HIGH PERFORMANCE TAPS
THREAD MILLS
SYNCHRO CHUCKS

M.A. FORD
High Performance Cutting Tools

*Where **high performance** is the **standard**®*

M.A. FORDMAX
RANGE

Performance, Precision, Economy

NEW

THREADING TOOLS

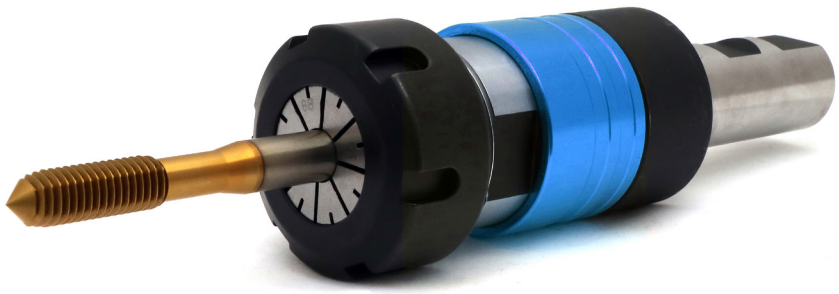
M.A. FORD
High Performance Cutting Tools

*Where **high performance** is the **standard***®

For almost 100 years, M.A.FORD has been at the cutting edge of tooling design and manufacture, and has developed an enviable global reputation for performance and precision in solid carbide tooling serving over 60 countries worldwide.

To expand our range of integrated manufacturing solutions to our customers, we are now launching our brand new range of high performance tap and synchro chucks.

This new programme will provide a cost effective solution for companies that are looking to improve threading applications on their work-pieces.



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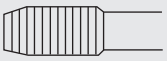
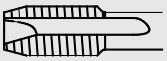
TECHNICAL INFORMATION

Coating		Flute types		Material	
TA	TIALN		**RT** Roll taps	**HSS**	High speed molybdenum steel
TN	TIN		**SP** Straight flutes with spiral point	**HSSW**	High speed cobalt steel
TC	TIN+TICN		**SF** Spiral flutes	**HSSE PM**	High speed powder steel
				VHM	Micrograin solid carbide

			Annealed	A			
			Tempered	QT			
			Hardened and tempered	HT			
			Precipitation hardened	PH			
Group					Rm	HB	
P		**Steel**					
P1	Non-alloyed steel	Free cutting steel		A	750	220	P1
P2		C ≤ 0,55 %		A	650	190	P2
P3		C > 0,55 %		A	650	190	P3
P4		C ≤ 0,55 %		QT	700	210	P4
P5		C > 0,55 %		QT	1000	300	P5
P6	Low-alloyed steel			A	600	175	P6
P7				QT	1000	300	P7
P8				QT	1200	380	P8
P9				QT	1400	420	P9
P10	High-alloyed steel and high-alloyed tool steel			A	700	210	P10
P11				A	1000	300	P11
P12				HT	1400	420	P12
P13	Stainless steel	Ferritic/martensitic		A	700	210	P13
P14		Martensitic		QT	1100	330	P14
M		**Stainless steel**					
M1	**Stainless steel**	Austenitic			700	210	M1
M2		Austenitic		PH	1000	300	M2
M3		Duplex			800	240	M3
K		**Cast iron**					
K1	Grey cast iron	Ferritic			600	180	K1
K2		Pearlitic			820	240	K2
K3	Malleable cast iron	Ferritic			675	200	K3
K4		Pearlitic			870	260	K4
K5	Cast iron with spheroidal graphite	Ferritic			520	155	K5
K6		Pearlitic			900	270	K6
N		**Non -ferrous metals**					
N1	Aluminium wrought alloys				-	30	N1
N2				PH	345	10	N2
N3	Cast aluminium alloys	Si ≤ 12%			260	75	N3
N4		Si ≤ 12%		PH	300	90	N4
N5		Si> 12 %			450	130	N5
N6	Magnesium alloys				250	70	N6
N7	Copper and copper alloys	Non-alloyedBrass			350	100	N7
N8		bronzeCu-alloys			300	90	N8
N9		short-chipping			400	110	N9
N10		High-strength			1000	300	N10
S		**Superalloys and titanium**					
S1	Heat-resistant alloys	Fe-based		A	675	200	S1
S2				PH	950	280	S2
S3		Ni / Co base		A	850	250	S3
S4				PH	1200	350	S4
S5				C	1100	320	S5
S6	Titanium alloys	Pure titanium			675	200	S6
S7		α and β alloys			1250	375	S7
S8		β alloys			1400	410	S8
H		**Hard materials**					
H1	Hardened steel			HT		50 HRC	H1
H2				HT		55 HRC	H2
H3				HT		60 HRC	H3
H4	Hardened cast iron			HT		55 HRC	H4

