



SECO NEWS 2022.2

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MULTIPLE MILLING HEADS ARE BETTER THAN ONE

SECO X-HEADS

YOUR CHALLENGE

Need to purchase many different end mills and holders to machine different features on a workpiece which adds higher cost to a project.

OUR SOLUTION

Quick-change exchangeable milling head system adapts to various machining needs with a range of cutting profiles and materials without additional holders.

YOUR CHALLENGE

Tool changes require time consuming remeasuring and resetting of tool heights.

OUR SOLUTION

Quick-change milling heads or modular end mills eliminate the need to remove, remeasure and reset tools.

YOUR CHALLENGE

Deep part features require an inventory of various expensive long-reach holders or tools.

OUR SOLUTION

Broad range of quick-change end mills that are adaptable to long-reach shanks.



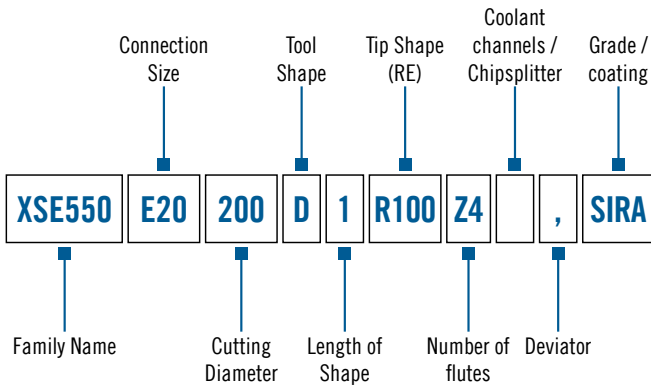
CUSTOMER BENEFITS

- Tooling speed and simplicity
- Greater machining flexibility
- Shorter tool changeout times
- Better tool setting precision
- Cost-effective tooling
- Increased milling versatility

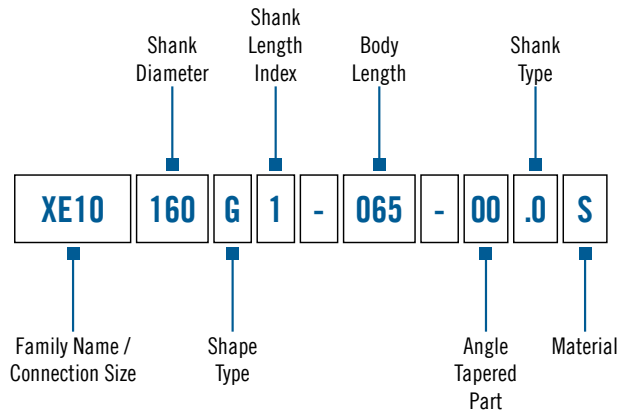


SECO X-HEADS

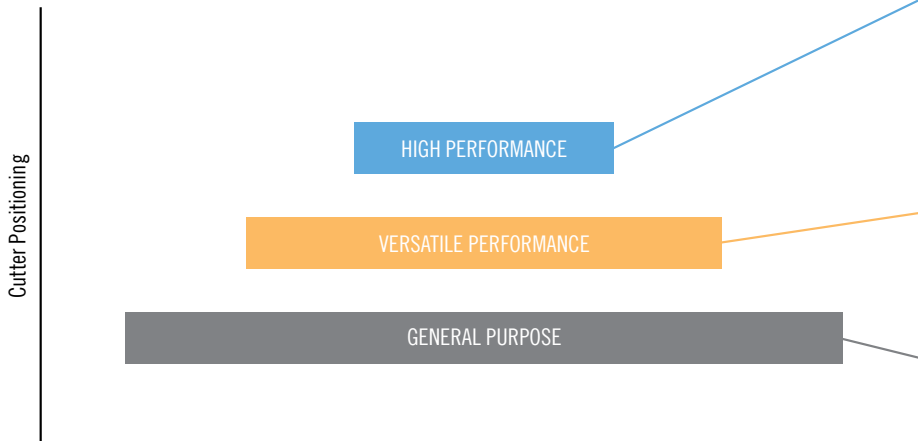
CODE KEY HEADS



CODE KEY SHANKS



EXCHANGEABLE HEAD POSITIONING



HIGH PERFORMANCE

XSE720 (HXT)	Performance multi-flute
XSB720 (HXT)	Performance ballnose multi-flute
XHF780 (HXT)	Performance HighFeed
XHF580 (SIRA)	Performance HighFeed + ICC
XSE450 (AXT)	Performance Alu dedicated 3 flute
XHT740 (SIRA)	Barrel tools for finishing

VERSATILE PERFORMANCE

XSE550 (SIRA)	Performance 3 flute
XSE550 (SIRA)	Performance 4 flute
XSE550 (SIRA)	Performance 5 flute
XSB540 (SIRA)	Performance 4 flute ball with ICC

GENERAL PURPOSE

XVC512 (SIRA)	Chamfer SIG30
XVC506 (SIRA)	Chamfer SIG60
XVC509 (SIRA)	Chamfer SIG90
XVK310 (SIRA)	Concave
XVE540 (SIRA)	Basic 3 & 4 flute
XVE510 (SIRA)	Basic 2 flute (spade)
XVB510 (SIRA)	Basic Ball

Please note that the data shown is just an extract and more products are available. For more information please visit www.secotools.com.



INDUSTRY TARGETS

- General Engineering: Versatile for High Mix & Low Volume.
- Aerospace: Structural Parts and Pylons, Blinks, Casings, Discs.
- Automotive: Transmission parts, Turbo Housings, Steering Knuckles.
- Medical: Implants.
- Energy: Impellers and Turbine Wheels, Turbine Blades.



SECO X-HEADS

X-HEAD HIGH PERFORMANCE CUTTER OVERVIEW



GEOMETRY	XSE720	XSB720	XHF780	XHF580	XSE450	XHT740
TYPE	MULTIFLUTE	BALLNOSE MULTIFLUTE	HIGH FEED	HIGH FEED WITH ICC	DEDICATED ALUMINUM	BARREL FOR FINISHING
DIA RANGE	10-25mm (0.375-1.0")	10-20mm (0.375-1.0")	10-16mm (0.375-0.625")	10-16mm (0.375-0.625")	10-20mm (0.375-1.0")	10-16mm
NUMBER OF FLUTES	6	6	3	4	3	4 & 6
LENGTH AVAILABILITY	D3	D3	D1	D1	D2	T2 & T3
OPERATION						

X-HEAD VERSATILE PERFORMANCE CUTTER OVERVIEW



GEOMETRY	XSE550	XSE550	XSE550	XSB540
TYPE	SQUARE SHOULDER	SQUARE SHOULDER	SQUARE SHOULDER	BALL ENDMILL WITH ICC
DIA RANGE	10-20mm (0.375-0.75")	10-20mm (0.375-0.75")	10-20mm (0.375-1.0")	10-16mm
NUMBER OF FLUTES	3	4	5	4
LENGTH AVAILABILITY	D1*-D2	D1*-D2	D2	D1
OPERATION				

*D1 (0.55 x DIAMETER) VERSION WITH STABILIZING LAND FOR LONG REACH APPLICATIONS

X-HEAD GENERAL PURPOSE CUTTER OVERVIEW



GEOMETRY	XVC512	XVC506	XVC509	XVK310	XVE540	XVE510	XVB510
TYPE	CHAMFER SIG 120	CHAMFER SIG 60	CHAMFER SIG 90	CONCAVE	SQUARE SHOULDER WITH ICC	SPADE	BALLNOSE
DIA RANGE	12mm	10-12mm	10-16mm	12-20mm	10-20mm (0.375-0.75")	10-12mm	10-16mm (0.375-0.625")
NUMBER OF FLUTES	2	2	2	4	3 & 4	2	2
LENGTH AVAILABILITY	N1	N1	N1	D1	D1	D1	D1
OPERATION	60° Chamfer	30° Chamfer	45° Chamfer	Chamfering			

Please note that the data shown is just an extract and more products are available. For more information please visit www.secotools.com.

