When customer needs coolant close to the tool, he can install just a small pipe.

Stop-block preparati per Stop-block made for

HAAS



DMG Milltap



Mectron



Brother



Fanuc Robotdrill



Position the conical pin on the opposite side of the angle head spindle when possible in your application.

FH

BAH

TA.CP

TA

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4-1

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MT-TC-TC3




SERIE

TA

HEAVY
DUTY





O.M.G. propone una vasta gamma di Teste ad Angolo. Con più di 110 modelli e quasi 4000 se si contano le varianti, quella di O.M.G. è la più ampia attualmente presente sul mercato. Le Teste ad Angolo sono studiate per consentire una riduzione di tempi e costi nelle lavorazioni meccaniche evitando ulteriori piazzamenti del pezzo. Applicate su macchine tradizionali, centri di lavoro con cambio automatico dell'utensile, oppure centri di tornitura con torretta motorizzata, sono particolarmente curate in ogni particolare, dal cinematismo trattato termicamente, alle coppie coniche Gleason fino ai cuscinetti di precisione per ottenere e garantire un'ottima rigidità e la massima precisione nelle lavorazioni. Fra le tante, queste le due caratteristiche fondamentali per identificare un prodotto moderno che risponde alle attuali esigenze: il gruppo antirotante di nuova concezione che permette alla testa di non avere giochi angolari, le velocità fino a 10.000 rpm (prestazioni che non hanno eguali nei modelli equivalenti della concorrenza). Le teste ad angolo serie TA sono state studiate e definite avvalendosi di sistemi computerizzati all'avanguardia a supporto di conoscenze acquisite dalla O.M.G. in sessant'anni di esperienza nel settore. Tutto ciò ha permesso di fare scelte innovative nei materiali da costruzione, nei trattamenti termici e nelle lavorazioni meccaniche così da ottenere precisione, robustezza, rigidità e finitura al "top".

È così disponibile un'offerta unica per qualità e quantità di modelli atti a soddisfare le esigenze sempre più mirate dell'utilizzatore finale, per qualsiasi macchina utensile: teste monomandrino a 90°, bimandrino a 90°, teste ad angolo variabile da +90° a -90°, teste ad angolo fisso, anche con adduzione refrigerante centro utensile e, dove non è possibile utilizzare teste di serie, teste angolari speciali.

O.M.G. offers a wide range of Angle Heads. With more than 110 models and almost 4000 if we consider all the possible options, what O.M.G. has is the widest range on the market today. The Angle Heads are designed to allow a reduction in time and costs in mechanical processing by reducing the management of the pieces to be machined. Applied on traditional machines, machining centers with automatic tool change, or turning centers with motorized turret, they are extremely meticulous in details, from the heat-treated kinematics to the Gleason bevel gear pairs up to the precision bearings to obtain and guarantee excellent rigidity and maximum precision in machining. Among many, these are the two fundamental characteristics to identify a modern product that responds to current needs: the newly designed anti-rotating group which allows the head to have no angular backlash, the speeds up to 10,000 rpm (performances which have no equal in the models competitive equivalents). The TA series angle heads have been studied and defined using cutting-edge computerized systems to support knowledge acquired by O.M.G. in sixty years of experience. All this has allowed us to make innovative choices in construction materials, heat treatments and mechanical processes so as to obtain precision, robustness, rigidity and "top" finishing.

A unique offer is thus available in terms of quality and quantity of models designed to satisfy the increasingly targeted needs of the end user, for any machine tool: 90° single-spindle heads, 90° double-spindle heads, +90 variable angle heads ° to -90°, fixed angle heads, also with tool center coolant supply and, where it is not possible to use standard heads, special angular heads.



Pagina • Page: 4-11



TAR

Piccole per piccoli spazi.
Tiny for narrow spaces.

TA

Pagina • Page: 4-23

Lavorazione singola di
foratura e fresatura.
*Drilling and milling
machining.*



Pagina • Page: 4-49

TA... 2P

Due mandrini
contrapposti di 180°.
*180° two opposed
spindles.*



TA... D

Pagina • Page: 4-55

Input refrigerante
attraverso lo stop-block
e uscita attraverso il
centro utensile.
*Input coolant from
stop-block, and output
through tool spindle.*



Pagina • Page: 4-75

TAV

Mandrino variabile
 $\pm 90^\circ$.
 *$\pm 90^\circ$ adjustable
spindle.*



TAF

Pagina • Page: 4-95

Mandrino fisso,
angolo su richiesta
del cliente.
*Fixed spindle with
custom angle.*



Pagina • Page: 4-24



TA...L

Versione allungata per lavorazioni singole di foratura e fresatura.

Length stretched version for drilling and milling single machining operations.

TAL

Pagina • Page: 4-39

Versione leggera per lavorazioni singole di foratura e fresatura.

Ligh version for drilling and milling single machining operations.



Pagina • Page: 4-65



TAO

Mandrino offset, lavorazione in spazi ristretti ed ottima performance in fresatura.

Offset spindle, machining in narrow spaces, and excellent results in milling operations.

TAO... PD

Pagina • Page: 4-66

Mandrino offset, input refrigerante attraverso il centro cono, uscita attraverso centro utensili con pressione 70 bar.

Offset spindle, input coolant through machine taper, output through tool spindle at 70 bar pressure.



Pagina • Page: 4-101



TA... T

Connessione alla macchina tramite flangia.

To be connected to the machine by flange.

SIMBOLI

ICONS

 **RAPPORTO ENTRATA/USCITA**
RATIO INPUT/OUTPUT

 **CAPACITÀ DI FORATURA**
DRILLING CAPACITY

 **MASCHIATURA**
TAPPING

 **PESO**
WEIGHT

 **N° MAX GIRI IN USCITA**
MAX OUTPUT RPM

 **PRESSIONE**
PRESSURE

 **CARICO ASSIALE**
AXIAL LOAD

 **PESO CON CONO 40**
WEIGHT WITH SIZE 40 SHANK

 **PESO CON CONO 50**
WEIGHT WITH SIZE 50 SHANK

 **ROTAZIONE IN INGRESSO**
INPUT ROTATION

 **ROTAZIONE IN USCITA**
OUTPUT ROTATION

 **DUAL CONTACT**

 **ACCURACY**

 **COPIA TORQUE**

SISTEMA MODULARE PER APPLICAZIONI FLESSIBILI

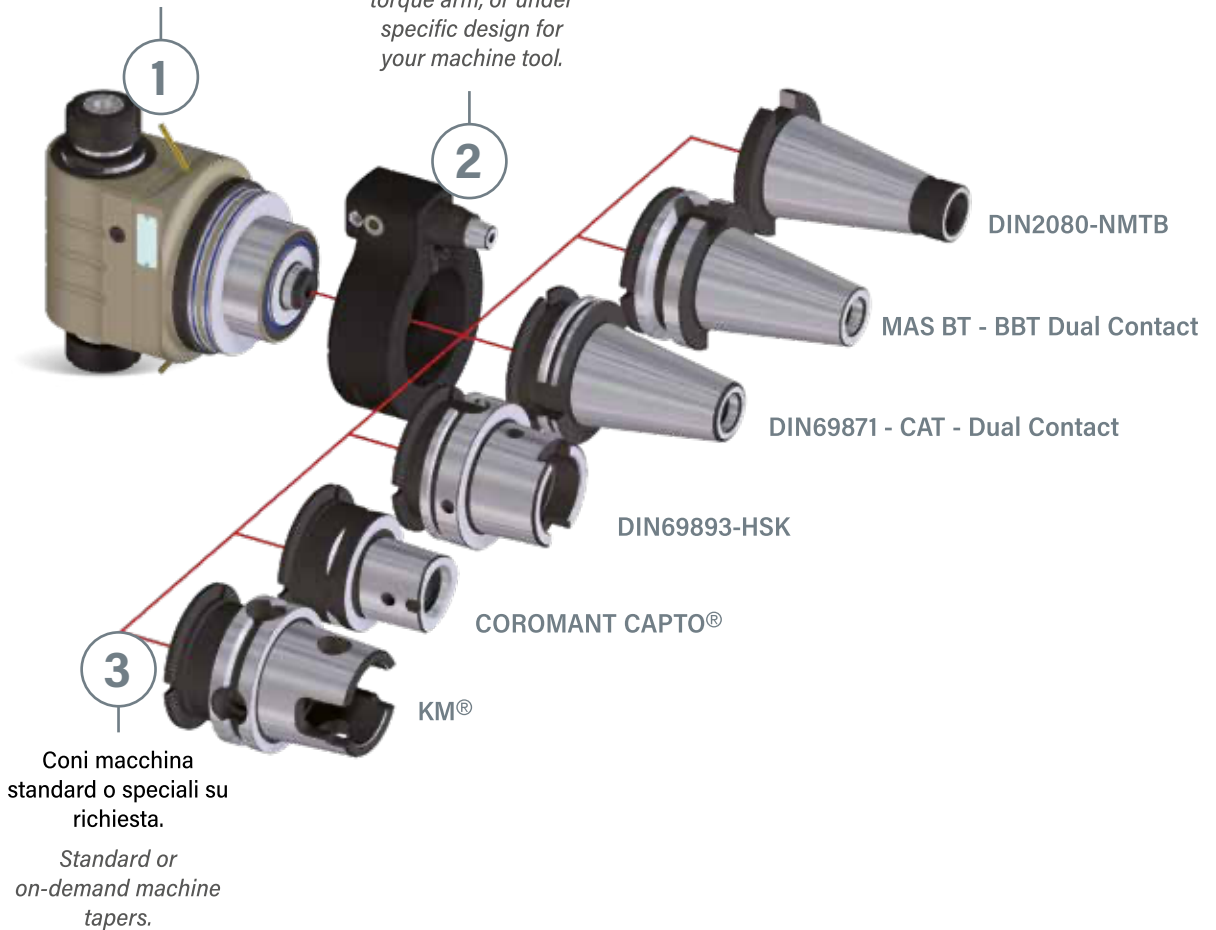
MODULAR SYSTEM FOR FLEXIBLE APPLICATION

Testa ad angolo con presa utensile ER standard, oppure vedi tipi Mandrino.

Angle Head with standard ER tool connection, or check other spindle types.

Antirotante standard "senza gioco", oppure su specifico design per la vostra macchina utensile.

No backlash standard torque arm, or under specific design for your machine tool.



Coni macchina standard o speciali su richiesta.

Standard or on-demand machine tapers.

MODULARITÀ CONI

Sono disponibili tutti i tipi di cono macchina, da sostituire tramite un esclusivo accoppiamento di precisione che crea un sistema rigido pari ai cono integrali, ma con i pregi dell'intercambiabilità.

MODULARITÀ ANTIROTANTI

esistono fondamentalmente tre dimensioni unificate di interesse tra il centro cono ed il centro perno antirotante: 65 mm per i cono grandezza 40, 80 mm per i cono grandezza 50 ed in alcuni casi anche 110 mm. Sono disponibili tutte le dimensioni e sostituire il gruppo antirotante è una operazione banale.

TAPER MODULARITY

All the different machine tapers are available, and can be replaced with an exclusive precision coupling system generating a rigid system equal to integral tapers, but with additional interchangeability quality.

TORQUE ARM MODULARITY

Essentially three unified dimensions between taper and torque-arm centers exist: 65 mm for the taper size 40, 80 mm for the taper size 50 and also 110 mm in some cases. All sizes are available and torque-arm replacement is very simple.

FH

BAH

TA.CP

TA

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4-5

VH

TSI/TSX

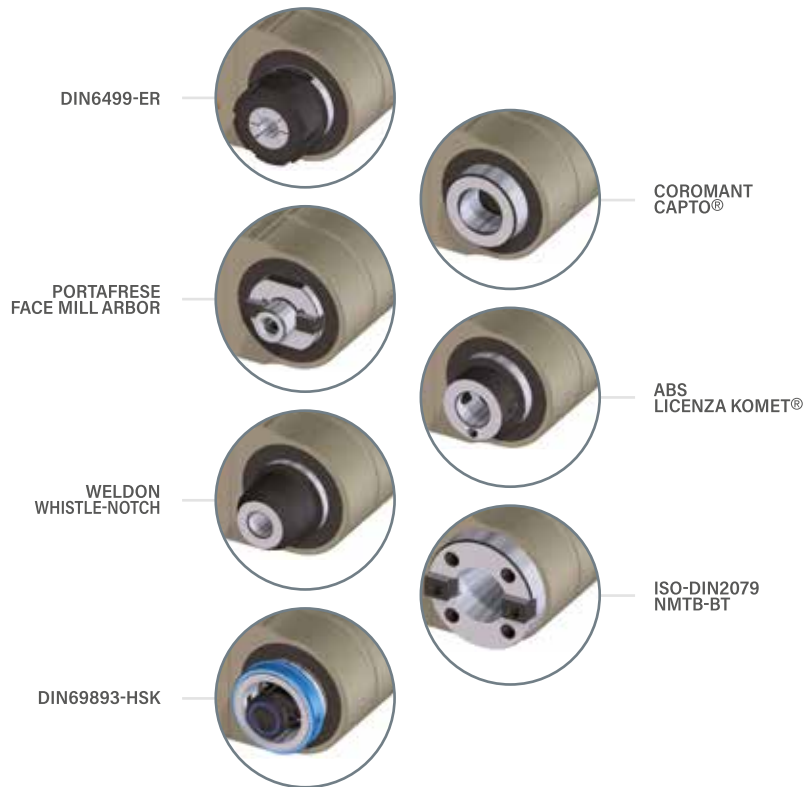
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MT-TC-TC3



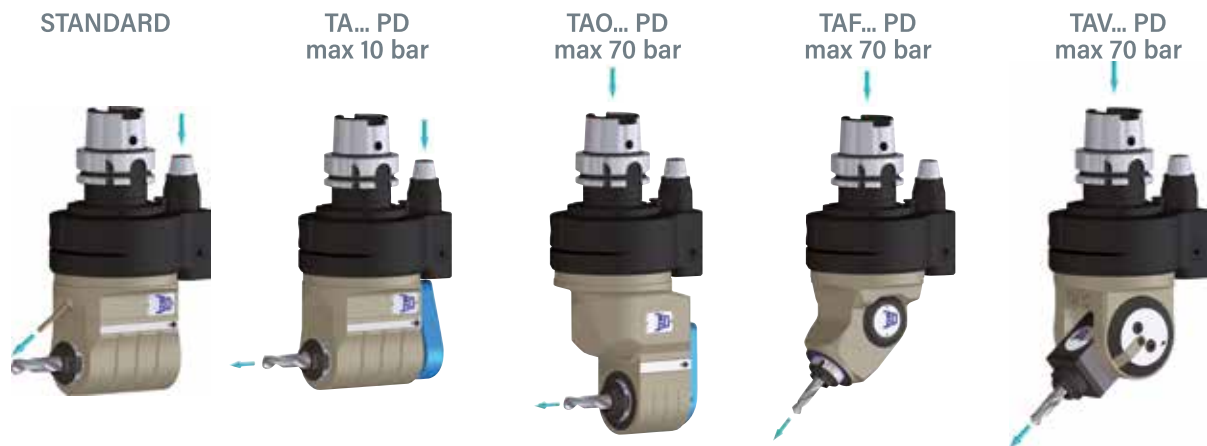
PRESE UTENSILI - TIPI MANDRINO

CLAMPING SYSTEMS AND SPINDLE TYPES



REFRIGERANTE UTENSILE

COOLANT TOOL



IL CIRCUITO REFRIGERANTE È STANDARD

Tutte le teste sono provviste di canalizzazione interna, che parte dal perno dell'antirostante e termina sull'ugello vicino all'utensile, senza alcun costo aggiuntivo.

REFRIGERANTE DA CONO MACCHINA

La costruzione offset delle Teste ad Angolo serie TAO consente il montaggio di tenute ad alta pressione affidabili nel tempo ed isolate dalle parti vitali della Testa ad Angolo, per un sicuro utilizzo di utensili con passaggio refrigerante interno.

COOLANT SYSTEM IS STANDARD

All our Angle Heads are supplied with an internal channel system, which starts from the torque-arm pin and ends on the nozzles next to the tool, without additional cost.

COOLANT SYSTEM FROM MACHINE TAPER

The offset construction of the TAO Angle Head series allows to fit high pressure seals which are time reliable and isolated from the vital parts of the Angle Heads, for a safe usage of tools with internal coolant transit.

ANTIROTANTE

TORQUE ARM

PRESTAZIONI SUPERIORI

L'antirotante standard permette di cambiare la testa in automatico. Il sistema di accoppiamento fra perno conico regolabile assialmente e lo stop-block con sede a "V", permette di annullare la tolleranza tra le parti creando un sistema rigido, senza giochi. Evidenti sono i vantaggi: maggiore durata degli utensili, maggiore durata dei cuscinetti, risparmi in termini di manutenzione con conseguente riduzione dei costi.

MASSIMA STABILITÀ

I sistemi antirotanti **TriBlock** e **QuadBlock** di O.M.G. con perni regolabili permettono di contrastare al meglio le spinte radiali e assiali con la possibilità di affrontare in sicurezza lavorazioni di fresatura o finitura fino a ora mai effettuate con le teste ad angolo, destinate inizialmente a diversi piazzamenti pezzo.

HIGHER PERFORMANCES

The standard torque arm allows an automatic change of the head. The coupling system between the conical pin, which can be axial adjusted, and the "V"-housing of the stop-block, allows to cancel any tolerance between those parts generating a rigid and backlash free system. The advantages are evident: longer life of tools, longer life of bearings, maintenance savings with consequent cost reductions.

MAXIMUM STABILITY

*The O.M.G. **TriBlock** and **TriBlock** torque arm systems with adjustable pin allow to oppose both radial and axial thrusts at their best, with the possibility of milling or finishing with total security, which was not possible until nowadays because requiring several changes of placement of the piece to be machined.*

STANDARD



TriBlock 



QuadBlock 

Studiato e realizzato su specifica richiesta.

Customized design according to your application.



Stop-block

Perno conico
Conical pin



FH

BAH

TA.CP

TA

MO

HT

4-7

VH

TSI/TSX

T

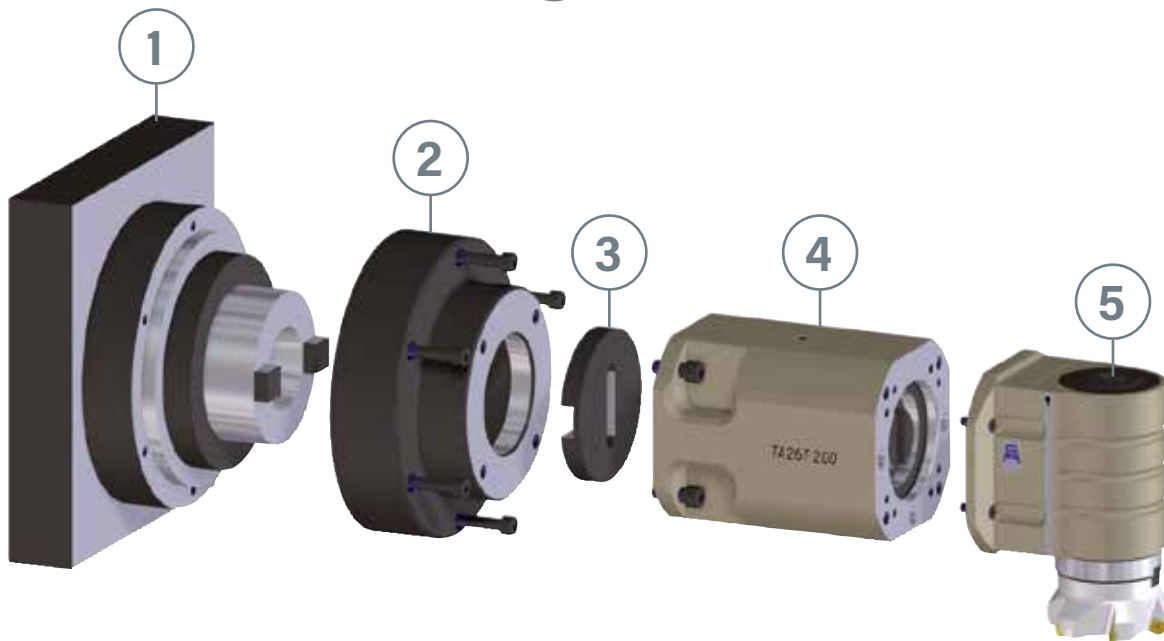
MT-TC-TC3



CONNESSIONE ALLA MACCHINA TRAMITE FLANGIA

MACHINE CONNECTION BY FLANGE

- 1 MACCHINA
MACHINE
- 2 FLANGIA DI CONNESSIONE
CONNECTION FLANGE
- 3 GIUNTO ISO 40/50
DRIVING JOINT ISO 40/50
- 4 ESTENSIONE
EXTENSION
- 5 TESTA AD ANGOLO TA... T
ANGLE HEAD TA... T



FH

BAH

TA.CP

TA

MO

HT

4-8

VH

TSI/TSX

T

MT-TC-TC3



QUALITÀ DEI COMPONENTI

QUALITY OF COMPONENTS

CORPO - BODY

Corpo testa in acciaio: massima rigidità e minima dilatazione termica.

Heady body in steel: maximum rigidity and minimum thermal expansion.



CUSCINETTI BEARINGS

Cuscinetti obliqui in classe di precisione ABEC7/9.

Angular contact ball bearings of precision class ABEC7/9



INGRANAGGI GEARS

Ingranaggi Gleason con evolvente rettificato: massime performances e minori vibrazioni.

Gleason rectified gears: maximum performances and minimum vibration.



DESIGN

Design compatto, che insieme alle specifiche sopra descritte, consente: alte performances, elevate velocità, lunga durata degli utensili.

Compact design that, along with above mentioned described specifications, allows: high performances, high speeds, long life of tools.



MATERIALI

Tutte le teste ad angolo standard sono in acciaio ricavate dal pieno per fresatura a pareti sottili, minimo ingombro e minor peso. Hanno il corpo trattato con nipro, trattamento anticorrosione, che garantisce alta protezione contro la ruggine, lubrificanti aggressivi e acidi.

MATERIALS

All our standard Angle Heads are made from solid steel for thin wall milling, resulting with the minimum possible size and less weight. Body is nipro treated and anti-corrosion coated giving the guarantee of high protection against rust as well as acid and aggressive lubricant-coolants.

COMPONENTI

Tutte le teste montano cuscinetti di precisione, oppure conici nelle versioni per grandi asportazioni. Si utilizzano solo cinematismi trattati termicamente e coppie coniche Gleason con dentatura rettificata. Lubrificazione con grasso long-life.

COMPONENTS

All our Angle Heads integrate precision bearings, or tapered roller bearings when models are for big removal machining. We only use thermal treated cinematic components and Gleason bevel gears with rectified teeth. Lubrication is with long-life grease.

PACKAGING



Le Teste ad Angolo sono racchiuse in robusta valigetta di materiale termoplastico e corredate di una completa dotazione di accessori:

- Stop-block standard con passaggio refrigerante
- Confezione di chiavi per messa in funzione e manutenzione
- Grasso di mantenimento
- Manuale istruzioni dettagliato per messa in funzione e manutenzione

The Angle Heads are packed in a strong thermoplastic case together with a complete set of accessories:

- *Standard stop-block with coolant way*
- *Set of keys for operation and maintenance*
- *Grease tube*
- *Operation and maintenance manual*

FH

BAH

TA.CP

TA

MO

HT

4-9

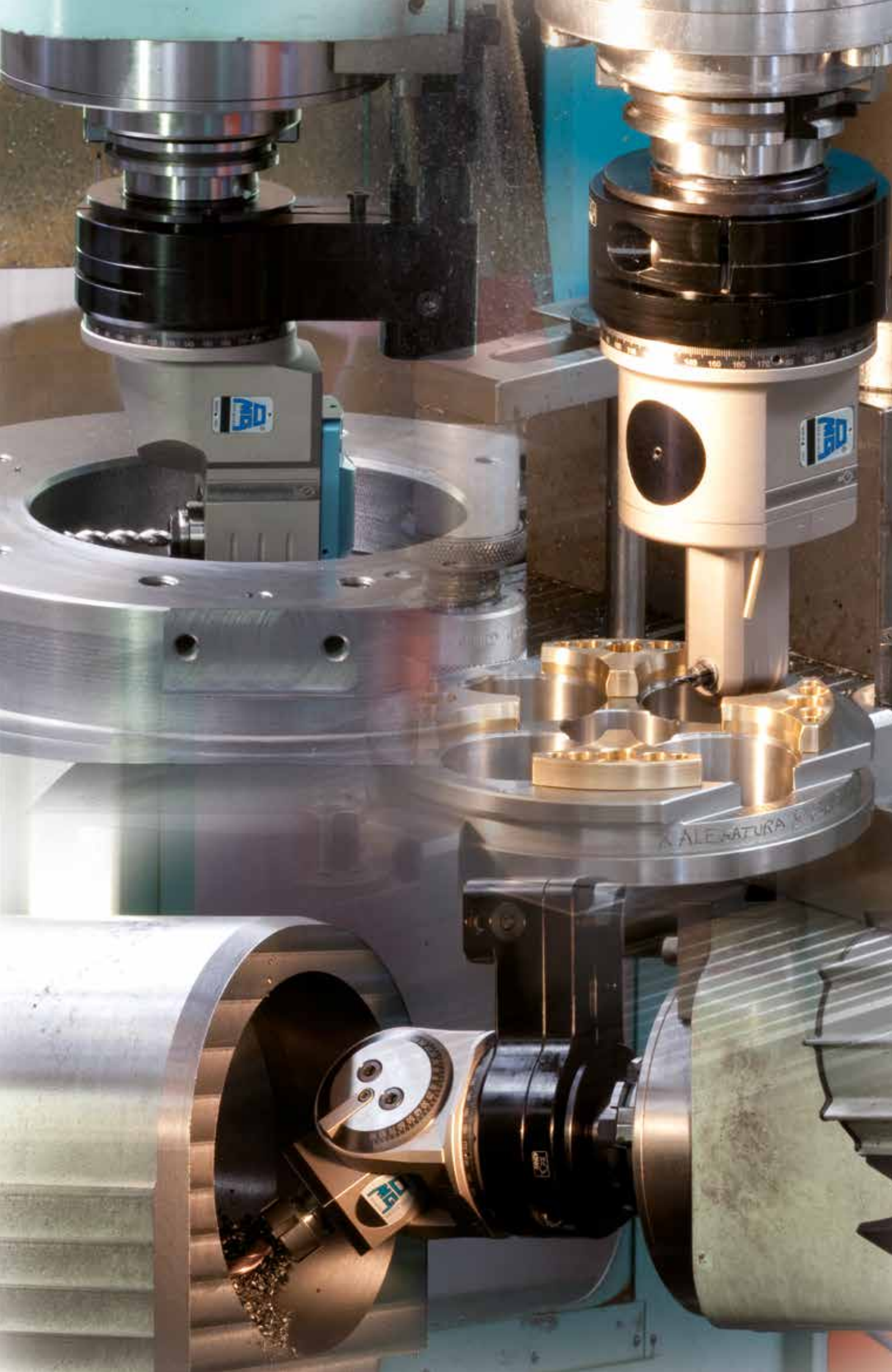
VH

TSI/TSX

T

MT-TC-TC3





FH

BAH

TA.CP

TA

MO

HT

4-10

VH

TSI/TSX

T

MT-TC-TC3



FH

BAH

TA.CP

TA

MOX

HT

4-11

VH

TSI/TSX

T

MT-TC-TC3



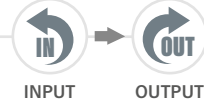
TAR02.P

TESTA AD ANGOLO - ANGLE HEAD



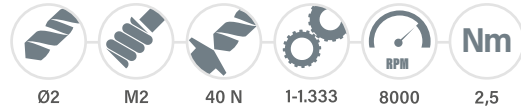
6,6 KG

9 KG

PESO
WEIGHT

INPUT

OUTPUT

ROTAZIONE
ROTATION

Ø2

M2

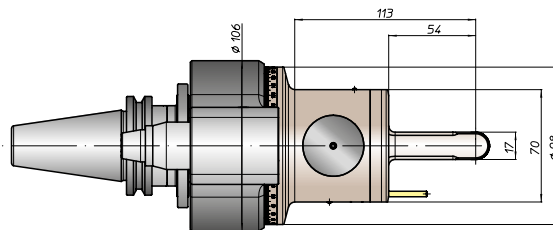
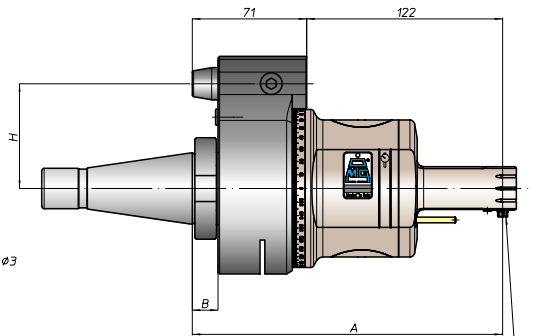
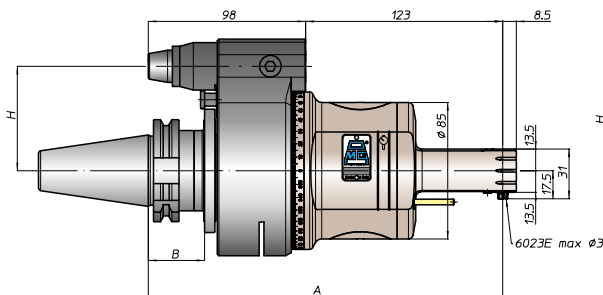
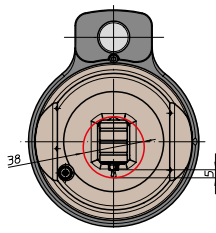
40 N

1-1.333

8000

Nm

2,5

CARATTERISTICHE
FEATURESCONO
SHANK

DIN69871



ANSIB5.50

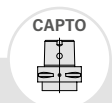


BT



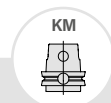
HSK

DIN69893



CAPTO

ISO26623



KM



DIN2080



ANSIB5.18

SIZE

30 40 45 50 40 50 40 50 63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

221

221

221 229

230

225

221

191 194

191 194

B

35

35

35 45

44 46

39 41

13 16

13 16

H STANDARD

65 80

65 80

65 80

65 80

65 80

65 80

65 80

65 80

H OPTIONAL

110

110

110

110

110

110

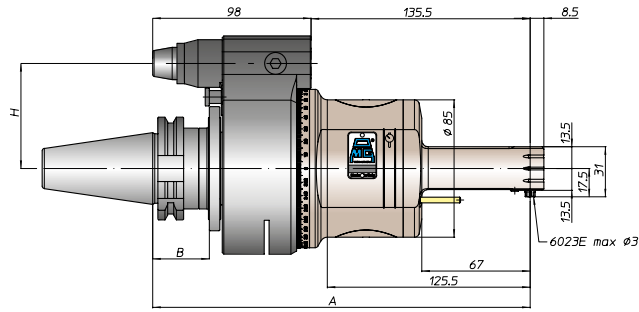
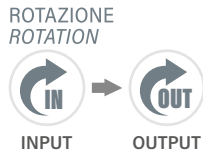
110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option

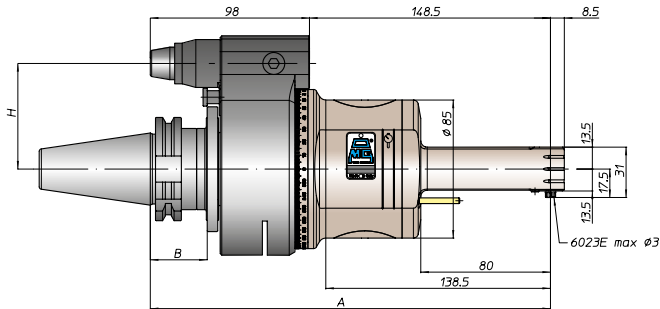
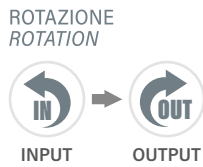


TAR02.P-L67



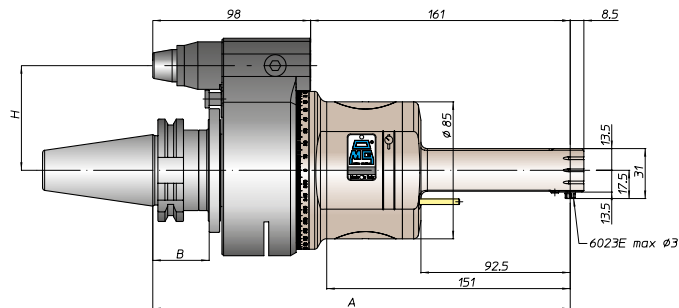
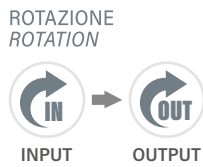
CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM			DIN2080		NMTB ANSIB5.18	
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	233,5				233,5		233,5	241,5	242,5			237,5			233,5			203,5	206,5	203,5	206,5

TAR02.P-L80



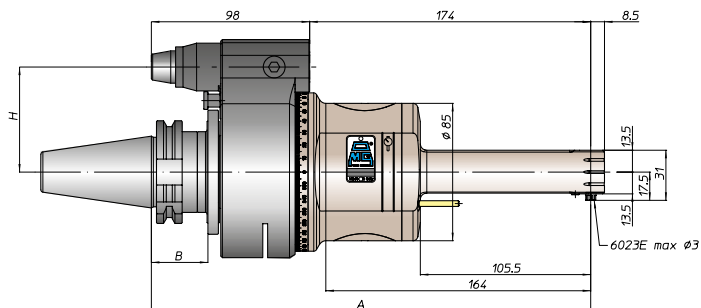
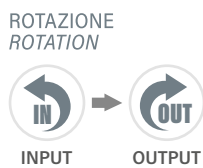
CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM			DIN2080		NMTB ANSIB5.18	
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	246,5				246,5		246,5	254,5	255,5			250,5			246,5			276,5	273,5	276,5	273,5

TAR02.P-L92



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM			DIN2080		NMTB ANSIB5.18	
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	259				259		259	267	268			263			259			289	286	289	286

TAR02.P-L105



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM			DIN2080		NMTB ANSIB5.18	
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	272				272		272	280	281			276			272			302	299	302	299



FH

BAH

TA.CP

TA

MOX

HT

4-13

VH

TSI/TSX

T

MT-TC-TC3



TAR03.P

TESTA AD ANGOLO - ANGLE HEAD



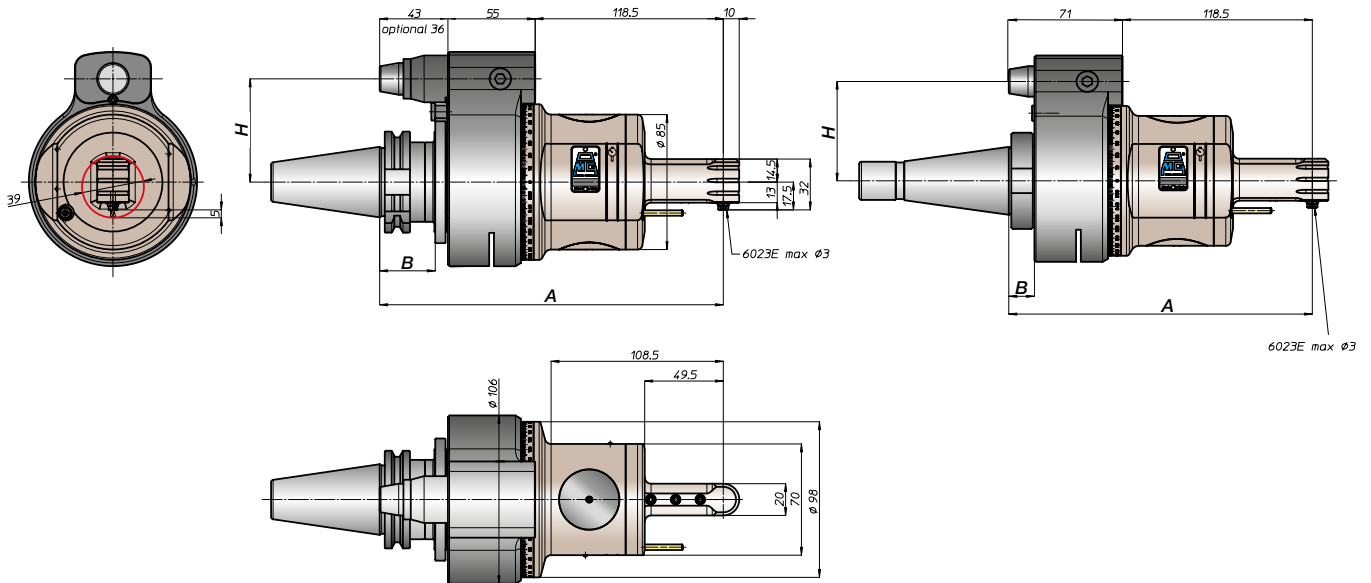
40
6,7 KG

50
9,1 KG

PESO
WEIGHT

IN
INPUT

OUT
OUTPUT

ROTAZIONE
ROTATIONCARATTERISTICHE
FEATURESCONO
SHANK

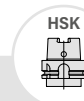
DIN69871



ANSIB5.50

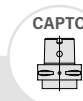


BT



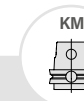
HSK

DIN69893



CAPTO

ISO26623



KM



DIN2080

NMTB
ANSIB5.18

SIZE

30 40 45 50 40 50 40 50 63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

216,5 216,5 216,5 224,5 225,5 220,5 216,5 186,5 189,5 188,5 191,5

B

35 35 35 45 44 46 39 41 13 16 13 16

H STANDARD

65 80 65 80 65 80 65 80 65 80 65 80 65 80 65 80

H OPTIONAL

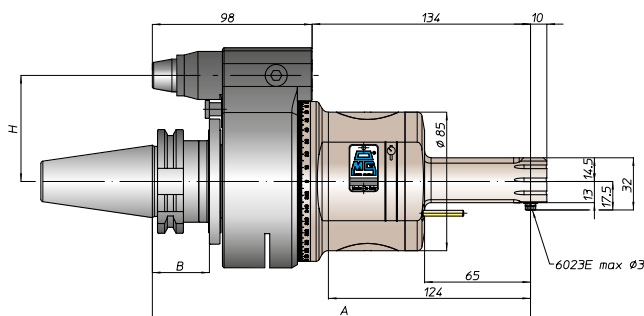
110 110 110 110 110 110 110 110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TAR03.P-L65

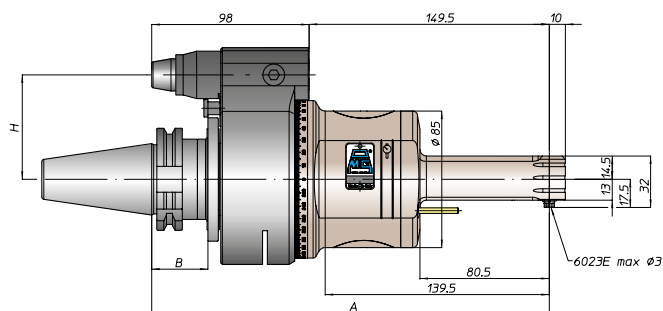
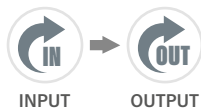
ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18		
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	232				232		232	240	241			236			232		202	205	202	205	

TAR03.P-L80

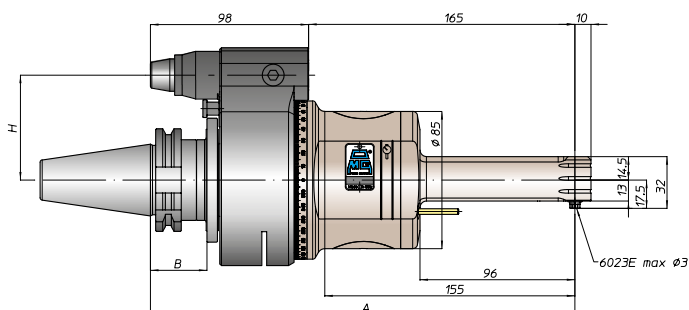
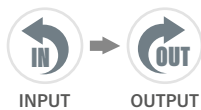
ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18		
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	247				247		247	255	256			251			247		217	220	217	220	

TAR03.P-L96

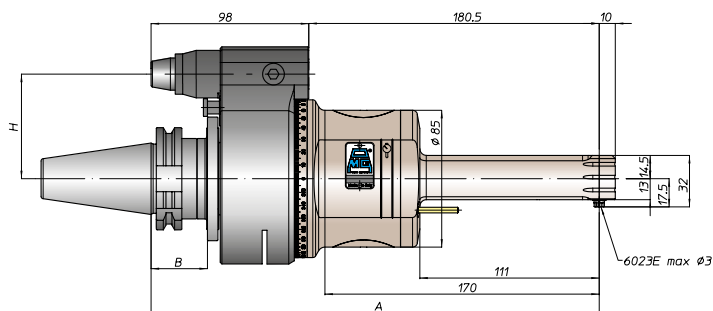
ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18		
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	263				293		293	271	272			267			263		233	236	233	236	

TAR03.P-L111

ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18		
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	278				278		278	286	287			282			278		248	251	248	251	

FH

BAH

TA.CP

TA

MOX

HT

4-15

VH

TSI/TSX

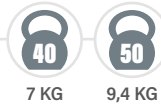
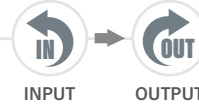
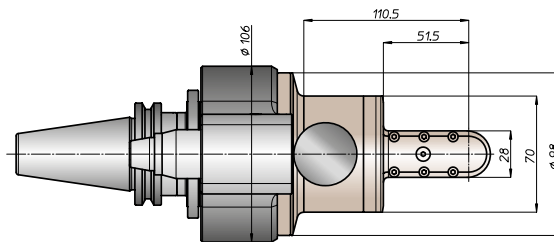
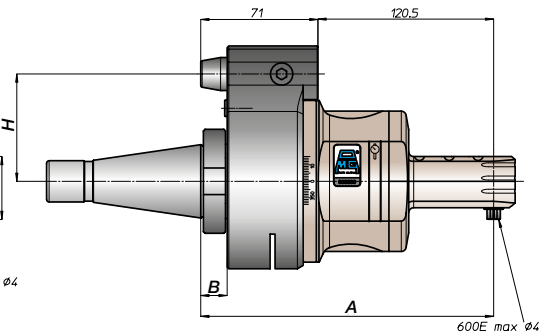
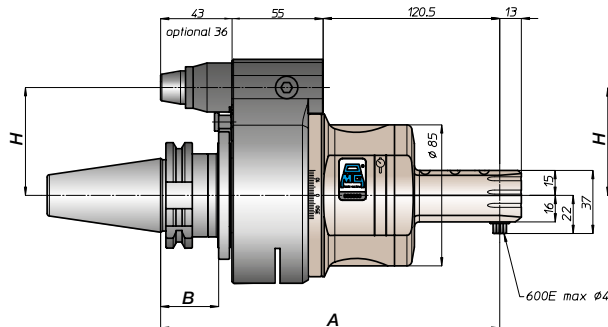
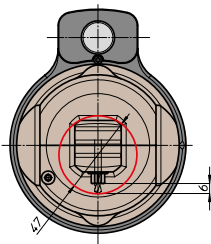
T

MT-TC-TC3



TAR04.P

TESTA AD ANGOLO - ANGLE HEAD

PESO
WEIGHTROTAZIONE
ROTATIONCARATTERISTICHE
FEATURESCONO
SHANK

DIN69871



ANSIB5.50

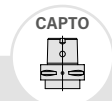


BT



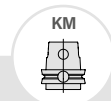
HSK

DIN69893

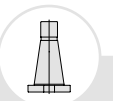


CAPTO

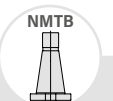
ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

30 40 45 50 40 50 40 50 63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

218,5 218,5 218,5 226,5 227,5

222,5

218,5

188,5 191,5

188,5 191,5

B

35

35

35 45

44 46

39 41

13 16

13 16

H STANDARD

65 80

65 80

65 80

65 80

65 80

65 80

65 80

65 80

H OPTIONAL

110

110

110

110

110

110

110

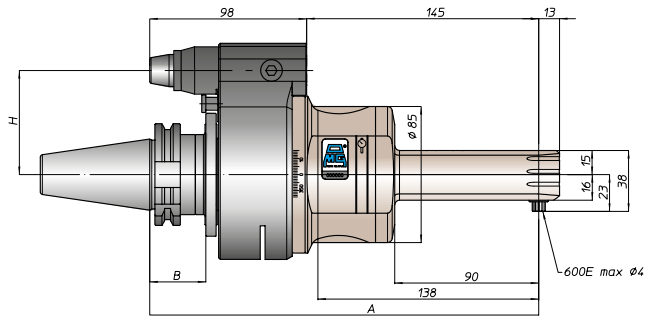
110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TAR04.P-L90

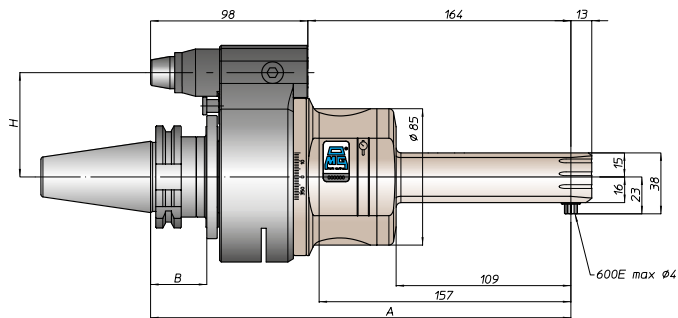
ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18	
	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40
A	257				257		257	265	266			261			257		227	230	227	230

TAR04.P-L109

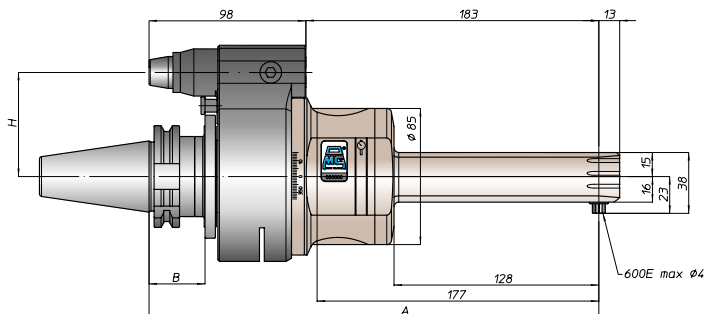
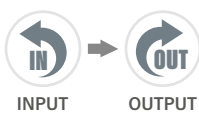
ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18	
	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40
A	276				276		276	284	285			280			276		246	249	246	249

TAR04.P-L128

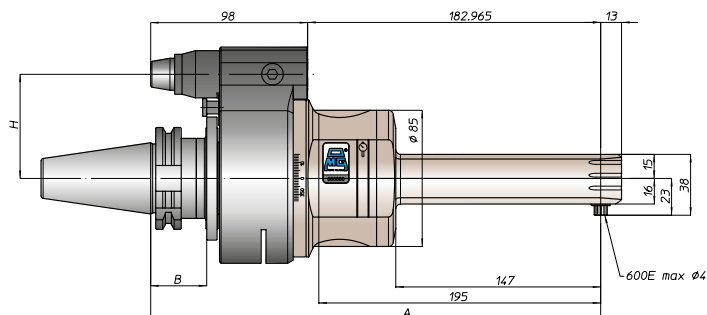
ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18	
	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40
A	295				295		295	303	304			299			295		265	268	265	268

TAR04.P-L147

ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18	
	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40
A	314				314		314	322	323			318			314		284	287	284	287



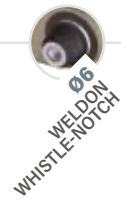
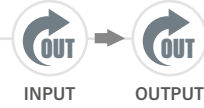


TAR06.P

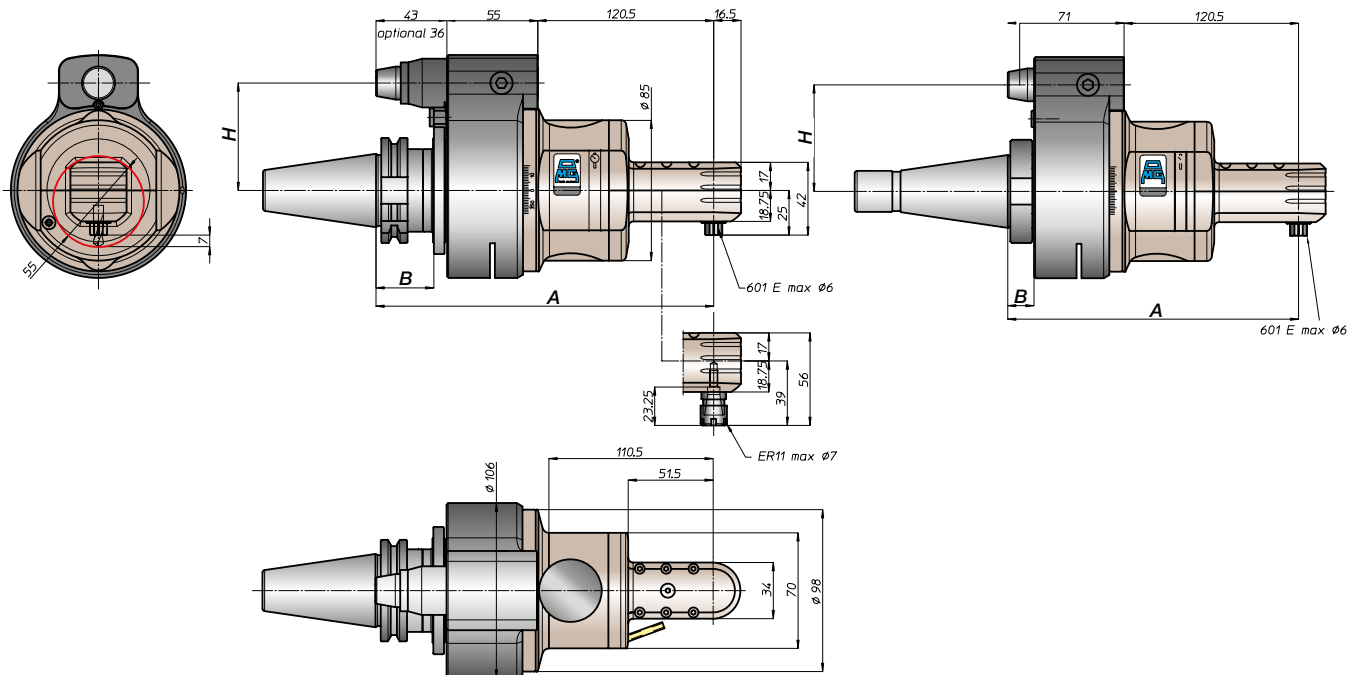
TESTA AD ANGOLO - ANGLE HEAD



PESO
WEIGHT



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



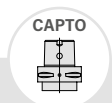
DIN69871



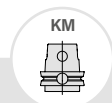
ANSIB5.50



DIN69893



ISO26623



DIN2080



ANSIB5.18

SIZE

30 40 45 50 40 50 40 50

63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

218,5

218,5

218,5 226,5

227,5

222,5

218,5

188,5 191,5

188,5 191,5

B

35

35

35 45

44 46

39 41

13 16

13 16

H STANDARD

65 80

65 80

65 80

65 80

65 80

65 80

65 80

65 80

H OPTIONAL

110

110

110

110

110

110

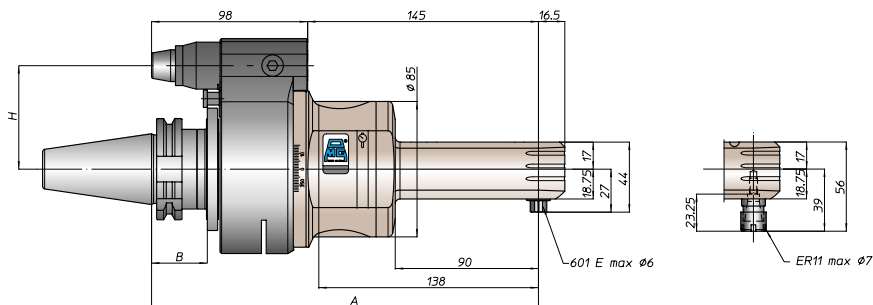
110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option

TAR06.P-L90

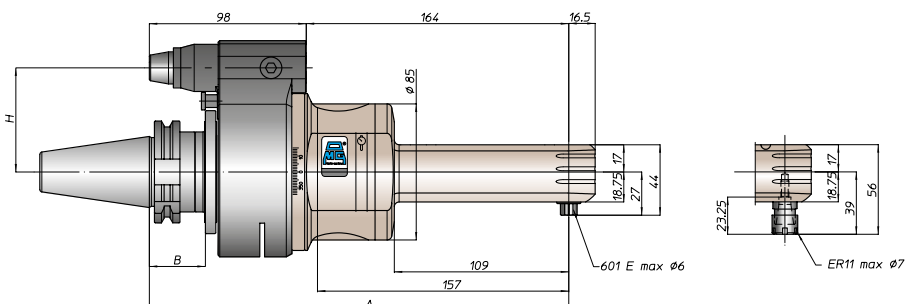
ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18		
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	257				257		257	265	266			261			257		227	230	227	230	

TAR06.P-L109

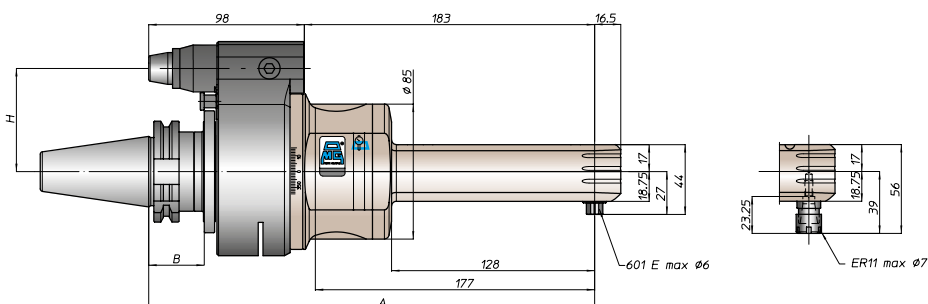
ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18		
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	276				276		276	284	285			280			276		246	249	246	249	

TAR06.P-L128

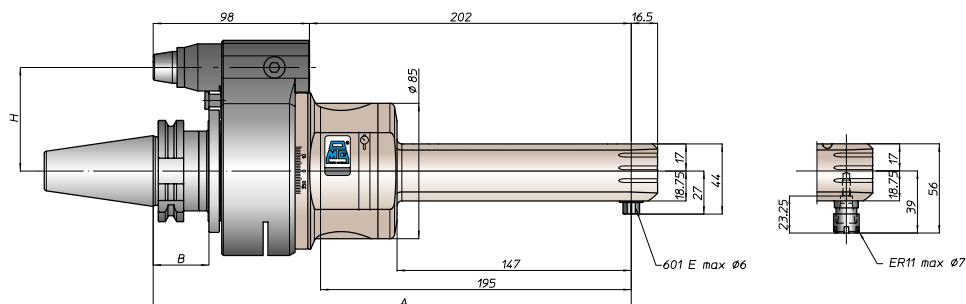
ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18		
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	295				295		295	303	304			299			295		265	268	265	268	

TAR06.P-L147

ROTAZIONE
ROTATION



CONO SHANK	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM		DIN2080		NMTB ANSIB5.18		
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	314				314		314	322	323			318			314		284	287	284	287	

FH

BAH

TA.CP

TA

MOX

HT

4-19

VH

TSI/TSX

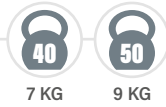
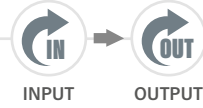
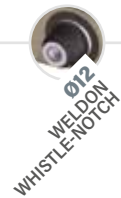
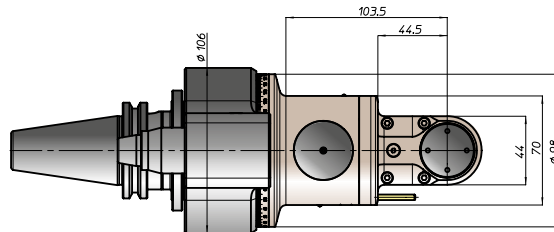
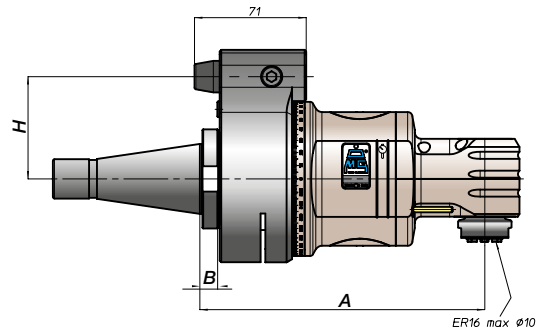
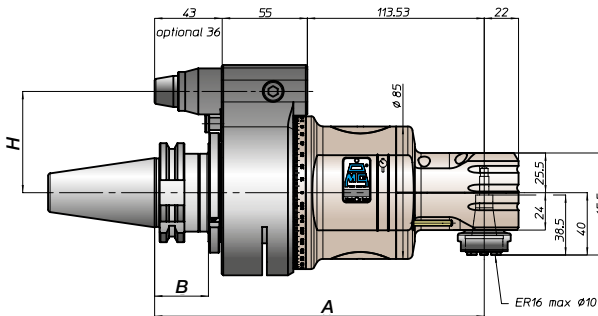
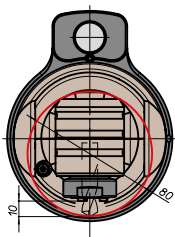
T

MT-TC-TC3



TAR10.P

TESTA AD ANGOLO - ANGLE HEAD

PESO
WEIGHTROTAZIONE
ROTATIONCARATTERISTICHE
FEATURESMANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



ANSIB5.50



BT



DIN69893



ISO26623



63 80 100



DIN2080



ANSIB5.18

SIZE

40 45 50

40 50

40 50

63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

211,5

211,5

211,5 219,5

220,5

215,5

211,5

181,5 184,5

181,5 184,5

B

35

35

35 45

44 46

39 41

13 16

13 16

H STANDARD

65 80

65 80

65 80

65 80

65 80

65 80

65 80

65 80

H OPTIONAL

110

110

110

110

110

110

110

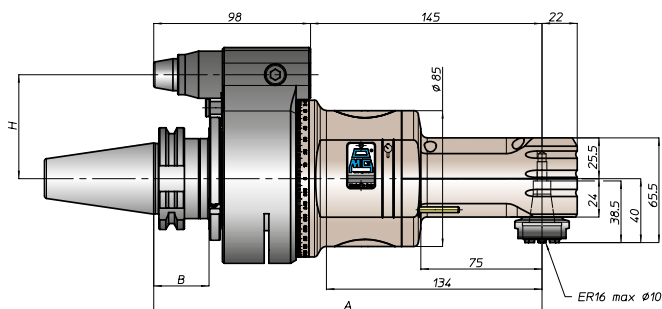
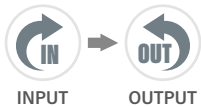
110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TAR10.P-L75

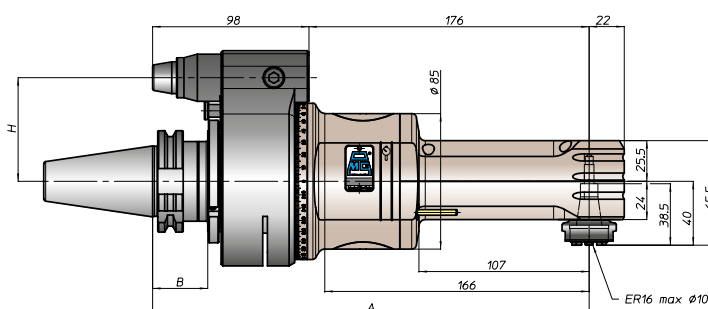
ROTAZIONE
ROTATION



CONO SHANK	DIN69871			CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM			DIN2080		NMTB ANSIB5.18	
SIZE	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	242,78			242,78		242,78	250,78	251,78			246,78			242,78			212,78	215,78	212,78	215,78

TAR10.P-L107

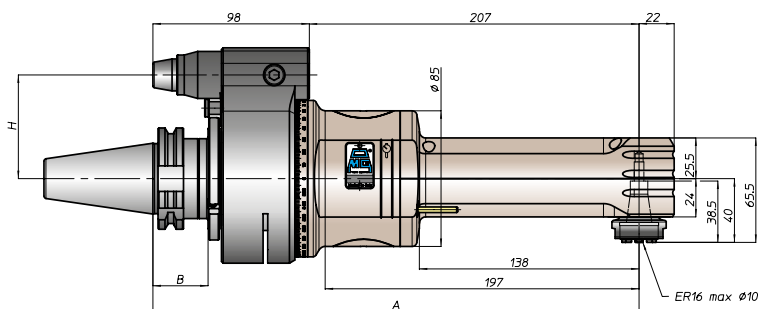
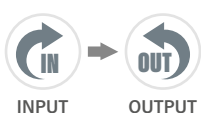
ROTAZIONE
ROTATION



CONO SHANK	DIN69871			CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM			DIN2080		NMTB ANSIB5.18	
SIZE	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	274,06			274,06		274,06	282,06	283,06			278,06			274,06			244,06	247,06	244,06	247,06

TAR10.P-L138

ROTAZIONE
ROTATION



CONO SHANK	DIN69871			CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM			DIN2080		NMTB ANSIB5.18	
SIZE	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	305,35			305,35		305,35	313,35	314,35			309,35			205,35			275,35	278,35	275,35	278,35



FH

BAH

TA.CP

TA

MOx

HT

4-21

VH

TSI/TSX

T

MT-TC-TC3



TAR

GALLERY





TA07.P

TESTA AD ANGOLO - ANGLE HEAD



40
5,5 KG

50
7,5 KG

PESO
WEIGHT

IN → **OUT**
INPUT OUTPUT

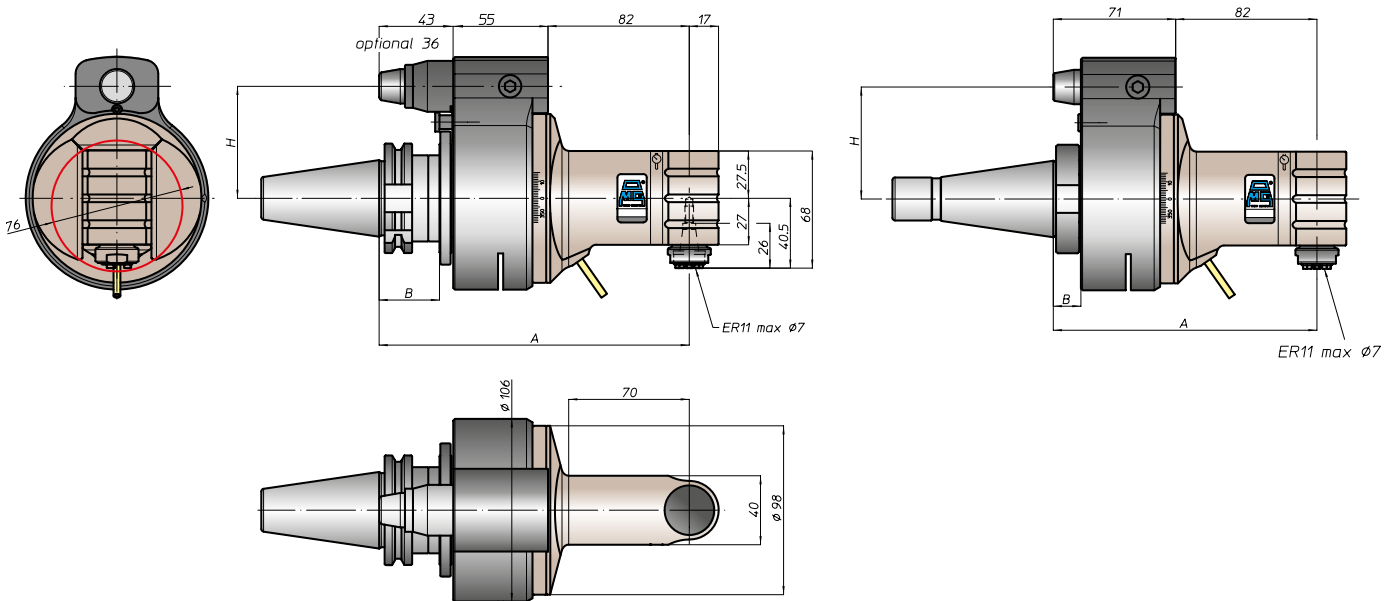
ROTAZIONE
ROTATION

Ø7 **M6** **180 N** **1-1** **10000** **11** **Nm**

CARATTERISTICHE
FEATURES

Ø8-Ø10
WELDON
WHISTLE-NOTCH

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



	DIN69871				ANSIB5.50		BT		DIN69893			ISO26623			KM		DIN2080		ANSIB5.18			
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50	
A	180				180		180	188	189			184			180		150	153	150	153		
B	35				35		35	45	44	46		39	41						13	16	13	16
H STANDARD	65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80
H OPTIONAL	110				110		110		110			110			110		110		110		110	

For DIN69871, ANSIB5.50 and BT, dual contact as option





TA07.PL

TESTA AD ANGOLO - ANGLE HEAD



PESO
WEIGHT

40
6,5 KG
 50
8,8 KG

ROTAZIONE
ROTATION

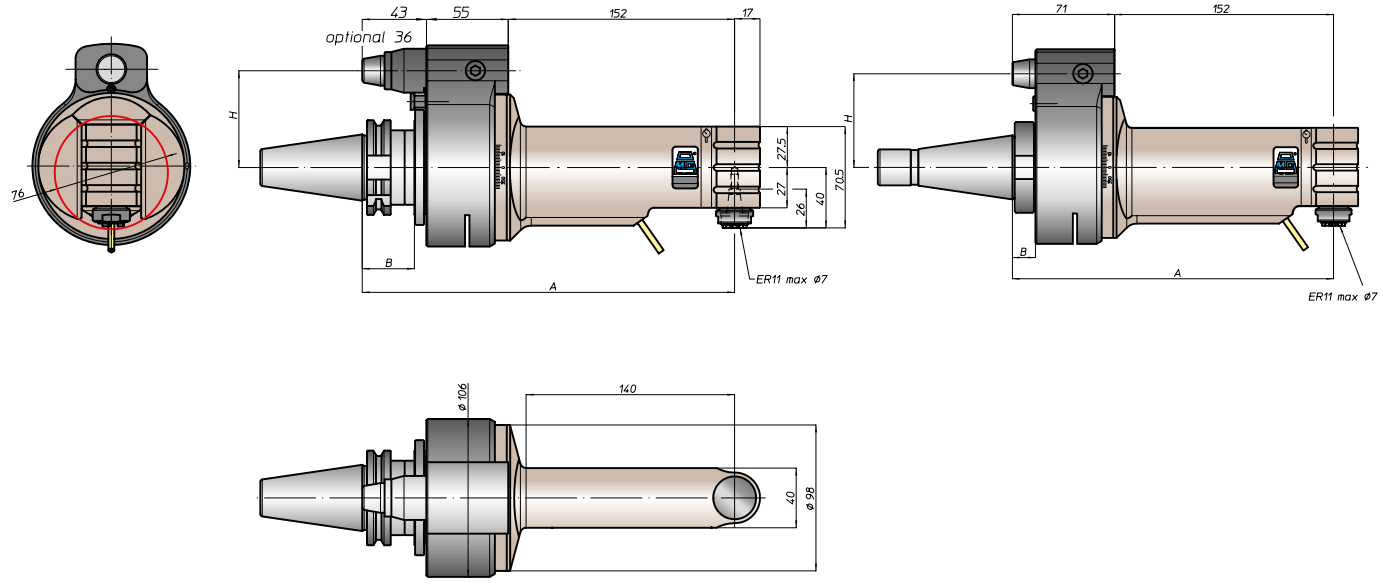
IN
INPUT
 OUT
OUTPUT

CARATTERISTICHE
FEATURES

Ø7
M6
180 N
1-1
10000
11 Nm

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES

Ø8-Ø10
WELDON
WHISTLE-NOTCH



CONO
SHANK

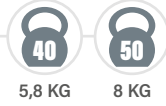
	ANSIB5.50					DIN69893			ISO26623			DIN2080			ANSIB5.18			
SIZE	40	45	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	250			250		259			254			250			220	223	220	223
B	35			35		35	45	44	46	39			41	13	16	13	16	
H STANDARD	65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80
H OPTIONAL	110			110		110			110			110			110			

For DIN69871, ANSIB5.50 and BT, dual contact as option

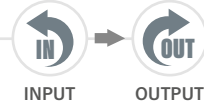


TA10.P

TESTA AD ANGOLO - ANGLE HEAD



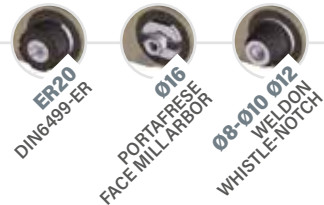
PESO
WEIGHT



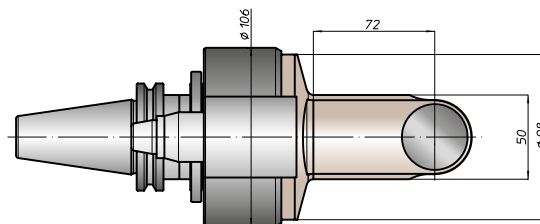
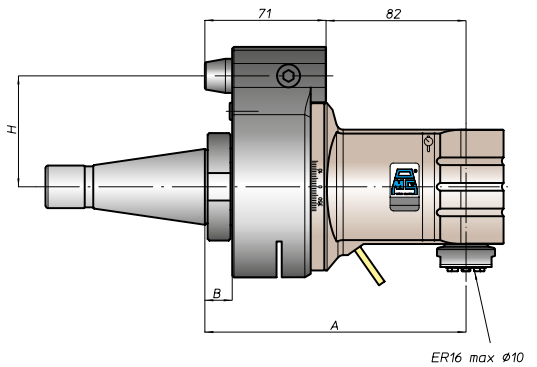
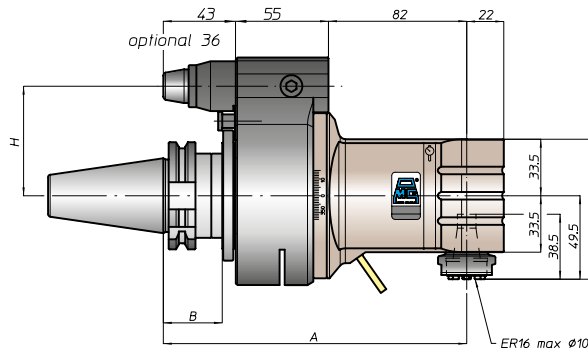
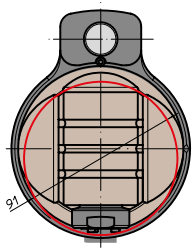
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



DIN69871



ANSIB5.50

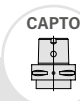


BT



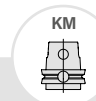
HSK

DIN69893



CAPTO

ISO26623

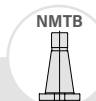


KM



DIN2080

DIN2080



ANSIB5.18

ANSIB5.18

SIZE

30 40 45 50 40 50 40 50 63 80 100 C5 C6 C8 63 80 100 40 50 40 50

A

180 180 180 188 189 184 180 150 153 150 153

B

35 35 35 45 44 46 39 41 13 16 13 16

H STANDARD

65 80 65 80 65 80 65 80 65 80 65 80 65 80 65 80

H OPTIONAL

110 110 110 110 110 110 110 110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TA10.PL

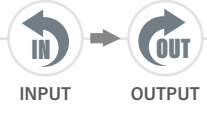
TESTA AD ANGOLO - ANGLE HEAD



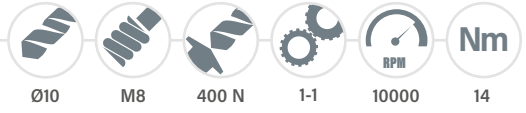
PESO
WEIGHT



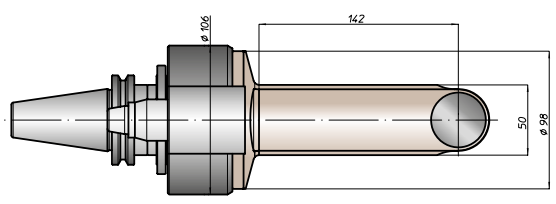
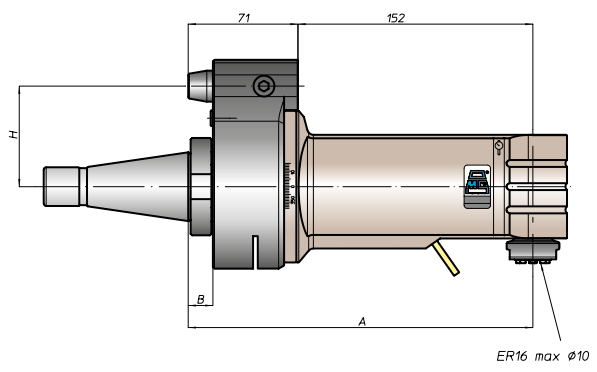
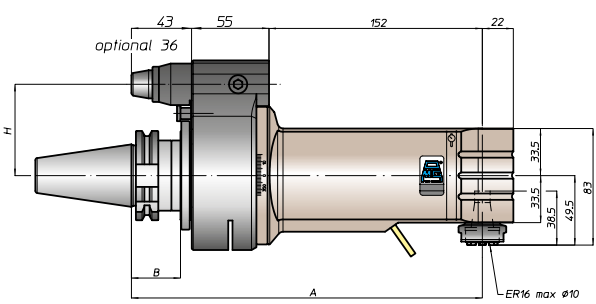
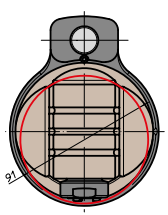
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK

DIN69871	ANSIB5.50		DIN69893	ISO26623		DIN2080	ANSIB5.18

SIZE	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	250			250		250	258	259			254			250			220	223	220	223
B	35			35		35	45	44	46		39	41					13	16	13	16
H STANDARD	65	80		65	80	65	80	65	80		65	80		65	80		65	80	65	80
H OPTIONAL		110			110		110		110			110			110			110		110

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOX

HT

4-27

VH

TSI/TSX

T

MT-TC-TC3



TA13.P

TESTA AD ANGOLO - ANGLE HEAD



6,5 KG



9 KG

PESO

WEIGHT



INPUT



OUTPUT

ROTAZIONE

ROTATION



Ø13



M10



810 N



1-1



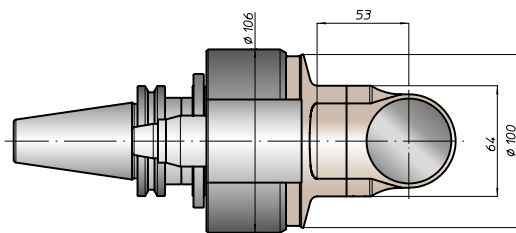
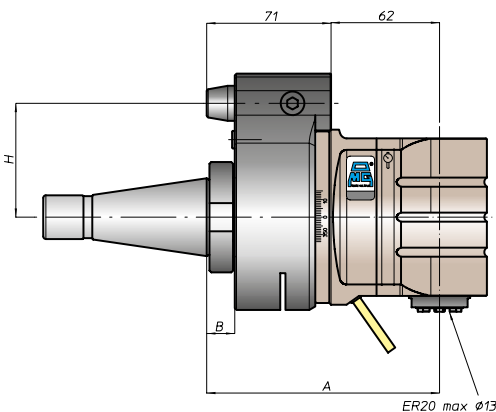
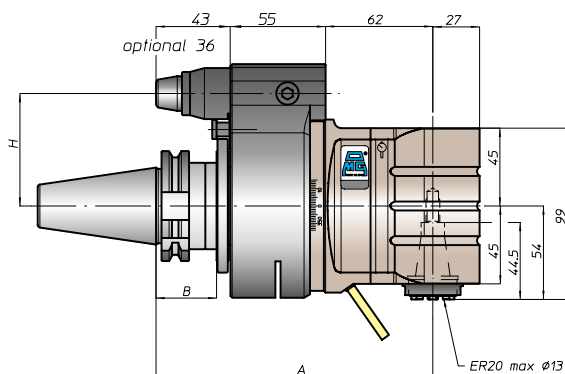
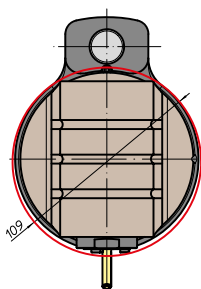
8000



38

CARATTERISTICHE

FEATURES

ER25
DIN6499-ERØ16-Ø22
PORTA-FRESE
FACE MILL ARBORØ16
WELD ON
WHISTLE-NOTCHABS25
LICENZA KOMET®
KOMET LICENCE®MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



ANSIB5.50

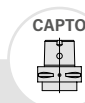


BT



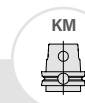
HSK

DIN69893



CAPTO

ISO26623



KM

63 80 100



DIN2080

40 50



ANSIB5.18

40 50

SIZE

40

45

50

40

50

40

50

63

80

100

C5

C6

C8

63

80

100

40

50

40

50

A

160

160

160

168

169

164

160

130

133

130

133

B

35

35

35

45

44

46

39

41

13

16

13

16

H STANDARD

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



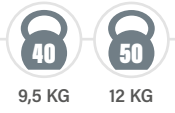


TA13.PL

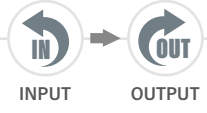
TESTA AD ANGOLO - ANGLE HEAD



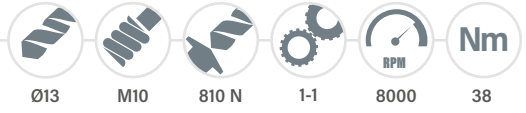
PESO
WEIGHT



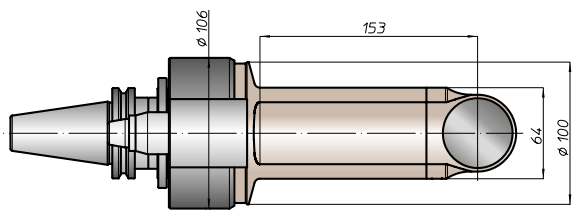
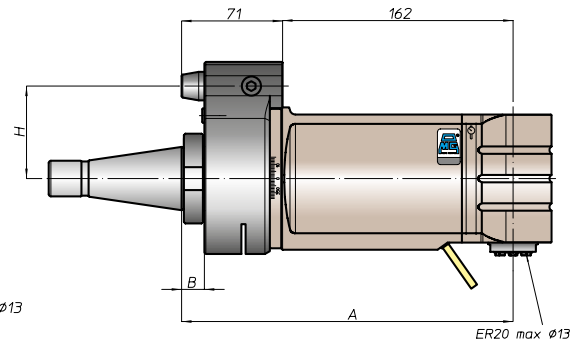
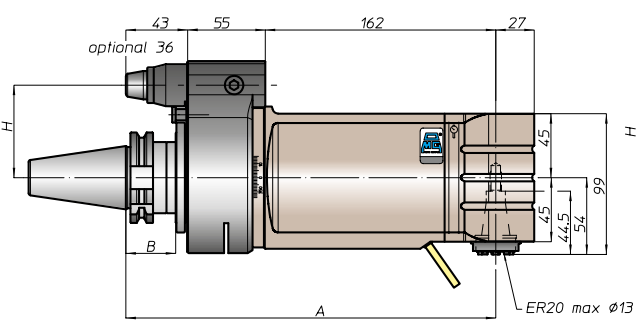
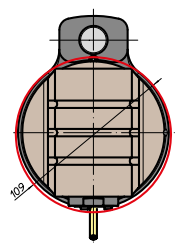
ROTAZIONE
ROTATION



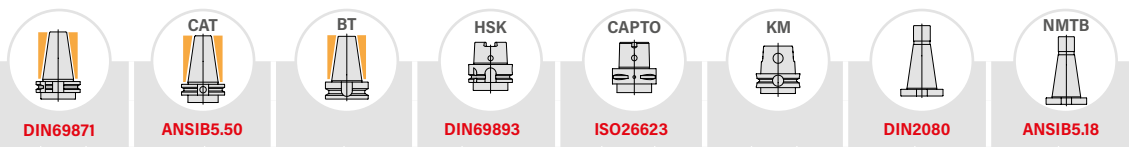
CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



SIZE	DIN69871			ANSIB5.50		BT		DIN69893			ISO26623			KM		DIN2080		ANSIB5.18		
	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	260			260		260	268	269			264			260			230	233	230	233
B	35			35		35	45	44	46		39	41					13	16	13	16
H STANDARD	65	80		65	80	65	80	65	80		65	80	65	80	65	80	65	80	65	80
H OPTIONAL	110			110		110		110			110			110		110		110		

For DIN69871, ANSIB5.50 and BT, dual contact as option

TA16.P

TESTA AD ANGOLO - ANGLE HEAD



40 **50**
7,7 KG 11,7 KG

PESO
WEIGHT

IN **OUT**
INPUT OUTPUT

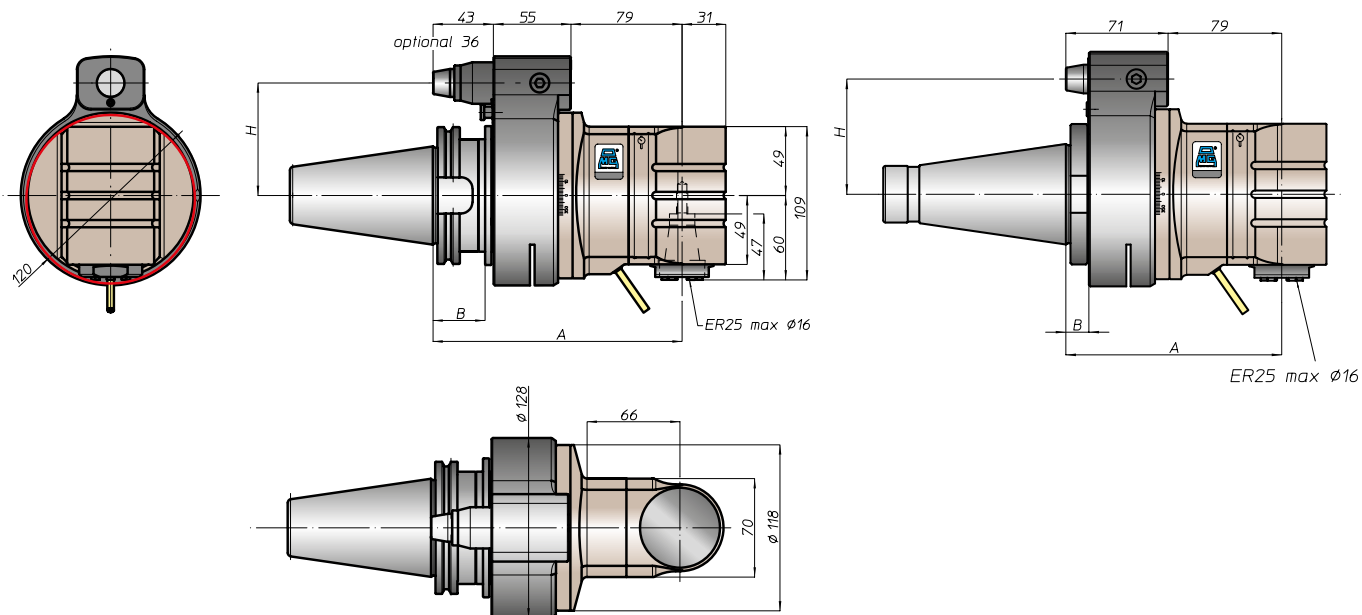
ROTAZIONE
ROTATION

Ø16 **M12** **1040 N** **1-1** **5000** **Nm**
55

CARATTERISTICHE
FEATURES

ER32
DIN6499-ER
Ø16-Ø22-Ø27-Ø32
PORTA-PRESSE
FACE-MILL-ARBOR
Ø20
WELDON
WHISTLE-NOTCH
HSK32
DIN69893-HSK
C3
COROMANT CAPTO®
ABS32
LICENZA KOMET®
KOMET LICENCE®

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



DIN69871



ANSIB5.50



BT



HSK

DIN69893



CAPTO

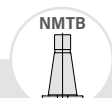
ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

40 45 50 40 50 40 50 63 80 100 C5 C6 C8 63 80 100 40 50 40 50

A

172 177 172 177 172 185 181 186 176 181 172 177 147 150 142 150

B

35 37 35 37 35 45 44 46 39 41 35 37 13 16 13 16

H STANDARD

65 80 65 80 65 80 65 80 65 80 65 80 65 80 65 80

H OPTIONAL

110 110 110 110 110 110 110 110

For DIN69871, ANSIB5.50 and BT, dual contact as option





TA16.PL

TESTA AD ANGOLO - ANGLE HEAD



PESO
WEIGHT

15,5 KG

ROTAZIONE
ROTATION

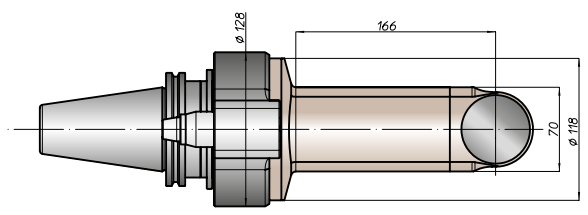
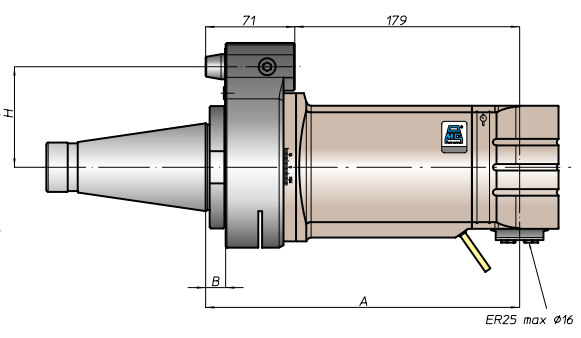
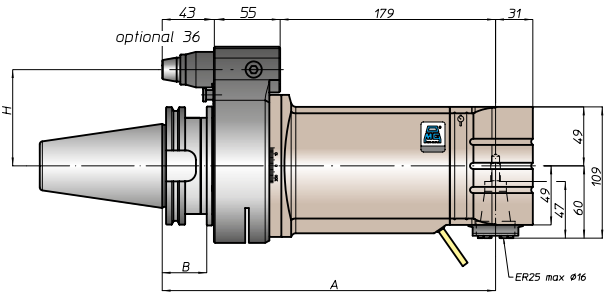
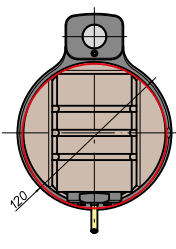
INPUT OUTPUT

CARATTERISTICHE
FEATURES

Ø16 M12 1040 N 1-1 5000 55

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES

ER32 DIN6499-ER
Ø16-Ø22-Ø27-Ø32 PORTAFRESE FACE MILL ARBOR
Ø20 WELDON WHISTLE-NOTCH
HSK32 DIN69893-HSK
C3 COROMANT CAPTO®
ABS32 LICENZA KOMET® KOMET LICENCES®



CONO
SHANK

DIN69871	ANSIB5.50		DIN69893	ISO26623	KM	DIN2080	ANSIB5.18

SIZE	45	50	50	80	100	C6	C8	80	100	50	50
A	277	277	285	286	281	277	250	250			
B	35	35	45	46	39	41	16	16			
H STANDARD	80	80	80	80	80	80	80	80			
H OPTIONAL	110	110	110	110	110	110	110	110			

For DIN69871, ANSIB5.50 and BT, dual contact as option

TA20.P

TESTA AD ANGOLO - ANGLE HEAD



14,5 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø20



M14



1460 N



1-1



3500



90

CARATTERISTICHE
FEATURES

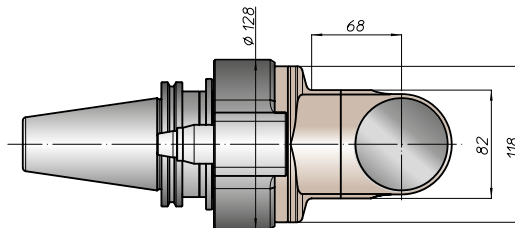
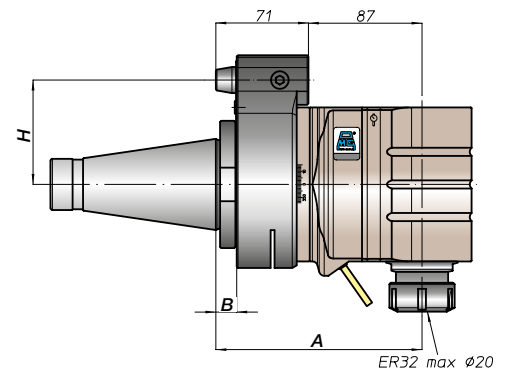
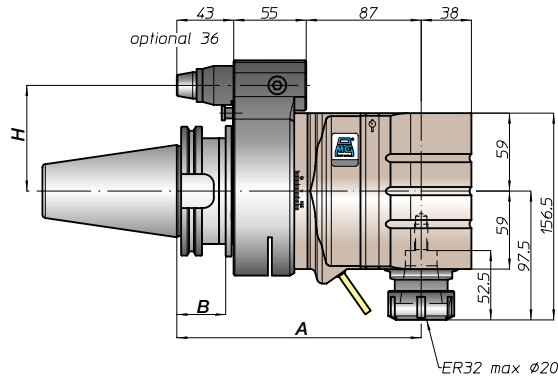
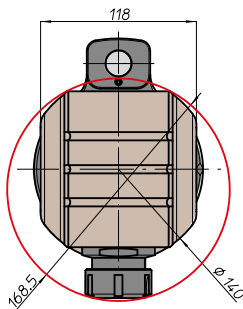
ER40

DIN6499-ER

Ø22-Ø27-Ø32
PORTAFRESSE
FACE MILL-ARBORØ20-Ø25-Ø32
WHISTLE-NOTCHHSK40
DIN69893-HSK

C4

COROMANT CAPTO®

ABS40
LICENZA KOMET®
KOMET LICENCE®MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