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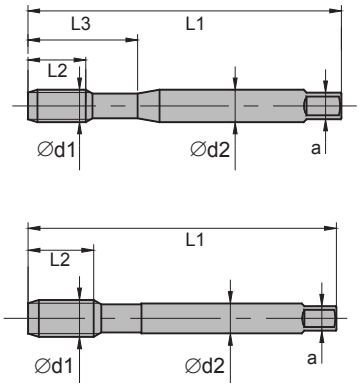
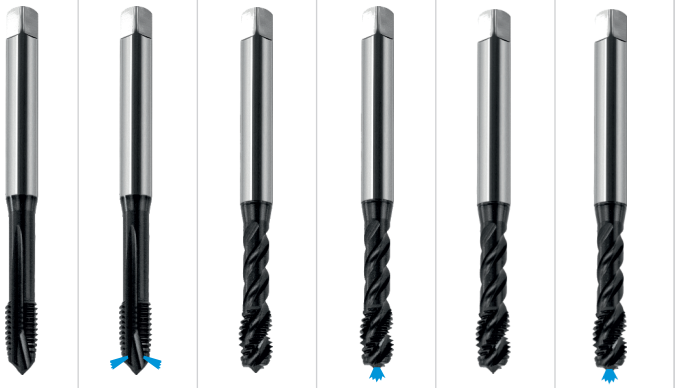
UNIVERSAL HP TAP

HSSE PM

TA





Material groups	P 1-14, M 1-3, K 1-6, N 1-10, S 1-3, 6	P 1-14, M 1-3, K 1-6, N 1-10, S 1-3, 6	P 1-8, 13-14, 10-11, M 1-3, K 1-6, N 1-10, S 1-3, 6	P 1-8, 13-14, 10-11, M 1-3, K 1-6, N 1-10, S 1-3, 6	P 1-8, 13-14, 10-11, M 1-3, K 1-6, N 1-10, S 1-3, 6	P 1-8, 13-14, 10-11, M 1-3, K 1-6, N 1-10, S 1-3, 6
Hole type	< 3d	< 3d	< 2.5d	< 2.5d	< 2.5d	< 2.5d
Coating	TA	TA	TA	TA	TA	TA
Chamfer	B / 4-5P	B / 4-5P	C / 2-3P	C / 2-3P	E / 1.5-2P	E / 1.5-2P
Tolerance	6HX	6HX	6HX	6HX	6HX	6HX

M

M Ød1	P	L1	L2	L3	Ød2	a	d	MTSP	MTSPC	MTSF	MTSFC-C	MTSF-E	MTSFC
DIN 371													
M2	0.4	45	8	12	2.8	2.1	1.6	M2 X 0.4		M2 X 0.4			
M2.5	0.45	50	5	14	2.8	2.1	2.05	M2.5 X 0.45		M2.5 X 0.45			
M3	0.5	56	5	18	3.5	2.7	2.5	M3 X 0.5		M3 X 0.5			
M4	0.7	63	7	21	4.5	3.4	3.3	M4 X 0.7		M4 X 0.7			
M5	0.8	70	8	25	6	4.9	4.2	M5 X 0.8	M5 X 0.8	M5 X 0.8	M5 X 0.8	M5 X 0.8	M5 X 0.8
M6	1	80	10	30	6	4.9	5	M6 X 1.0	M6 X 1.0	M6 X 1.0	M6 X 1.0	M6 X 1.0	M6 X 1.0
M8	1.25	90	13	35	8	6.2	6.8	M8 X 1.25	M8 X 1.25	M8 X 1.25	M8 X 1.25	M8 X 1.25	M8 X 1.25
M10	1.5	100	15	39	10	8	8.5	M10 X 1.5	M10 X 1.5	M10 X 1.5	M10 X 1.5	M10 X 1.5	M10 X 1.5
DIN 376													
M12	1.75	110	18		9	7	10.2	M12 X 1.75	M12 X 1.75	M12 X 1.75	M12 X 1.75	M12 X 1.75	
M14	2	110	20		11	9	12	M14 X 2.0	M14 X 2.0	M14 X 2.0	M14 X 2.0	M14 X 2.0	
M16	2	110	20		12	9	14	M16 X 2.0	M16 X 2.0	M16 X 2.0	M16 X 2.0	M16 X 2.0	