REDUCE YOUR INVENTORY

- With this system one cutter head can be used on various shanks to meet different reach requirements.
- Shanks that can accept multiple types of cutting heads.
- Many tool length options with the shank selection.



SECO X-HEADS

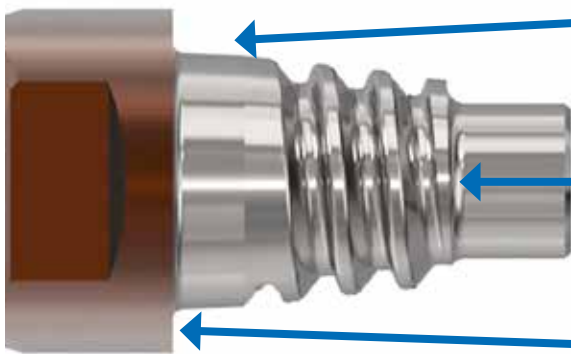
EXCHANGEABLE HEAD SHANKS

Metric/ Inch	DCONWS	STEEL SHANKS ITEMS	CARBIDE/ HEAVY METAL ITEMS
10		9	3
12		9	3
16		7	3
20		4	4
25		3	2
3/8"		7	1
1/2"		9	1
5/8"		8	1
3/4"		2	1
1"		2	1

Cylindrical Shanks

- 80 total items
- 60 Steel Shanks
- 20 Carbide / Heavy Metal

X-HEAD CONNECTION FEATURES



Ground Taper for secure seating in the shank and optimal axial/radial runout precision.

External Thread on Heads provides easy changeability and adds density for improved performance and strength.

Contact Face with shank for secure mounting and setting height repeatability.



SECO X-HEADS

The new Seco Tools Exchangeable Head range is a comprehensive offering to meet most customer demands. Utilizing our proven solid carbide geometries, we offer various types to machine most materials and complete various machining operations. The connection is a proven exchangeable head design to give high process security and reliability. The shanks offer many types for short reach up to long reach applications. Straight necking and tapered necks to give the best combination of stability depending on the needs for your machining operation.

- XSE550, XSE720, XSE450, XHF580, XHF780 XVE540 and XVE510 for chamfer or radius type.
- XSB540, XSB720 and XVB510 for ball-nose type.
- XVC506, XVC509 and XVC512 for conical type.
- XHT740 for barrel type.

Universal

Steel and cast iron

Stainless steel
and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads


























Minimaster Plus

Minimaster

Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and cfrp
 Graphite
 X-Heads
 Minimaster Plus
 Minimaster

Tool selection X-Heads						
Name	XSE550	XSB540	XSE720	XSB720	XSE450	XHT740
Page(s)	483-490	499	501-502	507	513-514	289
Family name	X-HEADS SOLID ²	X-HEADS SOLID ²	X-HEADS SOLID ²	X-HEADS SOLID ²	X-HEADS SOLID ²	X-HEADS HSM/TORNADO
Type of mill						
Number of Flutes	3,4,5	4	6	6	3	4,6
ICC		■				
Diameter range	Metric	10-20	10-16	10-25	10-20	10-16
	Inch	3/8-1		3/8-1	3/8-1	
Length availability	1,2	1	3	3	2	2,3
Operation						
SMG						
P1-8	●	●	○	○		○
P11-12	●	○	●	●		●
M1-3	●	●	●	●		●
M4-5	●	●	●	●		
K1-7	●	●				
S1-3	●	○	●	●		○
S11-13	●	●	●	●		●
H3 H5 H7 H8 H11 H12 H21 H31	●	○				
N1	●	●			●	
N2-3	●	●			●	
N11	●	●			●	
TS1	●	●			●	
TP1	●	●			●	
GR	○	○				

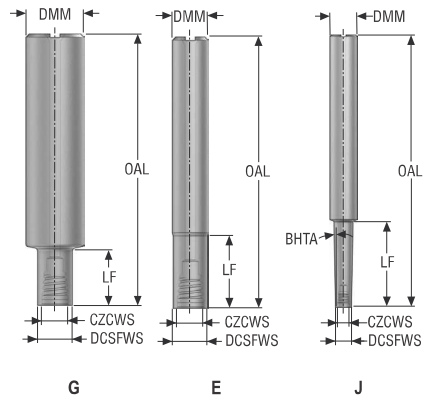
■ Stocked standard.
 ● Preferred choice, ○ Alternative choice

Tool selection X-Heads								
								
Name	XHF580	XHF780	XVE540	XVE510	XVB510	XVC506/509/512	XVK310	
Page(s)	520	525	538	543	546-547	550	554	
Family name	X-HEADS HFM	X-HEADS HFM	X-HEADS VHM	X-HEADS VHM	X-HEADS VHM	X-HEADS VHM	X-HEADS VHM	
Type of mill								
Number of Flutes	4	3	3,4	2	2	2	4	
ICC	■		■					
Diameter range	Metric	10-16	10-16	10-20	10-12	10-16	10-16	12-20
	Inch	3/8-5/8	3/8-5/8	3/8-3/4		3/8-5/8		
Length availability	1	1	1	1	1	1	1	
Operation								
								
								
								
SMG								
P1-8	●	○	●	●	●	●	●	
P11-12	●	○	●	●	●	●	●	
M1-3	●	●	●	●	●	●	●	
M4-5	●	●	●	●	●	●	●	
K1-7	●	●	●	●	●	●	●	
S1-3	○	●	○	○	○	○	○	
S11-13	○	●	○	○	○	○	○	
H3 H5 H7 H8 H11 H12 H21 H31	○	○	○				○	
N1			●	○	○	○	●	
N2-3			●	○	○	○	●	
N11			●	○	○	○	●	
TS1			●	●	●	●	●	
TP1			●	●	●	●	●	
GR			○	○	○	○	○	

