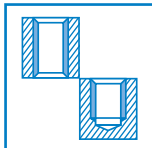


MF

DIN2181



MATERIAL GROUP	Vc (m/min)	
	HAND	MACHINE (6211F)
1~5		5~10
13 - 14		5~10
16 - 19 - 20		5~10

6211

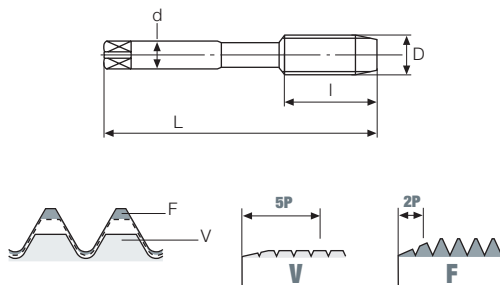
6211 (V-F)

HT

HT


 MATERIAL GROUPS / GRUPPI MATERIALE
 WERKSTOFFEGRUPPE / GROUPES MATIÈRE

 1-5 13
 14 16 19 20

 1-5 13
 14 16 19 20


HSS

BR

ISO2

(6H)



HSS

BR

ISO2

(6H)



D	p	Ø	L	I	d	k	Stock	Stock	Stock
M 3	0.35	2.7	40	9	3.5	2.7	○	○	○
4	0.5	3.5	45	10	4.5	3.4	○	○	○
5	0.5	4.5	50	12	6	4.9	○	○	○
6	0.75	5.3	50	14	6	4.9	○	○	○
6	0.5	5.5	50	14	6	4.9	○	○	○
7	0.75	6.3	50	14	6	4.9	○	○	○
8	1	7	56	22	6	4.9	○	○	○
8	0.75	7.3	50	19	6	4.9	○	○	○
8	0.5	7.5	50	19	6	4.9	○	○	○
9	1	8	63	22	7	5.5	○	○	○
9	0.75	8.3	56	19	7	5.5	○	○	○
10	1.25	8.8	70	24	7	5.5	○	○	○
10	1	9	63	20	7	5.5	○	○	○
10	0.75	9.3	63	20	7	5.5	○	○	○
10	0.5	9.5	63	20	7	5.5	○	○	○
12	1.5	10.5	70	22	9	7	○	○	○
12	1.25	10.8	70	22	9	7	○	○	○
12	1	11	70	22	9	7	○	○	○
14	1.5	12.5	70	22	11	9	○	○	○
14	1.25	12.8	70	22	11	9	○	○	○
14	1	13	70	22	11	9	○	○	○
16	1.5	14.5	70	22	12	9	○	○	○
16	1.25	14.8	70	22	12	9	○	○	○
16	1	15	70	22	12	9	○	○	○

● stock standard ○ non-standard stock △ on request EX stock exhaustion


 M 3 ~ 6
 7 ~

3

3

3

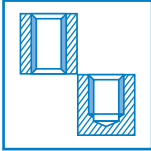
4

4

4

MF

DIN2181



MATERIAL GROUP	Vc (m/min)	
	HAND	MACHINE (6211F)
1~5		5~10
13 - 14		5~10
16 - 19 - 20		5~10



MATERIAL GROUPS / GRUPPI MATERIALE WERKSTOFFEGRUPPE / GROUPES MATIÈRE								1-5 13 14 16 19 20		1-5 13 14 16 19 20	
								STR	STR		
								HSS	HSS		
								BR	BR		
								ISO2 (6H)	ISO2 (6H)		
								V-F SET	V F		
D	p	Ø	L	I	d	k		Stock		Stock	
M 18	2	16	80	22	14	11		○		○	○
18	1.5	16.5	80	22	14	11		○		○	○
18	1	17	80	22	14	11		○		○	○
20	2	18	80	22	16	12		○		○	○
20	1.5	18.5	80	22	16	12		○		○	○
20	1	19	80	22	16	12		○		○	○
22	2	20	80	22	18	14.5		○		○	○
22	1.5	20.5	80	22	18	14.5		○		○	○
22	1	21	80	22	18	14.5		○		○	○
24	2	22	90	22	18	14.5		○		○	○
24	1.5	22.5	90	22	18	14.5		○		○	○
24	1	23	90	22	18	14.5		○		○	○
25	2	23	90	22	18	14.5		○		○	○
25	1.5	23.5	90	22	18	14.5		○		○	○
26	1.5	24.5	90	22	18	14.5		○		○	○
27	2	25	90	22	20	16		○		○	○
27	1.5	25.5	90	22	20	16		○		○	○
27	1	26	90	22	20	16		○		○	○
28	2	26	90	22	20	16		○		○	○
28	1.5	26.5	90	22	20	16		○		○	○
28	1	27	90	22	20	16		○		○	○
30	1.5	28.5	90	22	22	18		○		○	○
30	1	29	90	22	22	18		○		○	○