MF

MF Ød1	P	L1	L2	Ød2	a	d						
DIN 374												
M8 x 1	1	90	10	6	4.9	7.0	M8 X 1.0	M8 X 1.0	M8 X 1.0		M8 X 1.0	
M10 x 1	1	90	10	7	5.5	9.0	M10 X 1.0	M10 X 1.0	M10 X 1.0		M10 X 1.0	
M10 x 1.25	1.25	100	15	7	5.5	8.8	M10 X 1.25	M10 X 1.25	M10 X 1.25		M10 X 1.25	
M12 x 1.5	1.5	100	15	9	7	10.5	M12 X 1.5	M12 X 1.5	M12 X 1.5		M12 X 1.5	
M14 x 1.5	1.5	100	15	11	9	12.5	M14 X 1.5	M14 X 1.5	M14 X 1.5		M14 X 1.5	
M16 x 1.5	1.5	100	15	12	9	14.5	M16 X 1.5	M16 X 1.5	M16 X 1.5		M16 X 1.5	

Example of order

MTSP - M2 X 0.4

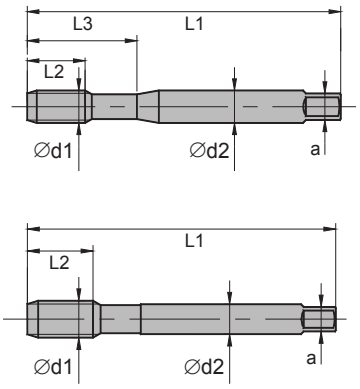
Vc (m/min)

P	Rm < 1200	10-40	20-50	10-40	20-50	10-40	20-50
	Rm < 1400	5-15	5-15				
M		5-15	5-25	5-15	5-25	5-15	5-25
K		10-30	10-50	10-30	10-50	10-30	10-50
N		10-30	10-50	10-30	10-30	10-30	10-50
S	Rm < 1200	1-8	1-8	1-8	1-8	1-8	1-8

MATERIALS ≤ 800 MPa-2

HSSE

TN



Material groups	P 1-7 10, 13-14; M 1-3; 1-5; N 3-5 7-8	P 1-7 10, 13-14; M 1-3; K 1-5; N 3-5 7-8
Hole type	< 3d	< 2.5d
Coating	TN	TN
Chamfer	B / 4-5P	C / 2-3P
Tolerance	ISO2(6H)	ISO2(6H)

M

M Ød1	P	L1	L2	L2 R40	L3	Ød2	a	d	800SP-BT	800SF-CT
DIN 371										
M3	0.5	56	11	5	18	3.5	2.7	2.5	M3 X 0.5	M3 X 0.5
M4	0.7	63	13	7	21	4.5	3.4	3.3	M4 X 0.7	M4 X 0.7
M5	0.8	70	15	8	25	6	4.9	4.2	M5 X 0.8	M5 X 0.8
M6	1	80	17	10	30	6	4.9	5	M6 X 1.0	M6 X 1.0
M8	1.25	90	20	13	35	8	6.2	6.8	M8 X 1.25	M8 X 1.25
M10	1.5	100	20	15	39	10	8	8.5	M10 X 1.5	M10 X 1.5
DIN 376										
M12	1.75	110	29	18		9	7	10.2	M12 X 1.75	M12 X 1.75
M14	2	110	30	20		11	9	12	M14 X 2.0	M14 X 2.0
M16	2	110	32	20		12	9	14	M16 X 2.0	M16 X 2.0

MF

MF Ød1	P	L1	L2	L2 R40	Ød2	a	d
DIN 374							
M8 x 1	1	90	20	10	6	4.9	7.0
M10 x 1	1	90	20	10	7	5.5	9.0
M10 x 1.25	1.25	100	20	15	7	5.5	8.8
M12 x 1.5	1.5	100	20	15	9	7	10.5
M14 x 1.5	1.5	100	20	15	11	9	12.5
M16 x 1.5	1.5	100	20	15	12	9	14.5

		800SP-BT	800SF-CT
M8 X 1.0	M8 X 1.0		
M10 X 1.0	M10 X 1.0		
M10 X 1.25	M10 X 1.25		
M12 X 1.5	M12 X 1.5		
M14 X 1.5	M14 X 1.5		
M16 X 1.5	M16 X 1.5		