■ Stocked standard.
● Preferred choice, ○ Alternative choice

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Steel - Metric







- Tolerances:
- DMM= h6
- DCSFWS= ±0,05 mm
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
XE10160G1-065-00.0S	10138083	1	G	E10	9,6	16,0	5,0	65,0	0,0	■
XE10100E2-055-00.0S	10138092	2	E	E10	9,6	10,0	10,0	55,0	0,0	■
XE10100E2-075-00.0S	10138093	2	E	E10	9,6	10,0	20,0	75,0	0,0	■
XE10160G2-075-00.0S	10138088	2	G	E10	9,6	16,0	15,0	75,0	0,0	■
XE10160J3-120-01.0S	10138099	3	J	E10	9,6	16,0	35,0	120,0	1,0	■
XE10160J5-160-01.0S	10138100	5	J	E10	9,6	16,0	50,0	160,0	1,0	■
XE10160J3-140-05.0S	10138106	3	J	E10	9,6	16,0	36,6	140,0	5,0	■
XE10200J5-140-05.0S	10138108	5	J	E10	9,6	20,0	59,4	140,0	5,0	■
XE10320J6-250-10.0S	10138113	6	J	E10	9,6	32,0	63,5	250,0	10,0	■
XE12160G1-065-00.0S	10138084	1	G	E12	11,6	16,0	5,0	65,0	0,0	■
XE12120E2-065-00.0S	10138094	2	E	E12	11,6	12,0	12,0	65,0	0,0	■
XE12120E2-100-00.0S	10138095	2	E	E12	11,6	12,0	22,0	100,0	0,0	■
XE12160G2-080-00.0S	10138089	2	G	E12	11,6	16,0	18,0	80,0	0,0	■
XE12160J3-155-01.0S	10138101	3	J	E12	11,6	16,0	42,0	155,0	1,0	■
XE12160J5-170-01.0S	10138102	5	J	E12	11,6	16,0	60,0	170,0	1,0	■
XE12160J2-140-05.0S	10138107	2	J	E12	11,6	16,0	25,1	140,0	5,0	■
XE12200J4-155-05.0S	10138109	4	J	E12	11,6	20,0	48,0	155,0	5,0	■
XE12320J4-250-10.0S	10138114	4	J	E12	11,6	32,0	57,8	250,0	10,0	■
XE16200G1-070-00.0S	10138085	1	G	E16	15,4	20,0	5,0	70,0	0,0	■
XE16160E2-070-00.0S	10138096	2	E	E16	15,4	16,0	16,0	70,0	0,0	■
XE16200G2-090-00.0S	10138090	2	G	E16	15,4	20,0	24,0	90,0	0,0	■
XE16200G2-110-00.0S	10138091	2	G	E16	15,4	20,0	25,0	110,0	0,0	■
XE16200J3-190-01.0S	10138103	3	J	E16	15,4	20,0	56,0	190,0	1,0	■
XE16200J4-190-01.0S	10138104	4	J	E16	15,4	20,0	75,0	190,0	1,0	■
XE16250J3-170-05.0S	10138110	3	J	E16	15,4	25,0	54,9	170,0	5,0	■
XE20250G1-080-00.0S	10138086	1	G	E20	19,2	25,0	5,0	80,0	0,0	■
XE20200E2-120-00.0S	10138097	2	E	E20	19,2	20,0	30,0	120,0	0,0	■
XE20250J4-200-01.0S	10138105	4	J	E20	19,2	25,0	80,0	200,0	1,0	■
XE20320J3-180-05.0S	10138111	3	J	E20	19,2	32,0	73,2	180,0	5,0	■
XE25320G1-080-00.0S	10138087	1	G	E25	24,1	32,0	5,0	80,0	0,0	■
XE25250E2-140-00.0S	10138098	2	E	E25	24,1	25,0	40,0	140,0	0,0	■
XE25320J2-200-05.0S	10138112	2	J	E25	24,1	32,0	45,1	200,0	5,0	■

Spare Parts

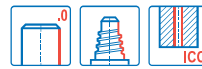
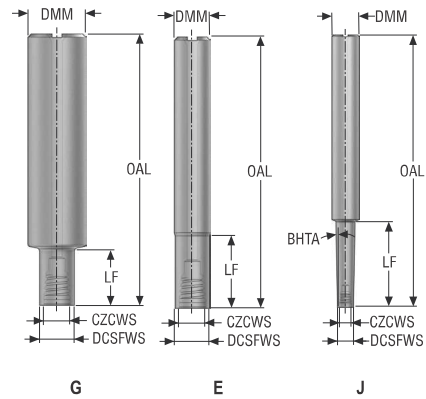
Accessories

CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
				
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	–	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	–	XTW-E16.E25

■ Stocked standard.

- Universal
- Steel and cast iron
- Stainless steel and S-materials
- Non ferrous
- Hard
- Plastic and cfrp
- Graphite
- X-Heads
- Minimaster Plus
- Minimaster

Steel - Inch







- Tolerances:
- DMM= h6
- DCSFWS= ±.002 inch
- BHTA= ±20°

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
XE10.500G1-2.50-00.0S	10138050	1	G	E10	0.360	0.500	0.250	2.500	0,0	■
XE10.375E2-2.50-00.0S	10138053	2	E	E10	0.360	0.375	0.402	2.500	0,0	■
XE10.500G2-3.00-00.0S	10138051	2	G	E10	0.360	0.500	1.000	3.000	0,0	■
XE10.625J3-4.50-01.0S	10138063	3	J	E10	0.360	0.625	1.402	4.500	1,0	■
XE10.625J5-6.50-01.0S	10138064	5	J	E10	0.360	0.625	2.000	6.500	1,0	■
XE10.625J4-4.00-03.0S	10138071	4	J	E10	0.360	0.625	1.799	4.000	3,0	■
XE10.750J9-6.00-03.0S	10138072	9	J	E10	0.360	0.750	3.720	6.000	3,0	■
XE12.500E1-3.00-00.0S	10138054	1	E	E12	0.480	0.500	0.250	3.000	0,0	■
XE12.500E2-2.50-00.0S	10138055	2	E	E12	0.480	0.500	0.500	2.500	0,0	■
XE12.500E2-4.50-00.0S	10138056	2	E	E12	0.480	0.500	1.000	4.500	0,0	■
XE12.625J3-6.00-01.0S	10138065	3	J	E12	0.480	0.625	1.650	6.000	1,0	■
XE12.625J4-7.50-01.0S	10138066	4	J	E12	0.480	0.625	2.400	7.500	1,0	■
XE12.750J5-6.50-01.0S	10138067	5	J	E12	0.480	0.750	2.850	6.500	1,0	■
XE12.750J4-4.50-03.0S	10138073	4	J	E12	0.480	0.750	2.201	4.500	3,0	■
XE12.750J5-6.00-03.0S	10138074	5	J	E12	0.480	0.750	2.575	6.000	3,0	■
XE12.625J2-6.50-05.0S	10138075	2	J	E12	0.480	0.625	0.827	6.500	5,0	■
XE16.625E1-3.00-00.0S	10138057	1	E	E16	0.606	0.625	0.250	3.000	0,0	■
XE16.625E2-3.00-00.0S	10138058	2	E	E16	0.606	0.625	0.650	3.000	0,0	■
XE16.625E2-4.50-00.0S	10138059	2	E	E16	0.606	0.625	1.000	4.500	0,0	■
XE16.750J3-7.50-01.0S	10138068	3	J	E16	0.606	0.750	2.252	7.500	1,0	■
XE16.750J4-7.50-01.0S	10138070	4	J	E16	0.606	0.750	3.000	7.500	1,0	■
XE16.750J6-7.50-01.0S	10138069	6	J	E16	0.606	0.750	3.748	7.500	1,0	■
XE16.750J2-6.50-05.0S	10138076	2	J	E16	0.606	0.750	0.821	6.500	5,0	■
XE161.00J3-7.00-05.0S	10138077	3	J	E16	0.606	1.000	2.250	7.000	5,0	■
XE20.750E1-3.00-00.0S	10138060	1	E	E20	0.724	0.750	0.250	3.000	0,0	■
XE20.750E2-4.50-00.0S	10138061	2	E	E20	0.724	0.750	1.000	4.500	0,0	■
XE251.00E1-3.50-00.0S	10138062	1	E	E25	0.961	1.000	0.250	3.500	0,0	■
XE251.25G2-6.50-00.0S	10138052	2	G	E25	0.961	1.250	2.500	6.500	0,0	■