● stock standard ○ non-standard stock △ on request EX stock exhaustion



M 3 ~ 6
7 ~

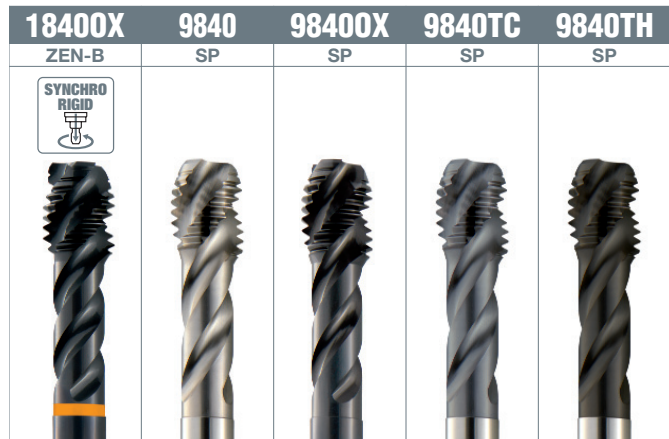
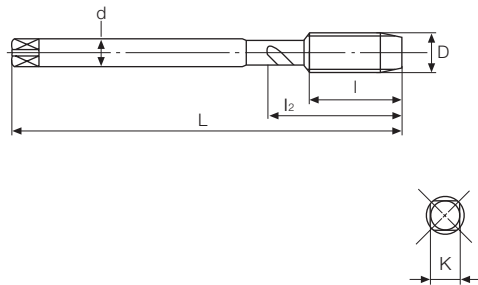
3 3 3
4 4 4

MF

DIN374



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~20	15~25
6	5~10	
9~12	5~20	8~20
13~14	8~15	12~25
15~20	10~20	15~25
22~24	3~10	


MATERIAL GROUPS / GRUPPI MATERIALE
WERKSTOFFEGRUPPE / GROUPES MATIÈRE


4 5 6 1~5 13 9~12 22 24 14 15~20 1~5 9 10 1~5 9 10 13 14 1~5 9 10

48°	40°	40°	40°	40°
HSS-P	HSSE	HSSE	HSSE	HSSE
OX	BR	OX	TiCN	PV15
ISO2X (6HX)	ISO2 (6H)	ISO2 (6H)	ISO2 (6H)	ISO2 (6H)
3P	2P~3P C	2P~3P C	2P~3P C	2P~3P C

D	p	Ø	L	l	l2	d	k	Stock	Stock	Stock	Stock	Stock
M 3	0.35	2.7	59	5	17	2.2	-			○		
4	0.5	3.5	63	5	19	2.8	2.1			○		
5	0.5	4.5	70	6	22	3.5	2.7			●		
6	0.75	5.3	80	8	25	4.5	3.4			●		
6	0.5	5.5	80	8	25	4.5	3.4			●		
8	1	7	90	12	28	6	4.9		●	●	●	
8	0.75	7.3	80	10	28	6	4.9			●		
10	1.25	8.8	100	12	35	7	5.5	○	●	●	●	●
10	1	9	90	12	35	7	5.5		●	●	●	
10	0.75	9.3	90	12	35	7	5.5			●		
12	1.5	10.5	100	14	42	9	7	○	●	●	●	●
12	1.25	10.8	100	14	42	9	7	○	●	●	●	●
12	1	11	100	14	42	9	7		●	●	●	
14	1.5	12.5	100	14	49	11	9	○	●	●	●	●
14	1.25	12.8	100	14	49	11	9			●		
14	1	13	100	14	49	11	9			●		
16	1.5	14.5	100	14	56	12	9	○	●	●	●	●
16	1	15	100	14	56	12	9			●		
18	2	16	125	18	63	14	11			○		
18	1.5	16.5	110	14	63	14	11		●	●	○	
18	1	17	110	14	63	14	11			●		