Example of order

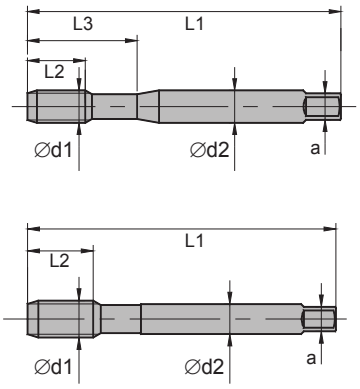
800SP-BT - M3 X 0.5

		Vc (m/min)	
P	Rm < 800	10-35	10-35
	Rm < 1000	5-20	5-20
M		5-15	5-15
K		5-15	5-15
N		10-30	10-30
S			

STAINLESS STEEL – INOX

HSSE

TA



Material groups	P 13-14 M 1-3	P 13-14 M 1-3
Hole type	 < 3d	 < 2.5d
Coating	TA	TA
Chamfer	B / 4-5P	C / 2-3P
Tolerance	ISO2 (6H)	ISO2 (6H)

M

M Ød1	P	L1	L2	L2 R40	L3	Ød2	a	d	INOXSP-BA	INOXSF-CA
DIN 371										
M3	0.5	56	10	5	18	3.5	2.7	2.5	M3 X 0.5	M3 X 0.5
M4	0.7	63	12	7	21	4.5	3.4	3.3	M4 X 0.7	M4 X 0.7
M5	0.8	70	14	8	25	6	4.9	4.2	M5 X 0.8	M5 X 0.8
M6	1	80	18	10	30	6	4.9	5	M6 X 1.0	M6 X 1.0
M8	1.25	90	20	13	35	8	6.2	6.8	M8 X 1.25	M8 X 1.25
M10	1.5	100	20	15	39	10	8	8.5	M10 X 1.5	M10 X 1.5
DIN 376										
M12	1.75	110	29	18		9	7	10.2	M12 X 1.75	M12 X 1.75
M14	2	110	30	18		11	9	12	M14 X 2.0	M14 X 2.0
M16	2	110	32	20		12	9	14	M16 X 2.0	M16 X 2.0

MF

MF Ød1	P	L1	L2	L2 R40	Ød2	a	d		
DIN 374									
M8 x 1	1	90	20	10	6	4.9	7.0	M8 X 1.0	M8 X 1.0
M10 x 1	1	90	20	10	7	5.5	9.0	M10 X 1.0	M10 X 1.0
M10 x 1.25	1.25	100	20	15	7	5.5	8.8	M10 X 1.25	M10 X 1.25
M12 x 1.5	1.5	100	20	15	9	7	10.5	M12 X 1.5	M12 X 1.5
M14 x 1.5	1.5	100	20	15	11	9	12.5	M14 X 1.5	M14 X 1.5
M16 x 1.5	1.5	100	20	15	12	9	16.5	M16 X 1.5	M16 X 1.5

Example of order

INOXSP-BA - M3 X 0.5

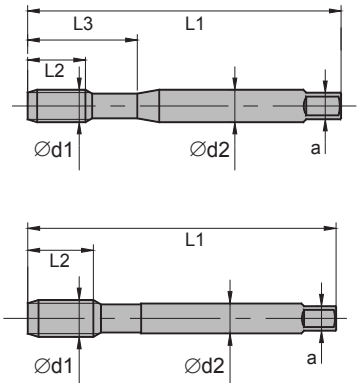
Vc (m/min)

P	5-15	5-15
M	5-20	5-20
K		
N		
S		

MATERIALS ≤ 1200 MPa^{-2} / ≤ 1400 MPa^{-2}

HSSE PM

TC






Material groups	P 5 7-8 11 13-14 M 2-3 K 5 N 3-5	P 5 7-8 11 13-14 M 2-3 K 5 N 3-5	P 8-9 12 M 3 K 1 6	P 8-9 12 M 3 K 1 6
Hole type	< 3d	< 2.5d	< 2.5d	< 1.5d
Coating	TC	TC	TC	TC
Chamfer	B / 4-5P	C / 2-3P	B / 4-5P	C / 2-3P
Tolerance	ISO2 (6H)	ISO2 (6H)	6HX	6HX