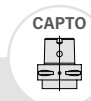
ANSIB5.50



BT

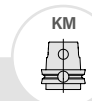


HSK



CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

45

50

50

50

80

100

C8

80

100

50

50

A

185

185

193

194

189

185

158

158

B

35

35

45

46

41

16

16

16

H STANDARD

80

80

80

80

80

80

80

80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TA20.PL

TESTA AD ANGOLO - ANGLE HEAD



PESO
WEIGHT

50
19 KG

ROTAZIONE
ROTATION

INPUT OUTPUT

CARATTERISTICHE
FEATURES

Ø20 M14 1460 N 1-1 3500 90

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES

ER40
DIN6499-ER

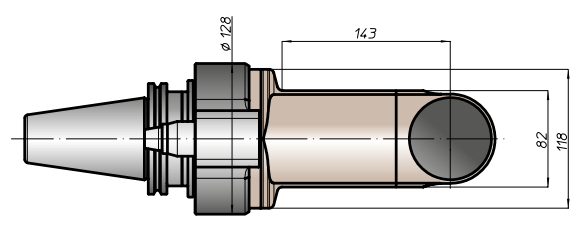
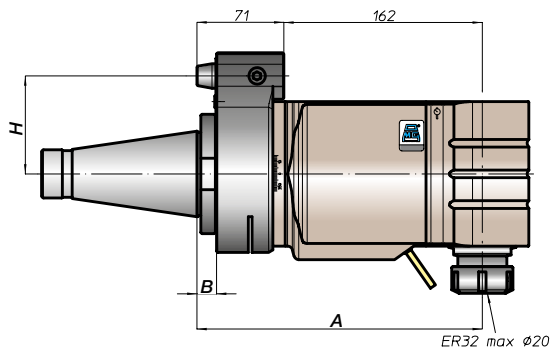
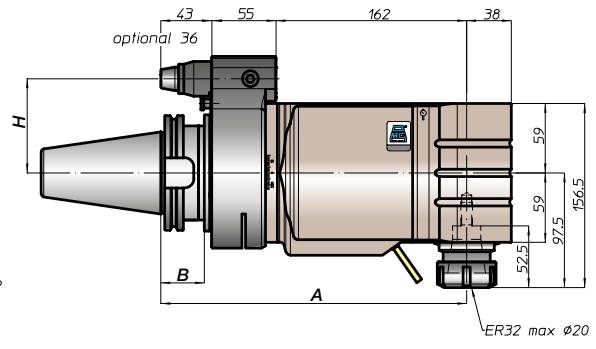
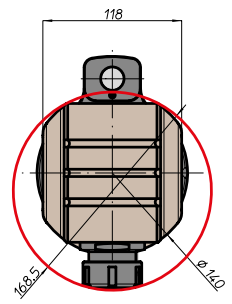
Ø22-Ø27-Ø32
PORTA-FRESE
FACE MILL ARBOR

Ø20-Ø25-Ø32
WELDON
WHISTLE-NOTCH

HSK40
DIN69893-HSK

C4
COROMANT CAPTO®

ABS40
LICENZA KOMET®
KOMET LICENCES®



CONO
SHANK

DIN69871	ANSIB5.50			ISO26623		DIN2080	ANSIB5.18

SIZE	45	50	50	80	100	C8	80	100	50	50
A	260	260	268	269	264	260	233	233		
B	35	35	45	46	41	16	16			
H STANDARD	80	80	80	80	80	80	80	80		
H OPTIONAL	110	110	110	110	110	110	110	110		

For DIN69871, ANSIB5.50 and BT, dual contact as option



TA

EXTANDEDE GALLERY





TA20-30

TESTA AD ANGOLO - ANGLE HEAD



PESO WEIGHT

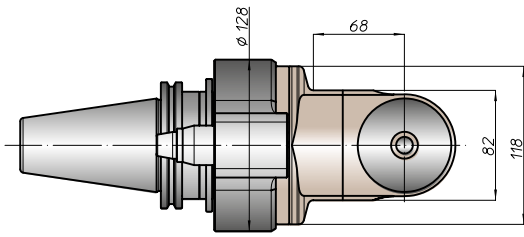
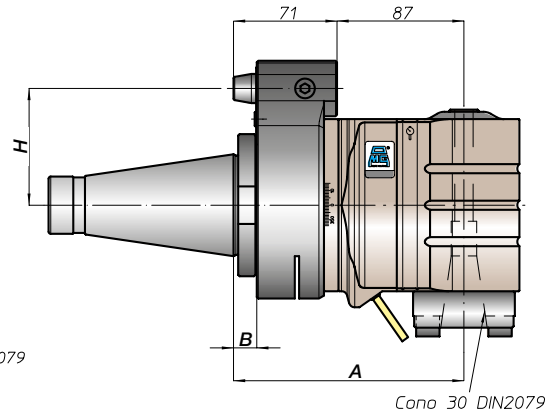
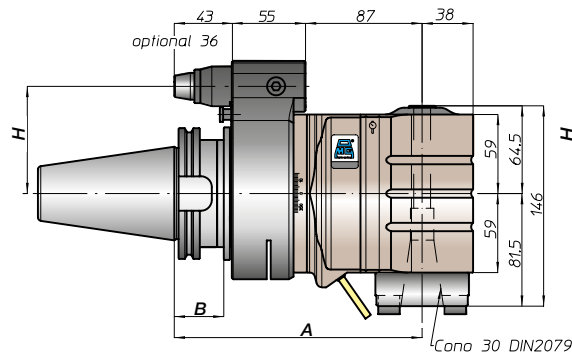
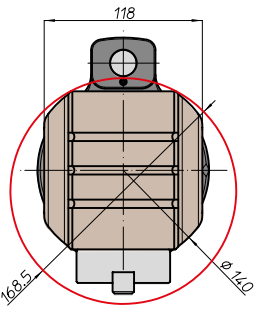
14,7 KG

ROTAZIONE ROTATION

INPUT OUTPUT

CARATTERISTICHE FEATURES

Ø20 M14 1460 N 1-1 3500 90



Nota

nel mandrino DIN2079 si possono utilizzare coni DIN2080-30, DIN69871-A30, MAS403-BT30

Nota

on the spindle DIN2079 you can use shank DIN2080-30, DIN69871-A30, MAS403-BT30

CONO SHANK

DIN69871	ANSIB5.50	BT	HSK	CAPTO	KM	DIN2080	ANSIB5.18

SIZE	45	50	50	80	100	C8	80	100	50	50
A	185	185	193	194	189	185	158	158	158	158
B	35	35	45	46	41	16	16	16	16	16
H STANDARD	80	80	80	80	80	80	80	80	80	80
H OPTIONAL	110	110	110	110	110	110	110	110	110	110

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOX

HT

4-35

VH

TSI/TSX

T

MT-TC-TC3



TA26.P

TESTA AD ANGOLO - ANGLE HEAD



50
22 KG

PESO
WEIGHT

IN → **OUT**
INPUT OUTPUT

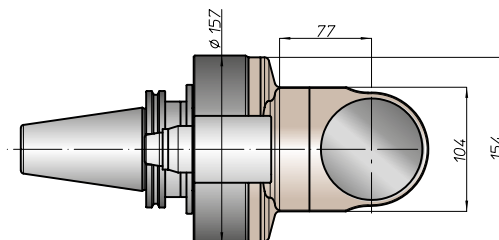
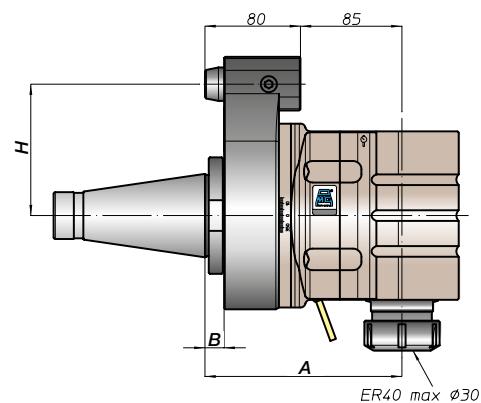
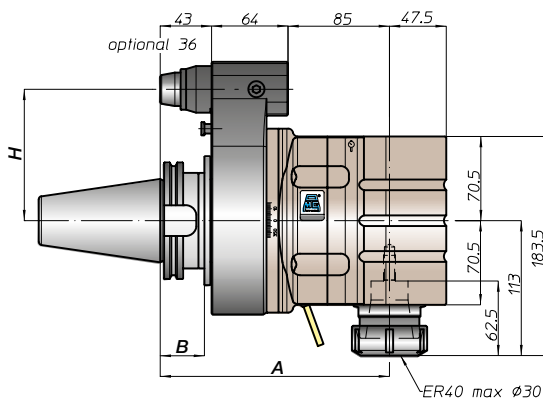
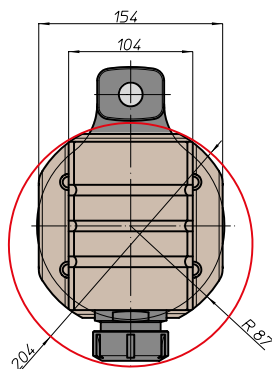
ROTAZIONE
ROTATION

Nm
165

CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



DIN69871



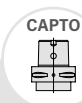
ANSIB5.50



BT



HSK



CAPTO

ISO26623



KM

100



DIN2080

50



ANSIB5.18

50

SIZE

45

50

50

50

80

100

C8

100

50

50

A

192

192

200

201

196

192

165

165

B

37

37

45

46

41

16

16

16

H STANDARD

110

110

110

110

110

110

110

110

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option





TA26.40

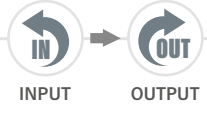
TESTA AD ANGOLO - ANGLE HEAD



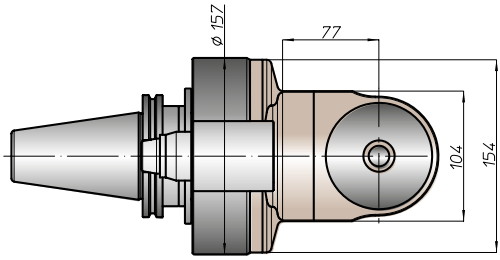
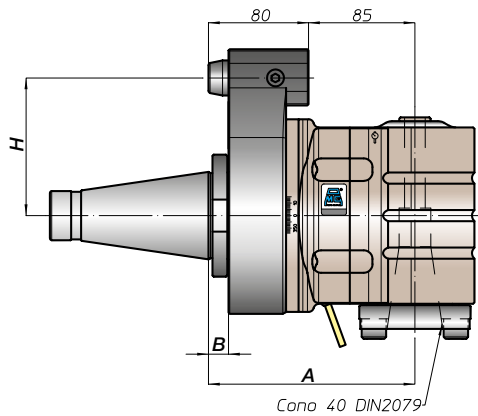
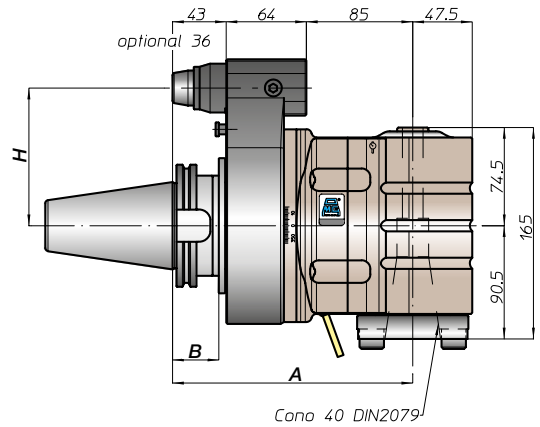
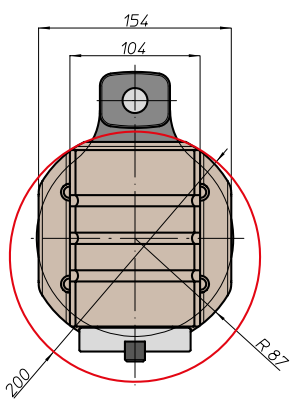
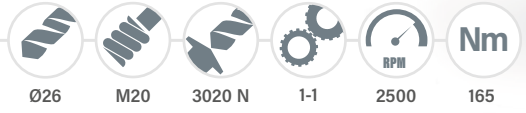
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



Nota

nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Note

on the spindle DIN2079 you can use shank DIN2080-40, DIN69871-A40, MAS403-BT40

CONO
SHANK



DIN69871



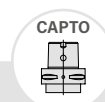
ANSIB5.50



BT



HSK



CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

45 | 50

50

50

80 | 100

C8

100

50

50

A

192

192

200

201

196

192

165

165

B

37

37

45

46

41

16

16

16

H STANDARD

110

110

110

110

110

110

110

110

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOX

HT

4-37

VH

TSI/TSX

T

MT-TC-TC3



TA30.P

TESTA AD ANGOLO - ANGLE HEAD



50
24 KG

PESO
WEIGHT

IN → **OUT**
INPUT OUTPUT

ROTAZIONE
ROTATION

Ø30 **M24** **3500 N** **1-1** **2500** **Nm**
RPM 205

CARATTERISTICHE
FEATURES

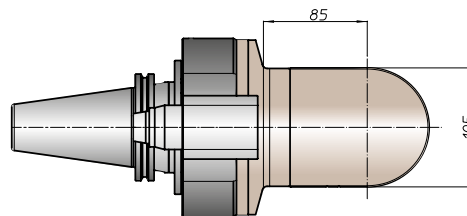
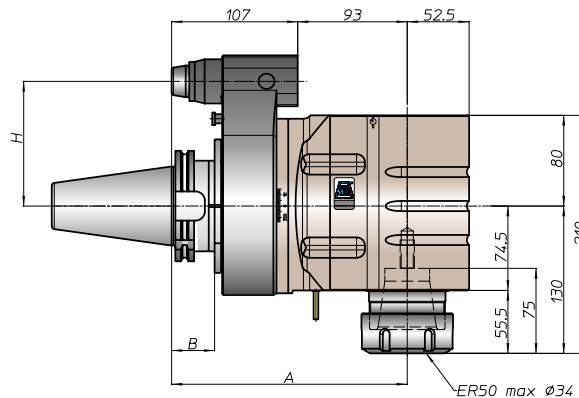
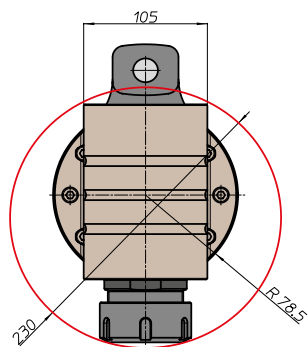
Ø27-Ø32-Ø40
PORTA-PRESSE
FACE-MILL-ARBOR

Ø32
WELDON
WHISTLE-NOTCH

Hsk63
DIN69893-HSK

C6
COROMANT CAPTO®

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



DIN69871



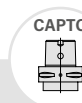
ANSIB5.50



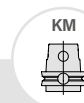
50



DIN69893



ISO26623



DIN2080



ANSIB5.18

SIZE

50

50

50

100

C8

A

200

200

208

209

204

B

36,5

36,5

45

46

41

H STANDARD

110

110

110

110

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option

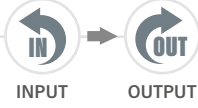


PESO
WEIGHT



24 KG

ROTAZIONE
ROTATION



INPUT

OUTPUT

CARATTERISTICHE
FEATURES



Ø30

M24

3500 N

1-1

2500

Nm

205



TA30.40

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

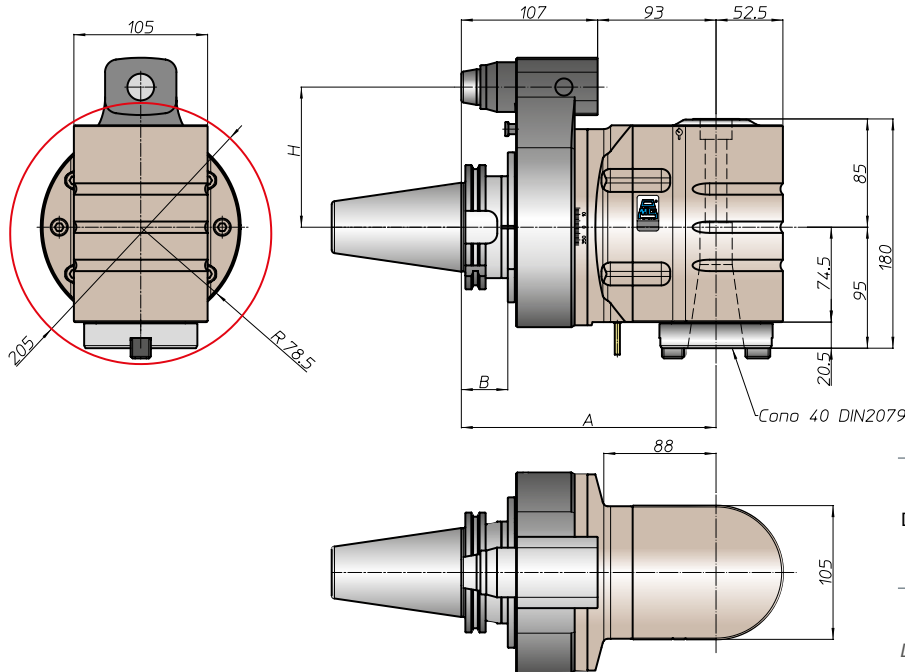
4-38

VH

TSI/TSX

T

MT-TC-TC3



Nota

nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Note

on the spindle DIN2079 you can use shank DIN2080-40, DIN69871-A40, MAS403-BT40

CONO
SHANK



DIN69871



ANSIB5.50

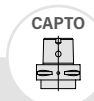


BT



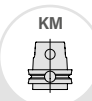
HSK

DIN69893



CAPTO

ISO26623



KM

100



DIN2080

50



NMTB

ANSIB5.18

SIZE

45	50	50	50	80	100	C8	100	50	50
----	----	----	----	----	-----	----	-----	----	----

A

200	200	208	209	204	200	200	200	200	200
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

B

35	35	45	46	41	16	16	16	16	16
----	----	----	----	----	----	----	----	----	----

H STANDARD

110	110	110	110	110	110	110	110	110	110
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option



FH

BAH

TA.CP

TA

MOx

HT

4-39

VH

TSI/TSX

T

MT-TC-TC3



SERIE

TAL LIGHT





Nuove Teste ad Angolo, quando la leggerezza è una priorità.

Le nuove Teste ad Angolo della serie TAL sono state realizzate con l'obiettivo di ottenere un prodotto leggero, che potesse essere applicato su macchine ATC dove il peso dell'utensile è considerato una limitazione. Un prodotto più leggero quindi, che non vede limiti nelle possibili lavorazioni le quali rimangono le stesse di una normale Testa ad Angolo O.M.G. Anche questa gamma si contraddistingue per la qualità con cui le teste vengono realizzate, che rimane sempre alta, come tutti i prodotti O.M.G.

Disponibili in diversi modelli, queste teste ad angolo vanno dalla piccola TAL07 alla grande TAL26.

New Angle Heads, when lightness is a priority.

The goal was to develop a product series that could be applied on machines with ATC where the weight of the head represents a limitation. A lighter weight product therefore, that does not limit the possible machining operations, with the same performance to our standard O.M.G. Angle Heads. This range also stands out for the high quality our customers have come to appreciate for all O.M.G. products.

Available in different models, these heads start from the small TAL07 to our large TAL26.

FH

BAH

TA.CP

TA

MOX

HT

4-41

VH

TSI/TSX

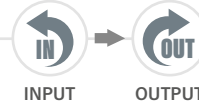
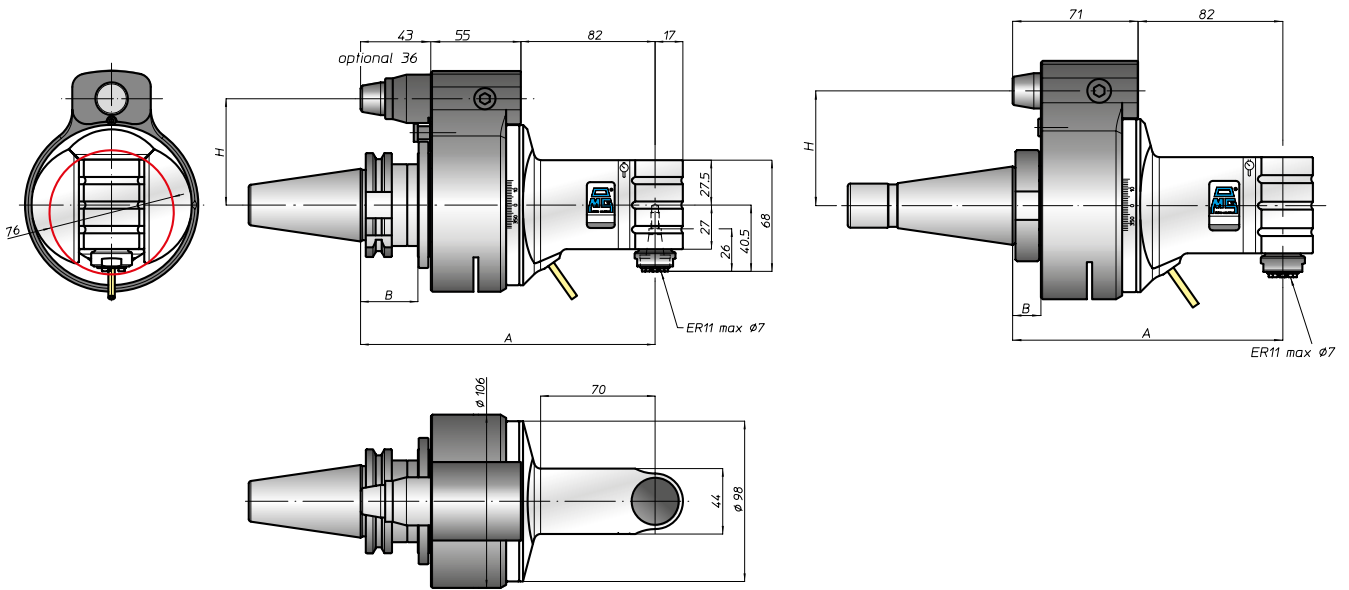
T

MT-TC-TC3



TAL07

TESTA AD ANGOLO - ANGLE HEAD

PESO
WEIGHTROTAZIONE
ROTATIONCARATTERISTICHE
FEATURESMANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



ANSIB5.50

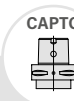


BT



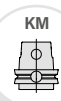
HSK

DIN69893

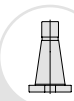


CAPTO

ISO26623



KM



DIN2080



ANSIB5.18

SIZE

30 40 45 50 40 50 40 50 63 80 100

C5 C6 C8

63 80 100

40 50 40 50

A

180 180 180 188 189 184 180 150 153 150 153

B

35 35 35 45 44 46 39 41 13 16 13 16

H STANDARD

65 80 65 80 65 80 65 80 65 80 65 80 65 80

H OPTIONAL

110 110 110 110 110 110 110 110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TAL10

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

4-42

VH

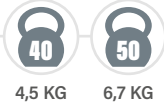
TSI/TSX

T

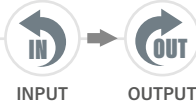
MT-TC-TC3



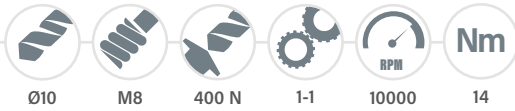
PESO
WEIGHT



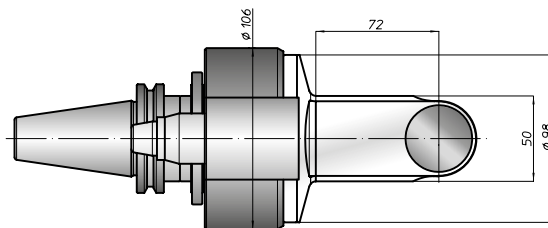
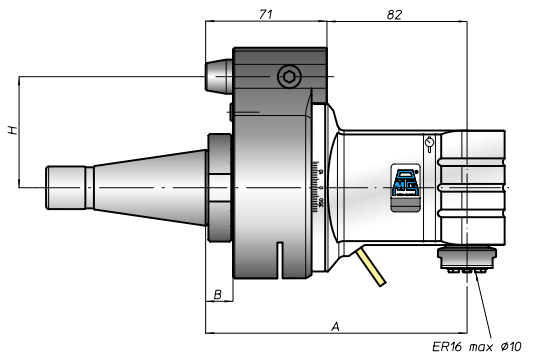
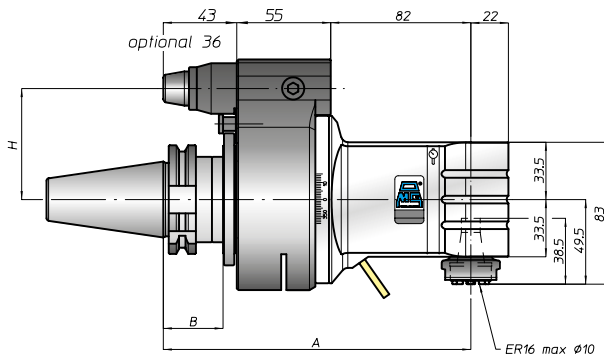
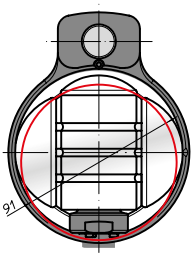
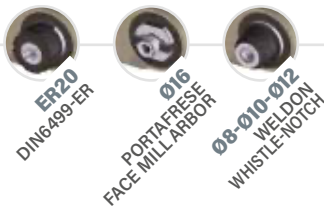
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK

	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM			DIN2080		NMTB ANSIB5.18	
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	180				180		180	188	189			184			180			150	153	150	153
B	35				35		35	45	44	46		39	41		13	16		13	16	13	16
H STANDARD	65	80			65	80	65	80	65	80		65	80	65	80	65	80	65	80	65	80
H OPTIONAL	110				110		110		110			110			110			110		110	

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOx

HT

4-43

VH

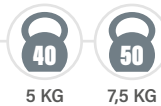
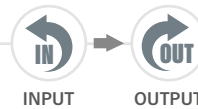
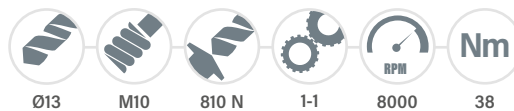
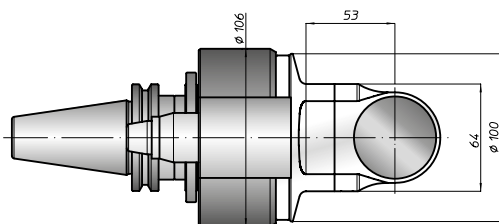
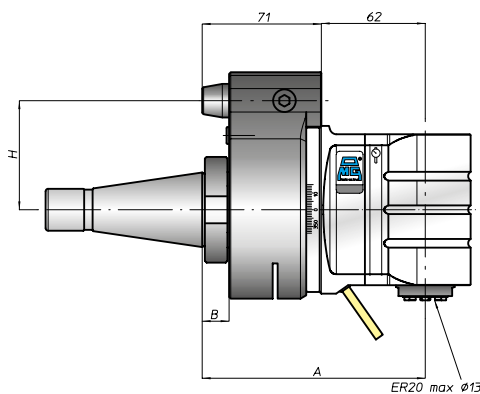
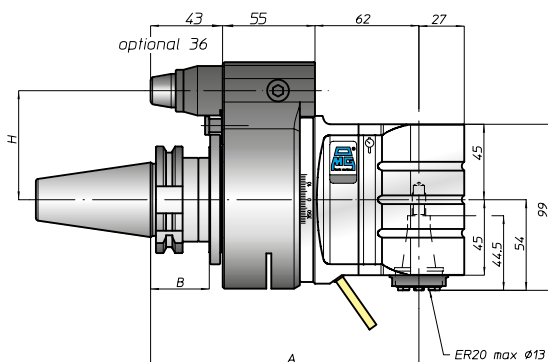
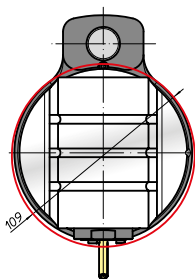
TSI/TSX

T

MT-TC-TC3

TAL13

TESTA AD ANGOLO - ANGLE HEAD

PESO
WEIGHTROTAZIONE
ROTATIONCARATTERISTICHE
FEATURESMANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



ANSIB5.50



BT



HSK

DIN69893



CAPTO

ISO26623



KM

DIN2080



NMTB

ANSIB5.18

SIZE

40 45 50

40 50

40 50

63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

160

160

160 168

169

164

160

130 133

130 133

B

35

35

35 45

44 46

39 41

13 16

13 16

H STANDARD

65 80

65 80

65 80

65 80

65 80

65 80

65 80

65 80

H OPTIONAL

110

110

110

110

110

110

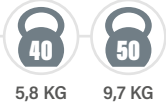
110

110

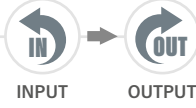
For DIN69871, ANSIB5.50 and BT, dual contact as option



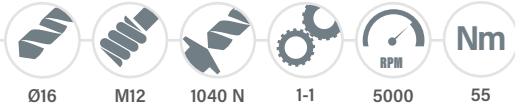
PESO
WEIGHT



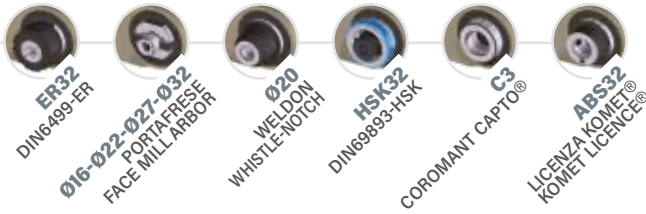
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



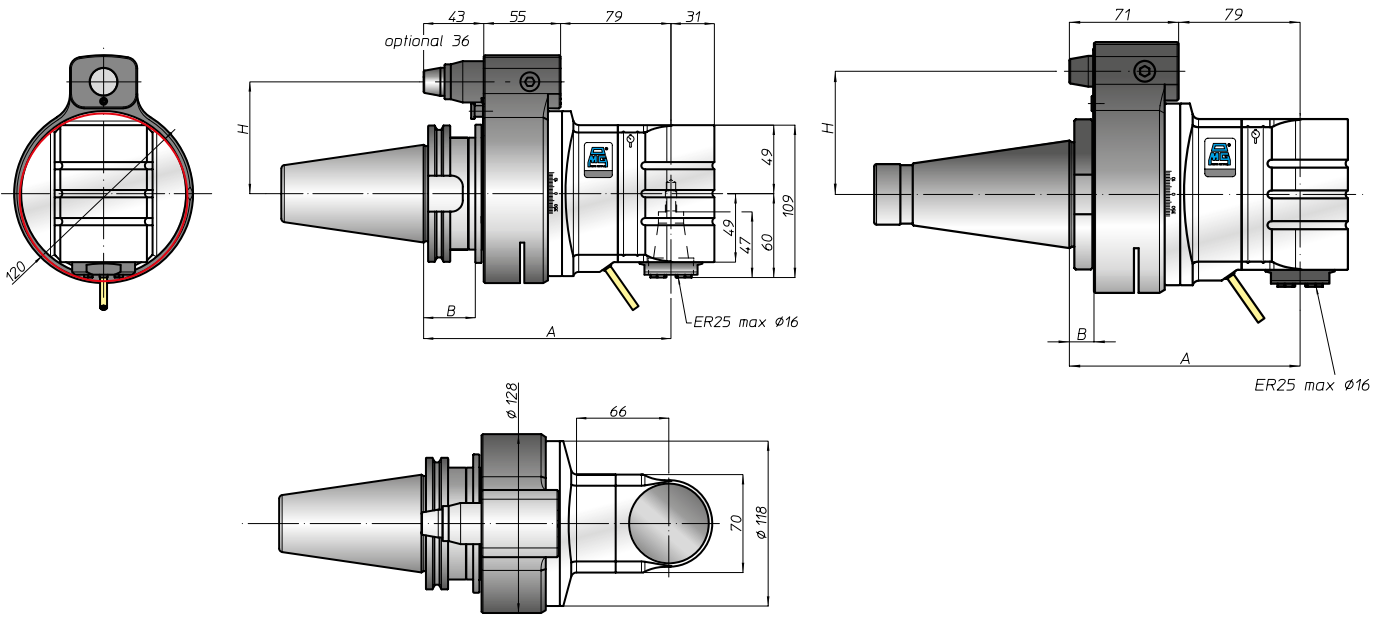
MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



TAL16

TESTA AD ANGOLO - ANGLE HEAD

FH
BAH
TA.CP
TA
MOX
HT



4-44

CONO
SHANK

	ANSIB5.50			BT		DIN69893			ISO26623			DIN2080			ANSIB5.18				
SIZE	40	45	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50	
A	172	177		172	177	172	185	181	186	176	181		172	177	147	150	142	150	
B		35		35		35	45	44	46		39	41			13	16	13	16	
H STANDARD	65	80		65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80
H OPTIONAL		110		110		110					110		110		110				110

For DIN69871, ANSIB5.50 and BT, dual contact as option

VH
TSI/TSX
T
MT-TC-TC3



FH

BAH

TA.CP

TA

MOX

HT

4-45

VH

TSI/TSX

T

MT-TC-TC3



TAL20

TESTA AD ANGOLO - ANGLE HEAD



11,5 KG

PESO

WEIGHT



INPUT



OUTPUT

ROTAZIONE

ROTATION



Ø20



M14



1460 N



1-1



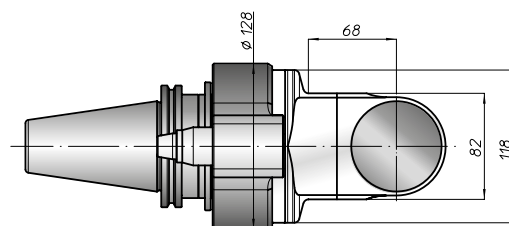
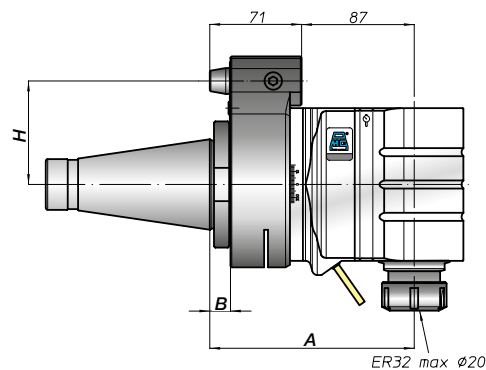
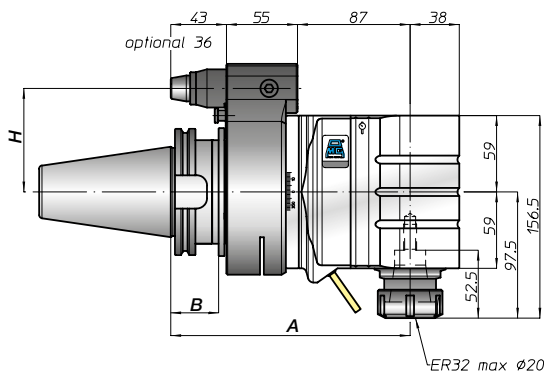
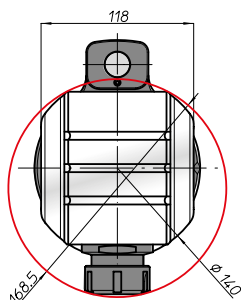
3500



90

CARATTERISTICHE

FEATURES

ER40
DIN6499-ERØ22-Ø27-Ø32
PORTAFRESSE
FACE MILL-ARBORØ20-Ø25-Ø32
WHISTLE-NOTCHHSK40
DIN69893-HSKC4
COROMANT CAPTO®ABS40
LICENZA KOMET®
KOMET LICENCE®MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

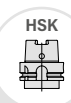
DIN69871



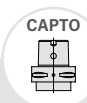
ANSIB5.50



BT



HSK

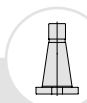


CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

45

50

50

50

80

100

C8

80

100

50

50

A

185

185

193

194

189

185

158

158

B

35

35

45

46

41

16

16

H STANDARD

80

80

80

80

80

80

80

80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option





TAIL26

TESTA AD ANGOLO - ANGLE HEAD



50
19 KG

IN → **OUT**
INPUT OUTPUT

Ø26 M20 3020 N 1-1 2500 165 Nm

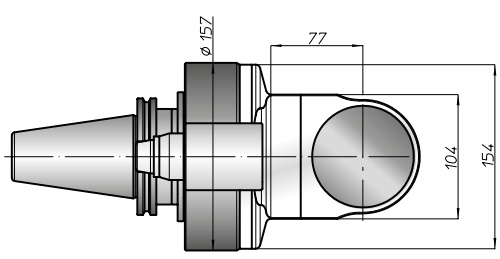
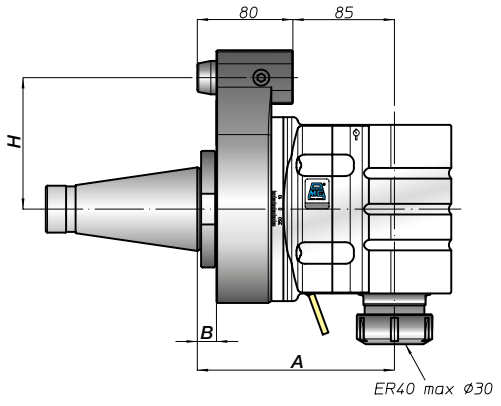
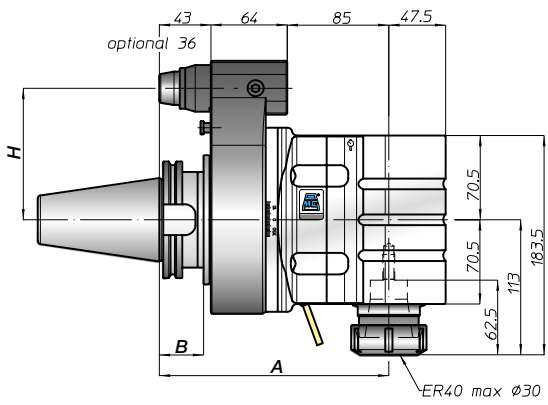
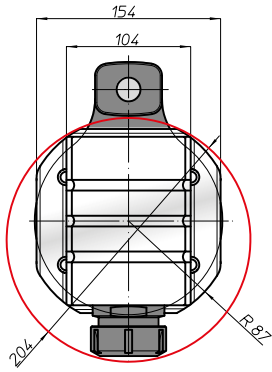
ER50 DIN6499-ER
Ø16-Ø27-Ø32-Ø40 PORTA-FRESE FACE MILL ARBOR
Ø32 WELDON WHISTLE-NOTCH
HSK63 DIN69893-HSK
C4-C5-C6 COROMANT CAPTO®
ABS50 LICENZA KOMET® KOMET LICENCES®

PESO WEIGHT

ROTAZIONE ROTATION

CARATTERISTICHE FEATURES

MANDRINI DISPONIBILI AVAILABLE SPINDLES



CONO SHANK

SIZE

A

B

H STANDARD

H OPTIONAL



DIN9871



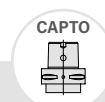
ANSIB5.50



BT



HSK



CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

45 50

50

50

80 100

C8

100

50

50

192

192

200

201

196

192

165

165

37

37

45

46

41

16

16

16

110

110

110

110

110

110

110

110

For DIN9871, ANSIB5.50 and BT, dual contact as option

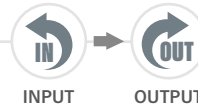


TAL26.40

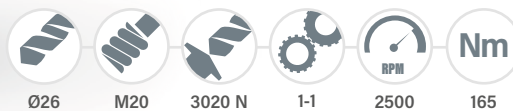
TESTA AD ANGOLO - ANGLE HEAD



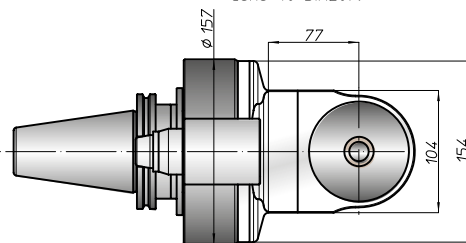
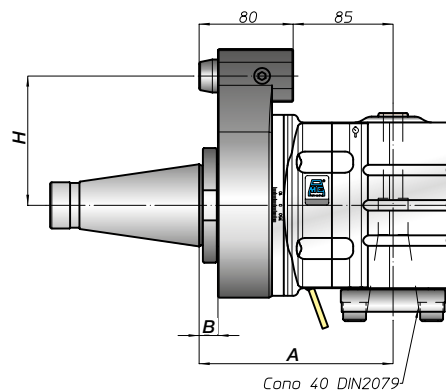
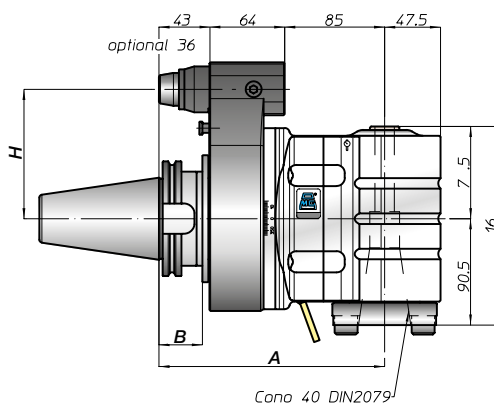
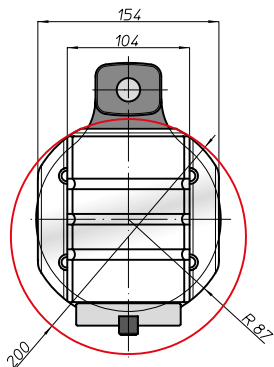
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



Nota

nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Note

on the spindle DIN2079 you can us shank DIN2080-40, DIN69871-A40, MAS403-BT40

CONO
SHANK



DIN69871



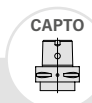
ANSIB5.50



BT

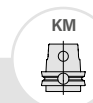


HSK

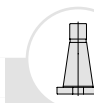


CAPTO

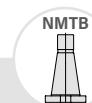
ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

45

50

50

50

80

100

C8

100

50

50

A

192

192

200

201

196

192

165

165

B

37

37

45

46

41

16

16

H STANDARD

110

110

110

110

110

110

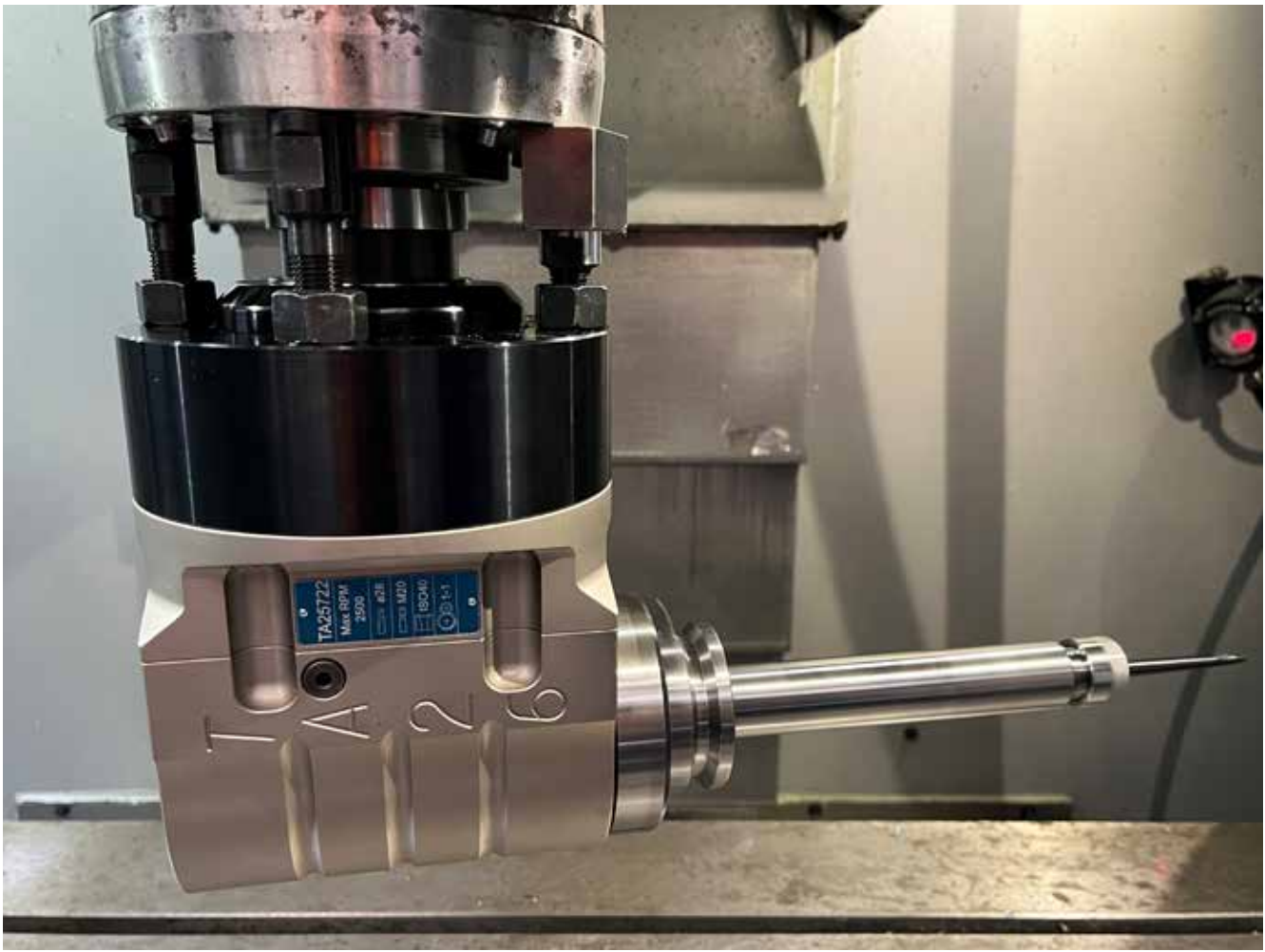
110

110

H OPTIONAL

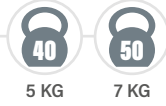
For DIN69871, ANSIB5.50 and BT, dual contact as option



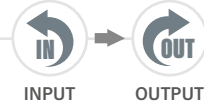


TA07.2P

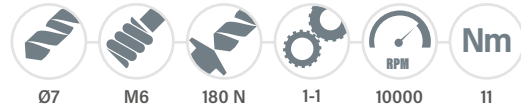
TESTA AD ANGOLO - ANGLE HEAD



PESO
WEIGHT



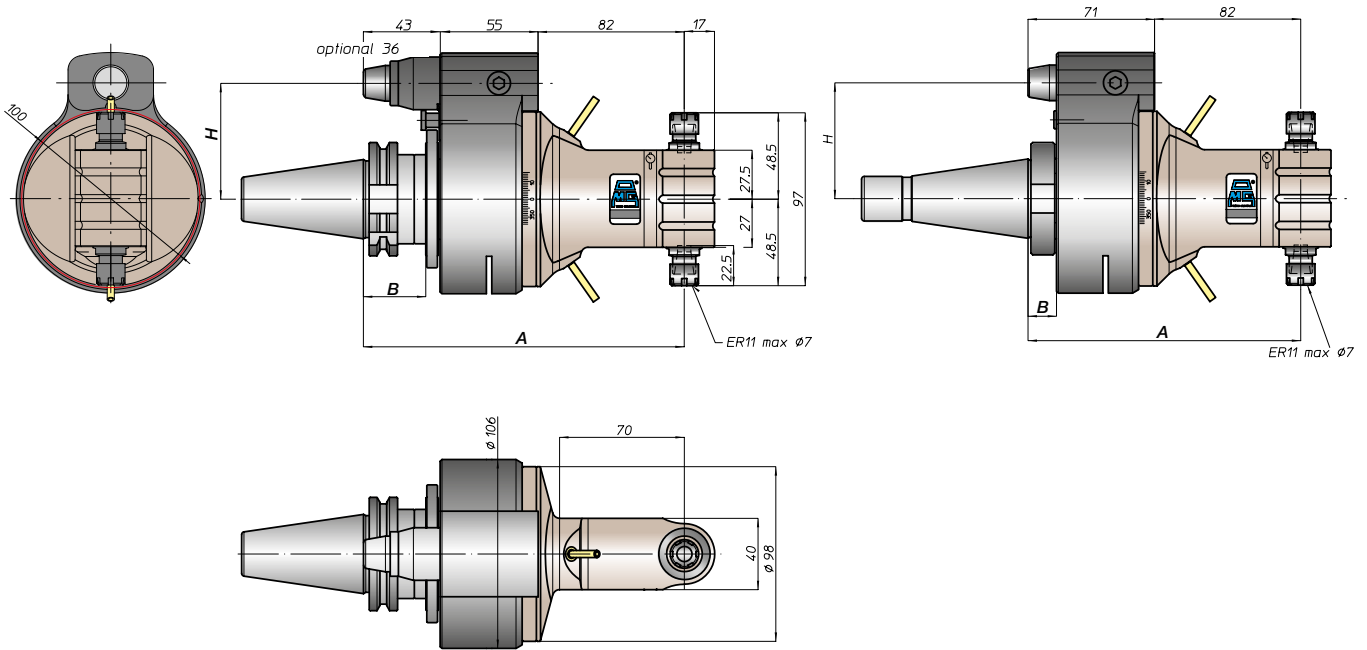
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



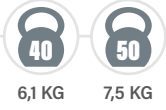
CONO
SHANK

	DIN69871				CAT ANSIB5.50		BT		HSK DIN69893			CAPTO ISO26623			KM			DIN2080		NMTB ANSIB5.18		
SIZE	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50	
A	180				180		180	188	189			184			180			150	153	150	153	
B	35				35		35	45	44	46		39	41						13	16	13	16
H STANDARD	65	80			65	80	65	80	65	80		65	80		65	80		65	80	65	80	
H OPTIONAL	110				110		110		110			110			110			110		110		

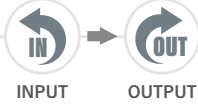
For DIN69871, ANSIB5.50 and BT, dual contact as option



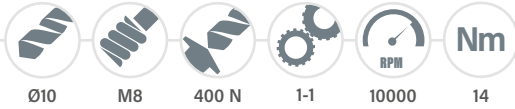
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



TA10.2P

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

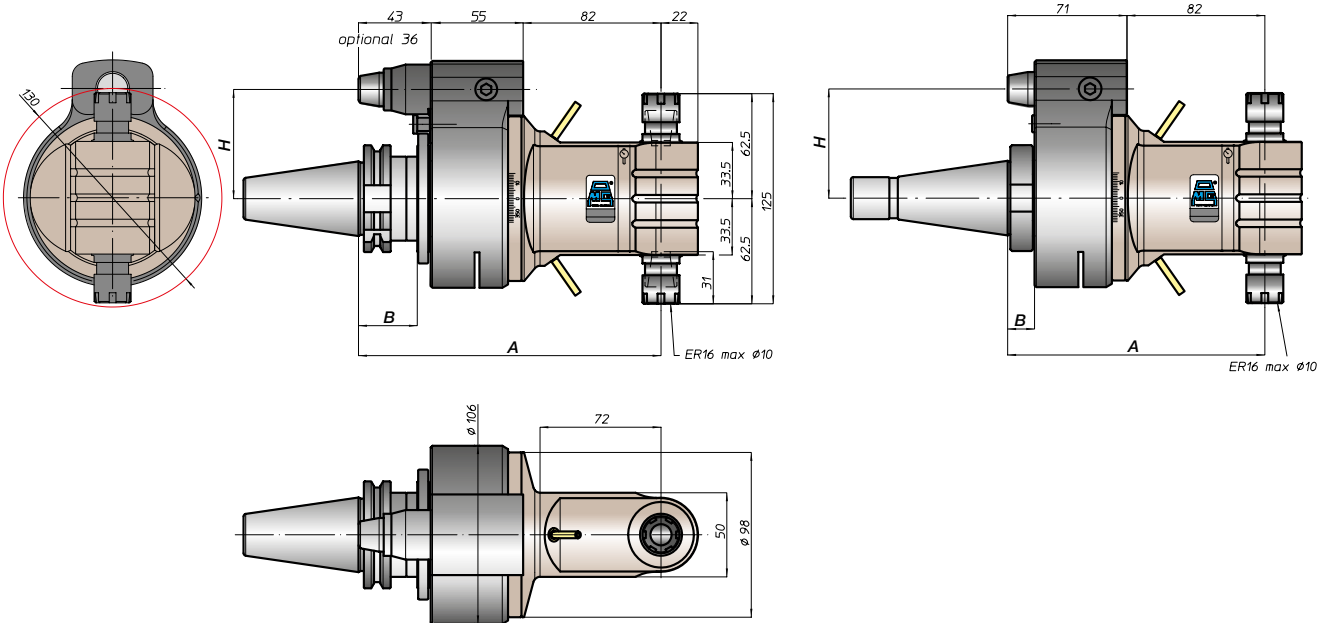
4-50

VH

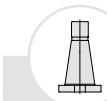
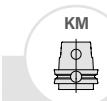
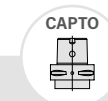
TSI/TSX

T

MT-TC-TC3



CONO
SHANK



SIZE

A

B

H STANDARD

H OPTIONAL

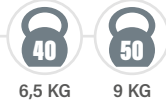
	DIN69871				ANSIB5.50		BT		HSK			CAPTO			KM		DIN2080		ANSIB5.18		
	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	180				180		180	188	189			184			180		150	153	150	153	
B	35				35		35	45	44	46		39	41			13	16		13	16	
H STANDARD	65	80			65	80	65	80	65	80		65	80	65	80	65	80	65	80	65	80
H OPTIONAL	110				110		110		110			110			110		110		110		

For DIN69871, ANSIB5.50 and BT, dual contact as option

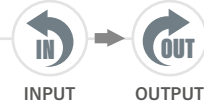


TA13.2P

TESTA AD ANGOLO - ANGLE HEAD



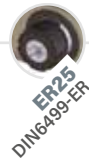
PESO
WEIGHT



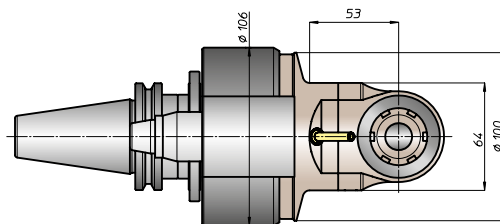
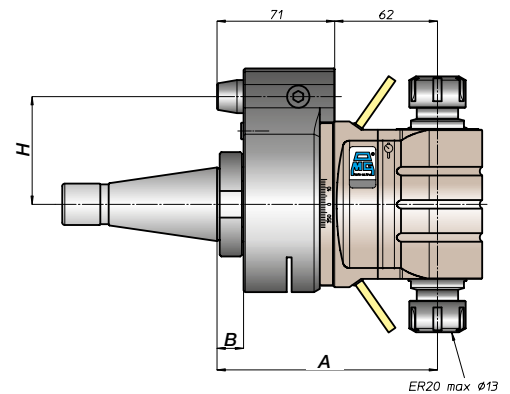
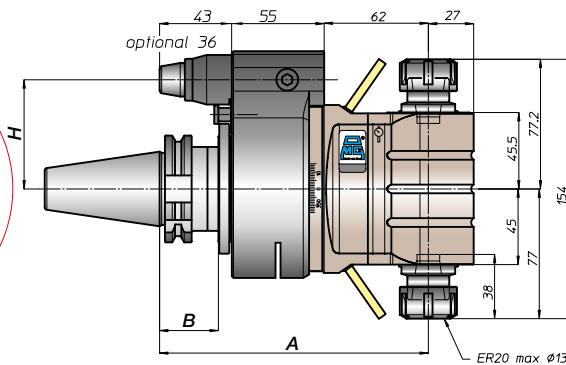
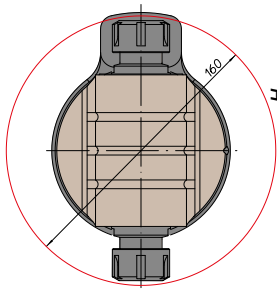
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



DIN69871



ANSIB5.50

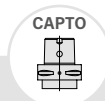


BT



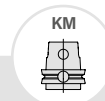
HSK

DIN69893



CAPTO

ISO26623



KM



DIN2080

DIN2080



NMTB

ANSIB5.18

SIZE

40

45

50

40

50

40

50

63

80

100

C5

C6

C8

63

80

100

40

50

40

50

A

160

160

160

168

169

164

160

130

133

130

133

B

35

35

35

45

44

46

39

41

13

16

13

16

H STANDARD

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

H OPTIONAL

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TA16.2P

TESTA AD ANGOLO - ANGLE HEAD



PESO WEIGHT

40 50
7,7 KG 12,2 KG

ROTAZIONE ROTATION

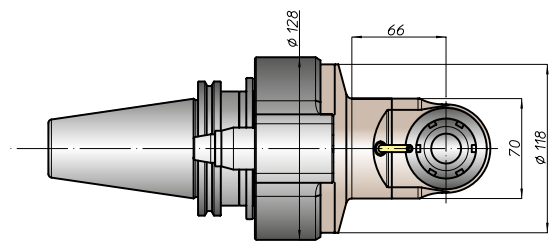
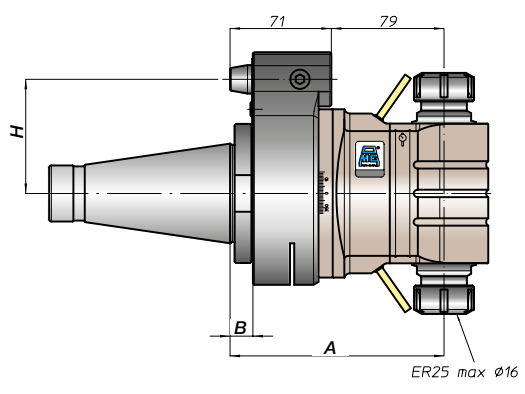
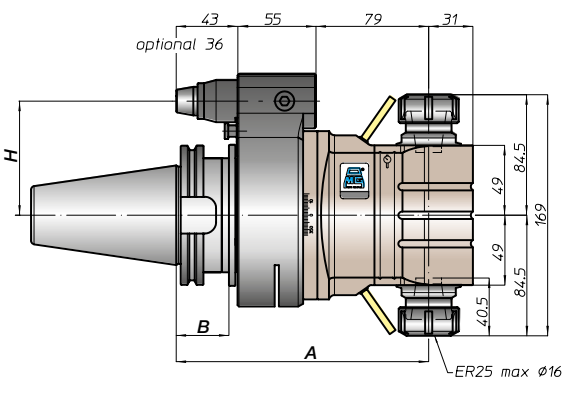
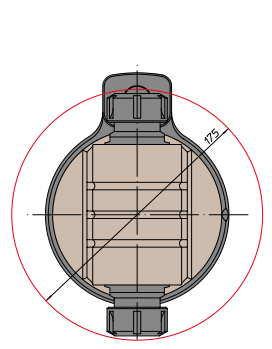
IN OUT
INPUT OUTPUT

CARATTERISTICHE FEATURES

Ø16 M12 1040 N 1-1 5000 55 Nm

MANDRINI DISPONIBILI AVAILABLE SPINDLES

ER32
DIN6499-ER



CONO SHANK

SIZE

A

B

H STANDARD

H OPTIONAL

	ANSIB5.50			BT		DIN69893			ISO26623			DIN2080			ANSIB5.18					
	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	172	177	177	172	177	172	185	181	186	186	176	181	172	177	147	150	142	150	142	150
B	35			35		35	45	44	46		39	41			13	16	13	16	13	16
H STANDARD	65	80		65	80	65	80	65	80		65	80	65	80	65	80	65	80	65	80
H OPTIONAL	110			110		110		110			110		110		110		110		110	

For DIN69871, ANSIB5.50 and BT, dual contact as option

TA20.2P

TESTA AD ANGOLO - ANGLE HEAD



15 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø20



M14



1460 N



1-1



3500



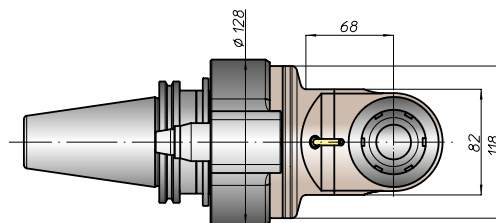
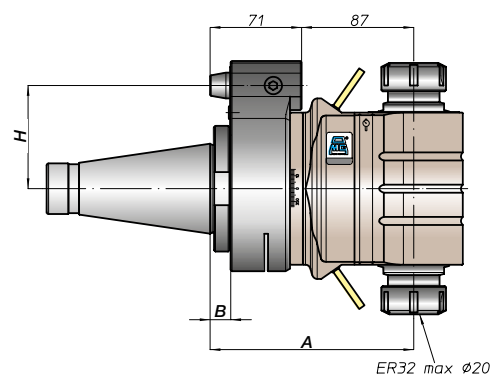
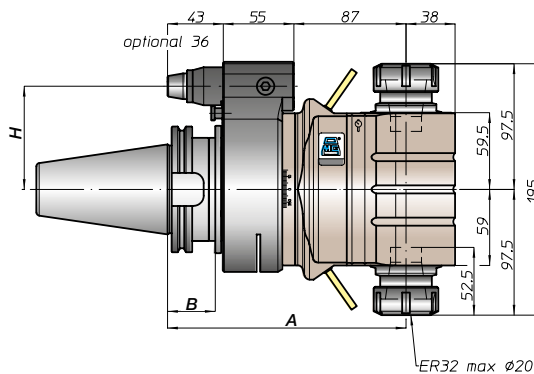
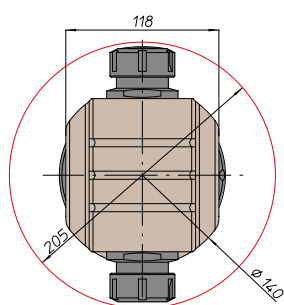
90

CARATTERISTICHE
FEATURES

Ø27-Ø32
PORTAFRESSE
FACE MILL ARBOR



Ø20
WELDON
WHISTLE-NOTCH

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



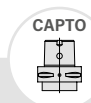
ANSIB5.50



BT

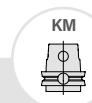


HSK



CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

45

50

50

50

80

100

C8

80

100

50

50

A

185

185

193

194

189

185

158

158

B

35

35

45

46

41

16

16

16

H STANDARD

80

80

80

80

80

80

80

80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TA26.2P

TESTA AD ANGOLO - ANGLE HEAD



PESO
WEIGHT

22,5 KG

ROTAZIONE
ROTATION

INPUT OUTPUT

CARATTERISTICHE
FEATURES

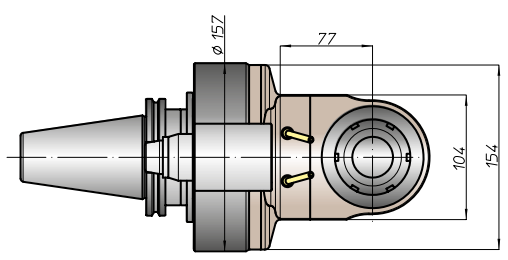
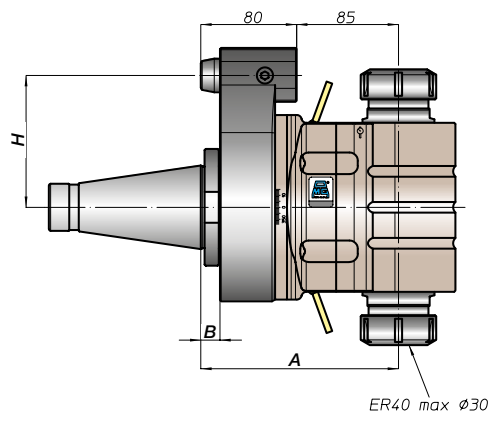
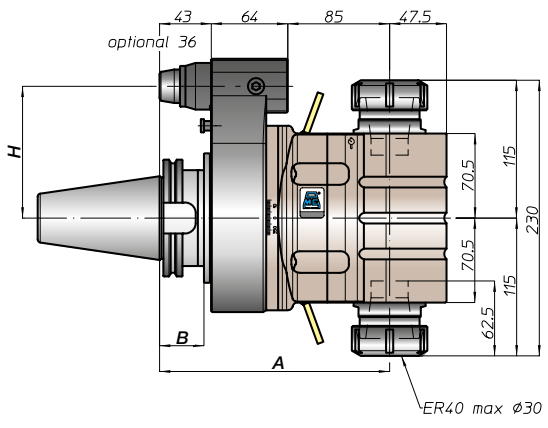
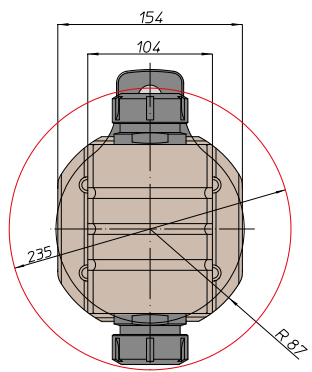
Ø26 M20 3020 N 1-1 2500 165

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES

Ø16-Ø27-Ø32
PORTA-FRESSE
FACE-MILL ARBOR

Ø32
WELDON
WHISTLE-NOTCH

ABS50
LICENZA KOMET®
KOMET LICENCES®



CONO
SHANK

DIN69871	ANSIB5.50			ISO26623		DIN2080	ANSIB5.18

SIZE	45	50	50	50	80	100	C8	100	50	50
A	192	192	200	201	196	192	196	192	165	165
B	37	37	45	46	41		41		16	16
H STANDARD	110	110	110	110	110	110	110	110	110	110
H OPTIONAL										

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOX

HT

4-55

VH

TSI/TSX

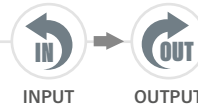
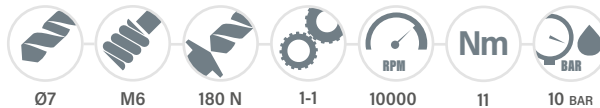
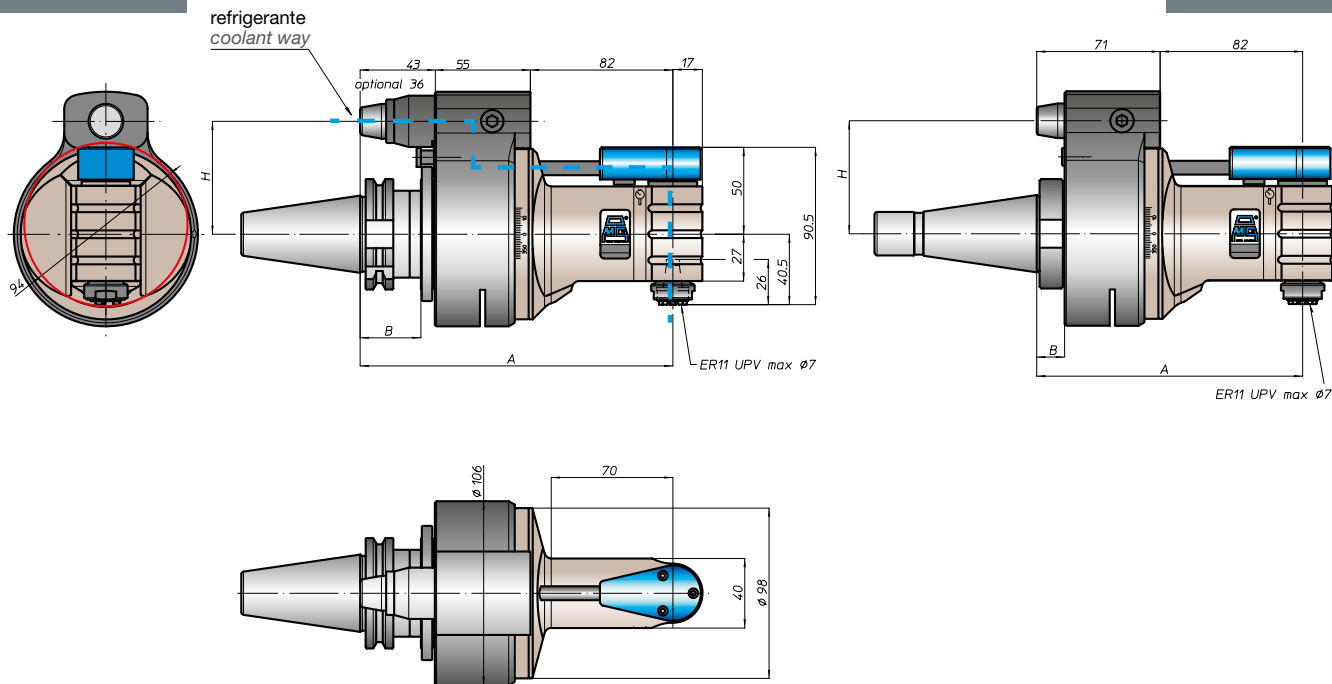
T

MT-TC-TC3



TA07.PD

TESTA AD ANGOLO - ANGLE HEAD

PESO
WEIGHTROTAZIONE
ROTATIONCARATTERISTICHE
FEATURESCONO
SHANK

DIN69871



ANSIB5.50

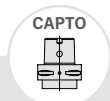


BT



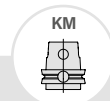
HSK

DIN69893



CAPTO

ISO26623



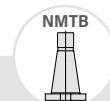
KM

DIN2080



DIN2080

ANSIB5.18



ANSIB5.18

SIZE

30 40 45 50 40 50 40 50 63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

150 150 150 158 159 154 150 120 123 120 123

B

35 35 35 45 44 46 39 41 13 16 13 16

H STANDARD

65 80 65 80 65 80 65 80 65 80 65 80 65 80 65 80

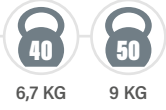
H OPTIONAL

110 110 110 110 110 110 110 110

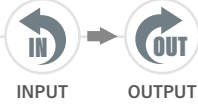
For DIN69871, ANSIB5.50 and BT, dual contact as option



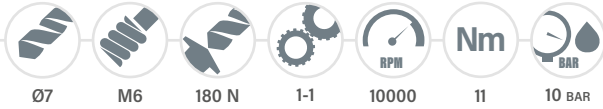
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



TA07.PDL

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

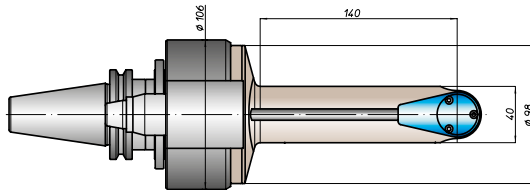
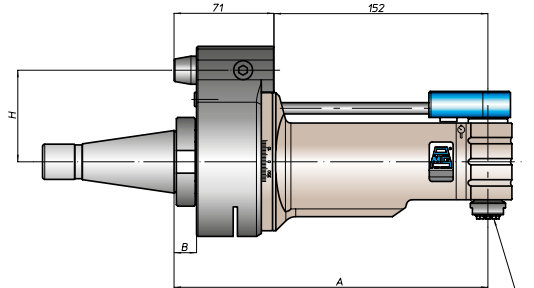
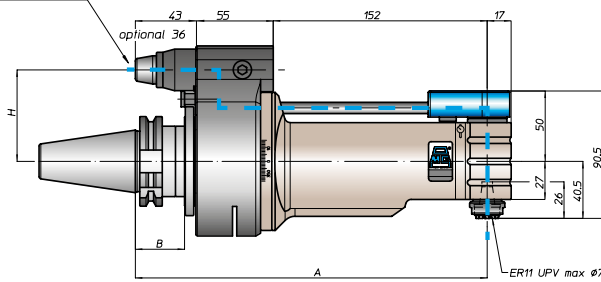
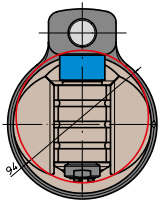
TA.CP

TA

MOX

HT

refrigerante
coolant way



4-56

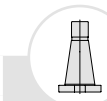
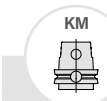
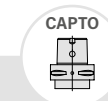
VH

TSI/TSX

T

MT-TC-TC3

CONO
SHANK



SIZE

A

B

H STANDARD

H OPTIONAL

	DIN69871			ANSIB5.50		BT		HSK			CAPTO			KM		DIN2080		ANSIB5.18		
	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	250			250		250	258	259			254			250			220	223	220	223
B	35			35		35	45	44	46		39	41					13	16	13	16
H STANDARD	65	80		65	80	65	80	65	80		65	80	65	80	65	80	65	80	65	80
H OPTIONAL	110			110		110		110			110			110		110		110		

For DIN69871, ANSIB5.50 and BT, dual contact as option



FH

BAH

TA.CP

TA

MOX

HT

4-57

VH

TSI/TSX

T

MT-TC-TC3



TA10.PD

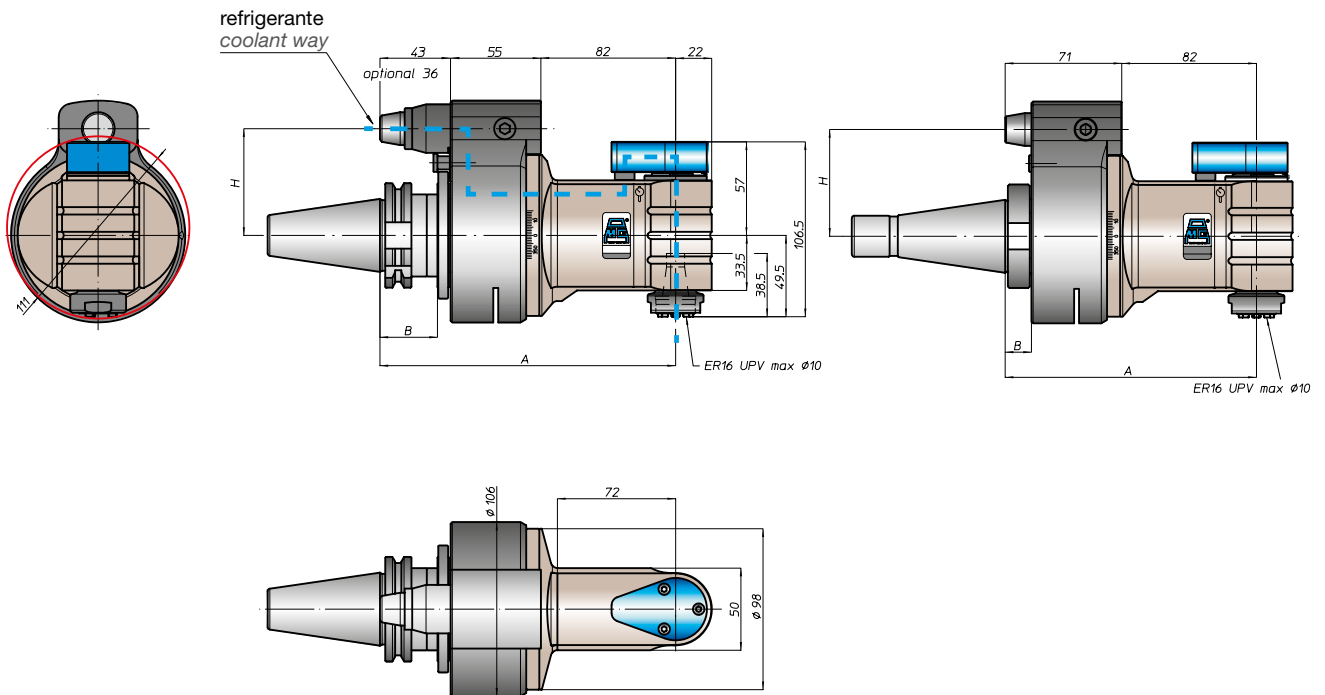
TESTA AD ANGOLO - ANGLE HEAD



40
5,8 KG

50
8 KG
PESO
WEIGHT

IN
INPUT

OUT
OUTPUT
ROTAZIONE
ROTATIONCARATTERISTICHE
FEATURESCONO
SHANK

DIN69871



ANSIB5.50



BT



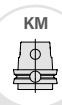
HSK

DIN69893

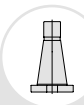


CAPTO

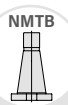
ISO26623



KM



DIN2080



ANSIB5.18

SIZE

30 40 45 50 40 50 40 50

63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

180

180

180 188

189

184

180

150 153

150 153

B

35

35

35 45

44 46

39 41

13 16

13 16

H STANDARD

65 80

65 80

65 80

65 80

65 80

65 80

65 80

65 80

H OPTIONAL

110

110

110

110

110

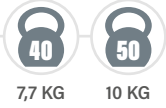
110

110

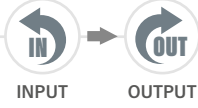
For DIN69871, ANSIB5.50 and BT, dual contact as option



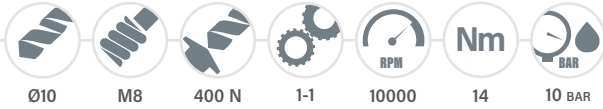
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



TA10.PDL

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

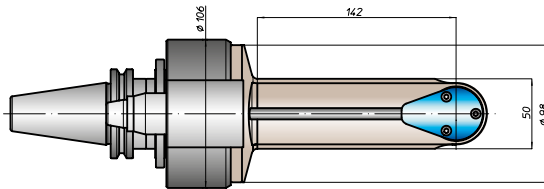
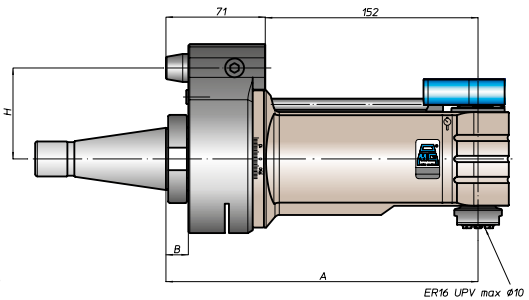
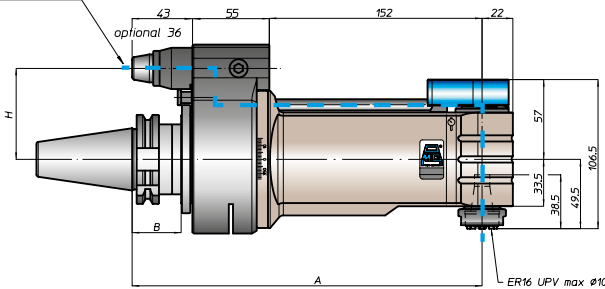
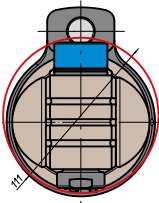
TA.CP

TA

MOX

HT

refrigerante
coolant way



4-58

VH

TSI/TSX

T

MT-TC-TC3

CONO
SHANK

	ANSIB5.50					DIN69893			ISO26623			DIN2080		ANSIB5.18							
SIZE	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50	
A	250			250		250			258			284			250			220	223	220	223
B	35			35		35	45	44	46		39	41				13	16	13	16		
H STANDARD	65	80		65	80	65	80	65	80		65	80	65	80		65	80	65	80	65	80
H OPTIONAL		110			110		110		110			110		110			110				110

For DIN69871, ANSIB5.50 and BT, dual contact as option



FH

BAH

TA.CP

TA

MOX

HT

4-59

VH

TSI/TSX

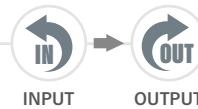
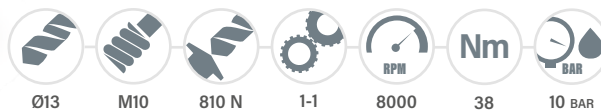
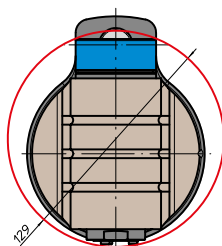
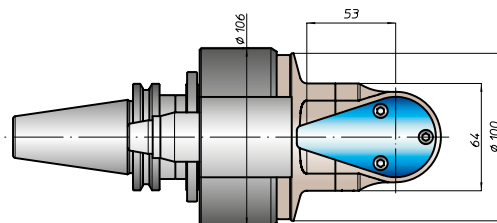
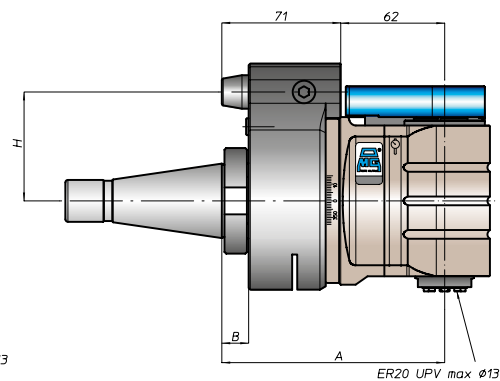
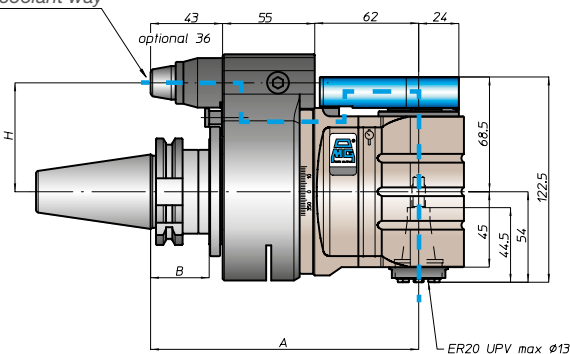
T

MT-TC-TC3



TA13.PD

TESTA AD ANGOLO - ANGLE HEAD

PESO
WEIGHTROTAZIONE
ROTATIONCARATTERISTICHE
FEATURESrefrigerante
coolant wayCONO
SHANK

DIN69871



ANSIB5.50

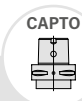


BT



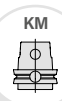
HSK

DIN69893

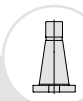


CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

40

45

50

40

50

40

50

63

80

100

C5

C6

C8

63

80

100

40

50

40

50

A

160

160

160

168

169

164

160

130

133

130

133

B

35

35

35

45

44

46

39

41

13

16

13

16

H STANDARD

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



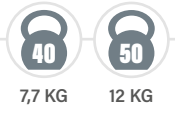


TA16.PD

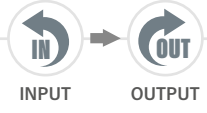
TESTA AD ANGOLO - ANGLE HEAD



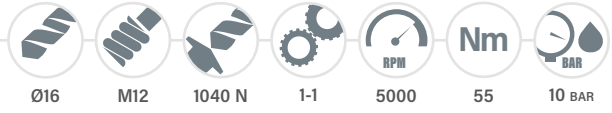
PESO
WEIGHT



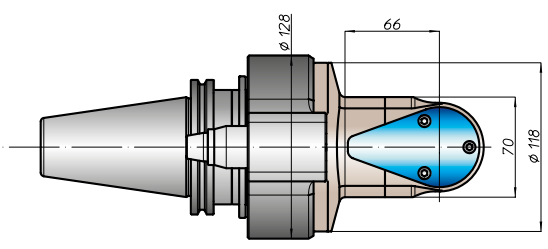
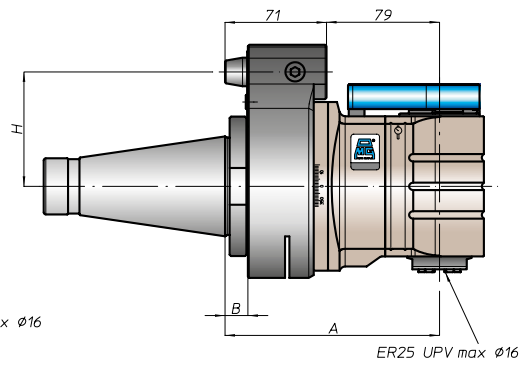
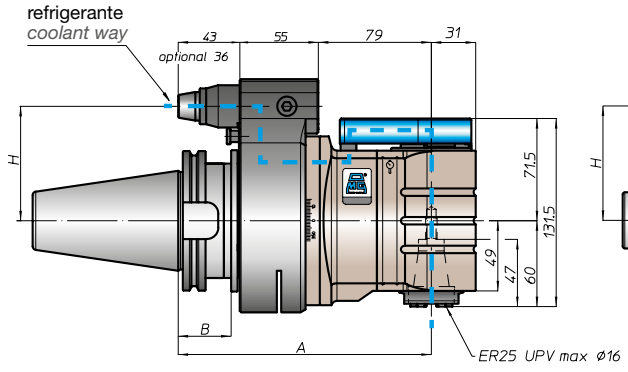
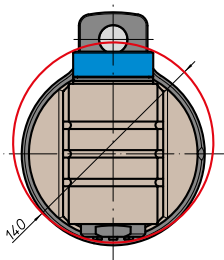
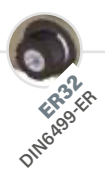
ROTAZIONE
ROTATION



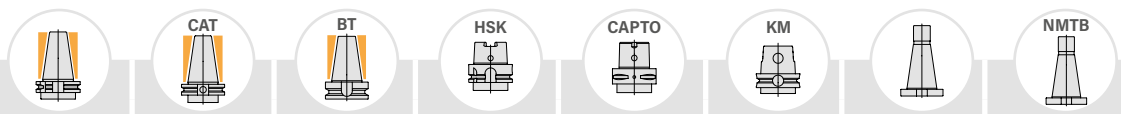
CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



SIZE	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	172	177		172	177	172	185	181	186		176	181		172	177		147	150	142	150
B		35		35		35	45	44	46			39	41				13	16	13	16
H STANDARD	65	80		65	80	65	80	65	80		65	80		65	80		65	80	65	80
H OPTIONAL		110		110		110						110		110			110			110

For DIN69871, ANSIB5.50 and BT, dual contact as option

TA20.PD

TESTA AD ANGOLO - ANGLE HEAD



14,5 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø20



M14



1460 N



1-1



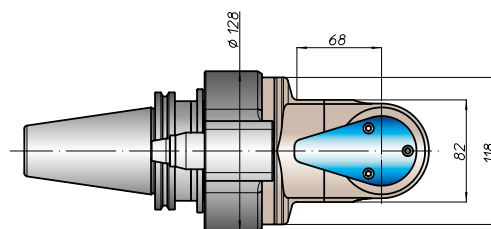
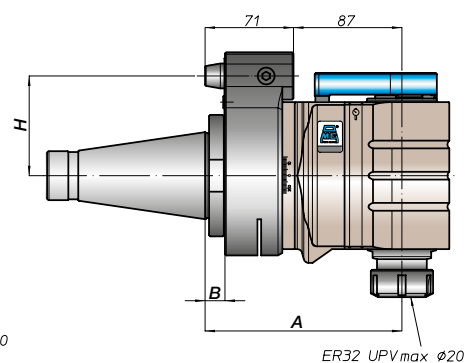
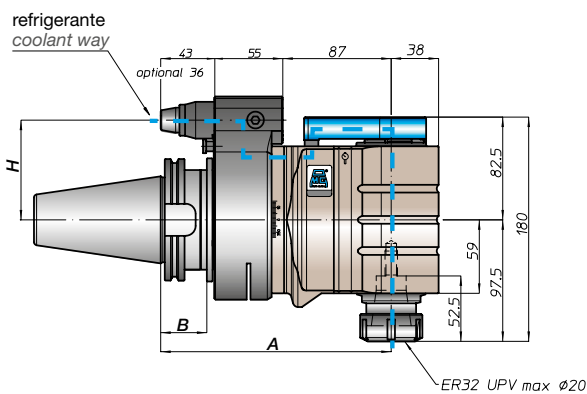
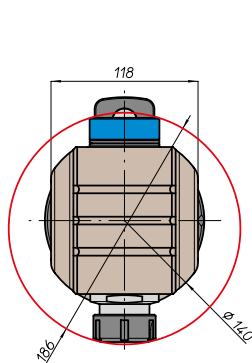
3500



90



10 BAR

CARATTERISTICHE
FEATURESCONO
SHANK

DIN69871



ANSIB5.50



BT



HSK

DIN69893



CAPTO

ISO26623



KM

80 | 100



DIN2080

50



NMTB

ANSIB5.18

50

SIZE

45

50

50

50

80

100

C8

80

100

50

50

A

185

185

193

194

189

185

158

158

B

35

35

45

46

41

80

80

80

80

H STANDARD

80

80

80

80

80

80

80

80

H OPTIONAL

110

110

110

110

110

110

110

110

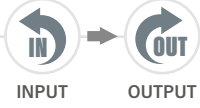
For DIN69871, ANSIB5.50 and BT, dual contact as option

PESO
WEIGHT



22 KG

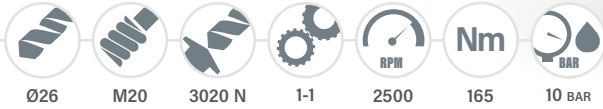
ROTAZIONE
ROTATION



INPUT

OUTPUT

CARATTERISTICHE
FEATURES



Ø26

M20

3020 N

1-1

2500

165

10 BAR



TA26.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

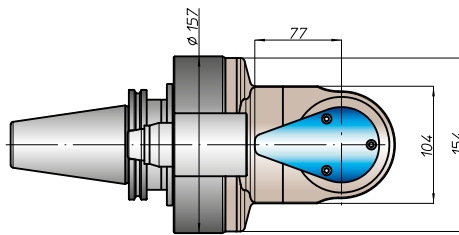
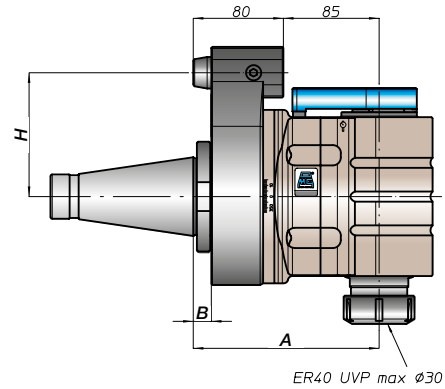
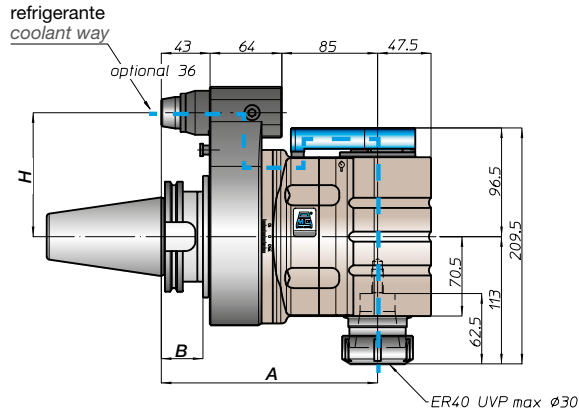
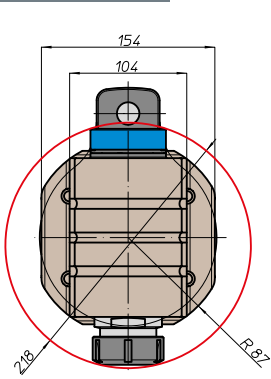
BAH