Spare Parts

Accessories

CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
				
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	–	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	–	XTW-E16.E25

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

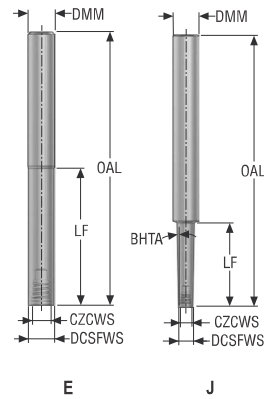
Graphite

X-Heads

Minimaster Plus

Minimaster

Solid carbide - Metric



- Tolerances:
- DMM= h6
- DCSFWS= ±0,05 mm
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
XE10100E5-100-00.0E	10138120	5	E	E10	9,6	10,0	50,0	100,0	0,0	■
XE10160J9-155-01.0E	10138126	9	J	E10	9,6	16,0	100,0	155,0	1,0	■
XE12120E4-100-00.0E	10138121	4	E	E12	11,6	12,0	48,0	100,0	0,0	■
XE12160J7-150-01.0E	10138127	7	J	E12	11,6	16,0	90,0	150,0	1,0	■
XE16160E5-135-00.0E	10138122	5	E	E16	15,4	16,0	80,0	135,0	0,0	■
XE16200J7-175-01.0E	10138128	7	J	E16	15,4	20,0	118,0	175,0	1,0	■
XE20200E2-095-00.0E	10138123	2	E	E20	19,2	20,0	38,0	95,0	0,0	■
XE20200E5-180-00.0E	10138124	5	E	E20	19,2	20,0	110,0	180,0	0,0	■
XE20250J4-200-02.0E	10138129	4	J	E20	19,2	25,0	83,0	200,0	2,0	■
XE25250E4-200-00.0E	10138125	4	E	E25	24,1	25,0	120,0	200,0	0,0	■

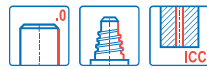
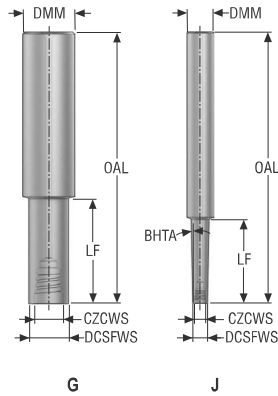
Spare Parts

Accessories

	CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
E10		XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12		XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16		XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20		XW-E20	XTWH-E20.16	–	XTW-E16.E25
E25		XW-E25	XTWH-E25.20	–	XTW-E16.E25

■ Stocked standard.

Solid carbide - inch



- Tolerances:
- DMM= h6
- DCSFWS= ±.002 inch
- BHTA= ±20'

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
XE10.625J5-6.50-01.0E	10138079	5	J	E10	0.360	0.625	2.000	6.500	1,0	■
XE12.625J4-7.50-01.0E	10138080	4	J	E12	0.480	0.625	2.400	7.500	1,0	■
XE16.750J4-7.50-01.0E	10138081	4	J	E16	0.606	0.750	3.000	7.500	1,0	■
XE201.00J4-8.00-01.0E	10138082	4	J	E20	0.724	1.000	3.150	8.000	1,0	■
XE251.25G2-6.50-00.0E	10138078	2	G	E25	0.961	1.250	2.500	6.500	0,0	■

Spare Parts

Accessories

CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
E10	XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E12	XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E16	XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E20	XW-E20	XTWH-E20.16	-	XTW-E16.E25
E25	XW-E25	XTWH-E25.20	-	XTW-E16.E25

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

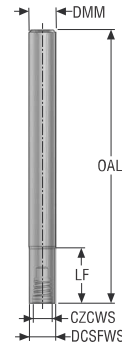
Graphite

X-Heads

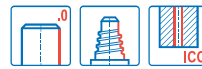
Minimaster Plus

Minimaster

Densimet - Metric



E



- Tolerances:
- DMM= h6
- DCSFWS= ±0,05 mm
- BHTA= ±20°

Designation	Item number	Length index	Tool shape	CZCWS	DCSFWS	DMM	LF	OAL	BHTA°	Cylindrical
XE10100E2-100-00.0DM	10138115	2	E	E10	9,6	10,0	20,0	100,0	0,0	■
XE12120E2-110-00.0DM	10138116	2	E	E12	11,6	12,0	25,0	110,0	0,0	■
XE16160E2-130-00.0DM	10138117	2	E	E16	15,4	16,0	35,0	130,0	0,0	■
XE20200E2-160-00.0DM	10138118	2	E	E20	19,2	20,0	45,0	160,0	0,0	■
XE25250E2-185-00.0DM	10138119	2	E	E25	24,1	25,0	65,0	185,0	0,0	■

Spare Parts

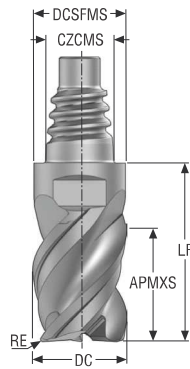
Accessories

	CZCWS	Spanner	Replacement blade	Replacement blade 1	Torque key
E10					
E12		XW-E10	XTWH-E10.08	XTWH-E10.06	XTW-E10.E12
E16		XW-E12	XTWH-E12.10	XTWH-E12.08	XTW-E10.E12
E20		XW-E16	XTWH-E16.12	XTWH-E16.10	XTW-E16.E25
E25		XW-E20	XTWH-E20.16	–	XTW-E16.E25
		XW-E25	XTWH-E25.20	–	XTW-E16.E25

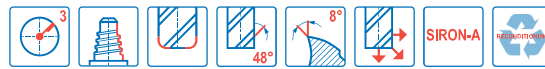
■ Stocked standard.

XSE550

High performance – Universal – Square – 3 Flutes – Corner radius



D



- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XSE550E10100D1R050Z3	10138138	1	D	E10	10,0	9,7	5,5	12,3	0,5	3	8	■
XSE550E12120D1R050Z3	10138139	1	D	E12	12,0	11,7	6,6	14,4	0,5	3	10	■
XSE550E16160D1R050Z3	10138140	1	D	E16	16,0	15,5	8,8	18,6	0,5	3	12	■
XSE550E20200D1R050Z3	10138141	1	D	E20	20,0	19,3	11,0	21,2	0,5	3	16	■
XSE550E10100D2R050Z3	10138142	2	D	E10	10,0	9,7	12,0	18,7	0,5	3	8	■
XSE550E12120D2R050Z3	10138143	2	D	E12	12,0	11,7	14,4	22,1	0,5	3	10	■
XSE550E16160D2R050Z3	10138144	2	D	E16	16,0	15,5	19,2	29,2	0,5	3	12	■
XSE550E20200D2R050Z3	10138145	2	D	E20	20,0	19,3	24,0	34,3	0,5	3	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