● stock standard ○ non-standard stock △ on request EX stock exhaustion



M 3 ~ 10	3	3	3	3	3
12 ~ 16	3	3	3	3	3
18 ~ 20	4	4	4	4	4
22 ~ 36	4	4	4	4	4

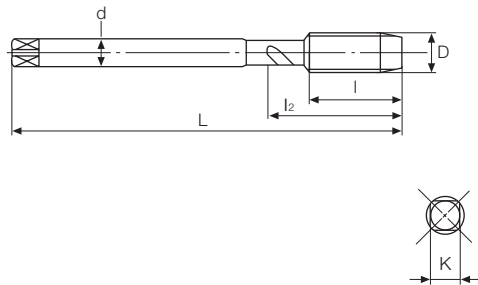
98450X 98480X				
SP-VA	PH-SP			
	 ~HRC37			
1~5 9 10	4 5 6			
				
HSSE OX	HSSE OX			
ISO2 (6H)	ISO2 (6H)			
2P~3P C	3P			
Stock	Stock			
			D	p
			M 3	0.35
			4	0.5
			5	0.5
			6	0.75
			6	0.5
●	●		8	1
			8	0.75
●	○		10	1.25
●	●		10	1
			10	0.75
●	●		12	1.5
●	○		12	1.25
●	●		12	1
			14	1.5
			14	1.25
			14	1
●	●		16	1.5
			16	1
			18	2
●	○		18	1.5
			18	1
● stock standard	○ non-standard stock	△ on request	EX stock exhaustion	
3	3	M 3~ 10		
3	4	12 ~ 16		
4	4	18 ~ 20		
4	5	22 ~ 36		

MF

DIN374



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~20	15~25
6	5~10	
9~12	5~20	8~20
13~14	8~15	12~25
15~20	10~20	15~25
22~24	3~10	


MATERIAL GROUPS / GRUPPI MATERIALE
WERKSTOFFEGRUPPE / GROUPES MATIÈRE

4 5 6 1~5 13 1~5 9 10 1~5 9 10 1~5 9 10
9-12 22 24 14 15-20 13 14

48°	40°	40°	40°	40°
HSSE-P	HSSE	HSSE	HSSE	HSSE
OX	BR	OX	TiCN	PV15
ISO2X (6HX)	ISO2 (6H)	ISO2 (6H)	ISO2 (6H)	ISO2 (6H)
3P	2P~3P C	2P~3P C	2P~3P C	2P~3P C

D	p	Ø	L	l	l2	d	k	Stock	Stock	Stock	Stock	Stock
M 20	2	18	140	18	70	16	12			●		
20	1.5	18.5	125	14	70	16	12		●	●	○	
20	1	19	125	14	70	16	12			●		
22	2	20	140	18	77	18	14.5			○		
22	1.5	20.5	125	14	77	18	14.5		○	●	○	
22	1	21	125	14	77	18	14.5			○		
24	2	22	140	18	84	18	14.5			●		
24	1.5	22.5	140	18	84	18	14.5		○	●	○	
24	1	23	140	18	84	18	14.5			○		
25	1.5	23.5	140	18	88	18	14.5			●		
26	1.5	24.5	140	18	90	18	14.5			●		
27	2	25	140	20	90	20	16			●		
27	1.5	25.5	140	20	90	20	16			○		
27	1	26	140	20	90	20	16			○		
28	2	26	140	20	90	20	16			○		
28	1.5	26.5	140	20	90	20	16			●		
28	1	27	140	20	90	20	16			○		
30	2	28	150	20	100	22	18			●		
30	1.5	28.5	150	20	100	22	18			●		
30	1	29	150	20	100	22	18			○		
32	1.5	30.5	150	20	100	22	18			●		
33	2	31	160	20	105	25	20			●		
33	1.5	31.5	160	20	105	25	20			○		
35	1.5	33.5	170	20	105	28	22			●		
36	3	33	200	30	105	28	22			●		
36	2	34	170	20	105	28	22			●		
36	1.5	34.5	170	20	105	28	22			○		