M

M Ød1	P	L1	L2	L2 R40	L3	Ød2	a	d	1200SP-BC	1200SF-CC	1400SP-BC	1400SF-CC
DIN 371												
M3	0.5	56	10	5	18	3.5	2.7	2.5	M3 X 0.5	M3 X 0.5	M3 X 0.5	M3 X 0.5
M4	0.7	63	12	7	21	4.5	3.4	3.3	M4 X 0.7	M4 X 0.7	M4 X 0.7	M4 X 0.7
M5	0.8	70	14	8	25	6	4.9	4.2	M5 X 0.8	M5 X 0.8	M5 X 0.8	M5 X 0.8
M6	1	80	18	10	30	6	4.9	5	M6 X 1.0	M6 X 1.0	M6 X 1.0	M6 X 1.0
M8	1.25	90	20	13	35	8	6.2	6.8	M8 X 1.25	M8 X 1.25	M8 X 1.25	M8 X 1.25
M10	1.5	100	20	15	39	10	8	8.5	M10 X 1.5	M10 X 1.5	M10 X 1.5	M10 X 1.5
DIN 376												
M12	1.75	110	29	18		9	7	10.2	M12 X 1.75	M12 X 1.75	M12 X 1.75	M12 X 1.75
M14	2	110	30	18		11	9	12	M14 X 2.0	M14 X 2.0	M14 X 2.0	M14 X 2.0
M16	2	110	32	20		12	9	14	M16 X 2.0	M16 X 2.0	M16 X 2.0	M16 X 2.0

MF

MF Ød1	P	L1	L2	L2 R40	Ød2	a	d				
DIN 374											
M8 x 1	1	90	20	10	6	4.9	7.0	M8 X 1.0	M8 X 1.0	M8 X 1.0	M8 X 1.0
M10 x 1	1	90	20	10	7	5.5	9.0	M10 X 1.0	M10 X 1.0	M10 X 1.0	M10 X 1.0
M10 x 1.25	1.25	100	20	15	7	5.5	8.8				
M12 x 1.5	1.5	100	20	15	9	7	10.5	M12 X 1.5	M12 X 1.5	M12 X 1.5	M12 X 1.5
M14 x 1.5	1.5	100	20	15	11	9	12.5	M14 X 1.5	M14 X 1.5	M14 X 1.5	M14 X 1.5
M16 x 1.5	1.5	100	20	15	12	9	16.5	M16 X 1.5	M16 X 1.5	M16 X 1.5	M16 X 1.5

Example of order

1200SP-BA - M3 X 0.5

Vc (m/min)

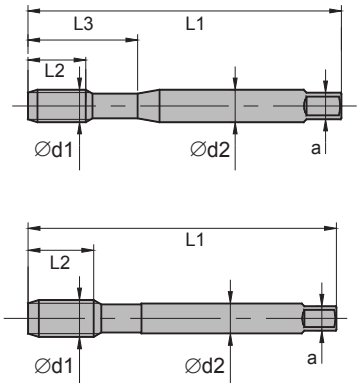
P	Rm < 1200	5-20	5-20	5-20	5-20
	Rm < 1400			1-5	1-5
M		5-10	5-10		
K		10-25	10-25	10-20	10-20
N		10-30	10-30		
S					

ROLL TAPS

HSSE PM

TN

TC



Material groups	P M N	P M N	P M N
Hole type	< 3d	< 3d	< 3d
Coating	TN	TC	TC
Chamfer	C / 2-3P	C / 2-3P	E / 1.5-2P
Tolerance	6HX	6HX	6HX

M

M Ød1	P	L1	L2	L3	Ød2	a	d	FRTG-CT	FRTG-CC	FRTG-CCC
DIN 371										
M2	0.4	45	8	12	2.8	2.1	1.83	M2 X 0.4		
M2.5	0.45	50	9	14	2.8	2.1	2.3	M2.5 X 0.45		
M3	0.5	56	10	18	3.5	2.7	2.8	M3 X 0.5	M3 X 0.5	
M4	0.7	63	7	21	4.5	3.4	3.7	M4 X 0.7	M4 X 0.7	
M5	0.8	70	8	25	6	4.9	4.65	M5 X 0.8	M5 X 0.8	M5 X 0.8
M6	1	80	10	30	6	4.9	5.6	M6 X 1.0	M6 X 1.0	M6 X 1.0
M8	1.25	90	13	35	8	6.2	7.45	M8 X 1.25	M8 X 1.25	M8 X 1.25
M10	1.5	100	15	39	10	8	9.35	M10 X 1.5	M10 X 1.5	M10 X 1.5
DIN 376										
M12	1.75	110	18		9	7	11.25	M12 X 1.75	M12 X 1.75	M12 X 1.75
M14	2	110	20		11	9	13	M14 X 2.0	M14 X 2.0	M14 X 2.0
M16	2	110	20		12	9	15	M16 X 2.0	M16 X 2.0	M16 X 2.0