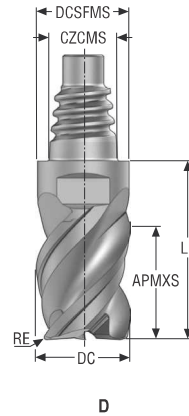
X-Heads

Minimaster Plus

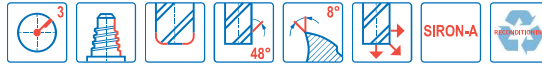
Minimaster

XSE550 – Inch

High performance – Universal – Square – 3 Flutes – Corner radius – Inch




- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>			SIRA
XSE550E10.375D1R030Z3	10138146	1	D	E10	0.375	0.364	0.206	0.484	0.030	3	8	■
XSE550E12.500D1R030Z3	10138147	1	D	E12	0.500	0.484	0.275	0.567	0.030	3	10	■
XSE550E20.750D1R030Z3	10138148	1	D	E20	0.750	0.728	0.413	0.835	0.030	3	16	■
XSE550E10.375D2R030Z3	10138149	2	D	E10	0.375	0.364	0.450	0.720	0.030	3	8	■
XSE550E12.500D2R030Z3	10138150	2	D	E12	0.500	0.484	0.600	0.906	0.030	3	10	■
XSE550E20.750D2R030Z3	10138151	2	D	E20	0.750	0.728	0.900	1.295	0.030	3	16	■

■ Stocked standard.


Cutting data – XSE550 – Side milling PCEDC 3

SMG		a _e /DC	a _p /DC	f _z				v _c	
				10	12	16	20		
P1	E/M/A/D	0,40	1,1	0,095	0,12	0,14	0,16	215 (190 – 240)	Universal
		0,40	1,1	0,0038	0,0048	0,0055	0,0065	710 (630 – 780)	
P2	E/M/A/D	0,40	1,1	0,10	0,12	0,15	0,17	205 (180 – 230)	Steel and cast iron
		0,40	1,1	0,0040	0,0048	0,0060	0,0065	670 (600 – 750)	
P3	E/M/A/D	0,40	1,1	0,095	0,11	0,14	0,16	180 (160 – 200)	Steel and cast iron
		0,40	1,1	0,0038	0,0044	0,0055	0,0065	590 (530 – 650)	
P4	E/M/A/D	0,40	1,1	0,090	0,11	0,14	0,16	160 (140 – 180)	Steel and cast iron
		0,40	1,1	0,0036	0,0044	0,0055	0,0065	520 (460 – 590)	
P5	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	150 (140 – 170)	Steel and cast iron
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	490 (460 – 550)	
P6	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	170 (150 – 190)	Steel and cast iron
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	560 (500 – 620)	
P7	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	160 (140 – 180)	Stainless steel and S-materials
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	520 (460 – 590)	
P8	E/M/A/D	0,40	1,1	0,095	0,11	0,14	0,16	150 (130 – 170)	Stainless steel and S-materials
		0,40	1,1	0,0038	0,0044	0,0055	0,0065	490 (430 – 550)	
P11	E/M/A/D	0,30	1,1	0,065	0,075	0,095	0,11	105 (93 – 110)	Stainless steel and S-materials
		0,30	1,1	0,0026	0,0030	0,0038	0,0044	345 (310 – 360)	
P12	E/M/A/D	0,30	1,1	0,044	0,055	0,065	0,075	65 (60 – 75)	Stainless steel and S-materials
		0,30	1,1	0,0017	0,0022	0,0026	0,0030	215 (200 – 240)	
M1	E/M/A	0,30	1,1	0,070	0,085	0,11	0,12	120 (110 – 130)	Non ferrous
		0,30	1,1	0,0028	0,0034	0,0044	0,0048	395 (370 – 420)	
M2	E/M/A	0,30	1,1	0,065	0,075	0,095	0,11	100 (88 – 110)	Non ferrous
		0,30	1,1	0,0026	0,0030	0,0038	0,0044	330 (290 – 360)	
M3	E/M/A	0,30	0,95	0,055	0,065	0,080	0,090	60 (50 – 74)	Non ferrous
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	195 (170 – 240)	
M4	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	48 (39 – 57)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	155 (130 – 180)	
M5	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	40 (32 – 47)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	130 (110 – 150)	
K1	E/M/A/D	0,40	1,1	0,090	0,11	0,14	0,16	170 (160 – 200)	Hard
		0,40	1,1	0,0036	0,0044	0,0055	0,0065	560 (530 – 650)	
K2	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	150 (150 – 180)	Hard
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	490 (500 – 590)	
K3	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	125 (120 – 150)	Hard
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	410 (400 – 490)	
K4	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	120 (120 – 140)	Hard
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	395 (400 – 450)	
K5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	155 (140 – 170)	Plastic and CFRP
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	510 (460 – 550)	
K6	E/M/A/D	0,40	0,95	0,090	0,11	0,13	0,15	225 (200 – 250)	Plastic and CFRP
		0,40	0,95	0,0036	0,0044	0,0050	0,0060	740 (660 – 820)	
K7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	200 (180 – 220)	Plastic and CFRP
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	660 (600 – 720)	
N1	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 780)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)	
N2	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	430 (360 – 500)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1400 (1200 – 1600)	
N3	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	285 (240 – 330)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	940 (790 – 1000)	
N11	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	335 (280 – 380)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1100 (920 – 1200)	
S1	E	0,15	0,95	0,090	0,11	0,13	0,15	43 (26 – 60)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	140 (86 – 190)	
S2	E	0,15	0,95	0,090	0,11	0,13	0,15	35 (21 – 48)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	115 (69 – 150)	
S3	E	0,15	0,95	0,085	0,10	0,12	0,14	30 (19 – 42)	X-Heads
		0,15	0,95	0,0034	0,0040	0,0048	0,0055	100 (63 – 130)	
S11	E	0,40	0,95	0,060	0,070	0,090	0,10	105 (77 – 130)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	345 (260 – 420)	
S12	E	0,40	0,95	0,060	0,070	0,090	0,10	80 (59 – 100)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	260 (200 – 320)	
S13	E	0,40	0,95	0,055	0,065	0,080	0,090	65 (47 – 83)	X-Heads
		0,40	0,95	0,0022	0,0026	0,0032	0,0036	215 (160 – 270)	
H5	M/A	0,050	0,95	0,090	0,11	0,14	0,16	75 (62 – 92)	Minimaster Plus
		0,050	0,95	0,0036	0,0044	0,0055	0,0065	245 (210 – 300)	
H8	M/A	0,050	0,95	0,070	0,085	0,10	0,12	80 (64 – 95)	Minimaster Plus
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	260 (210 – 310)	
H21	M/A	0,050	0,95	0,070	0,085	0,10	0,12	80 (64 – 95)	Minimaster Plus
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	260 (210 – 310)	
H31	M/A	0,050	0,95	0,060	0,070	0,090	0,10	60 (50 – 74)	Minimaster Plus
		0,050	0,95	0,0024	0,0028	0,0036	0,0040	195 (170 – 240)	
TS1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	280 (170 – 390)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	920 (560 – 1200)	
TP1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	280 (170 – 390)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	920 (560 – 1200)	
GR1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 780)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)	