● stock standard ○ non-standard stock △ on request EX stock exhaustion



M 3 ~ 10	3	3	3	3	3
12 ~ 16	3	3	3	3	3
18 ~ 20	4	4	4	4	4
22 ~ 36	4	4	4	4	4

98450X		98480X	
SP-VA		PH-SP	
		 	
		~HRC37	
1~5 9 10		4 5 6	
    		    	
Stock	Stock		
		D	p
		M 20	2
●	●	20	1.5
		20	1
		22	2
●	○	22	1.5
		22	1
	●	24	2
●	○	24	1.5
		24	1
		25	1.5
		26	1.5
	○	27	2
		27	1.5
		27	1
		28	2
		28	1.5
		28	1
	●	30	2
	○	30	1.5
		30	1
		32	1.5
		33	2
		33	1.5
		35	1.5
		36	3
		36	2
		36	1.5
● stock standard ○ non-standard stock △ on request EX stock exhaustion			
3	3	M 3	~ 10
3	4	12	~ 16
4	4	18	~ 20
4	5	22	~ 36

MF

JIS
NORM



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~15	
13~14	8~15	
15~20	10~20	

LS-SP

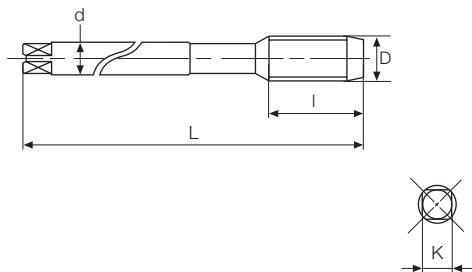
SP



MATERIAL GROUPS / GRUPPI MATERIALE
WERKSTOFFEGRUPPE / GROUPES MATIÈRE

1-5 13

14 15-20



HSSE

BR

P
CLASS



D	p	Ø	L	l	d	k	Stock
M 10	1.25	8.8	150	24	7	5.5	○ (P2)
12	1.5	10.5	150	29	8.5	6.5	○ (P2)
12	1.25	10.8	150	29	8.5	6.5	○ (P2)
14	1.5	12.5	150	30	10.5	8	○ (P2)
16	1.5	14.5	150	32	12.5	10	○ (P2)

P CLASS page 50

● stock standard ○ non-standard stock △ on request EX stock exhaustion



M 10 ~ 16

3

MF

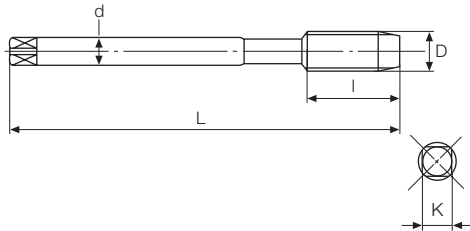
DIN374



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~20	10~30
6~7	5~10	8~15
13~14	10~15	15~25
15~20	10~20	15~30
21~23~25~26	5~10	



MATERIAL GROUPS / GRUPPI MATERIALE
WERKSTOFFEGRUPPE / GROUPES MATIÈRE



								4 5 6 7 13 14 18-20 21 23 25 26	4 5 6 7 13 14 23 25	1-5 13 14 15-20	1-5	1-5 13 14 15 16 18-20
								15°	15°	20°	20°	20°
								HSS-P NI	HSS-P TiCN	HSSE BR	HSSE OX	HSSE TiCN
								ISO2X (6HX)	ISO2X (6HX)	ISO2 (6H)	ISO2 (6H)	ISO2 (6H)
								3P	3P	3.5P-5P D	3.5P-5P D	3.5P-5P D
D	p	Ø	L	l	**	d	k	Stock	Stock	Stock	Stock	Stock
M 5	0.5	4.5	70	12		3.5	2.7				○	
6	0.75	5.3	80	14		4.5	3.4				○	
8	1	7	90	22		6	4.9			○	●	○
8	0.75	7.3	80	19		6	4.9				○	
10	1.25	8.8	100	24	12	7	5.5	○	○	○	●	○
10	1	9	90	20		7	5.5			○	●	○
12	1.5	10.5	100	22	14	9	7	○	○	○	●	○
12	1.25	10.8	100	22	14	9	7	○	○	○	●	○
12	1	11	100	22		9	7			○	○	○
14	1.5	12.5	100	22		11	9	○	○	○	●	○
14	1	13	100	22		11	9				○	
16	1.5	14.5	100	22		12	9	○	○	○	●	○
16	1	15	100	22		12	9				○	
18	2	16	125	34		14	11				○	
18	1.5	16.5	110	25		14	11				●	
20	2	18	140	34		16	12				○	
20	1.5	18.5	125	25		16	12				●	
22	1.5	20.5	125	25		18	14.5				●	
24	2	22	140	28		18	14.5				○	
24	1.5	22.5	140	28		18	14.5				○	
25	1.5	23.5	140	28		18	14.5				○	
27	2	25	140	28		20	16				○	
30	1.5	28.5	150	28		22	18				○	