TA.CP

TA

MOX

HT



4-62

VH

TSI/TSX

T

MT-TC-TC3

CONO
SHANK



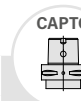
DIN69871



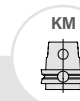
ANSIB5.50



DIN69893



ISO26623



KM



DIN2080



ANSIB5.18

SIZE

45 50 50 50 80 100 C8 100 50 50

A

192 192 200 201 196 192 165 165

B

37 37 45 46 41 16 16

H STANDARD

110 110 110 110 110 110 110 110

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option



FH

BAH

TA.CP

TA

MOX

HT

4-63

VH

TSI/TSX

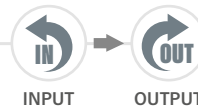
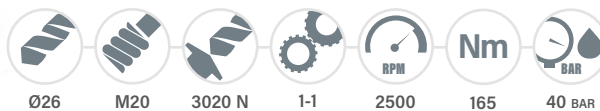
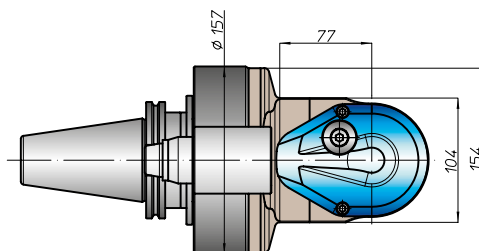
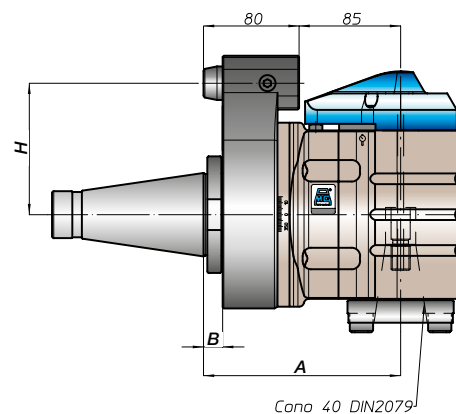
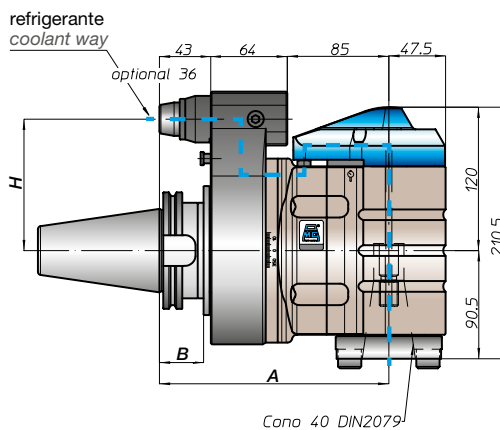
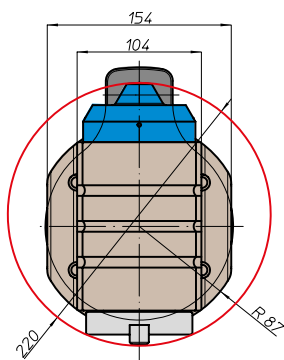
T

MT-TC-TC3



TA26.40.D

TESTA AD ANGOLO - ANGLE HEAD

PESO
WEIGHTROTAZIONE
ROTATIONCARATTERISTICHE
FEATURESCONO
SHANK

DIN69871



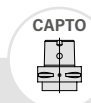
ANSIB5.50



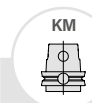
BT



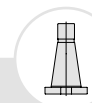
DIN69893



ISO26623



KM



DIN2080



ANSIB5.18

SIZE

45

50

50

50

80

100

C8

100

50

50

A

192

192

200

201

196

192

165

165

B

37

37

45

46

41

110

16

16

H STANDARD

110

110

110

110

110

110

110

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option





FH

BAH

TA.CP

TA

MOX

HT

4-64

VH

TSI/TSX

T

MT-TC-TC3



FH

BAH

TA.CP

TA

MOX

HT

4-65

VH

TSI/TSX

T

MT-TC-TC3



TAO10.P

TESTA AD ANGOLO - ANGLE HEAD



6,2 KG



8,7 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø10



M8



500 N



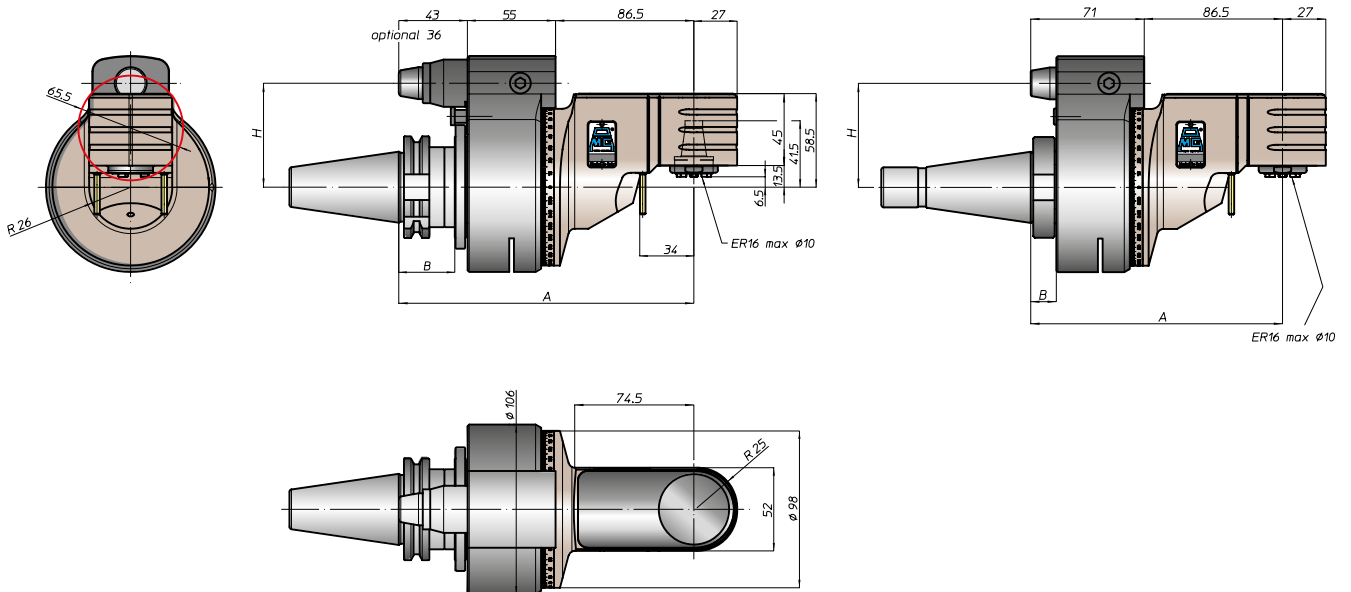
1-1



6000



25

CARATTERISTICHE
FEATURESØ16
PORTAFRESA
FACE-MILL ARBORHSK25
DIN69893-HSKMANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



ANSIB5.50

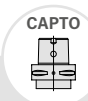


BT



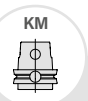
HSK

DIN69893

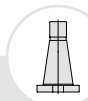


CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

40

45

50

40

50

40

50

63

80

100

C5

C6

C8

63

80

100

40

50

40

50

A

184,5

184,5

184,5

192,5

193,5

188,5

184,5

157,5

160,5

157,5

160,5

B

35

35

35

45

44

46

39

41

13

16

13

16

H STANDARD

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

H OPTIONAL

110

110

110

110

110

110

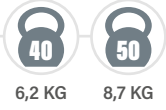
110

110

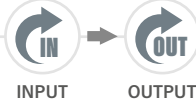
For DIN69871, ANSIB5.50 and BT, dual contact as option



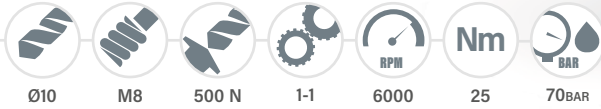
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



TAO10.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

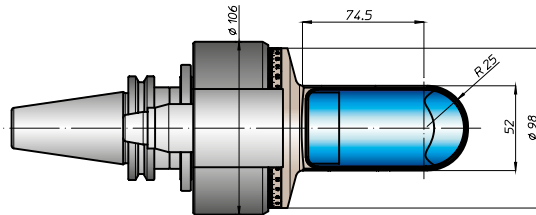
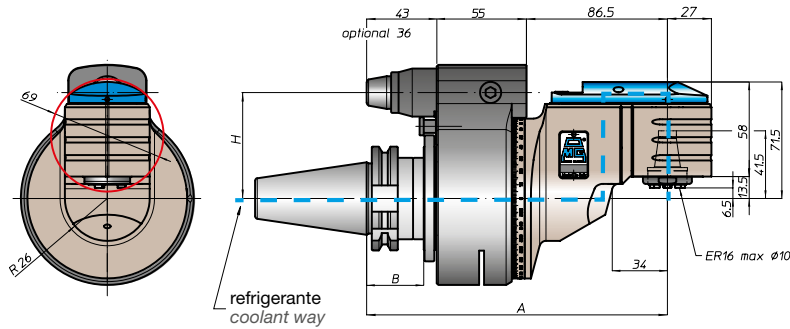
4-66

VH

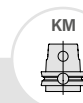
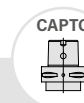
TSI/TSX

T

MT-TC-TC3



CONO
SHANK



SIZE

40 45 50 40 50 40 50 63 80 100 C5 C6 C8 63 80 100

A

184,5 184,5 184,5 192,5 193,5 188,5 184,5

B

35 35 35 45 44 46 39 41

H STANDARD

65 80 65 80 65 80 65 80 65 80 65 80

H OPTIONAL

110 110 110 110 110 110 110

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOX

HT

4-67

VH

TSI/TSX

T

MT-TC-TC3



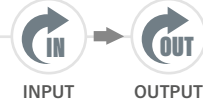
TA013.P

TESTA AD ANGOLO - ANGLE HEAD



7,5 KG

10,5 KG

PESO
WEIGHT

INPUT

OUTPUT

ROTAZIONE
ROTATION

Ø13

M10

570 N

1-1

4500

Nm

45

CARATTERISTICHE
FEATURES

Ø16

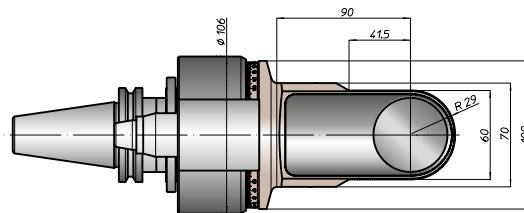
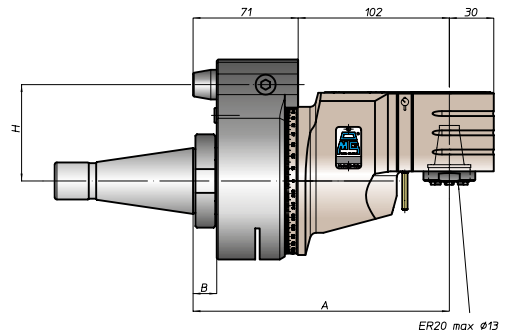
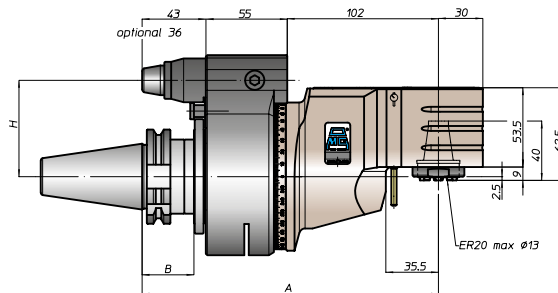
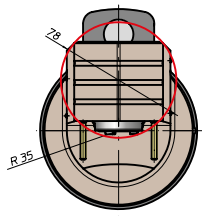
PORTAFRESE
FACE MILL ARBOR

Ø12

WELDON
WHISTLE-NOTCH

HSK32

DIN69893-HSK

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



ANSIB5.50

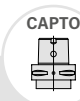


BT



HSK

DIN69893



CAPTO

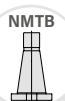
ISO26623



KM



DIN2080



ANSIB5.18

SIZE

40

45

50

40

50

40

50

63

80

100

C5

C6

C8

63

80

100

40

50

40

50

A

200

200

200

208

209

204

200

170

176

173

176

B

35

35

35

45

44

46

39

41

13

16

13

16

H STANDARD

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TA013.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

4-68

VH

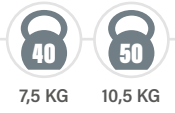
TSI/TSX

T

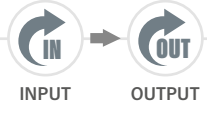
MT-TC-TC3



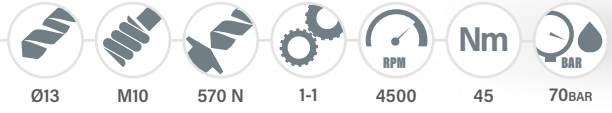
PESO
WEIGHT



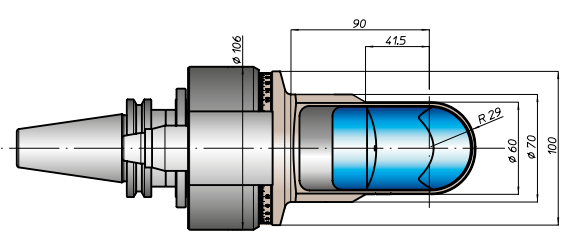
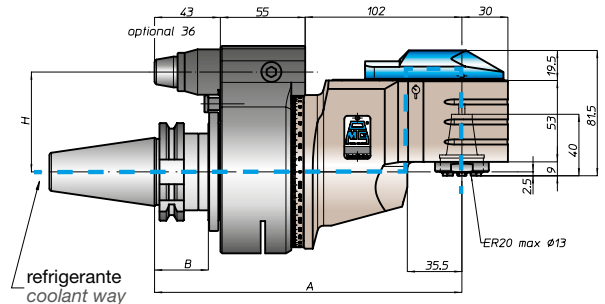
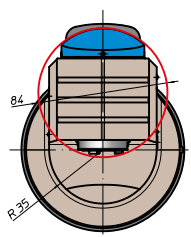
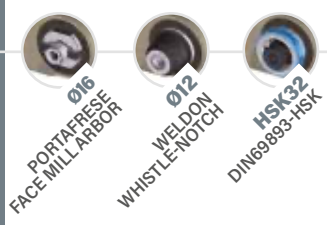
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK

	DIN69871			ANSIB5.50		BT		DIN69893			ISO26623			DIN2080		ANSIB5.18		
SIZE	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100		
A	200			200		200	208	209			204			200				
B	35			35		35	45	44	46		39		41					
H STANDARD	65	80		65	80	65	80	65	80		65	80		65	80			
H OPTIONAL	110			110		110		110			110			110				

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOX

HT

4-69

VH

TSI/TSX

T

MT-TC-TC3



TA016.P

TESTA AD ANGOLO - ANGLE HEAD



14 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø16



M12



810 N



1-1



4000



90

CARATTERISTICHE
FEATURES

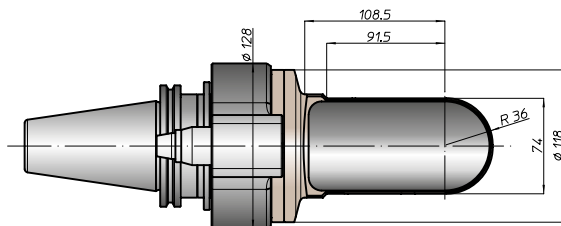
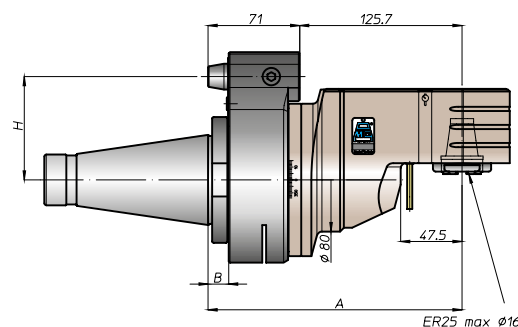
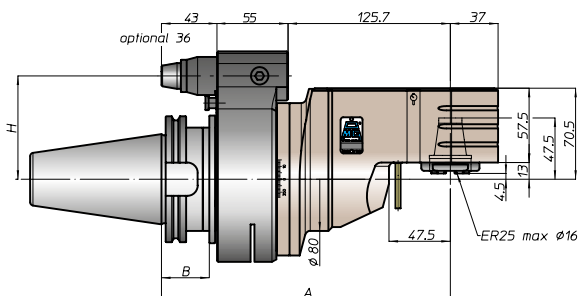
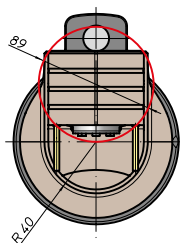
Ø16-Ø22-Ø27
PORTAFRESA
FACE MILL ARBOR



Ø16
WELDON
WHISTLE-NOTCH



HSK40
DIN69893-HSK

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



ANSIB5.50

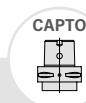


BT



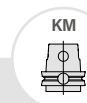
HSK

DIN69893



CAPTO

ISO26623



KM

80 | 100



DIN2080



NMTB

ANSIB5.18

SIZE

45

50

50

50

80

100

C8

80

100

50

50

A

223,5

223,5

231,5

232,5

227,5

223,5

199,5

199,5

B

35

35

45

46

41

16

16

H STANDARD

80

80

80

80

80

80

80

80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TAO16.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

4-70

VH

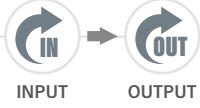
TSI/TSX

T

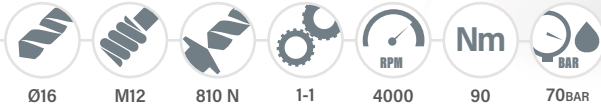
MT-TC-TC3



14 KG



INPUT OUTPUT



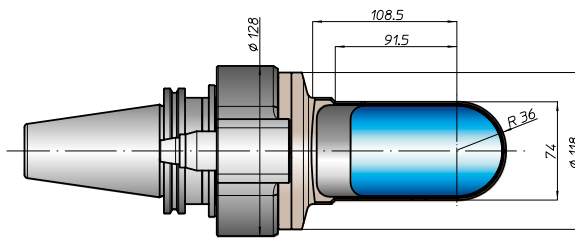
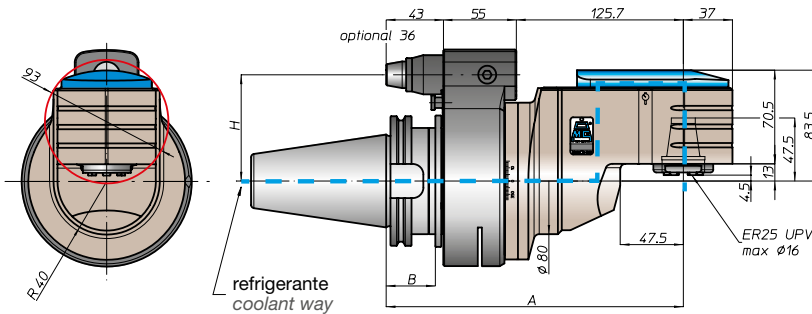
Ø16 M12 810 N 1-1 4000 90 70BAR



Ø16-Ø22-Ø27
PORTAFRESE
FACE-MILL ARBOR

Ø16
WELDON
WHISTLE-NOTCH

HSK40
DIN69893-HSK



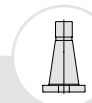
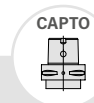
CONO SHANK



DIN69871



ANSIB5.50



DIN2080



ANSIB5.18

SIZE

45 50 50 50 80 100 C8 80 100

A

223,5 223,5 231,5 232,5 227,5 223,5

B

35 35 45 46 41

H STANDARD

80 80 80 80 80 80

H OPTIONAL

110 110 110 110 110 110

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOX

HT

4-71

VH

TSI/TSX

T

MT-TC-TC3



TAO20.P

TESTA AD ANGOLO - ANGLE HEAD



15 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø20



M14



1150 N



1-1



3500



95

CARATTERISTICHE
FEATURES

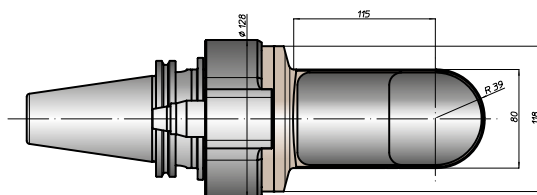
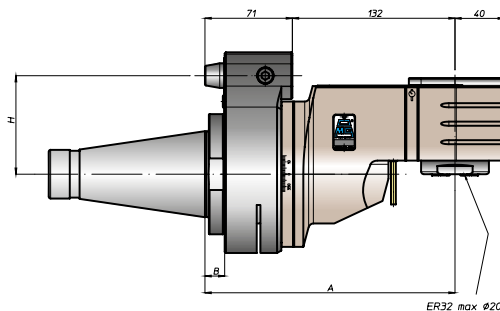
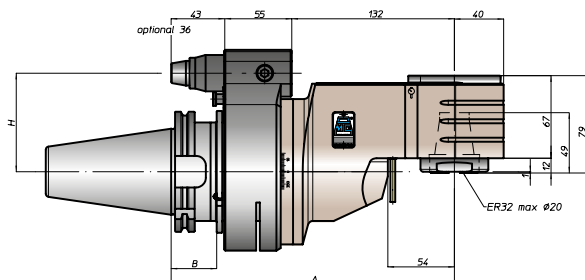
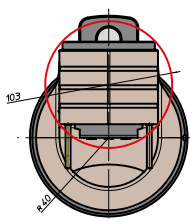
Ø22-Ø27-Ø32
PORTAFRESE
FACE MILL ARBOR



Ø16-Ø20
WELD ON
WHISTLE-NOTCH



HSK50
DIN69893-HSK

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

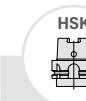
DIN69871



ANSIB5.50

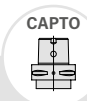


BT



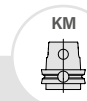
HSK

DIN69893



CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

45

50

50

50

80

100

C8

80

100

50

50

A

230

230

238

239

234

230

203

203

B

35

35

45

46

41

16

16

H STANDARD

80

80

80

80

80

80

80

80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TAO20.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

4-72

VH

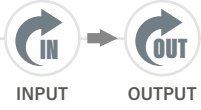
TSI/TSX

T

MT-TC-TC3

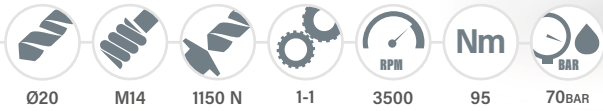


15 KG



INPUT

OUTPUT



Ø20

M14

1150 N

1-1

3500

95

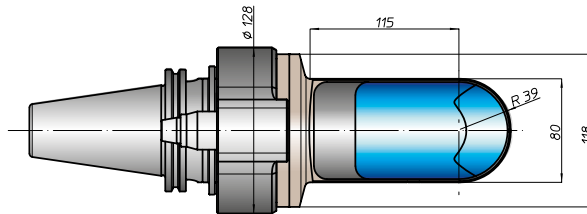
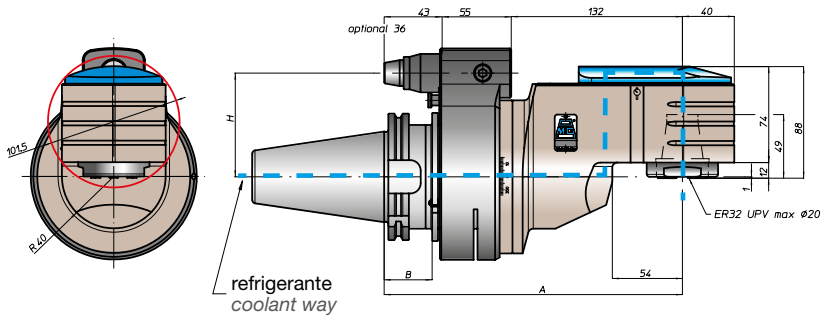
70 BAR



Ø22-Ø27-Ø32
PORTAFRESE
FACE-MILL ARBOR

Ø16-Ø20
WELDON
WHISTLE-NOTCH

HSK50
DIN69893-HSK



CONO
SHANK



DIN69871



ANSIB5.50

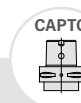


BT



HSK

DIN69893



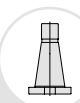
CAPTO

ISO26623



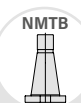
KM

80 | 100



DIN2080

80 | 100



NMTB

ANSIB5.18

SIZE

45 | 50

50

50

80 | 100

C8

80 | 100

80 | 100

80 | 100

A

230

230

238

239

234

230

B

35

35

45

46

41

H STANDARD

80

80

80

80

80

80

H OPTIONAL

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TAO26.P

TESTA AD ANGOLO - ANGLE HEAD



24 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø26



M20



1590 N



1-1



3000



150

CARATTERISTICHE
FEATURES

Ø27-Ø32
PORTA-FRESSE
FACE MILL ARBOR



Ø25-Ø32
WELDON
LE-NOTCH



HSK63
DIN69893-HSK



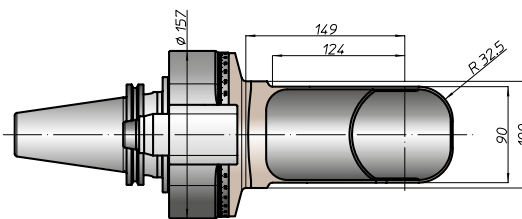
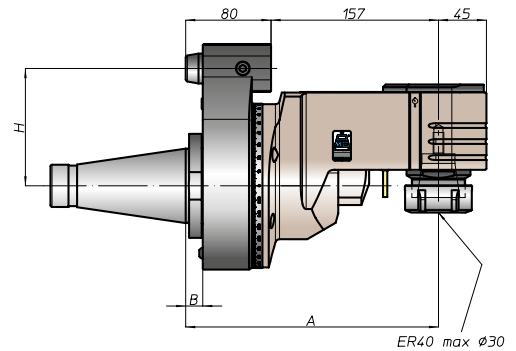
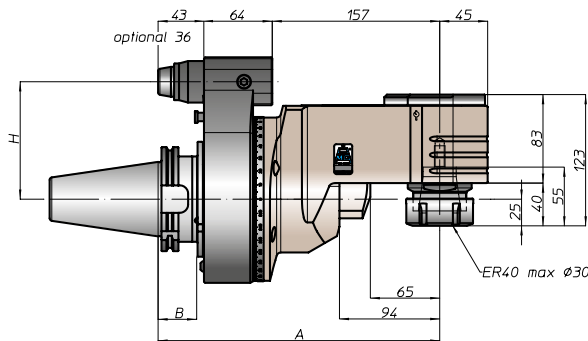
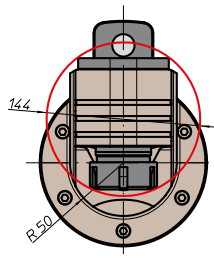
C4
COROMANT CAPTO®



ABS63
LICENZA KOMET®
KOMET LICENCE®



30-40
ISO/DIN2079
NMTB-BT

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



ANSIB5.50

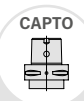


BT



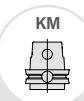
HSK

DIN69893



CAPTO

ISO26623



KM

100



DIN2080

50



NMTB

ANSIB5.18

SIZE

50

50

50

100

C8

100

50

50

A

264

264

272

273

264

270

243

243

B

36,5

36,5

44,5

45,5

41

16

16

16

H STANDARD

110

110

110

110

110

110

110

110

H OPTIONAL

TAO26.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

4-74

VH

TSI/TSX

T

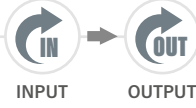
MT-TC-TC3



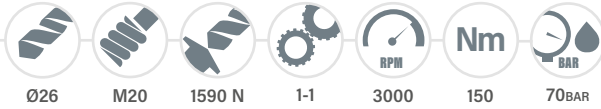
PESO
WEIGHT



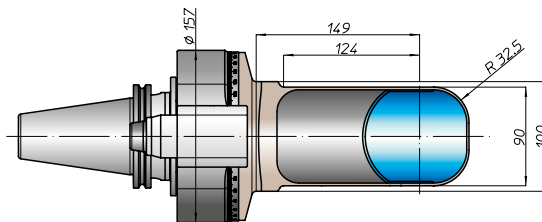
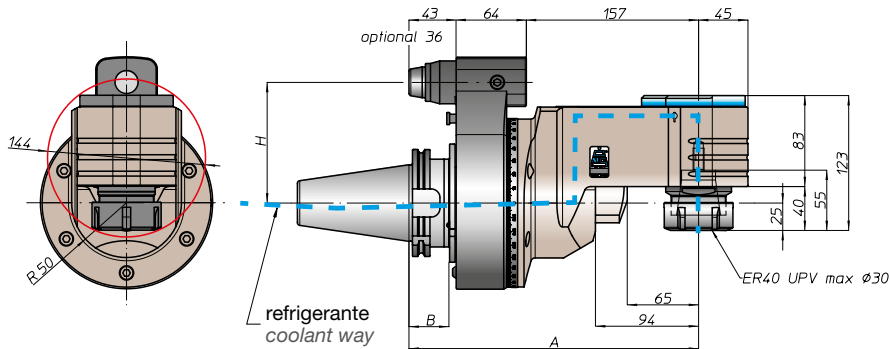
ROTAZIONE
ROTATION



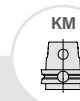
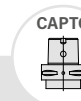
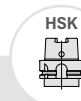
CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



SIZE

50

50

50

100

C8

100

A

264

264

272

273

264

270

B

36,5

36,5

44,5

45,5

36,5

H STANDARD

110

110

110

110

110

110

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOX

HT

4-75

VH

TSI/TSX

T

MT-TC-TC3



SERIE

TAV[®]

DIGITAL





Nuovo standard nelle teste ad angolo variabile.

La serie TAV si propone ora con un display per la visualizzazione dell'inclinazione del mandrino. La facilità di utilizzo, la precisione del sistema, l'ingombro estremamente ridotto consentirà agli utenti di registrare direttamente in macchina l'angolo della lavorazione che la Testa ad Angolo Variabile deve eseguire sul pezzo in modo semplice ed efficace.

Oggi sono disponibili i tre principali modelli di Teste ad Angolo Variabile: TAV10, TAV13 e TAV20.

Lo sviluppo di questa soluzione verrà presto trasportata a tutta la famiglia delle Teste ad Angolo della serie TAV.

New standard system on TAV adjustable angle heads.

The TAV series is now being enhanced with a display to check the spindle angle inclination. Both the user-friendliness and the precision, as well as the extremely reduced footprint of this new system, will allow the users to easily and effectively set the adjustable angle head directly on the machine prepared to machine pieces.

Nowadays the three major adjustable angle head models are available:

TAV10, TA13 and TAV20.

And this new solution will be soon available on the whole range of TAV angle heads.

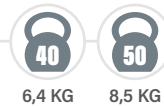


TAV10.P

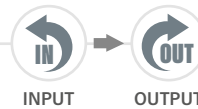
TESTA AD ANGOLO - ANGLE HEAD



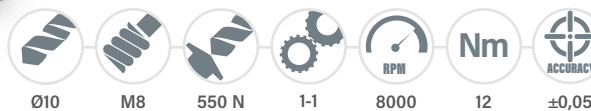
TAV
DIGITAL



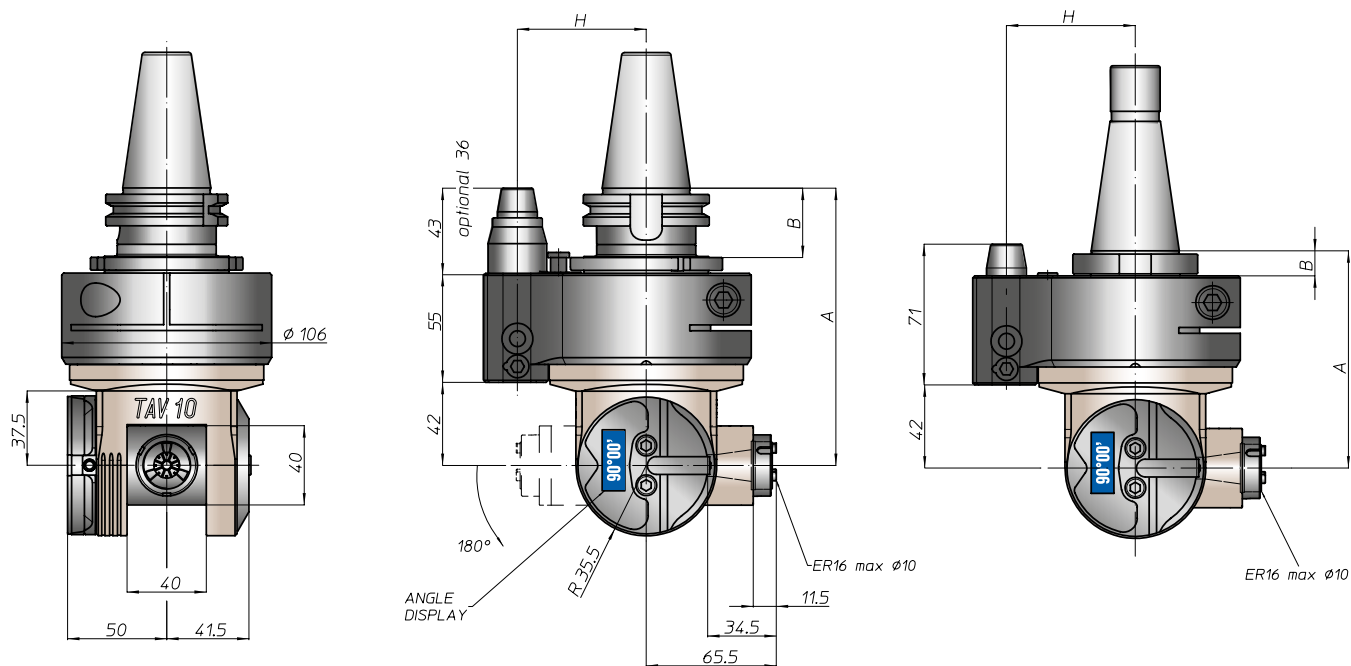
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



CONO
SHANK



DIN69871



ANSIB5.50

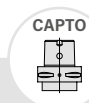


BT



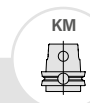
HSK

DIN69893

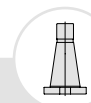


CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

40

45

50

40

50

40

50

63

80

100

C5

C6

C8

63

80

100

40

50

40

50

A

140

140

140

148

149

144

140

113

116

113

116

B

35

35

35

45

44

46

39

41

13

16

13

16

H STANDARD

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

H OPTIONAL

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

110

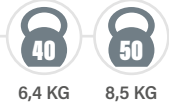
For DIN69871, ANSIB5.50 and BT, dual contact as option



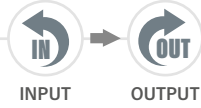
TAV10.PD

TESTA AD ANGOLO - ANGLE HEAD

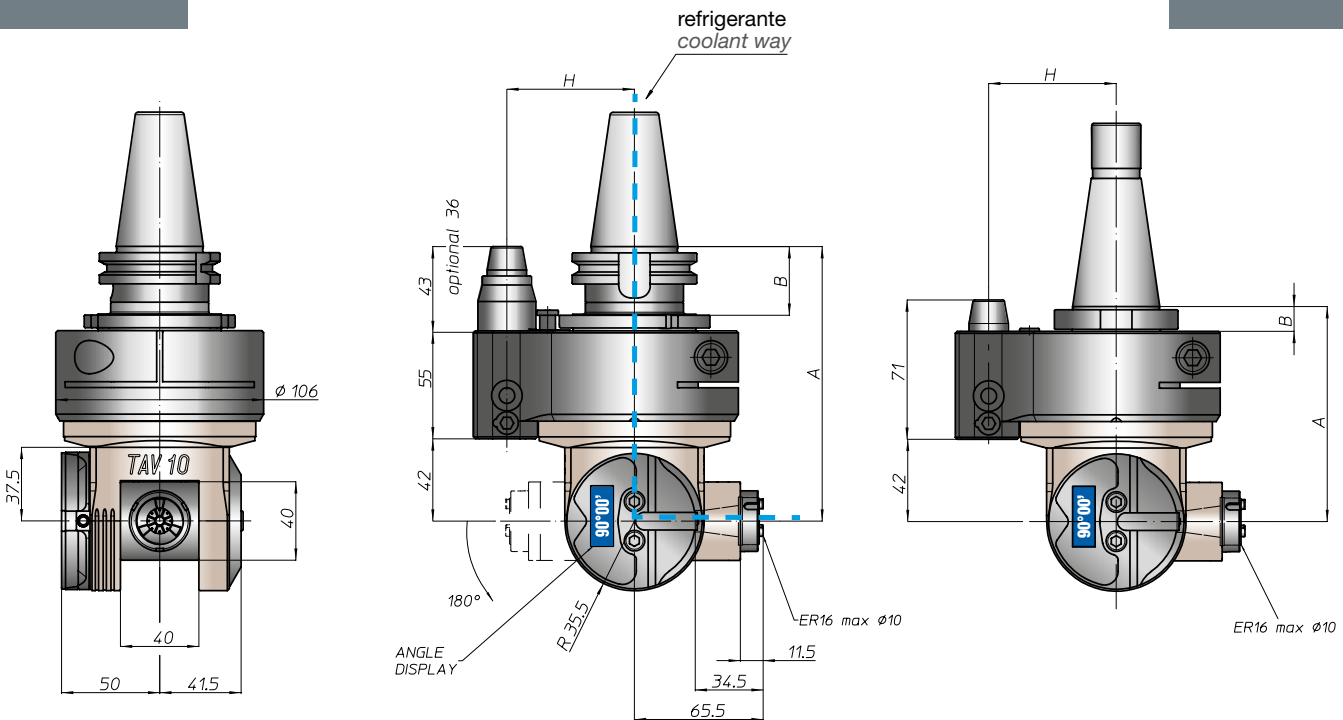
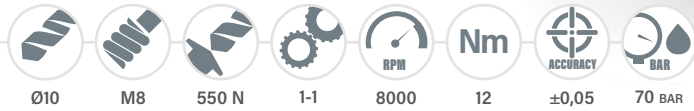
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



FH
BAH
TA.CP
TA
MOX
HT

4-78

VH
TSI/TSX
T

MT-TC-TC3

CONO
SHANK

	DIN69871			ANSIB5.50		BT		DIN69893			ISO26623			DIN2080		ANSIB5.18					
SIZE	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50	
A	140			140		140	148	149			144			140			113	116	113	116	
B	35			35		35	45	44	46		39	41						13	16	13	16
H STANDARD	65	80		65	80	65	80	65	80		65	80		65	80		65	80	65	80	
H OPTIONAL	110			110		110		110			110			110			110		110		

For DIN69871, ANSIB5.50 and BT, dual contact as option



FH

BAH

TA.CP

TA

MOx

HT

4-79

VH

TSI/TSX

T

MT-TC-TC3

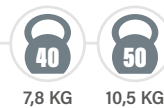


TAV13.P

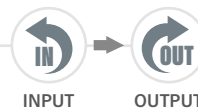
TESTA AD ANGOLO - ANGLE HEAD



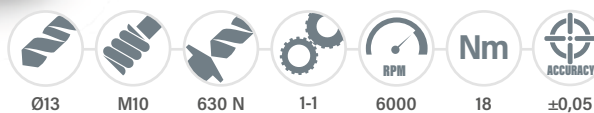
TAV
DIGITAL



PESO
WEIGHT



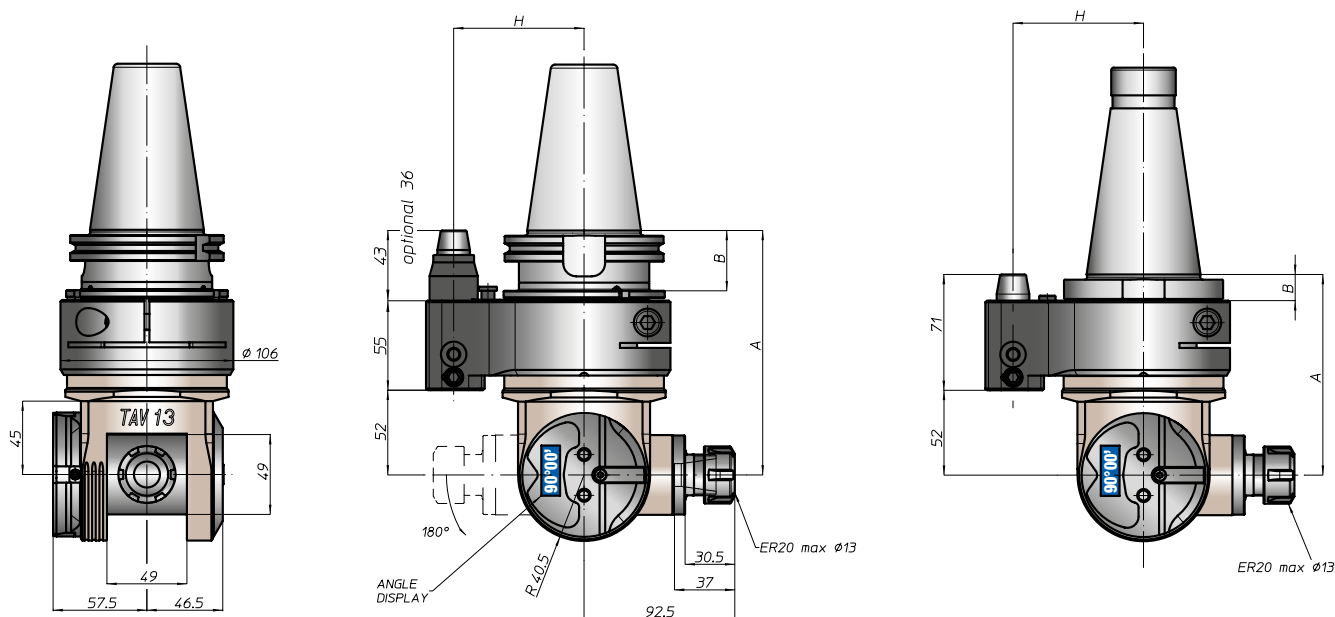
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



DIN69871



ANSIB5.50

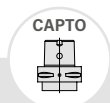


BT



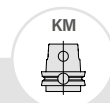
HSK

DIN69893



CAPTO

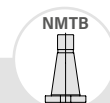
ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

40 45 50

40 50

40 50

63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

150

150

150 158

159

154

150

120 123

120 123

B

35

35

35 45

44 46

39 41

13 16

13 16

H STANDARD

65 80

65 80

65 80

65 80

65 80

65 80

65 80

65 80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option

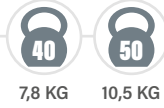




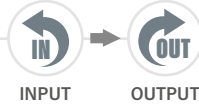
TAV13.PD

TESTA AD ANGOLO - ANGLE HEAD

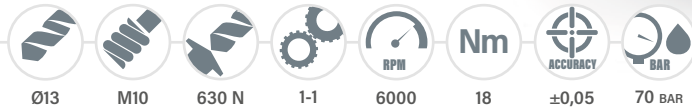
PESO
WEIGHT



ROTAZIONE
ROTATION



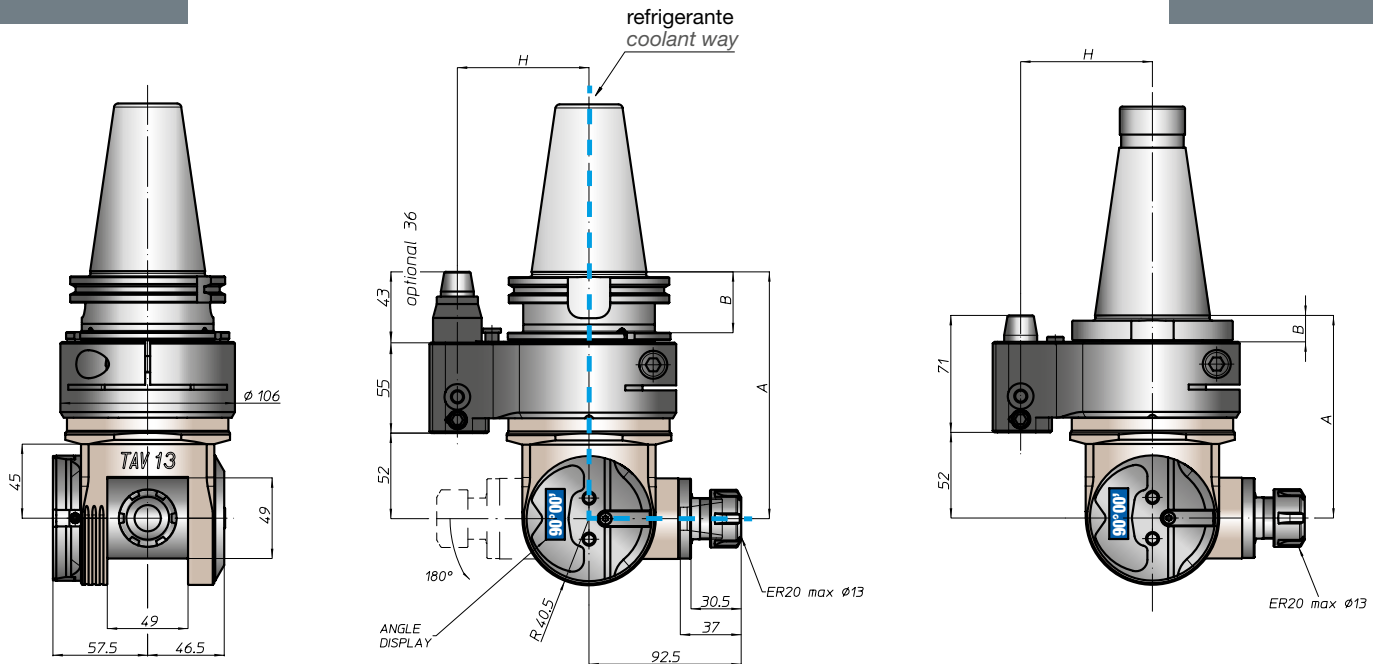
CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



FH
BAH
TA.CP
TA
MOX
HT



4-80

VH
TSI/TSX
T

CONO
SHANK

	DIN69871			ANSIB5.50		BT		DIN69893			CAPTO			KM			DIN2080		ANSIB5.18	
SIZE	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
A	150			150		150	158	159			154			150			120	123	120	123
B	35			35		35	45	44	46		39	41					13	16	13	16
H STANDARD	65	80		65	80	65	80	65	80		65	80	65	80	65	80	65	80	65	80
H OPTIONAL	110			110		110			110			110			110		110			

For DIN69871, ANSIB5.50 and BT, dual contact as option





TAV20.P

TESTA AD ANGOLO - ANGLE HEAD



TAV
DIGITAL



50
22 KG

PESO
WEIGHT



INPUT



OUTPUT

ROTAZIONE
ROTATION



Ø20



M16



1740 N



1-1



4000



60



±0,05

CARATTERISTICHE
FEATURES



ER40
DIN6499-ER



Ø32
PORTAFRESSE
FACE MILL ARBOR



Ø20-Ø25
WEDDON
WHISTLE-NOTCH

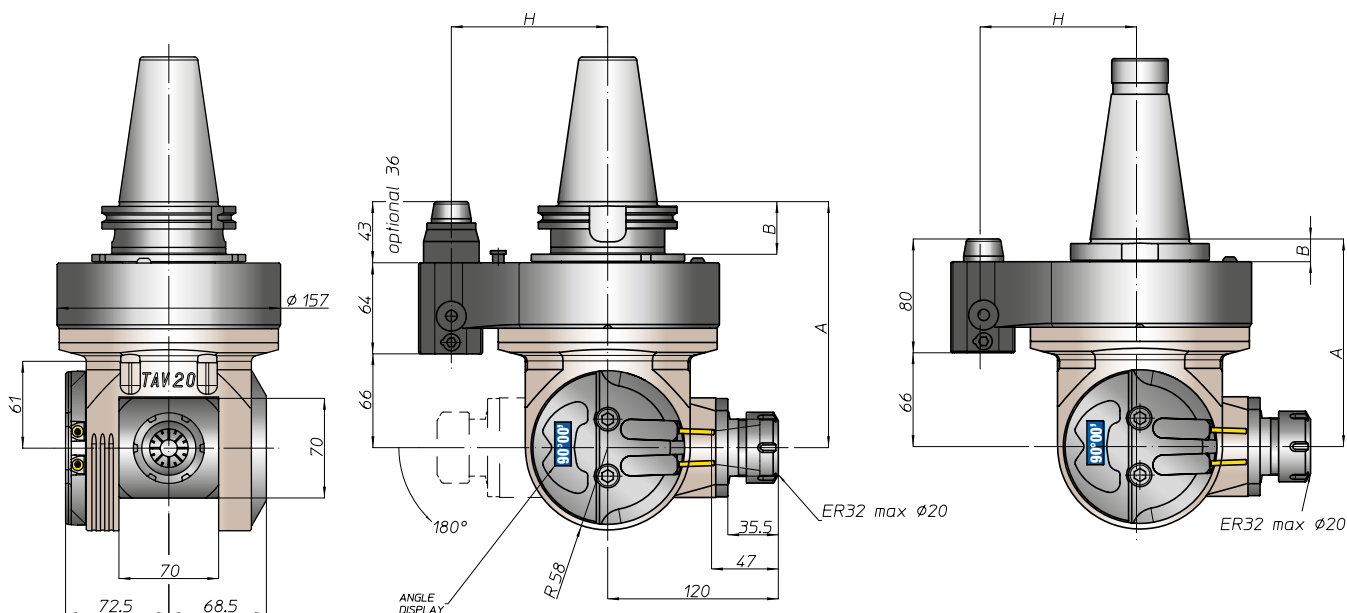


HSK50
DIN69893-HSK



ABS50
LICENZA KOMET®
KOMET LICENCE®

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



DIN69871



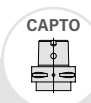
ANSIB5.50



BT

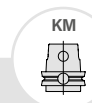


HSK



CAPTO

ISO26623



KM



DIN2080

DIN2080



NMTB

ANSIB5.18

SIZE

50

50

50

80

100

C8

100

50

50

A

173

173

181

182

177

173

149

149

B

35

35

45

46

41

16

16

16

H STANDARD

110

110

110

110

110

110

110

110

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option



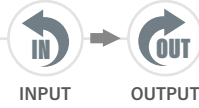
TAV20.PD

TESTA AD ANGOLO - ANGLE HEAD

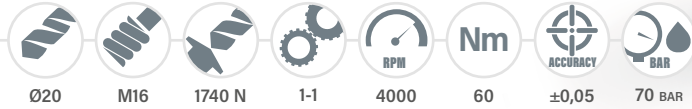
PESO
WEIGHT



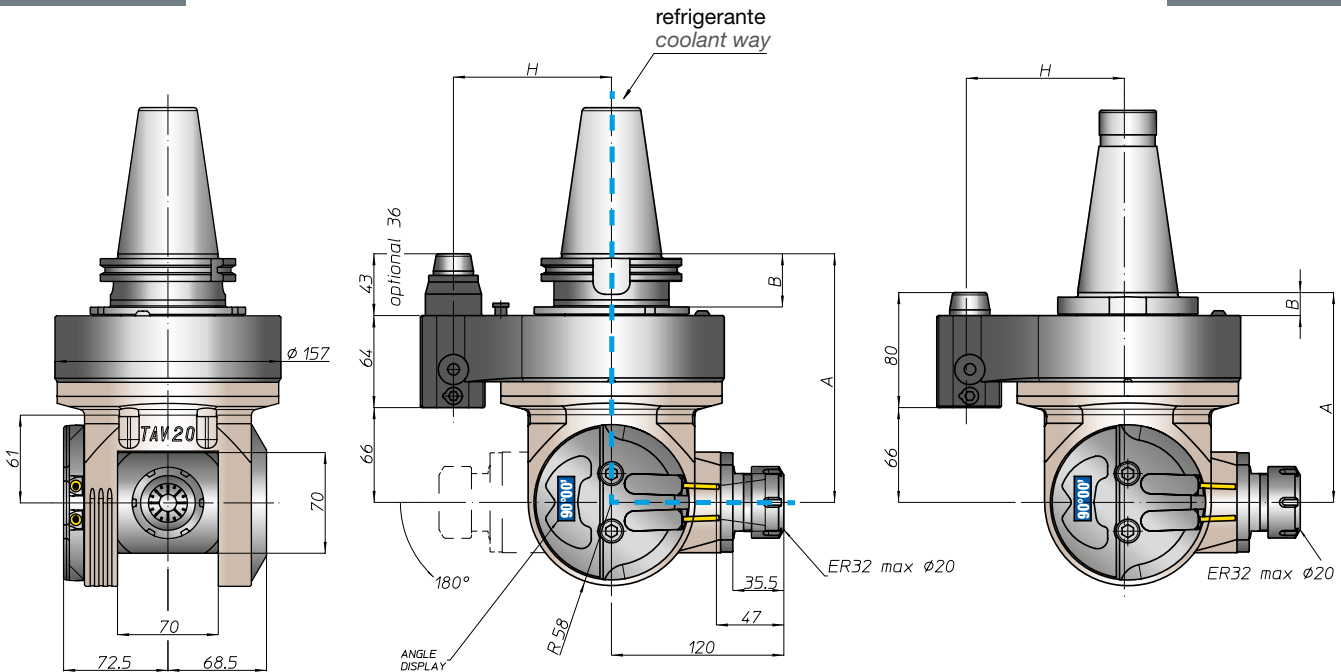
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK

SIZE

A

B

H STANDARD

H OPTIONAL



DIN69871



ANSIB5.50



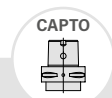
BT

50



HSK

80 | 100



CAPTO

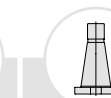
ISO26623

C8



KM

100



DIN2080

DIN2080

50



NMTB

ANSIB5.18

50

173

35

110

173

35

110

181

45

110

182

46

110

177

41

110

173

16

110

149

16

110

149

16

110

For DIN69871, ANSIB5.50 and BT, dual contact as option



TAV40.T

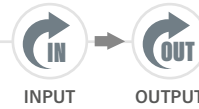
TESTA AD ANGOLO - ANGLE HEAD



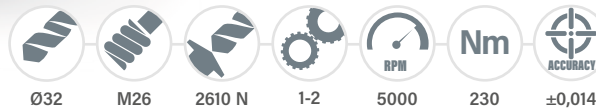
TAV
DIGITAL



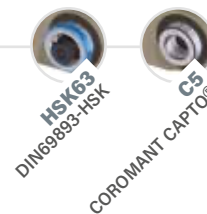
PESO
WEIGHT



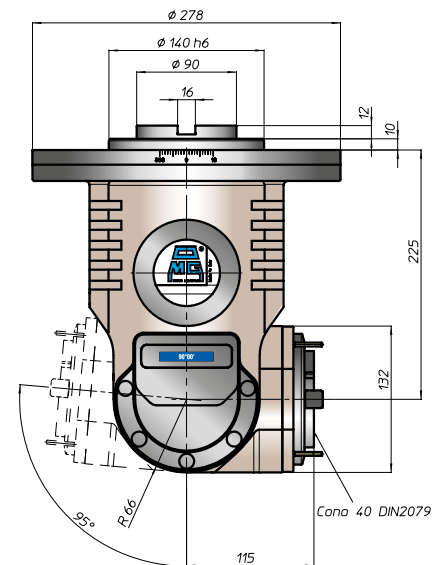
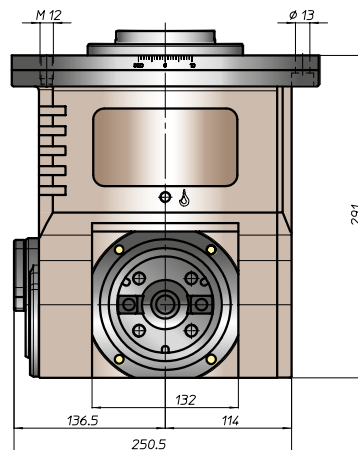
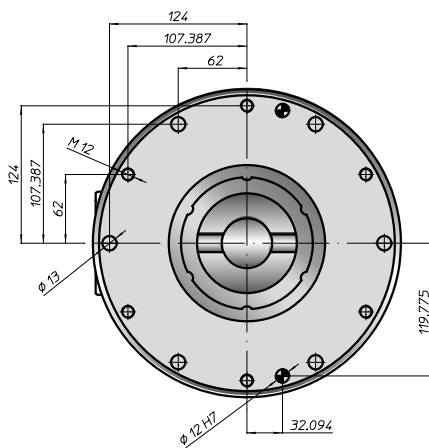
ROTAZIONE
ROTATION



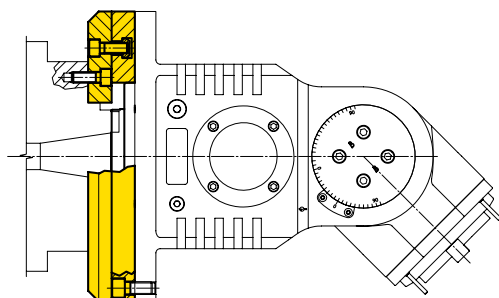
CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



Esempio di collegamento / Connection example



Equipaggiamento standard:

- pressurizzazione mandrino
- n. 4 ugelli orientabili vicino al mandrino
- regolazione angolare mandrino libera
- nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

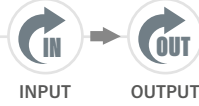
Standard equipment:

*i spindle front pressurization
i nr. 4 adjustable nozzle near the spindle
i free angle spindle adjustment
i on the spindle DIN2079 you can use
shank DIN2080-40, DIN69871-A40,
MAS403-BT40*

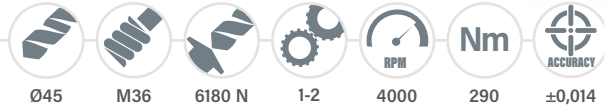
PESO
WEIGHT



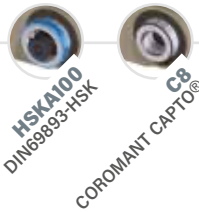
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



TAV50.T

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

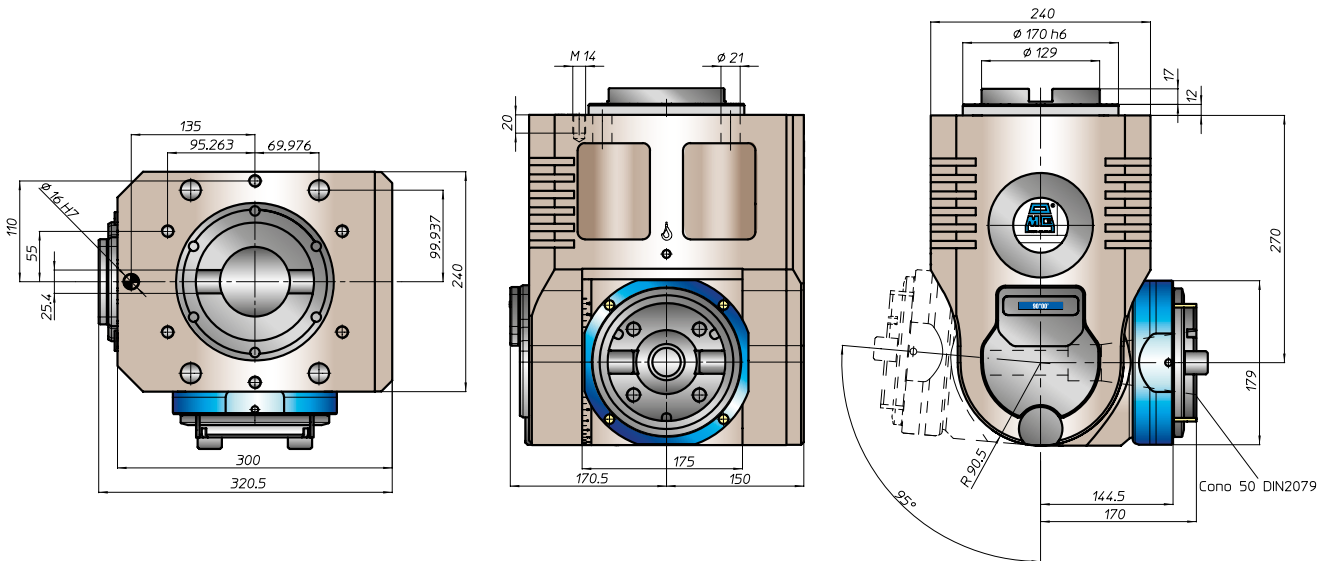
4-84

VH

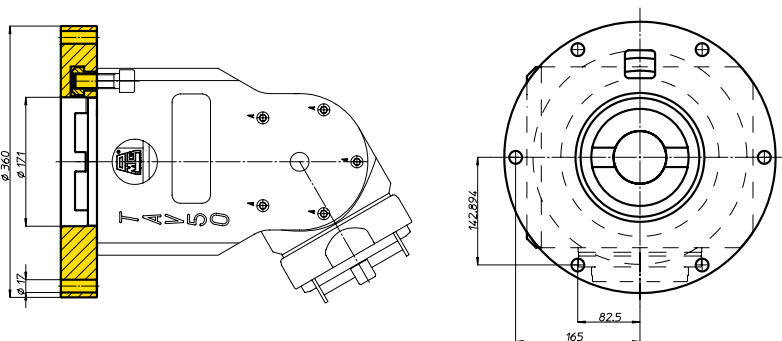
TSI/TSX

T

MT-TC-TC3



Esempio di collegamento / Connection example



Equipaggiamento standard:

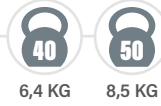
- pressurizzazione mandrino
- n. 4 ugelli orientabili vicino al mandrino
- regolazione angolare mandrino libera o posizionabile ogni 15°
- nel mandrino DIN2079 si possono utilizzare coni DIN69871-A50, MAS403-BT50

Standard equipment:

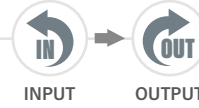
i spindle front pr essurization
i nr. 4 adjustable nozzle near the spindle
i fr ee angle spindle adjustment
 or by pin each 15°
i on the spindle DIN2079 you can use
 shank DIN69871-A50, MAS403-BT50

TAV10.P

TESTA AD ANGOLO - ANGLE HEAD



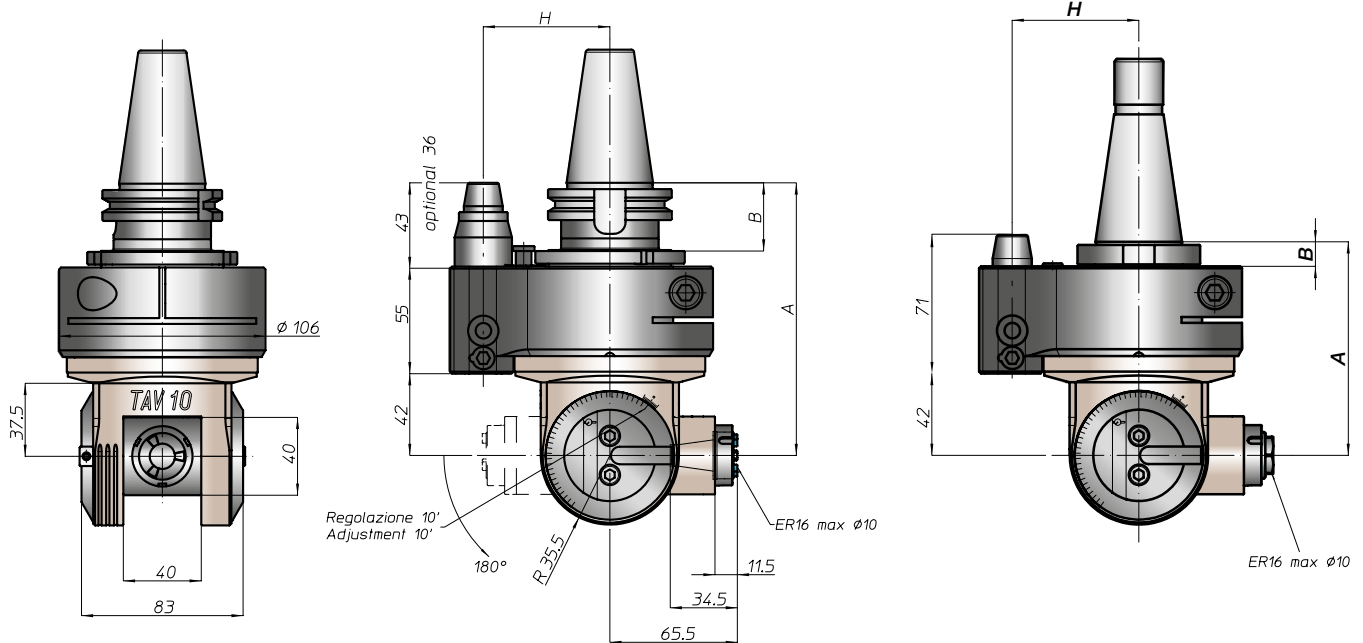
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



CONO
SHANK



DIN69871



ANSIB5.50



BT



DIN69893



ISO26623



KM



DIN2080



ANSIB5.18

SIZE

40

45

50

40

50

40

50

63

80

100

C5

C6

C8

63

80

100

40

50

40

50

A

140

140

140

148

149

144

140

113

116

113

116

B

35

35

35

45

44

46

39

41

13

16

13

16

H STANDARD

65

80

65

80

65

80

65

80

65

80

65

80

65

80

65

80

H OPTIONAL

110

110

110

110

110

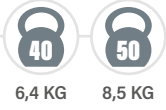
110

110

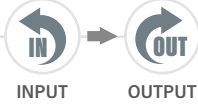
110

For DIN69871, ANSIB5.50 and BT, dual contact as option

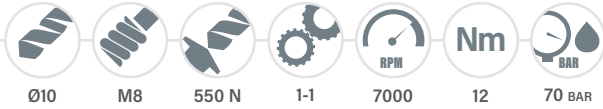
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



TAV10.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

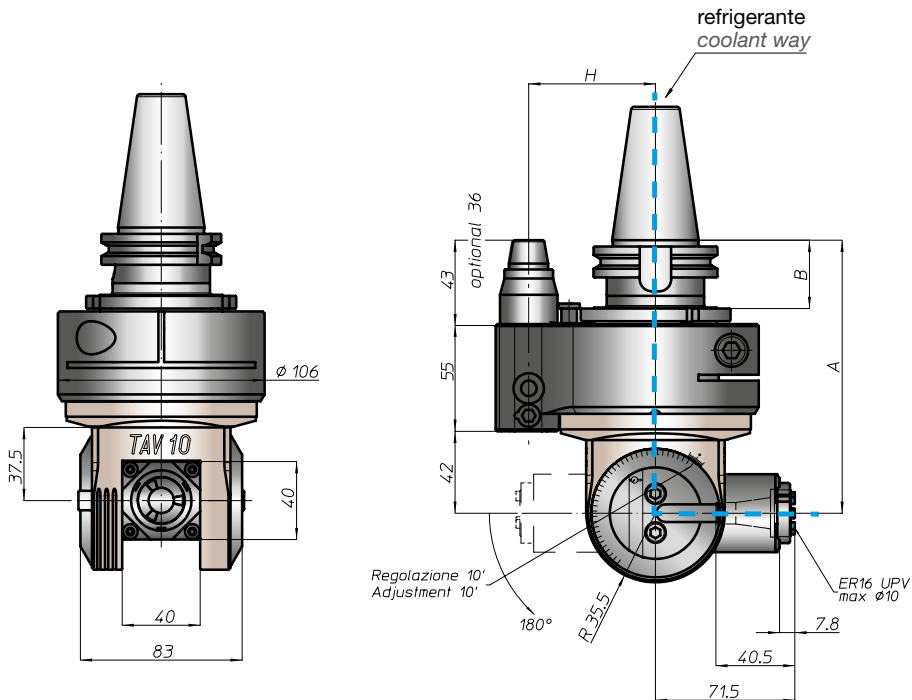
4-86

VH

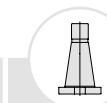
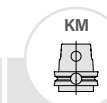
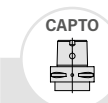
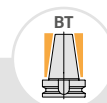
TSI/TSX

T

MT-TC-TC3



CONO
SHANK



SIZE

40 45 50 40 50 40 50 63 80 100 C5 C6 C8 63 80 100

A

140 140 140 148 149 144 140

B

35 35 35 45 44 46 39 41

H STANDARD

65 80 65 80 65 80 65 80 65 80 65 80

H OPTIONAL

110 110 110 110 110 110 110

For DIN69871, ANSIB5.50 and BT, dual contact as option

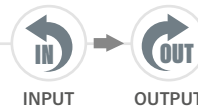


TAV13.P

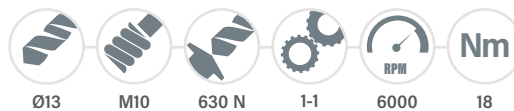
TESTA AD ANGOLO - ANGLE HEAD



PESO
WEIGHT



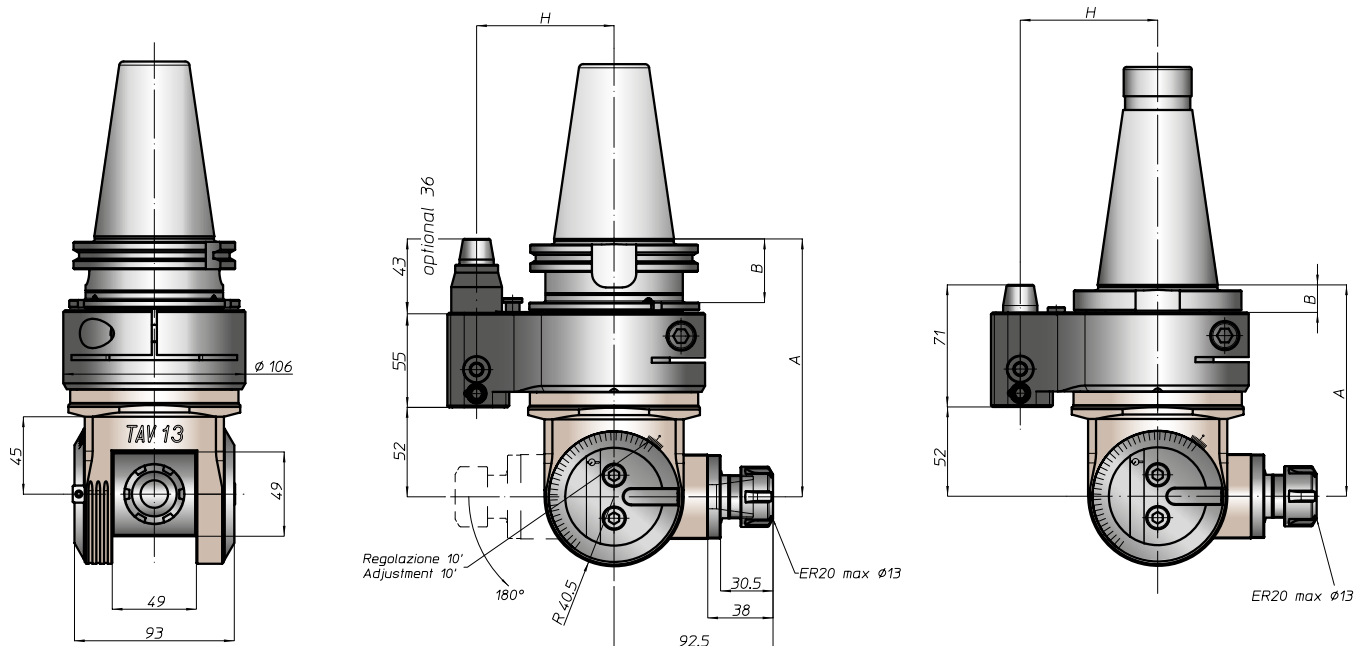
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



DIN69871



ANSIB5.50



BT



HSK

DIN69893



CAPTO

ISO26623



KM

63 80 100



DIN2080

40 50



ANSIB5.18

40 50

SIZE

40 45 50

40 50

40 50

63 80 100

C5 C6 C8

63 80 100

40 50

40 50

A

150

150

150 158

159

154

150

120 123

120 123

B

35

35

35 45

44 46

39 41

13 16

13 16

H STANDARD

65 80

65 80

65 80

65 80

65 80

65 80

65 80

65 80

H OPTIONAL

110

110

110

110

110

110

110

110

For DIN69871, ANSIB5.50 and BT, dual contact as option

TAV13.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

4-88

VH

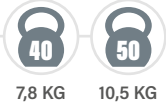
TSI/TSX

T

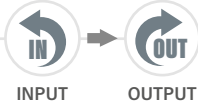
MT-TC-TC3



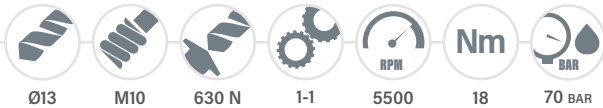
PESO
WEIGHT



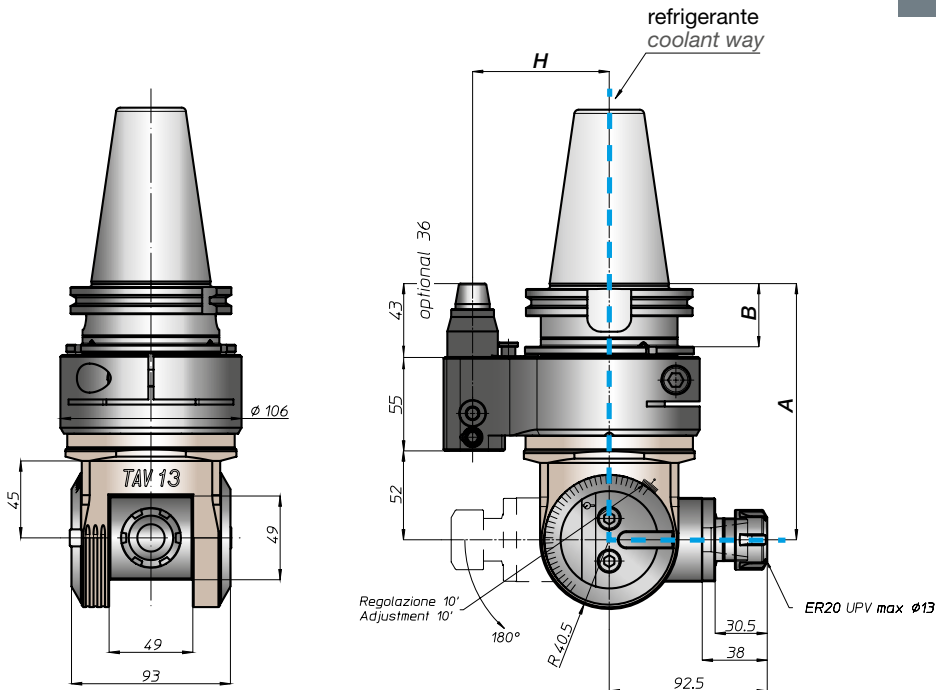
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK

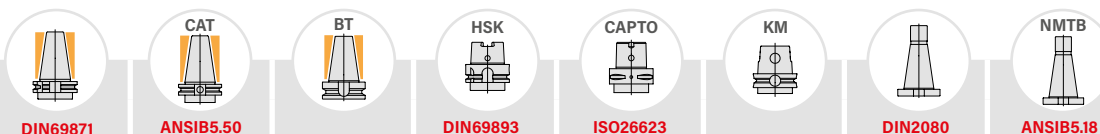
SIZE

A

B

H STANDARD

H OPTIONAL



	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	
A	150			150		150	158	159			154			150			120	
B	35			35		35	45	44	46		39	41					13	
H STANDARD	65	80		65	80	65	80	65	80		65	80	65	80			65	
H OPTIONAL	110			110		110		110			110			110				

For DIN69871, ANSIB5.50 and BT, dual contact as option

FH

BAH

TA.CP

TA

MOX

HT

4-89

VH

TSI/TSX

T

MT-TC-TC3



TAV20.P

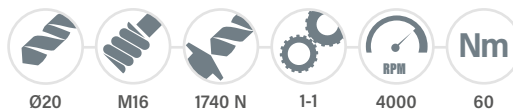
TESTA AD ANGOLO - ANGLE HEAD



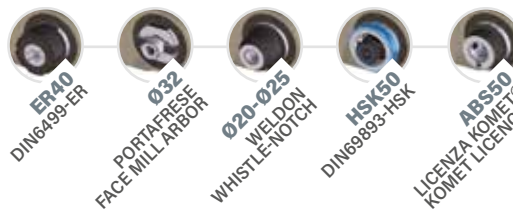
PESO
WEIGHT



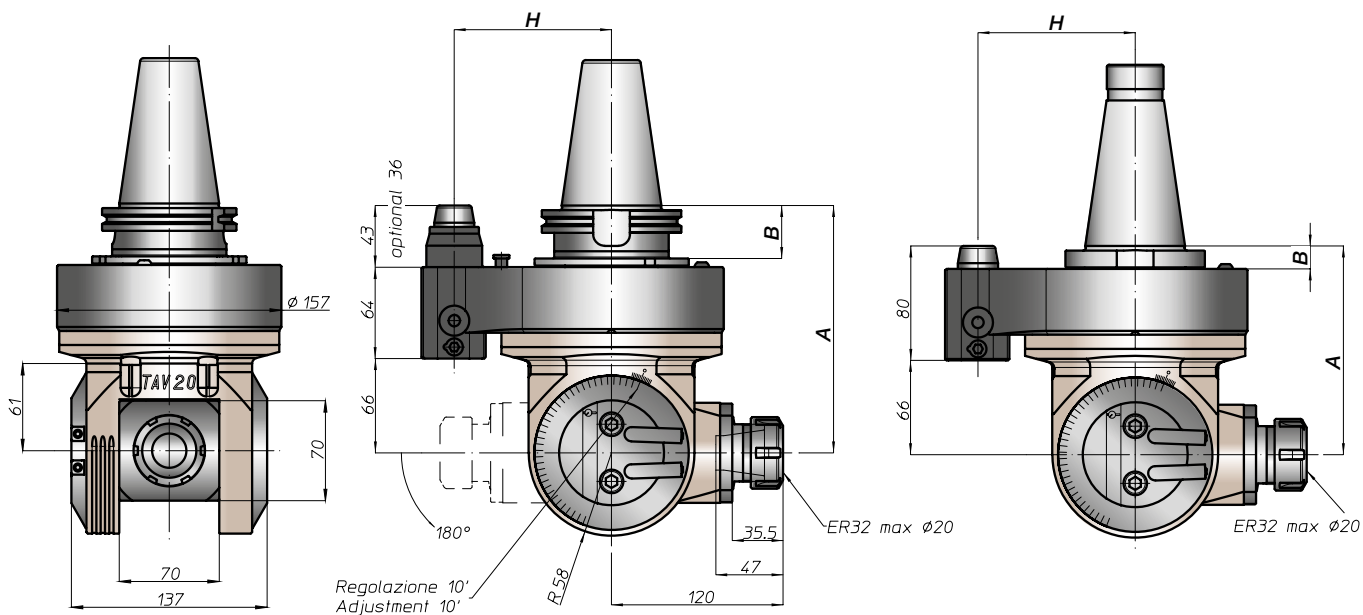
ROTAZIONE
ROTATION



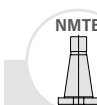
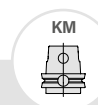
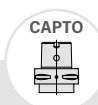
CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



SIZE

50

50

50

80

100

C8

100

50

50

A

173

173

181

182

177

173

149

149

B

35

35

45

46

41

16

16

16

H STANDARD

110

110

110

110

110

110

110

110

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option

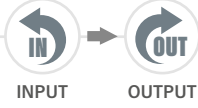


PESO
WEIGHT



22 KG

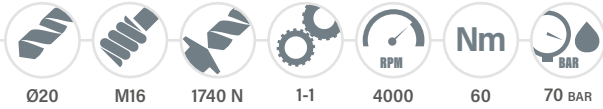
ROTAZIONE
ROTATION



INPUT

OUTPUT

CARATTERISTICHE
FEATURES



Ø20

M16

1740 N

1-1

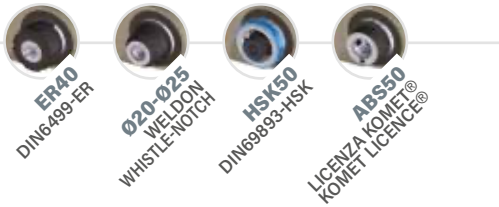
4000

Nm

60

70 BAR

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



ER40
DIN6499-ER

Ø20-Ø25
WELDON
WHISTLE-NOTCH

HSK50
DIN69893-HSK

ABS50
LICENZA KOMET®
KOMET LICENCE®



TAV 20.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

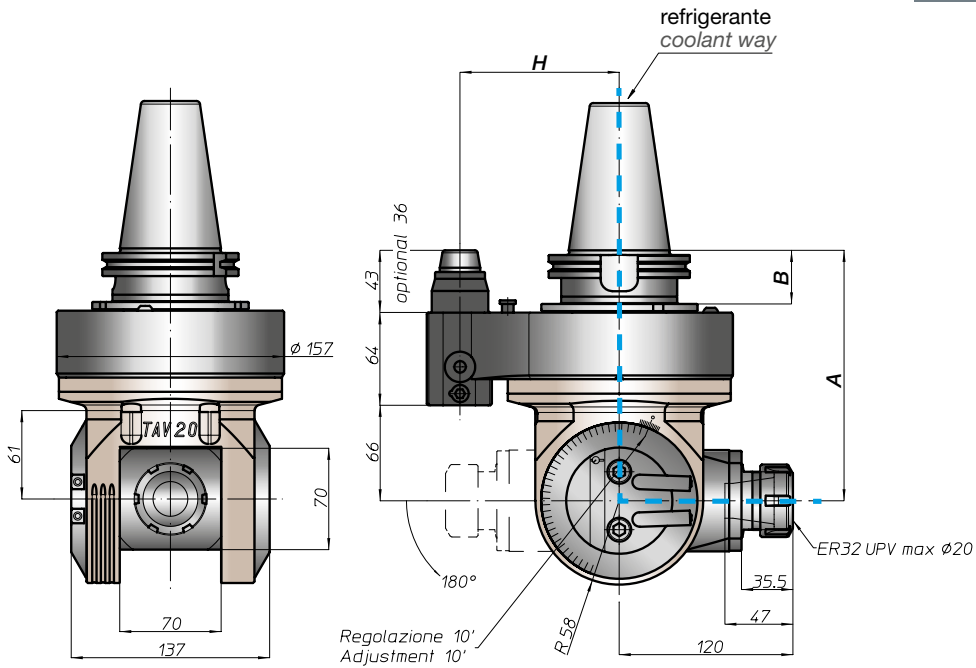
4-90

VH

TSI/TSX

T

MT-TC-TC3



CONO
SHANK



DIN69871



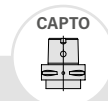
ANSIB5.50



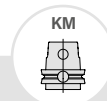
BT



HSK



ISO26623



KM



DIN2080



ANSIB5.18

SIZE

50

50

50

80

100

C8

100

A

173

173

181

182

177

173

B

35

35

45

46

41

H STANDARD

110

110

110

110

110

110

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option

TAV30.P

TESTA AD ANGOLO - ANGLE HEAD



50
42 KG

PESO
WEIGHT

IN → **OUT**
INPUT OUTPUT

ROTAZIONE
ROTATION

Nm
130

Ø30 M24 2740 N 1-1 2500

CARATTERISTICHE
FEATURES

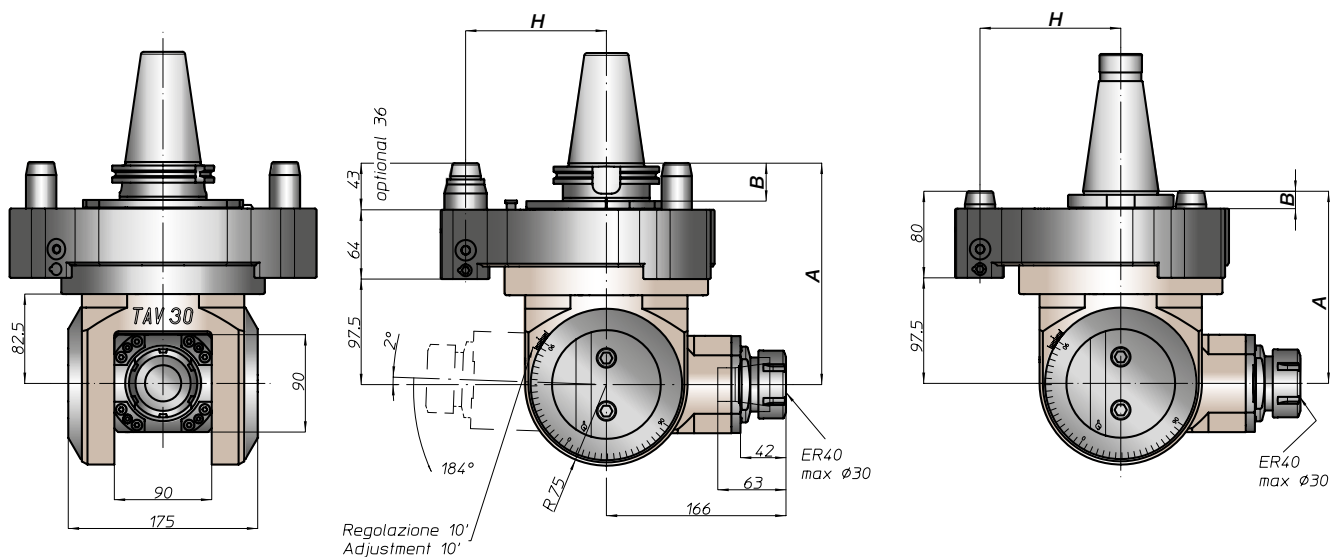
ER50
DIN6499-ER

Ø32-Ø40
PORTAFRESE
FACE MILL ARBOR

HSK63
DIN69893-HSK

ABS63
LICENZA KOMET®
KOMET LICENCE®

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



CONO
SHANK



DIN69871



ANSIB5.50



BT



HSK



CAPTO

ISO26623



KM



DIN2080

DIN2080



ANSIB5.18

ANSIB5.18

SIZE

50

50

50

100

C8

100

50

50

A

204,5

204,5

212,5

213,5

208,5

204,5

177,5

177,5

B

35

35

45

46

41

16

16

16

H STANDARD

130

130

130

130

130

130

130

130

H OPTIONAL

For DIN69871, ANSIB5.50 and BT, dual contact as option

TAV40.T

TESTA AD ANGOLO - ANGLE HEAD

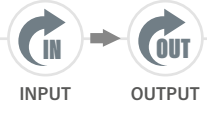


PESO
WEIGHT



70 KG

ROTAZIONE
ROTATION



INPUT

OUTPUT

CARATTERISTICHE
FEATURES



Ø32

M26

2610 N

1-2

5000
OUTPUT

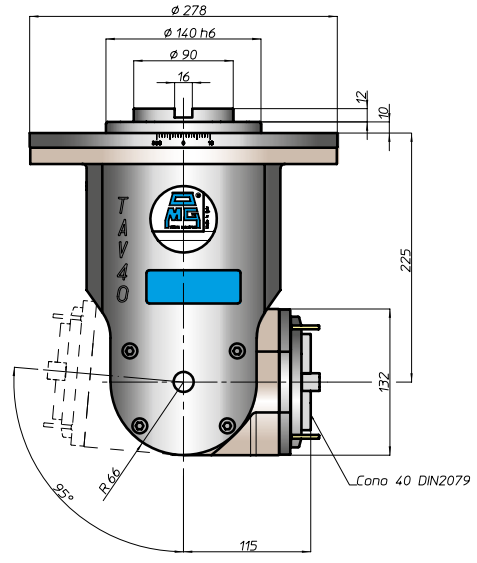
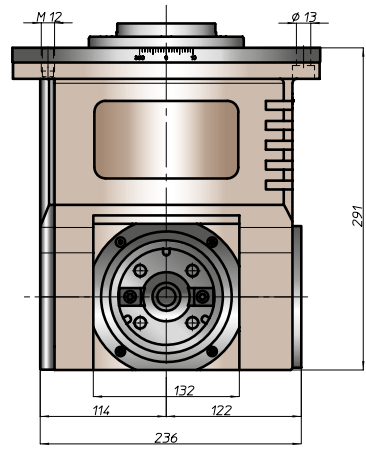
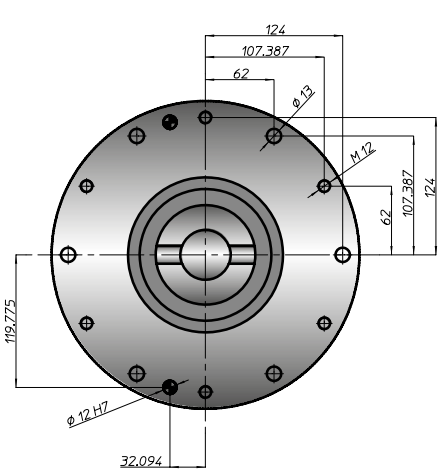
Nm

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES

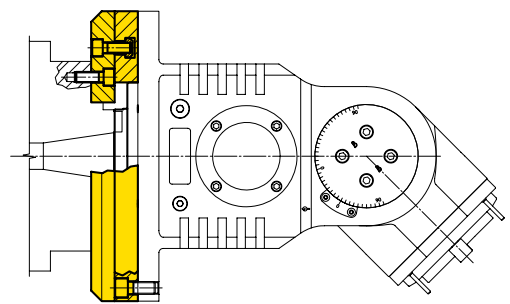


HSK63
DIN69893-HSK

C5
COROMANT CAPTO®



Esempio di collegamento / Connection example



Equipaggiamento standard:

- pressurizzazione mandrino
- n. 4 ugelli orientabili vicino al mandrino
- regolazione angolare mandrino libera
- nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Standard equipment:

- spindle front pressurization
- nr. 4 adjustable nozzle near the spindle
- free angle spindle adjustment
- on the spindle DIN2079 you can use shank DIN2080-40, DIN69871-A40, MAS403-BT40





TAV50.T

TESTA AD ANGOLO - ANGLE HEAD



145 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø45



M36



6180 N



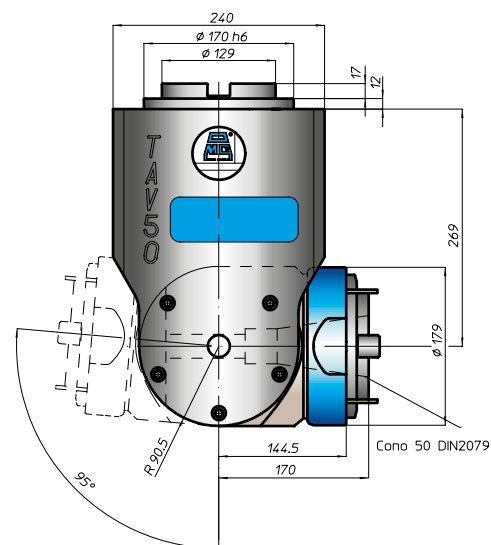
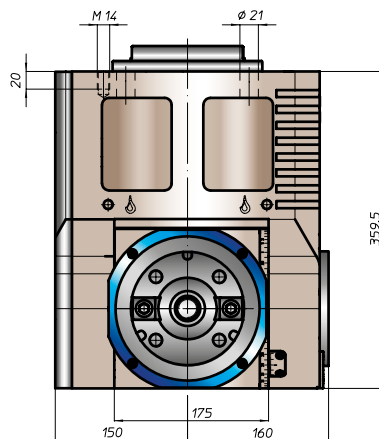
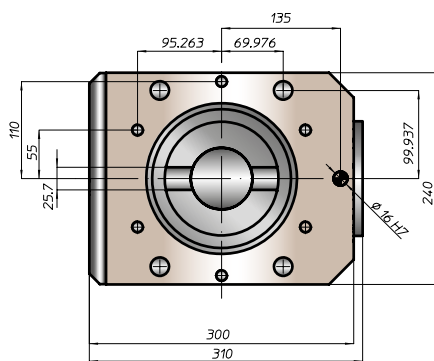
1-2

4000
OUTPUT

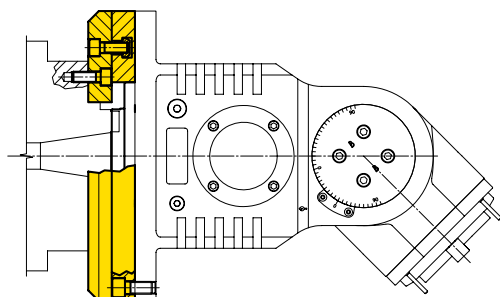
290

CARATTERISTICHE
FEATURESHSK A100
DIN69893-HSK

COROMANT CAPTO®

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES

Esempio di collegamento / Connection example



Equipaggiamento standard:

- pressurizzazione mandrino
- n. 4 ugelli orientabili vicino al mandrino
- regolazione angolare mandrino libera o posizionabile ogni 15°
- nel mandrino DIN2079 si possono utilizzare coni DIN69871-A50, MAS403-BT50

Standard equipment:

- spindle front pressurization
- nr. 4 adjustable nozzle near the spindle
- free angle spindle adjustment or by pin each 15°
- on the spindle DIN2079 you can use shank DIN69871-A50, MAS403-BT50



TAV

GALLERY



MT-TC-TC3

T

TSI/TSX

VH

4-94

HT

MOX

TA

TA-CP

BAH

FH

FH

BAH

TA.CP

TA

MOx

HT

4-95

VH

TSI/TSX

T

MT-TC-TC3

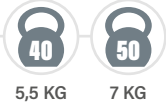


TAF

GALLERY

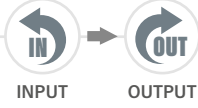


PESO
WEIGHT



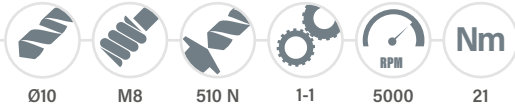
5,5 KG 7 KG

ROTAZIONE
ROTATION



INPUT OUTPUT

CARATTERISTICHE
FEATURES



Ø10 M8 510 N 1-1 5000 21



TAFE10.P

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

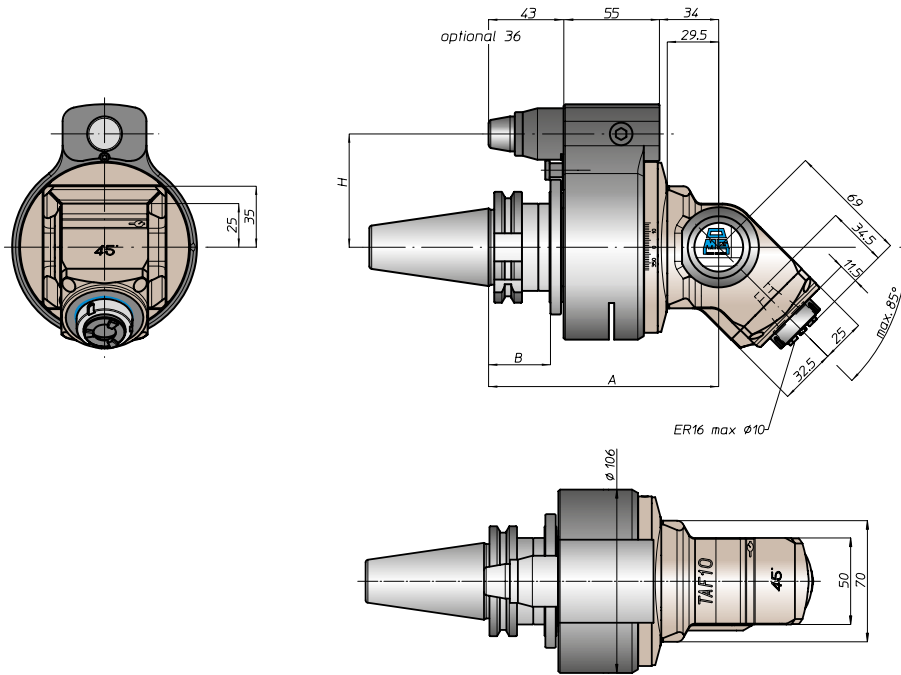
4-96

VH

TSI/TSX

T

MT-TC-TC3



CONO
SHANK



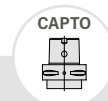
DIN69871



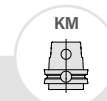
ANSIB5.50



DIN69893



ISO26623



DIN2080



ANSIB5.18

SIZE

30 40 45 50 40 50 40 50 63 80 100 C5 C6 C8 63 80 100

A

132 132 132 140 141 136 132

B

35 35 35 45 44 46 39 41

H STANDARD

65 80 65 80 65 80 65 80 65 80 65 80

H OPTIONAL

110 110 110 110 110 110 110



TAF13.P

TESTA AD ANGOLO - ANGLE HEAD



6,5 KG



8,5 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø13



M10



900 N



1-1



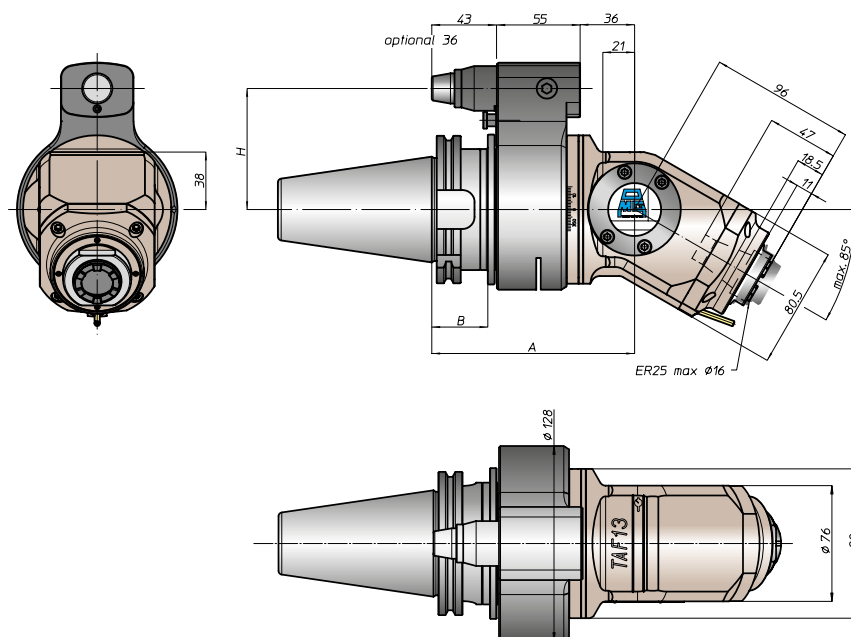
4000



35

CARATTERISTICHE
FEATURES

HSK32
DIN69893-HSK

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



ANSIB5.50



40 50



DIN69893

63 80 100



ISO26623

C5 C6 C8



63 80 100



DIN2080



ANSIB5.18

SIZE

40 45 50

40 50

40 50

63 80 100

C5 C6 C8

63 80 100

A

134

134

134

142

143

138

134

B

35

35

35

45

44

46

39

41

H STANDARD

65

80

65

80

65

80

65

80

65

80

65

80

H OPTIONAL

110

110

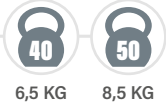
110

110

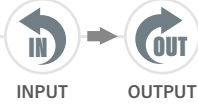
110

110

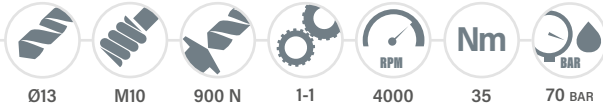
PESO
WEIGHT



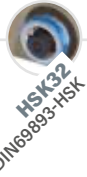
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



TAFE13.PD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

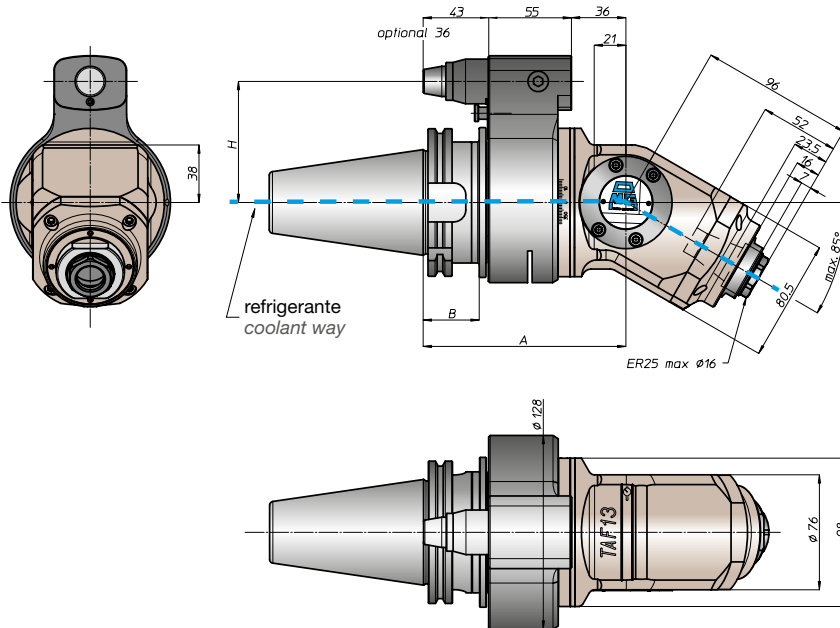
4-98

VH

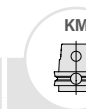
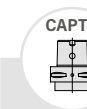
TSI/TSX

T

MT-TC-TC3



CONO
SHANK



SIZE

40 45 50 40 50 40 50 63 80 100 C5 C6 C8 63 80 100

A

134 134 134 142 143 138 134

B

35 35 35 45 44 46 39 41

H STANDARD

65 80 65 80 65 80 65 80 65 80 65 80

H OPTIONAL

110 110 110 110 110 110 110

FH

BAH

TA.CP

TA

MOX

HT

4-99

VH

TSI/TSX

T

MT-TC-TC3



TAF20.P

TESTA AD ANGOLO - ANGLE HEAD



50

13,5 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø20



M26



1610 N



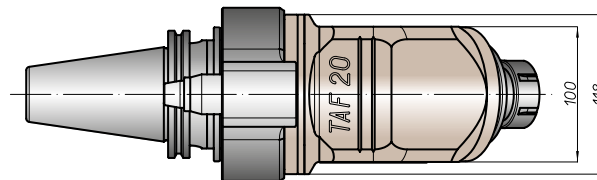
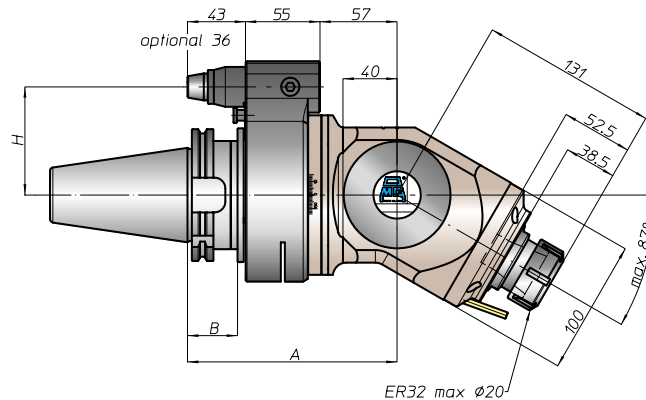
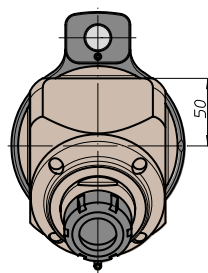
1-1



3000



79

CARATTERISTICHE
FEATURESER40
DIN6499-ERØ32
PORTAFRESSE
FACE MILL ARBORØ20
WELDON
WHISTLE-NOTCHHSK50
DIN69893-HSKABS50
LICENZA KOMET®
KOMET LICENCE®MANDRINI
DISPONIBILI
AVAILABLE
SPINDLESCONO
SHANK

DIN69871



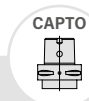
ANSIB5.50



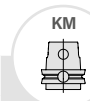
BT



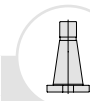
DIN69893



ISO26623



80 | 100



DIN2080



ANSIB5.18

SIZE

45

50

50

50

80

100

C6

C8

80

100

A

155

155

163

164

159

155

B

35

35

45

46

41

H STANDARD

80

80

80

80

80

80

H OPTIONAL

110

110

110

110

110

110

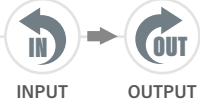


PESO
WEIGHT



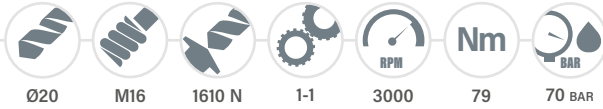
13,5 KG

ROTAZIONE
ROTATION



INPUT OUTPUT

CARATTERISTICHE
FEATURES



Ø20 M16 1610 N 1-1 3000 79 70 BAR

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



ER40
DIN6499-ER

Ø20
WELDON
WHISTLE-NOTCH

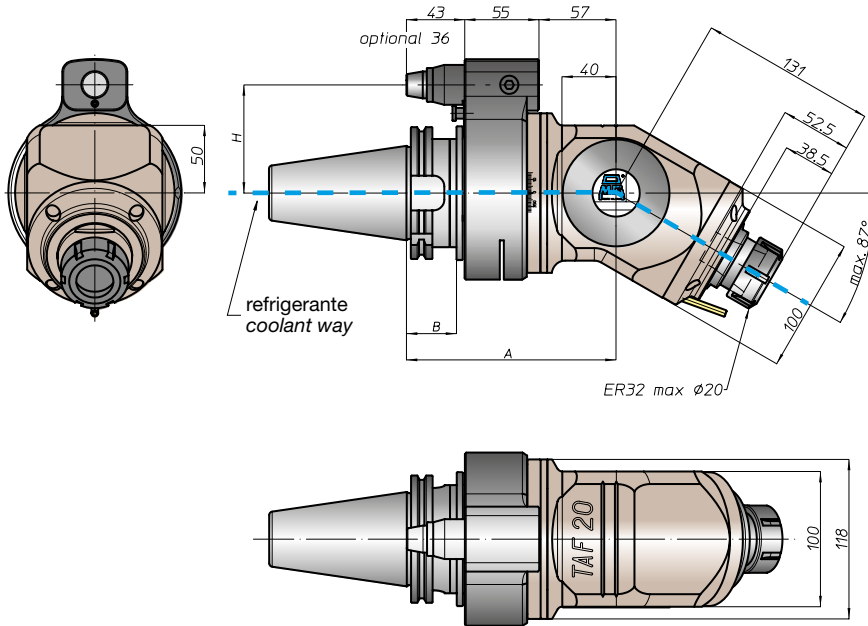
HSK50
DIN69893-HSK

ABS50
LICENZA KOMET®
KOMET LICENCES®



TAF20.PD

TESTA AD ANGOLO - ANGLE HEAD



CONO
SHANK



DIN9871



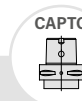
ANSIB5.50



BT

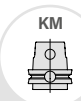


DIN9893



CAPTO

ISO26623



KM



DIN2080



NMTB

ANSIB5.18

SIZE

45 50 50 50 80 100 C6 C8 80 100

A

155 155 163 164 159 155

B

35 35 45 46 41

H STANDARD

80 80 80 80 80 80

H OPTIONAL

110 110 110 110 110 110

4-100

VH

TSI/TSX

T

MT-TC-TC3



FH

BAH

TA.CP

TA

MOX

HT



TA07PT

TESTA AD ANGOLO - ANGLE HEAD

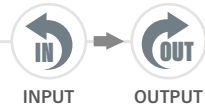


HEAD EXTENSION

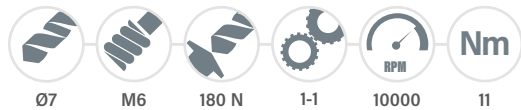


1,5 KG L 100=2,2 KG
L 200=3,6 KG

PESO
WEIGHT



ROTAZIONE
ROTATION

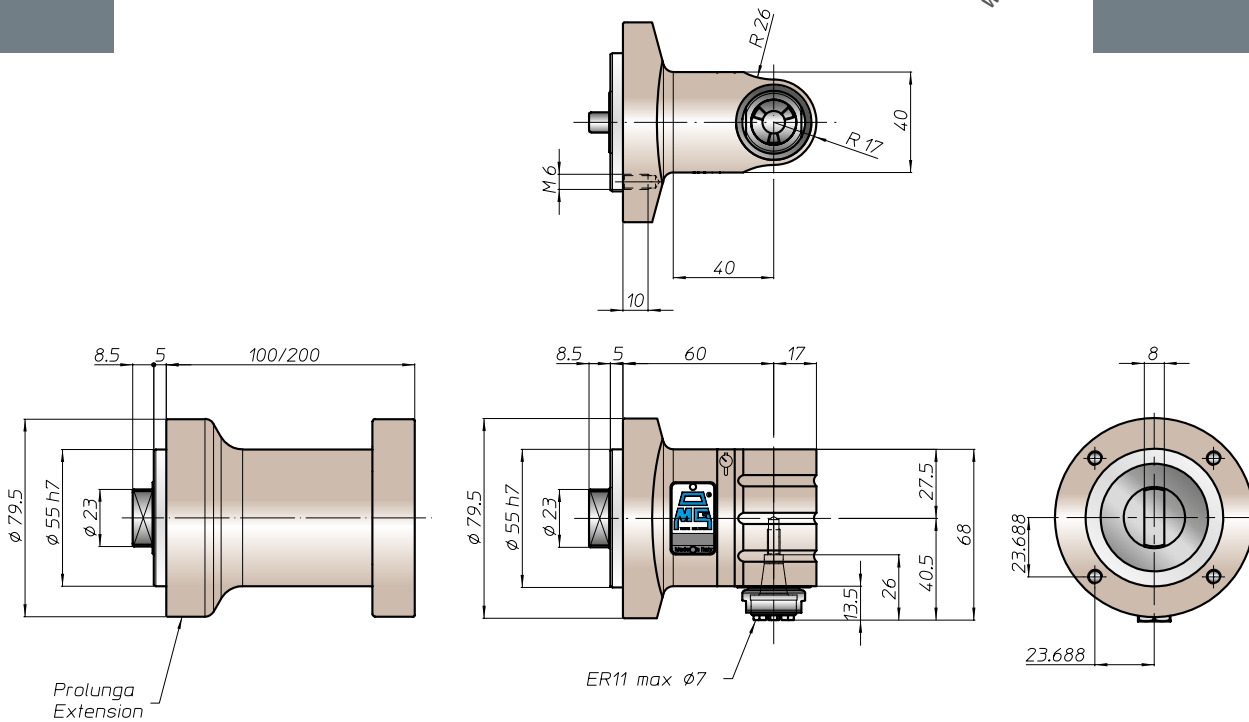


CARATTERISTICHE
FEATURES

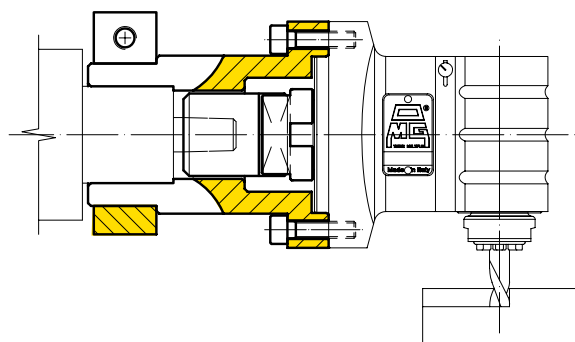


Ø8-Ø10
WELDON
WHISTLE-NOTCH

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



Esempio di collegamento / Connection example



TA10PT

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

4-102

VH

TSI/TSX

T

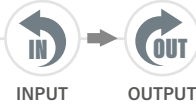
MT-TC-TC3



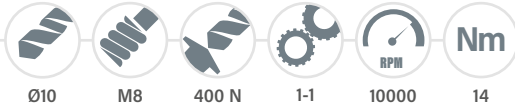
PESO
WEIGHT



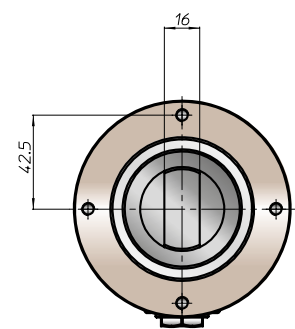
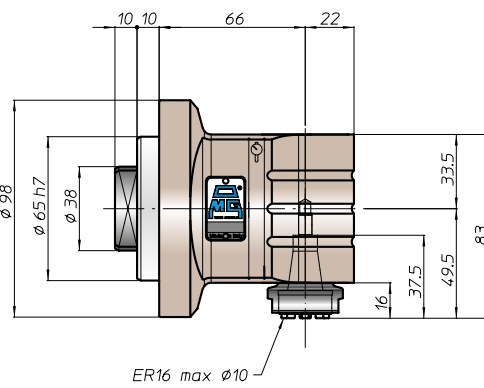
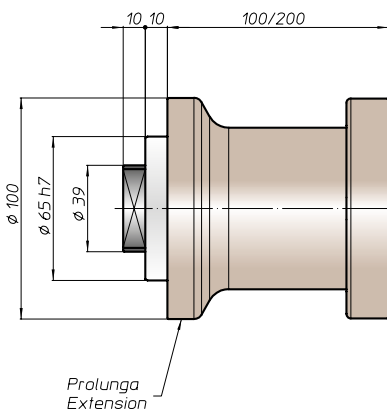
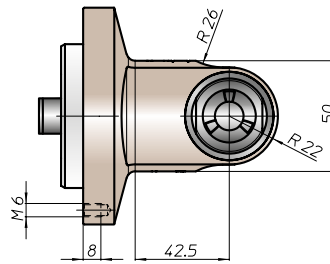
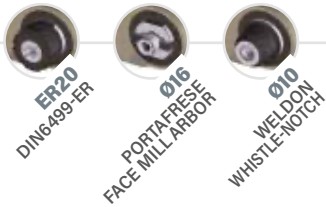
ROTAZIONE
ROTATION



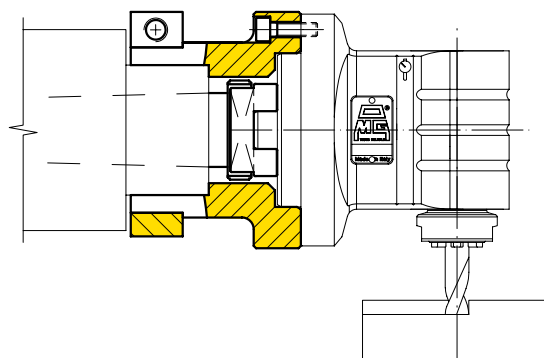
CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



Esempio di collegamento / Connection example





TA13PT

TESTA AD ANGOLO - ANGLE HEAD



3,5 KG

PESO
WEIGHT



INPUT



OUTPUT

ROTAZIONE
ROTATION



Ø13



M10



810 N



1-1



8000



38

CARATTERISTICHE
FEATURES



ER25
DING-A99-ER

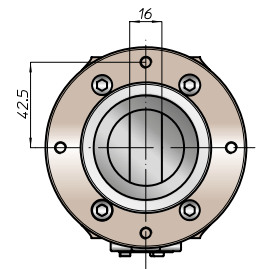
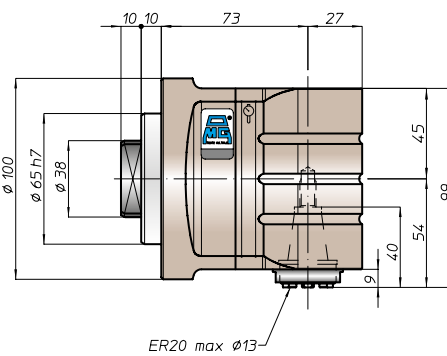
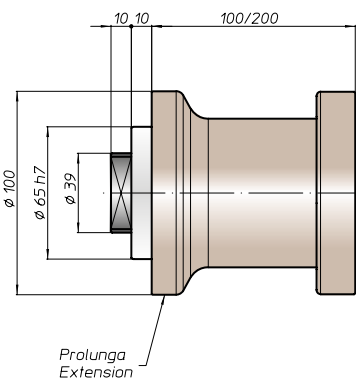
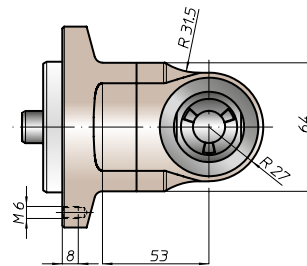


Ø16-Ø22
PORTA FRESIE
FACE MILL ARBOR

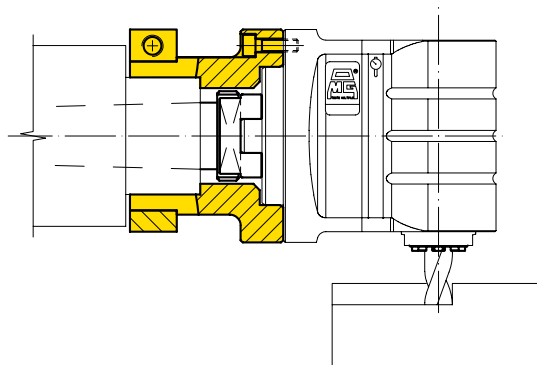


Ø16
WELDON
WHISTLE-NOTCH

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



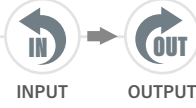
Esempio di collegamento / Connection example



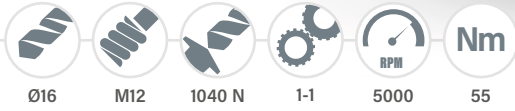
PESO
WEIGHT



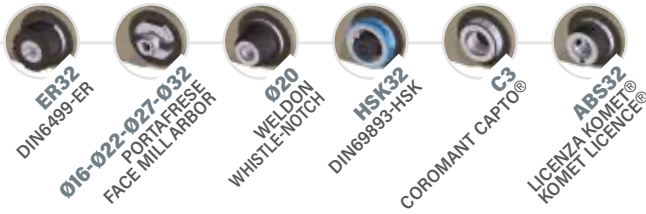
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



TA16PT

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

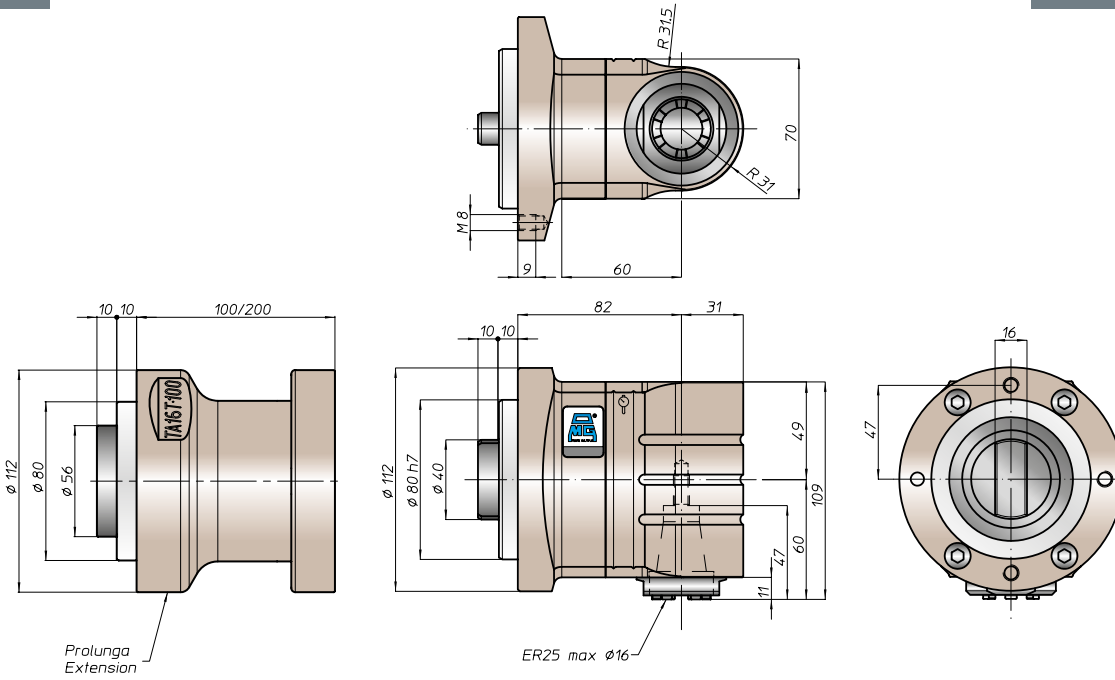
4-104

VH

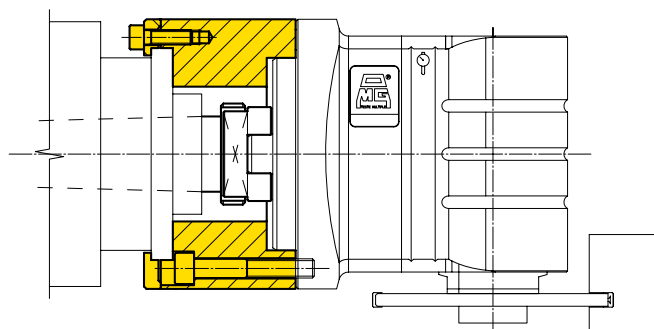
TSI/TSX

T

MT-TC-TC3



Esempio di collegamento / Connection example





TA20.PT

TESTA AD ANGOLO - ANGLE HEAD



HEAD EXTENSION



7,5 KG

L 100=7,5 KG
L 200=15 KGPESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø20



M14



1460 N



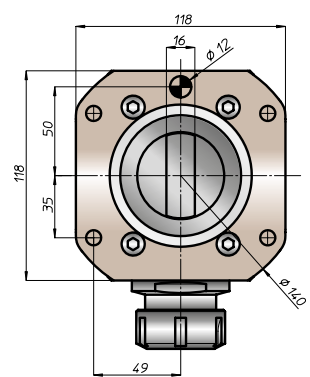
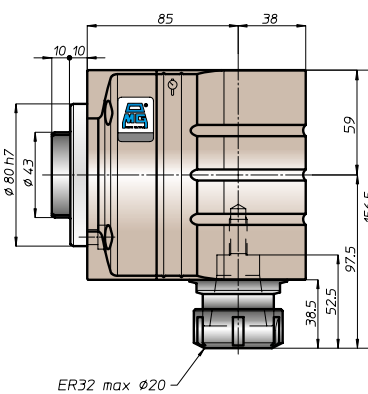
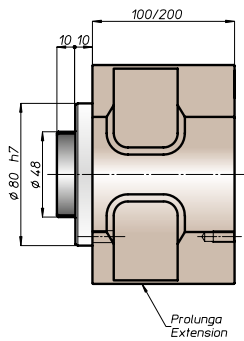
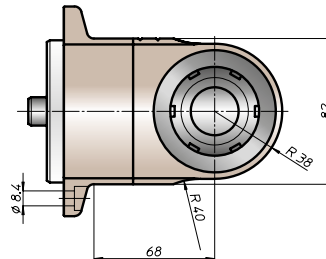
1-1



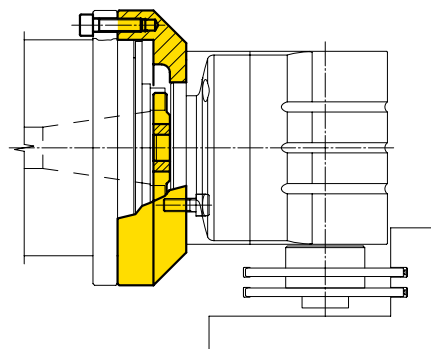
3500



90

CARATTERISTICHE
FEATURESER40
DIN6499-ERØ22-Ø27-Ø32
PORTAFRESE
FACE MILL ARBORØ20-Ø25
WELDON
WHISTLE-NOTCHHSK40
DIN69893-HSKC4
COROMANT CAPTO®ABS40
LICENZA KOMET®
KOMET LICENCE®MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES

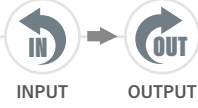
Esempio di collegamento / Connection example



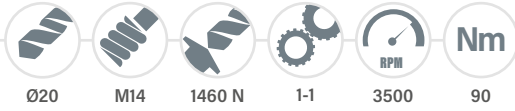
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



TA20-30.T

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

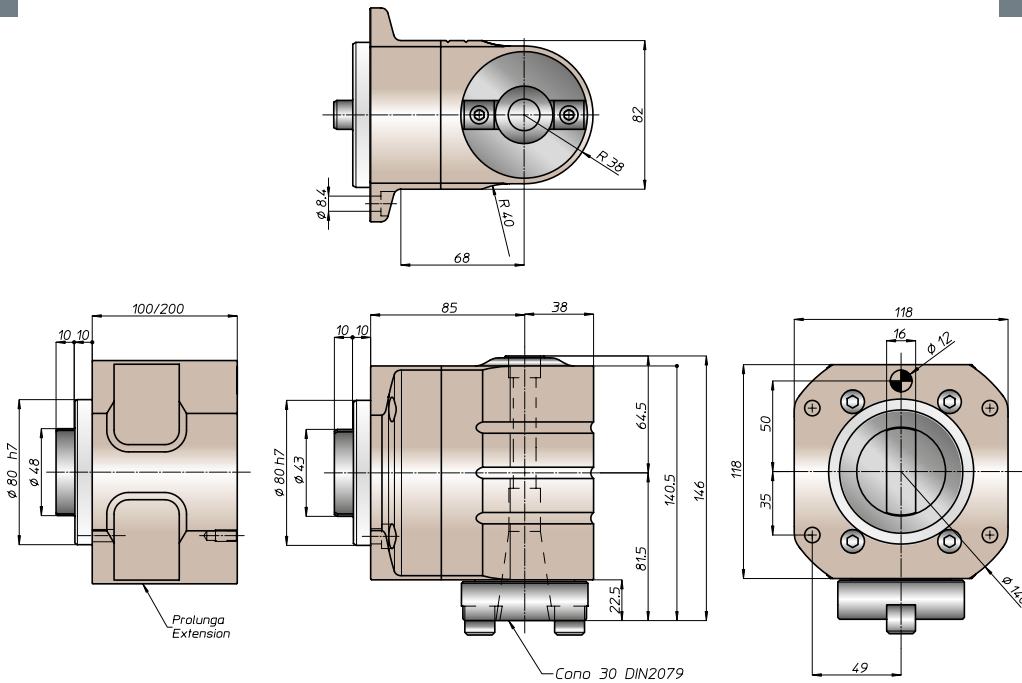
4-106

VH

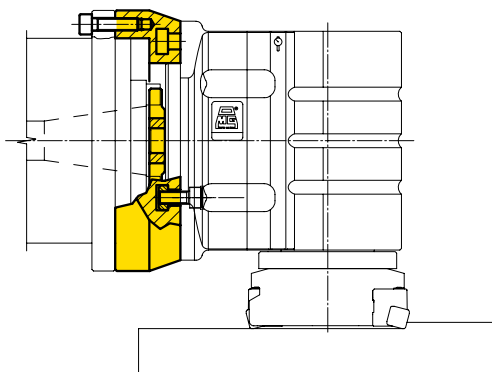
TSI/TSX

T

MT-TC-TC3



Esempio di collegamento / Connection example



Nota

nel mandrino DIN2079 si possono utilizzare coni DIN2080-30, DIN69871-A30, MAS403-BT30

Nota

on the spindle DIN2079 you can use shank DIN2080-30, DIN69871-A30, MAS403-BT30



TA26.PT

TESTA AD ANGOLO - ANGLE HEAD



HEAD EXTENSION

KG **KG**

13,5 KG L 100=12,5 KG
L 200=24 KG

PESO
WEIGHT

IN **OUT**

INPUT OUTPUT

ROTAZIONE
ROTATION

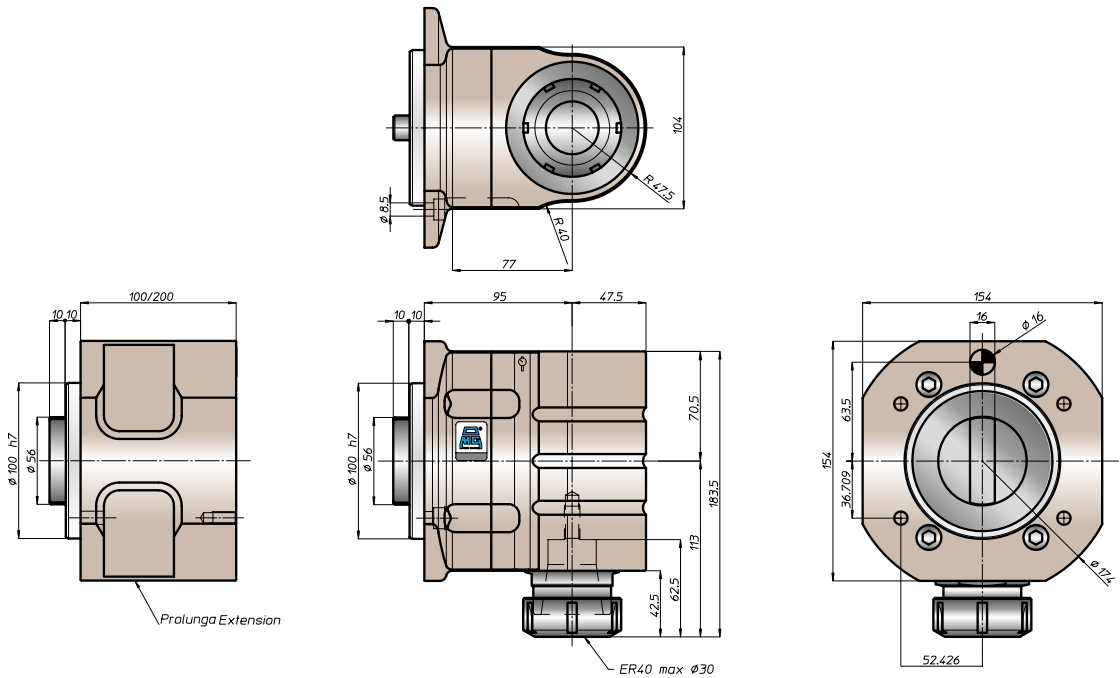
Nm

Ø26 M20 3020 N 1-1 2500 165

CARATTERISTICHE
FEATURES

Ø16-Ø27-Ø32 PORTA-PRESSE FACE-MILL-ARBOR
Ø32 WELDON WHISTLE-NOTCH
HskK63 DIN69893-HSK
C4 COROMANT CAPTO®
ABS50 LICENZA KOMET® KOMET LICENCE®

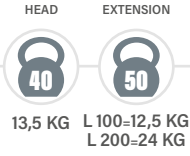
MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



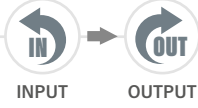
Esempio di collegamento / Connection example



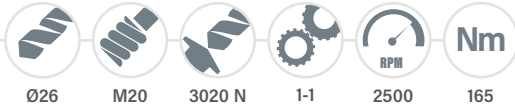
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



TA26.40.T

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

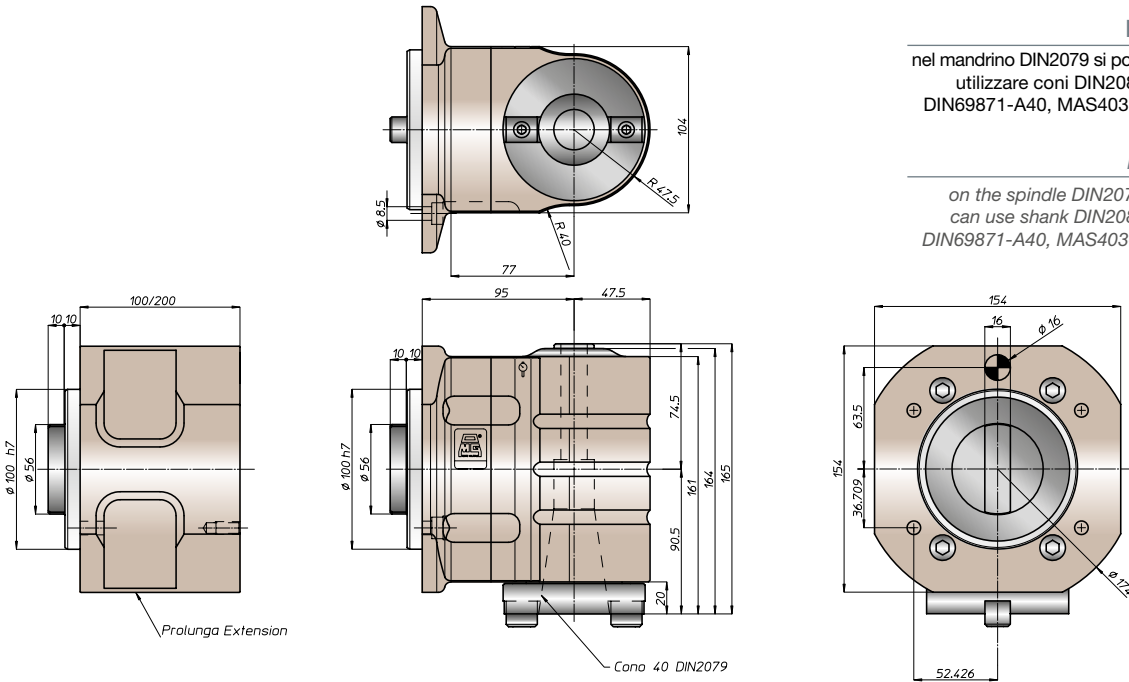
Nota

nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Note

on the spindle DIN2079 you can use shank DIN2080-40, DIN69871-A40, MAS403-BT40

4-108



Esempio di collegamento / Connection example



VH

TSI/TSX

T

MT-TC-TC3

Icon of a gear

Icon of a compass





TA30.PT

TESTA AD ANGOLO - ANGLE HEAD



HEAD



18,5 KG

PESO
WEIGHT

INPUT



OUTPUT

ROTAZIONE
ROTATION

Ø30



M24



4700 N



1-1



2500



194

CARATTERISTICHE
FEATURES

Ø27-Ø32-Ø40
PORTA-PRESSE
FACE MILL ARBOR



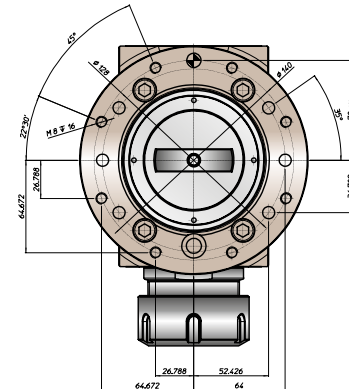
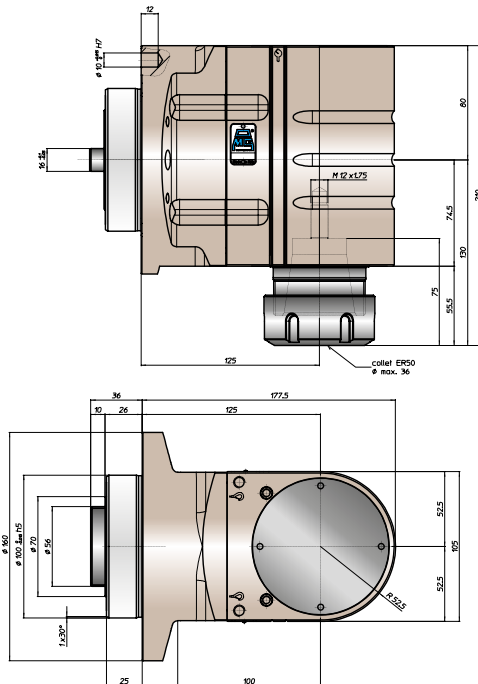
Ø32
WELDON
WHISTLE-NOTCH



HSK63
DIN69893-HSK



C5-C6
COROMANT CAPTO®

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES

Esempio di collegamento / Connection example



PESO
WEIGHT

HEAD
40
18,3 KG

ROTAZIONE
ROTATION

IN → OUT
INPUT OUTPUT

CARATTERISTICHE
FEATURES

Ø30 M24 4700 N 1-1 2500 194 Nm



TA30.40.T

TESTA AD ANGOLO - ANGLE HEAD

FH

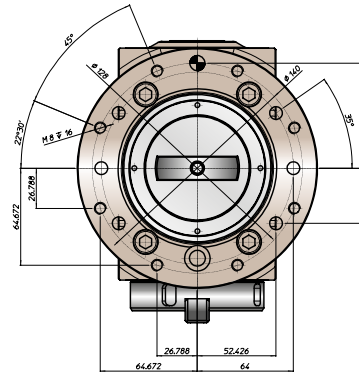
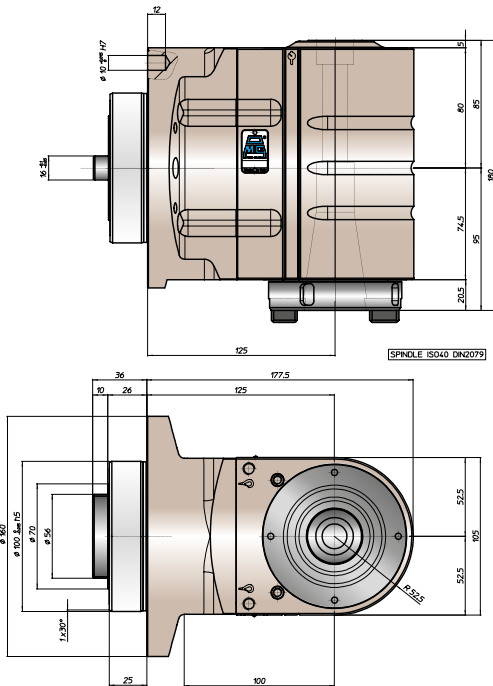
BAH

TA.CP

TA

MOX

HT



Nota

nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Note

on the spindle DIN2079 you can use shank DIN2080-40, DIN69871-A40, MAS403-BT40

Esempio di collegamento / Connection example



4-110

VH

TSI/TSX

T

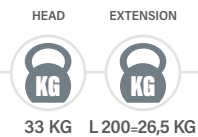
MT-TC-TC3



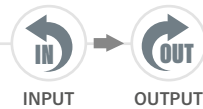


TA40.T

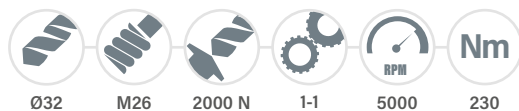
TESTA AD ANGOLO - ANGLE HEAD



PESO
WEIGHT



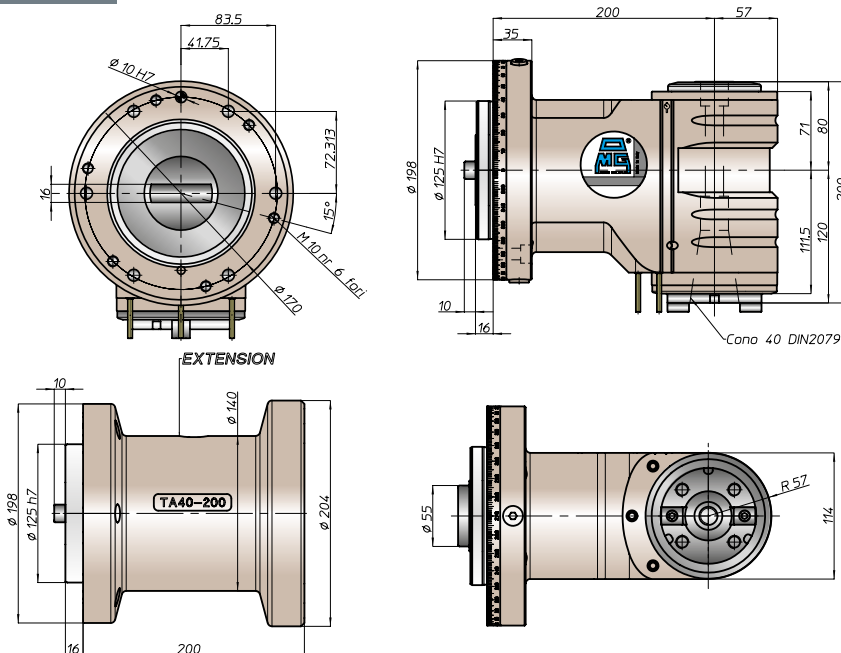
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



Equipaggiamento standard:

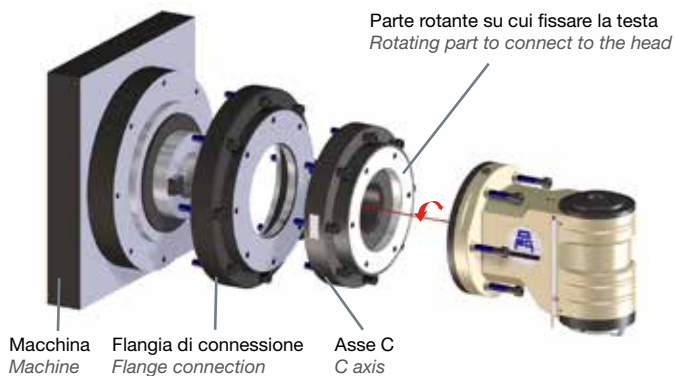
- pressurizzazione mandrino
- n. 3 ugelli orientabili vicino al mandrino
- nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Standard equipment:

- spindle front pressurization
- nr. 3 adjustable nozzle near the spindle
- on the spindle DIN2079 you can use shank DIN2080-40, DIN69871-A40, MAS403-BT40

Utilizzo su asse C manuale / Manual C axis

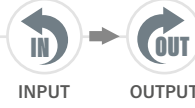
- Nuovo Asse C a rotazione manuale
- Compatto, semplice e preciso
- Bloccaggio rotazione su cava a T
- Rotazione libera su cuscinetto a rulli incrociati
- Facilità di posizionamento
- New C Axis with manual rotation
- Space-saving, user friendly and precise
- Rotation lock on T slot
- Free rotation on crossed roller bearings
- Easy set up



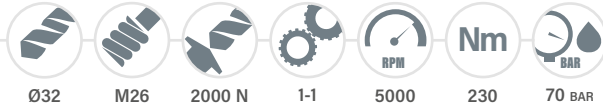
PESO
WEIGHT



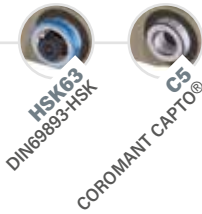
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



TA40.TD

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

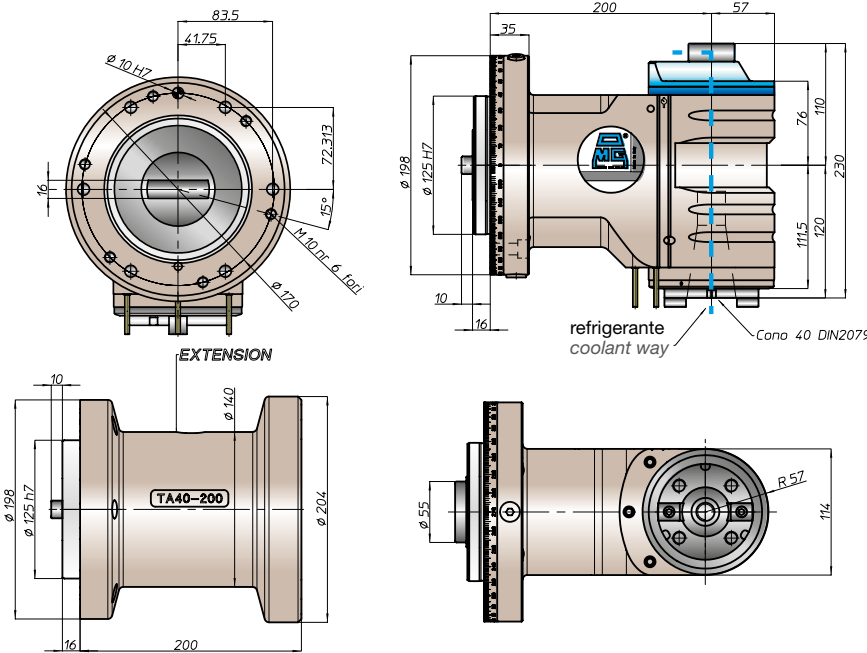
4-112

VH

TSI/TSX

T

MT-TC-TC3



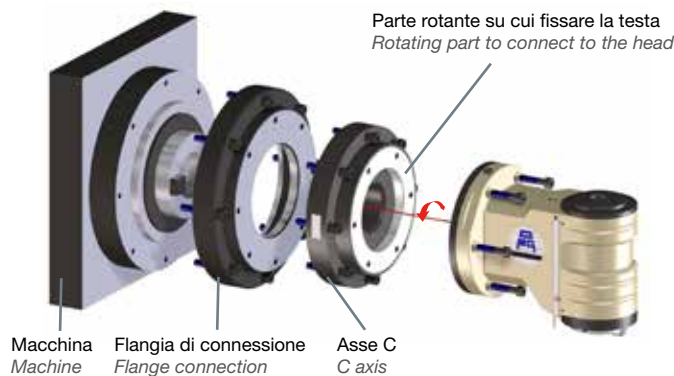
Equipaggiamento standard:

- pressurizzazione mandrino
- n. 3 ugelli orientabili vicino al mandrino
- nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Standard equipment:

- spindle front pressurization
- nr. 3 adjustable nozzle near the spindle
- on the spindle DIN2079 you can use shank DIN2080-40, DIN69871-A40, MAS403-BT40

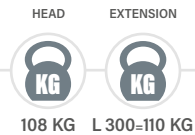
Esempio di collegamento / Connection example



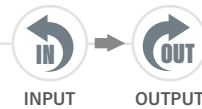


TA50.T

TESTA AD ANGOLO - ANGLE HEAD



PESO
WEIGHT



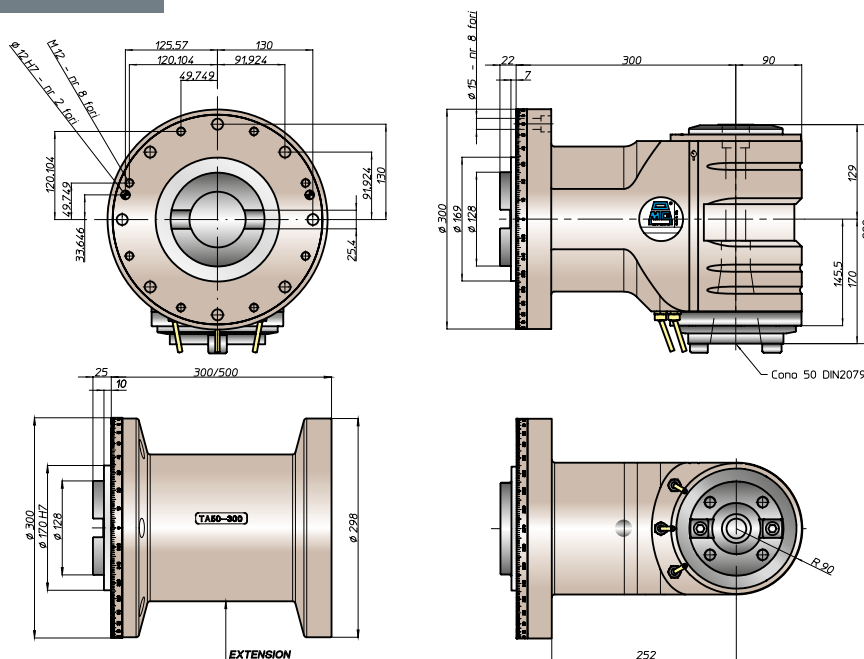
ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



Equipaggiamento standard:

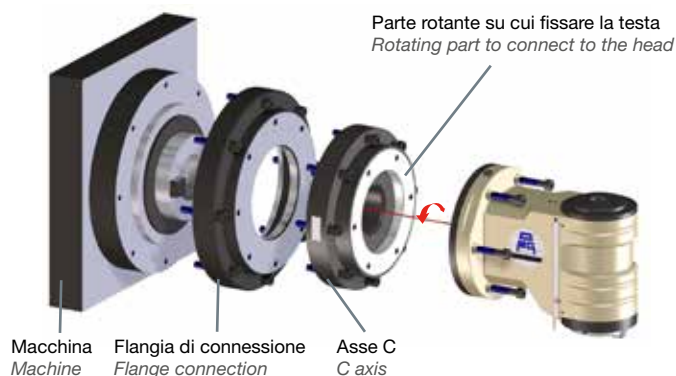
- pressurizzazione mandrino
- n. 3 ugelli orientabili vicino al mandrino
- nel mandrino DIN2079 si possono utilizzare coni DIN2080-40, DIN69871-A40, MAS403-BT40

Standard equipment:

- spindle front pressurization
- nr. 3 adjustable nozzle near the spindle
- on the spindle DIN2079 you can use shank DIN2080-40, DIN69871-A40, MAS403-BT40

Utilizzo su asse C manuale / Example with manual C axis

- Nuovo Asse C a rotazione manuale
- Compatto, semplice e preciso
- Bloccaggio rotazione su cava a T
- Rotazione libera su cuscinetto a rulli incrociati
- Facilità di posizionamento
- New C Axis with manual rotation
- Space-saving, user friendly and precise
- Rotation lock on T slot
- Free rotation on crossed roller bearings
- Easy set up





TA50.TD

TESTA AD ANGOLO - ANGLE HEAD



HEAD EXTENSION
40 **50**
112 KG L 300=110 KG

IN OUT
INPUT OUTPUT

Ø45 M36 5800 N 1-1 4000 700 70BAR

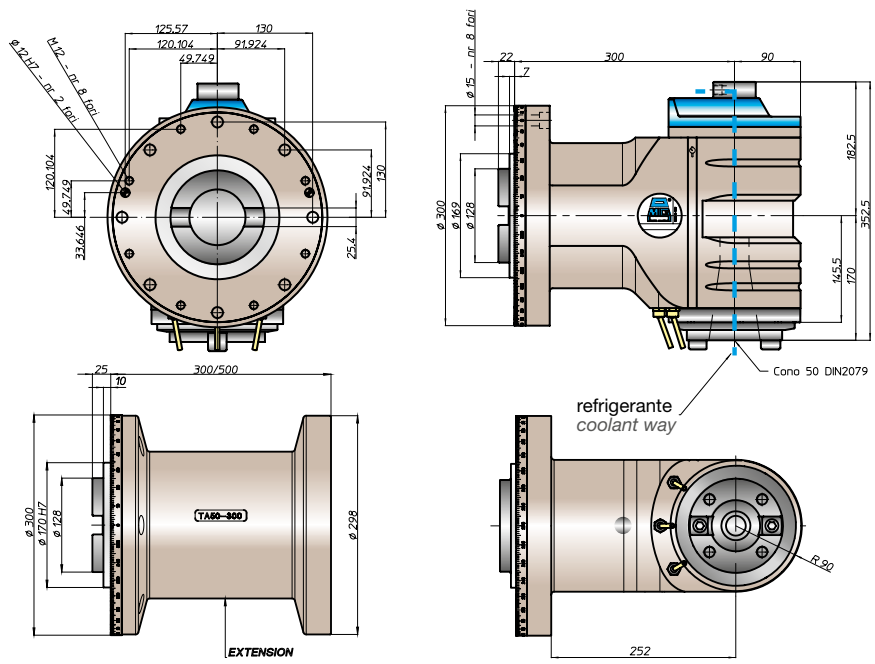
MANDRINI DISPONIBILI AVAILABLE SPINDLES
HSK100 DIN69893-HSK
COROMANT CAPTO®

PESO WEIGHT

ROTAZIONE ROTATION

CARATTERISTICHE FEATURES

MANDRINI DISPONIBILI AVAILABLE SPINDLES



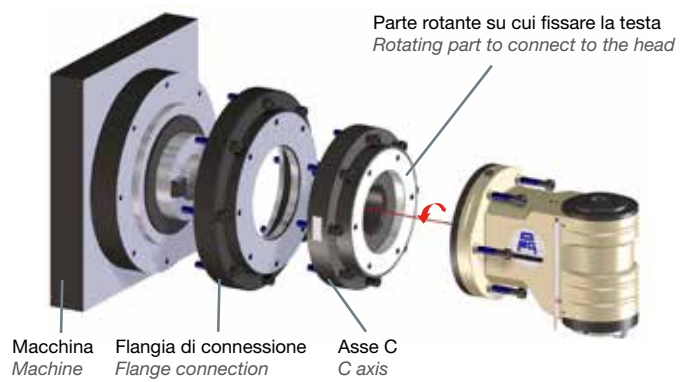
Equipaggiamento standard:

- pressurizzazione mandrino
- n. 3 ugelli orientabili vicino al mandrino
- nel mandrino DIN2079 si possono utilizzare coni DIN69871-A50, MAS403-BT50

Standard equipment:

- spindle front pressurization
- nr. 3 adjustable nozzle near the spindle
- on the spindle DIN2079 you can use shank DIN69871-A50, MAS403-BT50

Esempio di collegamento / Connection example



FH

BAH

TA.CP

TA

MOx

HT

4-115

VH

TSI/TSX

T

MT-TC-TC3





TA-CP

EXTENDED GALLERY

FH

BAH

TA-CP

TA

MOX

HT

4-116

VH

TSI/TSX

T

MT-TC-TC3





TA13.PVDI

TESTA AD ANGOLO - ANGLE HEAD



4,5 KG

PESO
WEIGHT



INPUT



OUTPUT

ROTAZIONE
ROTATION



Ø13



M10



810 N



1-1



8000



38

CARATTERISTICHE
FEATURES



ER25
DIN6499-ER

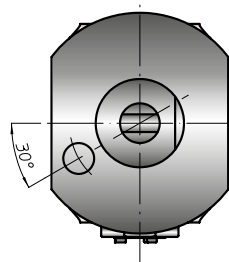


Ø16-Ø22
PORTA-FRESSE
FACE MILL ARBOR

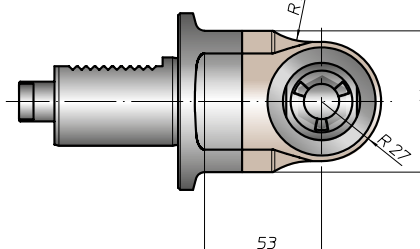
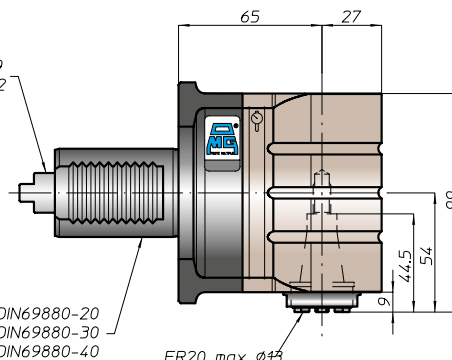


Ø16
WELD ON
WHISTLE-NOTCH

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



DIN1809
DIN5482



Soluzioni speciali / Special solutions

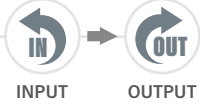


PESO
WEIGHT



6,5 KG

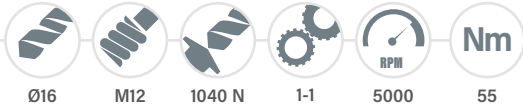
ROTAZIONE
ROTATION



INPUT

OUTPUT

CARATTERISTICHE
FEATURES



Ø16

M12

1040 N

1-1

5000

55

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



ER32

DIN6499-ER

Ø16-Ø27-Ø32
PORTAFRESE
FACE MILL ARBOR

Ø20

WELDON
WHISTLE-NOTCH

HSK32

DIN69893-HSK

C3

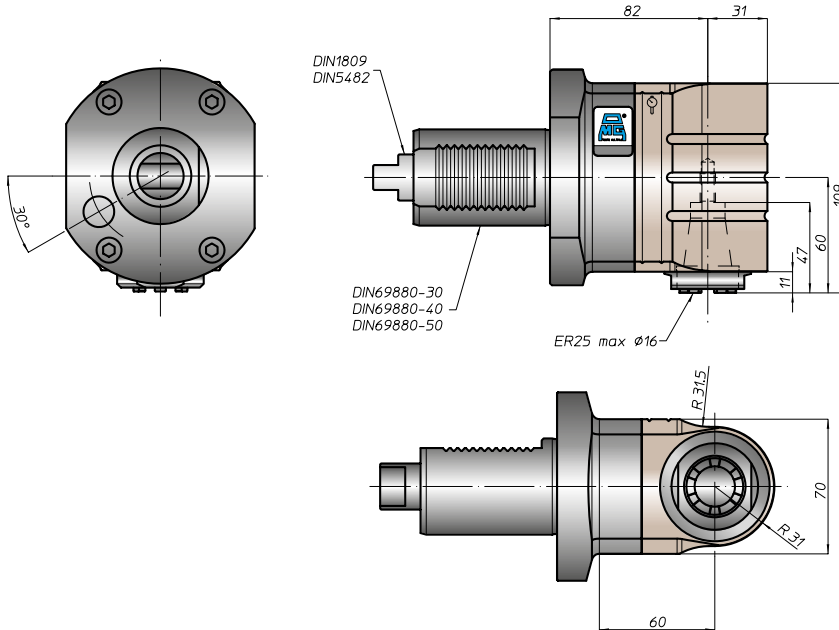
COROMANT CAPTO®

ABS32

LICENZA KOMET®
KOMET LICENCES®

TA16.PVDI

TESTA AD ANGOLO - ANGLE HEAD



Soluzioni speciali / Special solutions



FH

BAH

TA.CP

TA

MOX

HT

4-118

VH

TSI/TSX

T

MT-TC-TC3





TAV10.PVDI

TESTA AD ANGOLO - ANGLE HEAD



3,5 KG

PESO
WEIGHT



INPUT



OUTPUT

ROTAZIONE
ROTATION



Ø10



M8



550 N



1-1



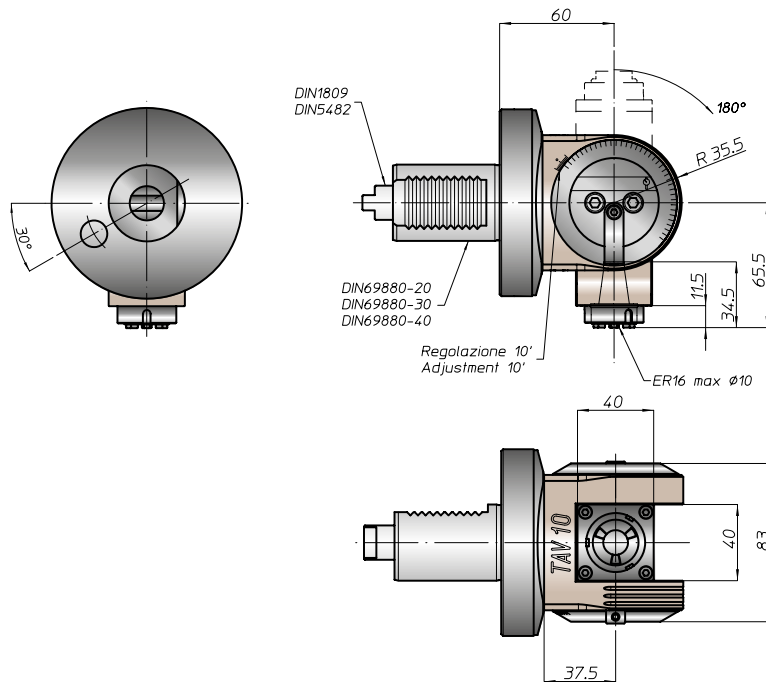
4000



Nm

12

CARATTERISTICHE
FEATURES



Soluzioni speciali / Special solutions

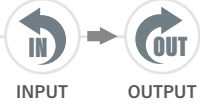


PESO
WEIGHT



5,5 KG

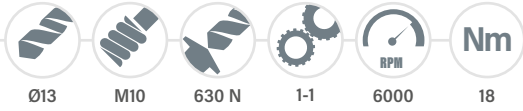
ROTAZIONE
ROTATION



INPUT

OUTPUT

CARATTERISTICHE
FEATURES



Ø13

M10

630 N

1-1

6000

Nm

18

MANDRINI
DISPONIBILI
AVAILABLE
SPINDLES



ER25
DIN6499-ER

Ø16
WELDON
WHISTLE-NOTCH



TAV13.PV.DI

TESTA AD ANGOLO - ANGLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

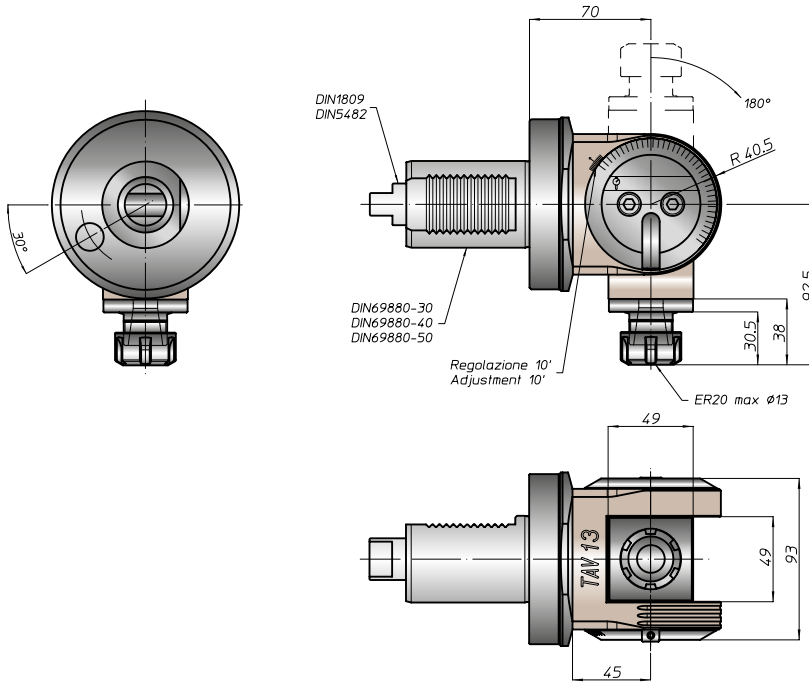
4-120

VH

TSI/TSX

T

MT-TC-TC3



Soluzioni speciali / Special solutions





ANTIROTANTE TORQUE ARM



Il gruppo antirotante ricopre una funzione di fondamentale importanza nella qualità di lavorazione della testa ad angolo. Per questo motivo i tecnici della OMG hanno studiato e messo a punto un antirotante di nuova concezione i cui punti salienti sono:

- Il perno conico
- La registrazione assiale del perno
- Adduzione del liquido passante per il corpo testa

Il perno conico e la propria registrazione assiale di mm 1.5 permettono una maggiore rigidità del sistema antirotante rispetto ai tradizionali, dotati di perni di Ø18 mm perché si eliminano i giochi con conseguente miglioramento della rigidità sia angolare che assiale.

L'adduzione del liquido passante per il corpo testa, la cui uscita avviene tramite un ugello direzionabile, offre il vantaggio di non avere tubi "volanti" che possono muoversi durante le lavorazioni.

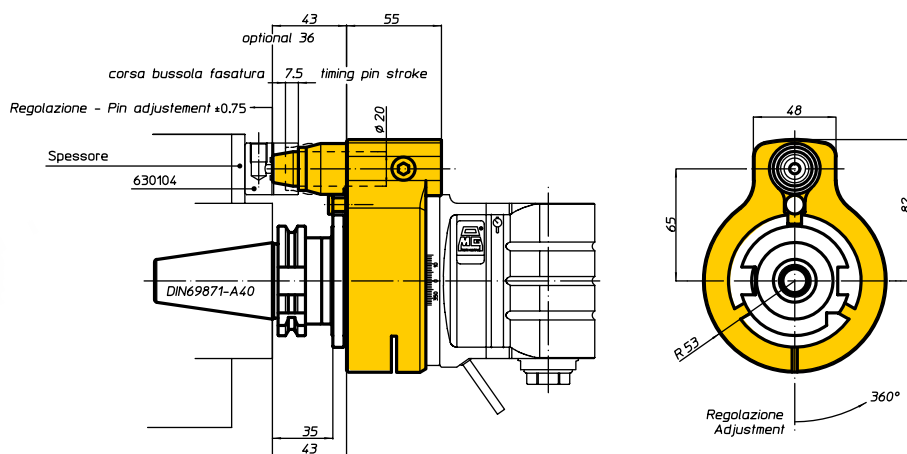


Scannerizza il codice per vedere il video di montaggio delle Teste ad Angolo

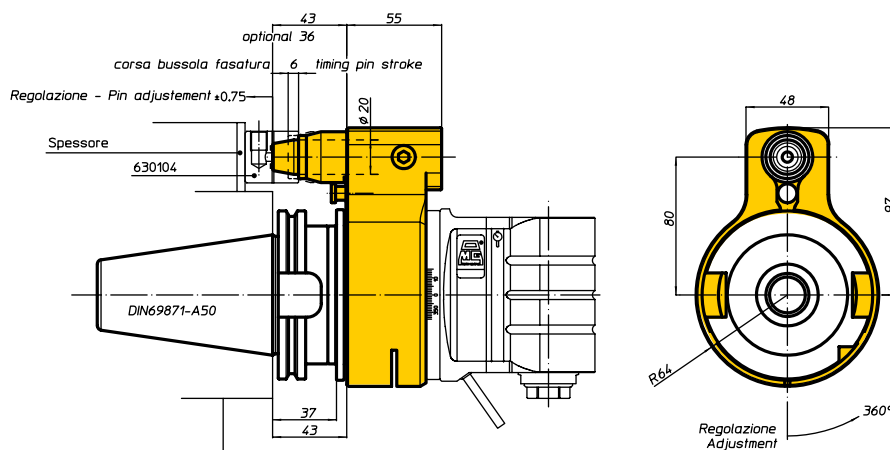


Quando possibile, nella Vostra applicazione, posizionate il perno conico dalla parte opposta al mandrino della testa ad angolo.

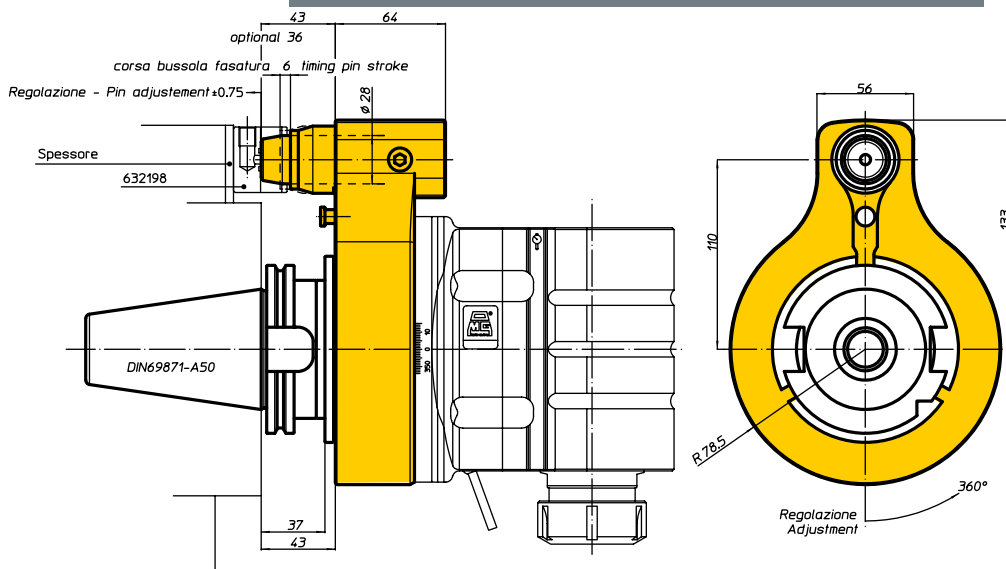
TESTE AD ANGOLO CON INTERASSE H=65 ANGLE HEADS WITH CENTRE DISTANCE H=65

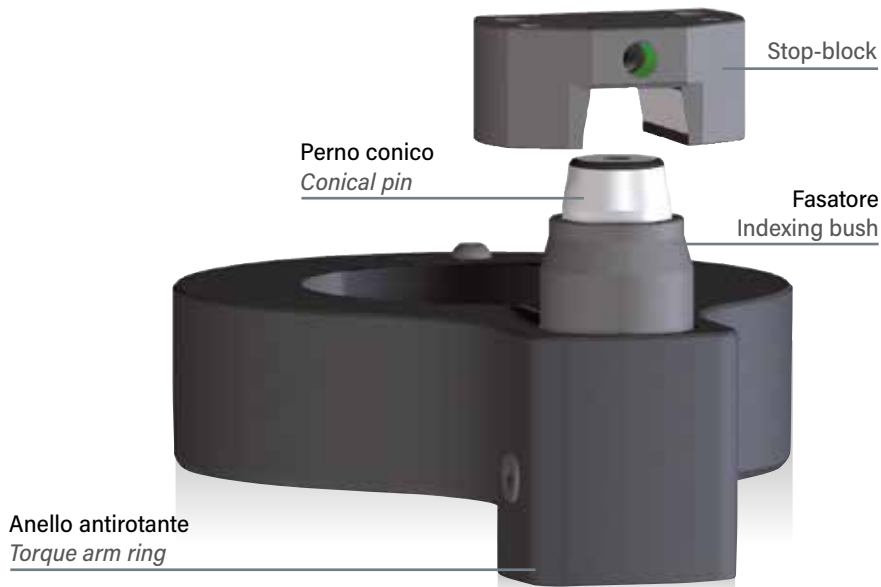


TESTE AD ANGOLO CON INTERASSE H=80 ANGLE HEADS WITH CENTRE DISTANCE H=80



TESTE AD ANGOLO CON INTERASSE H=110 ANGLE HEADS WITH CENTRE DISTANCE H=110

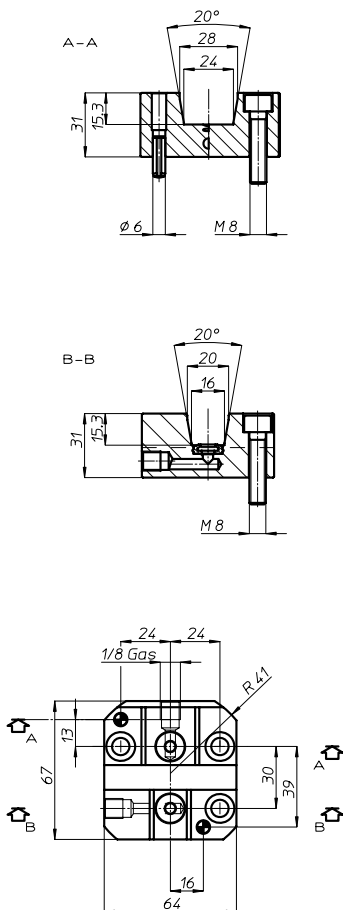




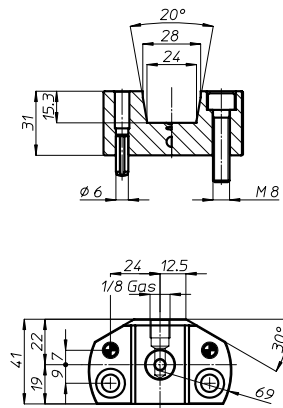
The torque arm system is crucial as far as angle-head machining quality is concerned. For this reason OMG technicians have designed and developed a new system with the following characteristics:

- conical pin
- axial pin adjustment
- coolant through the head body

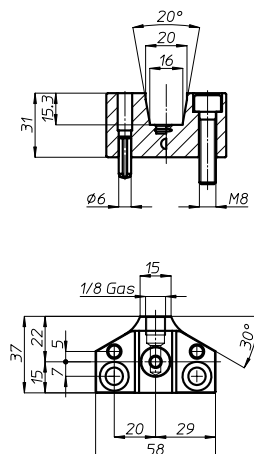
DOUBLE STOP-BLOCK (COD. 635354)



STOP-BLOCK (COD. 635353)



STOP-BLOCK (COD. 635352)



The conical pin and its 1.5 mm axial adjustment ensure upgraded anti-rotation system strength compared to traditional systems, featuring $\varnothing 18$ mm pin, because play is eliminated, thereby improving both angular and axial strength. By the pin the coolant through the head, thanks to an adjustable nozzle, the added advantage is achieved of eliminating "free" pipes that could move during machining operations.



Scan the QR code and watch the video on how to install the Angle Heads



Position the conical pin on the opposite side of the angle head spindle when possible in your application.



ANTIROTANTE TORQUE ARM

TriBlock



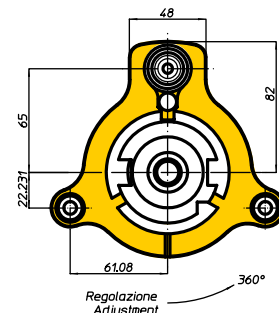
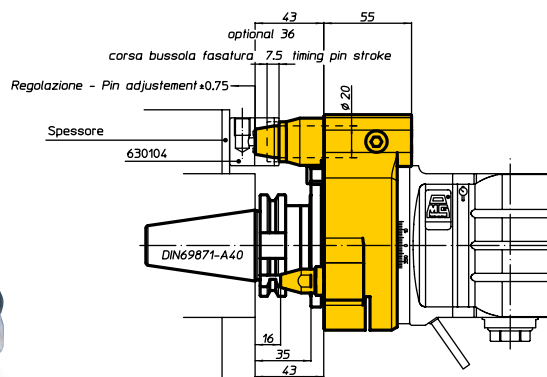
Il gruppo antirotante **TriBlock** ricopre una funzione di fondamentale importanza quando alla testa ad angolo è richiesto di:

- eseguire una lavorazione più pesante
- essere più lunga dello standard
- finitura superficiale eccellente

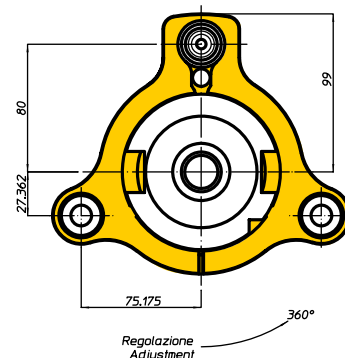
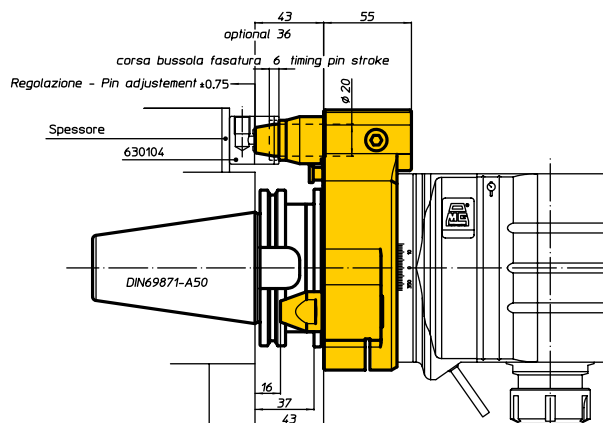
Il **TriBlock** è dotato di tre punti di appoggio di cui uno è lo standard come nei precedenti e due supplementari da registrare tramite un rasamento. Questi tre punti, allargando l'appoggio di base della testa ad angolo, consentono di ottenere una rigidità superiore allo standard.

Quando poi si richiede alla testa di essere immagazzinata su di un supporto esterno al magazzino standard, ecco che il **TriBlock** utilizza i propri tre punti per posizionare la testa.

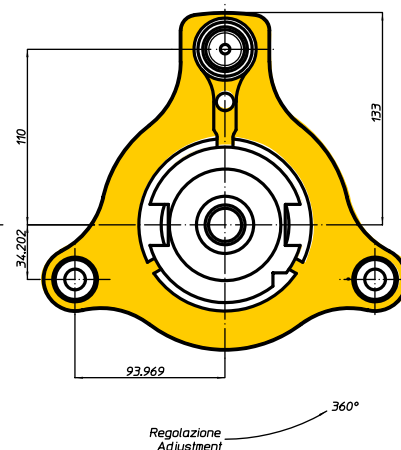
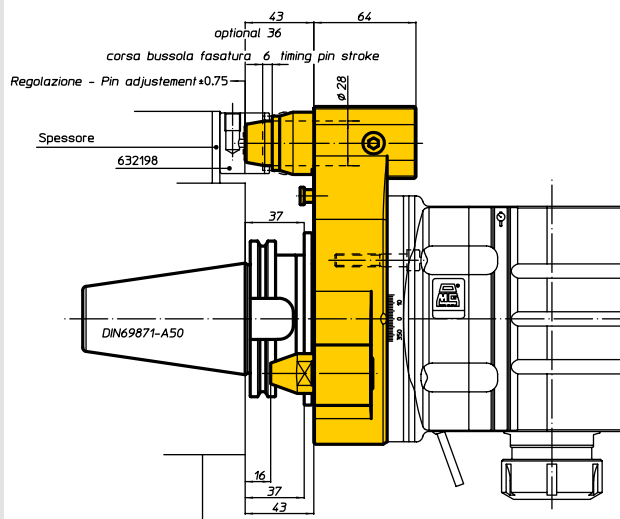
TESTE AD ANGOLO CON INTERASSE H=65 ANGLE HEADS WITH CENTRE DISTANCE H=65



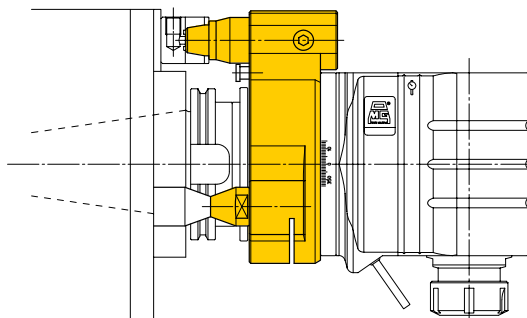
TESTE AD ANGOLO CON INTERASSE H=80 ANGLE HEADS WITH CENTRE DISTANCE H=80



TESTE AD ANGOLO CON INTERASSE H=110 ANGLE HEADS WITH CENTRE DISTANCE H=110



Sul mandrino macchina
On spindle machine



TFS 19907

Testa ad angolo per fresatura
componente motore a reazione.
Peso Kg 45,5
Milling angle head for jet engine.
Weight Kg 45,5

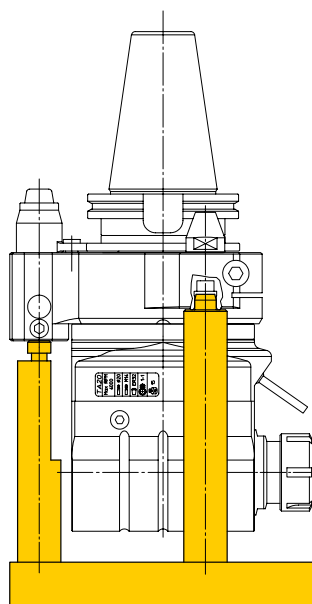


TFS 39195

Testa bimandrino di fresatura
n° 2 frese Ø 100 peso Kg 33
Twin milling head,
nr. 2 milling cutter
Ø 100 weight Kg 33



Sul supporto da tavola
On rack table



The **TriBlock** system is of crucial importance when it comes to:

- doing difficult jobs
- having a head that is longer than standard
- achieving an excellent surface finish

The **TriBlock** system features three supporting points, one of which is standard, as in the previous version, plus two additional ones that need adjusting by means of a spacer. These three points, by extending the angle-head supporting base, provide above-average standards of strength.

When the head has to be stored on a rack table outside the standard magazine, the **TriBlock** system uses the three points to storage the angle heads.



ANTIROTANTE TORQUE ARM

QuadBlock 



Il sistema antirotante **QuadBlock** è un sistema all'avanguardia per equipaggiare Teste ad Angolo dove si richiede alta asportazione e alta rigidità dell'insieme "testa ad angolo-macchina". Utilizzabile nel montaggio manuale, esso consiste in un anello antirotante completo di quattro perni di contrasto suddivisi equamente sui 360°. Tale disposizione consente di poter ruotare la Testa ad Angolo in automatico con un semplice movimento della macchina, se questa ne ha le capacità. Il vantaggio di poter lavorare quattro facce del pezzo senza sostituire la Testa ad Angolo si concretizza con la riduzione dei costi previsti per gli utensili.