MF

MF Ød1	P	L1	L2	Ød2	a	d
DIN 374						
M8 x 1	1	90	10	6	4.9	7.6
M10 x 1	1	90	10	7	5.5	9.6
M10 x 1.25	1.25	100	15	7	5.5	9.45
M12 x 1.5	1.5	100	15	9	7	11.35
M14 x 1.5	1.5	100	15	11	9	13.35
M16 x 1.5	1.5	100	15	12	9	15.35

Example of order

FRTG-T - M2 X 0.4

Vc (m/min)

P	Rm < 1000	10-30		
M		10-25		
K				
N		20-40		
S				

APG ADVANCED PRODUCT GROUP

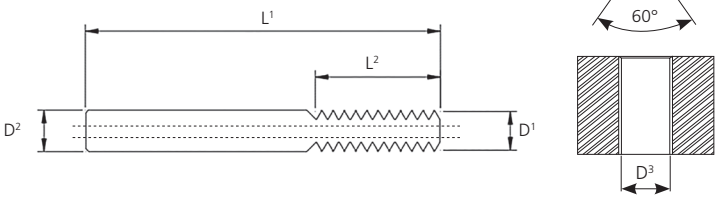
Threading
Filetage

Carbide Thread Mills Series STMS Solid
Series STMC / HTMC With Central Coolant

VHM | Z3 Z4 | HA | ALtima® HX

Series STMS

Series STMC / HTMC



Tool No.	Metric Size x Pitch	Tapping Drill D³	D1	D2	L1	L2	No. of futes (Z)	Type
STMS 03-0.5	M3 x 0.5	2.5	2.1	4.0	38.0	4.5	3 Straight	Solid
STMC 04-0.7	M4 x 0.7	3.3	2.6	4.0	38.0	6.3	3 Straight	Central Coolant
HTMC 05-0.8	M5 x 0.8	4.2	3.4	4.0	50.0	8.0	3 Helical	Central Coolant
HTMC 06-1.0	M6 x 1.0	5.0	4.0	6.0	58.0	10.0	3 Helical	Central Coolant
HTMC 08-1.25	M8 x 1.25	6.8	5.5	6.0	58.0	13.8	3 Helical	Central Coolant
HTMC 10-1.5	M10 x1.5	8.5	7.1	8.0	64.0	16.5	3 Helical	Central Coolant
HTMC 12-1.75	M12 x 1.75	10.2	8.6	10.0	73.0	21.0	3 Helical	Central Coolant
HTMC 16-2.0	M14 x 2.0	12.0	9.9	10.0	73.0	26.0	3 Helical	Central Coolant
	M16 x 2.0	14.0						
HTMC 20-2.5	M18 x 2.5	15.5	13.4	14.0	80.0	35.0	4 Helical	Central Coolant
	M20 x 2.5	17.5						
	M22 x 2.5	19.5						
HTMC 24-3.0	M24 x 3.0	21.0	15.9	16.0	100.0	39.0	4 Helical	Central Coolant

Carbide Thread Mills Recommended cutting data

Material Groups	Cutting Speed Vc
Low Carbon Steels	120
Structural & Heat Treated Steels Up To 800 N/mm²	100
Alloy Steels	60
Austenitic Stainless Steels	70
Titanium Alloys	40
Cast Iron	75
Aluminium Alloys (Si < 10%)	100
Aluminium (Unalloyed)	100
Copper (Unalloyed)	100