Cutting data – XSE550 – Slot milling PCEDC 3

SMG		a _p /DC	f _z				v _c
			10	12	16	20	
P1	E/M/A/D	1,0	0,060	0,070	0,095	0,12	190 (170 – 210)
		1,0	0,0024	0,0028	0,0038	0,0048	620 (560 – 680)
P2	E/M/A/D	1,0	0,060	0,070	0,095	0,12	185 (160 – 210)
		1,0	0,0024	0,0028	0,0038	0,0048	610 (530 – 680)
P3	E/M/A/D	1,0	0,060	0,070	0,095	0,12	160 (140 – 180)
		1,0	0,0024	0,0028	0,0038	0,0048	520 (460 – 590)
P4	E/M/A/D	1,0	0,060	0,070	0,095	0,12	140 (120 – 150)
		1,0	0,0024	0,0028	0,0038	0,0048	460 (400 – 490)
P5	E/M/A/D	1,0	0,060	0,070	0,095	0,12	135 (120 – 150)
		1,0	0,0024	0,0028	0,0038	0,0048	445 (400 – 490)
P6	E/M/A/D	1,0	0,060	0,070	0,095	0,12	150 (130 – 170)
		1,0	0,0024	0,0028	0,0038	0,0048	490 (430 – 550)
P7	E/M/A/D	1,0	0,060	0,070	0,095	0,12	140 (130 – 160)
		1,0	0,0024	0,0028	0,0038	0,0048	460 (430 – 520)
P8	E/M/A/D	1,0	0,060	0,070	0,095	0,12	135 (120 – 150)
		1,0	0,0024	0,0028	0,0038	0,0048	445 (400 – 490)
P11	E/M/A/D	0,80	0,050	0,060	0,080	0,10	85 (74 – 94)
		0,80	0,0020	0,0024	0,0032	0,0040	280 (250 – 300)
P12	E/M/A/D	0,80	0,040	0,048	0,060	0,070	50 (46 – 58)
		0,80	0,0016	0,0019	0,0024	0,0028	165 (160 – 190)
M1	E/M/A	0,80	0,050	0,060	0,080	0,10	100 (87 – 110)
		0,80	0,0020	0,0024	0,0032	0,0040	330 (290 – 360)
M2	E/M/A	0,80	0,050	0,060	0,080	0,10	80 (70 – 89)
		0,80	0,0020	0,0024	0,0032	0,0040	260 (230 – 290)
M3	E/M/A	0,70	0,040	0,048	0,065	0,080	50 (41 – 60)
		0,70	0,0016	0,0019	0,0026	0,0032	165 (140 – 190)
M4	E/M/A	0,70	0,040	0,048	0,065	0,075	37 (30 – 45)
		0,70	0,0016	0,0019	0,0026	0,0030	120 (99 – 140)
M5	E/M/A	0,70	0,040	0,048	0,065	0,075	31 (25 – 37)
		0,70	0,0016	0,0019	0,0026	0,0030	100 (83 – 120)
K1	E/M/A/D	1,0	0,060	0,070	0,095	0,12	150 (140 – 180)
		1,0	0,0024	0,0028	0,0038	0,0048	490 (460 – 590)
K2	E/M/A/D	1,0	0,060	0,070	0,095	0,12	130 (130 – 150)
		1,0	0,0024	0,0028	0,0038	0,0048	425 (430 – 490)
K3	E/M/A/D	1,0	0,060	0,070	0,095	0,12	110 (110 – 130)
		1,0	0,0024	0,0028	0,0038	0,0048	360 (370 – 420)
K4	E/M/A/D	1,0	0,060	0,070	0,095	0,12	105 (99 – 120)
		1,0	0,0024	0,0028	0,0038	0,0048	345 (330 – 390)
K5	E/M/A/D	0,80	0,050	0,060	0,080	0,10	140 (120 – 150)
		0,80	0,0020	0,0024	0,0032	0,0040	460 (400 – 490)
K6	E/M/A/D	0,80	0,050	0,060	0,080	0,10	205 (180 – 230)
		0,80	0,0020	0,0024	0,0032	0,0040	670 (600 – 750)
K7	E/M/A/D	0,80	0,050	0,060	0,080	0,10	180 (160 – 200)
		0,80	0,0020	0,0024	0,0032	0,0040	590 (530 – 650)
N1	E/M/A	0,70	0,050	0,060	0,080	0,10	600 (510 – 690)
		0,70	0,0020	0,0024	0,0032	0,0040	1975 (1700 – 2200)
N2	E/M/A	0,70	0,050	0,060	0,080	0,10	385 (330 – 440)
		0,70	0,0020	0,0024	0,0032	0,0040	1275 (1100 – 1400)
N3	E/M/A	0,70	0,050	0,060	0,080	0,10	255 (220 – 290)
		0,70	0,0020	0,0024	0,0032	0,0040	840 (730 – 950)
N11	E/M/A	0,60	0,050	0,060	0,080	0,10	300 (250 – 340)
		0,60	0,0020	0,0024	0,0032	0,0040	980 (830 – 1100)
S1	E	0,30	0,030	0,036	0,048	0,060	36 (22 – 50)
		0,30	0,0012	0,0014	0,0019	0,0024	120 (73 – 160)
S2	E	0,30	0,030	0,036	0,048	0,060	29 (18 – 40)
		0,30	0,0012	0,0014	0,0019	0,0024	95 (60 – 130)
S3	E	0,30	0,030	0,036	0,048	0,060	25 (15 – 34)
		0,30	0,0012	0,0014	0,0019	0,0024	80 (50 – 110)
S11	E	0,50	0,050	0,060	0,080	0,10	90 (66 – 110)
		0,50	0,0020	0,0024	0,0032	0,0040	295 (220 – 360)
S12	E	0,50	0,050	0,060	0,080	0,10	70 (50 – 89)
		0,50	0,0020	0,0024	0,0032	0,0040	230 (170 – 290)
S13	E	0,50	0,050	0,060	0,075	0,090	55 (39 – 69)
		0,50	0,0020	0,0024	0,0030	0,0036	180 (130 – 220)
H5	M/A	0,30	0,030	0,036	0,048	0,060	50 (41 – 60)
		0,30	0,0012	0,0014	0,0019	0,0024	165 (140 – 190)
H8	M/A	0,30	0,030	0,036	0,044	0,050	50 (41 – 60)
		0,30	0,0012	0,0014	0,0017	0,0020	165 (140 – 190)
H21	M/A	0,30	0,030	0,036	0,044	0,050	50 (41 – 60)
		0,30	0,0012	0,0014	0,0017	0,0020	165 (140 – 190)
H31	M/A	0,30	0,026	0,032	0,038	0,044	39 (32 – 46)
		0,30	0,0010	0,0013	0,0015	0,0017	130 (110 – 150)
TS1	A/D	0,70	0,050	0,060	0,080	0,10	250 (150 – 340)
		0,70	0,0020	0,0024	0,0032	0,0040	820 (500 – 1100)
TP1	A/D	0,70	0,050	0,060	0,080	0,10	250 (150 – 340)
		0,70	0,0020	0,0024	0,0032	0,0040	820 (500 – 1100)
GR1	A/D	0,70	0,050	0,060	0,080	0,10	600 (510 – 690)
		0,70	0,0020	0,0024	0,0032	0,0040	1975 (1700 – 2200)