L'evoluzione del sistema **QuadBlock** per le macchine con cambio automatico, consente di utilizzare la Testa ad Angolo come un prolungamento del mandrino macchina ruotato dei gradi richiesti dal cliente. È possibile inoltre sostituire il portautensile in automatico ed ampliare infinitamente la versatilità della macchina utensile avendo a disposizione quei servizi normalmente presenti sul mandrino macchina:

- Aria pulizia del portautensile
- Liquido refrigerante centro utensile alta pressione
- Liquido refrigerante esterno utensile
- Liquido bloccaggio-sbloccaggio utensile
- Controllo presenza utensile

Tutto ciò per consentire l'utilizzo di portautensili tipo Capto, HSK, DIN69871. Mettiamo a disposizione il nostro ufficio tecnico e la nostra esperienza per personalizzare al meglio il Vostro sistema.

TAS13609

Fresatura su corpo in fusione di ghisa.
Peso kg 36.
*Milling on cast iron pump's body.
Weight 36 kg.*



TAS13209

Lavorazione di finitura interna culle motore idraulico. Peso kg 36.
Internal finishing work for hydraulic motor's body. Weight 21 kg.



TAS16209

Linee di servizio per il mandrino HSK63F con cambio automatico dell'utensile, sensore presenza utensile in radiofrequenza.
Peso kg 28.
Utility line for HSK63F spindle with automatic tool change, radio-frequency switch to verify tool presence. Weight 28 kg.



TAS24408

Lavorazione di fresatura
interna corpo pinza
freno in ghisa.

Peso Kg 28.

*Triblock with automatic
locking. Cast iron brake
housing internal milling
work. Weight 28 kg.*



TA12907

Lavorazione di fresatura
generica struttura
elettrosaldada di acciaio.
Peso Kg 48.

*Special Quadblock
with automatic locking.
General milling work
on electro-welded steel
structure. Weight 48 kg.*



TAS08606

Servizi per mandrino
CAPTO C4 con cambio
automatico dell'utensile.
Peso kg 36.

*Spindle with utility line
for CAPTO C4 with
automatic tool change.
Weight kg 36.*



The **QuadBlock** torque arm is a forefront system to equip Angle Heads which are requested with a high removal machining capacity and with extremely high rigidity in coupling with the machine tool. It can be used with a manual tool change and is made by a torque arm ring complete with four counterposed pins with same distance each other on the 360°. Such a layout allows an automatic rotation of the Angle Head with a simple movement of the machine if featured to do it. The possibility of machining four faces of the piece without replacing the Angle Head is giving the advantage of reducing costs of tools equipment.

The evolution of the **QuadBlock** system on automatic tool change machines allows to use the Angle Head like an extension of the machine spindle with the degree rotations required by the customer. It is also possible to automatically change the tool holder and to infinitely widen the versatility of the machine tool getting those utilities normally available on the machine spindle:

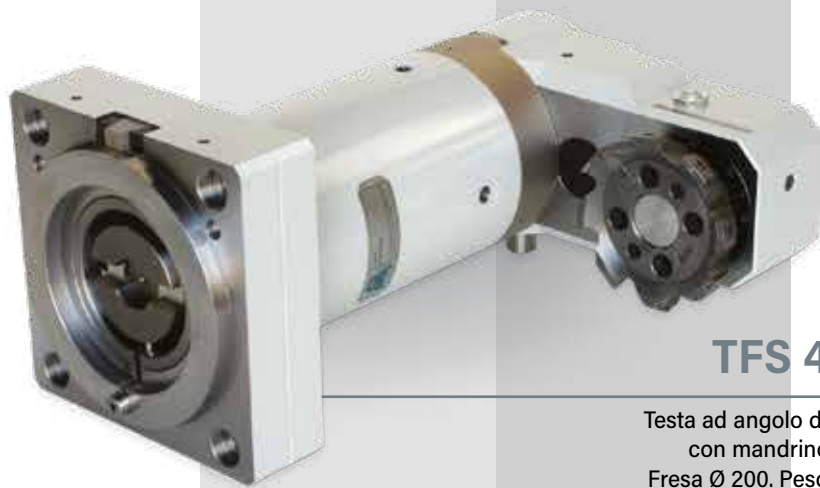
- tool-holder cleaning air
- through-tool high pressure coolant
- side-tool coolant
- tool locking-unlocking liquid
- tool presence control

All these to allow using tool-holders like Capto, HSK, DIN69871. Our R&D department is at your disposal with his experience to customize your system at its best.



TA

TESTA AD ANGOLO SPECIALI • SPECIAL ANGLE HEAD



TFS 41304

Testa ad angolo di fresatura con mandrino ribaltato. Fresa Ø 200. Peso Kg 327,5.

Milling angle head with reverse spindle. Milling tool Ø 200. Weight Kg 327,5.



TFS 05303

Testa ad angolo di fresatura con fresa diam. 7 Peso Kg 8

Milling angle head with milling cutter diam. 7 weight Kg 8



TFS 23301

Testa ad angolo di foratura a tre mandrini peso kg 5,9

Drilling angle head with three spindles weight kg 5,9



TAS 15505

Testa ad angolo di foratura e fresatura, attacco utensile CAPTO C4 automatico. Peso Kg 130.

Drilling and milling angle head, automatic tools changer CAPTO C4. Weight Kg 130.



TFS 39998

Testa ad angolo universale. Presa utensili ISO50, peso kg 580

Angle head with tool shank ISO50, weight kg 580

TFS 36699

Testa ad angolo bimandrino
registrabile, peso kg 29
*Adjustable twin angle head,
weight kg 29*



TFS 34004

Testa ad angolo di foratura
a 3 mandrini a 120°.
*Drilling angle head, n 3
spindles at 120°.
Weight Kg 18.*



TFS 09063

Testa ad angolo di alesatura con
utensile Ø 160 peso Kg 77
*Boring angle head with tools
Ø 160 weight Kg 77*

TFS 06003

Testa ad angolo di
fresatura con fresa Ø
110 peso Kg 210
*Milling angle head with
milling cutter Ø 110
weight Kg 210*



TFS 37503

Doppia testa ad angolo di foratura.
Twin drilling angle head.

TFS 08993

Testa ad angolo speciale con doppia
coppia di mandrini contrapposti
peso kg 18
*Angle head with two opposite twin
spindles weight kg 18*



FH

BAH

TA.CP

TA

MOX

HT

4-128

VH

TSI/TSX

T

MT-TC-TC3





TFS 33206

Testa bimandrino di fresatura
per frese \varnothing 160, peso kg 63

*Twin milling head with
milling cutter \varnothing 160 weight
kg 63*



TFS 21701

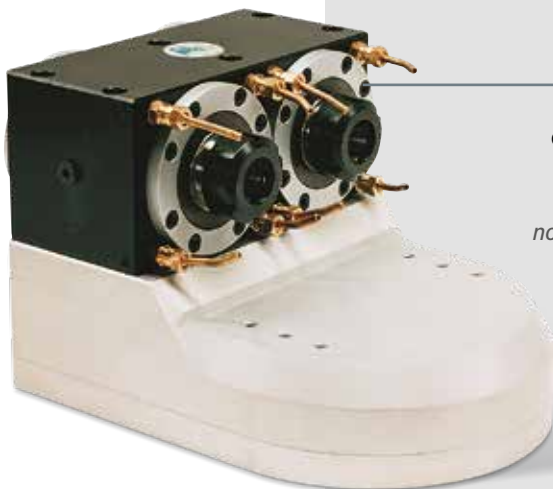
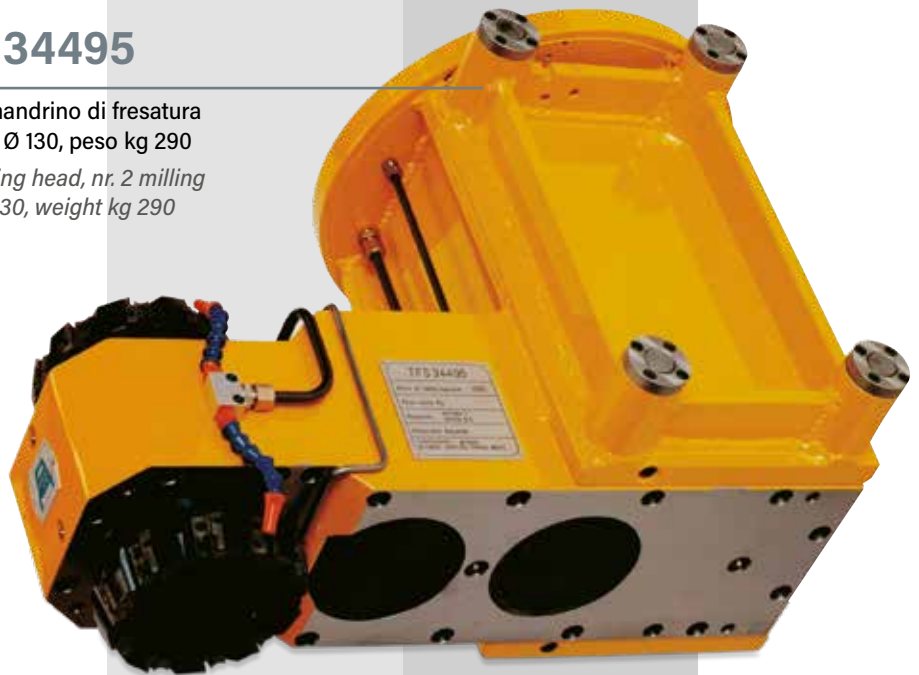
Testa di fresatura a due man-
drini paralleli, peso kg 14

*Milling angle head with two
parallel spindles, weight kg 14*

TFS 34495

Testa bimandrino di fresatura
n. 2 frese \varnothing 130, peso kg 290

*Twin milling head, nr. 2 milling
cutter \varnothing 130, weight kg 290*



TFS 16696

Doppia testa ad angolo
disassata rispetto all'asse
macchina, peso kg 24

*Twin spindle angle head
not in line with the machine
spindle, weight kg 24*

TFS 36994

Testa bimandrino di fresatura
n. 2 frese \varnothing 60, peso kg 15,5

*Twin milling head, nr. 2 mil-
ling cutter \varnothing 60, weight kg 15,5*





TFS 12101

Testa di fresatura con cono ISO30, peso kg 16

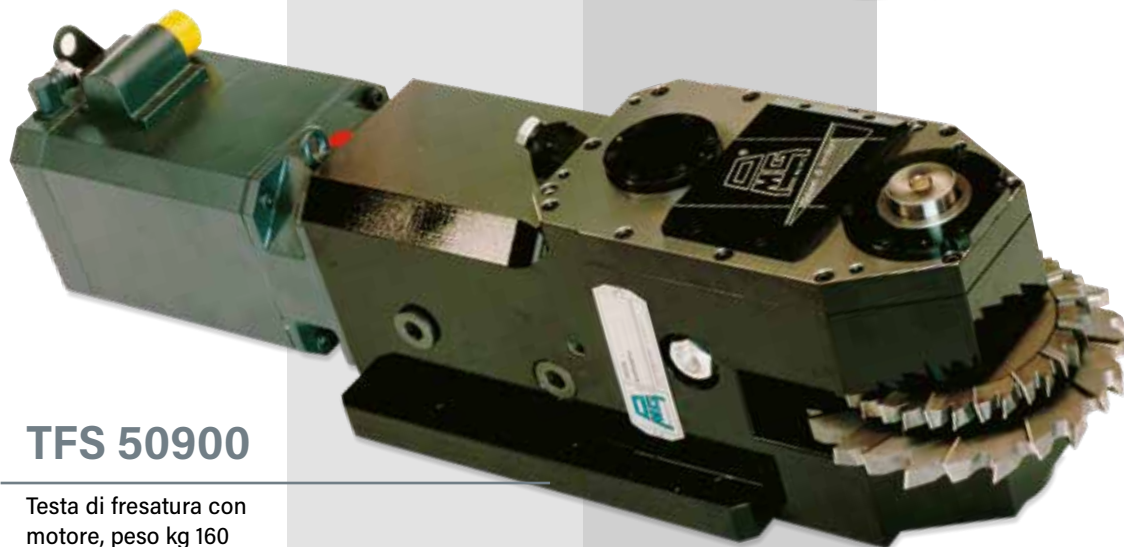
Milling angle head with ISO30, weight kg 16



TFS 13094

Testa ad angolo disassata rispetto all'asse macchina peso kg 17

Angle head not in line with the machine spindle weight kg 17



TFS 50900

Testa di fresatura con motore, peso kg 160

Milling angle head with brushless motor weight kg 160



TFS 09400

Testa di fresatura con n. 2 frese Ø 125 peso kg 20

Milling angle head with nr. 2 milling cutter Ø 125 weight kg 20



TFS 24196

Testa ad angolo bimandri-no per fresatura su scatola del cambio, peso kg 70

Twin milling spindle angle head on gear box, weight kg 70

FH

BAH

TA.CP

TA

MOX

HT

4-130

VH

TSI/TSX

T

MT-TC-TC3





TFS 41504

Testa ad angolo mandrino di fresatura. Peso Kg 338.

*Twin milling angle head.
Weight Kg 338.*



TFS 35698

Testa ad angolo di fresatura con fresa Ø 100, peso Kg 34

*Milling angle head, with
milling cutter Ø 100, weight Kg 34*



TFS 28603

Testa di fresatura con n. 4 frese a disco Ø 125. Peso Kg 218.

*Milling head, nr. 4 milling disc
cutter Ø 125. Weight Kg 218.*



TFS 12005

Testa ad angolo disassata per fresature Ø 150. Peso Kg 48.

*Shift spindle angle head,
milling tools Ø 150.
Weight Kg 48.*

TFS 33303

Testa ad angolo disassata per foratura. Peso Kg 9,4.

*Angle head with shift drilling spindle.
Weight Kg 9,4.*



TFS 12095

Testa ad angolo di foratura, peso kg 5

Drilling angle head weight Kg 5



TAS 30505

Testa ad angolo di foratura HSK100 entrata e uscita. Peso Kg 50.

*Drilling angle head, HSK 100 input-output.
Weight Kg 50*

TFS 13198

Testa ad angolo disassata per foratura, peso kg 5

Angle head with shift spindle, weight kg 5



TFS 33503

Testa ad angolo di lucidatura con doppia rotazione, sia corpo che utensile. Peso kg 6,5.

Polish angle head with double rotation: body and tools. Weight Kg 6,5.



FH

BAH

TA.CP

TA

MOX

HT

4-132

VH

TSI/TSX

T

MT-TC-TC3





TFS 39997

Testa ad angolo speciale
bimandrino per foratura e
maschiatura peso kg 16

*Twin angle head for
drilling and tapping
weight kg 16*



TAS 13806

Testa bimandrino Capto C5
manuale, peso kg 33

*Twin angle head with Capto
C5 manual clamping tool
weight kg 33*

TAS 39806

Testa di foratura a due mandri-
ni con refrigerante attraverso
il centro utensile a 50 Bar,
peso kg 21

*Twin drilling angle head with
coolant through the centre
tool at 50 Bar, weight kg 21*



TFS 40601

Testa ad angolo bimandrino,
angolo tra i due mandrini 176°,
peso Kg 13

*Twin angle head, angle 176°
between spindles, weight Kg 13*



TAS 08606

Testa fresatura conica su
acciaio, peso kg 23

*Milling angle head with
conical tool, weight kg 23*





TFS 20298

Testa bimandrino di fresatura n°2 frese Ø 120 peso kg 25

Twin milling angle head, nr.2 milling cutter Ø 120 weight kg 25



TA 05500

Testa ad angolo di fresatura con fresa Ø125 peso kg 17

Milling angle head with milling cutter Ø 125, weight kg 17



TA 34397

Testa ad angolo di fresatura con cono ISO20, peso kg 0,9

Milling angle head with hank ISO20, weight kg 0,9

TAS 39706

Testa di fresatura per supporto motore frese Ø160/180 peso kg 31

Milling head for engine's bracket milling cutter Ø160/180 weight kg 31

TAS 20706

Testa per fresatura interna pinza freno, peso Kg 23

Angle milling head for brake housing, weight Kg 23



TFS 39999

Testa ad angolo speciale fresatura su plastica peso kg 4

Milling angle head for plastic weight kg 4



TA 17292

Testa ad angolo di fresatura n. 2 frese per legno peso kg 3

Twin angle head with nr. 2 milling cutter for wood, weight kg 3



FH

BAH

TA.CP

TA

MOX

HT

4-134

VH

TSI/TSX

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MT-TC-TC3





TAS 37806

Testa ad Angolo di fresatura
componente aeronautico,
materiale Inconel. Peso Kg 40

*Milling Angle Head for ae-
ronautic piece, Inconel alloy
material. Weight Kg 40*

TFS 23910

Testa ad Angolo bimandrino,
fresatura di componente in
ghisa. Peso Kg 50

*Twin Angle Head, milling
cast iron pieces.
Weight Kg 50*



TFS 31110

Testa ad Angolo di foratu-
ra con mandrino HSK50
ribaltato. Peso Kg 31

*Drilling Angle Head with
HSK50 reverse spindle.
Weight Kg 31*



TAS 10708

Testa ad Angolo lunghezza
mm 1.000, fresatura di cave
su acciaio. Peso Kg 216

*Angle Head overall length
mm 1.000, milling key-way on
steel. Weight Kg 216*

TAS 13910

Testa ad Angolo di foratura
con mandrino ER25.
Peso Kg 31

*Drilling Angle Head with
ER25 spindle.
Weight Kg 31*



TAS 08411

Testa ad Angolo con tre mandrini di foratura con avanzamento idraulico. Peso Kg 17,5

Drilling Angle Head with three spindles, hydraulic spindles feed. Weight Kg 17,5



TFS 05609

Testa ad Angolo di fresatura per tornio verticale. Peso Kg 286

Milling Angle Head for vertical lathe. Weight Kg 286



TAS 19610

Testa ad Angolo di fresatura per macchina transfer. Peso Kg 35

Milling Angle Head for transfer machine. Weight Kg 35



TFS 26908

Testa ad Angolo bimandrino di foratura per macchina transfer. Peso Kg 9,5

Twin drilling Angle Head for transfer machine. Weight Kg 9,5



TAS 28010

Testa ad Angolo con tre assi a regolazione manuale. Peso Kg 590

Angle Head with three manual movement axis. Weight Kg 590

FH

BAH

TA.CP

TA

MOX

HT

4-136

VH

TSI/TSX

T

MT-TC-TC3





TAS 19010

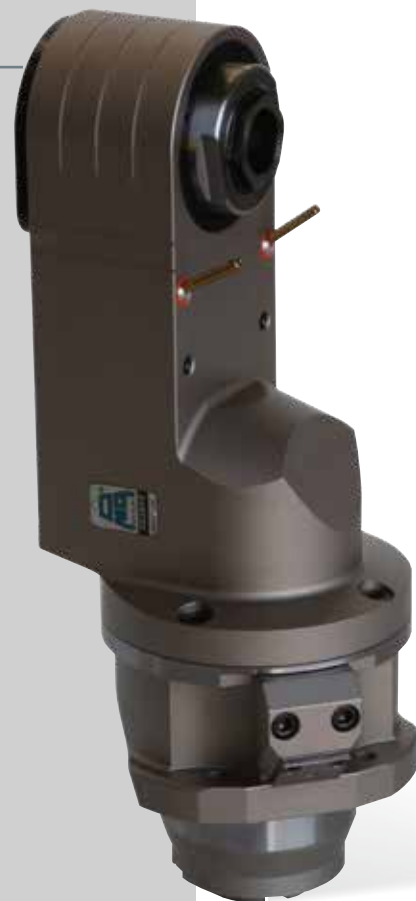
Testa ad Angolo di foratura per macchina transfer. Max RPM 20.000. Peso Kg 5

Drilling Angle Head for transfer machine. Max RPM 20.000. Weight Kg 5

TAS 26810

Testa ad Angolo TAO20, utilizzata in fresatura su torretta a revolver HT250. Peso Kg 14

Milling Angle Head TA 20, assembled on HT250 turret head. Weight Kg 14



TFS 06906

Testa ad Angolo di foratura scatola sterzo. Peso Kg 10

Drilling Angle Head for steering body. Weight Kg 10



TAS 09407

Testa ad Angolo per fresatura canna di fucile. Peso Kg 6,5

Milling Angle Head for rifle barrel. Weight Kg 6,5

TAS 16308

Testa ad Angolo di foratura con mandrino HSK32 a cambio automatico utensile. Peso Kg 13,5

Drilling Angle Head with spindle HSK32 with automatic tool changer. Weight Kg 13,5



TAS 24508

Testa ad Angolo di fresatura
pinza freno. Peso Kg 29
*Milling Angle Head for brake
truck body. Weight Kg 29*



TAS 07309

Testa ad Angolo di fresatura,
basamento motore 12 cilindri. Peso Kg 60
*Milling Angle Head, 12 cylinder
engine block. Weight Kg 60*

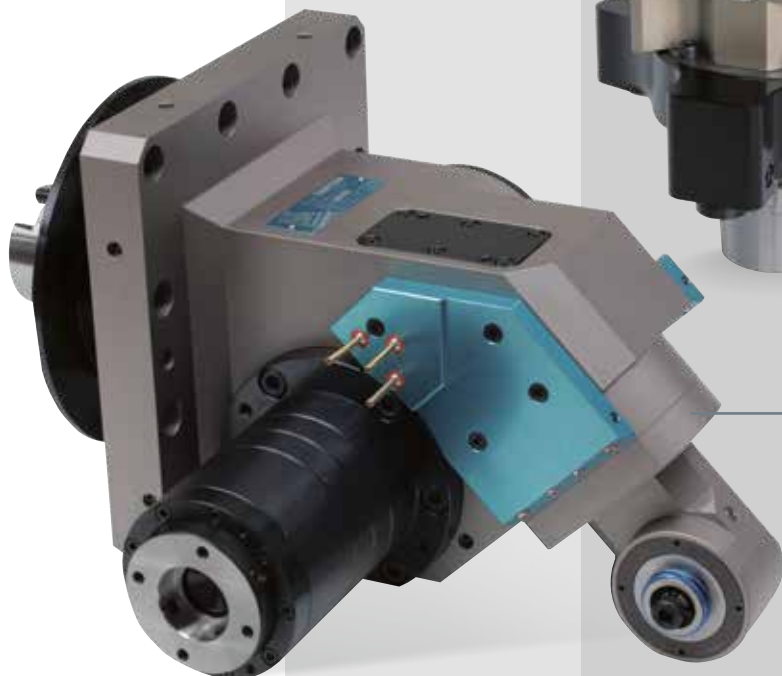


TAS 24010

Testa ad Angolo di foratura componente
aeronautico in alluminio.
Peso Kg 13,5
*Drilling Angle Head for aluminium
aeronautic component. Weight
Kg 13,5*

TAS 28606

Testa ad Angolo di foratura componente
aeronautico con mandrino HSK50, materiale
Inconel. Peso Kg 27
*Drilling Angle Head with HSK50 spindle
for aeronautic piece, Inconel alloy material.
Weight Kg 27*



TAS 07509

Testa ad Angolo bimandrino
di alesatura, motore 12 cilindri.
Peso Kg 63
*Twin spindle boring Angle
Head, 12 cylinder engine
block. Weight Kg 63*

FH

BAH

TA.CP

TA

MOX

HT

4-138

VH

TSI/TSX

T

MT-TC-TC3





SERIE
MOK

FH

BAH

TA.CP

TA

MOx

HT

5-1

VH

TSI/TSX

T

MT-TC-TC3





I moltiplicatori di giri serie "MOx" sono stati studiati e definiti con l'intento di offrire un prodotto che possa assicurare la massima affidabilità e precisione nelle operazioni di fresatura e foratura.

Dalla progettazione al controllo statico e dinamico del prodotto finito, i nostri moltiplicatori di giri sfruttano le più avanzate conoscenze tecniche e tecnologiche. La costruzione compatta, i componenti in acciaio trattato termicamente, gli ingranaggi rettificati sull'evolvente permettono la trasmissione di potenze elevate con ottimi livelli di silenziosità. Il mandrino è supportato da cuscinetti a sfere di precisione a contatto obliquo precaricati che gli conferiscono un'elevata rigidità e precisione di rotazione.

I moltiplicatori della serie MOx vedono infatti le seguenti caratteristiche:

- Equilibratura di tutti i componenti in rotazione
- Semplice set up nelle macchine con cambio utensile automatico
- Ingranaggi progettati per ridurre il rumore e le vibrazioni dell'utensile
- Liquido refrigerante ad alta pressione su tutta la gamma
- Poca generazione di calore e maggiore stabilità termica grazie a nuovi cuscinetti
- Giri max 35.000
- Utilizzati specialmente in operazioni di finitura
- Possibilità di montaggio manuale o automatico
- Consentono alla macchina di ruotare a bassi regimi di giri
- Possibilità di utilizzare utensili in metallo duro

The "MOx" series spindle speeders have been designed and developed to offer maximum reliability and precision in milling and drilling. From design to static and dynamic testing of the finished product, our spindle speeders rely on the most advanced technical know-how. The compact construction, the heat-treated steel parts, and the ground gears on the involute, guarantee transmission of high power ratings with amazingly low noise levels. The spindle is supported by a set of preloaded precision ball bearings with oblique contact that ensure greater strength and rotation precision.

Our MOx series includes the following features:

- *Balancing of all the rotating components*
- *Greater speed*
- *More stability thanks to an advanced bearing layout*
- *A new system making set up easier for automatic tool change*
- *A new bearing layout that reduces noise and vibration of the tool*
- *Greater load capacity*
- *Low heat generation and more thermal stability thanks to the advanced bearing layout*
- *Max 35.000 rpm*
- *Mainly used for finishing operations*
- *Manual or automatic tool change options*
- *Allows the machine to rotate at low rpm*
- *Allows the use of carbide cutting tools*



FH

BAH

TA.CP

TA

MOX

HT

5-3

VH

TSI/TSX

T

MT-TC-TC3



MOX10.HS

MOLTIPLICATORE DI GIRI • SPINDLE SPEEDERS

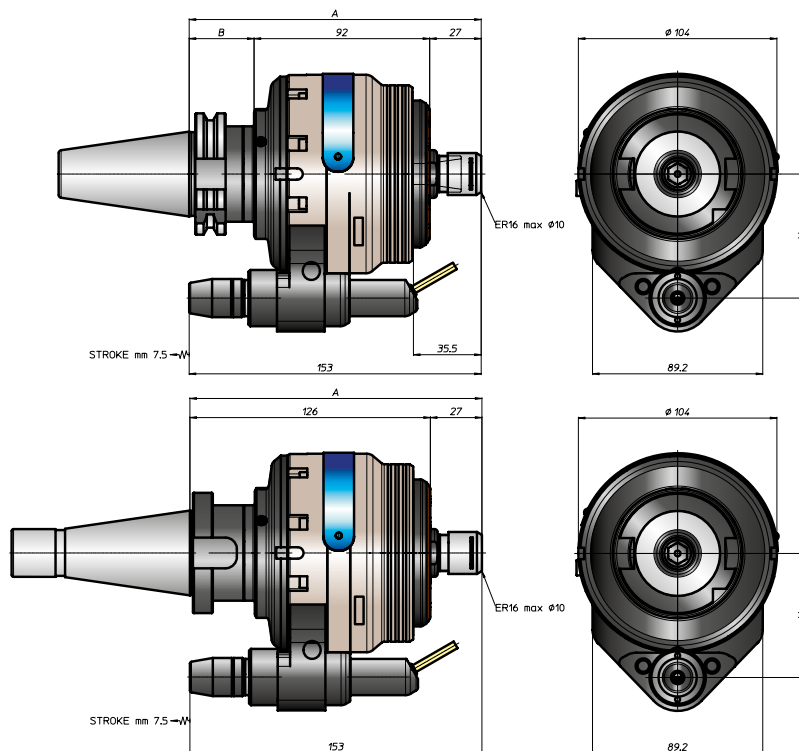
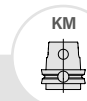
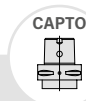


40
5,8 KG

50
8 KG

PESO
WEIGHTROTAZIONE
ROTATION

OPTIONAL

CARATTERISTICHE
FEATURESCONO
SHANK

SIZE

30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50
----	----	----	----	----	----	----	----	----	----	-----	----	----	----	----	----	-----	----	----	----	----

A

154				154		154	162	163		163	158	154				154		154	
-----	--	--	--	-----	--	-----	-----	-----	--	-----	-----	-----	--	--	--	-----	--	-----	--

B

34	42	34	42	35	50	42	51									34	42	34	42
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H STANDARD

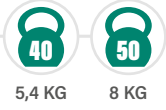
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H OPTIONAL

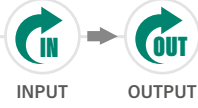
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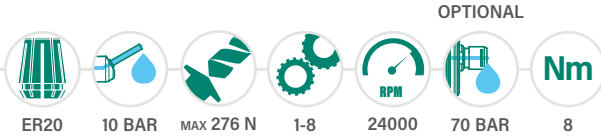
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MOX10

MOLTIPLICATORE DI GIRI - SPINDLE SPEEDERS

FH

BAH

TA.CP

TA

MOX

HT

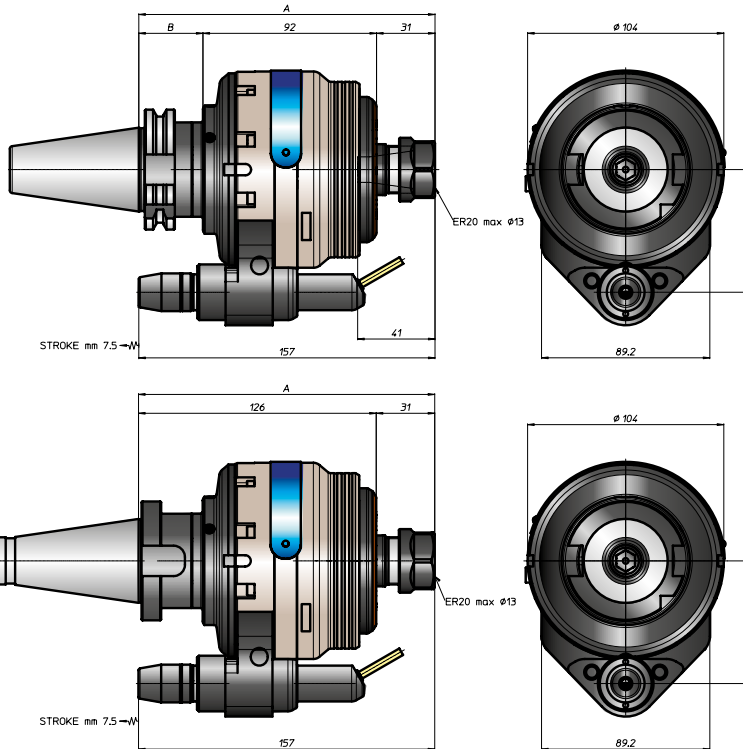
5-4

VH

TSI/TSX

T

MT-TC-TC3



CONO
SHANK



SIZE	DIN69871				ANSIB5.50		BT		HSK			CAPTO			KM			DIN2080		ANSIB5.18				
A	30	40	45	50	40	50	40	50	63	80	100	C5	C6	C8	63	80	100	40	50	40	50			
A	157				157		157	165	166			166	161		157			157		157				
B	34	42			34	42	35	50	42			51				34	42		34	42				
H STANDARD	65	80			65	80	65	80	65	80			65	80		65	80		65	80		65	80	
H OPTIONAL	80	110	110		80	110	110	80	80	110	110	80	110	110	80	110	110	80	110	110	80	110	110	

FH

BAH

TA.CP

TA

MOX

HT

5-5

VH

TSI/TSX

T

MT-TC-TC3



MOX13

MOLTIPLICATORE DI GIRI • SPINDLE SPEEDERS



40
6,5 KG

50
9 KG

PESO
WEIGHT



INPUT



OUTPUT

ROTAZIONE
ROTATION

OPTIONAL



ER25



10 BAR



MAX 460 N



1-6



20000

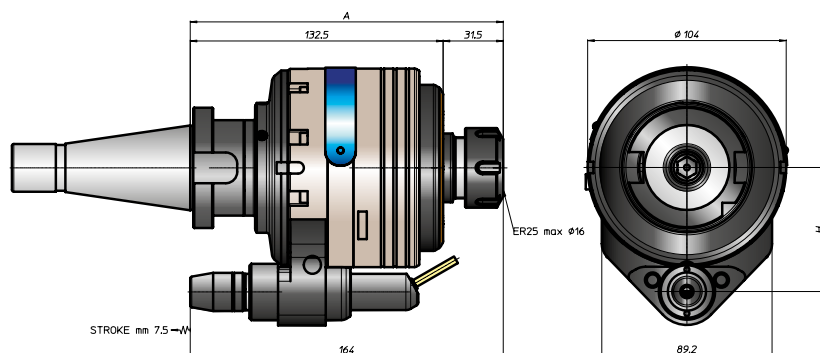
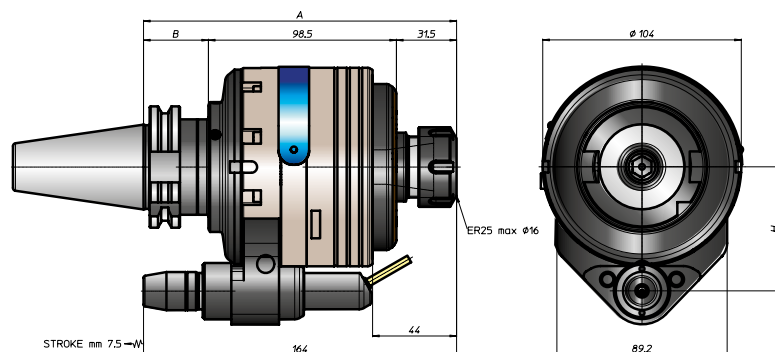


70 BAR



16

CARATTERISTICHE
FEATURES



CONO
SHANK

SIZE

A

B

H STANDARD

H OPTIONAL



DIN69871



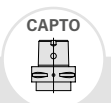
ANSIB5.50



BT



DIN69893



ISO26623



KM



DIN2080

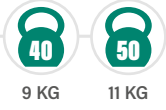


ANSIB5.18

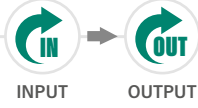
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164		164		164	172	173	172,5	168		163,5		164		164		164		164	
34	42	34	42	35	50	42	51							34	42	34	42	34	42
65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80	65	80
80	110	110	80	110	110	80	110	110	80	110	110	80	110	110	80	110	110	80	110



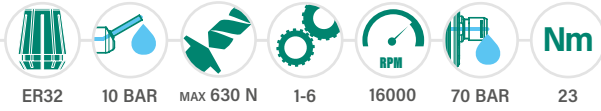
PESO
WEIGHT



ROTAZIONE
ROTATION



CARATTERISTICHE
FEATURES



MOX16

MOLTIPLICATORE DI GIRI - SPINDLE SPEEDERS

FH

BAH

TA.CP

TA

MOX

HT

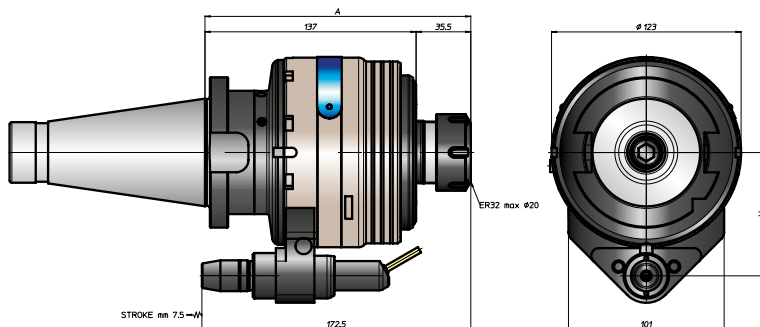
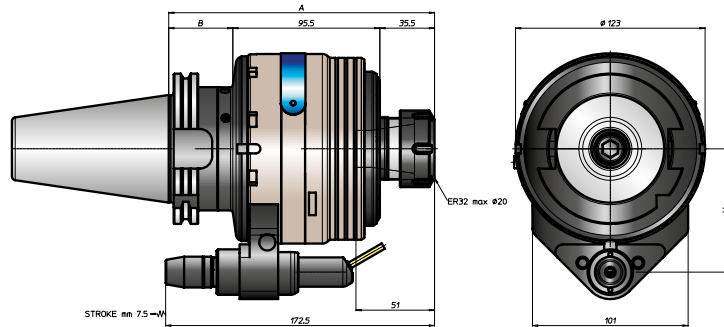
5-6

VH

TSI/TSX

T

MT-TC-TC3



CONO
SHANK

SIZE

A

B

H STANDARD

H OPTIONAL

	DIN69871		ANSIB5.50		BT		DIN69893		ISO26623		KM		DIN2080		ANSIB5.18	
SIZE	40	50	50	50	80	100	80	100	80	100	80	100	40	50	40	50
A	172,5		172,5		180,5		181,5		176,5		172,5		172,5		172,5	
B	34	42	35	50	42	51					34	42	34	42		
H STANDARD	80		80		80		80		80		80		80		80	
H OPTIONAL	110		110		110		110		110		110		110	110	110	



MOX26

MOLTIPLICATORE DI GIRI • SPINDLE SPEEDERS



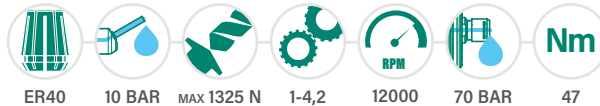
50
21 KG

PESO
WEIGHT

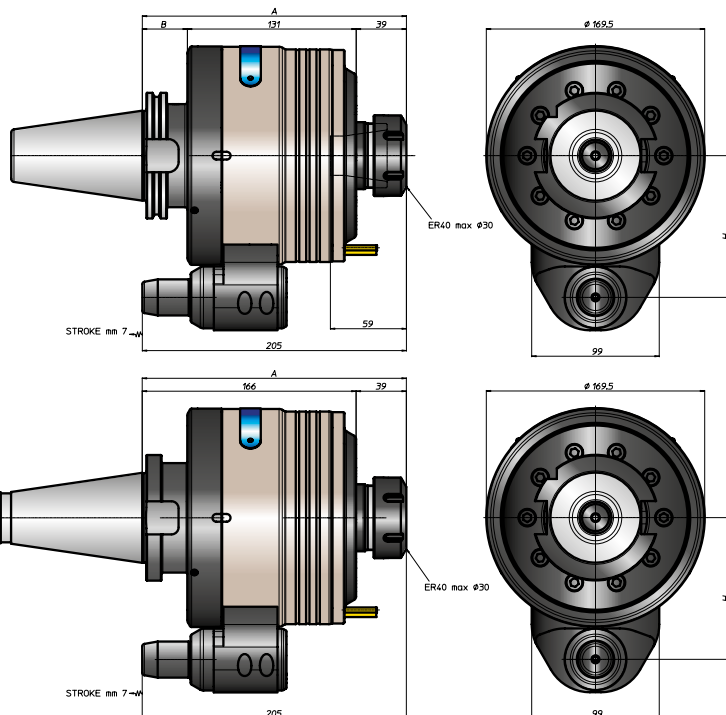
IN → **OUT**
INPUT OUTPUT

ROTAZIONE
ROTATION

OPTIONAL



CARATTERISTICHE
FEATURES



CONO
SHANK

SIZE

A

B

H STANDARD

H OPTIONAL



DIN69871



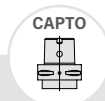
ANSIB5.50



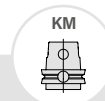
BT



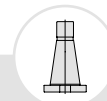
DIN69893



ISO26623



KM



DIN2080



ANSIB5.18

50	60	50	50	100	C8	100	50	50
205	221	221	221	223,5	213	209	205	205
35	51	35	51	53				
110		110	110	110	110	110	110	110

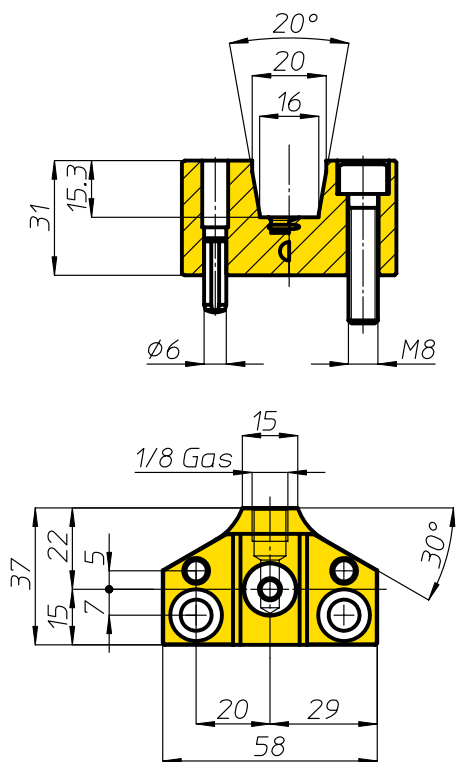
STOP-BLOCK

INCLUDED

STOP-BLOCK (COD. 630104)



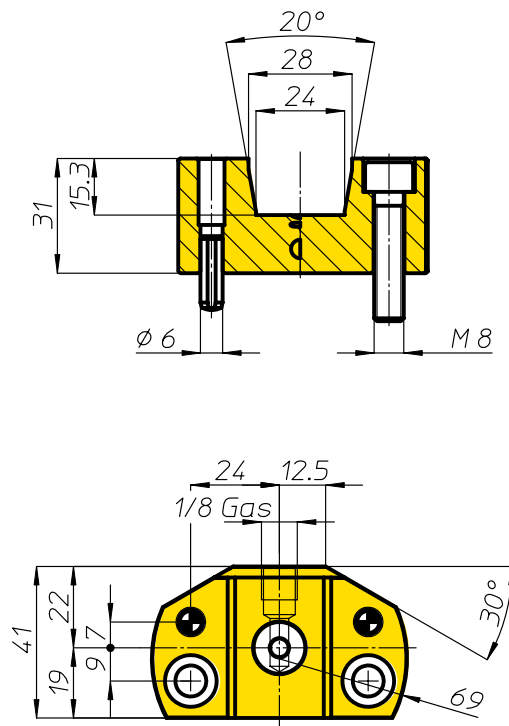
MOX CON H=65/80
MOX WITH H=65/80



STOP-BLOCK (COD. 632198)



MOX CON H=110/125
MOX WITH H=110/125



FH

BAH

TA.CP

TA

MOX

HT

5-9

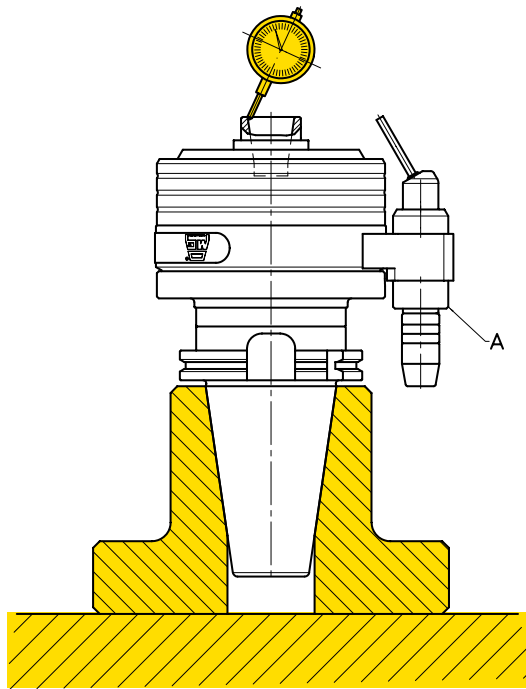
VH

TSI/TSX

T

MT-TC-TC3





COLLAUDO

Ogni moltiplicatore di giri ha allegato il proprio certificato di collaudo dove sono riportate le proprie caratteristiche tecniche, il numero di matricola, i risultati ottenuti dai test eseguiti sul nostro banco prova BP03, il valore della concentricità tra il cono e la sede pinza il cui valore massimo è mm 0.01. Per verificare il valore della concentricità occorre disporre il moltiplicatore come in fig. 1, fermare il perno A e ruotare il cono. Il valore letto sul comparatore millesimale è la concentricità tra l'asse del cono e l'asse del mandrino.

TEST

Every spindle speeder has his test certificate in which there are the technical characteristics, the serial number, the results of the tests made on our BP03 testing bench, the concentricity value between the shank and the collet (max. value 0,01 mm). To verify the concentricity value it is necessary to have the spindle speeder as from picture N° 1, stopping the pin "A" and rotating the shank. The value on the dial indicator is the concentricity between the shank axe and the spindle axe.

CERTIFICATO DI COLLAUDO / TEST REPORT

Banco prova BP03 / Testing bench BP03
Data prova / Test date: 10/07/2011
Articolo / Item: MO10
Matricola / SN: 1315

N° Max Giri Uscita / Max Output RPM: 22.000
Rapporto Entrata-Uscita / Ratio Input-Output : 1:6
N° Giri Uscita = N° Giri Entrata * Rapporto / Output RPM = Input RPM * Ratio

Prova Test	N° Giri Entrata Input RPM	Temp.(°C) Sonda 1 Probe 1	Temp.(°C) Sonda 2 Probe 2	Temp. Ambiente Enviroment Temp.
1	1000	45,40	43,20	24,60
2	1500	40,80	36,80	24,60
3	2000	44,20	42,00	24,80
4	2500	48,80	42,00	24,80
5	3000	49,20	38,60	25,00

Concentricità Max Cono - Mandrino / Max Runout between Shank and Spindle : 0,006



MO 26310

Riduttore di giri, rapporto 6-1,
input max 15.000 RPM, attacco
HSK63, mandrino ER20

*Spindle reducer, ratio 6-1, input
max 15.000 RPM, shank HSK63,
ER20 spindle*



MO 28910

MO16 con attacco CAPTO C8 e
mandrino ER25 prolungato

*MO16 with CAPTO C8 shank and
extended ER25 spindle*

MO 12110

Rapporto/Ratio 1-4
RPM max 4.500
Torque 1.150 Nm
Output DIN69871-A50
Peso/Weight Kg 240



TFS 09011

Riduttore di giri per maschiatura con compensazione assiale mandrino, corsa compensazione ± 7 mm, rapporto 6-1, input max 10.000 RPM, attacco HSK-F63, mandrino per bussola porta maschio grandezza 1

Tapping spindle reducer with axial compensation, stroke ± 7 mm, ratio 6-1, input max 10.000 RPM, shank HSK-F63, spindle for tapping bush size 1



VDI 16610

MO13 rinvio di 90° con attacco VDI30
MO13 with VDI30 shank at 90°



MO 26

MO26 con cono DIN69871-A60, mandrino Weldon $\varnothing 25$ e liquido refrigerante utensile passante dal centro stop-block/centro mandrino

MO26 with DIN69871-A60 shank, output spindle Weldon $\varnothing 25$, coolant trough the stop-block/spindle centre



MO 16210

MO13 con attacco VDI40
MO13 with VDI40 shank



MOX

MOLTIPLICATORI DI GIRI SPECIALI • SPECIAL SPINDLE SPEEDERS

FH

BAH

TA.CP

TA

MOX

HT

5-12

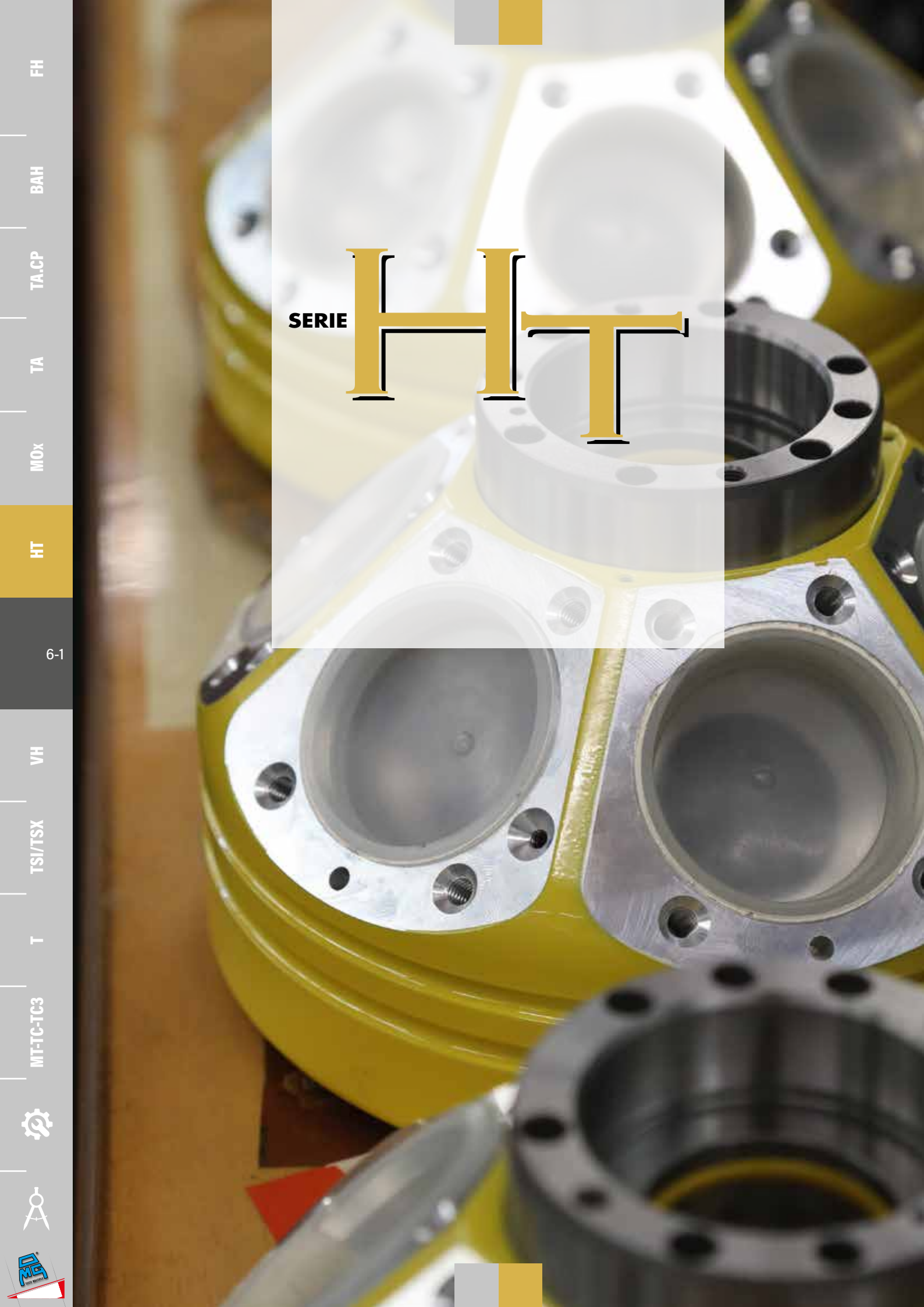
VH

TSI/TSX

T

MT-TC-TC3





SERIE **HT**

FH

BAH

TA.CP

TA

MOx

HT

6-1

VH

TSI/TSX

T

MT-TC-TC3



Le torrette a revolver serie **HT** sono nate dall'esigenza di aumentare la flessibilità delle macchine utensili e possono eseguire lavorazioni di foratura, filettatura, alesatura, fresatura. Trovano collocazione direttamente sul mandrino della macchina o, con motorizzazione propria, montate su slitte a uno o più assi di movimento.

Hanno la possibilità di montare teste multiple, teste ad angolo e moltiplicatori di giri per aumentare la velocità dell'utensile. Tutte le versioni utilizzano un sistema di posizionamento tramite corona Hirth; questa soluzione costruttiva permette grande precisione, grande rigidità nelle lavorazioni di fresatura e alesatura di finitura, grande ripetitività.

- Costruzione torretta in acciaio e ghisa.
- Mandrini montati su cuscinetti di precisione.
- Mandrini con diverso attacco utensile (DIN55058, Komet, HSK, ecc) intercambiabili sulla stessa torretta.
- Mandrini in presa diretta con la presa di forza per sfruttare appieno la potenza
- Sistema idraulico di bloccaggio-sbloccaggio corona Hirth.
- La stessa motorizzazione permette la rotazione della torretta e la rotazione dei mandrini.
- Rotazione torretta bidirezionale per ricercare più velocemente il mandrino necessario alla lavorazione da eseguire.
- Refrigerante indipendente per ogni mandrino.
- Possibilità del refrigerante di passare attraverso il centro del mandrino.
- Lubrificazione effettuata a grasso o con miscela olio-aria.
- Pressurizzazione torretta
- Connettore unico per l'interscambio dati tra la torretta ed il cnc.

The HT series of turret heads are inspired by the need to increase the flexibility of machine tools and they are able to perform drilling, tapping, boring and milling. They can be installed directly on the machine spindle or, with their own drive, mounted on slides with one or more movement axes.

They can be fitted with multispindle heads, angle heads and multipliers for greater tool velocity.

All versions use a positioning system based on a Hirth crown gear, providing utmost precision, excellent strength in milling and finishing boring and outstanding repeatability.

- Turret made of steel and cast iron
- Spindles mounted on precision bearings
- Spindles with different tool connections (HSK, Komet, DIN55058, etc.) which can be interchanged on the same turret
- Spindles directly engaged with p.t.o. to exploit power to the full
- Hydraulic Hirth crown gear locking-release system
- Single drive rotates both turret and spindles
- Two-way turret rotation for quicker retrieval of the spindle needed for the next process
- Separate coolant for each spindle
- Coolant through the spindle centre
- Lubrication with grease or oil-air mixture
- Pressurised turret
- Single connector for data exchange between turret and cnc.





HT 160



HT 200



HT 250



HT 360



CIRCUITO OLIO PER
BLOCCAGGIO-SBLOCCAGGIO TORRETTA
OIL CIRCUIT FOR TURRETLOCKING-RELEASE

F1

ENTRATA REFRIGERANTE
UTENSILI
COOLANT TOOLS

F2

FORI FISSAGGIO TORRETTA
TURRET FIXING HOLES

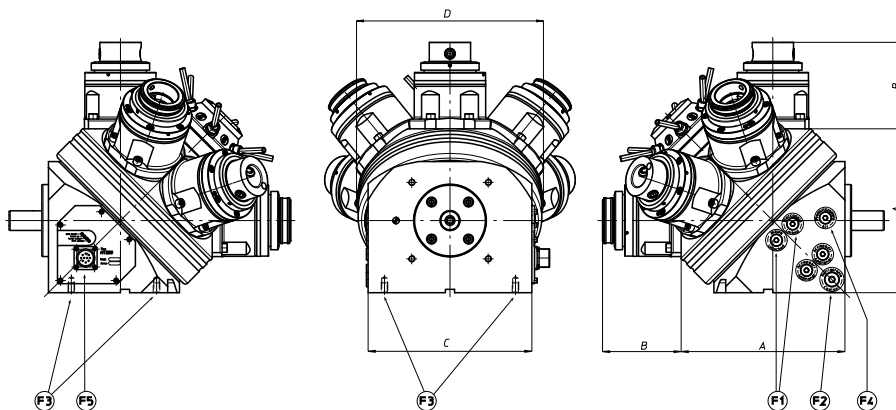
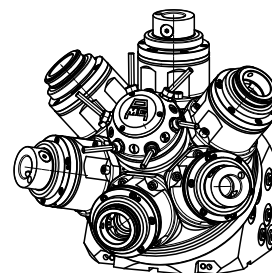
F3

ENTRATA OLIO-ARIA
INPUT OIL-AIR

F4

CONNETTORE
ELETTTRICO
ELECTRIC CONNECTOR

F5



N° DI POSIZIONI MAX
MAX NR. OF POSITION

COPPIA TRASMISSIBILE AL MANDRINO
TRANSMITTING TORQUE BY SPINDLE

N° GIRI MAX MANDRINO
MAX RPM SPINDLE

PRECISIONE DI POSIZIONE MANDRINI
PRECISION OF SPINDLES POSITIONING

POTENZA MOTORE
MOTOR POWER

TEMPO DI ROTAZIONE (1/6 DI GIRO)
INDEXING TIME 1/6 OF ROTATION

DIAMETRO CORONA HIRTH
DIMENSION RINGS HIRTH

A

B DIPENDE DAL TIPO DI MANDRINO
TO DEPEND ON THE SPINDLE TYPE

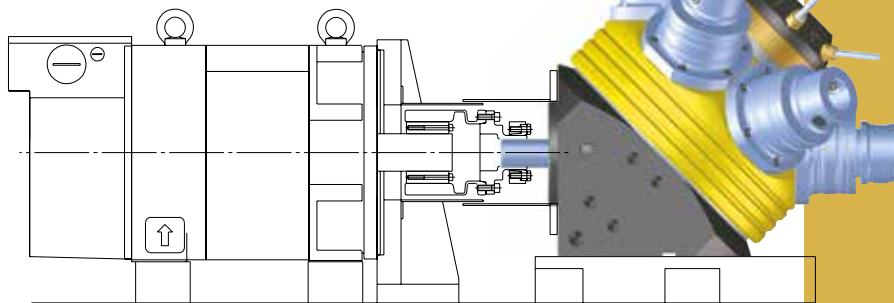
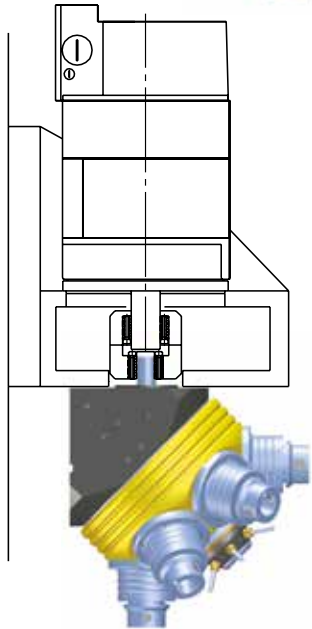
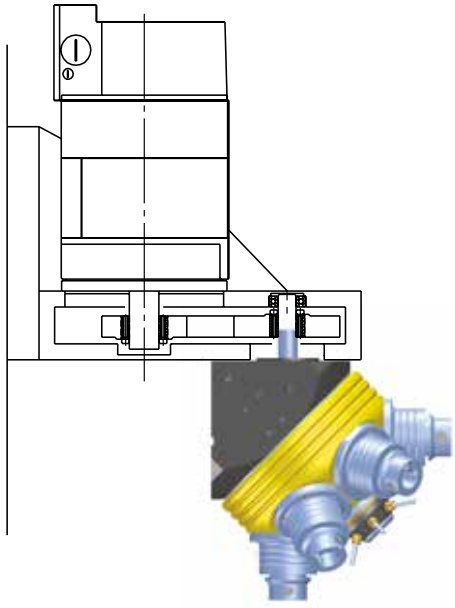
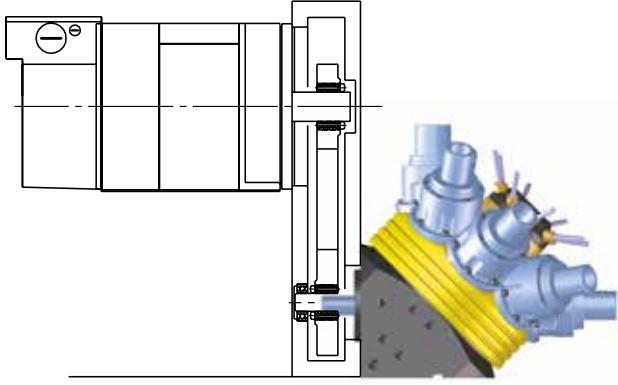
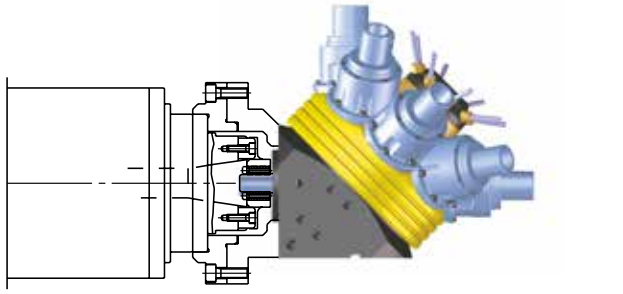
C

D

TIPI DI MANDRINI DISPONIBILI
TYPE OF SPINDLE

PESO
WEIGHT

	HT 160	HT 200	HT 250	HT 360
	6	6	6-8	6-8-12
Nm	80	200	300	800
	12.000	10.000	10.000	8.000
	± 3"	± 3"	± 3"	± 3"
approx Kw	4	5	6,5	16
sec	0,9	1	1,1	1,5
mm	160	200	250	350
	160	200	250	360
approx mm	70/80	100/150	100/150	120/170
	160	200	250	350
	180	228	290	400
	ABS, HSK, ER, DIN 55058			
kg	35	60	140	300



HT

APPLICAZIONI · APPLICATIONS

HT

GALLERY



HT 05007

HT 05209



HT 31808

HT 08509



FH

BAH

TA.CP

TA

MOx

HT

6-5

VH

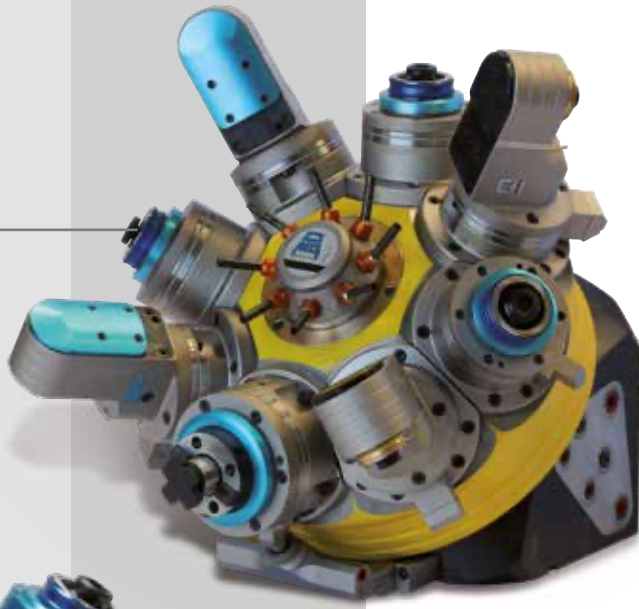
TSI/TSX

T

MT-TC-TC3



HT 08718



HT 35907

HT 07813



HT 27206

HT

GALLERY

FH

BAH

TA.CP

TA

MOX

HT

6-6

VH

TSI/TSX

T

MT-TC-TC3



FH

BAH

TA.CP

TA

MOx

HT

7-1

VH

TSI/TSX

T

MT-TC-TC3

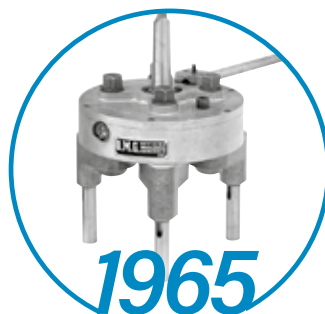


SERIE

VH



Le teste multiple ad assi variabili raggiungono velocità di 4000 rpm, forando fino a 25 mm e maschiando M20. Il corpo testa è in lega di alluminio, ingranaggi e mandrini in acciaio trattati termicamente e rettificati per una maggiore precisione e resistenza all'usura. Disponibili in 31 differenti modelli, a 2,3,4 mandrini o con 1 solo mandrino decentrato, coprono interassi variabili da un minimo di 12 mm ad un massimo di 300 mm. Soluzioni personalizzate sono comunque sempre possibili anche in questa fascia di teste standard. L'utilizzo principale è su macchine o unità foratrici e maschiatrici, raramente su macchine CNC.



The variable axis multispindle heads are able to achieve a speed of 4000 rpm, drilling up to 25 mm and tapping M20. The head body is made of aluminium alloy, the gears and spindles are made of steel which has undergone heat treatment and has been ground for greater precision and wear resistance. Available in 31 different models, with 2,3,4 spindles or just one decentralised spindle, they cover a range of centre distances from minimum 12 mm to maximum 300 mm. Customised solutions are in any case also available within this range of standard heads. They are mainly used on drilling and tapping units, but rarely on CNC machines.

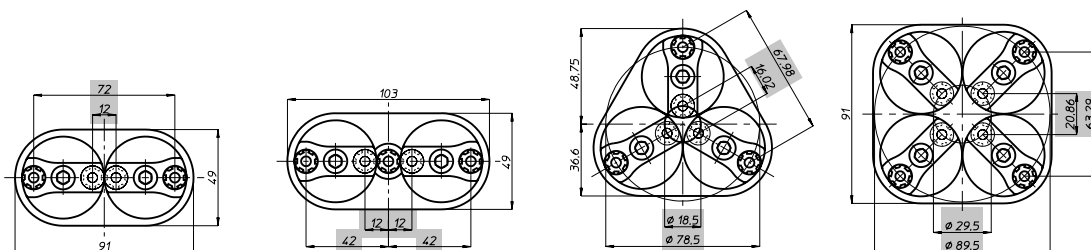
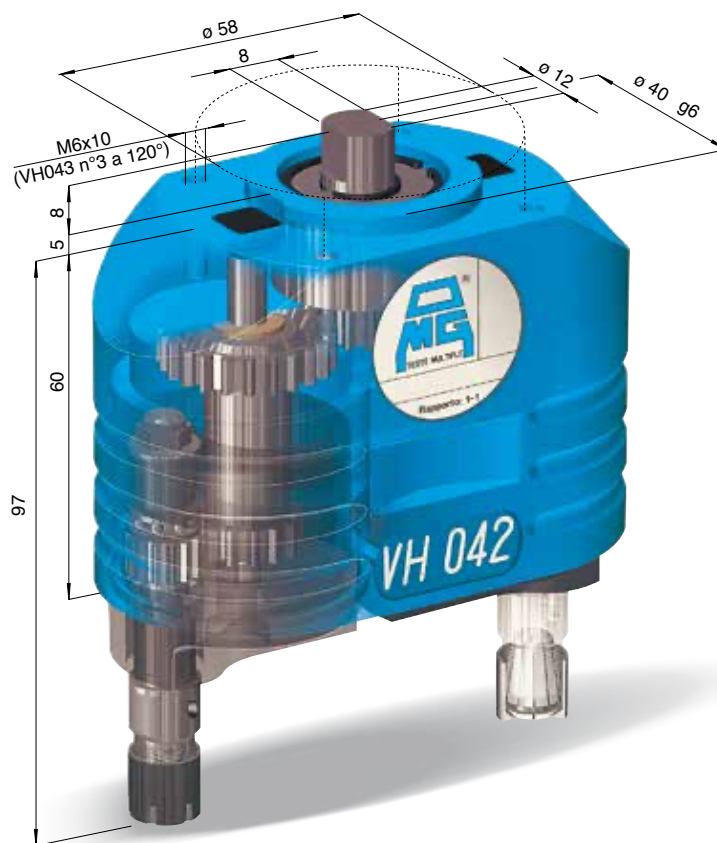


VH04

TESTE MULTIPLE AD ASSI VARIABILI - VARIABLE AXIS HEADS

05

CAPACITÀ FORATURA
DRILLING CAPACITY



TESTA MODELLO
HEAD TYPE

VH 042

VH 043 L

VH 043

VH 044

ARTICOLO
ITEM

VH 042 P

VH 043 LP

VH 043 P

VH 044 P

ATTACCO UTENSILE
SPINDLE TYPE

ER 8 - max ø 5

ARTICOLO
ITEM

ATTACCO UTENSILE
SPINDLE TYPE

N. MANDRINI
SPINDLES NR.

2

3

3

4

CAMPO DI LAVORO MIN.
CENTRE DISTANCES MIN.

12

12+12

ø 18,5

ø 29,5

CAMPO DI LAVORO MAX.
CENTRE DISTANCES MAX.

72

42+42

ø 78,5

ø 89,5

CAPACITÀ FORATURA
DRILLING CAPACITY

ACCIAIO/STILL Rm 500 N/mm² - ø 4 | GHISA/CAST IRON GG25 - ø 5

MASCHIATURA
TAPPING

M 3

RAPPORTO
RATIO

1 - 1

VELOCITÀ
RPM

4.000

PESO
WEIGHT

0,95 kg

1,05 kg

1,4 kg

1,9 kg

NOTA:
NOTE:

A.B.C.D. DATI MACCHINA
A.B.C.D. MACHINE FEATURES

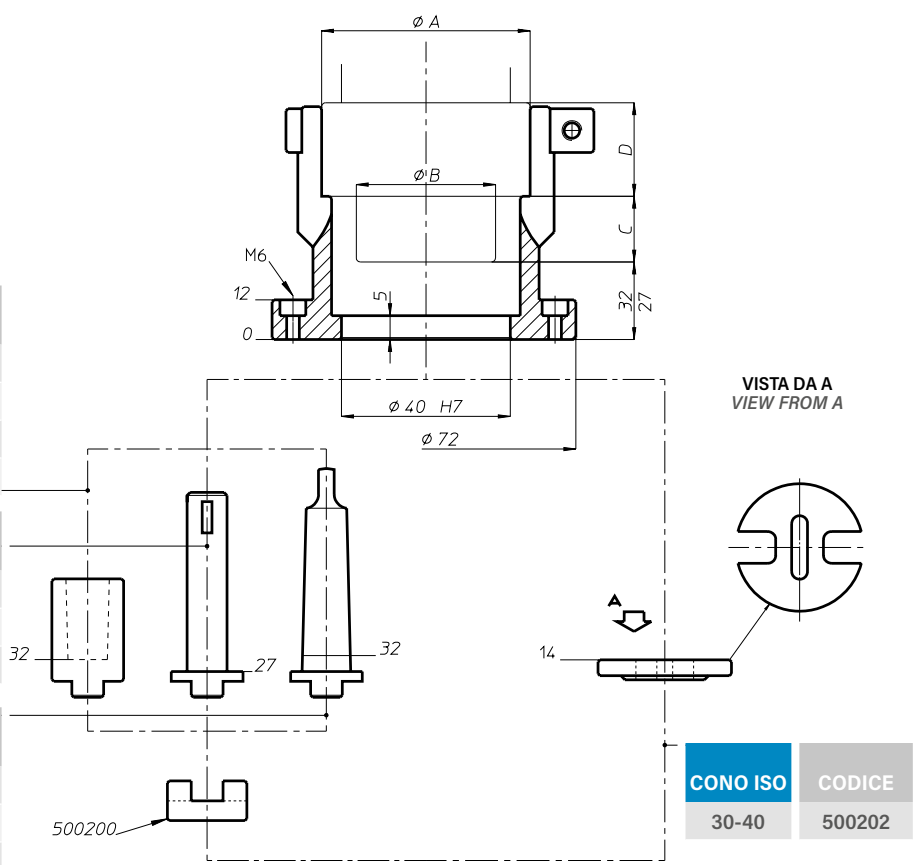
VH04

MANICOTTO DI COLLEGAMENTO • CONNECTION COLLAR

DIN 238	CODICE
B 10	011277
B 12	011278
B 16	011279
B 18	011280

DIN 55058	CODICE
16	525405
20	525406
28	525407

DIN 228	CODICE
cm 1	011115
cm 2	011120
cm 3	011125



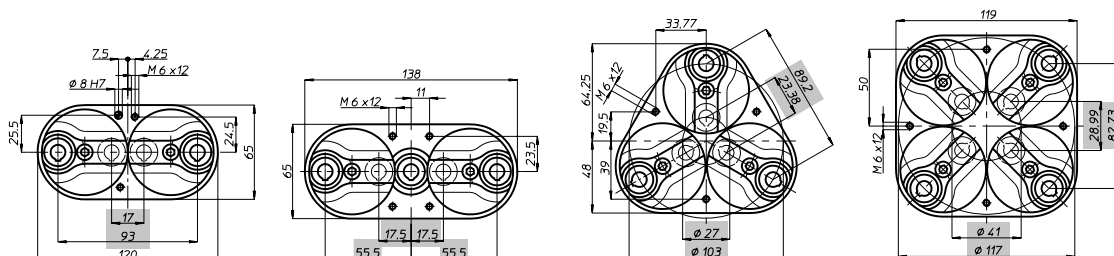
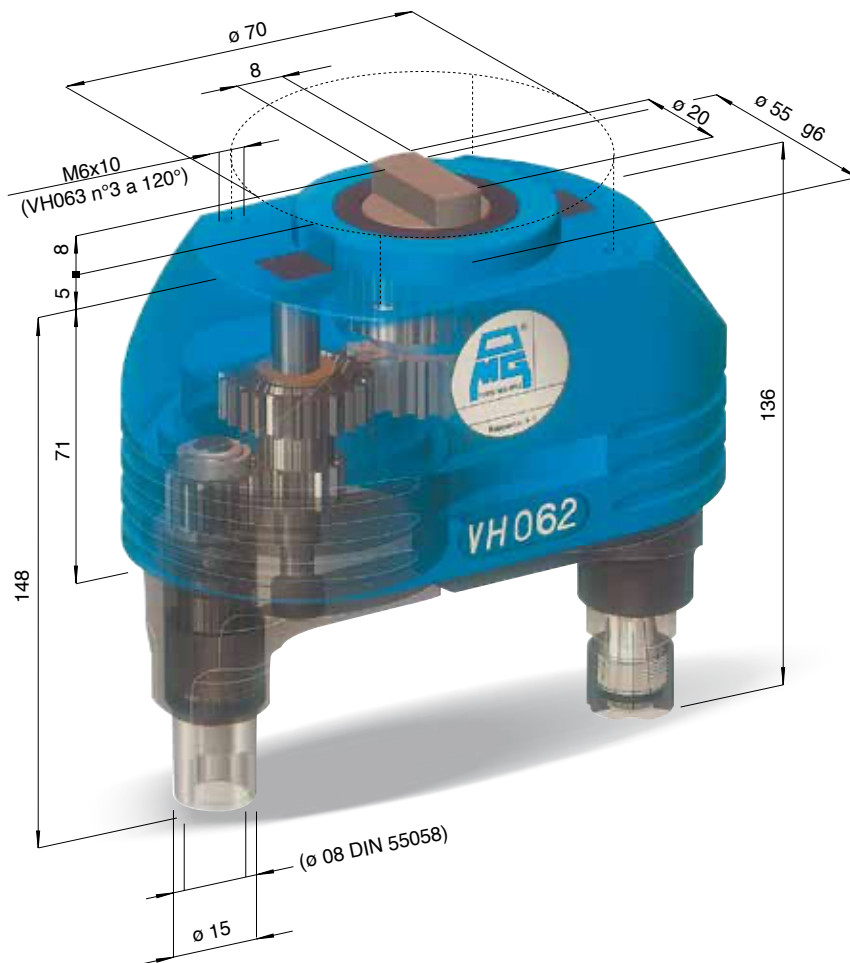


VH06

TESTE MULTIPLE AD ASSI VARIABILI - VARIABLE AXIS HEADS



CAPACITÀ FORATURA
DRILLING CAPACITY



TESTA MODELLO
HEAD TYPE

VH 062

VH 063 L

VH 063

VH 064

ARTICOLO
ITEM

VH 062 P

VH 063 LP

VH 063 P

VH 064 P

ATTACCO UTENSILE
SPINDLE TYPE

ER 11 - max $\varnothing 7$

ARTICOLO
ITEM

VH 062 D

VH 063 LD

VH 063 D

VH 064 D

ATTACCO UTENSILE
SPINDLE TYPE

DIN55058 - $\varnothing 8$

N. MANDRINI
SPINDLES NR.

2

3

3

4

CAMPO DI LAVORO MIN.
CENTRE DISTANCES MIN.

17

17,5 + 17,5

$\varnothing 27$

$\varnothing 41$

CAMPO DI LAVORO MAX.
CENTRE DISTANCES MAX.

93

55,5 + 55,5

$\varnothing 103$

$\varnothing 117$

CAPACITÀ FORATURA
DRILLING CAPACITY

ACCIAIO/STILL Rm 500 N/mm² - $\varnothing 6$ | GHISA/CAST IRON GG25 - $\varnothing 7$

MASCHIATURA
TAPPING

M 5

RAPPORTO
RATIO

1 - 1

VELOCITÀ
RPM

4.000

PESO
WEIGHT

1,65 kg

1,95 kg

2,3 kg

3,1 kg

NOTA:
NOTE:

A.B.C.D. DATI MACCHINA

A.B.C.D. MACHINE FEATURES

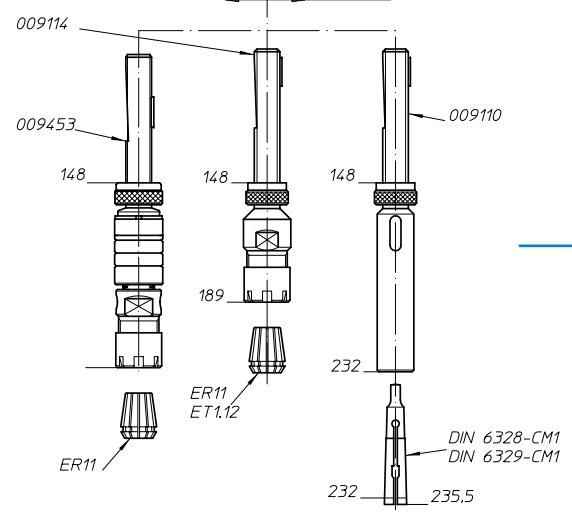
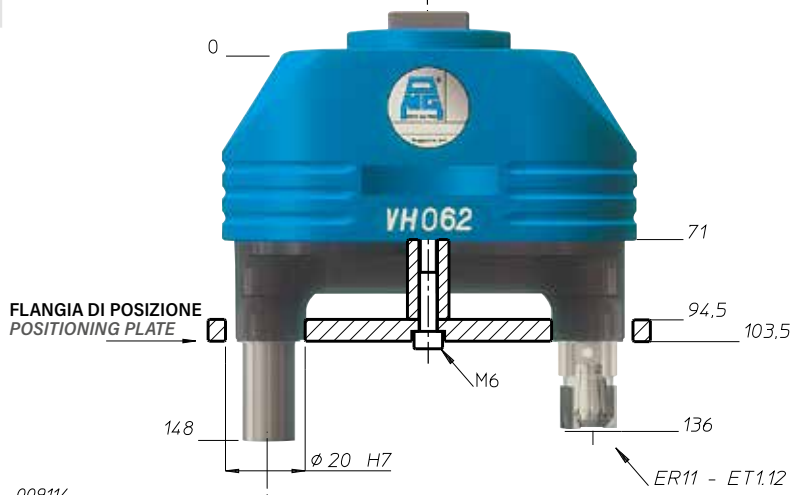
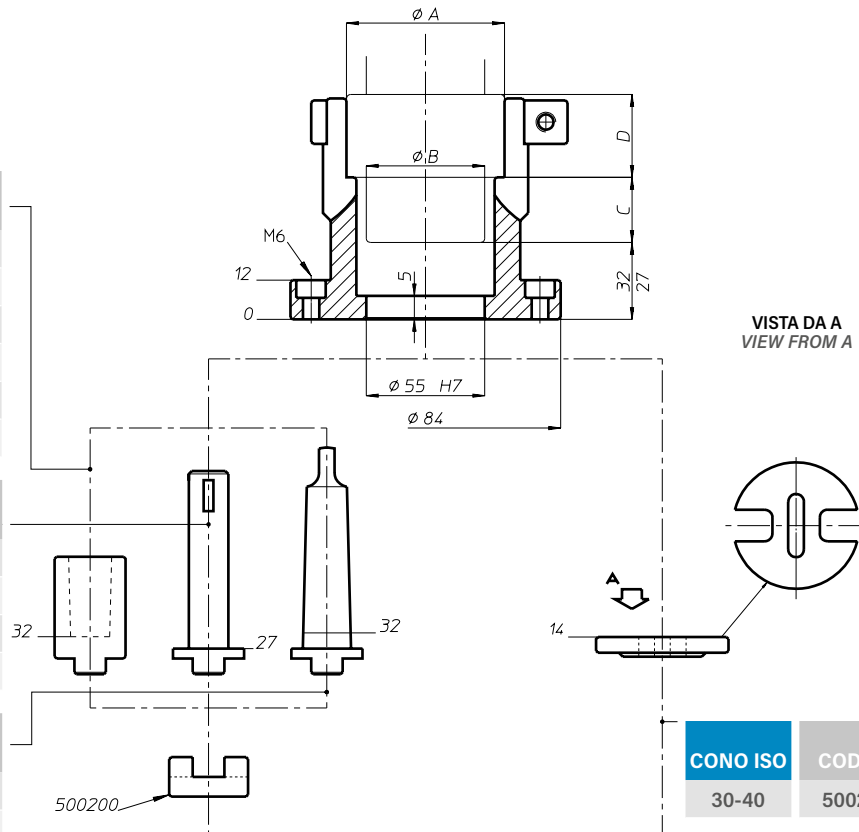
VH06

MANICOTTO DI COLLEGAMENTO · CONNECTION COLLAR

DIN 238	CODICE
B 10	011277
B 12	011278
B 16	011279
B 18	011280
B 22	011281
B 24	011282

DIN 55058	CODICE
16	525405
20	525406
28	525407
36	525408

DIN 228	CODICE
cm 1	011115
cm 2	011120
cm 3	011125
cm 4	011130
cm 5	011135



ACCESSORI PER TESTE MULTIPLE
MULTISPINDLE HEADS ACCESSORIES

FH
BAH
TA.CP
TA
MOX
HT

7-6

VH

TSI/TSX

T

MT-TC-TC3



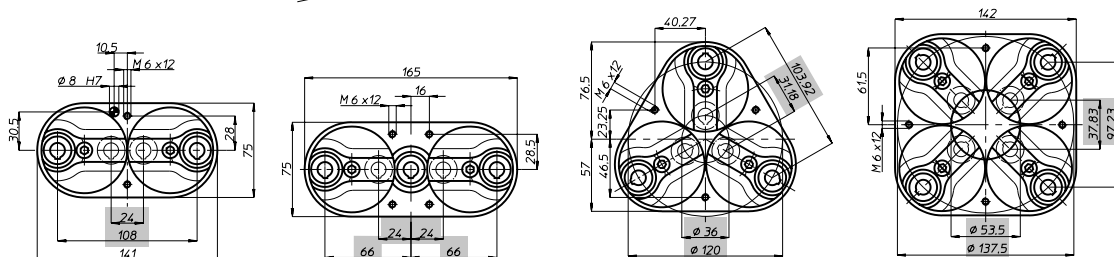
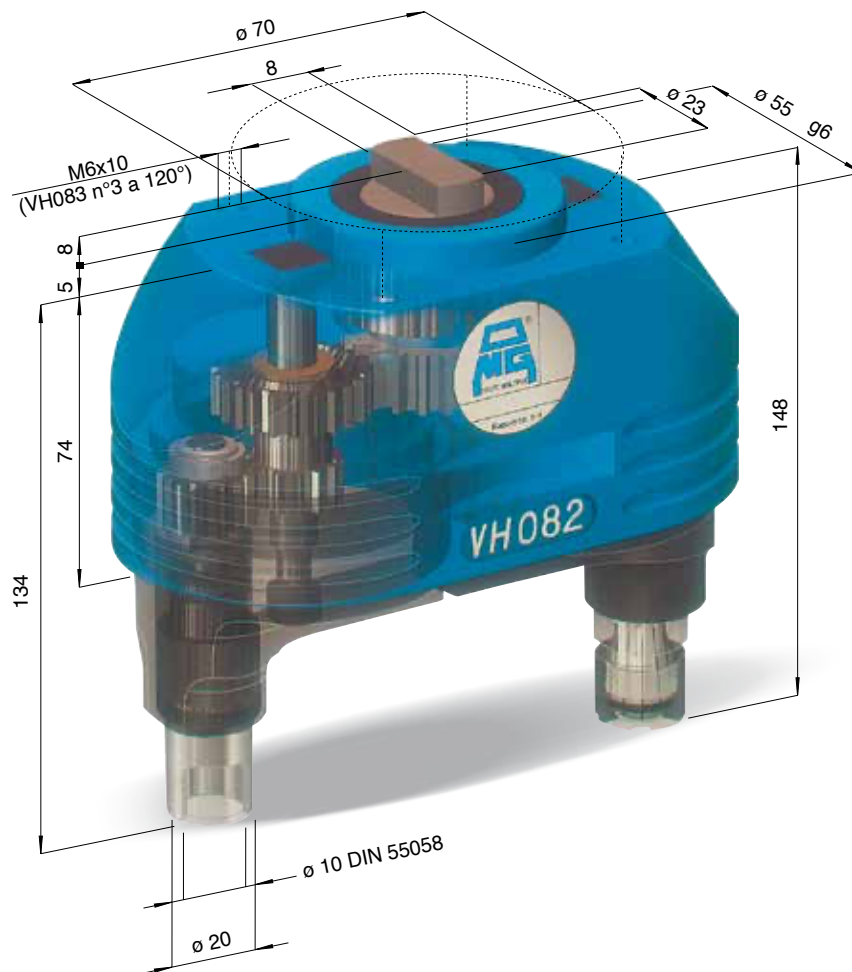


VH08

TESTE MULTIPLE AD ASSI VARIABILI - VARIABLE AXIS HEADS



CAPACITÀ FORATURA
DRILLING CAPACITY



TESTA MODELLO
HEAD TYPE

VH 082

VH 083 L

VH 083

VH 084

ARTICOLO
ITEM

VH 082 P

VH 083 LP

VH 083 P

VH 84 P

ATTACCO UTENSILE
SPINDLE TYPE

ER 16 - max ø 10

ARTICOLO
ITEM

VH 082 D

VH 083 LD

VH 083 D

VH 84 D

ATTACCO UTENSILE
SPINDLE TYPE

DIN55058 - ø 10

N. MANDRINI
SPINDLES NR.

2

3

3

4

CAMPO DI LAVORO MIN.
CENTRE DISTANCES MIN.

24

24 + 24

ø 36

ø 53,5

CAMPO DI LAVORO MAX.
CENTRE DISTANCES MAX.