*M3 ~ M24 LOSP = 20°

*M25 ~ LOSP = 15°

**I-1841..

● stock standard ○ non-standard stock △ on request EX stock exhaustion



M 5 ~ 16	3	3	3	3	3
18 ~ 30	4	4	4	4	4

MF

MF

JIS
NORM



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~15	
13~14	5~15	
15~20	10~20	

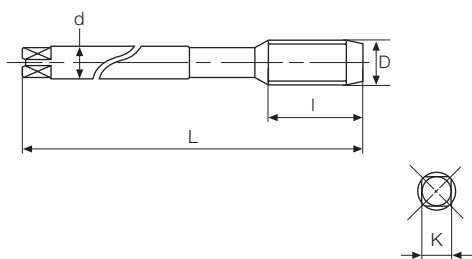
LS-PO

PO



MATERIAL GROUPS / GRUPPI MATERIALE
WERKSTOFFEGRUPPE / GROUPES MATIÈRE

1~5 13
14 15~20



HSSE

BR



D	p	Ø	L	l	d	k	Stock
M 10	1.25	8.8	150	24	7	5.5	○ (P3)
12	1.5	10.5	150	29	8.5	6.5	○ (P3)
12	1.25	10.8	150	29	8.5	6.5	○ (P4)
14	1.5	12.5	150	30	10.5	8	○ (P3)
16	1.5	14.5	150	32	12.5	10	● (P3)

P CLASS page 50

● stock standard ○ non-standard stock △ on request EX stock exhaustion

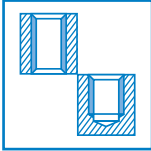


M 10 ~ 16

3

MF

DIN374



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5		20~40
9 ~ 11		10~30
15~20		20~40

NEW

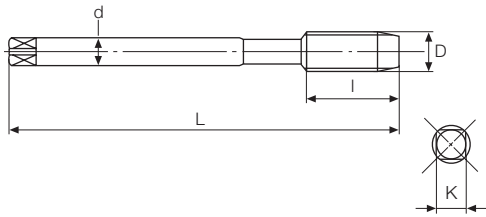
1856TC

HP-RZ



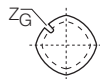
MATERIAL GROUPS / GRUPPI MATERIE
WERKSTOFFEGRUPPE / GROUPES MATIÈRE

1~5
9~11 15~20



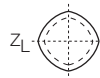
D	p	Ø	L	l	d	k	Stock
MF10	1.25	9.5	100	24	7	5.5	●
12	1.5	11.4	100	22	9	7	●
12	1.25	11.5	100	22	9	7	●
14	1.5	13.4	100	22	11	9	●
16	1.5	15.4	100	22	12	9	●

● stock standard ○ non-standard stock △ on request EX stock exhaustion



M 10 ~16

4

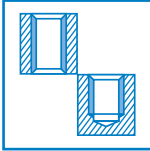


M 10 ~16

8

MF

DIN374



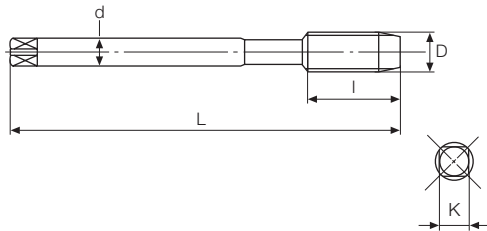
MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~10	
6~7	3~8	
13~14	10~20	15~30
16~19~20	10~20	15~30
21	3~5	


MATERIAL GROUPS / GRUPPI MATERIALE
WERKSTOFFEGRUPPE / GROUPES MATIÈRE

5 6 7

1-5 13 14
16 19 20

13 14 16
19 20 21

13 14 16
19 20

HSS/Co
BR

ISO2X
(6HX)

2P~3P
C

HSSE
BR

ISO2
(6H)

2P~3P
C

HSSE
NI

ISO2X
(6HX)

2P~3P
C

HSSE
TiCN

ISO2X
(6HX)