Cutting data – XSE550 – Side milling PCEDC 3 – inch

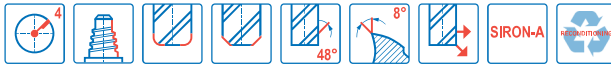
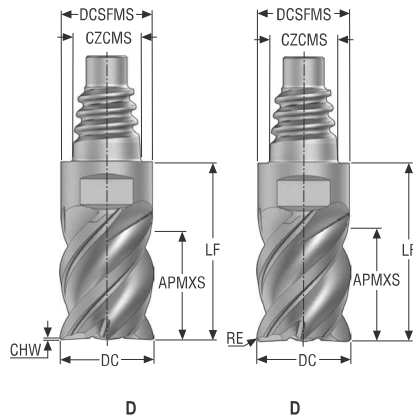
SMG		a _e /DC	a _p /DC	f _z				v _c	
				3/8	1/2	5/8	3/4		
P1	E/M/A/D	0,40	1,1	0,095	0,12	0,14	0,16	215 (190 – 240)	Universal
		0,40	1,1	0,0038	0,0048	0,0055	0,0065	710 (630 – 780)	
P2	E/M/A/D	0,40	1,1	0,10	0,12	0,15	0,17	205 (180 – 230)	Steel and cast iron
		0,40	1,1	0,0040	0,0048	0,0060	0,0065	670 (600 – 750)	
P3	E/M/A/D	0,40	1,1	0,095	0,11	0,14	0,16	180 (160 – 200)	Steel and cast iron
		0,40	1,1	0,0038	0,0044	0,0055	0,0065	590 (530 – 650)	
P4	E/M/A/D	0,40	1,1	0,090	0,11	0,14	0,16	160 (140 – 180)	Steel and cast iron
		0,40	1,1	0,0036	0,0044	0,0055	0,0065	520 (460 – 590)	
P5	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	150 (140 – 170)	Steel and cast iron
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	490 (460 – 550)	
P6	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	170 (150 – 190)	Steel and cast iron
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	560 (500 – 620)	
P7	E/M/A/D	0,40	1,1	0,090	0,11	0,13	0,15	160 (140 – 180)	Stainless steel and S-materials
		0,40	1,1	0,0036	0,0044	0,0050	0,0060	520 (460 – 590)	
P8	E/M/A/D	0,40	1,1	0,095	0,11	0,14	0,16	150 (130 – 170)	Stainless steel and S-materials
		0,40	1,1	0,0038	0,0044	0,0055	0,0065	490 (430 – 550)	
P11	E/M/A/D	0,30	1,1	0,065	0,075	0,095	0,11	105 (93 – 110)	Stainless steel and S-materials
		0,30	1,1	0,0026	0,0030	0,0038	0,0044	345 (310 – 360)	
P12	E/M/A/D	0,30	1,1	0,044	0,055	0,065	0,075	65 (60 – 75)	Stainless steel and S-materials
		0,30	1,1	0,0017	0,0022	0,0026	0,0030	215 (200 – 240)	
M1	E/M/A	0,30	1,1	0,070	0,085	0,11	0,12	120 (110 – 130)	Non ferrous
		0,30	1,1	0,0028	0,0034	0,0044	0,0048	395 (370 – 420)	
M2	E/M/A	0,30	1,1	0,065	0,075	0,095	0,11	100 (88 – 110)	Non ferrous
		0,30	1,1	0,0026	0,0030	0,0038	0,0044	330 (290 – 360)	
M3	E/M/A	0,30	0,95	0,055	0,065	0,080	0,090	60 (50 – 74)	Non ferrous
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	195 (170 – 240)	
M4	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	48 (39 – 57)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	155 (130 – 180)	
M5	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	40 (32 – 47)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	130 (110 – 150)	
K1	E/M/A/D	0,40	1,1	0,090	0,11	0,14	0,16	170 (160 – 200)	Hard
		0,40	1,1	0,0036	0,0044	0,0055	0,0065	560 (530 – 650)	
K2	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	150 (150 – 180)	Hard
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	490 (500 – 590)	
K3	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	125 (120 – 150)	Hard
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	410 (400 – 490)	
K4	E/M/A/D	0,40	1,1	0,085	0,10	0,12	0,14	120 (120 – 140)	Plastic and CFRP
		0,40	1,1	0,0034	0,0040	0,0048	0,0055	395 (400 – 450)	
K5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	155 (140 – 170)	Plastic and CFRP
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	510 (460 – 550)	
K6	E/M/A/D	0,40	0,95	0,090	0,11	0,13	0,15	225 (200 – 250)	Plastic and CFRP
		0,40	0,95	0,0036	0,0044	0,0050	0,0060	740 (660 – 820)	
K7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	200 (180 – 220)	Plastic and CFRP
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	660 (600 – 720)	
N1	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 780)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)	
N2	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	430 (360 – 500)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1400 (1200 – 1600)	
N3	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	285 (240 – 330)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	940 (790 – 1000)	
N11	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	335 (280 – 380)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1100 (920 – 1200)	
S1	E	0,15	0,95	0,090	0,11	0,13	0,15	43 (26 – 60)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	140 (86 – 190)	
S2	E	0,15	0,95	0,090	0,11	0,13	0,15	35 (21 – 48)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	115 (69 – 150)	
S3	E	0,15	0,95	0,085	0,10	0,12	0,14	30 (19 – 42)	X-Heads
		0,15	0,95	0,0034	0,0040	0,0048	0,0055	100 (63 – 130)	
S11	E	0,40	0,95	0,060	0,070	0,090	0,10	105 (77 – 130)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	345 (260 – 420)	
S12	E	0,40	0,95	0,060	0,070	0,090	0,10	80 (59 – 100)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	260 (200 – 320)	
S13	E	0,40	0,95	0,055	0,065	0,080	0,090	65 (47 – 83)	X-Heads
		0,40	0,95	0,0022	0,0026	0,0032	0,0036	215 (160 – 270)	
H5	M/A	0,050	0,95	0,090	0,11	0,14	0,16	75 (62 – 92)	Minimaster Plus
		0,050	0,95	0,0036	0,0044	0,0055	0,0065	245 (210 – 300)	
H8	M/A	0,050	0,95	0,070	0,085	0,10	0,12	80 (64 – 95)	Minimaster Plus
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	260 (210 – 310)	
H21	M/A	0,050	0,95	0,070	0,085	0,10	0,12	80 (64 – 95)	Minimaster Plus
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	260 (210 – 310)	
H31	M/A	0,050	0,95	0,060	0,070	0,090	0,10	60 (50 – 74)	Minimaster Plus
		0,050	0,95	0,0024	0,0028	0,0036	0,0040	195 (170 – 240)	
TS1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	280 (170 – 390)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	920 (560 – 1200)	
TP1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	280 (170 – 390)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	920 (560 – 1200)	
GR1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 780)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)	