108

66 + 66

ø 120

ø 137,5

CAPACITÀ FORATURA
DRILLING CAPACITY

ACCIAIO/STILL Rm 500 N/mm² - ø 8 | GHISA/CAST IRON GG25 - ø 10

MASCHIATURA
TAPPING

M 6

RAPPORTO
RATIO

1 - 1

VELOCITÀ
RPM

4.000

PESO
WEIGHT

2,2 kg

2,9 kg

3,4 kg

4,6 kg



NOTA:
NOTE:

A.B.C.D. DATI MACCHINA
A.B.C.D. MACHINE FEATURES

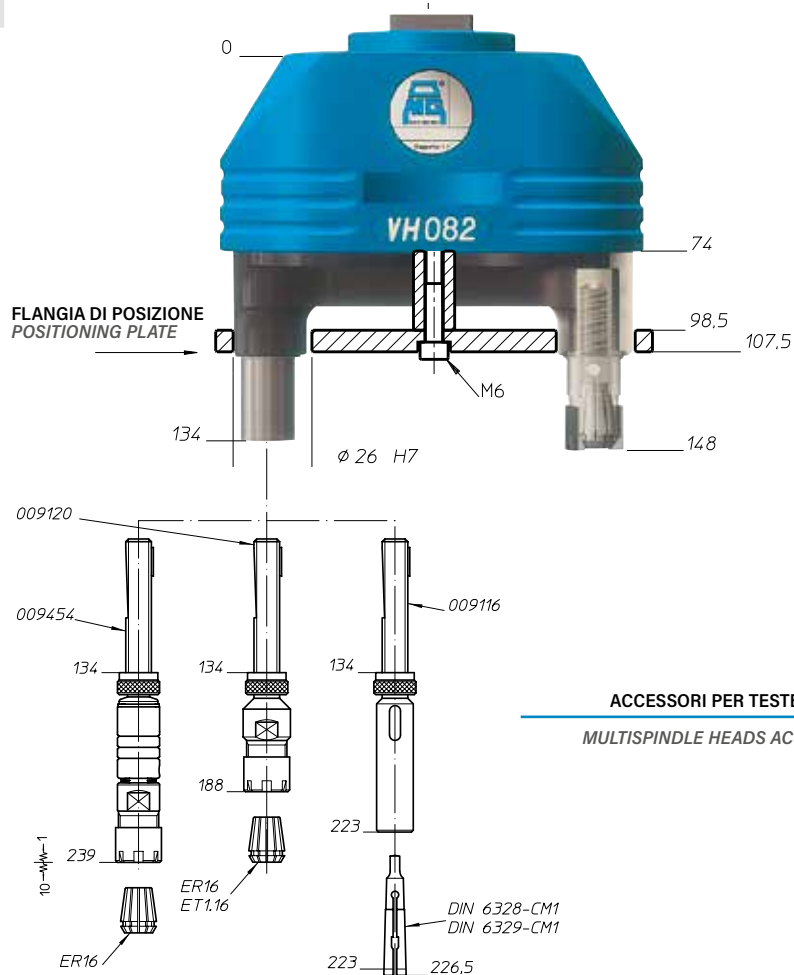
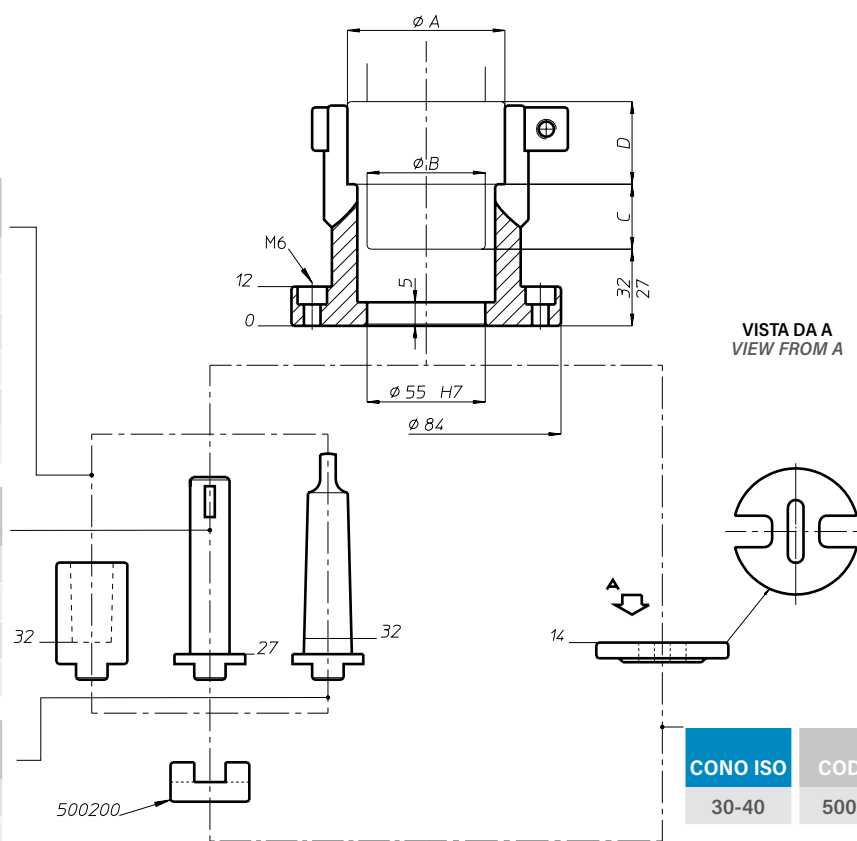
VH08

MANICOTTO DI COLLEGAMENTO · CONNECTION COLLAR

DIN 238	CODICE
B 10	011277
B 12	011278
B 16	011279
B 18	011280
B 22	011281
B 24	011282

DIN 55058	CODICE
16	525405
20	525406
28	525407
36	525408

DIN 228	CODICE
cm 1	011115
cm 2	011120
cm 3	011125
cm 4	011130
cm 5	011135



ACCESSORI PER TESTE MULTIPLE
MULTISPINDLE HEADS ACCESSORIES

FH
BAH
TA.CP
TA
MOX
HT

7-8

VH

TSI/TSX

T

MT-TC-TC3



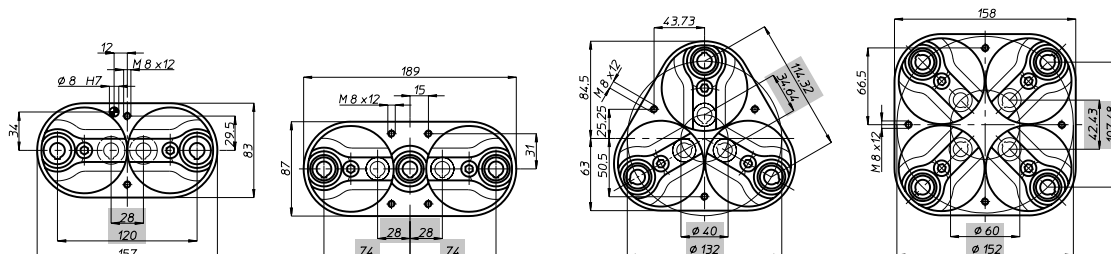
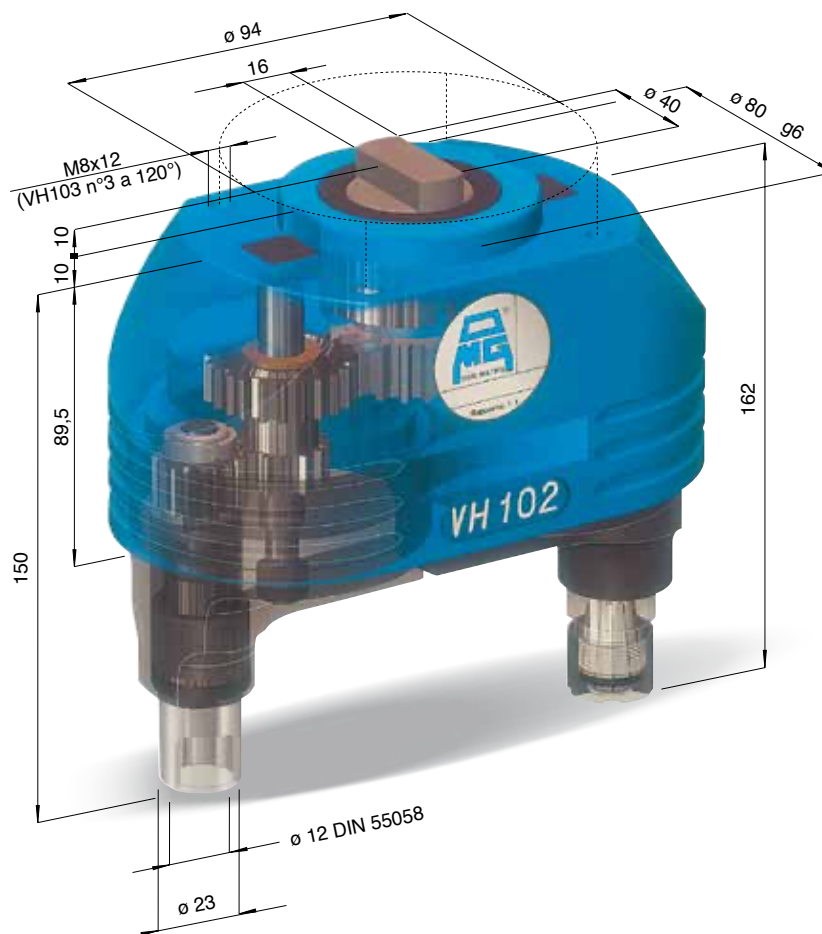


VH10

TESTE MULTIPLE AD ASSI VARIABILI - VARIABLE AXIS HEADS



CAPACITÀ FORATURA
DRILLING CAPACITY



TESTA MODELLO
HEAD TYPE

VH 102

VH 103 L

VH 103

VH 104

ARTICOLO
ITEM

VH 102 P

VH 103 LP

VH 103 P

VH 104 P

ATTACCO UTENSILE
SPINDLE TYPE

ER 16 - max \varnothing 10

ARTICOLO
ITEM

VH 102 D

VH 103 LD

VH 103 D

VH 104 D

ATTACCO UTENSILE
SPINDLE TYPE

DIN55058 - \varnothing 12

N. MANDRINI
SPINDLES NR.

2

3

3

4

CAMPO DI LAVORO MIN.
CENTRE DISTANCES MIN.

28

28 + 28

\varnothing 40

\varnothing 60

CAMPO DI LAVORO MAX.
CENTRE DISTANCES MAX.

120

74 + 74

\varnothing 132

\varnothing 152

CAPACITÀ FORATURA
DRILLING CAPACITY

ACCIAIO/STILL Rm 500 N/mm² - \varnothing 10 | GHISA/CAST IRON GG25 - \varnothing 12

MASCHIATURA
TAPPING

M 8

RAPPORTO
RATIO

1 - 1

VELOCITÀ
RPM

3.500

PESO
WEIGHT

3,5 kg

4,9 kg

4,9 kg

7,2 kg

NOTA:
NOTE:

A.B.C.D. DATI MACCHINA

A.B.C.D. MACHINE FEATURES

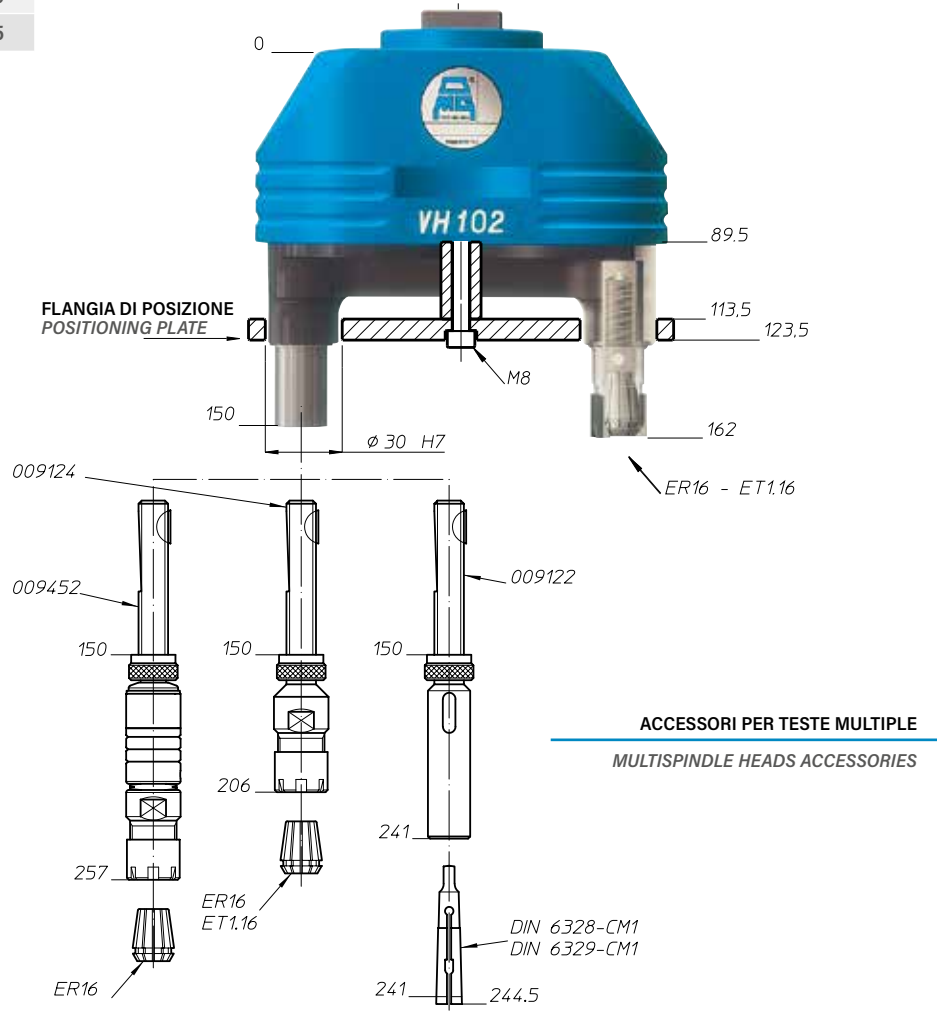
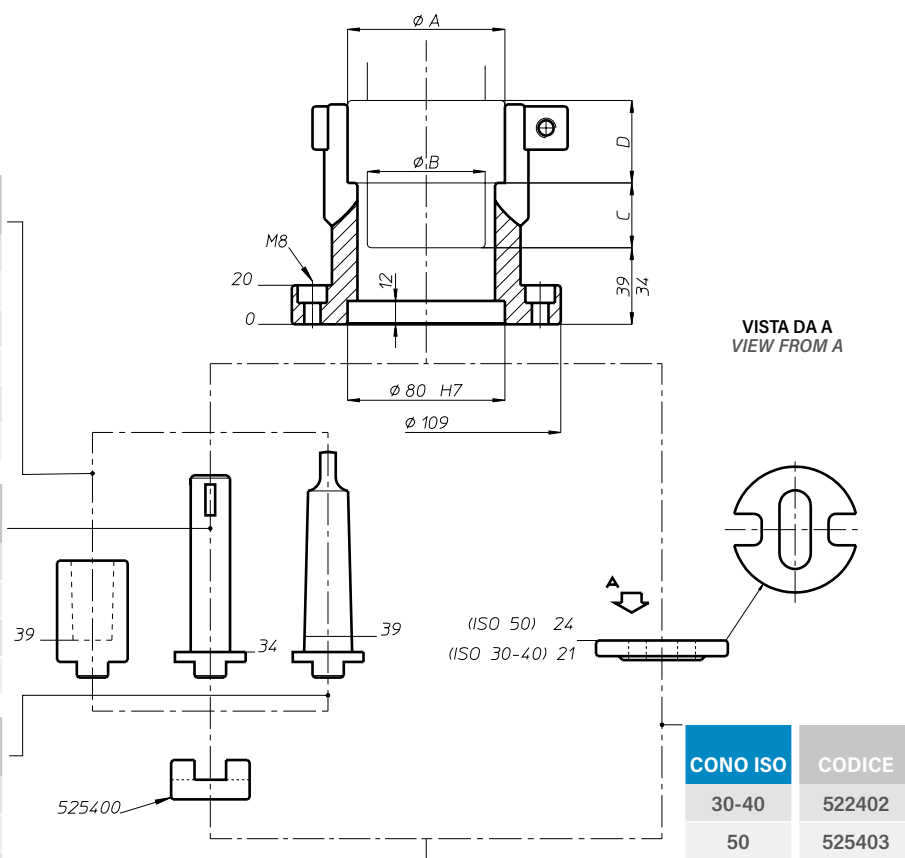
VH10

MANICOTTO DI COLLEGAMENTO - CONNECTION COLLAR

DIN 238	CODICE
B 10	011277
B 12	011278
B 16	011279
B 18	011280
B 22	011281
B 24	011282

DIN 55058	CODICE
16	525405
20	525406
28	525407
36	525408

DIN 228	CODICE
cm 1	011115
cm 2	011120
cm 3	011125
cm 4	011130
cm 5	011135



FH
BAH
TA.CP
TA
MOX
HT
VH
TSI/TSX
T
MT-TC-TC3

7-10



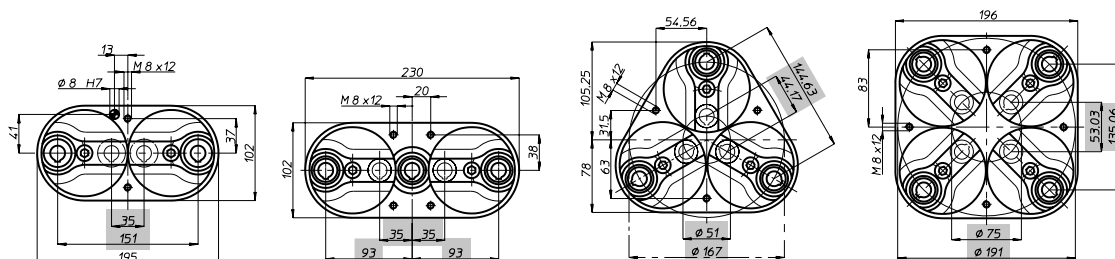
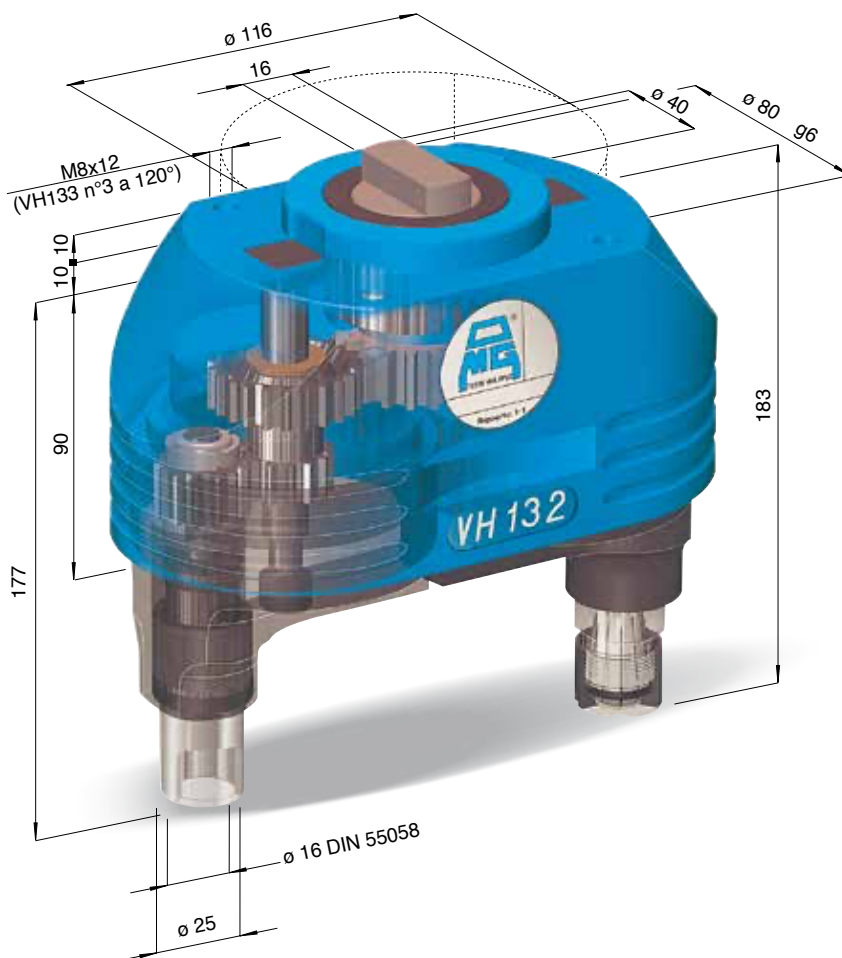


VH13

TESTE MULTIPLE AD ASSI VARIABILI - VARIABLE AXIS HEADS

014

CAPACITÀ FORATURA
DRILLING CAPACITY



TESTA MODELLO
HEAD TYPE

VH 132

VH 133 L

VH 133

VH 134

ARTICOLO
ITEM

VH 132 P

VH 133 LP

VH 133 P

VH 134 P

ATTACCO UTENSILE
SPINDLE TYPE

ER 20 - max $\varnothing 13$

ARTICOLO
ITEM

VH 132 D

VH 133 LD

VH 133 D

VH 134 D

ATTACCO UTENSILE
SPINDLE TYPE

DIN55058 - $\varnothing 16$

N. MANDRINI
SPINDLES NR.

2

3

3

4

CAMPO DI LAVORO MIN.
CENTRE DISTANCES MIN.

35

35 + 35

$\varnothing 51$

$\varnothing 75$

CAMPO DI LAVORO MAX.
CENTRE DISTANCES MAX.

151

93 + 93

$\varnothing 167$

$\varnothing 191$

CAPACITÀ FORATURA
DRILLING CAPACITY

ACCIAIO/STILL Rm 500 N/mm² - $\varnothing 13$ | GHISA/CAST IRON GG25 - $\varnothing 14$

MASCHIATURA
TAPPING

M 12

RAPPORTO
RATIO

1 - 1

VELOCITÀ
RPM

3.000

PESO
WEIGHT

5,3 kg

7,2 kg

7 kg

10,8 kg



NOTA:
NOTE:

A.B.C.D. DATI MACCHINA
A.B.C.D. MACHINE FEATURES

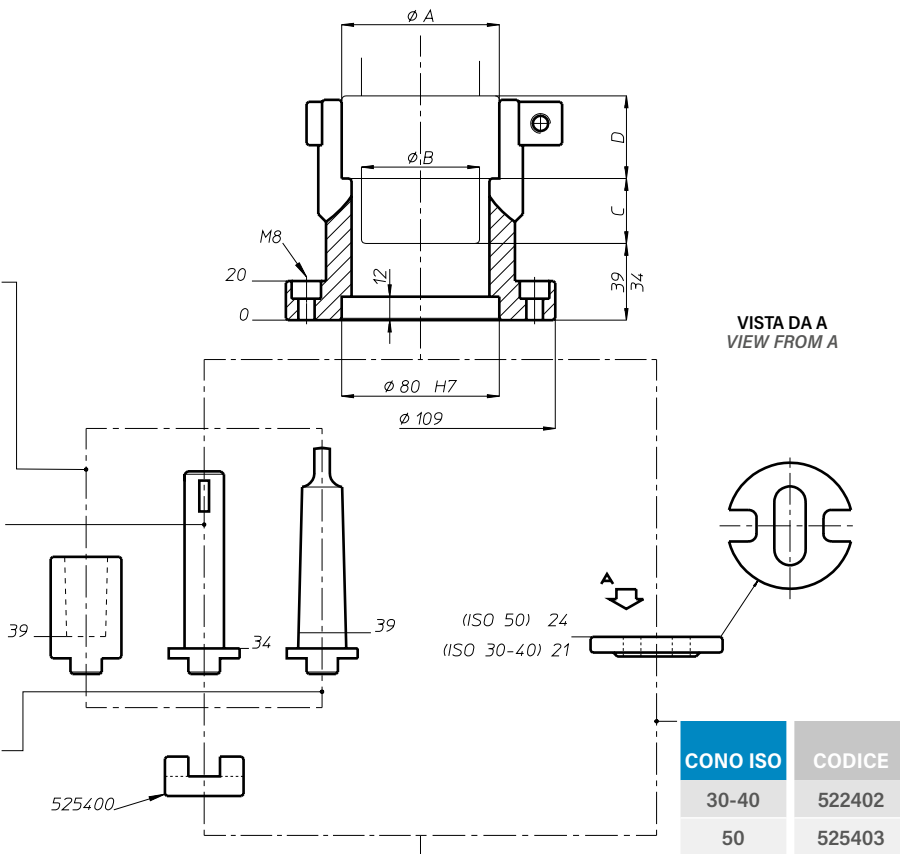
VH13

MANICOTTO DI COLLEGAMENTO - CONNECTION COLLAR

DIN 238	CODICE
B 16	011279
B 18	011280
B 22	011281
B 24	011282

DIN 55058	CODICE
16	525405
20	525406
28	525407
36	525408

DIN 228	CODICE
cm 2	011120
cm 3	011125
cm 4	011130
cm 5	011135

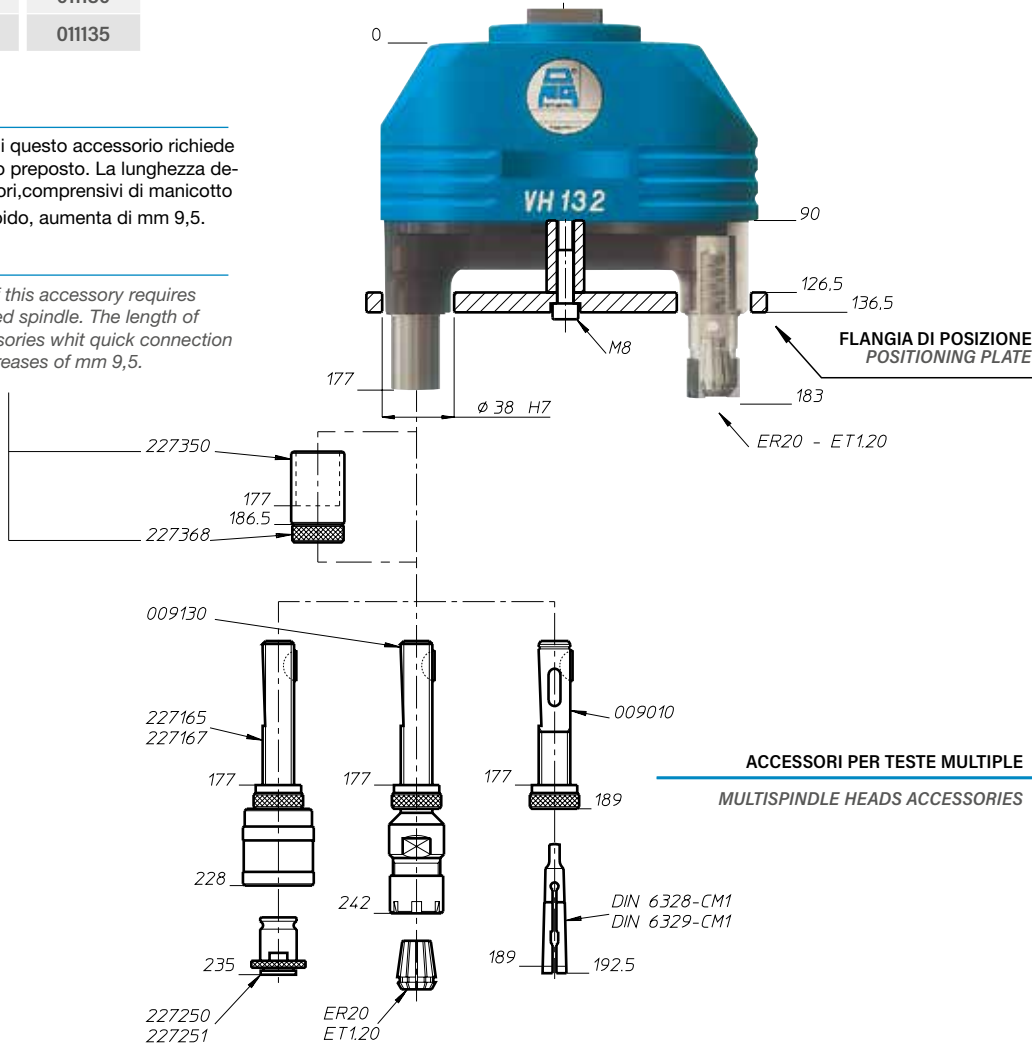


Nota:

L'utilizzo di questo accessorio richiede il mandrino preposto. La lunghezza degli accessori, comprensivi di manicotto attaccorapido, aumenta di mm 9,5.

Note:

The use of this accessory requires prearranged spindle. The length of this accessories whit quick connection sleeve increases of mm 9,5.



ACCESSORI PER TESTE MULTIPLE
MULTISPINDLE HEADS ACCESSORIES

FH

BAH

TA.CP

TA

MOX

HT

7-12

VH

TSI/TSX

T

MT-TC-TC3



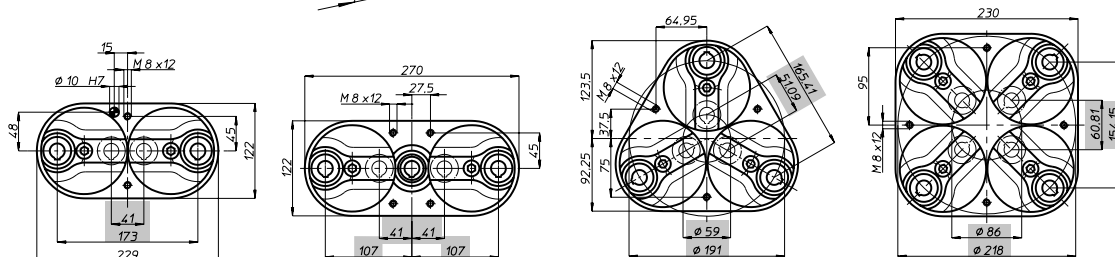
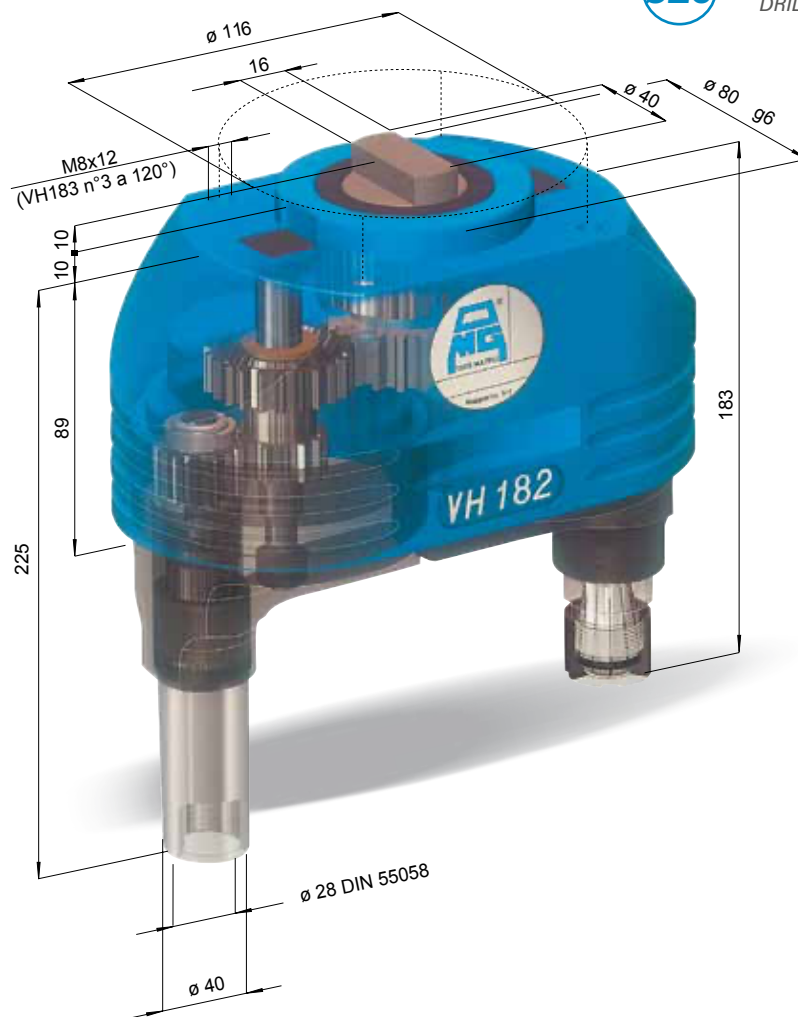


VH18

TESTE MULTIPLE AD ASSI VARIABILI - VARIABLE AXIS HEADS



CAPACITÀ FORATURA
DRILLING CAPACITY



TESTA MODELLO HEAD TYPE	VH 182	VH 183 L	VH 183	VH 184
ARTICOLO ITEM	VH 182 P	VH 183 LP	VH 183 P	VH 184 P
ATTACCO UTENSILE SPINDLE TYPE	ER 25 - max Ø 16			
ARTICOLO ITEM	VH 182 D	VH 183 LD	VH 183 D	VH 184 D
ATTACCO UTENSILE SPINDLE TYPE	DIN55058 - Ø 28			
N. MANDRINI SPINDLES NR.	2	3	3	4
CAMPO DI LAVORO MIN. CENTRE DISTANCES MIN.	41	41 + 41	Ø 59	Ø 86
CAMPO DI LAVORO MAX. CENTRE DISTANCES MAX.	173	107 + 107	Ø 191	Ø 218
CAPACITÀ FORATURA DRILLING CAPACITY	ACCIAIO/STILL Rm 500 N/mm ² - Ø 18 GHISA/CAST IRON GG25 - Ø 20			
MASCHIATURA TAPPING	M 14			
RAPPORTO RATIO	1 - 1			
VELOCITÀ RPM	2.500			
PESO WEIGHT	8,3 kg	10,75 kg	12 kg	15,75 kg

NOTA:
NOTE:

A.B.C.D. DATI MACCHINA
A.B.C.D. MACHINE FEATURES

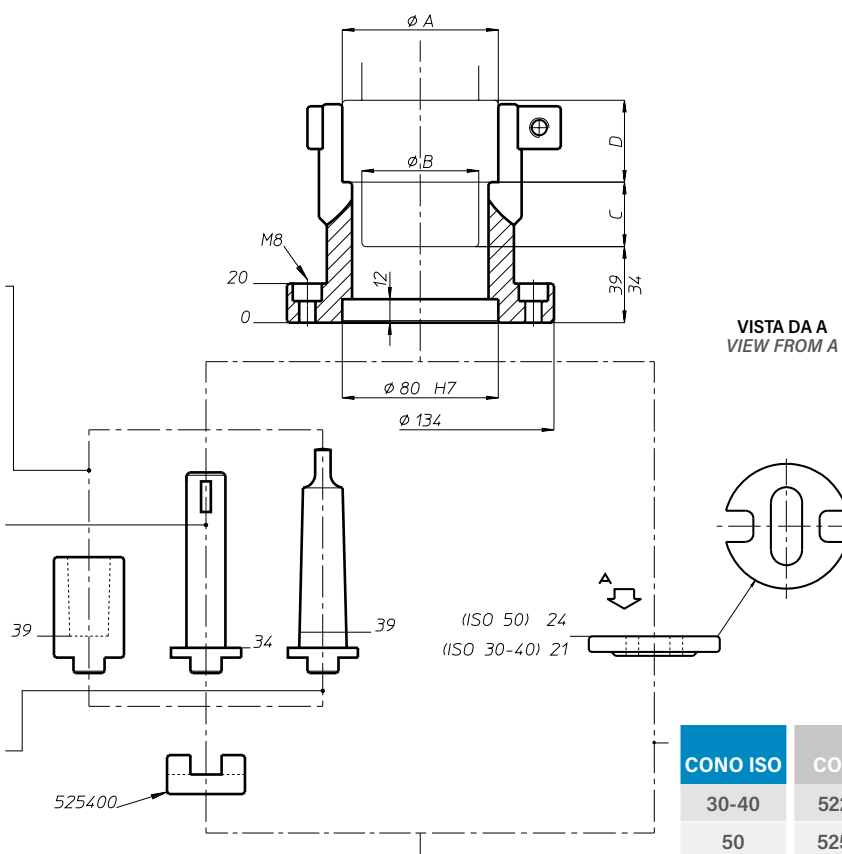
VH18

MANICOTTO DI COLLEGAMENTO - CONNECTION COLLAR

DIN 238	CODICE
B 16	011279
B 18	011280
B 22	011281
B 24	011282

DIN 55058	CODICE
16	525405
20	525406
28	525407
36	525408

DIN 228	CODICE
cm 3	011125
cm 4	011130
cm 5	011135

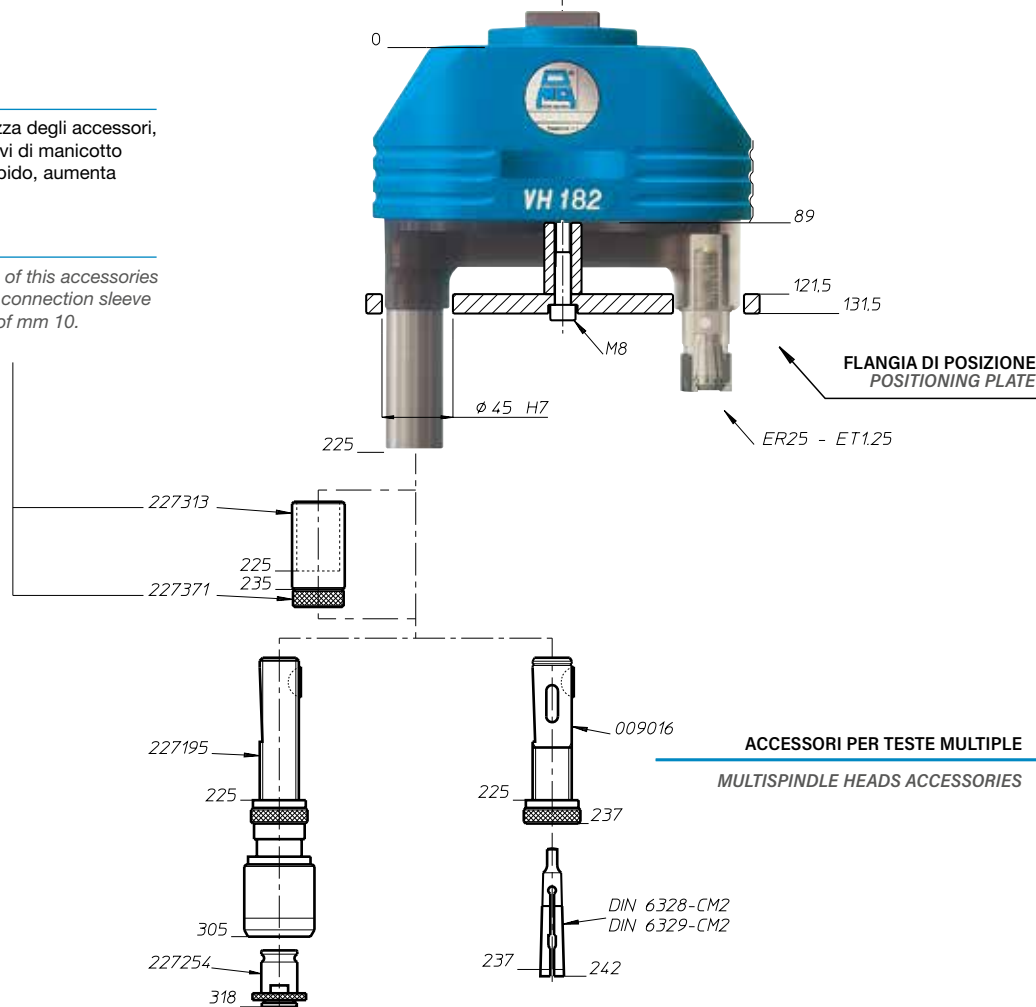


Nota:

La lunghezza degli accessori, comprensivi di manicotto attacco rapido, aumenta di mm 10.

Note:

The length of this accessories whit quick connection sleeve increases of mm 10.



FH

BAH

TA.CP

TA

MOX

HT

7-14

VH

TSI/TSX

T

MT-TC-TC3



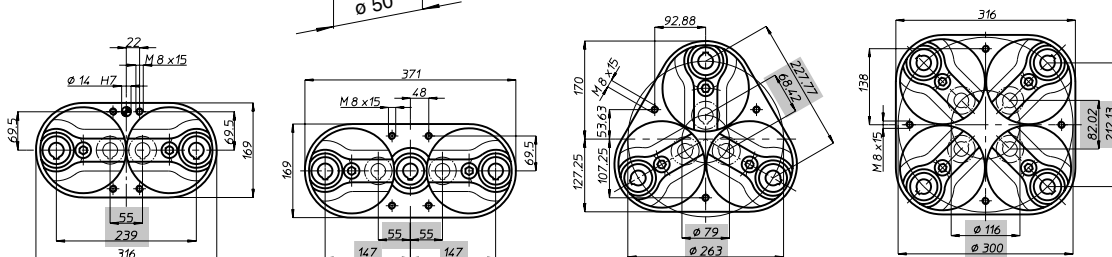
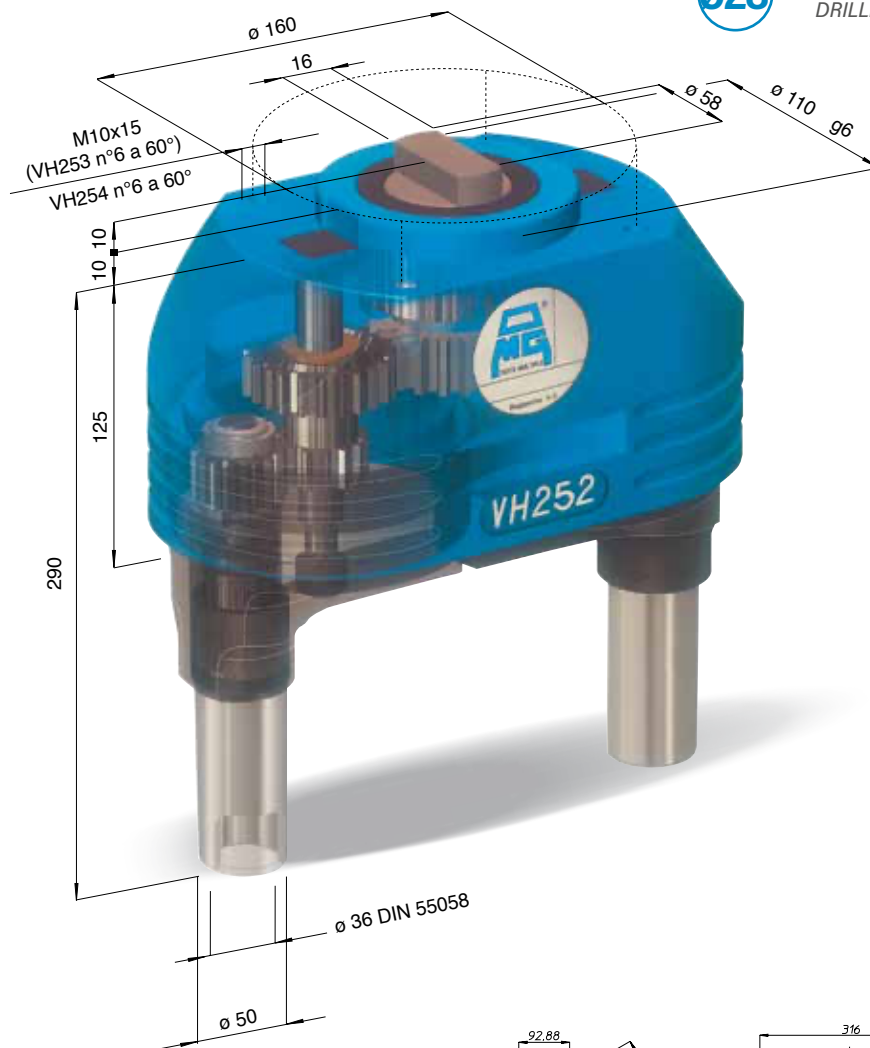


VH25

TESTE MULTIPLE AD ASSI VARIABILI - VARIABLE AXIS HEADS



CAPACITÀ FORATURA
DRILLING CAPACITY



TESTA MODELLO
HEAD TYPE

VH 252

VH 253 L

VH 253

VH 254

ARTICOLO
ITEM

ATTACCO UTENSILE
SPINDLE TYPE

ARTICOLO
ITEM

VH 252 D

VH 253 LD

VH 253 D

VH 254 D

ATTACCO UTENSILE
SPINDLE TYPE

DIN55058 - ø 36

N. MANDRINI
SPINDLES NR.

2

3

3

4

CAMPO DI LAVORO MIN.
CENTRE DISTANCES MIN.

55

55 + 55

ø 79

ø 116

CAMPO DI LAVORO MAX.
CENTRE DISTANCES MAX.

239

147 + 147

ø 263

ø 300

CAPACITÀ FORATURA
DRILLING CAPACITY

ACCIAIO/STILL Rm 500 N/mm² - ø 25 | GHISA/CAST IRON GG25 - ø 28

MASCHIATURA
TAPPING

M 20

RAPPORTO
RATIO

1 - 1

VELOCITÀ
RPM

2.000

PESO
WEIGHT

27 kg

32 kg

39 kg

52 kg

NOTA:
NOTE:

A.B.C.D. DATI MACCHINA
A.B.C.D. MACHINE FEATURES

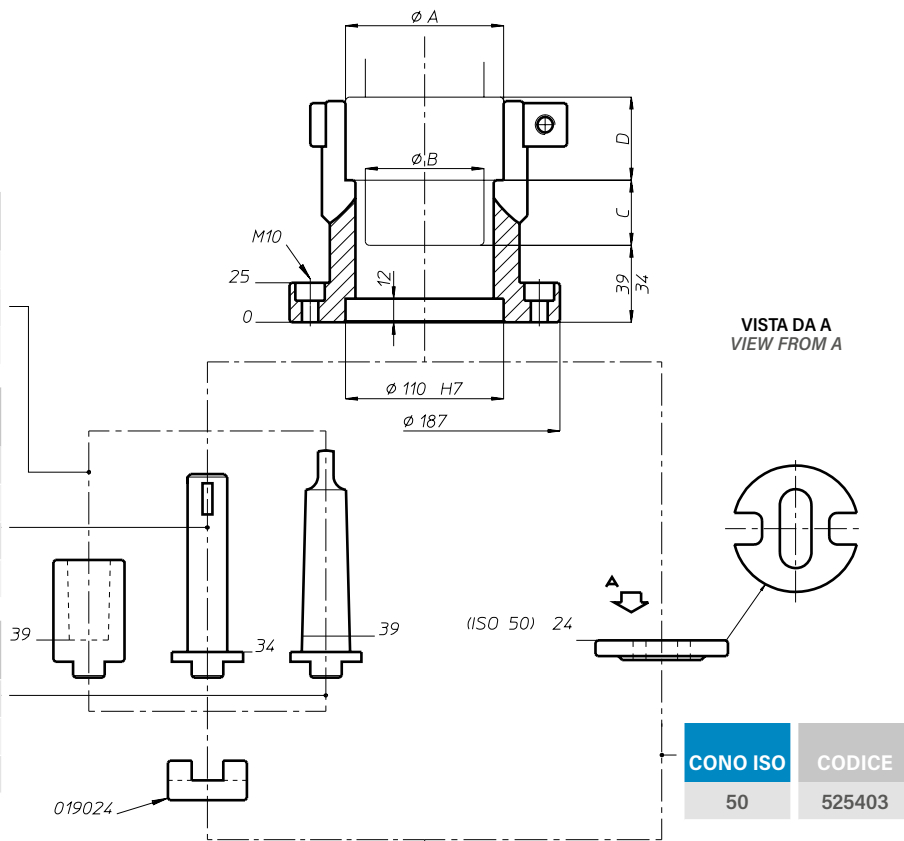
VH25

MANICOTTO DI COLLEGAMENTO · CONNECTION COLLAR

DIN 238	CODICE
B 18	011280
B 22	011281
B 24	011282

DIN 55058	CODICE
16	525405
20	525406
28	525407
36	525408

DIN 228	CODICE
cm 3	011125
cm 4	011130
cm 5	011135

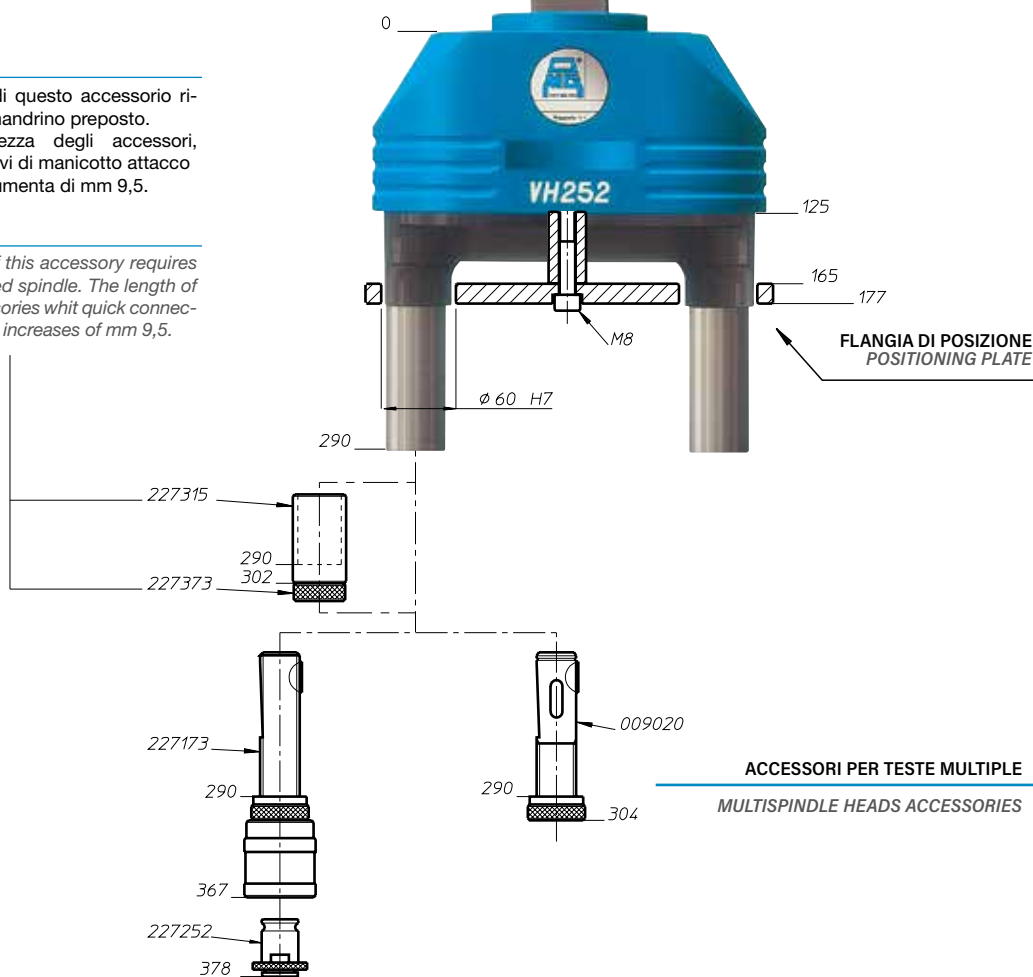


Nota:

L'utilizzo di questo accessorio richiede il mandrino preposto. La lunghezza degli accessori, comprensivi di manicotto attacco Rapido, aumenta di mm 9,5.

Note:

The use of this accessory requires prearranged spindle. The length of this accessories whit quick connection sleeve increases of mm 9,5.



FH

BAH

TA.CP

TA

MOX

HT

7-16

VH

TSI/TSX

T

MT-TC-TC3

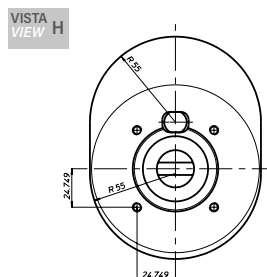
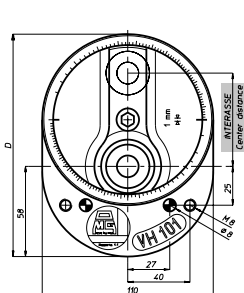




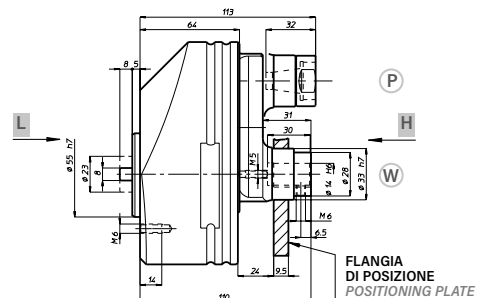
VH101

TESTE MULTIPLE AD ASSI VARIABILI • VARIABLE AXIS HEADS

Ø12 CAPACITÀ FORATURA
DRILLING CAPACITY



VISTA VIEW L



TESTA MODELLO
HEAD TYPE

VH 101

ARTICOLO
ITEM

VH 101 P

ATTACCO UTENSILE
SPINDLE TYPE

ER 16 - max ϕ 10

ARTICOLO
ITEM

VH 101W14

ATTACCO UTENSILE
SPINDLE TYPE

ϕ 14

N. MANDRINI
SPINDLES NR.

1

CAMPO DI LAVORO MIN.
CENTRE DISTANCES MIN.

0

CAMPO DI LAVORO MAX.
CENTRE DISTANCES MAX.

60

D

143

CAPACITÀ FORATURA
DRILLING CAPACITY

ACCIAIO/STILL Rm 500 N/mm² - ϕ 10 | GHISA/CAST IRON GG25 - ϕ 12

MASCHIATURA
TAPPING

M 10

RAPPORTO
RATIO

1 - 1

VELOCITÀ
RPM

3.000

PESO
WEIGHT

2,8 kg

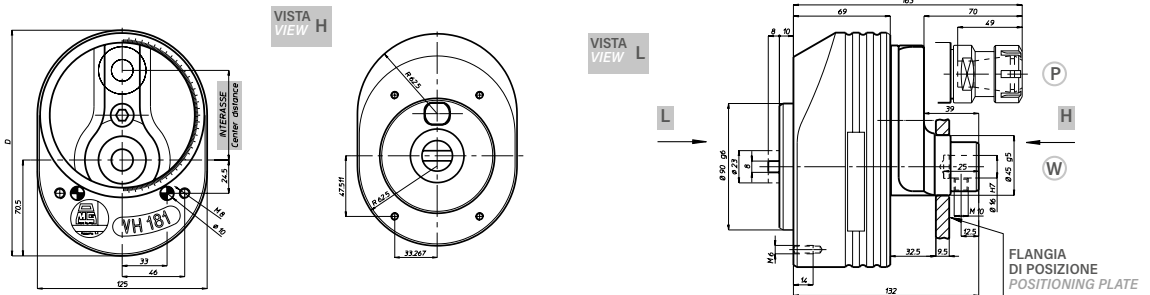
Ø20

CAPACITÀ FORATURA
DRILLING CAPACITY



VH181

TESTE MULTIPLE AD ASSI VARIABILI · VARIABLE AXIS HEADS



7-18

VH

TESTA MODELLO HEAD TYPE	VH 181	VH 181-122
ARTICOLO ITEM	VH 181 P	VH 181-122-P
ATTACCO UTENSILE SPINDLE TYPE	ER 25 - max ø 16	
ARTICOLO ITEM	VH 181 W16	VH 181-122-W 16
ATTACCO UTENSILE SPINDLE TYPE	ø 16	
N. MANDRINI SPINDLES NR.	1	1
CAMPO DI LAVORO MIN.	0	56
CENTRE DISTANCES MAX	66	122
D	166	122
CAPACITÀ FORATURA DRILLING CAPACITY	ACCIAIO/STILL Rm 500 N/mm ² - ø 18 GHISA/CAST IRON GG25 - ø 20	
MASCHIATURA TAPPING	M 14	
RAPPORTO RATIO	1 - 1	
VELOCITÀ RPM	2.500	
PESO WEIGHT	4,1 kg	6,4 kg

TSI/TSX

T

MT-TC-TC3



FH

BAH

TA.CP

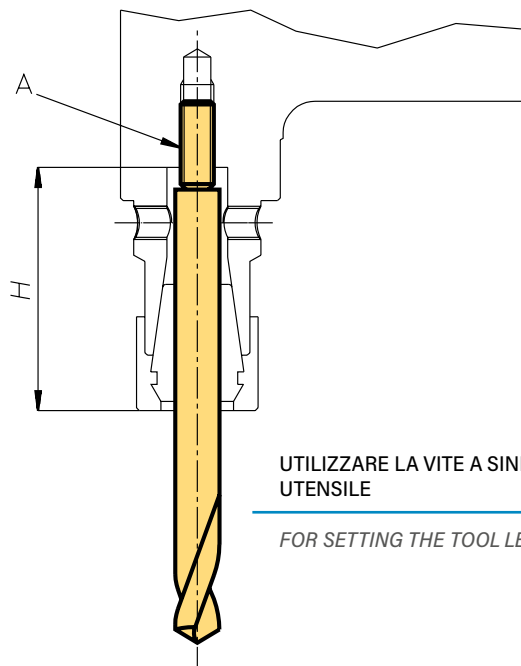
TA

MOX

HT



REGOLAZIONI UTENSILI TOOL ADJUSTMENTS



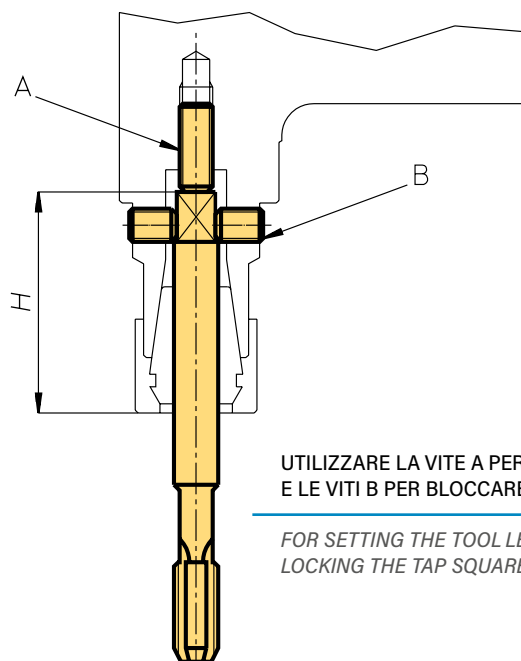
FORATURA CON PINZE ER
DRILLING WITH ER COLLETS

UTILIZZARE LA VITE A SINISTRA PER REGISTRARE L'ALTEZZA UTENSILE

FOR SETTING THE TOOL LENGTH, USE THE LEFT SCREW A

TESTA MODELLO HEAD TYPE	VH 04	VH 06	VH 08	VH 10	VH 13	VH 18
H MAX	23	27	44	44	52	49

NOTA: nella testa VH04 e VH06 la vite A non è presente **NOTE:** in the head VH04 and VH06 there isn't the screw A



MASCHIATURA CON PINZE ER
TAPPING WITH ER COLLETS

UTILIZZARE LA VITE A PER REGISTRARE L'ALTEZZA UTENSILE
E LE VITI B PER BLOCCARE IL QUADRO DEL MASCHIO

FOR SETTING THE TOOL LENGTH, USE THE SCREW A;
LOCKING THE TAP SQUARE WITH THE SCREWS B

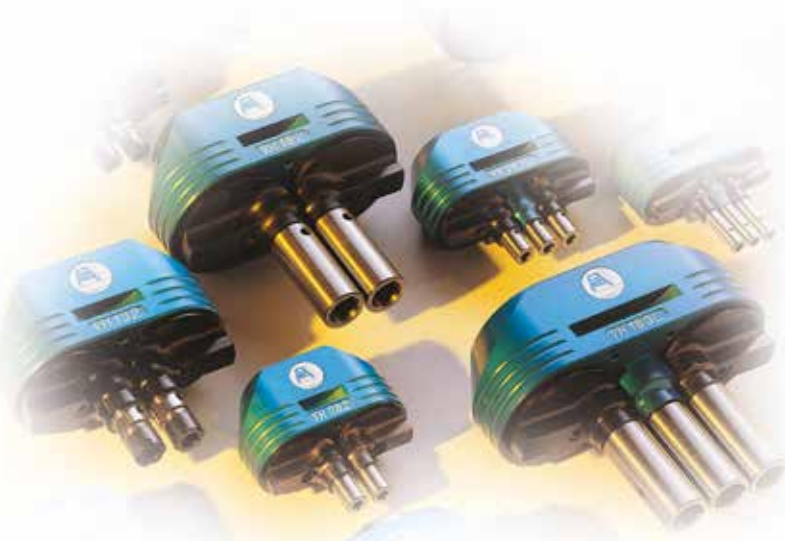
TESTA MODELLO HEAD TYPE	VH 04	VH 06	VH 08	VH 10	VH 13	VH 18
H MAX	23	27	38	38	44	49

NOTA: nella testa VH04 e VH06 la vite A non è presente **NOTE:** in the head VH04 and VH06 there isn't the screw A

VH 042 LP
 VH 042P R. 1-2
 VH 062 LP
 VH 062 LD
 VH 062/1
 VH 062P R.1-2
 VH 062P CNC40
 VH 063P CNC40
 VH 064P CNC40
 VH 064/3P
 VH 081 P
 VH 082 LP
 VH 082 LD
 VH 082 P R. 1-2
 VH 082P CNC 40
 VH 082PFM
 VH 083 LP CNC40
 VH 084P CNC 40
 VH 084/3P
 VH 102 LP
 VH 102 LD
 VH 102 P CNC 40
 VH 102P R. 1-2
 VH 102 PFM
 VH 102-220 P
 VH 102-300 P
 VH 104D R.1-2
 VH 104P CNC50
 VH 132 LP
 VH 132 LD
 VH 132D CNC50
 VH 132P CNC50
 VH 132 W12
 VH 132-260 D
 VH 134P CNC50
 VH 181 R.1-2
 VH 182 LP
 VH 182 LD
 VH 182 W16
 VH 182 P CNC 50
 VH 182 P R.1-2
 VH 182D R. 1-2
 VH 183 L W16
 VH 252 LD

n° 2 mandrini a pinza, min. 24 max. 84
 n° 2 mandrini a pinza, min. 12 max. 72 rapp. 1-2
 n° 2 mandrini a pinza, min. 35 max. 111
 n° 2 mandrini DIN 55058-8 min. 35 max. 111
 n° 1 mandrino a pinza, min. 8,5 max. 46,5
 n° 2 mandrini a pinza min. 17 max. 93 rapp. 1-2, 067
 n° 2 mandrini a pinza min. 17 max. 93 completa di cono ISO 40
 n° 3 mandrini a 120° a pinza min. 27 max. 103 completa di cono ISO 40
 n° 4 mandrini a 90° a pinza min. 41 max. 117 completa di cono ISO 40
 n° 3 mandrini a pinza min. 41 max. 117
 n° 1 mandrino a pinza min. 0 max. 42
 n° 2 mandrini a pinza min. 48 max. 132
 n° 2 mandrini DIN 55058 - 10 min. 48 max. 132
 n° 2 mandrini a pinza min. 24 max. 108 rapp. 1-2, 067
 n° 2 mandrini a pinza min. 24 max. 108 completa di cono ISO 40
 n° 2 mandrini a pinza min. 24 max. 108
 fora/maschia
 n° 3 mandrini in linea a pinza min. 24+24 max. 66+66 completa di cono ISO 40
 n° 4 mandrini a pinza min. 53,5 max. 137,5 completa di cono ISO 40
 n° 3 mandrini a pinza min. 53,5 max. 137,5
 n° 2 mandrini a pinza min. 56 max. 148
 n° 2 mandrini DIN 55058-12 min. 56 max. 148
 n° 2 mandrini a pinza min. 28 max. 120 completa di cono ISO 40
 n° 2 mandrini a pinza min. 28 max. 120 rapporto 1-2
 n° 2 mandrini a pinza min. 28 max. 120
 fora/maschia
 n° 2 mandrini a pinza min. 128 max. 220
 n° 2 mandrini a pinza min. 208 max. 300
 n° 4 mandrini a 90° DIN 55058-12 min. 60 max. 152 rapp. 1-2
 n° 4 mandrini a 90° a pinza min. 60 max. 152 completa di cono ISO 50
 n° 2 mandrini a pinza min. 70 max. 186
 n° 2 mandrini DIN 55058-16 min. 70 max. 186
 n° 2 mandrini DIN 55058-16 min. 35 max. 151 completa di cono ISO 50
 n° 2 mandrini a pinza min. 35 max. 151 completa di cono ISO 50
 n° 2 mandrini foro cilindrico diam. 12 min. 35 max. 151
 n° 2 mandrini DIN 55058-16 min. 144 max. 260
 n° 4 mandrini a 90° a pinza, min. 75 max. 191 completa di cono ISO 50
 n° 1 mandrino diam. 16 min. 16,5 max. 82,5 rapp. 1-2
 n° 2 mandrini a pinza, min. 82 max. 214
 n° 2 mandrini DIN 55058-28 min. 82 max. 214
 n° 2 mandrini foro cilindrico diam. 16 min. 41 max. 173
 n° 2 mandrini a pinza, min. 41 max. 173 completa di cono ISO 50
 n° 2 mandrini a pinza, min. 41 max. 173 173 rapp. 1-2
 n° 2 mandrini DIN 55058-28 min. 41 max. 173 rapp. 1-2
 n° 3 mandrini foro cilindrico diam. 16 min. 41+41 max. 107+107
 n° 2 mandrini DIN 55058-36 min. 110 max. 294

2 spindles for spring collets min. 24 max. 84
 2 spindles for spring collets min. 12 max. 72 ratio 1-2
 2 spindles for spring collets min. 35 max. 111
 2 spindles DIN 55058-8 min. 35 max. 111
 1 spindle for spring collets min. 8,5 max. 46,5
 2 spindles for spring collets min. 17 max. 93 ratio 1-2, 067
 2 spindles for spring collets min. 17 max. 93 with shank ISO 40
 3 spindles at 120° for spring collets min. 27 max. 103 with shank ISO 40
 4 spindles at 90° for spring collets min. 41 max. 117 with shank ISO 40
 3 spindles for spring collets min. 41 max. 117
 1 spindle for spring collets min. 0 max. 42
 2 spindles for spring collets min. 48 max. 132
 2 spindles DIN 55058 - 10 min. 48 max. 132
 2 spindles for spring collets min. 24 max. 108 ratio 1-2
 2 spindles for spring collets min. 24 max. 108 with shank ISO 40
 2 spindles for spring collets min. 24 max. 108 drilling and tapping
 3 spindles on line for spring collets min. 24+24 max. 66+66 with shank ISO 40
 4 spindles for spring collets min. 53,5 max. 137,5 with shank ISO 40
 3 spindles for spring collets min. 53,5 max. 137,5
 2 spindles for spring collets min. 56 max. 148
 2 spindles DIN 55058-12 min. 56 max. 148
 2 spindles for spring collets min. 28 max. 120 with shank ISO 40
 2 spindles for spring collets min. 28 max. 120 ratio 1-2
 2 spindles for spring collets min. 28 max. 120 drilling and tapping
 2 spindles for spring collets min. 128 max. 220
 2 spindles for spring collets min. 208 max. 300
 4 spindles at 90° DIN 55058-12 min. 60 max. 152 ratio 1-2
 4 spindles at 90° for spring collets min. 60 max. 152 with shank ISO 50
 2 spindles for spring collets min. 70 max. 186
 2 spindles DIN55058-16 min. 70 max. 186
 2 spindles DIN55058-16 min. 35 max. 151 with shank ISO 50
 2 spindles for spring collets min. 35 max. 151 with shank ISO 50
 2 spindles diam. 12 min. 35 max. 151
 2 spindles DIN 55058-16 min. 144 max. 260
 4 spindles at 90° for spring collets, min. 75 max. 191 with shank ISO 50
 1 spindle diam. 16, min. 16,5 max. 82,5 ratio 1-2
 2 spindles for spring collets, min. 82 max. 214
 2 spindles DIN 55058-28 min. 82 max. 214
 2 spindles diam 16, min. 41 max. 173
 2 spindles for spring collets, min. 41 max. 173 with shank ISO 50
 2 spindles for spring collets, min. 41 max. 173 ratio 1-2
 2 spindles DIN 55058-28, min. 41 max. 173 ratio 1-2
 3 spindles diam. 16 min. 41+41 max. 107+107
 2 spindles DIN 55058-36, min. 110 max. 294

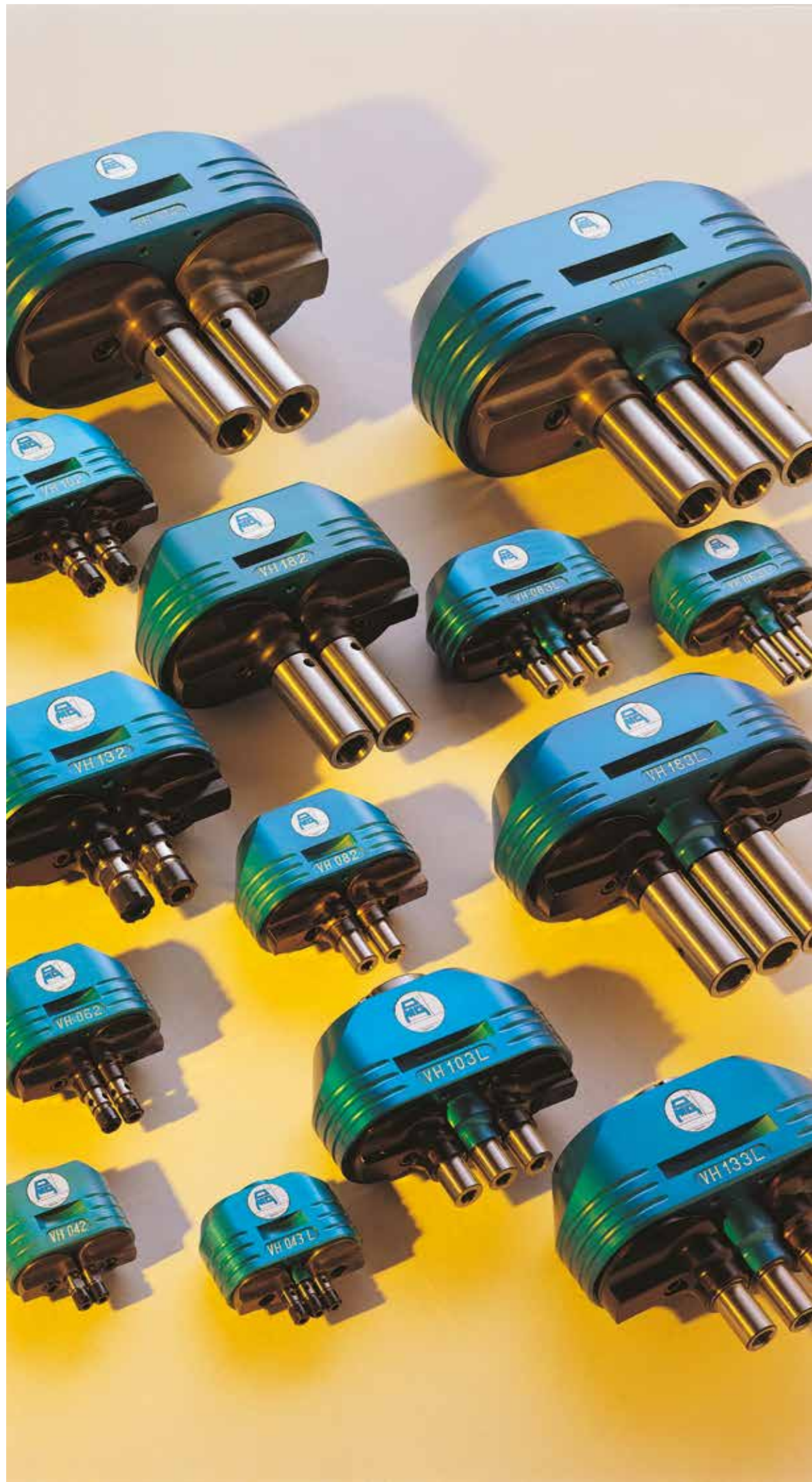




VH

GALLERY





VH

GALLERY

FH

BAH

TA.CP

TA

MOX

HT

8-1

VH

TSI/TSX

T

MT-TC-TC3



SERIE

TSI/TSX



Le teste multiple ad assi variabili serie TSI-TSX progettate a due mandrini paralleli o convergenti, sono adatte in lavorazioni di fresatura ed in particolare per la smussatura dei denti di ingranaggi.

Varie sono le caratteristiche tecniche delle teste multiple ad assi variabili serie TSI-TSX e sintetizzandone solamente alcune possiamo dire che:

- il corpo è in lega di alluminio;
- i supporti mandrino in ghisa e la loro regolazione avviene con un'unica azione dell'operatore;
- i mandrini possono ruotare concordi o discordi e la lubrificazione della testa è a grasso.

La loro realizzazione si è resa possibile in virtù dell'esperienza acquisita nella costruzione di teste multiple, della conoscenza dei processi produttivi e dalla capacità di saper proporre, per ogni particolare esigenza, prodotti qualificati.

The adjustable multispindle heads TSI and TSX series with two parallel or convergent spindles are suitable to mill and to chamfering the gear teeth. This is a solid, compact, reliable unit that also has a nice look.

The adjustable multispindle heads TSI and TSX series have many different features among which:

- an aluminum body;
- cast iron spindle support, simply and easily adjusted by the operator;
- the spindles may turn in the same direction or in opposite direction and the adjustment of both spindles is achieved thanks to a single act. The tool connection may be cylindrical or with spring collets. The lubrication is by long life grease.

The production of our twin adjustable multispindle head was made possible thanks to the experience acquired in the construction of multispindle heads, our knowledge of production process and our ability to know how to cater for individual requirements with qualified products.





TSI 1646

TESTA DI FRESATURA • TWIN SPINDLE MILLING HEAD



TSI 16-46C-P
TSI 16-46C-W

TSI 16-46D-P
TSI 16-46D-W



12 KG



12 KG



1-2



1-2



3000



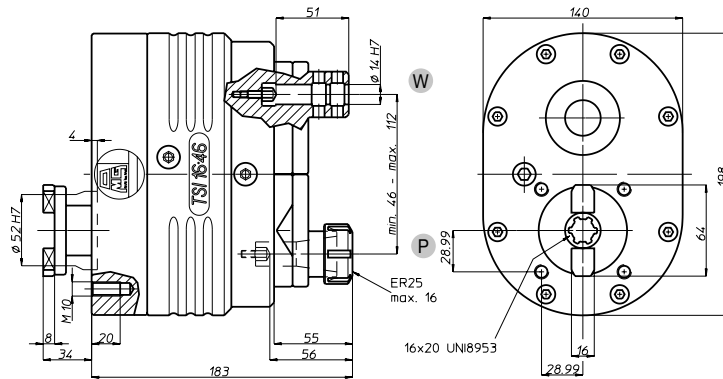
3000

PESO
WEIGHT

ROTAZIONE
MANDRINI
SPINDLE
ROTATION

RAPPORTO
RATIO

GIRI MAX
RPM



TSI 16-81C-P
TSI 16-81C-W

TSI 16-81D-P
TSI 16-81D-W



13,5 KG



13,5 KG



1-2



1-2



3000



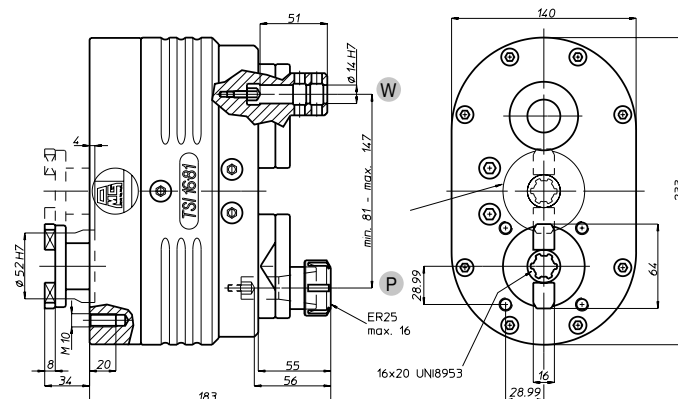
3000

PESO
WEIGHT

ROTAZIONE
MANDRINI
SPINDLE
ROTATION

RAPPORTO
RATIO

GIRI MAX
RPM



PESO
WEIGHT

ROTAZIONE
MANDRINI
SPINDLE
ROTATION

RAPPORTO
RATIO

RPM MAX
RPM

TSI 16-180C-P
TSI 16-180C-W



22,5 KG



1-1



3000

TSI 16-180D-P
TSI 16-180D-W



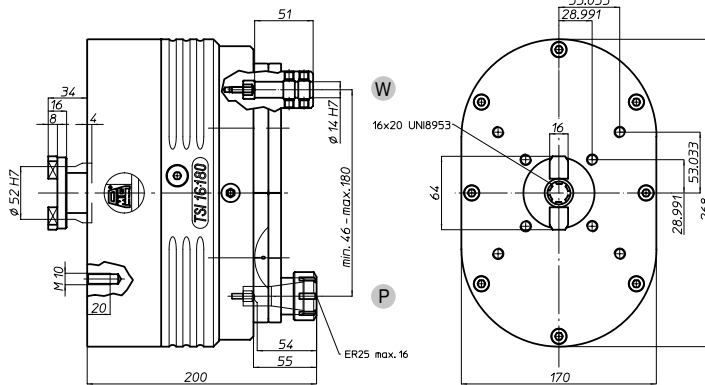
22,5 KG



1-1



3000



PESO
WEIGHT

ROTAZIONE
MANDRINI
SPINDLE
ROTATION

RAPPORTO
RATIO

RPM MAX
RPM

TSI 16-210C-P
TSI 16-210C-W



22,5 KG



1-1



3000

TSI 16-210D-P
TSI 16-210D-W



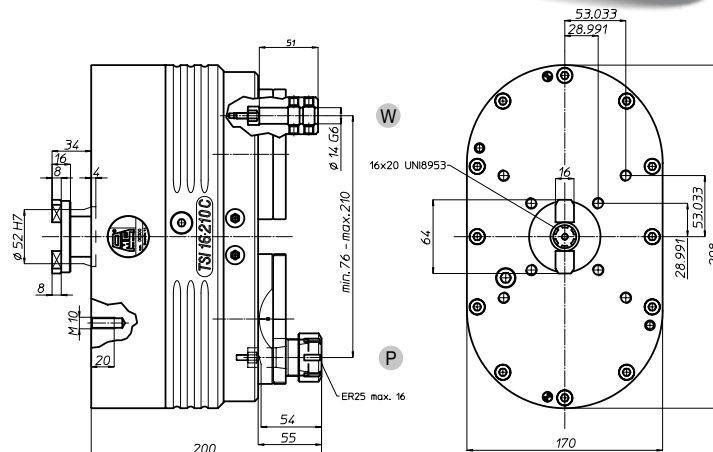
22,5 KG



1-1



3000



TSI 16180

TESTA DI FRESATURA • TWIN SPINDLE MILLING HEAD

FH

BAH

TA.CP

TA

MOX

HT

8-4

PESO
WEIGHT

ROTAZIONE
MANDRINI
SPINDLE
ROTATION

RAPPORTO
RATIO

RPM MAX
RPM

TSI 16-210C-P
TSI 16-210C-W



22,5 KG



1-1



3000

TSI 16-210D-P
TSI 16-210D-W



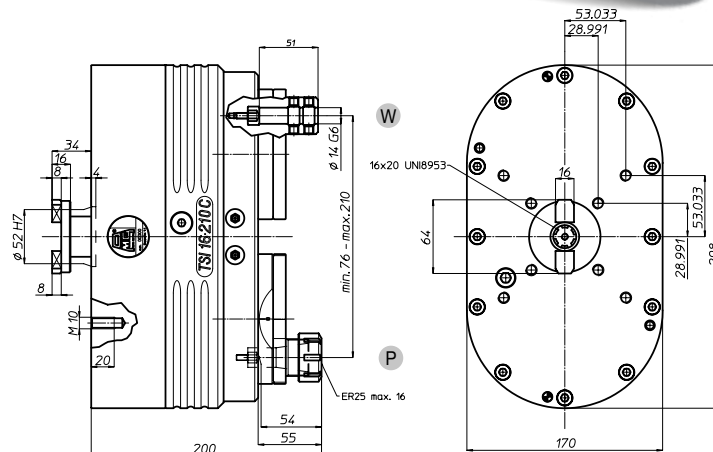
22,5 KG



1-1



3000



TSI 16210

TESTA DI FRESATURA • TWIN SPINDLE MILLING HEAD

VH

TSI/TSX

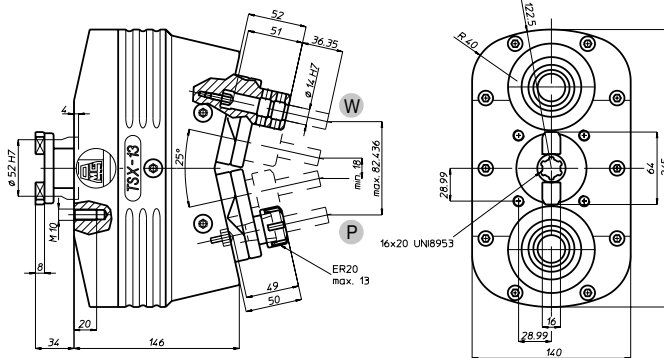
T

MT-TC-TC3



TSX13C

TESTA DI FRESATURA • TWIN SPINDLE MILLING HEAD



TSX 13C-P
TSX 13C-W



15,5 KG



1-1



3000

PESO
WEIGHT

ROTAZIONE
MANDRINI
SPINDLE
ROTATION

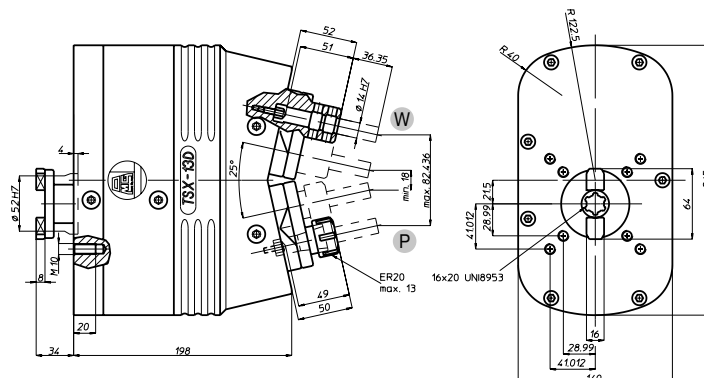
RAPPORTO
RATIO

GIRI MAX
RPM

8-5

TSX13D

TESTA DI FRESATURA • TWIN SPINDLE MILLING HEAD



TSX 13D-P
TSX 13D-W



21 KG



1-1



3000

PESO
WEIGHT

ROTAZIONE
MANDRINI
SPINDLE
ROTATION

RAPPORTO
RATIO

GIRI MAX
RPM

PESO
WEIGHT

ROTAZIONE
MOTORI
SPINDLE
ROTATION

RAPPORTO
RATIO

giri MAX
RPM

TSI 16-280C-P
TSI 16-280C-W



22,5 KG



1-1



3000

TSI 16-280D-P
TSI 16-280D-W



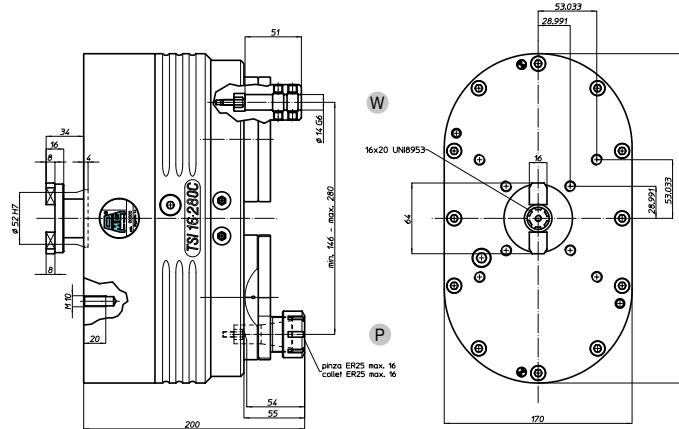
22,5 KG



1-1



3000



TSI 16280

TESTA DI FRESATURA - TWIN SPINDLE MILLING HEAD

FH

BAH

TA.CP

TA

MOX

HT

8-6

TFS 23801

Testa di spuntatura con
angolo di 34°
Fixed twin-spindle
milling head
with 34° from the axis



TS 31588

Testa di spuntatura ad assi
variabili, interasse min. 55
max 205,24
Adjustable twin multispindle
milling head, centre distance
min. 55 max 205,24



TFS 20205

Testa di spuntatura ad
assi sghembi, angolo
di 25°
Fixed twin-spindle
milling head
with skew axis at 25°



TFS 14005

Testa di spuntatura ad assi
fissi e paralleli, distanza
mm 40
Fixed twin-spindle milling
head, axis distance mm 40



ESECUZIONI SPECIALI
SPECIAL EXECUTIONS

VH

TSI/TSX

T

MT-TC-TC3





SERIE



FH

BAH

TA.CP

TA

MOX

HT

9-1

VH

TSI/TSX

T

MT-TC-TC3





Le teste multiple a giunti universali sono in produzione dal 1961 e confermano tutt'oggi la validità dell'idea lasciando inalterate le caratteristiche salienti:

- possibilità di utilizzo sia in foratura che in maschiatura
- possibilità di posizionamento nello spazio dei gruppi mandrino, vincolato soltanto dalle dimensioni dello stesso e dall'area di lavoro
- adattabilità a tutti i tipi di trapani o a soluzioni speciali
- vantaggiose soprattutto quando è necessario modificare di frequente gli interassi dei fori
- ampia gamma di modelli per le diverse esigenze

Sono disponibili a magazzino le seguenti versioni:

- serie T-TS a base circolare per l'esecuzione di massimo 12 fori; massima capacità di foratura diam. mm 22, interasse minimo mm 15 e massimo mm 350
- serie TL a base lineare per l'esecuzione di massimo 12 fori; massima capacità di foratura diam. mm 22, interasse minimo mm 17 e massimo mm 610
- serie TR a base rettangolare per l'esecuzione di massimo 16 fori; massima capacità di foratura diam. mm 22, interasse minimo mm 32 e massimo mm 395x345
- serie TM-TRM a base circolare e rettangolare per l'esecuzione di massimo 26 fori; grazie alle loro caratteristiche tecniche possono eseguire i più diversi schemi di foratura e maschiatura su macchine con potenza adeguata.