2P~3P
C

D	p	Ø	L	l	d	k	Stock	Stock	Stock	Stock
M 8	1	7	90	22	6	4.9	○	○	○	○
10	1.25	8.8	100	24	7	5.5	○	○	●	●
10	1	9	90	20	7	5.5	○	○	●	●
12	1.5	10.5	100	22	9	7	○	○	●	●
12	1.25	10.8	100	22	9	7	○	○	●	●
12	1	11	100	22	9	7	○	○	●	○
14	1.5	12.5	100	22	11	9	○	○	●	●
14	1	13	100	22	11	9	○	○	○	○
16	1.5	14.5	100	22	12	9	○	○	●	●
16	1	15	100	22	12	9	○	○	○	○
18	1.5	16.5	110	25	14	11	○	○	●	●
18	1	17	110	25	14	11	○	○	○	○
20	2	18	140	34	16	12	○	○	○	○
20	1.5	18.5	125	25	16	12	○	○	●	●
20	1	19	125	25	16	12	○	○	○	○
22	1.5	20.5	125	25	18	14.5	○	○	●	●
22	1	21	125	25	18	14.5	○	○	○	○
24	2	22	140	28	18	14.5	○	○	○	○
24	1.5	22.5	140	28	18	14.5	○	○	●	●
24	1	23	140	28	18	14.5	○	○	○	○
25	1.5	23.5	140	28	18	14.5	○	○	○	○
26	1.5	24.5	140	28	18	14.5	○	○	○	○
27	2	25	140	28	20	16	○	○	○	○
28	1.5	26.5	140	28	20	16	○	○	○	○
30	2	28	150	28	22	18	○	○	○	○

● stock standard ○ non-standard stock △ on request EX stock exhaustion


M 8 ~ 24
25 ~ 36

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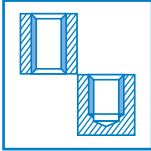
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MF

DIN374



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~10	
6~7	3~8	
13~14	10~20	15~30
16~19~20	10~20	15~30
21	3~5	



MATERIAL GROUPS / GRUPPI MATERIALE WERKSTOFFEGRUPPE / GROUPES MATIÈRE								5 6 7		1~5 13 14 16 19 20		13 14 16 19 20 21		13 14 16 19 20	
								STR	STR	STR	STR	STR	STR	STR	STR
								HSS/Co	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE	HSSE
								BR	BR	BR	BR	NI	NI	TiCN	TiCN
								ISO2X (6HX)	ISO2 (6H)	ISO2X (6HX)	ISO2 (6H)	ISO2X (6HX)	ISO2X (6HX)	ISO2X (6HX)	ISO2X (6HX)
								2P~3P C	2P~3P C	2P~3P C	2P~3P C	2P~3P C	2P~3P C	2P~3P C	2P~3P C
D	p	Ø	L	l	d	k		Stock	Stock	Stock	Stock	Stock	Stock	Stock	Stock
M 30	1.5	28.5	150	28	22	18			○						
32	1.5	30.5	150	28	22	18			○						
33	1.5	31.5	160	30	25	20			○						
35	1.5	33.5	170	30	28	22			○						
36	3	33	200	56	28	22			○						
36	2	34	170	30	28	22			○						

● stock standard ○ non-standard stock △ on request EX stock exhaustion



M 8 ~ 24
25 ~ 36

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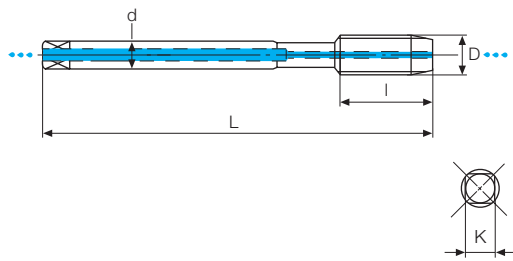
DIN374



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
13 - 14	15~25	20~40
16 - 19 - 20	10~20	15~30

9826NIOH 9826TCOH

STR-GG-OH STR-GG-OH


 MATERIAL GROUPS / GRUPPI MATERIE
 WERKSTOFFEGRUPPE / GROUPES MATIÈRE
13 14
16 19 2013 14
16 19 20HSSE
NIHSSE
TiCNISO2X
(6HX)ISO2X
(6HX)2P~3P
C2P~3P
C

D	p	Ø	L	l	d	k	Stock	Stock
MF 8	1	7	90	22	6	4.9	○	○
10	1.25	8.8	100	24	7	5.5	●	●
10	1	9	90	20	7	5.5	●	●
12	1.5	10.5	100	22	9	7	○	○
12	1.25	10.8	100	22	9	7	●	●
12	1	11	100	22	9	7		
14	1.5	12.5	100	22	11	9	●	●
16	1.5	14.5	100	22	12	9	●	●
18	1.5	16.5	110	25	14	11	●	●
20	1.5	18.5	125	25	16	12	●	●