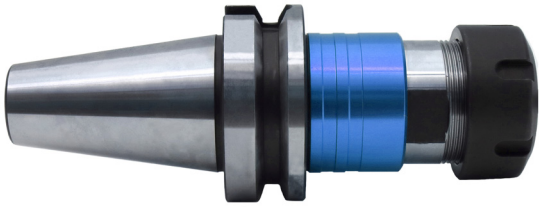
SYNCHRO TAP CHUCKS

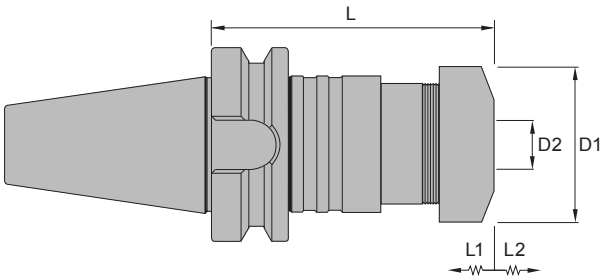
PRODUCT ADVANTAGES

- DESIGNED FOR MODERN OR CONVENTIONAL MACHINING CENTRES
- COMPENSATES FOR DEVIATION IN ROTATING AND FEEDING TAPPING MOTIONS
- CAN IMPROVE LIFE OF TAP BY MORE THAN 50%
- REDUCED CYCLE TIMES DUE TO STABLE THREADING PROCESS
- INCREASED SURFACE FINISH AND TAP ACCURACY
- THROUGH COOLANT TAP CAPABILITY

SYNCHRO TAP CHUCK

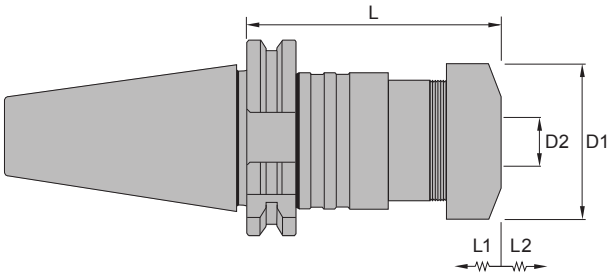
BT40 JIS B6339





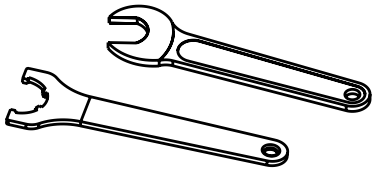
Tool No.	Stock	Shank	Tap Range	Dimensions					Collet
				D1	D2	L	L1	L2	
BT30-FSC20-80	○	BT30	M4-M12 & No.8-7/16	34	3-10	80	0.5	0.5	ER20
BT40-FSC20-85	●	BT40	M4-M12 & No.8-7/16	34	3-10	85	0.5	0.5	ER20
BT50-FSC20-100	○	BT50	M4-M12 & No.8-7/16	34	3-10	100	0.5	0.5	ER20
BT40-FSC32-100	○	BT40	M4-M24 & No.8-3/4	50	3-16	100	0.5	0.5	ER32
BT50-FSC32-115	●	BT50	M4-M24 & No.8-3/4	50	3-16	115	0.5	0.5	ER33

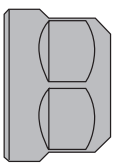
SK - DIN 68971

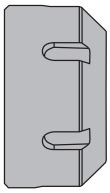


Tool No.	Stock	Shank	Tap Range	Dimensions					Collet
				D1	D2	L	L1	L2	
SK40-FSC20-80	●	SK40	M4-M12 & No.8-7/16	34	3-10	80	0.5	0.5	ER20
SK50-FSC20-80	○	SK50	M4-M12 & No.8-7/16	34	3-10	80	0.5	0.5	ER20
SK40-FSC32-95	○	SK40	M4-M24 & No.8-3/4	34	3-16	95	0.5	0.5	ER32
SK50-FSC32-95	●	SK50	M4-M24 & No.8-3/4	50	3-16	95	0.5	0.5	ER32

Accessories



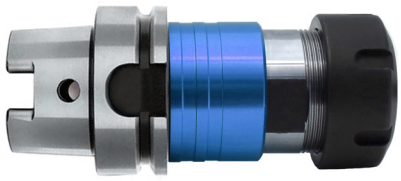


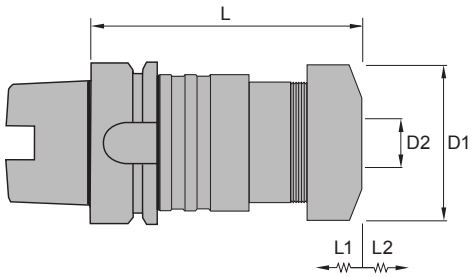


Spares	ER20	ER32
Standard clamping nut	FSC20-SCN	FSC32-SCN
Sealing disc clamping nut	FSC20-SDCN	FSC32-SDCN
Wrench	FSC20-NTW	FSC32-NTW