The universal joint multispindle heads have been in production since 1961; over the years they have been modified and updated, without however refuting the goodness of the idea and always leaving major features unaltered:

- *possibility of using for both drilling and tapping*
- *possibility of multi-positioning the spindle units, restricted only by the size of the spindle and of the working area*
- *suitable for all types of drills or for special solutions*
- *especially useful when the need arises to frequently change the hole centre distances*
- *broad range of models for different requirements*

The following versions are in stock:

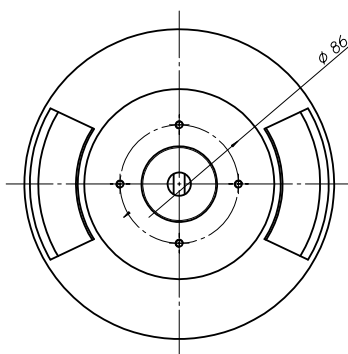
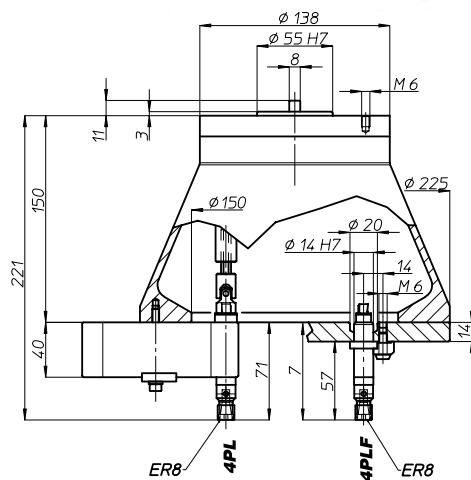
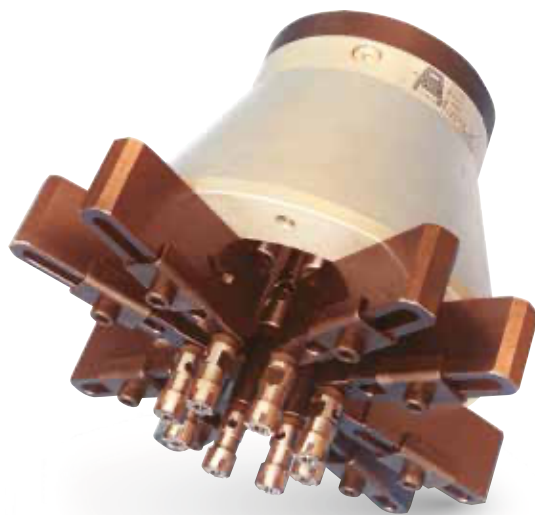
- *series T-TS with round base for making up to 12 holes; max drilling capacity dia. 22 mm, minimum centre distance 15 mm, max centre distance 350 mm*
- *series TL with linear base for making up to 12 holes; max drilling capacity dia. 22 mm, minimum centre distance 17 mm, max centre distance 610 mm*
- *series TR with rectangular base for making up to 16 holes; max drilling capacity dia. 22 mm, minimum centre distance 32 mm, max centre distance 395x345 mm*
- *series TM-TRM with round and rectangular base for making up to 26 holes; thanks to their technical features, they are able to execute a series of different drilling and tapping patterns on machines of adequate power.*





T2

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



08



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

4



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M4



MASCHIATURA
TAPPING

P: ER8



ATTACCO UTENSILE
TYPE OF SPINDLE

3,25 KG



PESO
GRUPPO TESTA
HEAD WEIGHT

0,3 KG



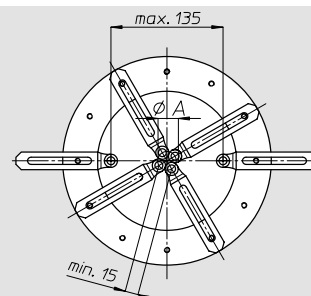
PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT

Ø A

15 17,5 21,5 26 30 35 39,5

N° MANDRINI
N° SPINDLES

2 3 4 5 6 7 8



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
T2

PRESE DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

08

PRESE DI MOTO
DRIVES

R

CAPACITÀ FORATURA
DRILLING CAPACITY

4

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

SERIE LEGGERA
LIGHT SERIE

P

ER 8

LASTUCCIO
FIXED SPINDLE**F**

CODICE
MANDRINO
SPINDLE CODE

T4

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

N° PRESE DI MOTO
NR. SPINDLE
DRIVES



08

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 4
ghisa / cast iron: GG25 5

MASCHIATURA
TAPPING



M4

ATTACCO UTENSILE
TYPE OF SPINDLE



P: ER11

PESO
GRUPPO TESTA
HEAD WEIGHT

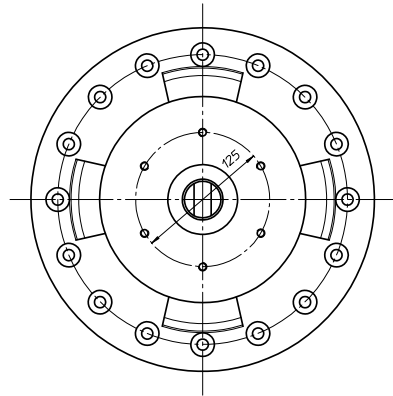
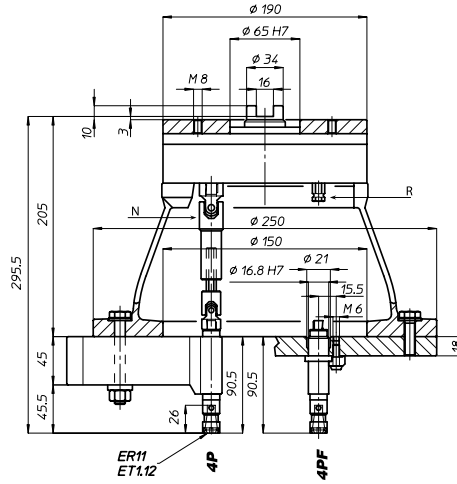


9,5 KG

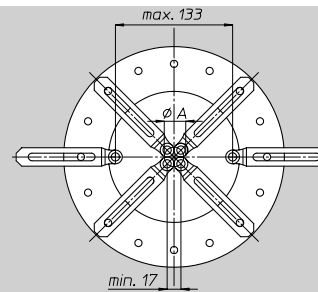
PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



1 KG



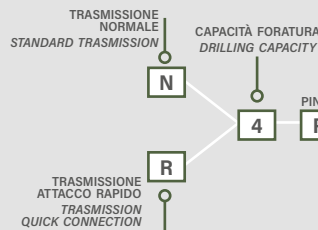
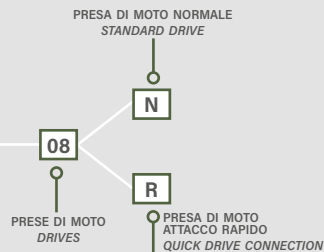
ø A	20	24,5	29,5	34,5	39,5	45
N° MANDRINI N° SPINDLES	3	4	5	6	7	8



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
T4



CODICE
MANDRINO
SPINDLE CODE

ASTUCCIO
FIXED SPINDLE

FH

BAH

TA.CP

TA

MOX

HT

9-4

VH

TSI/TSX

T

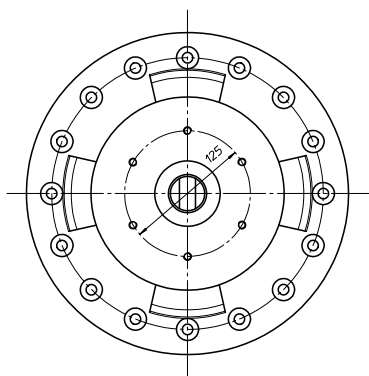
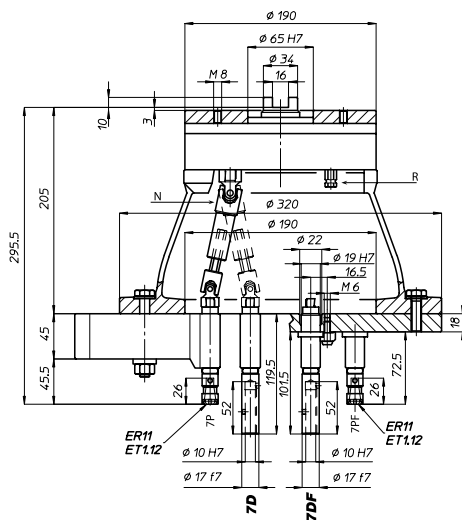
MT-TC-TC3





T7

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



08-12



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 6

ghisa / cast iron: GG25 7



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M5



MASCHIATURA
TAPPING

D: DIN 55058 $\phi 10$

P: ER11



ATTACCO UTENSILE
TYPE OF SPINDLE

10 KG



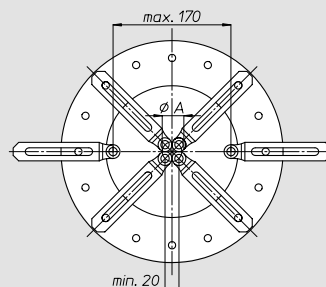
PESO
GRUPPO TESTA
HEAD WEIGHT

1,1 KG



PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT

ϕA	23,5	28,5	34,5	40,5	46,5	52,5	59	65,5	71,5	77,5
N° MANDRINI N° SPINDLES	3	4	5	6	7	8	9	10	11	12



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
T7

PRESA DI MOTO NORMALE
STANDARD DRIVE

08

N

PRESE DI MOTO
DRIVES

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

TRASMISSIONE NORMALE
STANDARD TRANSMISSION

N

R

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

CAPACITÀ FORATURA
DRILLING CAPACITY

7

D

P

F

P

ASTUCCIO
FIXED SPINDLE

CODICE
MANDRINO
SPINDLE CODE

T10

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



08-12

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 8
ghisa / cast iron: GG25 10

MASCHIATURA
TAPPING



M6

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø12
P: ER16

PESO
GRUPPO TESTA
HEAD WEIGHT

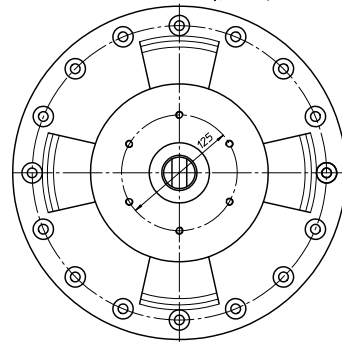
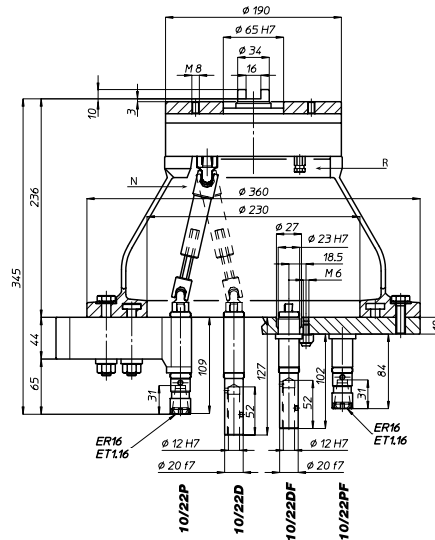


12 KG

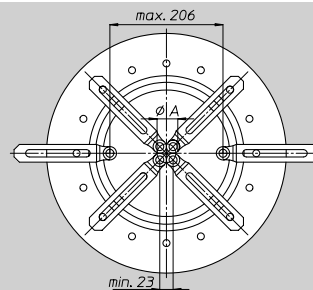
PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



1,5 KG



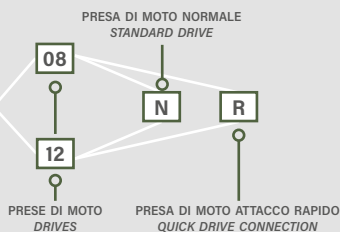
Ø A	27	33	39,5	46,5	53,5	60,5	67,5	75	82	89,5
N° MANDRINI N° SPINDLES	3	4	5	6	7	8	9	10	11	12



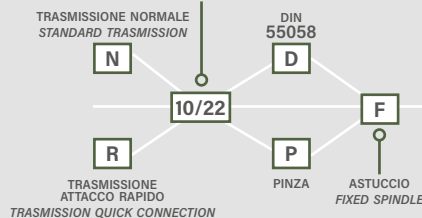
AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
T10



CAPACITÀ FORATURA
DRILLING CAPACITY



CODICE
MANDRINO
SPINDLE CODE

FH
BAH
TA.CP
TA
MOX
HT
9-6
VH
TSI/TSX

T

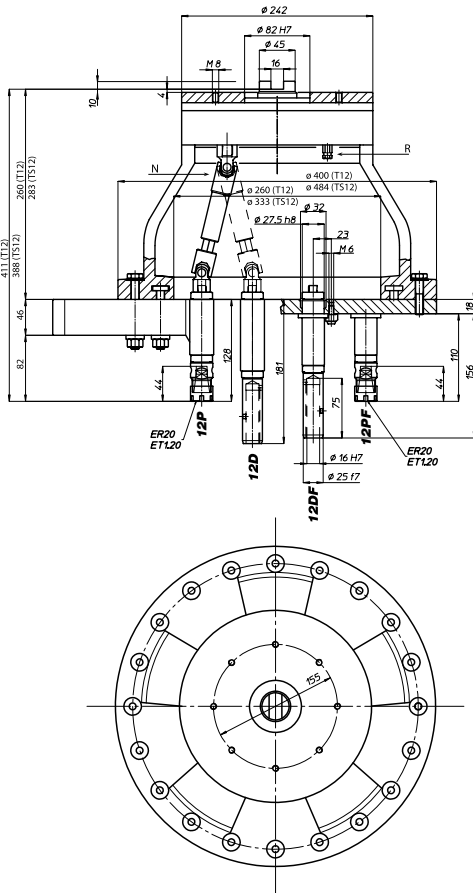
MT-TC-TC3





T12-TS12

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



08-12



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 10
ghisa / cast iron: GG25 12



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M8



MASCHIATURA
TAPPING

D: DIN 55058 Ø16



ATTACCO UTENSILE
TYPE OF SPINDLE

P: ER20

T12: 20 KG



PESO
GRUPPO TESTA
HEAD WEIGHT

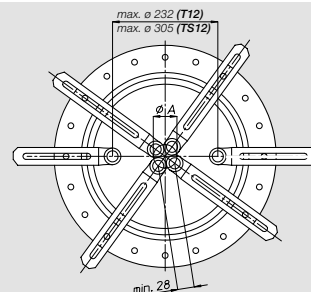
TS12: 22,5 KG

2 KG



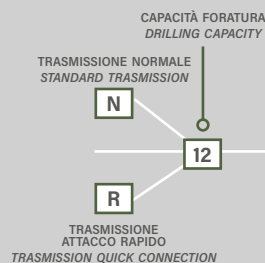
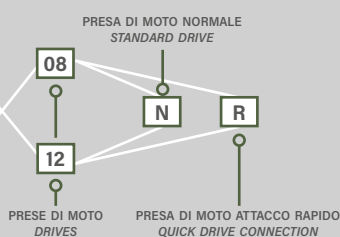
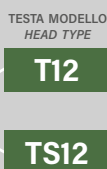
PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT

Ø A	33	40	48	56,5	65	74	82,5	91	100	108,5
N° MANDRINI N° SPINDLES	3	4	5	6	7	8	9	10	11	12



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE



CODICE
MANDRINO
SPINDLE CODE





N° PRESE DI MOTO
NR. SPINDLE
DRIVES



08-12

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 13
ghisa / cast iron: GG25 15

MASCHIATURA
TAPPING



M12

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø20

PESO
GRUPPO TESTA
HEAD WEIGHT

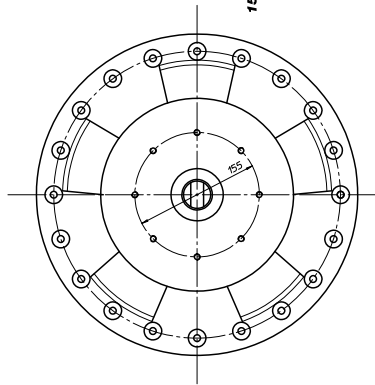
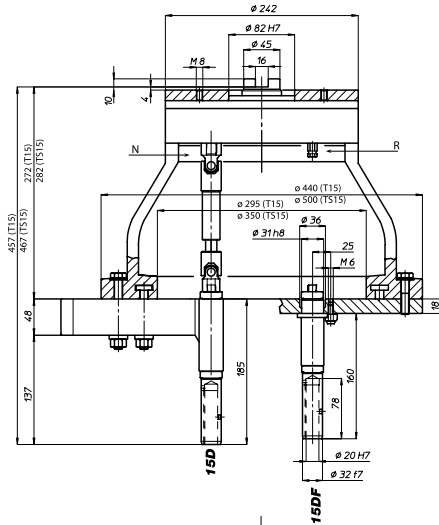


T15: 21,5 KG
TS15: 24,5 KG

PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



2,6 KG



T15-TS15

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

9-8

VH

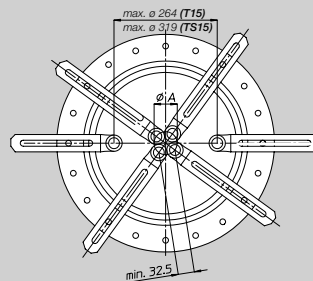
TSI/TSX

T

MT-TC-TC3

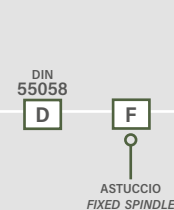
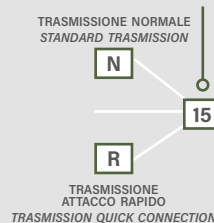
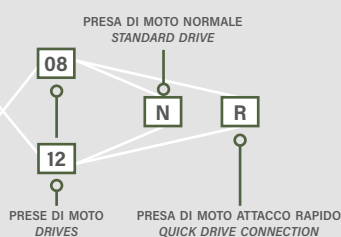
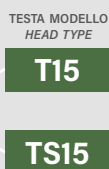


Ø A	38	46,5	56	65,5	75,5	85,5	95,5	105,5	116	126
N° MANDRINI N° SPINDLES	3	4	5	6	7	8	9	10	11	12



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE



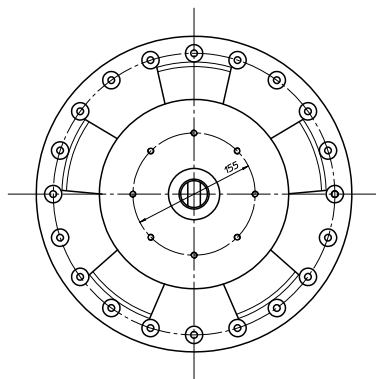
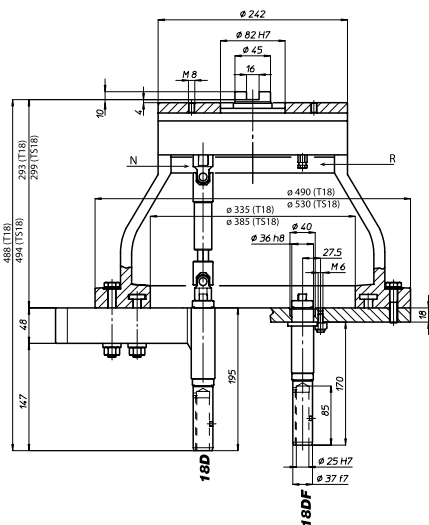
CODICE
MANDRINO
SPINDLE CODE





T18-TS18

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



08



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 16

ghisa / cast iron: GG25 18



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M14



MASCHIATURA
TAPPING

D: DIN 55058 Ø25



ATTACCO UTENSILE
TYPE OF SPINDLE

T18: 25 KG

TS18: 26,5 KG



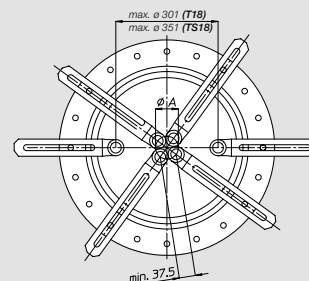
PESO
GRUPPO TESTA
HEAD WEIGHT

3,3 KG



PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT

Ø A	44	53,5	64,5	75,5	87	98,5
N° MANDRINI N° SPINDLES	3	4	5	6	7	8



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE

T18

TS18

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

N

R

TRASMISSIONE NORMALE
STANDARD TRANSMISSION

18

TRASMISSIONE ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

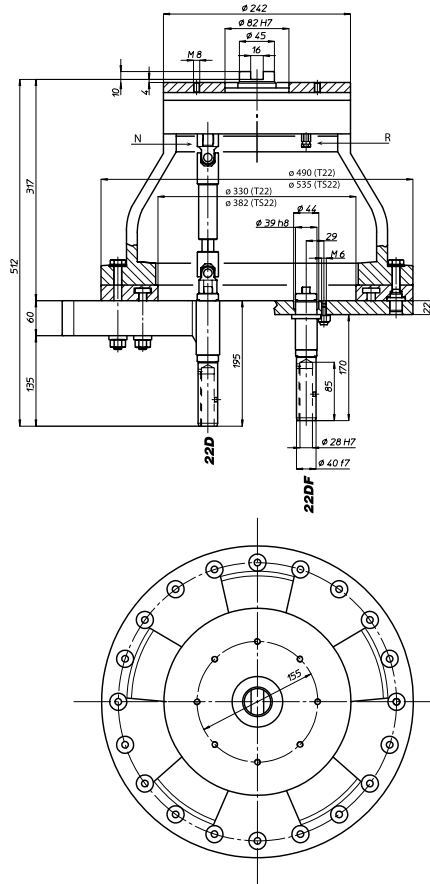
DIN 55058

D

F

ASTUCCIO
FIXED SPINDLE

CODICE
MANDRINO
SPINDLE CODE



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



08

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 20
ghisa / cast iron: GG25 22

MASCHIATURA
TAPPING



M16

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø28

PESO
GRUPPO TESTA
HEAD WEIGHT



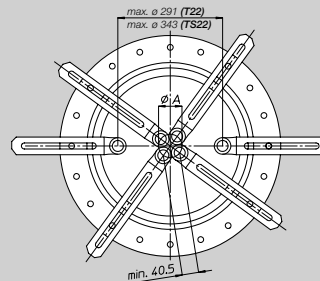
T15: 38,5 KG
TS15: 41 KG

PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



5,5 KG

Ø A	47,5	58	69,5	81,5	94	106,5
N° MANDRINI N° SPINDLES	3	4	5	6	7	8



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE

T22

TS22

PRESE DI MOTO
DRIVES

08

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

TRASMISSIONE NORMALE
STANDARD TRANSMISSION

N

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

22

DIN 55058

D

ASTUCCIO
FIXED SPINDLE

F

CODICE
MANDRINO
SPINDLE CODE

T22-TS22

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

9-10

VH

TSI/TSX

T

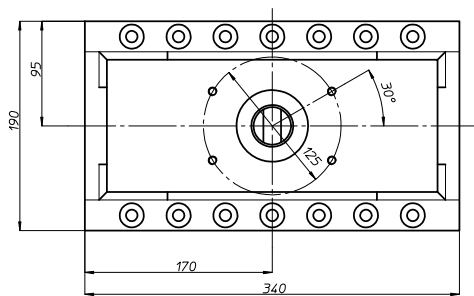
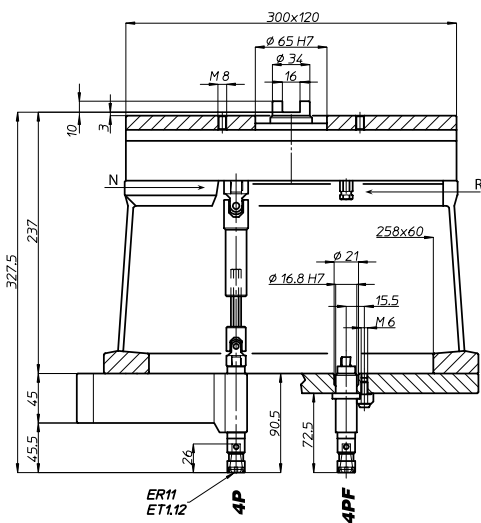
MT-TC-TC3





TL20/4

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



08



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 4

ghisa / cast iron: GG25 5



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M4



MASCHIATURA
TAPPING

P: ER11



ATTACCO UTENSILE
TYPE OF SPINDLE

13,5 KG

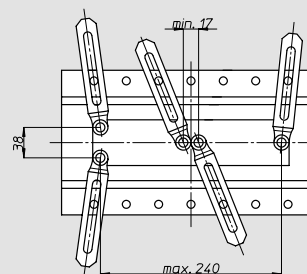


PESO
GRUPPO TESTA
HEAD WEIGHT

1 KG



PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE

TL20/4

08

PRESE DI MOTO
DRIVES

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

N

TRASMISSIONE NORMALE
STANDARD TRASMISSION

4

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

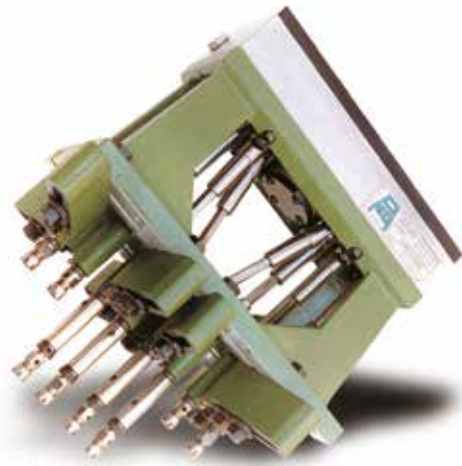
PINZA

P

ASTUCCIO
FIXED SPINDLE

F

CODICE
MANDRINO
SPINDLE CODE



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



08

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 6
ghisa / cast iron: GG25 7

MASCHIATURA
TAPPING



M5

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø10
P: ER11

PESO
GRUPPO TESTA
HEAD WEIGHT

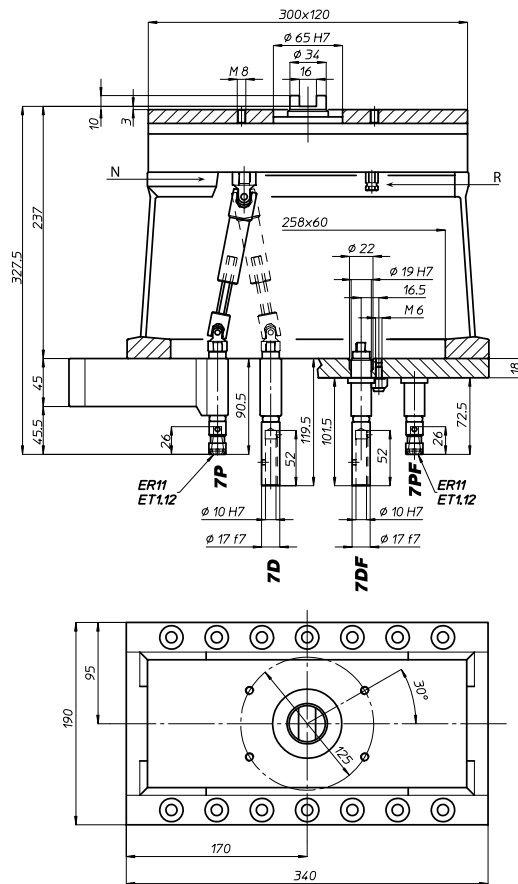


13,5 KG

PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



1 KG



TL20/6

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

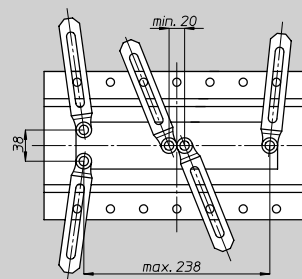
9-12

VH

TSI/TSX

T

MT-TC-TC3



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TL20/6

08

PRESE DI MOTO
DRIVES

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

TRASMISSIONE NORMALE
STANDARD TRANSMISSION

N

TRASMISSIONE ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

DIN 55058

D

P

PINZA

ASTUCCIO
FIXED SPINDLE

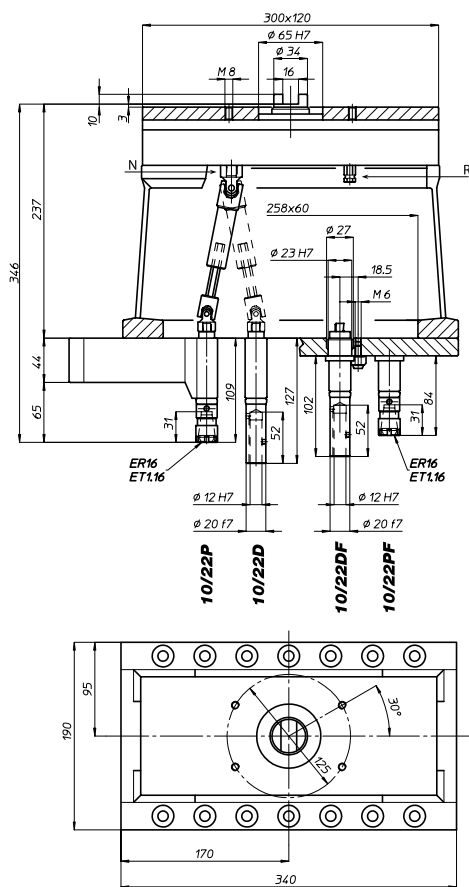
F

CODICE
MANDRINO
SPINDLE CODE



TL20/8

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



08



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 8

ghisa / cast iron: GG25 10



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M6



MASCHIATURA
TAPPING

D: DIN 55058 Ø12

P: ER16



ATTACCO UTENSILE
TYPE OF SPINDLE

13,5 KG

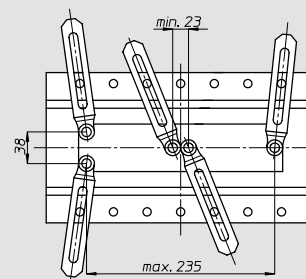


PESO
GRUPPO TESTA
HEAD WEIGHT

1,5 KG



PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE

TL20/8

08

PRESE DI MOTO
DRIVES

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

TRASMISSIONE NORMALE
STANDARD TRANSMISSION

N

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

DIN
55058

D

P

PINZA

ASTUCCIO
FIXED SPINDLE

F

CODICE
MANDRINO
SPINDLE CODE

N° PRESE DI MOTO
NR. SPINDLE
DRIVES



08

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 13
ghisa / cast iron: GG25 15

MASCHIATURA
TAPPING



M12

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø20

PESO
GRUPPO TESTA
HEAD WEIGHT

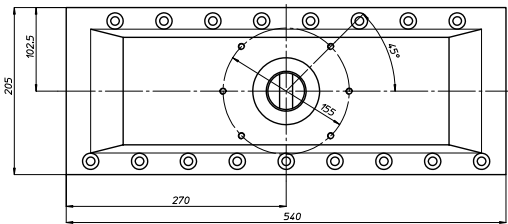
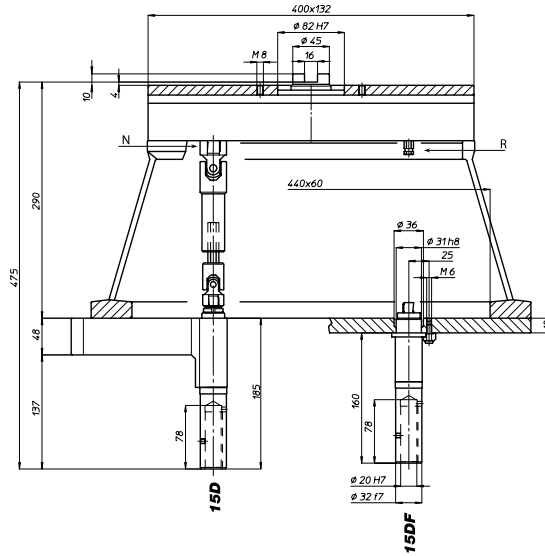


25 KG

PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



2,5 KG



TL40/12

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

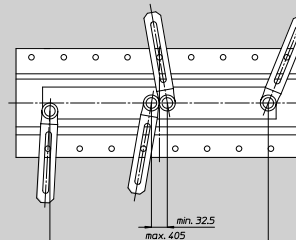
9-14

VH

TSI/TSX

T

MT-TC-TC3



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TL40/12

08

PRESE DI MOTO
DRIVES

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

15

TRASMISSIONE NORMALE
STANDARD TRANSMISSION

N

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

DIN 55058

D

F

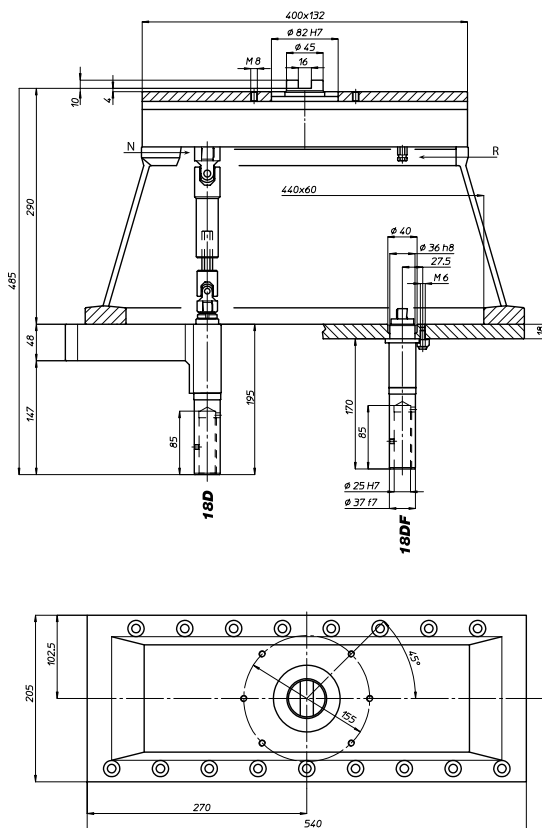
ASTUCCIO
FIXED SPINDLE

CODICE
MANDRINO
SPINDLE CODE



TL40/16

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



08



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 16

ghisa / cast iron: GG25 18



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M14



MASCHIATURA
TAPPING

D: DIN 55058 Ø25



ATTACCO UTENSILE
TYPE OF SPINDLE

26 KG

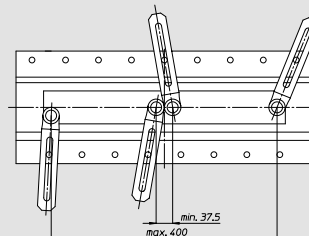


PESO
GRUPPO TESTA
HEAD WEIGHT

2,5 KG



PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TL40/16

08

PRESE DI MOTO
DRIVES

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

TRASMISSIONE NORMALE
STANDARD TRASMISSION

N

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

DIN
55058

18

D

ASTUCCIO
FIXED SPINDLE

F

CODICE
MANDRINO
SPINDLE CODE



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



06

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 20
ghisa / cast iron: GG25 22

MASCHIATURA
TAPPING



M16

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø28

PESO
GRUPPO TESTA
HEAD WEIGHT

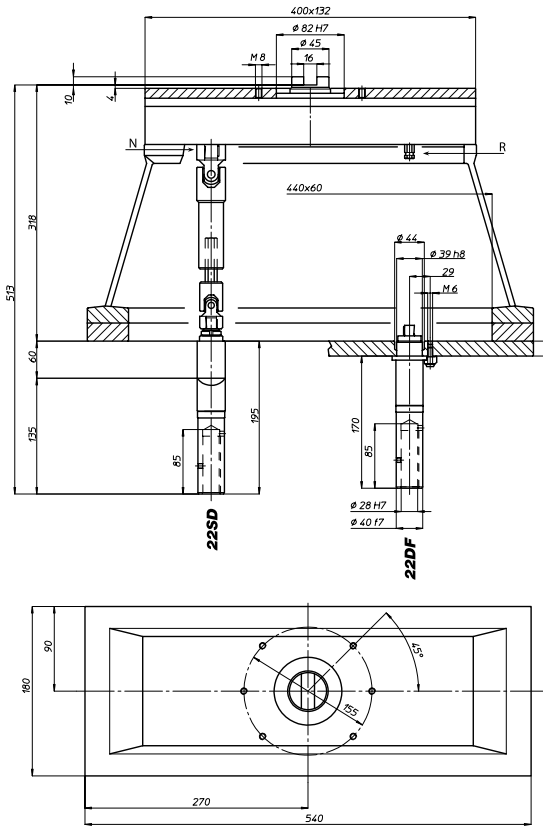


37 KG

PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



5 KG



TL40/22

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

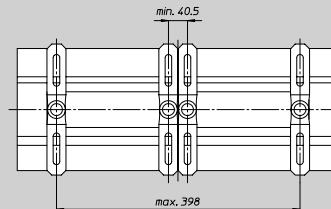
9-16

VH

TSI/TSX

T

MT-TC-TC3



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TL40/22

06

PRESE DI MOTO
DRIVES

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

TRASMISSIONE
NORMALE
STANDARD TRANSMISSION

N

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION
QUICK CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

22

DIN 55058

SD

ASTUCCIO
FIXED SPINDLE

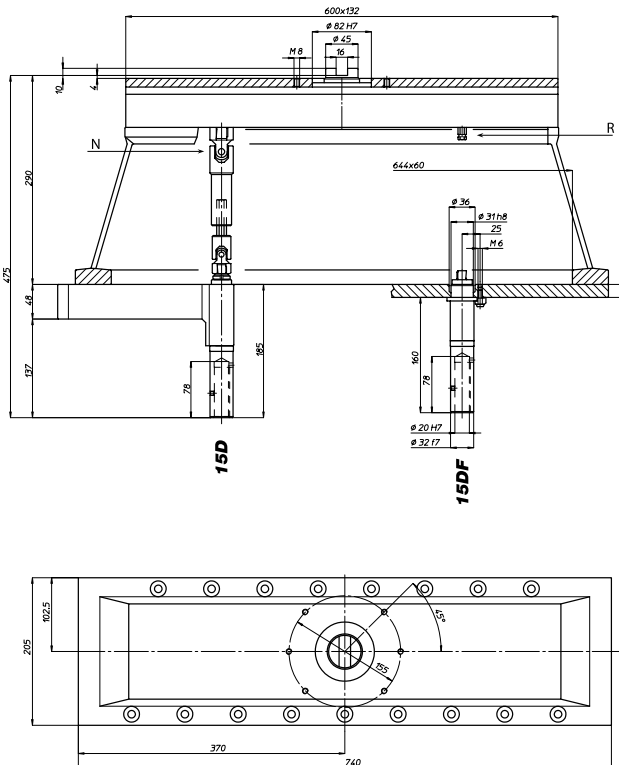
F

CODICE
MANDRINO
SPINDLE CODE



TL60/12

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



08-12



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 13

ghisa / cast iron: GG25 15



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M12



MASCHIATURA
TAPPING

D: DIN 55058 Ø20



ATTACCO UTENSILE
TYPE OF SPINDLE

34,5 KG

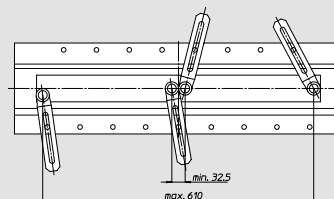


PESO
GRUPPO TESTA
HEAD WEIGHT

2,5 KG



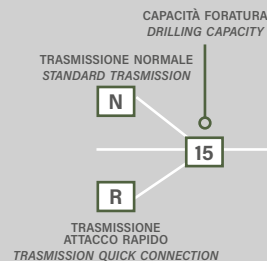
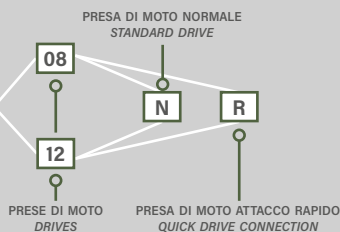
PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
T60/12



CODICE
MANDRINO
SPINDLE CODE



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



08-12

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / *still* R=500 N/mm² 16
ghisa / *cast iron*: GG25 18

MASCHIATURA
TAPPING



M14

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø25

PESO
GRUPPO TESTA
HEAD WEIGHT

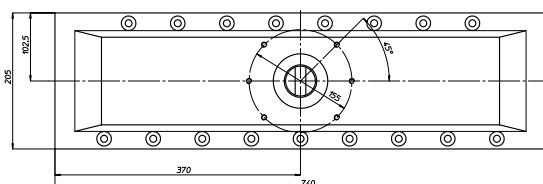
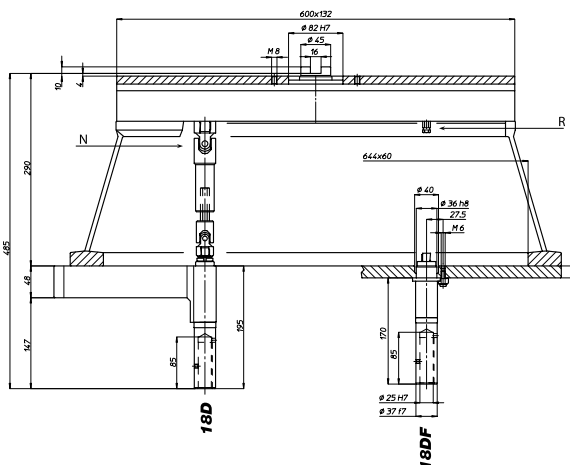


36 KG

PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



2,5 KG



TL60/16

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

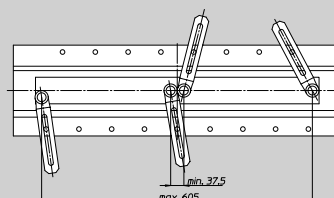
9-18

VH

TSI/TSX

T

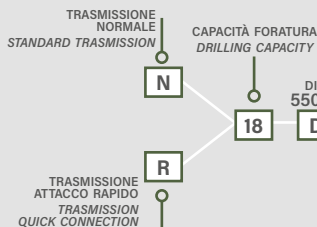
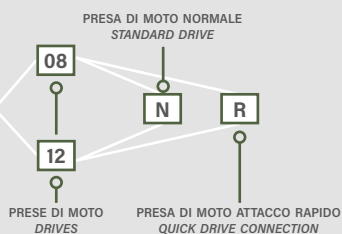
MT-TC-TC3



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
T60/16

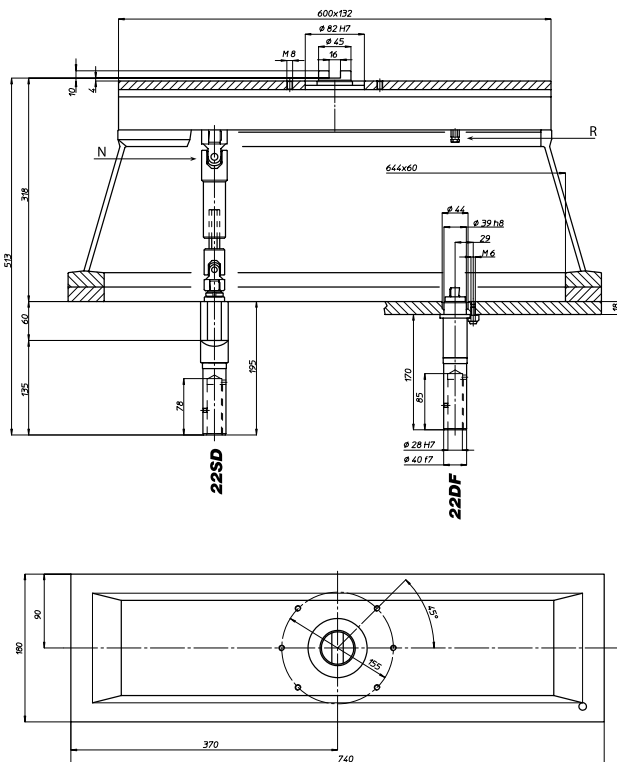


CODICE
MANDRINO
SPINDLE CODE



TL60/22

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



08



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 20
ghisa / cast iron: GG25 22



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M16



MASCHIATURA
TAPPING

D: DIN 55058 Ø28



ATTACCO UTENSILE
TYPE OF SPINDLE

47,5 KG

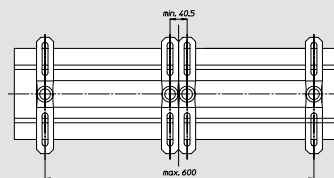


PESO
GRUPPO TESTA
HEAD WEIGHT

5 KG



PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
T60/22

08

PRESE DI MOTO
DRIVES

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

TRASMISSIONE NORMALE
STANDARD TRASMISSION

N

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

DIN 55058

22

SD

ASTUCCIO
FIXED SPINDLE

F

CODICE
MANDRINO
SPINDLE CODE





N° PRESE DI MOTO
NR. SPINDLE
DRIVES



08-12

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 13
ghisa / cast iron: GG25 15

MASCHIATURA
TAPPING



M12

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø20

PESO
GRUPPO TESTA
HEAD WEIGHT

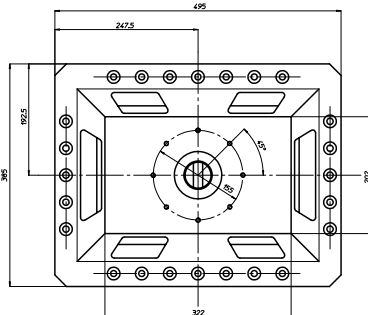
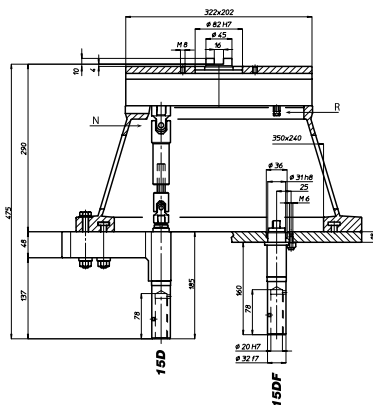


30 KG

PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



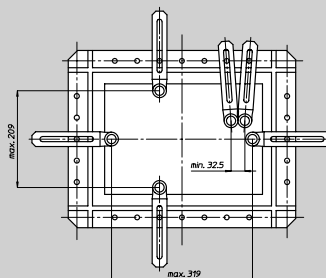
2,6 KG



TR2/12

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

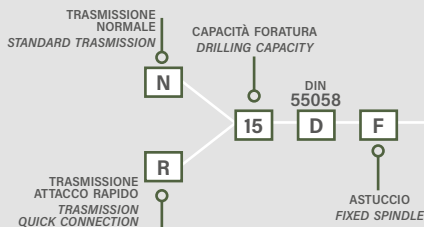
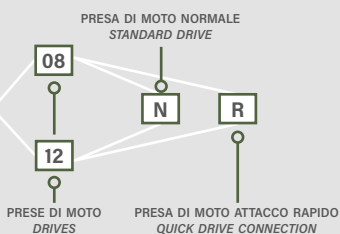
- FH
- BAH
- TA.CP
- TA
- MOX
- HT
- 9-20
- VH
- TSI/TSX



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TR2/12



CODICE
MANDRINO
SPINDLE CODE

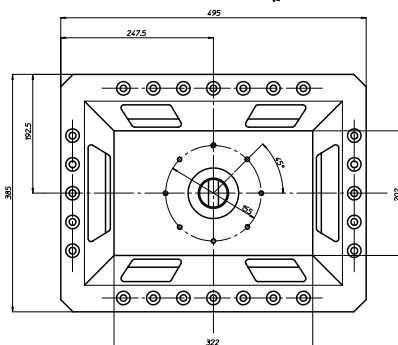
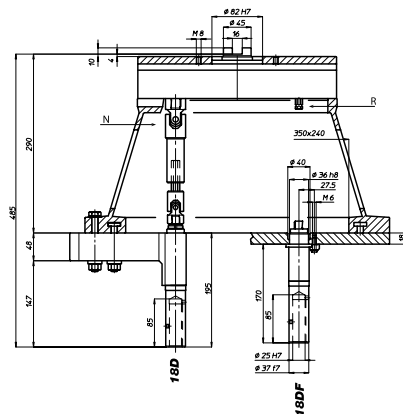
- T
- MT-TC-TC3
- ⚙️
- 📐





TR2/16

TESTA MULTIPLA A GIUNTI UNIVERSALI • ADJUSTABLE JOINT MULTISPINDLE HEAD



10



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 16

ghisa / cast iron: GG25 18



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M14



MASCHIATURA
TAPPING

D: DIN 55058 Ø25



ATTACCO UTENSILE
TYPE OF SPINDLE

31 KG

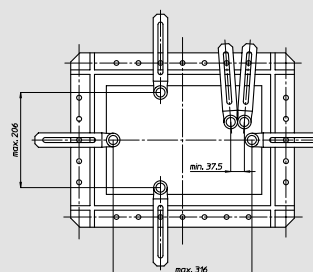


PESO
GRUPPO TESTA
HEAD WEIGHT

3,3 KG



PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE

TR2/16

08

PRESE DI MOTO
DRIVES

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

TRASMISSIONE NORMALE
STANDARD TRANSMISSION

N

TRASMISSIONE
ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

18

DIN
55058

D

ASTUCCIO
FIXED SPINDLE

F

CODICE
MANDRINO
SPINDLE CODE



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



08-12-16

RAPPORTO
RATIO



1-1

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 13
ghisa / cast iron: GG25 15

MASCHIATURA
TAPPING



M12

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø20

PESO
GRUPPO TESTA
HEAD WEIGHT

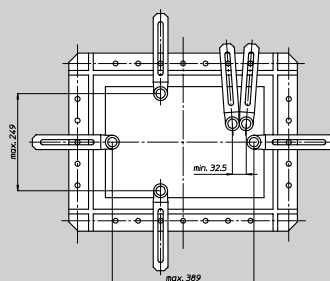
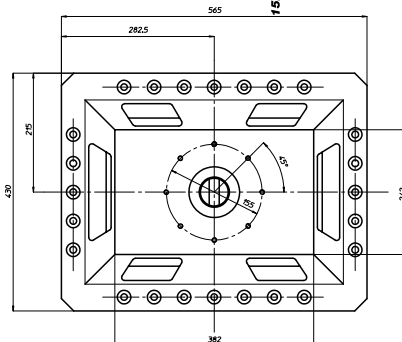
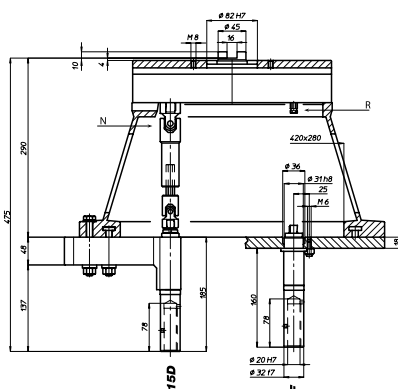


34,5 KG

PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



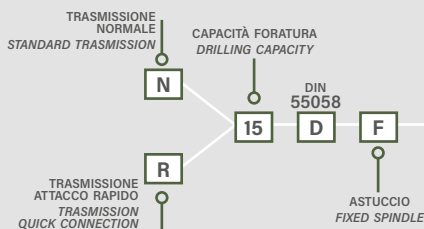
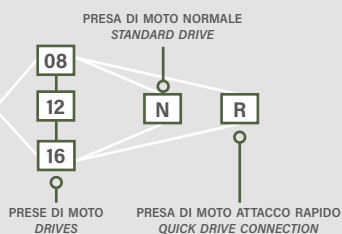
2,6 KG



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TR5/12



CODICE
MANDRINO
SPINDLE CODE

TR5/12

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

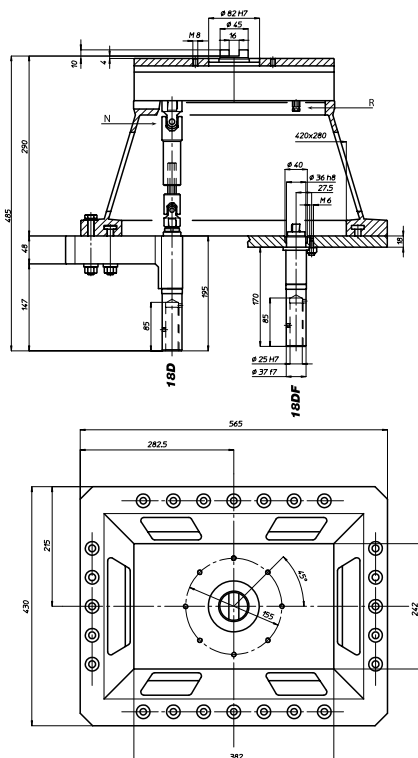
FH
BAH
TA.CP
TA
MOX
HT
9-22
VH
TSI/TSX

T
MT-TC-TC3



TR5/16

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD



8-12



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1



RAPPORTO
RATIO

acciaio / still R=500 N/mm² 16
ghisa / cast iron: GG25 18



CAPACITÀ
DI FORATURA
DRILLING CAPACITY

M14



MASCHIATURA
TAPPING

D: DIN 55058 Ø25



ATTACCO UTENSILE
TYPE OF SPINDLE

36 KG

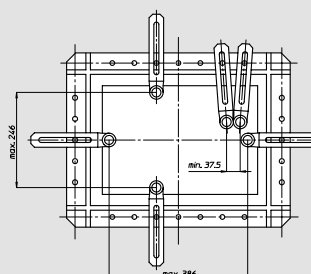


PESO
GRUPPO TESTA
HEAD WEIGHT

3,3 KG



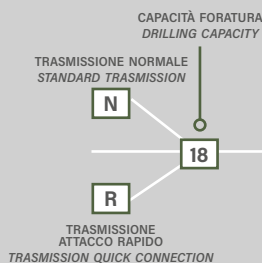
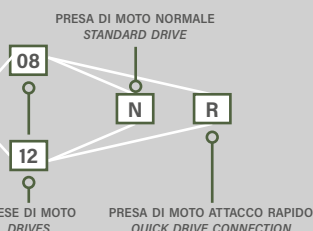
PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TR5/16



CODICE
MANDRINO
SPINDLE CODE



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



12

RAPPORTO
RATIO



1-1,5

CAPACITÀ
DI FORATURA
DRILLING CAPACITY



acciaio / still R=500 N/mm² 15D: 13 22D: 20
ghisa / cast iron: GG25 15D: 15 22D: 22

MASCHIATURA
TAPPING



15D: M12 22D: M16

ATTACCO UTENSILE
TYPE OF SPINDLE



D: DIN 55058 Ø20-Ø28

PESO
GRUPPO TESTA
HEAD WEIGHT

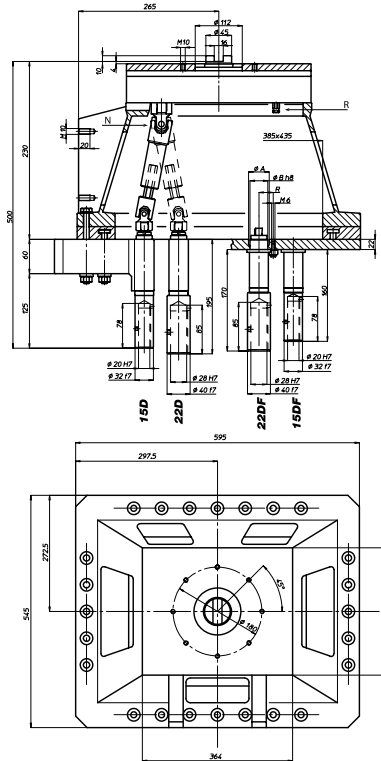


86 KG

PESO GRUPPO
MANDRINO
SPINDLE-SET WEIGHT



15D: 4 KG 22D: 5,5 KG



TR8/22

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

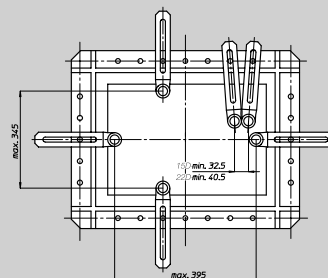
9-24

VH

TSI/TSX

T

MT-TC-TC3



AREA DI LAVORO
WORKING AREA

CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TR8/22

08

PRESE DI MOTO
DRIVES

PRESA DI MOTO NORMALE
STANDARD DRIVE

N

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

CAPACITÀ FORATURA
DRILLING CAPACITY

N

15

TRASMISSIONE ATTACCO RAPIDO
TRANSMISSION QUICK CONNECTION

R

22

TRASMISSIONE NORMALE
STANDARD TRANSMISSION

N

15

22

D

F

DIN 55058

CODICE
MANDRINO
SPINDLE CODE

ASTUCCIO
FIXED SPINDLE

FH

BAH

TA.CP

TA

MOX

HT

9-25

VH

TSI/TSX

T

MT-TC-TC3



TM400

TESTA MULTIPLA A GIUNTI UNIVERSALI • ADJUSTABLE JOINT MULTISPINDLE HEAD



12



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1

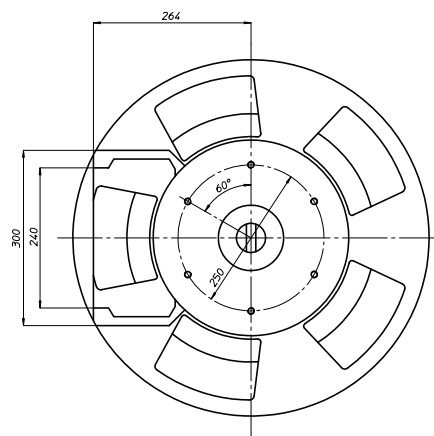
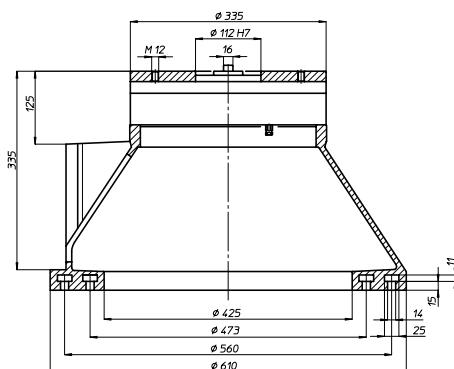
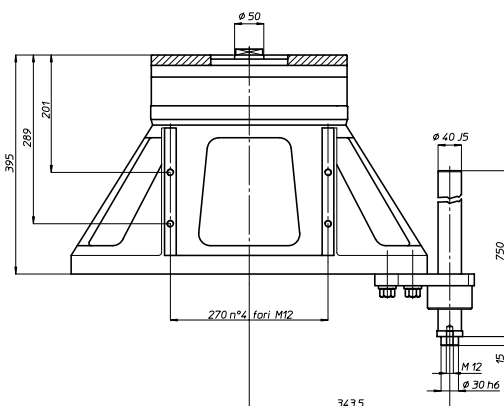


RAPPORTO
RATIO

105 KG



PESO
WEIGHT



CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TM400

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

12 R

PRESE DI MOTO
DRIVES

Ø 385

AREA DI LAVORO
WORKING AREA



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



18

RAPPORTO
RATIO

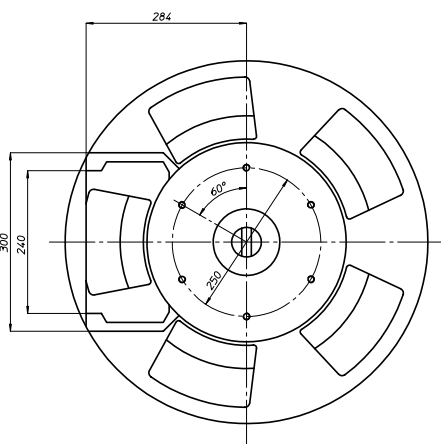
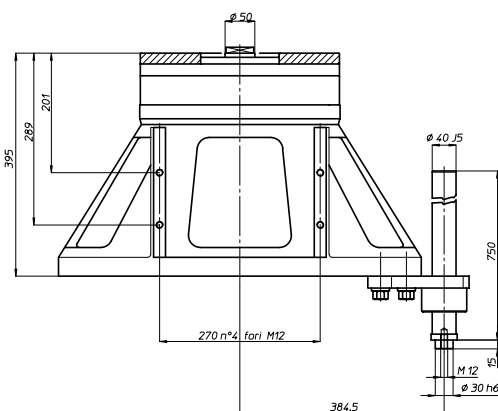
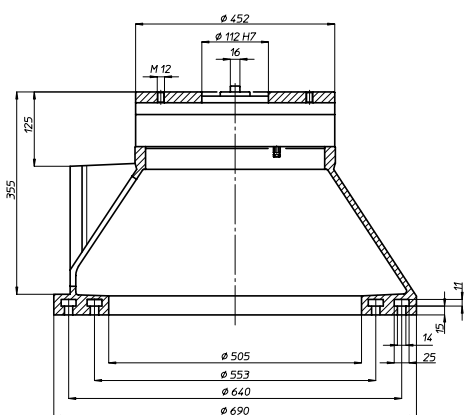


1-1

PESO
WEIGHT



145 KG



CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE
TM500

18

PRESE DI MOTO
DRIVES

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

R

Ø 465

AREA DI LAVORO
WORKING AREA

TM500

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

9-26

VH

TSI/TSX

T

MT-TC-TC3



FH

BAH

TA.CP

TA

MOX

HT

9-27

VH

TSI/TSX

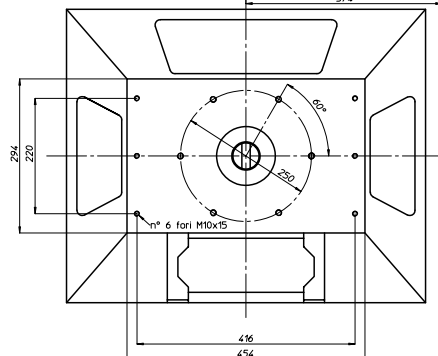
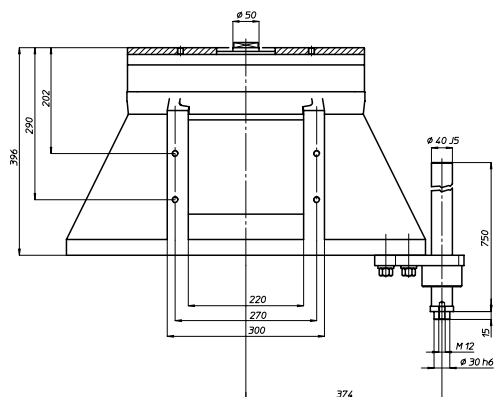
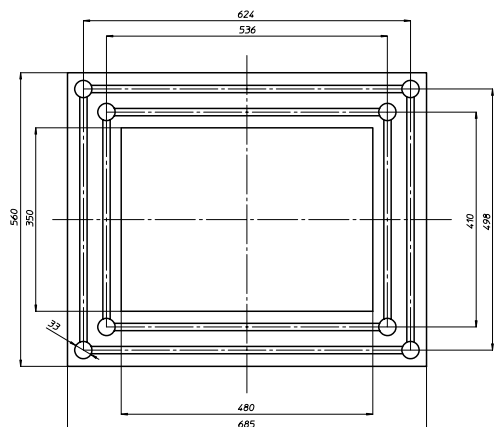
T

MT-TC-TC3



TRM43

TESTA MULTIPLA A GIUNTI UNIVERSALI • ADJUSTABLE JOINT MULTISPINDLE HEAD



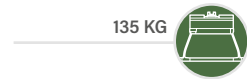
16

N° PRESE DI MOTO
NR. SPINDLE
DRIVES



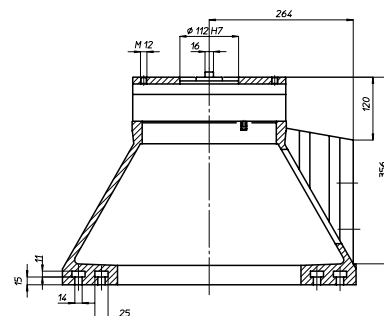
1-1

RAPPORTO
RATIO



135 KG

PESO
WEIGHT



CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE

TRM43

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

16

R

PRESA DI MOTO
DRIVES

300x440

AREA DI LAVORO
WORKING AREA



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



26

RAPPORTO
RATIO

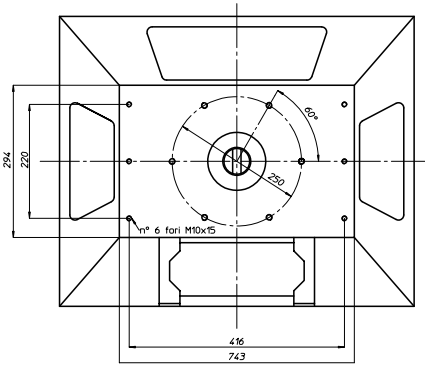
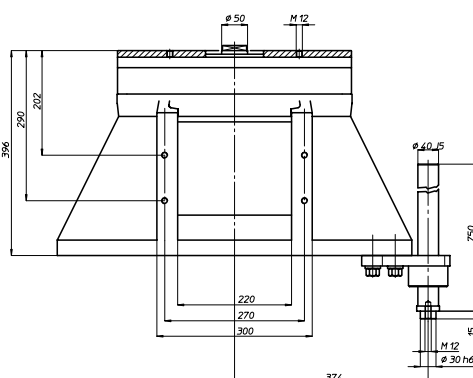
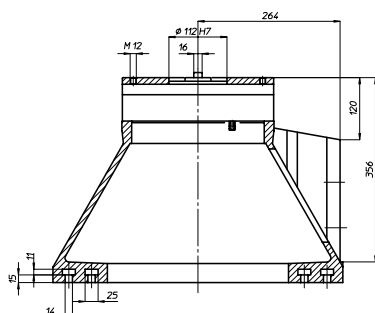
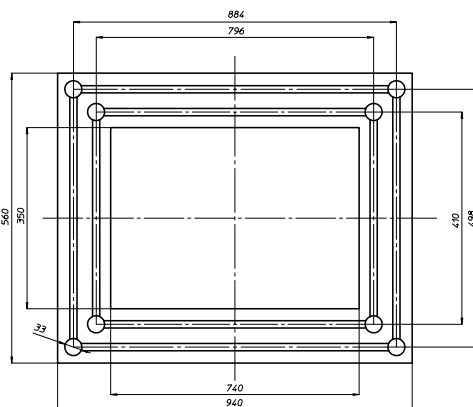


1-1

PESO
WEIGHT



210 KG



CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE

TRM73

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

26

R

PRESE DI MOTO
DRIVES

300x700

AREA DI LAVORO
WORKING AREA

TRM73

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

9-28

VH

TSI/TSX

T

MT-TC-TC3



FH

BAH

TA.CP

TA

MOX

HT

9-29

VH

TSI/TSX

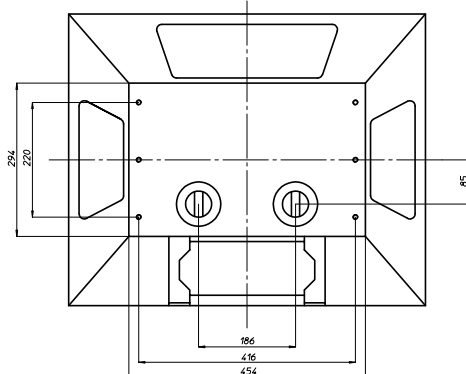
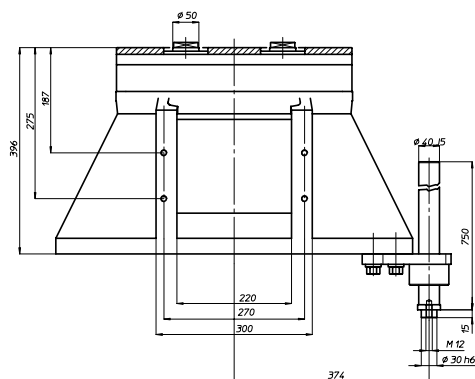
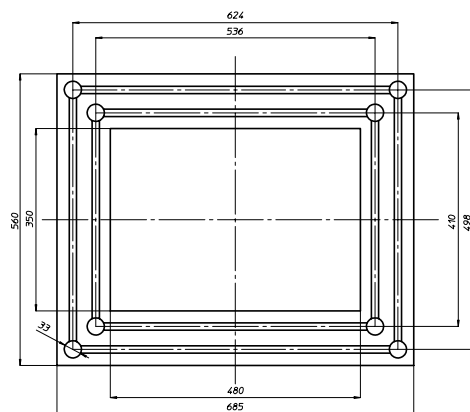
T

MT-TC-TC3



TRM43-2P

TESTA MULTIPLA A GIUNTI UNIVERSALI • ADJUSTABLE JOINT MULTISPINDLE HEAD



8+8



N° PRESE DI MOTO
NR. SPINDLE
DRIVES

1-1

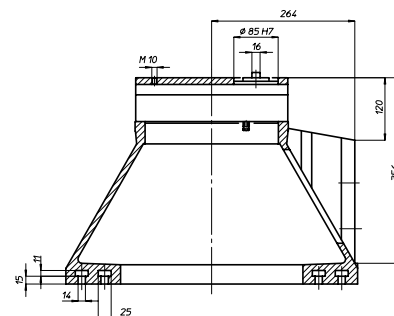


RAPPORTO
RATIO

140 KG



PESO
WEIGHT



CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE

TRM43

16

PRESE DI MOTO
DRIVES

R

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

2P

N.2 PRESE DI FORZA
NR.2 CENTRAL DRIVES

300x440

AREA DI LAVORO
WORKING AREA



N° PRESE DI MOTO
NR. SPINDLE
DRIVES



13+13

RAPPORTO
RATIO

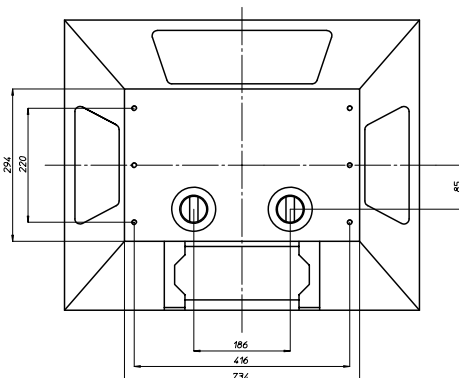
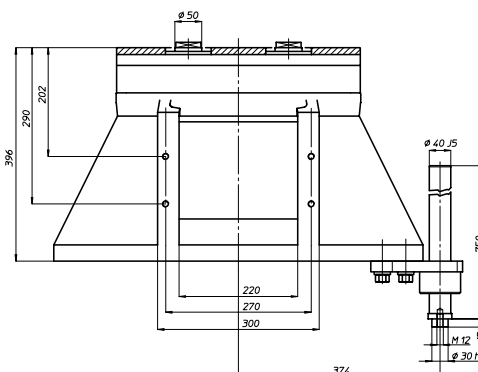
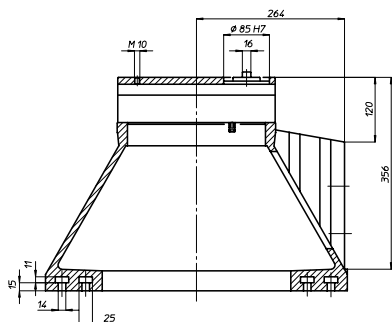
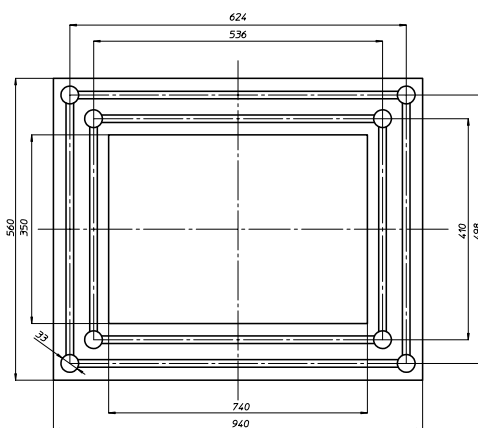


1-1

PESO
WEIGHT



210 KG



CODICE TESTA
HEAD CODE

TESTA MODELLO
HEAD TYPE

TRM73

26

PRESE DI MOTO
DRIVES

R

PRESA DI MOTO ATTACCO RAPIDO
QUICK DRIVE CONNECTION

2P

N.2 PRESE DI FORZA
NR.2 CENTRAL DRIVES

300x700

AREA DI LAVORO
WORKING AREA

TRM73-2P

TESTA MULTIPLA A GIUNTI UNIVERSALI - ADJUSTABLE JOINT MULTISPINDLE HEAD

FH

BAH

TA.CP

TA

MOX

HT

9-30

VH

TSI/TSX

T

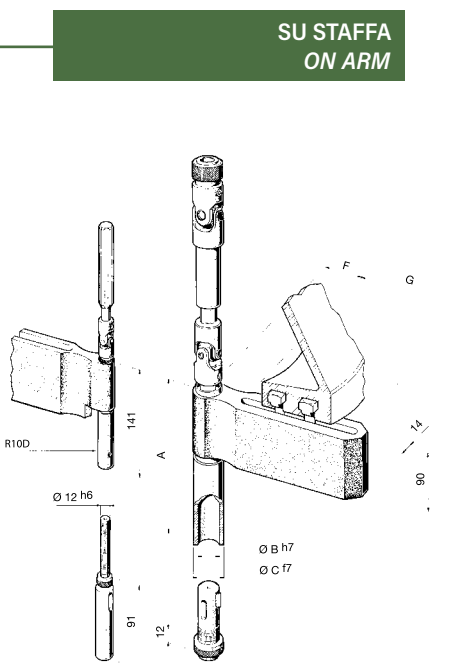
MT-TC-TC3





SOLO PER TESTE TM-TRM FOR TM-TRM HEADS ONLY

GRUPPO MANDRINO PER FORATURA E MASCHIATURA - DRILLING AND TAPPING SPINDLE SET



**TIPI
MANDRINI
SPINDLES TYPE**

**CODICE
CODE**

**CAPACITÀ
FORATURA
DRILLING
CAPACITY
ACCIAIO / STILL
R=500 N/MM**

**GHISA / CAST IRON:
GG25**

**CAPACITÀ
MASCHIATURA
TAPPING**

A

ØB H7

ØC F7

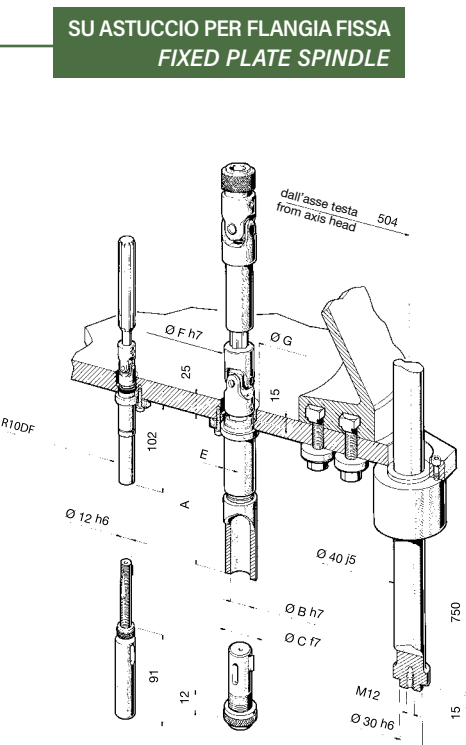
F

G

**INTERASSE
MINIMO
CENTER
DISTANCE**

**PESO
WEIGHT**

	10D	12D	15D	18D	22D	25D
CODICE	R10D-S5 R10D-S6	R12D-S5 R12D-S6	R15D-S5 R15D-S6	R18D-S5 R18D-S6	R22D-S5 R22D-S6	R25D-S5 R25D-S6
CAPACITÀ FORATURA	8	10	13	16	20	22
GHISA / CAST IRON:	10	12	15	18	22	25
CAPACITÀ MASCHIATURA	M6	M8	M12	M14	M16	M18
A	127	181	185	194	195	232
ØB H7	12	16	20	25	28	32
ØC F7	20	25	32	37	40	45
F	59	55	55	55	55	60
G	200 270	200 270	200 270	200 270	200 270	200 270
INTERASSE MINIMO	23	28	32,5	37,5	40,5	50
PESO	4,0 KG 4,5 KG	4,7 KG 5,2 KG	5,2 KG 5,7 KG	5,5 KG 6,3 KG	6,6 KG 7,4 KG	8,6 KG 9,5 KG



**TIPI
MANDRINI
SPINDLES TYPE**

**CODICE
CODE**

**CAPACITÀ
FORATURA
DRILLING
CAPACITY
ACCIAIO / STILL
R=500 N/MM**

**GHISA / CAST IRON:
GG25**

**CAPACITÀ
MASCHIATURA
TAPPING**

A

ØB H7

ØC F7

E

**INTERASSE VITE M6
DISTANCE SCREW
M6**

ØF H7

ØG

**INTERASSE
MINIMO
CENTER
DISTANCE**

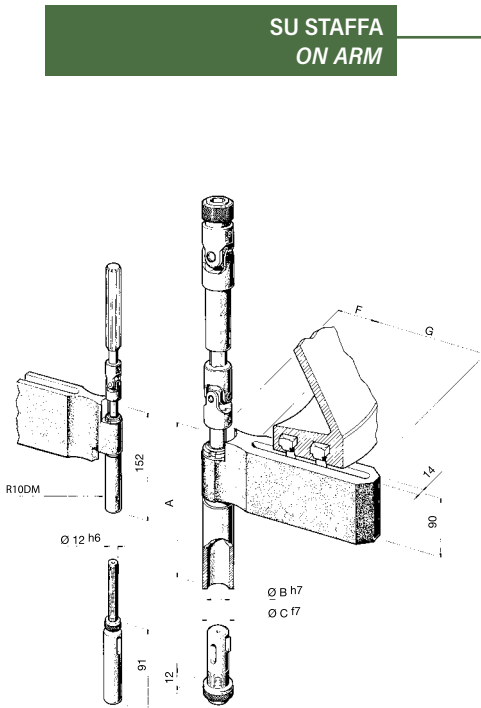
**PESO
WEIGHT**

	10D	12D	15D	18D	22D	25D
CODICE	R10DF	R12DF	R15DF	R18DF	R22DF	R25DF
CAPACITÀ FORATURA	8	10	13	16	20	22
GHISA / CAST IRON:	10	12	15	18	22	25
CAPACITÀ MASCHIATURA	M6	M8	M12	M14	M16	M18
A	102	156	160	169	170	207
ØB H7	12	16	20	25	28	32
ØC F7	20	25	32	37	40	45
E	18,5	23	25	27,5	29	34
ØF H7	23	27,5	31	36	39	50
ØG	27	32	36	40	44	56
INTERASSE MINIMO	23,5	28	32,5	37,5	40,5	50,5
PESO	2,0 KG	2,3 KG	2,6 KG	3,4 KG	3,8 KG	5,2 KG

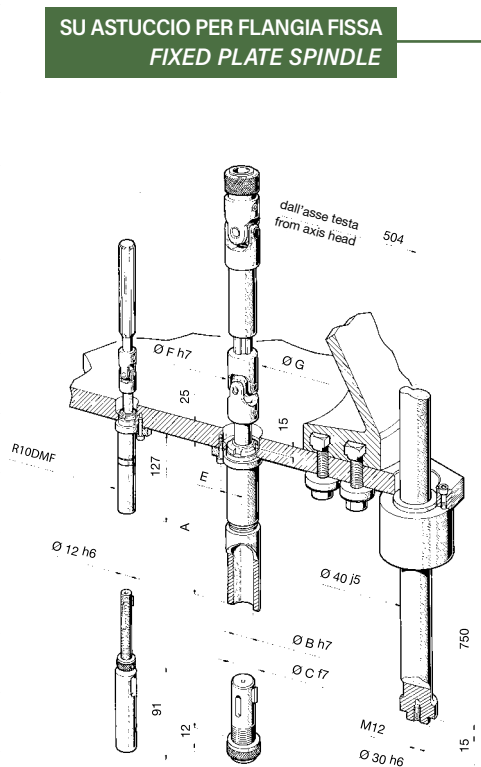
SOLO PER TESTE TM-TRM

FOR TM-TRM HEADS ONLY

TIPI MANDRINI SPINDLES TYPE	10DM	15DM	22DM
CODICE CODE	R10DM-S5 R10DM-S6	R15DM-S5 R15DM-S6	R22DM-S5 R22DM-S6
CAPACITÀ MASCHIATURA TAPPING	M6	M12	M16
CORSA MASCHIATURA TAPPING STROKE	40	40	40
A	152	208	217
$\varnothing B$ H7	12	20	28
$\varnothing C$ F7	20	32	40
F	59	55	55
G	200 270	200 270	200 270
INTERASSE MINIMO CENTER DISTANCE	23	32,5	40,5
PESO WEIGHT	4,0 KG 4,5 KG	5,2 KG 5,7 KG	6,6 KG 7,4 KG



TIPI MANDRINI SPINDLES TYPE	10DM	15DM	22DM
CODICE CODE	R10DMF	R15DMF	R22DMF
CAPACITÀ MASCHIATURA TAPPING	M6	M12	M16
CORSA MASCHIATURA TAPPING STROKE	40	40	40
A	127	183	192
$\varnothing B$ H7	12	20	28
$\varnothing C$ F7	20	32	40
E INTERASSE VITE M6 DISTANCE SCREW M6	18,5	25	29
$\varnothing F$ F7	23	31	39
$\varnothing G$	27	36	44
INTERASSE MINIMO CENTER DISTANCE	23,5	32,5	40,5
PESO WEIGHT	2,0 KG	2,6 KG	3,8 KG



GRUPPO MANDRINO PER FORATURA E MASCHIATURA - DRILLING AND TAPPING SPINDLE SET

9-32

FH

BAH

TA.CP

TA

MOX

HT

VH

TSI/TSX

T

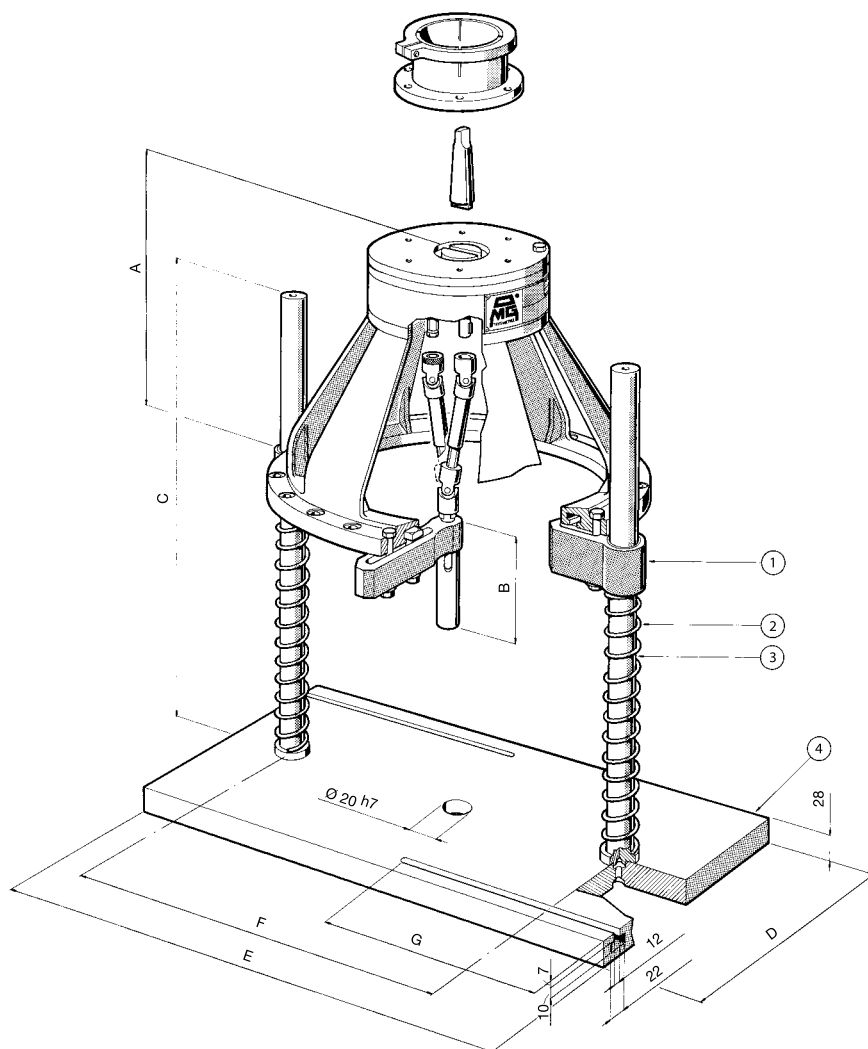
MT-TC-TC3



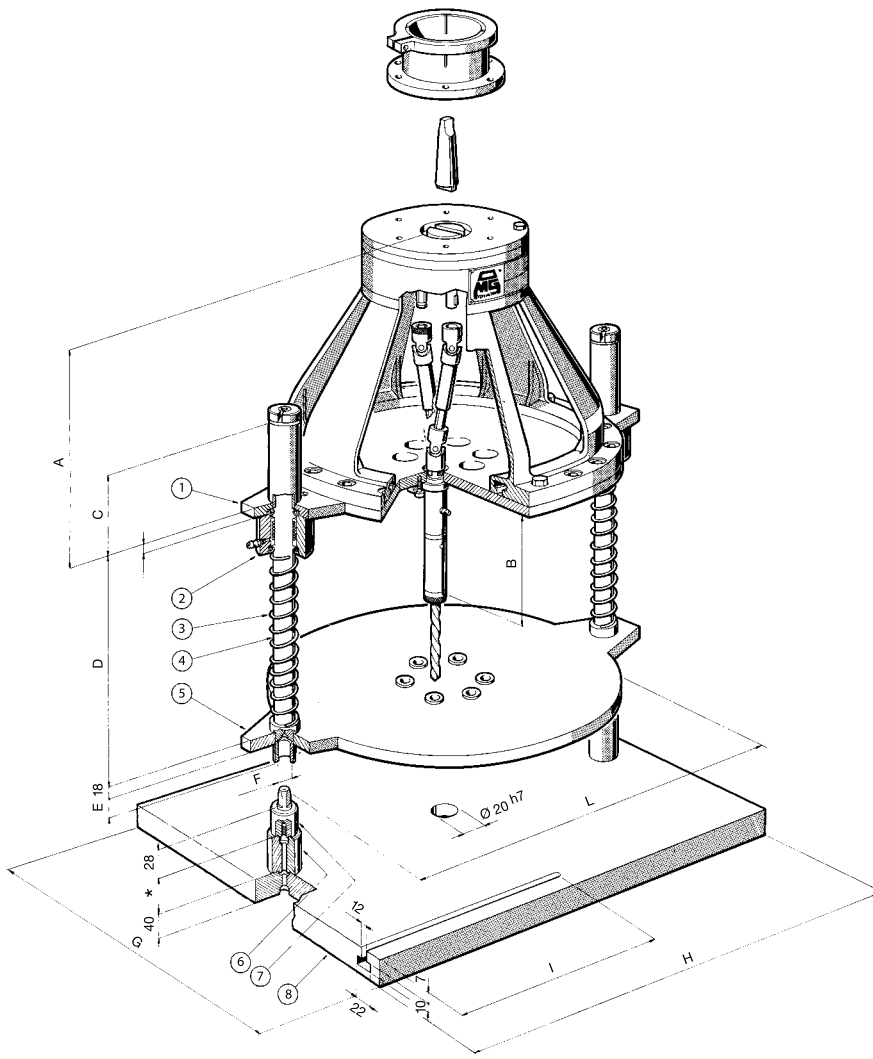


SERIE T-TS-TL-TR

ATTREZZATURE PER TESTE MULTIPLE
MULTISPINDLE HEADS EQUIPMENT



MODELLO TESTA HEAD TYPE	A	B		C	D	E	F	G	1 SUPPORTO DI GUIDA GUIDE BUSH	2 MOLLA SPRING	3 COLONNA COLUMN	4 BASE BASE									
		DIN 55058	Pinza ER																		
T4	205	91,5	76	500	250	500	280	300	076123	076126	076120	076081									
T7	205	101,5	76				350					076082									
T10	236	109	94,5				404					076083									
T12	260	172	454				076084														
TS12	283	172	542				076088														
T15	272	175	492				076085														
TS15	282	175	552	650	300	650	350	076133	076136	076130	076089										
T18	293	185	540								076086										
TS18	299	185	582								076090										
T22	317	185	540								076087										
TS22	317	185	582								076091										
TL20/4	237	91,5	76								500	250	500	400	300	076123	076126	076120	076092		
TL20/6	237	101,5	76	076093																	
TL20/8	237	109	94,5	076094																	
TL40/12	290	175	650	300	650	604	350	076133	076136	076130	076130	076093									
TL40/16	290	185										076094									
TL40/22	318	185										076095									
TL60/12	290	175										650	300	850	804	450	076133	076136	076130	076130	076094
TL60/16	290	185																			076095
TL60/22	318	185																			076096
TR2/12	290	175	650	300	650	548	076133	076136	076130	076130	076130										076095
TR2/16	290	185										076096									
TR5/12	290	175										076096									
TR5/16	290	185										076096									



SERIE T-TS-TL-TR

ATTREZZATURE PER TESTE MULTIPLE
MULTISPINDLE HEADS EQUIPMENT

* a richiesta

MODELLO TESTA HEAD TYPE	A	B		C	D	E	ØFh7	G	H	I	L	1	2	3	4	5	6	7	8
		DIN 55058	Pinza ER									FLANGIA FISSA FIXED PLATE	CARTUCCIA DI GUIDA GUIDE BUSH	MOLLA SPRING	COLONNA COLUMN	MASCHERA DRILLING JIG	DISTANZIALE SPACER	PUNTALE PUSH-ROD	BASE BASE
T4	205	91,5	76								280	076001				076051			076081
T7	205	101,5	76	70	280	22	10	250	500	300	350	076002	076122	076126	076121	076052		076127	076082
T10	236	109	94,5								404	076003				076053			076083
T12	260	172									454	076004				076054			076084
TS12	283	172									542	076005				076055			076085
T15	272	175									492	076006				076056			076086
TS15	282	175									552	076007				076057			076087
T18	293	185		100	405	27	18	300	650	350	540	076008	076132	076136	076131	076058		076137	076088
TS18	299	185									582	076009				076059			076089
T22	317	185									540	076010				076060			076090
TS22	317	185									582	076011				076061			076091
TL20/4	237	91,5	76																
TL20/6	237	101,5	76	70	280	22	10	250	500	300	400	076012	076122	076126	076121	076062		076127	076092
TL20/8	237	109	94,5																
TL40/12	290	175																	
TL40/16	290	185									650	350	604	076013		076063			076093
TL40/22	318	185																	
TL60/12	290	175																	
TL60/16	290	185		100	405	27	18	300			850	450	804	076014		076064		076137	076094
TL60/22	318	185																	
TR2/12	290	175																	
TR2/16	290	185									548	076015				076065			076095
TR5/12	290	175									650	350							
TR5/16	290	185														076066			076096



ATTACCO CONO MORSE TRASCINATORE

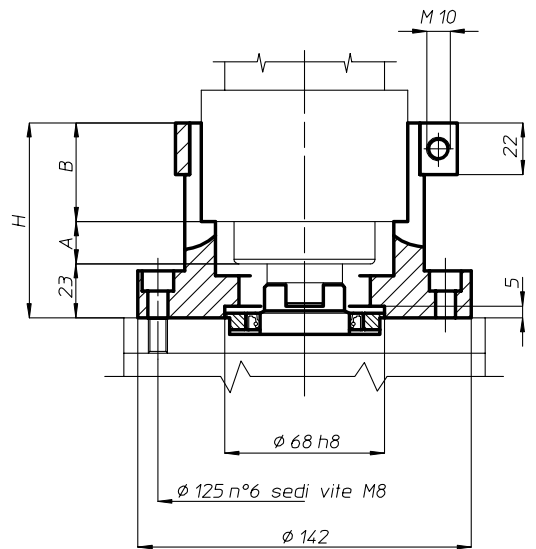
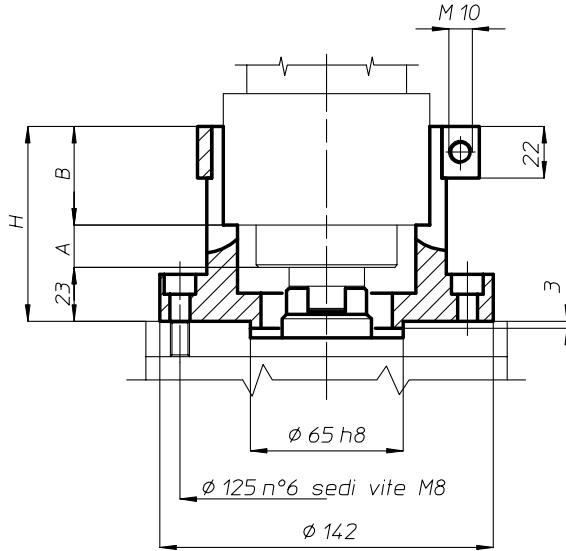
MORSE TAPER WITH DRIVING DOG

MANICOTTI DI COLLEGAMENTO - CONNECTION COLLARS

T4 - T7 - T10 - TL20...

SOLO VERSIONE ORIZZONTALE
FOR HORIZONTAL USE ONLY

VERSIONE STANDARD
STANDARD VERSION

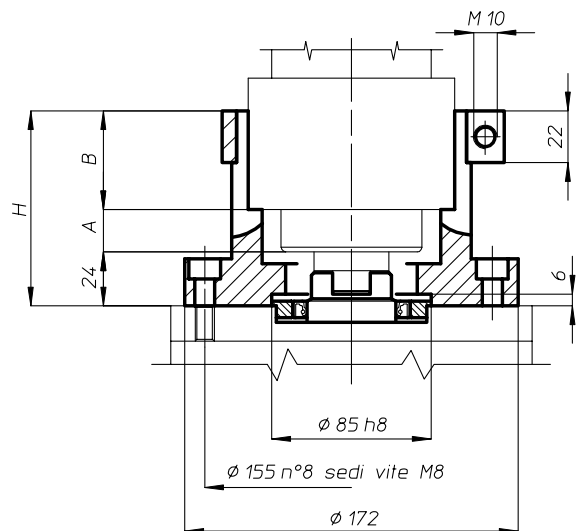
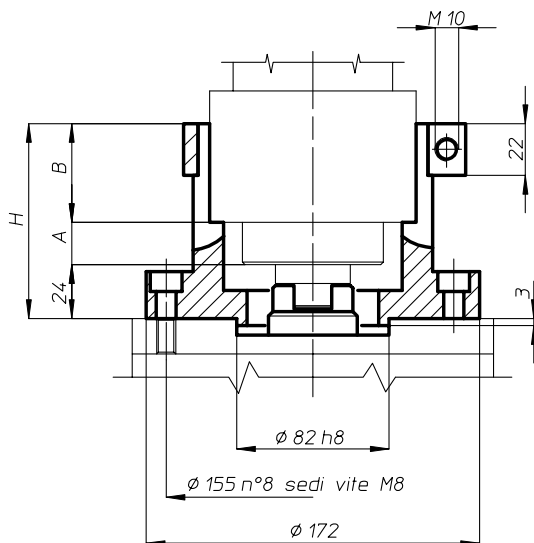


9-35

T12 - T15 - T18 - T22 - TL40... - TL60... - TR2... - TR5...

SOLO VERSIONE ORIZZONTALE
FOR HORIZONTAL USE ONLY

VERSIONE STANDARD
STANDARD VERSION



VH

TSI/TSX

T

MT-TC-TC3



NOTE

NOTES

FH

BAH

TA.CP

TA

MOX

HT

9-36

VH

TSI/TSX

T

MT-TC-TC3





TESTE MULTIPLE AD ASSI FISSI
FIXED MULTISPINDLE HEADS

SYSTEM **MT**



SYSTEM **TC**



SYSTEM **TC3**



SERIE **TFS**





FH

BAH

TA.CP

TA

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HT

10-2

VH

TSI/TSX

T

MT-TC-TC3





SYSTEM MT

TESTE MULTIPLE FLESSIBILI AD ASSI FISSI
MULTISPINDLE HEADS WITH FIXED CENTERS DISTANCE



Il sistema MT si utilizza dove gli interassi e le capacità di torsione sono ridotte. L'interasse minimo realizzabile è mm 10 perché al di sotto di tale misura verrebbero a mancare i requisiti di sicurezza caratteristici dei prodotti O.M.G.. Le realizzazioni MT, generalmente, hanno dimensioni contenute, pochi mandrini (3 o 4), peso ridotto (kg 2) e sono lubrificate con grasso long-life. È possibile eseguire con la medesima testa filettature con passo differente. Tutta la componentistica, trattata termicamente, ruota interamente su cuscinetti offrendo la possibilità di raggiungere velocità di rotazione di 10.000 giri al minuto. Nonostante le caratteristiche minute, si possono comunque realizzare teste con un ragguardevole numero di mandrini (oltre 20) e con corpi di una certa dimensione.

The MT system is for small centre distances and low torque requirements. The minimum centre distance is 10 mm; below this heads reliability becomes questionable. MT units are normally very compact and with 3 or 4 spindles weigh little - 2 kg for example - and are permanent grease lubricated. Rotating components are hardened and ground, and are carried in anti-friction bearings enabling these heads to run up to 10.000 rpm. In special cases, MT heads are built with large bodies and high numbers of spindles - even in excess of 20.



Migliaia di realizzazioni sia per trapani, unità, macchine combinate, centri di lavorazione con cambio automatico dell'utensile sono state costruite con il sistema TC, la serie di media capacità. La sua caratteristica principale sta nell'essere la più grande normalizzazione in materia di teste multiple oggi sul mercato. Corpi testa il lega di alluminio delle più varie forme e dimensioni sono normalizzati. Partendo da un interasse minimo di mm 16 si può realizzare qualsiasi figura il cliente richieda; mandrini con tutti i tipi di attacchi utensili (a pinza DIN 6499, DIN 55058, Komet ABS, DIN 1895, ecc.) ruotano su cuscinetti a rullini selezionati, su cuscinetti a sfere a contatto obliquo di precisione, su cuscinetti a rulli conici, tutti indifferentemente per potere utilizzare qualsiasi tipologia di utensile. I mandrini di maschiatura a patrona partono da un interasse di mm 28. Colonne mobili o fisse per maschiare guida utensili completano l'intera gamma. È permesso inoltre superare abbondantemente la soglia dei 10.000 giri al minuto per ottemperare alle elevate velocità richieste dagli utensili.