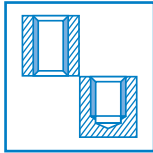
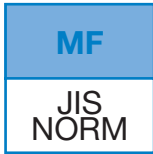
● stock standard ○ non-standard stock △ on request EX stock exhaustion



M 8 ~ 20

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MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~10	
13 - 14	8~12	
16 - 19 - 20	10~20	



MATERIAL GROUPS / GRUPPI MATERIALE WERKSTOFFEGRUPPE / GROUPES MATIÈRE								1~5 13 14 16 19 20	
								STR HSSE BR P CLASS 1,5 P	
D	p	Ø	L	l	d	k	Stock		
M 10	1.25	8.8	150	24	7	5.5	○ (P2)		
12	1.25	10.8	150	29	8.5	6.5	○ (P2)		
14	1.5	12.5	150	30	10.5	8	○ (P2)		

P CLASS page 50

● stock standard ○ non-standard stock △ on request EX stock exhaustion



M 10 ~ 16

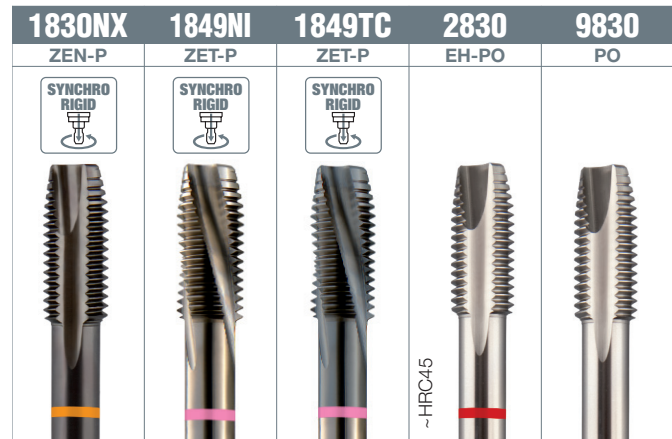
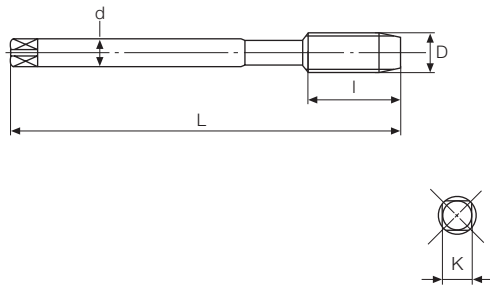
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MF

DIN374



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~20	10~30
6~7	5~10	8~15
9~12	5~20	10~20
13~14	8~15	12~30
15~20	10~20	15~30
21~23-25-26	5~10	
22~24	3~10	


MATERIAL GROUPS / GRUPPI MATERIALE
WERKSTOFFEGRUPPE / GROUPES MATIÈRE

4 5 6 7
9-12
22 23 24 25
4 5 6 7
13 14 18-20
21 23 25 26
4 5 6 7
14 23 25
5 6
7 14
1-5 13
14 15-20


D	p	Ø	L	l	d	k	Stock	Stock	Stock	Stock	Stock
M 4	0.5	3.5	63	10	2.8	2.1					○
5	0.5	4.5	70	12	3.5	2.7					○
6	0.75	5.3	80	14	4.5	3.4					●
6	0.5	5.5	80	14	4.5	3.4					○
8	1	7	90	22	6	4.9				○	●
8	0.75	7.3	80	19	6	4.9				○	○
10	1.25	8.8	100	24	7	5.5	○	○ NEW	○ NEW	○	●
10	1	9	90	20	7	5.5				○	●
10	0.75	9.3	90	20	7	5.5					○
12	1.5	10.5	100	22	9	7	○	○ NEW	○ NEW	○	●
12	1.25	10.8	100	22	9	7	○	○ NEW	○ NEW	○	●
12	1	11	100	22	9	7					●
14	1.5	12.5	100	22	11	9	○	○ NEW	○ NEW	○	●
14	1.25	12.8	100	22	11	9					○
14	1	13	100	22	11	9					●
16	1.5	14.5	100	22	12	9	○	○ NEW	○ NEW	○	●
16	1	15	100	22	12	9					●
18	2	16	125	34	14	11					○
18	1.5	16.5	110	25	14	11				○	●
18	1	17	110	25	14	11					●
20	2	18	140	34	16	12					○
20	1.5	18.5	125	25	16	12				○	●
20	1	19	125	25	16	12					●
22	2	20	140	34	18	14.5					○
22	1.5	20.5	125	25	18	14.5					●
22	1	21	125	25	18	14.5					○
24	2	22	140	28	18	14.5					●
24	1.5	22.5	140	28	18	14.5					●