SYNCHRO TAP CHUCK

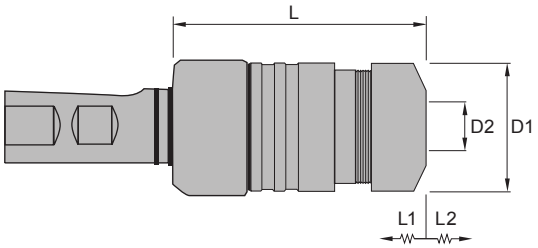
HSK - DIN 69893





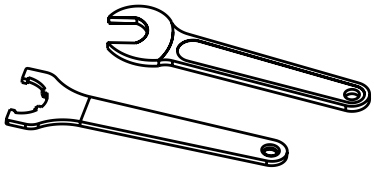
Tool No.	Stock	Shank		Dimensions					Collet
			Tap Range	D1	D2	L	L1	L2	
HSK63A-FSC20-100	●	HSK63A	M4-M12 & No.8-7/16	34	3-10	100	0.5	0.5	ER20
HSK100A-FSC20-110	○	HSK100A	M4-M12 & No.8-7/16	34	3-10	110	0.5	0.5	ER20
HSK63A-FSC32-120	○	HSK63A	M4-M24 & No.8-3/4	50	3-16	120	0.5	0.5	ER32
HSK100A-FSC32-130	●	HSK100A	M4-M24 & No.8-3/4	50	3-16	130	0.5	0.5	ER32

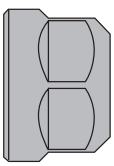
Weldon - DIN 1835

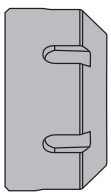


Tool No.	Stock	Shank		Dimensions					Collet
			Tap Range	D1	D2	L	L1	L2	
C20-FSC20-75	●	20	M4-M12 & No.8-7/16	34	3-10	75	0.5	0.5	ER20
C25-FSC20-75	○	25	M4-M12 & No.8-7/16	34	3-10	75	0.5	0.5	ER20
C25-FSC2-95	●	25	M4-M24 & No.8-3/4	50	3-16	95	0.5	0.5	ER32

Accessories



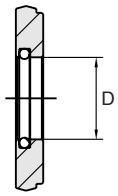




Spares	ER20	ER32
Standard clamping nut	FSC20-SCN	FSC32-SCN
Sealing disc clamping nut	FSC20-SDCN	FSC32-SDCN
Wrench	FSC20-NTW	FSC32-NTW

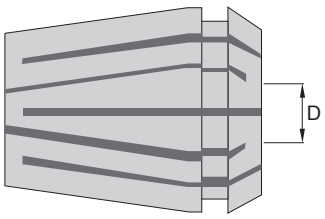
SYNCHRO TAP CHUCK

Sealing Discs



Model		Stock	D (mm)	ISO		JIS	DIN	
				ISO529	ISO529 ISO2283	JISB4430	DIN371	DIN374 DIN376
DER20C-6	DER32C-6	○	6			M6	M5/M6	M8
DER20C-6.5	DER32C-6.5	○	6.5	M6	M8	M8		
DER20C-7	DER32C-7	○	7			M10		M10
DER20C-8	DER32C-8	○	8	M8	M10		M8	
DER20C-8.5	DER32C-8.5	○	8.5			M12		
DER20C-9	DER32C-9	○	9		M12			M12
DER20C-10	DER32C-10	○	10	M10			M10	
	DER32C-12	○	12					M16
	DER32C-12.5	○	12.5		M16	M16		
	DER32C-14	○	14		M18/M20	M18		M18
	DER32C-15	○	15			M20		
	DER32C-16	○	16		M22			M20

Collets



Model		Stock	D (mm)	ISO		DIN		JIS
				ISO529	ISO529 / ISO2283	DIN371	DIN374 / DIN376	JISB4430
ER20-6.3B5	ER32-6.3B5	●	6.0	M6	M8	M5/M6	M8	M6/M8
ER20-7B5.5	ER32-7B5.5	●					M10	M10
ER20-7B5.5	ER32-7B5.5	●	7.0	M8	M10	M8		
ER20-8.5B6.5	ER32-8.5B6.5	●	8.0					M12
ER20-9B7.1	ER32-9B7.1	●	9.0		M12		M12	
ER20-10B8	ER32-10B8	●	10.0	M10		M10		
	ER32-12B9	●	12.0				M16	
	ER32-12.5B10	●			M16			M16
	ER32-14B11.2	●	14.0		M18/M20		M18	M18
	ER32-15B12	●					M20	
	ER32-16B12	●	16.0			M20		

NOTES

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High Performance Cutting Tools

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