Many TC system - medium capacity - heads have been supplied for drilling machines, unit head applications, special machines and machining centres. Outstanding is that this standardised series has become the industries Modular multi-head market leader. Head bodies of many sizes and form have been rationalised. With a minimum centre distance of 16 mm holes patterns can be provided for any client need; spindles with all types of tool connection (DIN 6499 collets, DIN 55058, Komet, ABS, DIN 1895, etc.) are carried in combinations of selected needle, precision angular contact ball and taper rolling bearings to suit all tool types. Threading spindles with lead nuts give a minimum centres distance of 28 mm; additionally, fixed and movable columns with bush lates for tool guidance are available when required. When the tolls or work demand. TC series head spindles can be run excess of 10.000 rpm.

SYSTEM TC

TESTE MULTIPLE FLESSIBILI AD ASSI FISSI
MULTISPINDLE HEADS WITH FIXED CENTERS DISTANCE



10-4

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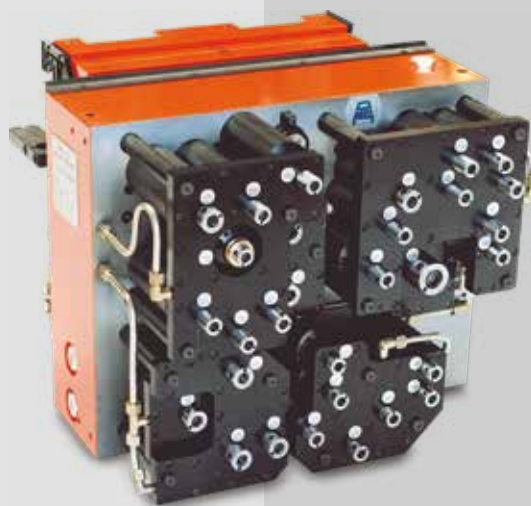
MT-TC-TC3





SYSTEM TC3

TESTE MULTIPLE FLESSIBILI AD ASSI FISSI
MULTISPINDLE HEADS WITH FIXED CENTERS DISTANCE



La serie TC3 è l'espressione dell'alta tecnologia O.M.G.. È il sistema di teste utilizzato per trasmettere elevate potenze su grosse unità, roto-traslanti, macchine col cambio automatico delle teste. Massicce, solide, dal peso elevato (anche kg 900) non hanno limiti di utilizzo che non siano quelli della macchina utensile.

Il corpo, normalmente in fusione di ghisa sferoidale, racchiude tutto il cinematismo rettificato, con lubrificazione forzata e prssurizzato. Vari tipi di mandrini sono disponibili su questo tipo di teste e tra essi particolarmente indicati sono quelli supportati da cuscinetti a contatto obliquo di precisione adatti ad operazioni di foratura senza guida utensile, alesatura, fresatura; in questo caso all'interno della testa si hanno due tipi di lubrificazione, ad olio per gli ingranaggi elicoidali ad evolvente rettificato e a grasso per tutti i gruppi mandrino. Anche questa serie si può equipaggiare con maschere guida utensili su colonne mobili o fisse, adduttori per refrigerante passanti per il centro dell'utensile.

Molte macchine utensili non potrebbero funzionare senza queste teste multiple e la qualità delle lavorazioni dipende esclusivamente dalla loro precisione, tanto che si potrebbero definire vere e proprie "macchine utensili".

The TC3 series is the expression of O.M.G.'s cutting-edge technology. This system of heads is used for transmitting high powers on large units, rotational-translating, machines with automatic head change. Sturdy, strong, of heavy weight (up to 900 kg) they have no restrictions as regards use excepting those of all machine tools.

The body, normally made of spheroidal cast iron, encloses all the ground kinematic mechanism, with forced and pressurised lubrication. Various types of spindles are available on this type of head and, among these, especially appropriate are those supported by precision oblique contact bearings suitable for drilling operations without tool jigs, boring, milling; in this case, inside the head are two types of lubrication - oil for the helical gears with ground involute and grease for all the spindle units. This series can also be equipped with tool jigs on moving or fixed columns, coolant feeders passing through the centre of the tool.

Many machine tools could not operate without these multiple heads and the quality of machining operations depends on their precision alone, to the extent that they could be considered "machine tools" in their own right.



TFS: Testa Fissa Speciale. Speciale perché la sua progettazione è unica in quanto nasce per soddisfare richieste specifiche e particolari per le quali non può essere utilizzato nessuno degli standard già esistenti.

A differenza delle altre serie speciali MT-TC-TC3 che siamo riusciti a standardizzare e quindi a redigere delle tabelle tecniche, per la serie TFS possiamo presentarvi solo immagini, in quanto la loro unicità non ci permette di definire alcuna scheda tecnica, se non una specifica per ogni testa.

In breve:

1- non hanno limiti di dimensioni perché dipendono dalla macchina su cui verranno applicate;
2- possono trasmettere potenze fino e oltre il limite della macchina stessa;

3- possono equipaggiare una qualsiasi macchina utensile o far parte di applicazioni particolari.

Tutta la testa ed i suoi componenti sono studiati propriamente per soddisfare le caratteristiche di lavorazione che il pezzo, gli utensili e il cliente richiede.

TFS: Special Fixed Head. Special because of its unique design, intended to cater for specific requirements and parts for which no existing standards can be used.

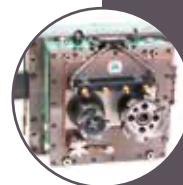
Unlike the other special series MT-TC-TC3 which we have managed to standardise and for which we have consequently drawn up technical charts, for the TFS series, we are only able to provide you with images because their uniqueness makes it impossible to define any technical sheet, except a specific one for each head. In short:

*1- there are no dimensional limits because these depend on the machine on which they are to be fitted;
2- they can transmit powers up to and beyond the limit of the machine itself;
3- they can equip any machine tool or become part of special applications.*

The entire head and its component parts have been designed to satisfy the machining characteristics that the piece, the tools and the customer require.

SERIES TFS

TESTE FISSE SPECIALI
SPECIAL FIXED HEADS



HT | MO | TA | TA.CP | BAH | FH

10-6

VH | TSI/TSX | T

MT-TC-TC3





MT 05599

Testa multipla per foratura corpo rubinetto. Applicazione su tornio. Peso Kg 4,8.

Multispindle head for tap's body drilling on turning centre. Weight Kg 4,8.



MT 38098

Testa multipla per rivettatura componenti in plastica. Peso Kg 22.

Rivet multispindle head for plastic components. Weight Kg 22.



MT 22604

Testa multipla per foratura su corpo pompa. Applicazione su torretta a revolver. Peso Kg 11,5.

Multispindle head for pump's body drilling on turret head. Weight Kg 11,5.



MT 38205

Testa multipla di maschiatura con compensazione a trazione. Peso Kg 16,5.

Multispindle tapping head with tapping compensation. Weight Kg 16,5.



MT 09305

Testa multipla per foratura su valvole oleodinamiche. Applicazione su centro di lavoro con ATC. Peso Kg 19.

Multispindle head for hydraulic control valves drilling on ATC machining centre. Weight Kg 19.





TC 15102

Testa di foratura su ghisa.
Applicazione su tornio. Peso Kg 47.
*Drilling multispindle head on cast iron
for turning centre. Weight Kg 47.*

TC 06694

Testa di foratura su alluminio per
centro di lavoro con ATC.
Peso Kg 33,5.
*Drilling multispindle head on
aluminium for ATC. Weight Kg 33,5.*



TC 40604

Testa di foratura su alluminio, punte in metal-
lo duro, passaggio refrigerante centro utensi-
le a 50 Bar, 9500 giri/min. Peso Kg 26.
*Drilling multispindle head on aluminium,
hard metal tools, coolant through the centre
tool at 50 Bar, 9500 Rpm. Weight Kg 26.*



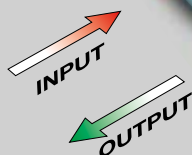
TC 13006

Testa multipla per lavorazione testata
motore a scoppio. Peso Kg 8,5.
*Multispindle head for working internal
combustion engine. Weight Kg 8,5.*



TC 34706

Testa multipla per foratura ad
alta velocità con circolazione
liquido per stabilizzazione
temperatura. Peso Kg 9.
*High speed multispindle head
with coolant for temperature
control. Weight Kg 9.*



TC 38204

Testa multipla di spazzolatura con doppia
rotazione: testa e mandrini. Peso Kg 224.
*Brushing multispindle head with double
rotation: body and spindles. Weight Kg 224.*





TC3 43889

Testa di maschiatura equipaggiata di maschiatori con controllo rottura utensile a radiofrequenza. Peso Kg 69.

Tapping head equipped with tapping spindles with broken tool control device by remote control. Weight Kg 69.



TC3 33391

Testa di maschiatura a patrona di componente in ghisa per motore agricolo. Peso Kg 450.

Lead screw tapping head for tractor engine. Weight Kg 450.



TC3 35602

Testa di alesatura e smussatura con utensile combinato su cerchi ruota in acciaio per autotrazione. Peso Kg 285.

Boring and chamfering head with combined tools on truck's steel rim. Weight Kg 285.



TC3 35205

Testa di foratura f25 con passaggio refrigerante per centro utensile a 50 Bar su componenti per desalatori. Peso Kg 322.

Drilling multispindle head f25 with coolant through the centre tool at 50 Bar for desalinators. Weight Kg 322.



TC3 10191

Testa di foratura basamento motore di autoveicolo. Peso Kg 540.

Drilling head for car engine. Weight Kg 540.



TSF 38906

Testa di fresatura per biella in acciaio.
Peso Kg 72,5.
*Milling head for steel connecting rod.
Weight Kg 72,5.*



TSF 34102

Testa di fresatura pendolare a 24°. Peso Kg 25,5.
Testa di fresatura pendolare a 24°. Peso Kg 25,5.



TSF 06806

Testa di foratura con movimento assiale mandrino. Peso Kg 15.
Drilling head with axial spindle movement weight. Weight Kg 15.

TSF 30605

Testa di foratura su 4 lati di componente oleodinamico. Peso Kg 11.
Drilling head on 4 sides of hydraulic components. Weight Kg 11.



TSF 21704

Testa con slitta movimentata idraulicamente. Peso Kg 6,5.
Head equipped with hydraulic slide. Weight Kg 6,5.

TSF 36805

Testa di lavorazione facce di motore automobile. Peso Kg 291.
Multispindle head for working on different car engine faces. Weight Kg 291.



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MT-TC-TC3



ACCESSORI



ACCESSORIES



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TSI/TSX

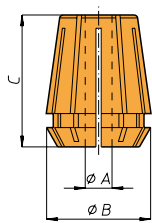
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MT-TC-TC3





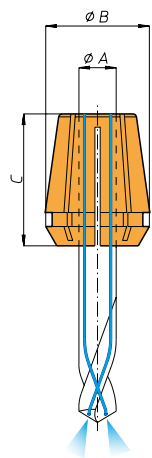
ACCESSORI - ACCESSORIES



PINZE DIN 6499 FORMA B - TIPO ER SPRING COLLETS DIN 6499 FORM B - ER TYPE

ER8		øB=8,5			C=15												
CODICE CODE	224400	224401	224402	224403	224404	224405	224406	224407	224408								
øA	1-0,5	1,5-1	2-1,5	2,5-2	3-2,5	3,5-3	4-3,5	4,5-4	5-4,5								
ER11		øB=11,5			C=18												
CODICE CODE	224411	224412	224413	224414	224415	224416	224417	224418	224419	224420	224421	224422	224423				
øA	1-0,5	1,5-1	2-1,5	2,5-2	3-2,5	3,5-3	4-3,5	4,5-4	5-4,5	5,5-5	6-5,5	6,5-6	7-6,5				
ER16		øB=17			C=27,5												
CODICE CODE	224426	224424	224425	224467	224436	224429	224430	224431	224432	224433	224434	224435					
øA	1-0,5	1,5-1	2-1,5	2,5-2	3-2,5	4-3	5-4	6-5	7-6	8-7	9-8	10-9					
ER20		øB=21			C=31,5												
CODICE CODE	224451	224437	224450	224409	224410	224440	224441	224442	224443	224444	224445	224446	224447	224448	224449		
øA	1-0,5	1,5-1	2-1,5	2,5-2	3-2,5	4-3	5-4	6-5	7-6	8-7	9-8	10-9	11-10	12-11	13-12		
ER25		øB=26			C=34												
CODICE CODE	224468	224469	224470	224471	224472	224454	224455	224456	224457	224458	224459	224460	224461	224462	224463	224464	
øA	1-0,5	1,5-1	2-1,5	2,5-2	3-2,5	4-3	5-4	6-5	7-6	8-7	9-8	10-9	11-10	12-11	13-12	14-13	
CODICE CODE	224465	224466	224550														
øA	15-14	16-15	16-17														
ER32		øB=33			C=40												
CODICE CODE	224473	224474	224476	224477	224478	224479	224480	224481	224482	224483	224484	224485	224486	224487			
øA	2,5-2	3-2,5	4-3	5-4	6-5	7-6	8-7	9-8	10-9	11-10	12-11	13-12	14-13	15-14			
CODICE CODE	224488	224489	224490	224491	224492	224551	224552										
øA	16-15	17-16	18-17	19-18	20-19	21-20	22-21										
ER40		øB=41			C=46												
CODICE CODE	224499	224500	224501	224502	224503	224504	224505	224506	224507	224508	224509	224510	224511	224512	224513		
øA	3-2	4-3	5-4	6-5	7-6	8-7	9-8	10-9	11-10	12-11	13-12	14-13	15-14	16-15	17-16		
CODICE CODE	224514	224515	224516	224517	224518	224519	224520	224521	224522	224523	224524	224525	224526				
øA	18-17	19-18	20-19	21-20	22-21	23-22	24-23	25-24	26-25	27-26	28-27	29-28	30-29				
ER50		øB=52			C=60												
CODICE CODE	224530	224531	224532	224533	224534	224535	224536	224537	224538	224539	224540	224541	224542	224543	224544	224545	224546
øA	6-4	8-6	10-8	12-10	14-12	16-14	18-16	20-18	22-20	24-22	25-23	26-24	28-26	30-28	32-30	34-32	36-34

PINZE DIN 6499 SPRING COLLETS DIN 6499

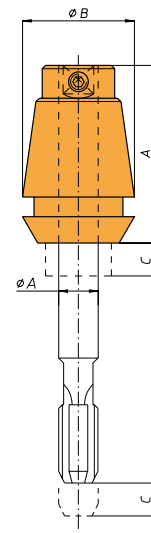


ER16 UPV		øB=17			C=27,5										
CODICE CODE	235205	235206	235207	235208	235209	235210	235211	235212							
øA	3	4	5	6	7	8	9	10							
ER20 UPV		øB=21			C=31,5										
CODICE CODE	235215	235216	235217	235218	235219	235220	235221	235222	235223	235224	235225				
øA	3	4	5	6	7	8	9	10	11	12	13				
ER25 UPV		øB=26			C=34										
CODICE CODE	235228	235229	235230	235231	235232	235233	235234	235235	235236	235237	235238	235239	235240	235241	
øA	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
ER32 UPV		øB=33			C=40										
CODICE CODE	235246	235247	235248	235249	235250	235251	235252	235253	235254	235255	235256	235257	235258	235259	235260
øA	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
CODICE CODE	235261	235262	235263												
øA	18	19	20												
ER40 UPV		øB=41			C=46										
CODICE CODE	235266	235267	235268	235269	235270	235271	235272	235273	235274	235275	235276	235277	235278	235279	235280
øA	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
CODICE CODE	235281	235282	235283	235284	235285	235286	235287	235288							
øA	19	20	21	22	23	24	25	26							

PINZE DI MASCHIATURA CON COMPENSAZIONE - TIPO ET1* TAPPING COLLETS WITH COMPENSATION - ET1 TYPE*

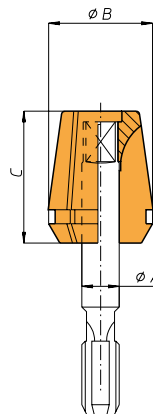
ET 1-12	A=21,5	øB=11,5	C=5,5	CAPACITÀ M2 - M4						
CODICE CODE	224650	224651	224652	224653	224654					
øA	1,4	2,2	2,5	2,8	3,5					
ET 1-16	A=27	øB=17	C=7	CAPACITÀ M2 - M8						
CODICE CODE	224658	224659	224660	224661	224662	224663	224664	224665		
øA	1,4	2,2	2,5	2,8	3,5	4	4,5	6		
ET 1-20	A=31	øB=21	C=7	CAPACITÀ M2 - M10						
CODICE CODE	224670	224671	224672	224673	224674	224675	224676	224677		
øA	2,2	2,5	2,8	3,5	4	4,5	6	7		
ET1-25	A=34	øB=26	C=8	CAPACITÀ M2 - M12						
CODICE CODE	224682	224683	224684	224685	224686	224687	224688	224689	224690	224691
øA	2,2	2,5	2,8	3,5	4	4,5	6	7	8	9
ET 1-32	A=43	øB=33	C=10	CAPACITÀ M35 - M16						
CODICE CODE	224695	224696	224697	224698	224699	224700	224701	224702	224703	
øA	4	4,5	6	7	8	9	10	11	12	
ET1-40	A=54	øB=41	C=13	CAPACITÀ M5 - M20						
CODICE CODE	224706	224707	224708	224709	224710	224711	224712	224713	224714	
øA	6	7	8	9	10	11	12	14	16	

*Not suitable for coolant through (tool)



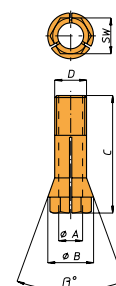
PINZE DI MASCHIATURA SENZA COMPENSAZIONE - TIPO ER TAPPING COLLETS WITHOUT COMPENSATION - ER TYPE

ER 16 GB	øB=16	C=27,5										
CODICE CODE	224585	224587	22458	224589	224590							
øA	4,5	6	7	8	9							
ER 20 GB	øB=20	C=31,5										
CODICE CODE	224593	224595	224596	224597	224598	224599	224600					
øA	4,5	6	7	8	9	10	11					
ER 25 GB	øB=25	C=34										
CODICE CODE	224604	224606	224607	224608	224609	224610	224611	224612	224613	224614		
øA	4,5	6	7	8	9	10	11	12	14	16		
ER 32 GB	øB=32	C=40										
CODICE CODE	224617	224619	224620	224621	224622	224623	224624	224625	224626	224627	224628	224629
øA	4,5	6	7	8	9	10	11	12	14	16	18	20
ER 40 GB	øB=40	C=46										
CODICE CODE	224634	224635	224636	224637	224638	224639	224640	224641	224642	224643	224644	224645
øA	6	7	8	9	10	11	12	14	16	18	20	22



PINZE COLLETS

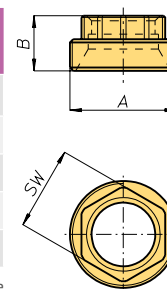
6023E	øB=6,5	C=20	D=M5x0,6	SW=5,5	β°=20°	COPPIA SERRAGGIO (NM)=3				
CODICE CODE	224740	224741	224742	224743	224746					
øA	1	1,5	2	2,5	3					
600E	øB=9	C=28,5	D=M6x0,75	SW=7	β°=20°	COPPIA SERRAGGIO (NM)=5				
CODICE CODE	224574	224575	224576	224577	224578	224579				
øA	1,5	2	2,5	3	3,5	4				
601E	øB=11	C=33	D=M8x0,75	SW=9	β°=20°	COPPIA SERRAGGIO (NM)=9				
CODICE CODE	224728	224729	224730	224731	224732	224733	224734	224735	224736	224737
øA	1,5	2	2,5	3	3,5	4	4,5	5	5,5	6



GHIERE ESAGONALI PER PINZE DIN 6499 EXAGON CLAMPING NUT FOR SPRING COLLETS DIN 6499

Ghiera Nut	Codice Code	øA	B	SW	Coppia serraggio Clamping force (Nm)
ER 11AE	224980	M18 x 1	9	15	24 (30)
ER 16AE	224981	M24 x 1	12	19	40 (50)
ER 20AE	224982	M28 x 1,5	13	22	52 (65)
ER 25AE	224983	M32 x 1,5	16,5	27	80 (100)
ER 32AE	224984	M40 x 1,5	19	32	104 (130)

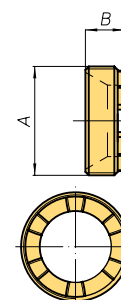
Tra parentesi valore massimo - Between brackets max. value



GHIERE REGOFIX PER PINZE DIN 6499 REGOFIX CLAMPING NUT FOR SPRING COLLETS DIN 6499

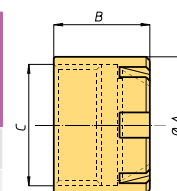
Ghiera Nut	Codice Code	øA	B	Wrench	Pinze con scarico Spring collet with extractor	Pinze senza scarico Spring collet without extractor
HI-Q/ER AX 11	224951	M18 x 1	7,5	E 11 AX	21 (25)	24 (29)
HI-Q/ER AX 16	224950	M24 x 1	7,6	E 16 AX	40 (50)	40 (50)
HI-Q/ER AX 20	224952	M28 x 1,5	8,5	E 20 AX	35 (42)	40 (50)
HI-Q/ER AX 25	224953	M32 x 1,5	8,8	E 25 AX	64 (80)	64 (80)
HI-Q/ER AX 32	224954	M40 x 1,5	9,8	E 32 AX	72 (90)	104 (125)

Tra parentesi valore massimo - Between brackets max. value

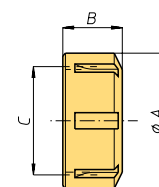


GHIERE PER PINZE DIN 6499 CLAMPING NUT FOR SPRING COLLETS DIN 6499

Ghiera Nut	Codice Code	øA	B	C	Pinze con scarico Spring collet with extractor	Pinze senza scarico Spring collet without extractor
ER 8M	224900	11,8	10,8	M10 x 0,75	5 (6)	5 (6)
ER 11M	224902	16	12	M13 x 0,75	12 (15)	16 (20)
ER 16M	224904	22	18	M19 x 1	24 (30)	24 (30)
ER 20M	224906	28	21	M24 x 1	28 (35)	28 (35)
ER 25M	224908	35	20	M30 x 1	32 (40)	32 (40)



ER 11 S	224985	19	11,3	M14 x 0,75	16 (19)	24 (30)
ER 16 S	224932	28	17,5	M22 x 1,5	44 (53)	56 (70)
ER 20 S	224935	34	19	M25 x 1,5	35 (42)	80 (100)
ER 25 S	224974	42	20	M32 x 1,5	64 (80)	104 (130)
ER 32 S	224975	50	22,5	M40 x 1,5	136 (170)	136 (170)
ER 40 S	224976	63	25,5	M50 x 1,5	176 (220)	176 (220)
ER 50 S	224986	78	35,3	M64 x 2	240 (300)	240 (300)



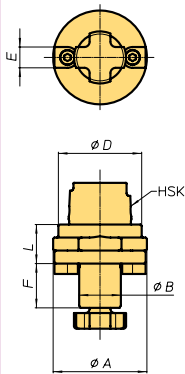
HI-Q/ER 11	224933	19	11,3	M14 x 0,75	16 (19)	24 (30)
HI-Q/ER 16	224909	28	17,5	M22 x 1,5	44 (53)	56 (70)
HI-Q/ER 20	224910	34	19	M25 x 1,5	35 (42)	80 (100)
HI-Q/ER 25	224912	42	20	M32 x 1,5	64 (80)	104 (130)
HI-Q/ER 32	224914	50	22,5	M40 x 1,5	136 (170)	136 (170)
HI-Q/ER 40	224916	63	25,5	M50 x 1,5	176 (220)	176 (220)
HI-Q/ER 50	224918	78	35,3	M64 x 2	240 (300)	240 (300)

Tra parentesi valore massimo - Between brackets max. value





ACCESSORI - ACCESSORIES

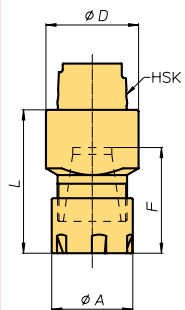


INSERTO HSK PORTA FRESA HSK MILL ADAPTERS

Codice Code	Grandezza Size	HSK	øA	øB	øD	E	F	L	Vite Screw	Chiave* Wrench*
009401	HSK 32-16	32	36	16	32	8	17	15	M8	097419
009419	HSK 32-22	32	54	22	32	10	19	22	M10	097415
009404	HSK 40-16	40	40	16	40	8	17	15	M8	097419
009405	HSK 40-22	40	54	22	40	10	19	22	M10	097415
009416	HSK 50-22	50	54	22	50	10	19	23	M10	
009406	HSK 50-27	50	64	27	50	12	21	23	M12	097416
009417	HSK 63-27	63	64	27	64	12	21	25	M12	
009408	HSK 63-32	63	74	32	63	14	24	25	M16	097417
009414	HSK 80-32	80	80	32	80	14	24	35	M16	
009413	HSK 80-40	80	80	40	80	16	27	35	M20	097591

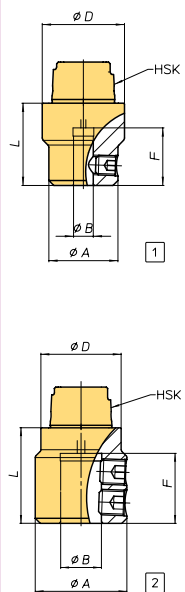
*Le chiavi non sono comprese - *The wrench aren't included

INSERTO HSK PORTA PINZE PER UTENSILI A GAMBO CILINDRICO HSK ADAPTERS WITH COLLET FOR CYLINDRICAL SHANK TOOLS



Codice Code	Grandezza Size	HSK	Pinza Collet	øA	øD	F	L	Ghiera Nut
009400	HSK 32-ER 20M	32	ER 20	28	32	37,5	49,5	ER 20M
009402	HSK 32-ER 25M	32	ER 25	35	32	41	53	ER 25M
009415	HSK 40-ER 20M	40	ER 20	28	40	37,5	49,5	ER 20M
009403	HSK 40-ER 25M	40	ER 25	35	40	41	54	ER 25M
009418	HSK 40-ER 32M	40	ER 32	50	42	47	59,5	ER 32UM
009407	HSK 50-ER 32	50	ER 32	50	50	47	64	ER 32UM
009409	HSK 63-ER 32	63	ER 32	50	63	47	65	ER 32UM
009410	HSK 63-ER 40	63	ER 40	63	63	53	71	ER 40UM
009411	HSK 80-ER 40	80	ER 40	63	80	53	73,5	ER 40UM
009412	HSK 80-ER 50	80	ER 50	78	80	69	91,5	ER 50UM

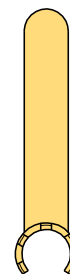
INSERTO HSK WELDON/WHISTLE NOTCH ADAPTER HSK WELDON/WHISTLE NOTCH



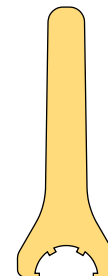
Codice Code	Grandezza Size	HSK	øA	øD	F	L	B	TIPO Type
228220	HSK 32 W8	32	28	32	30	45	8	1
228221	HSK 32 W10	32	32	32	30	45	10	
228222	HSK 32 W12	32	32	32	35	50	12	
228223	HSK 40 W8	40	28	40	30	45	8	
228224	HSK 40 W10	40	35	40	30	45	10	
228225	HSK 40 W12	40	40	40	35	50	12	
228226	HSK 40 W16	40	40	40	40	55	16	
228227	HSK 50 W8	50	28	50	30	45	8	
228228	HSK 50 W10	50	35	50	30	45	10	
228229	HSK 50 W12	50	42	50	35	50	12	
228230	HSK 50 W16	50	50	50	40	55	16	
228231	HSK 50 W20	50	50	50	45	60	20	
228232	HSK 63 W8	63	28	63	30	45	8	2
228233	HSK 63 W10	63	35	63	30	45	10	
228234	HSK 63 W12	63	42	63	35	50	12	
228235	HSK 63 W16	63	50	63	40	55	16	
228236	HSK 63 W20	63	52	63	45	60	20	
228237	HSK 63 W25	63	63	63	50	70	25	
228238	HSK 63 W32	63	72	63	55	75	32	

CHIAVI PER GHIERE CLAMPING NUTS SPANNER

Chiavi Spanner	Codice chiave Spanner code	Per ghiera For clamping nut	Codice ghiera Clamping nut code
CE 8M	231300	ER 8M	224900
CE 11M	231302	ER 11M	224902
CE 16M	231306	ER 16M	224904
CE 20M	231309	ER 20M	224906
CE 25M	231313	ER 25M	224908

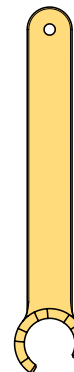


Chiavi Spanner	Codice chiave Spanner code	Per ghiera For clamping nut	Codice ghiera Clamping nut code
CE 20U	231315	ER 20UM	224973
CE 25U	231314	ER 25UM	224974
CE32U	231320	ER 32UM	224975
CE 40U	231321	ER 40UM	224976
CE 50U	231323	ER 50UM	224986



CHIAVI PER GHIERE CLAMPING NUTS SPANNER

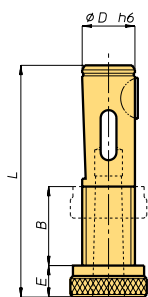
Chiavi Spanner	Codice chiave Spanner code	Per ghiera For clamping nut	Codice ghiera Clamping nut code
E 11 AX	231356	ERAX11	224951
E 16 AX	231357	ERAX16	224950
E 20 AX	231358	ERAX20	224952
E 25 AX	231359	ERAX25	224953
E 32 AX	231360	ERAX32	224954



CHIAVI PER VITI SPANNER SCREW

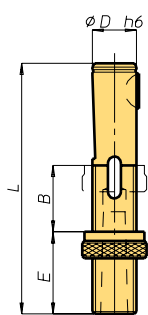
Chiavi Spanner	Codice chiave Spanner code	Inserto HSK HSK mill adapter
CM8	097419	HSK 32-16 HSK 40-16
CM10	097415	HSK 40-22 HSK 50-22
CM12	097416	HSK 50-27 HSK 63-27
CM16	097417	HSK 63-32 HSK 80-32
CM20	097591	HSK 80-40





INSERTI REGISTRABILI DIN 6327/1 PORTA UTENSILI A CONO MORSE DIN 6327/1 ADJUSTABLE ADAPTERS FOR MORSE TAPER SHANK TOOLS

Codice Code	Grandezza Size	Cono Morse Morse taper	ϕD^{h6}	Filettatura Thread	B	E	L	Linguetta Woodruff key
009010	D 16 x 1	1	16	Tr 16 x 1,5	28	12	85	5 x 6,5
009012	D 20 x 1	1	20	Tr 20 x 2	28	12	88	5 x 7,5
009014	D 25 x 2	2	25	Tr 25 x 2	30	12	95	6 x 9
009016	D 28 x 2	2	28	Tr 28 x 2	30	12	95	6 x 9
009018	D 32 x 3	3	32	Tr 32 x 2	36	12	118	8 x 11
009020	D 36 x 3	3	36	Tr 36 x 2	36	14	118	8 x 11
009022	D 48 x 4	4	48	Tr 48 x 2	47	18	144	10 x 13



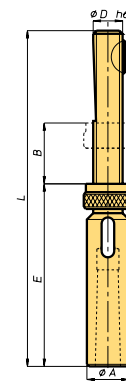
INSERTI REGISTRABILI DIN 6327/2 PORTA UTENSILI A CONO MORSE DIN 6327/2 ADJUSTABLE ADAPTERS FOR MORSE TAPER SHANK TOOLS

Codice Code	Grandezza Size	Cono Morse Morse taper	ϕD^{h6}	Filettatura Thread	B	E	L	Linguetta Woodruff key
009024	F 16 x 1 x 25	1	16	Tr 16 x 1,5	28	37	110	5 x 6,5
009026	F 16 x 1 x 50					62	135	
009028	F 16 x 1 x 75					87	160	
009030	F 16 x 1 x 100					112	185	
009032	F 20 x 1 x 25	1	20	Tr 20 x 2	28	37	113	5 x 7,5
009034	F 20 x 1 x 50					62	38	
009036	F 20 x 1 x 75					87	163	
009038	F 20 x 1 x 100					112	188	
009040	F 25 x 2 x 25	2	25	Tr 25 x 2	30	37	120	6 x 9
009042	F 25 x 2 x 50					62	145	
009044	F 25 x 2 x 75					87	170	
009046	F 25 x 2 x 100					112	195	
009048	F 28 x 2 x 25	2	28	Tr 28 x 2	30	37	120	6 x 9
009050	F 28 x 2 x 50					62	145	
009052	F 28 x 2 x 75					87	1170	
009054	F 28 x 2 x 100					112	195	
009056	F 32 x 3 x 25	3	32	Tr 32 x 2	36	37	148	8 x 11
009058	F 32 x 3 x 50					62	178	
009060	F 32 x 3 x 75					87	208	
009062	F 32 x 3 x 100					112	238	
009064	F 36 x 3 x 25	3	36	Tr 36 x 2	36	37	148	8 x 11
009066	F 36 x 3 x 50					62	178	
009068	F 36 x 3 x 75					87	208	
009070	F 36 x 3 x 100					112	238	
009072	F 48 x 4 x 25	4	48	Tr 48 x 2	47	37	184	10 x 13
009074	F 48 x 4 x 50					62	224	
009076	F 48 x 4 x 75					87	264	
009078	F 48 x 4 x 100					112	304	



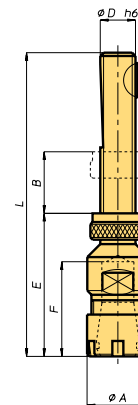
INSERTI REGISTRABILI PORTA UTENSILI A CONO MORSE (NORMA OMG) ADJUSTABLE ADAPTERS FOR MORSE TAPER SHANK TOOLS (OMG NORM)

Codice Code	Grandezza Size	Cono Morse Morse taper	ϕD^{h6}	Filettatura Thread	ϕA	B	E	L	Linguetta Woodruff key
009110	Tr 8 x 1	1	8	Tr 8 x 1	16,8	16	84	126	2 x 3,7
009116	Tr 10 x 1	1	10	Tr 10 x 1,5	19,5	18	89	138	3 x 5
009122	Tr 12 x 1	1	12	Tr 12 x 1,5	22	18	91	138	3 x 5

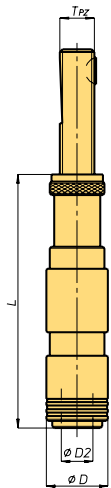
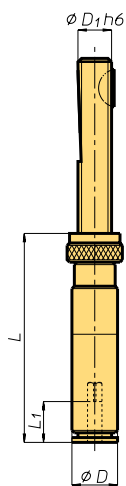
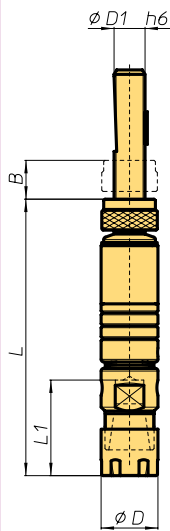


INSERTO PORTA PINZE PER UTENSILI A GAMBO CILINDRICO (DIN 6327) DIN 6327 ADJUSTABLE ADAPTERS FOR CYLINDRICAL SHANK TOOLS

Codice Code	Grandezza Size	ϕD^{h6}	Filettatura Thread	ϕA	B	E	F	L	Pinza Collet	Linguetta Woodruff key
009112	Tr 8 ER 8	8	Tr 8 x 1	12	16	36	23	75	ER 8	2 x 3,7
009114	Tr 8 ER 11	8	Tr 8 x 1	16	16	41	28	80	ER 11	2 x 3,7
009118	Tr 10 ER 11	10	Tr 10 x 1,5	16	18	43	28	93	ER 11	3 x 5
009120	Tr 10 ER 16	10	Tr 10 x 1,5	22	18	54	39	104	ER 16	3 x 5
009124	Tr 12 ER 16	12	Tr 12 x 1,5	22	18	56	39	106	ER 16	3 x 5
009130	Tr 16 ER 20	16	Tr 16 x 1,5	28	28	65	47	136	ER 20	5 x 6,5
009140	Tr 20 ER 20	20	Tr 20 x 2	32	28	65	47	139	ER 20	5 x 7,5
009145	Tr 20 ER 25	20	Tr 20 x 2	35	28	61	44	135	ER 25	5 x 7,5
009170	Tr 28 ER 32	28	Tr 28 x 2	50	30	65	49	147	ER 32	6 x 9



ACCESSORI - ACCESSORIES



MANDRINI OMG PER MASCHIARE CON DIAMETRO RIDOTTO OMG TAPPING SPINDLES WITH REDUCED DIAMETER

Codice Code	Mandrino Spindle			ϕD	D1	L	L1	B	Pinza Collet	
009450	MM.Tr8.ER8	M5	0,5	8	15	8	75	23	16	ER8
009453	MM.Tr8.ER11	M6	1	10	19	8	90	27	16	ER11
009451	MM.Tr10.ER11	M6	1	10	19	10	90	27	18	ER11
009454	MM.Tr10.ER16	M8	1	10	22	10	105	37	18	ER16
009452	MM.Tr12.ER16	M8	1	10	22	12	107	37	18	ER16

MANDRINI PER MASCHIARE CON DIAMETRO RIDOTTO TAPPING SPINDLES WITH REDUCED DIAMETER




Codice Code	Mandrino Spindle		ϕD	D1	L	L1	
227030	MR. 0 -10 x 1.5 Tpz	M1 - M10	2.5 - 7.2	14	10	44	15
227031	MR. 0 -12 x 1.5 Tpz				12		
227032	MR. 1 -12 x 1.5 Tpz	M4 - M14	4.5 - 11.3	19	12	52	17
227033	MR. 1 -16 x 1.5 Tpz				16		
227034	MR. 2 -20 x 2 Tpz	M8 - M24	7 - 18	31	20	77	30
227035	MR. 2 -28 x 2 Tpz				28		
227036	MR. 3 -28 x 2 Tpz	M14 - M36	11 - 28	48	28	95	44
227037	MR. 3 -36 x 2 Tpz				36	97	
227038	MR. 4 -36 x 2 Tpz	M22 - M48	18 - 36	60	36	132	71
227039	MR. 4 -48 x 2 Tpz				48	136	

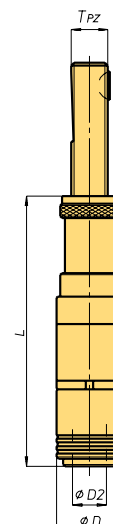
MANDRINI A CAMBIO RAPIDO PER MASCHIARE CON COMPENSAZIONE ASSIALE QUICK CHANGE TAPPING CLUCKS WITH AXIAL COMPENSATION

Mandrino Spindle		D	D2			16x1.5 Tpz	Codice Code	20x2 Tpz	Codice Code	28x2 Tpz	Codice Code	36x2 Tpz	Codice Code	
MF 0-5D-20-10	M1 - M10	23	13	20	10	0	116	227060	116	227061				
MF 0-5D-15-15				15	15	0	111	227062	111	227063				
MF 0-5D-0-30				0	30	0	96	227064	96	227065				
MF 1-5D-30-10	M3 - M12	35	19	30	10	1	148	227066	148	227067	148	227068		
MF 1-5D-20-20				20	20	1	138	227069	138	227070	138	227071		
MF 1-5D-0-40				0	40	1	118	227072	118	227073	118	227074		
MF 2-4D-30-10	M8 - M20	50	31	30	10	2			172	227075	172	227076	172	227077
MF 2-4D-20-20				20	20	2			162	227078	162	227079	162	227080
MF 2-4D-0-40				0	40	2			142	227081	142	227082	142	227083
MF 3-3D-30-10	M14 - M33	72	48	30	10	3				218	227084	218	227085	
MF 3-3D-20-20				20	20	3			208	227086	208	227087		
MF 3-3D-0-40				0	40	3			188	227088	188	227089		





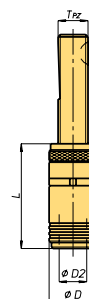
MANDRINI A CAMBIO RAPIDO PER MASCHIARE CON COMPENSAZIONE ASSIALE E SPOSTAMENTO PARALLELO ALL'ASSE QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION AND RADIAL PARALLEL FLOATING

Mandrino Spindle		D	D2			16x1,5 Tpz	Codice Code	20x2 Tpz	Codice Code	28x2 Tpz	Codice Code	36x2 Tpz	Codice Code		
MF 0-5D-20-10	M1 - M10	23	13	0,25	0	20	10	138	227090	138	227091				
MF 0-5D-15-15						15	15	133	227092	133	227093				
MF 0-5D-0-30						0	30	118	227094	118	227095				
MF 1-5D-30-10	M3 - M12	35	19	0,5	1	30	10	163	227096	163	227097	163	227098		
MF 1-5D-20-20						20	20	153	227099	153	227100	153	227101		
MF 1-5D-0-40						0	40	133	227102	133	227103	133	227104		
MF 2-4D-30-10	M8 - M20	50	31	1	2	30	10			196	227105	196	227106	174	227077
MF 2-4D-20-20						20	20			186	227108	186	227109	164	227080
MF 2-4D-0-40						0	40			166	227111	166	227112	144	227083
MF 3-3D-30-10	M14 - M33	72	48	1,5	3	30	10			252	227084	220	227085		
MF 3-3D-20-20						20	20			242	227116	210	227087		
MF 3-3D-0-40						0	40			222	227118	190	227089		




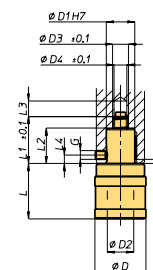
MANDRINI A CAMBIO RAPIDO PER MASCHIARE CON SPOSTAMENTO PARALLELO ALL'ASSE QUICK CHANGE TAPPING CHUCKS WITH RADIAL PARALLEL FLOATING

Mandrino Spindle		D	D2		16x1,5 Tpz	Codice Code	20x2 Tpz	Codice Code	28x2 Tpz	Codice Code	36x2 Tpz	Codice Code	
MFC 0	M1 - M10	23	13	0,25	0	65	227131	65	227132				
MFC 1	M3 - M12	35	19	0,5	1	70	227133	70	227134	70	227135		
MFC 2	M8 - M20	50	31	1	2			96	227136	96	227137	98	227138
MFC 3	M14 - M33	72	48	1,5	3			136	227139	138	227146		





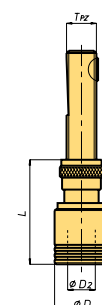
MANDRINI A CAMBIO RAPIDO PER MASCHIARE CON COMPENSAZIONE ASSIALE QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION

Codice Code	Mandrino Spindle			D	D1	D2	D3	D4	L	L1	L2 min.	L3 min.	L4	L5	G	Chiavetta DIN 6885		
227185	MKD0.GC	M1 - M10	0	6,5	6,5	26	15	13	8,2	6	37	32	18,5	11	6	3	M5	5x3x12
227186	MKD1.GC	M3 - M12	1	7,5	7,5	36	20	19	11,2	9	39	33	24,5	11	6	3	M6	6x4x16
227187	MKD2.GC	M8 - M20	2	12,5	12,5	53	25	31	13,2	11	63	39	30,5	20	8	4	M8	6x6x20





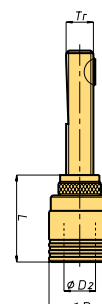
MANDRINI A CAMBIO RAPIDO PER MASCHIARE CON COMPENSAZIONE ASSIALE QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION

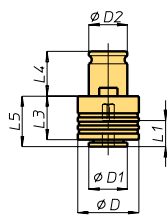
Mandrino Spindle			øD	øD2	28x2 Tpz	Codice Code	36x2 Tpz	Codice Code	48x2 Tpz	Codice Code		
AKD 1-..	M3 - M12	1	20	20	32	19	65	227190	67	227191	71	227192
AKD 2-..	M8 - M20	2	20	25	50	31			83	227193	87	227194
AKD 40-..	M6 - M18	4	20	20	40	26	80	227195				



MANDRINI A CAMBIO RAPIDO PER MASCHIARE CON COMPENSAZIONE ASSIALE QUICK CHANGE TAPPING CHUCKS WITH AXIAL COMPENSATION

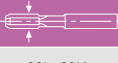
Mandrino Spindle			øD	øD2	16x1,5 Tpz	Codice Code	20x2 Tpz	Codice Code	28x2 Tpz	Codice Code	36x2 Tpz	Codice Code		
MKD-0- Tr.	M1 - M10	0	6,5	6,5	26	13	50	227165	50	227166				
MKD-1- Tr.	M1 - M12	1	7,5	7,5	36	19	52	227167	52	227168	52	227169		
MKD-2- Tr.	M4 - M20	2	12,5	12,5	53	31			76	227171	76	227172	78	227173
MKD-3- Tr.	M4 - M33	3	20	20	78	48					111	227175		

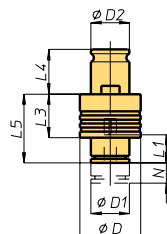




BUSSOLE PORTA MASCHIO A CAMBIO RAPIDO CON FRIZIONE DESTRA E SFERE

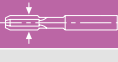
QUICK CONNECTION TAP-HOLDER BUSHES WITH BALL RIGHT CLUTCH

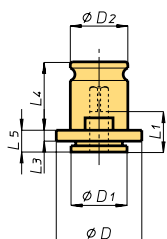
Codice Code	Bussola Bush		øgamba maschio Tap shank diameter	øD	øD1	øD2	L1	L3	L4	L5
227206	BFS 0	M1 - M10	2,5 - 7,2	23	13	13	15	20	19,5	21
227207	BFS 1	M3 - M12	3,5 - 11,3	32	19	19	17	25	21,5	25
227208	BFS 2	M8 - M20	7 - 18	50	30	31	30	31	35	34
227209	BFS 3	M14 - M33	11 - 28	72	48	48	44	41	55,5	45
227210	BFS 40	M6 - M18	6 - 14	40	25	26	30	27	32	30



BUSSOLE PORTA MASCHIO A CAMBIO RAPIDO CON FRIZIONE DESTRA E SFERE


QUICK CONNECTION TAP-HOLDER BUSHES WITH BALL RIGHT CLUTCH

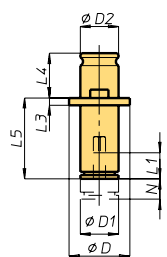
Codice Code	Bussola Bush		øgamba maschio Tap shank diameter	N	øD	øD1	øD2	L1	L3	L4	L5
227211	BFSR 0	M1 - M10	2,5 - 7,2	8	23	13	13	15	20	19,5	28
227212	BFSR 1	M2 - M12	3,5 - 11,3	10	32	19	19	17	25	21,5	33
227213	BFSR 2	M8 - M20	7 - 18	15	50	30	31	30	31	35	59
227214	BFSR 3	M14 - M33	11 - 28	25	72	48	48	44	41	55,5	82



BUSSOLE PORTA MASCHIO A CAMBIO RAPIDO


QUICK CONNECTION TAP-HOLDER BUSHES

Codice Code	Bussola Bush		øgamba maschio Tap shank diameter	øD	øD1	øD2	L1	L3	L4	L5
227250	BFC 0	M1 - M10	2,5 - 7,2	22	13	13	15	4	19,5	7
227251	BFC 1	M3 - M12	3,5 - 11,3	30	19	19	17	4	21,5	7
227252	BFC 2	M8 - M20	7 - 18	48	30	31	30	5	35	11
227253	BFC 3	M14 - M33	11 - 28	70	48	48	44	6	55,5	14
227254	BFC 40	M6 - M18	6 - 14	40	25	26	30	5	32	13



BUSSOLE PORTA MASCHIO A CAMBIO RAPIDO

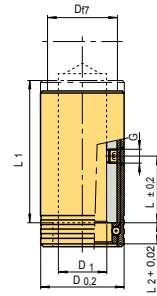
QUICK CONNECTION TAP-HOLDER BUSHES

Codice Code	Bussola Bush		øgamba maschio Tap shank diameter	N	øD	øD1	øD2	L1	L3	L4	L5
227255	BFCS 0	M1 - M10	2,5 - 7,2	8	22	13	13	15	4	19,5	28
227256	BFCS 1	M2 - M12	3,5 - 11,3	10	30	19	19	17	4	21,5	33
227257	BFCS 2	M8 - M20	7 - 18	15	48	30	31	30	5	35	59
227258	BFCS 3	M14 - M33	11 - 28	25	70	48	48	44	6	55,5	82



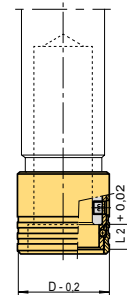
MANICOTTI AD INNESTO RAPIDO QUICK CONNECTION SLEEVES

Codice Code	Manicotto Sleeve	øD	øD1	øD3	L	L1	L2	G
227309	AIRFA. 12	24	12	20	22	48	9	M5
227310	AIRFA. 16	30	16	25	34	64	9,5	M6
227311	AIRFA. 20	38	20	32	34	70	11	M6
227312	AIRFA. 25	45	25	37	38	76	12	M8
227313	AIRFA. 28	48	28	40	38	78	12	M8
227314	AIRFA. 32	55	32	45	45	89	14	M8
227315	AIRFA. 36	60	36	50	45	97	16	M8
227316	AIRFA. 48	80	48	67	57	122	20	M10



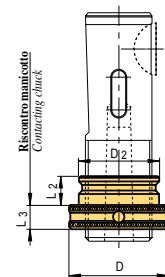
MANICOTTI AD INNESTO RAPIDO QUICK CONNECTION SLEEVES

Codice Code	Manicotto Sleeve	øD	øD1	øD3	øD4	L	L1	L2	G
227350	AIRFCA. 16	27	16	25	22	8	30	9,5	M5
227351	AIRFCA. 20	34	20	32	28	8	30	11	M5
227352	AIRFCA. 25	41	25	37	34,5	8	32	12	M6
227353	AIRFCA. 28	44	28	40	37	8	32	12	M6
227354	AIRFCA. 32	49	32	45	41	9	39	13,5	M6
227355	AIRFCA. 36	55	36	50	46	9	39	16	M6
227356	AIRFCA. 48	73	48	67	61	11	51	20	M8



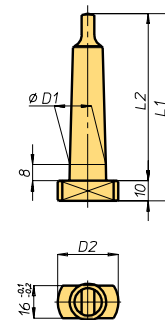
GHIERE AD INNESTO RAPIDO RING NUTS

Codice Code	Manicotto Sleeve	øD	øD2	L2	L3
227367	GIRF. 12	21,5	16,4	9	9
227368	GIRF. 16	26	19,9	9,5	9
227369	GIRF. 20	33	25,4	11	9
227370	GIRF. 25	40	31,9	12	10
227371	GIRF. 28	42	33,9	12	10
227372	GIRF. 32	47	37,9	13,5	10
227373	GIRF. 36	54	43,4	16	10
227374	GIRF. 48	72	57,9	20	14



TRASCINATORI A CONO MORSE MORSE TAPER WITH DRIVING DOG

Codice Code	Cono Morse Morse taper	A	B	L1	L2	L3	D1	D2	D3	R	β
011120	2	8	6,3	93	83	16	17,78	28	13,5	6	1°25'50"
011125	3	8	7,9	112	102	20	23,825	30	18,5	7	1°26'16"
011130	4	8	11,9	135,5	125,5	24	31,267	42	24,5	8	1°29'15"
011135	5	8	15,9	167,5	157,5	29	44,399	50	35,7	10	1°30'26"
011136	6	8	19	228	218	40	63,348	62	51	13	1°29'

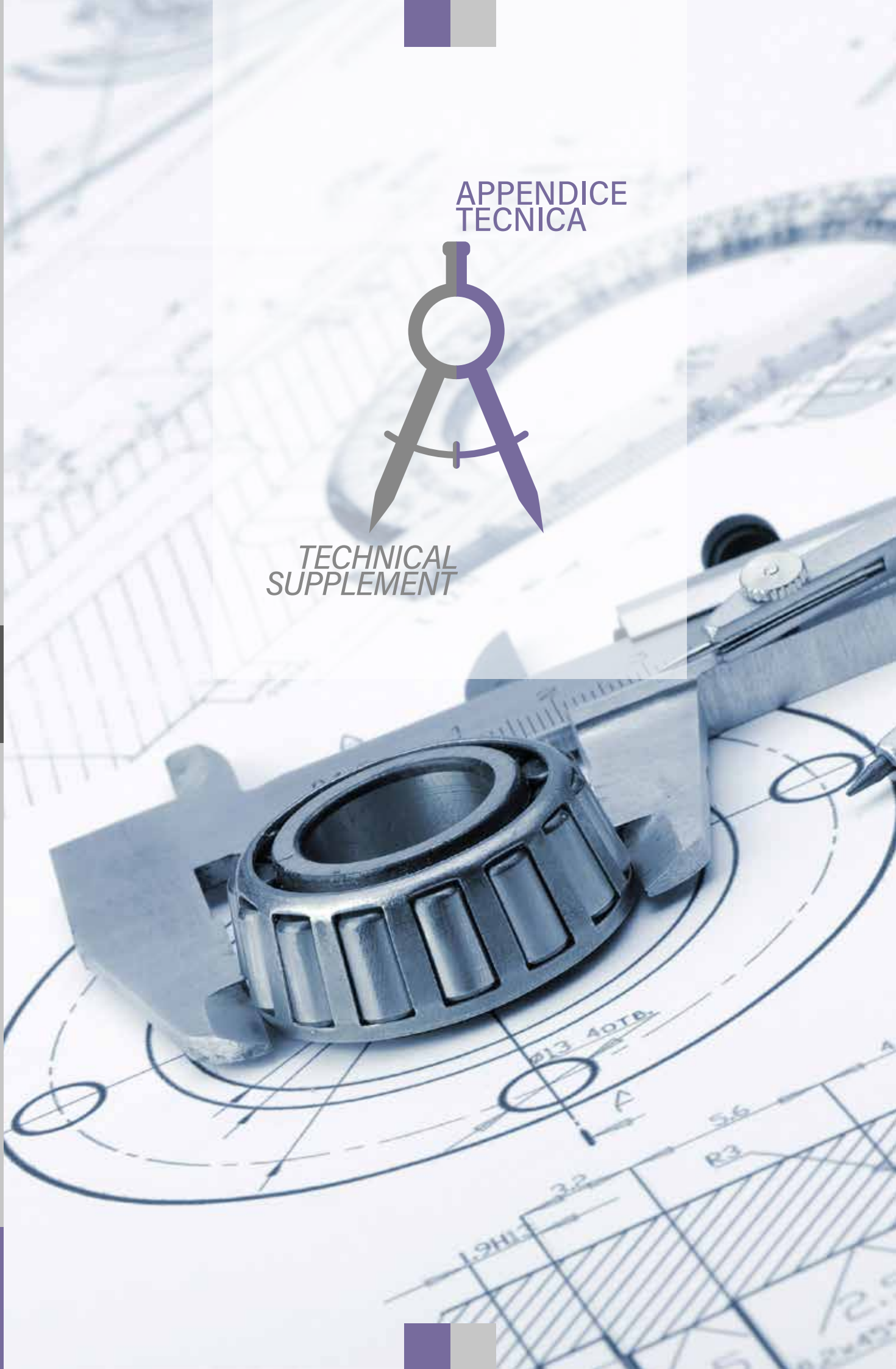




APPENDICE TECNICA



TECHNICAL SUPPLEMENT





FH

BAH

TA.CP

TA

MOX

HT

12-2

VH

TSI/TSX

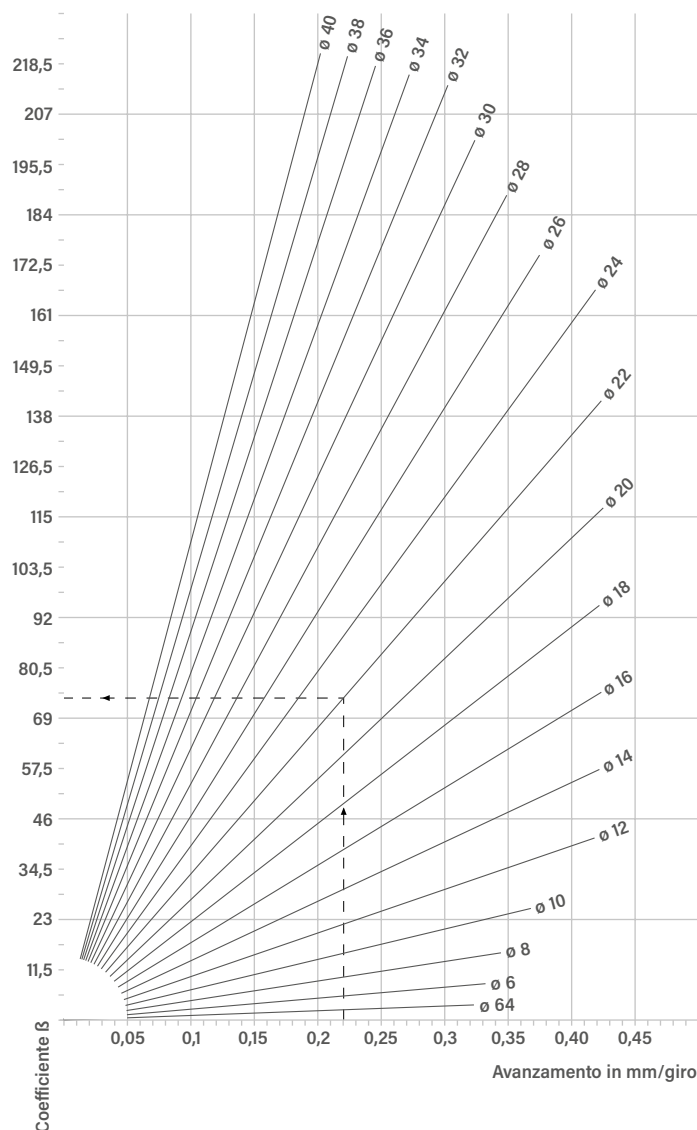
T

MT-TC-TC3





CALCOLO MOMENTO TORCENTE E POTENZA ESTIMATE TORQUE AND POWER



Es:

$a = 0,22$ mm/giro
punta $\varnothing 22$
giri/l' = 230
 $R = 500$ N/mm²
coefficiente $\beta = 73$

$$M_t = \frac{73 \times 500}{1000} = 36,5 \text{ Nm}$$

$$N = \frac{36,5 \times 230}{9549,3} = 0,88 \text{ kW}$$

Ex:

$a = 0,22$ mm/revs
tip $\varnothing 22$
rpm = 230
 $R = 500$ N/mm²
coefficient $\beta = 73$

La OMG, con questo diagramma, desidera offrire la possibilità di calcolare con velocità e ottima approssimazione, il momento torcente e la relativa potenza necessaria per l'esecuzione delle forature. Scegliendo l'appropriato avanzamento sull'ascissa, congiungendo con il relativo diametro di foratura, in ordinata si leggerà un determinato valore del "coefficiente β "; moltiplicando questo per la resistenza del materiale si otterrà il momento torcente. Applicando poi la formula

$$N = \frac{M_t \times n}{9549,3}$$

dove n è il n° di giri, si otterrà la potenza N espressa in kW

With this diagram, OMG makes it possible to calculate the torque and corresponding power necessary for drilling quickly and with maximum approximation. By selecting the proper feed on the abscissa and adding it to the corresponding drilling diameter on the ordinate, a certain «coefficient β » value is obtained. By multiplying this by the material strength, the torque can be found. Then, by applying the formula,

$$N = \frac{M_t \times n}{9549,3}$$

where n is the number of revolutions, it is possible to determine power N expressed in kW.



Dimensioni estremità mandrini macchine utensili per la costruzione del manicotto di collegamento.
Spindles dimensions of machine-tools to manufacture the connection collar.

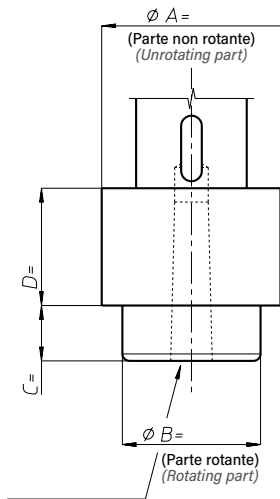


Fig. 1

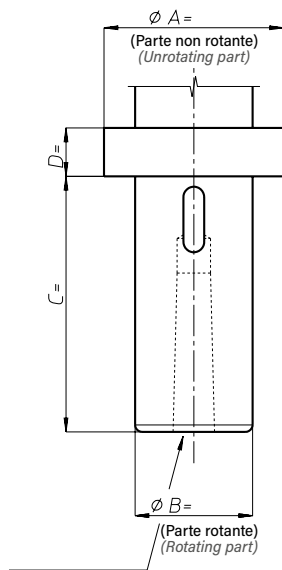


Fig. 2

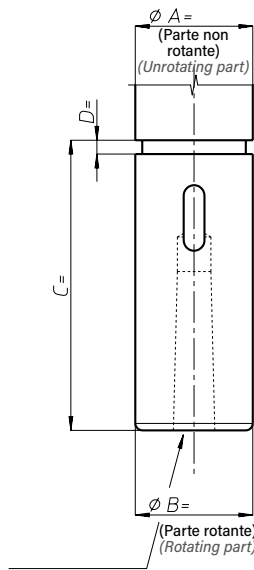
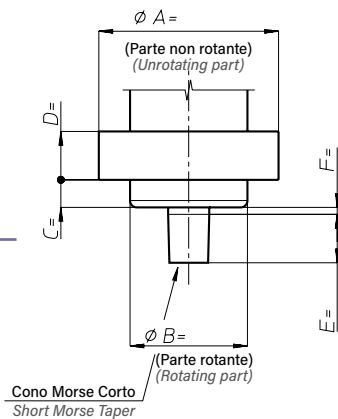


Fig. 3

Fig. 4



Se nessuna figura si adatta alla vostra macchina, disegnatene qui l'estremità mandrino.

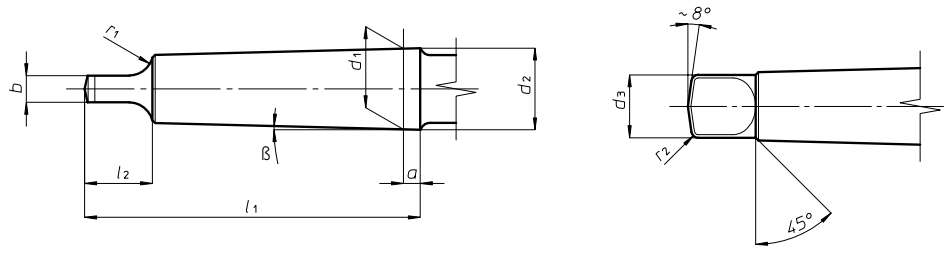
If no picture fits your machine, draw here the spindle end.





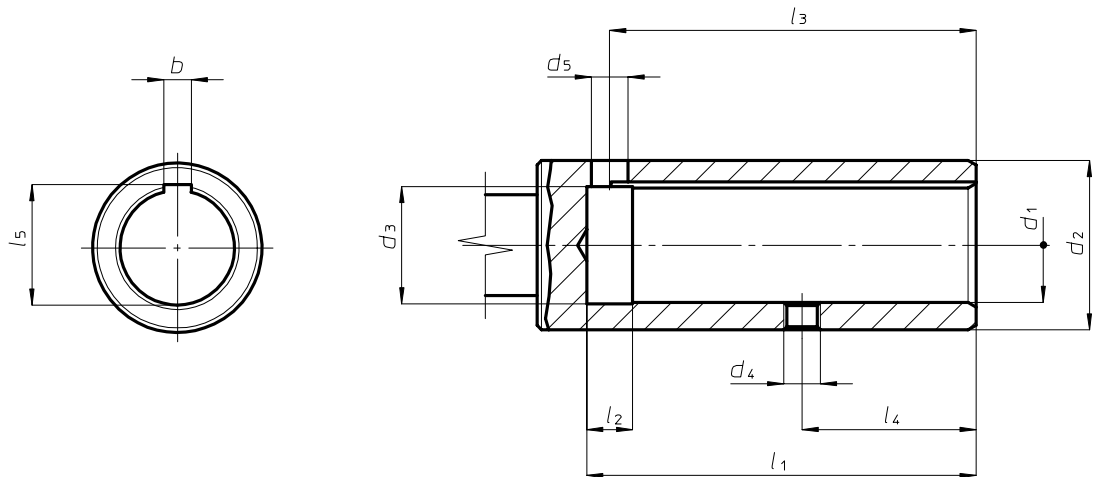
DIN 228

CONO MORSE - MORSE TAPER



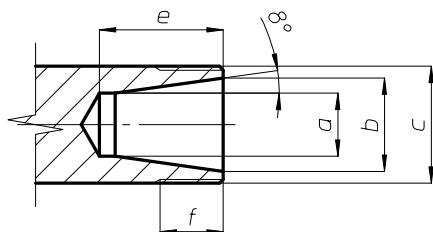
Cono Morse Morse Taper	a	b h ¹³	d1	d2	d3max	l1max	l2max	r1	r2	B
0	3	3,9	9,045	9,2	6	59,5	10,5	4	1	1°29'27"
1	3,5	5,2	12,065	12,2	8,7	65,5	13,5	5	1,2	1°25'43"
2	5	6,3	17,780	18	13,5	80	16	6	1,6	1°25'50"
3	5	7,9	23,825	24,1	18,5	99	20	7	2	1°26'16"
4	6,5	11,9	31,267	31,6	24,5	124	24	8	2,5	1°29'15"
5	6,5	15,9	44,399	44,7	35,7	156	29	10	3	1°30'26"
6	8	19	63,348	63,8	51	218	40	13	4	1°29'36"

DIN 55058



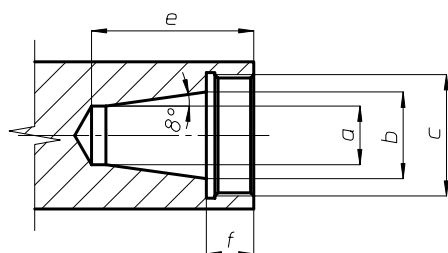
Grandezza Size d1 H7	Ø8	Ø10	12	16	Ø20	Ø25	28	Ø32	Ø36	48
b	2	3	3	5	5	6	6	8	9	10
d2f7	15	18	20	25	32	37	40	45	50	67
d3	8,6	10,6	12,6	16,6	20,6	25,6	28,6	32,8	36,8	48,8
d4	M4	M5	M5	M6	M6	M8	M8	M8	M8	M10
d5	3,5	5	5	6	6	8	8	10	10	12
l1 min	42	52	52	75	78	85	85	106	106	129
l2	8	8	8	8	8	10	10	10	10	12
l3	35	48	48	70	73	80	80	101	101	123
l4 ±0,1	16	22	22	34	34	38	38	45	45	57
l5 ±0,1	9	11,1	13,1	17,3	21,3	26,7	29,7	33,7	37,7	50,1





Grandezza Size di H7	Serraggio Clamping	a	b $\pm 0,05$	c	e	f
ER8	0,5... 5,0	5,2	8	M10x0,75	13,0	7,5
ER11	0,5... 7,0	7,5	11	M13x0,75	17,0	10,0
ER16	0,5... 10,0	10,5	16	M19x1,00	22,0	13,0
ER20	0,5... 13,0	13,5	20	M24x1,00	26,5	13,5
ER25	0,5... 16,0	18,0	25	M30x1,00	29,0	14,0

ER16	0,5... 10,0	10,5	16	M22x1,50	22,0	13,0
ER20	0,5... 13,0	13,5	20	M25x1,50	26,5	13,5
ER25	0,5... 16,0	18,0	25	M32x1,50	29,0	14,0
ER32	1,0... 20,0	23,5	32	M40x1,50	34,0	16,0
ER40	2,0... 30,0	30,5	40	M50x1,50	38,0	17,0
ER50	4,0... 34,0	38,0	50	M64x2,00	48,0	24,0



Grandezza Size di H7	Serraggio Clamping	a	b $\pm 0,05$	c	e	f
ER11	0,5... 7,0	7,5	11	M18x1,00	23,0	7,0
ER16	0,5... 10,0	10,5	16	M24x1,00	32,0	10,0
ER20	0,5... 13,0	13,5	20	M28x1,50	37,5	11,0
ER25	0,5... 16,0	18,0	25	M32x1,50	41,0	12,0
ER32	1,0... 20,0	23,5	32	M40x1,50	48,0	14,0

DIN 6499

SEDI DELLE PINZE ER - ER HOUSING

12-6

FH

BAH

TA.CP

TA

MOX

HT

VH

TSI/TSX

T

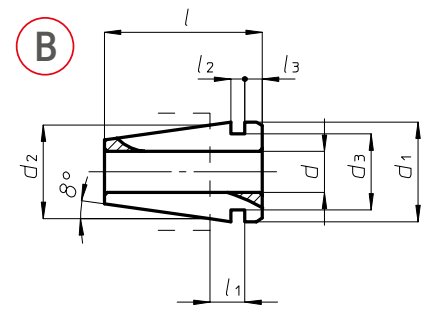
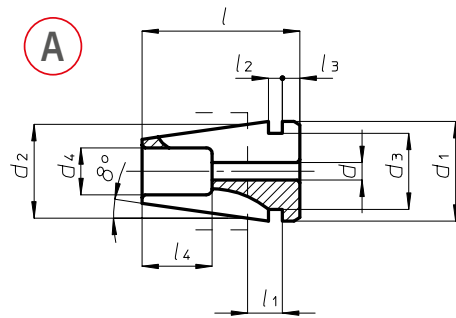
MT-TC-TC3



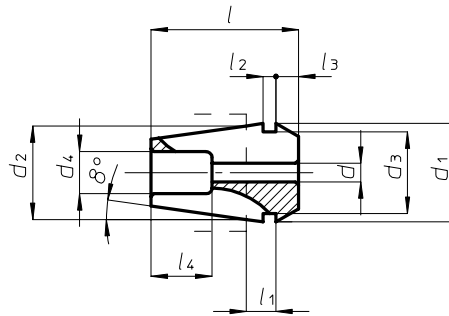


DIN 6499-B

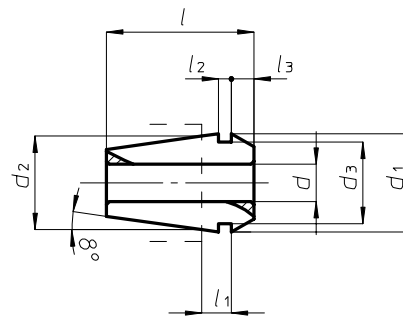
PINZE • COLLETS



Grandezza Size d1 H7	d	d1	d2	d3	d4	l	l1	l2	l3	l4	Disegno Picture
ER8	0,5... 2,5	8,5	8,0	6,5	4,0	13,5	2,98	1,2	1,5	6,0	A
ER8	3,0... 5,0	8,5	8,0	6,5	-	13,5	2,98	1,2	1,5	-	A

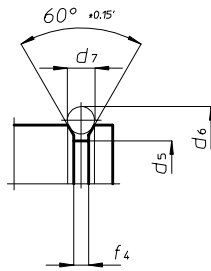
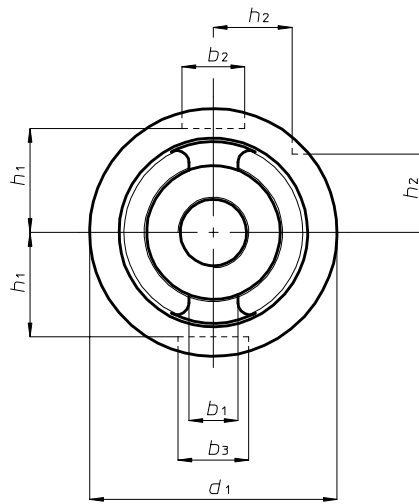
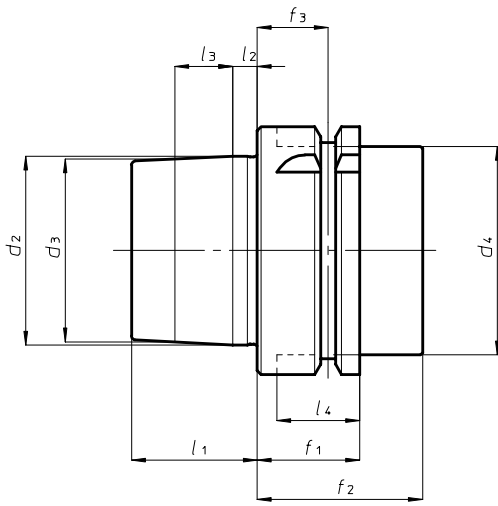


Grandezza Size d1 H7	d	d1	d2	d3	d4	l	l1	l2	l3	l4
ER11	0,5... 2,5	11,5	11,0	9,5	5,0	18,0	3,80	2,0	2,5	9,0
ER16	0,5... 4,5	17,0	16,0	13,8	7,5	27,5	6,26	2,7	4,0	10,0
ER20	1,0... 6,5	21,0	20,0	17,4	9,0	31,5	6,36	2,8	4,8	13,0
ER25	1,0... 7,5	26,0	25,0	22,0	12,0	34,0	6,66	3,1	5,0	15,0
ER32	2,0... 3,5	33,0	32,0	29,2	15,0	40,0	7,16	3,6	5,5	20,0
ER32	4,0... 7,5	33,0	32,0	29,2	15,0	40,0	7,16	3,6	5,5	15,0
ER40	3,0... 3,5	41,0	40,0	36,2	20,0	46,0	7,66	4,1	7,0	21,0
ER40	4,0... 8,5	41,0	40,0	36,2	20,0	46,0	7,66	4,1	7,0	18,0
ER50	4,0... 10,0	52,0	50,0	46,0	20,0	60,0	12,60	5,5	8,5	26,0



Grandezza Size d1 H7	d	d1	d2	d3	l	l1	l2	l3
ER11	3,0... 7,0	11,5	11,0	9,5	18,0	3,80	2,0	2,5
ER16	5,0... 10,0	17,0	16,0	13,8	27,5	6,26	2,7	4,0
ER20	7,0... 13,0	21,0	20,0	17,4	31,5	6,36	2,8	4,8
ER25	8,0... 16,0	26,0	25,0	22,0	34,0	6,66	3,1	5,0
ER32	8,0... 20,0	33,0	32,0	29,2	40,0	7,16	3,6	5,5
ER40	9,0... 30,0	41,0	40,0	36,2	46,0	7,66	4,1	7,0
ER50	12,0... 34,0	52,0	50,0	46,0	60,0	12,60	5,5	8,5





	HSK50	HSK63	HSK80	HSK100
b1 H10	10,5	12,5	16	20
b2 H10	12	16	18	20
b3 H10	14	18	20	22
d1 H10	50	63	80	100
d2	38 ^{+0,009} _{+0,006}	48 ^{+0,011} _{+0,007}	60 ^{+0,013} _{+0,008}	75 ^{+0,015} _{+0,009}
d3	36,900 ^{+0,006} _{+0,003}	46,530 ^{+0,007} _{+0,003}	58,100 ^{+0,008} _{+0,003}	72,600 ^{+0,009} _{+0,003}
d4 max	42	53	67	85
d5 ⁰ _{-0,1}	43	55	70	92
d6 ⁰ _{-0,1}	59,3	72,3	88,8	109,75
d7	7	7	7	7
f1 ⁰ _{-0,1}	26	26	26	29
f2 min	42	42	42	45
f3 ±0,1	18	18	18	20
f4 ^{+0,15} ₀	3,75	3,75	3,75	3,75
h1 ⁰ _{-0,2}	21	26,5	34	44
h2 ⁰ _{-0,3}	15,5	20	25	31,5
l1 ⁰ _{-0,2}	25	32	40	50
l2	5	6,3	8	10
l3	11	14,7	19	24
l4	19	21	22	24

DIN 69893

FH

BAH

TA.CP

TA

MOX

HT

12-8

VH

TSI/TSX

T

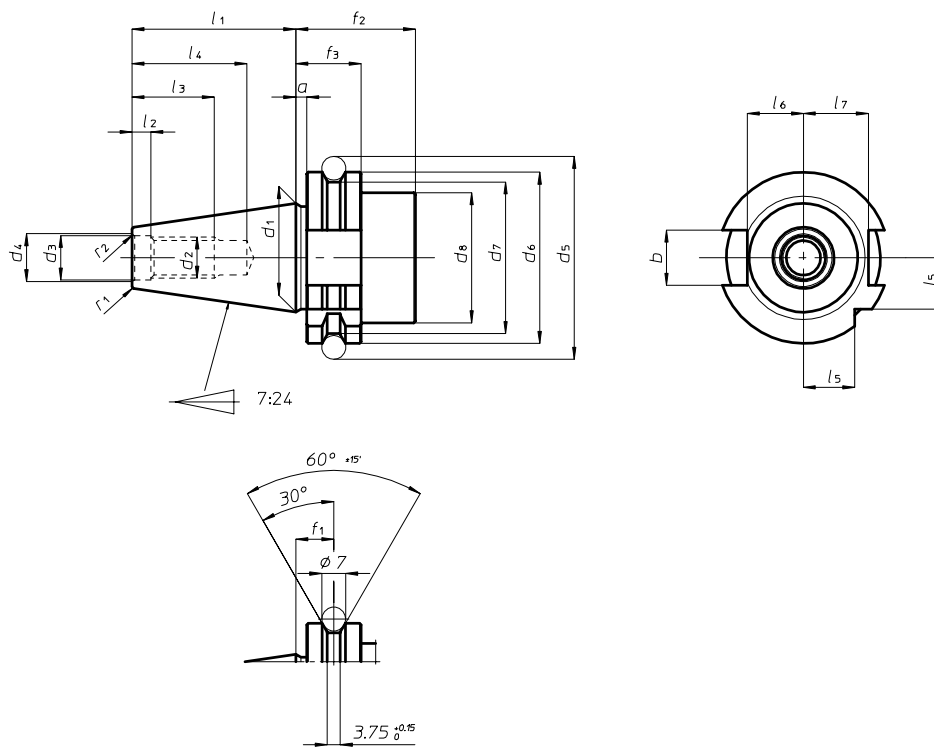
MT-TC-TC3





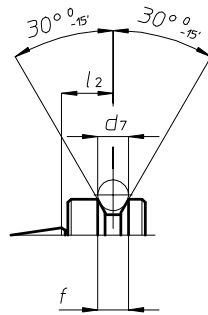
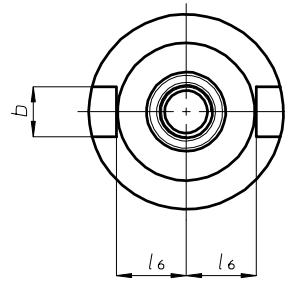
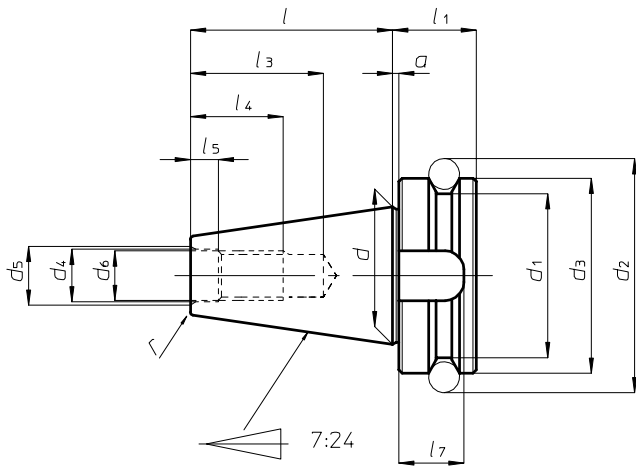
DIN 69871

FORMA A - A SHAPE



Grandezza Size d1 H7	30	40	45	50
a $\begin{smallmatrix} +0,1 \\ -0,1 \end{smallmatrix}$	32	3,2	3,2	3,2
b H12	16,1	16,1	19,3	25,7
d1	31,75	44,45	57,15	69,85
d2	M12	M16	M20	M24
d3 H7	13	17	21	25
d4 max	14	19	23,4	28
d5 $\begin{smallmatrix} +0,05 \\ -0,05 \end{smallmatrix}$	59,3	72,3	91,35	107,25
d6 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$	50	63,55	82,55	97,50
d7 $\begin{smallmatrix} 0 \\ -0,5 \end{smallmatrix}$	44,3	56,25	75,25	91,25
d8 max	45	50	63	80
f1 $\begin{smallmatrix} +0,1 \\ -0,1 \end{smallmatrix}$	11,1	11,1	11,1	11,1
f2 min	35	35	35	35
f3 $\begin{smallmatrix} 0 \\ -0,1 \end{smallmatrix}$	19,1	19,1	19,1	19,1
l1 $\begin{smallmatrix} 0 \\ -0,3 \end{smallmatrix}$	47,8	68,4	82,7	101,75
l2 $\begin{smallmatrix} +0,5 \\ 0 \end{smallmatrix}$	5,5	8,2	10	11,5
l3 min	24	32	40	47
l4 min	33,5	42,5	52,5	61,5
l5 $\begin{smallmatrix} 0 \\ -0,3 \end{smallmatrix}$	15	18,5	24	30
l6 $\begin{smallmatrix} 0 \\ -0,4 \end{smallmatrix}$	16,4	22,8	29,1	35,5
l7 $\begin{smallmatrix} 0 \\ -0,4 \end{smallmatrix}$	19	25	31,3	37,7
r1	0,6 $\begin{smallmatrix} 0 \\ -0,3 \end{smallmatrix}$	1,2 $\begin{smallmatrix} 0 \\ -0,5 \end{smallmatrix}$	2 $\begin{smallmatrix} 0 \\ -0,5 \end{smallmatrix}$	2,5 $\begin{smallmatrix} 0 \\ -0,5 \end{smallmatrix}$
r2 $\begin{smallmatrix} 0 \\ -0,5 \end{smallmatrix}$	0,8	1	1,2	1,5





Grandezza Size d1 H7	30	40	50
a ±0,4	2	2	3
b H8	16,1	16,1	25,7
d	31,75	44,45	69,85
d1 ^{-0,1} _{-0,3}	38	53	85
d2	56,144	74,679	119,019
d3 H8	46	63	100
d4 H8	12,5	17	25
d5	14,5	19	27
d6	M12	M16	M24
d7	8	10	15
f ^{+0,1} ₀	8	10	15
l ±0,15	48,4	65,4	101,8
l1	22	27	38
l2 ±0,1	13,6	16,6	23,2
l3	34	43	62
l4	24	30	45
l5 ^{+0,5} ₀	7	9	13
l6 ⁰ _{-0,2}	16,3	22,6	35,4
l7	17	21	31
r	0,5	1	1

MAS 403

FH

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MOX

HT

12-10

VH

TSI/TSX

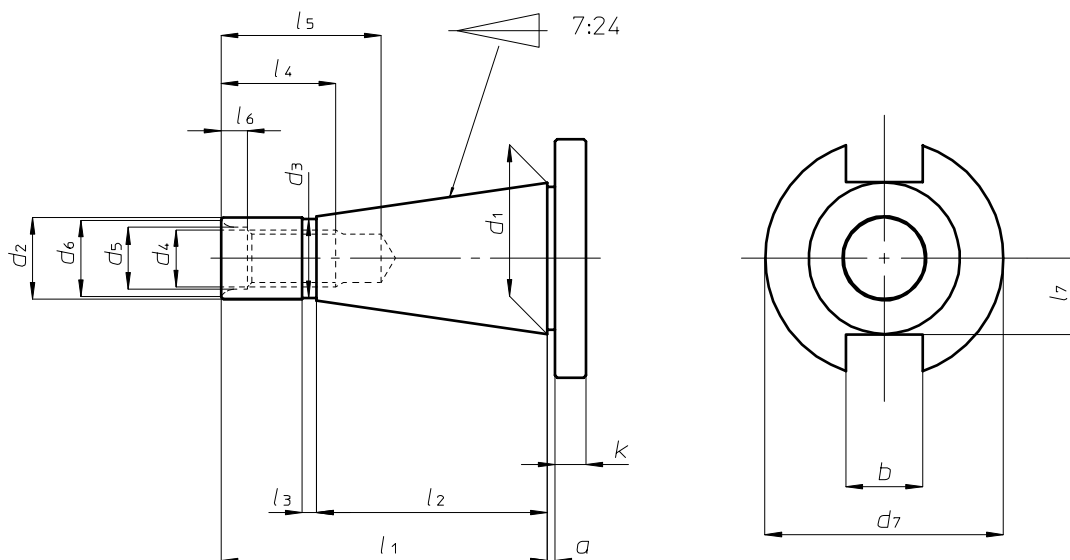
T

MT-TC-TC3



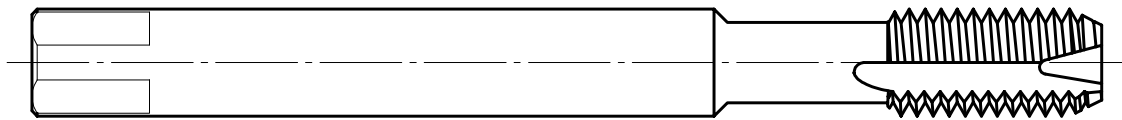


DIN 2080



Grandezza Size	30	40	45	50
a $\pm 0,2$	1,6	1,6	3,2	3,2
b H12	16,1	16,1	19,3	25,7
d1	31,75	44,45	57,15	69,85
d2 a 10	17,4	25,3	32,4	39,6
d3	16,5	24	30	38
d4	M12	M16	M20	M24
d5	13	17	21	26
d6 max	16	21,5	26	32
d7 $\begin{smallmatrix} 0 \\ -0,4 \end{smallmatrix}$	50	63	80	97,5
k $\pm 0,15$	8	10	12	12
l1	68,4	93,4	106,8	126,8
l2	48,4	65,4	82,8	101,8
l3	3	5	6	8
l4	24	32	40	47
l5 min	33,5	42,5	52,5	61,5
l6 $\begin{smallmatrix} +0,5 \\ 0 \end{smallmatrix}$	5,5	8,2	10	11,5
l7 max	16,2	22,5	29	35,3





MASCHI/TAPS

Maschi Clamping		ISO 529		DIN 371 (DIN 2181)		DIN 371		DIN 376		JAPAN JIS		US STANDARD	
(mm)	(pollici)	(Ø)	(□)	(Ø)	(□)	(Ø)	(□)	(Ø)	(□)	(Ø)	(□)	(Ø)"	(□)"
M1.0		2,50	2,10	-	-	2,50	2,10	-	-	3,00	2,50	-	-
M1.1		2,50	2,10	-	-	2,50	2,10	-	-	3,00	2,50	-	-
M1.2		2,50	2,10	-	-	2,50	2,10	-	-	3,00	2,50	-	-
M1.4		2,50	2,10	-	-	2,50	2,10	-	-	3,00	2,50	-	-
M1.6	1/16	2,50	2,10	-	-	2,50	2,10	-	-	3,00	2,50	0,141	0,110
M1.7		2,50	2,10	-	-	2,50	2,10	-	-	3,00	2,50	-	-
M1.8		2,50	2,10	-	-	2,50	2,10	-	-	3,00	2,50	0,141	0,110
M2.0		2,80	2,10	2,50	2,00	2,50	2,10	-	-	3,00	2,50	0,141	0,110
M2.2		2,80	2,10	2,80	2,24	2,50	2,10	-	-	3,00	2,50	0,141	0,110
M2.3		2,80	2,10	2,80	2,24	2,50	2,10	-	-	3,00	2,50	-	-
M2.5	3/32	2,80	2,10	2,80	2,24	2,50	2,10	-	-	3,00	2,50	0,141	0,110
M2.6		2,80	2,10	2,80	2,24	2,50	2,10	-	-	3,00	2,50	-	-
M3.0	1/8	3,15	2,50	3,15	2,50	3,50	2,70	3,00	-	4,00	3,00	0,141	0,110
M3.5		3,55	2,80	3,55	2,80	4,00	3,00	2,50	2,10	4,00	3,00	0,141	0,110
M4.0	5/32	4,00	3,15	-	-	4,50	3,40	2,80	2,10	5,00	4,00	0,168	0,131
M4.5	3/16	4,50	3,55	-	-	6,00	4,90	3,50	2,70	5,00	4,00	0,194	0,152
M5.0		5,00	4,00	-	-	6,00	4,90	3,50	2,70	5,50	4,50	0,194	0,152
M6.0	1/4	6,30	5,00	-	-	6,00	4,90	4,50	3,40	6,00	4,50	0,255	0,191
M7.0	5/16	7,10	5,60	-	-	7,00	5,50	5,50	4,30	6,20	5,00	0,318	0,238
M8.0		8,00	6,30	-	-	8,00	6,20	6,00	4,90	6,20	5,00	0,318	0,238
M9.0		9,00	7,10	-	-	9,00	7,00	7,00	5,50	7,00	5,50	0,381	0,286
M10.0	3/8	10,00	8,00	-	-	10,00	8,00	7,00	5,50	7,00	5,50	0,381	0,286
M11.0		8,00	6,30	-	-	-	-	8,00	6,20	8,00	6,20	0,381	0,286
M12.0	1/2	9,00	7,10	-	-	-	-	9,00	7,00	8,50	6,50	0,367	0,275
M14.0	9/16	11,20	9,00	11,20	-	-	-	11,00	9,00	10,50	8,00	0,429	0,322
M16.0	5/8	12,50	10,00	12,50	-	-	-	12,00	9,00	12,50	10,00	0,480	0,360
M18.0	11/16	14,00	11,20	14,00	-	-	-	14,00	11,00	14,00	11,00	0,542	0,406
M20.0	13/16	14,00	11,20	14,00	-	-	-	16,00	12,00	15,00	12,00	0,652	0,489
M22.0	7/8	16,00	12,50	16,00	-	-	-	18,00	14,50	17,00	13,00	0,697	0,523
M24.0	15/16	18,00	14,00	18,00	-	-	-	18,00	14,50	19,00	15,00	0,760	0,570
M27.0	1 1/16	20,00	16,00	20,00	-	-	-	20,00	16,00	20,00	15,00	0,896	0,672
M30.0	1 3/16	20,00	16,00	20,00	-	-	-	22,00	18,00	23,00	23,17	1,021	0,766

US STANDARD: in pollici

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