● stock standard ○ non-standard stock △ on request EX stock exhaustion


M 3 ~ 24
27 ~ 30

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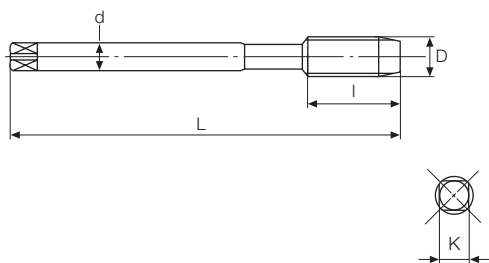
9830TC 9830TH 98350X			
PO	PO	PO-VA	
			
1~5 9 10 13 14 15 16 18-20	1~5 9 10	1~5 9-11	
PO HSSE TiCN ISO2 (6H) 3.5P-5P B	PO HSSE PV15 ISO2 (6H) 3.5P-5P B	PO HSSE OX ISO2X (6HX) 3.5P-5P B	
Stock	Stock	Stock	D p
			M 4 0.5
			5 0.5
○			6 0.75
●		●	6 0.5
○			8 1
●	●	●	8 0.75
●		●	10 1.25
●		●	10 1
			10 0.75
●	●	●	12 1.5
●	●	●	12 1.25
●		●	12 1
●	●	●	14 1.5
○			14 1.25
○			14 1
●	●	●	16 1.5
○			16 1
			18 2
○		●	18 1.5
			18 1
			20 2
○		●	20 1.5
			20 1
			22 2
○		●	22 1.5
			22 1
○			24 2
○		●	24 1.5
● stock standard ○ non-standard stock △ on request EX stock exhaustion			
3	3	3	M 3 ~ 24 27 ~ 30

MF

DIN374



MATERIAL GROUP	Vc (m/min)	
	BR-OX-NX-NI	TiN-TiCN PV15
1~5	5~20	10~30
6~7	5~10	8~15
9~12	5~20	10~20
13~14	8~15	12~30
15~20	10~20	15~30
21~23~25~26	5~10	
22~24	3~10	


MATERIAL GROUPS / GRUPPI MATERIALE
WERKSTOFFEGRUPPE / GROUPES MATIÈRE


								4 5 6 7 9-12 22 23 24 25	4 5 6 7 13 14 18-20 21 23 25 26	4 5 6 7 13 14 23 25	5 6 7 14	1-5 13 14 15-20
								P0	L15°	L15°	P0	P0
								HSS-P NX	HSS-P NI	HSS-P TiCN	HSS/Co BR	HSSE BR
								ISO2X (6HX)	ISO2X (6HX)	ISO2X (6HX)	ISO2X (6HX)	ISO2 (6H)
								3.5P-5P B	3.5P-5P D	3.5P-5P D	3.5P-5P B	3.5P-5P B
D	p	Ø	L	l	d	k		Stock	Stock	Stock	Stock	Stock
M 24	1	23	140	28	18	14.5						○
25	1.5	23.5	140	28	18	14.5						●
26	1.5	24.5	140	28	18	14.5						○
27	2	25	140	28	20	16						○
27	1.5	25.5	140	28	20	16						○
28	2	26	140	28	20	16						○
28	1.5	26.5	140	28	20	16						○
30	2	28	150	28	22	18						●
30	1.5	28.5	150	28	22	18						●

● stock standard ○ non-standard stock △ on request EX stock exhaustion


M 3 ~ 24
27 ~ 30

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9830TC				9830TH				98350X			
PO				PO				PO-VA			
											
1-5 9 10 13 14 15 16 18-20				1-5 9 10				1-5 9-11			
											
HSSE TiCN				HSSE PV15				HSSE OX			
ISO2 (6H)				ISO2 (6H)				ISO2X (6HX)			
											
Stock				Stock				Stock			