Cutting data – XSE550 – Slot milling PCEDC 3 inch

SMG		a _p /DC	f _z				v _c
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	1,0	0,060	0,070	0,095	0,12	190 (170 – 210)
		1,0	0,0024	0,0028	0,0038	0,0048	620 (560 – 680)
P2	E/M/A/D	1,0	0,060	0,070	0,095	0,12	185 (160 – 210)
		1,0	0,0024	0,0028	0,0038	0,0048	610 (530 – 680)
P3	E/M/A/D	1,0	0,060	0,070	0,095	0,12	160 (140 – 180)
		1,0	0,0024	0,0028	0,0038	0,0048	520 (460 – 590)
P4	E/M/A/D	1,0	0,060	0,070	0,095	0,12	140 (120 – 150)
		1,0	0,0024	0,0028	0,0038	0,0048	460 (400 – 490)
P5	E/M/A/D	1,0	0,060	0,070	0,095	0,12	135 (120 – 150)
		1,0	0,0024	0,0028	0,0038	0,0048	445 (400 – 490)
P6	E/M/A/D	1,0	0,060	0,070	0,095	0,12	150 (130 – 170)
		1,0	0,0024	0,0028	0,0038	0,0048	490 (430 – 550)
P7	E/M/A/D	1,0	0,060	0,070	0,095	0,12	140 (130 – 160)
		1,0	0,0024	0,0028	0,0038	0,0048	460 (430 – 520)
P8	E/M/A/D	1,0	0,060	0,070	0,095	0,12	135 (120 – 150)
		1,0	0,0024	0,0028	0,0038	0,0048	445 (400 – 490)
P11	E/M/A/D	0,80	0,050	0,060	0,080	0,10	85 (74 – 94)
		0,80	0,0020	0,0024	0,0032	0,0040	280 (250 – 300)
P12	E/M/A/D	0,80	0,040	0,048	0,060	0,070	50 (46 – 58)
		0,80	0,0016	0,0019	0,0024	0,0028	165 (160 – 190)
M1	E/M/A	0,80	0,050	0,060	0,080	0,10	100 (87 – 110)
		0,80	0,0020	0,0024	0,0032	0,0040	330 (290 – 360)
M2	E/M/A	0,80	0,050	0,060	0,080	0,10	80 (70 – 89)
		0,80	0,0020	0,0024	0,0032	0,0040	260 (230 – 290)
M3	E/M/A	0,70	0,040	0,048	0,065	0,080	50 (41 – 60)
		0,70	0,0016	0,0019	0,0026	0,0032	165 (140 – 190)
M4	E/M/A	0,70	0,040	0,048	0,065	0,075	37 (30 – 45)
		0,70	0,0016	0,0019	0,0026	0,0030	120 (99 – 140)
M5	E/M/A	0,70	0,040	0,048	0,065	0,075	31 (25 – 37)
		0,70	0,0016	0,0019	0,0026	0,0030	100 (83 – 120)
K1	E/M/A/D	1,0	0,060	0,070	0,095	0,12	150 (140 – 180)
		1,0	0,0024	0,0028	0,0038	0,0048	490 (460 – 590)
K2	E/M/A/D	1,0	0,060	0,070	0,095	0,12	130 (130 – 150)
		1,0	0,0024	0,0028	0,0038	0,0048	425 (430 – 490)
K3	E/M/A/D	1,0	0,060	0,070	0,095	0,12	110 (110 – 130)
		1,0	0,0024	0,0028	0,0038	0,0048	360 (370 – 420)
K4	E/M/A/D	1,0	0,060	0,070	0,095	0,12	105 (99 – 120)
		1,0	0,0024	0,0028	0,0038	0,0048	345 (330 – 390)
K5	E/M/A/D	0,80	0,050	0,060	0,080	0,10	140 (120 – 150)
		0,80	0,0020	0,0024	0,0032	0,0040	460 (400 – 490)
K6	E/M/A/D	0,80	0,050	0,060	0,080	0,10	205 (180 – 230)
		0,80	0,0020	0,0024	0,0032	0,0040	670 (600 – 750)
K7	E/M/A/D	0,80	0,050	0,060	0,080	0,10	180 (160 – 200)
		0,80	0,0020	0,0024	0,0032	0,0040	590 (530 – 650)
N1	E/M/A	0,70	0,050	0,060	0,080	0,10	600 (510 – 690)
		0,70	0,0020	0,0024	0,0032	0,0040	1975 (1700 – 2200)
N2	E/M/A	0,70	0,050	0,060	0,080	0,10	385 (330 – 440)
		0,70	0,0020	0,0024	0,0032	0,0040	1275 (1100 – 1400)
N3	E/M/A	0,70	0,050	0,060	0,080	0,10	255 (220 – 290)
		0,70	0,0020	0,0024	0,0032	0,0040	840 (730 – 950)
N11	E/M/A	0,60	0,050	0,060	0,080	0,10	300 (250 – 340)
		0,60	0,0020	0,0024	0,0032	0,0040	980 (830 – 1100)
S1	E	0,30	0,030	0,036	0,048	0,060	36 (22 – 50)
		0,30	0,0012	0,0014	0,0019	0,0024	120 (73 – 160)
S2	E	0,30	0,030	0,036	0,048	0,060	29 (18 – 40)
		0,30	0,0012	0,0014	0,0019	0,0024	95 (60 – 130)
S3	E	0,30	0,030	0,036	0,048	0,060	25 (15 – 34)
		0,30	0,0012	0,0014	0,0019	0,0024	80 (50 – 110)
S11	E	0,50	0,050	0,060	0,080	0,10	90 (66 – 110)
		0,50	0,0020	0,0024	0,0032	0,0040	295 (220 – 360)
S12	E	0,50	0,050	0,060	0,080	0,10	70 (50 – 89)
		0,50	0,0020	0,0024	0,0032	0,0040	230 (170 – 290)
S13	E	0,50	0,050	0,060	0,075	0,090	55 (39 – 69)
		0,50	0,0020	0,0024	0,0030	0,0036	180 (130 – 220)
H5	M/A	0,30	0,030	0,036	0,048	0,060	50 (41 – 60)
		0,30	0,0012	0,0014	0,0019	0,0024	165 (140 – 190)
H8	M/A	0,30	0,030	0,036	0,044	0,050	50 (41 – 60)
		0,30	0,0012	0,0014	0,0017	0,0020	165 (140 – 190)
H21	M/A	0,30	0,030	0,036	0,044	0,050	50 (41 – 60)
		0,30	0,0012	0,0014	0,0017	0,0020	165 (140 – 190)
H31	M/A	0,30	0,026	0,032	0,038	0,044	39 (32 – 46)
		0,30	0,0010	0,0013	0,0015	0,0017	130 (110 – 150)
TS1	A/D	0,70	0,050	0,060	0,080	0,10	250 (150 – 340)
		0,70	0,0020	0,0024	0,0032	0,0040	820 (500 – 1100)
TP1	A/D	0,70	0,050	0,060	0,080	0,10	250 (150 – 340)
		0,70	0,0020	0,0024	0,0032	0,0040	820 (500 – 1100)
GR1	A/D	0,70	0,050	0,060	0,080	0,10	600 (510 – 690)
		0,70	0,0020	0,0024	0,0032	0,0040	1975 (1700 – 2200)

XSE550

High performance – Universal – Square – 4 Flutes – Corner radius or chamfer



- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm

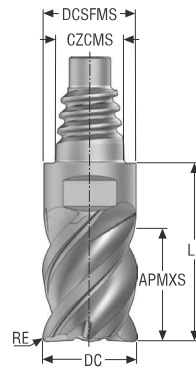
Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	CHW	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm	mm			SIRA
XSE550E10100D2CZ4	10138152	2	D	E10	10,0	9,7	12,0	18,7	0,125	–	4	8	■
XSE550E12120D2CZ4	10138153	2	D	E12	12,0	11,7	14,4	22,1	0,15	–	4	10	■
XSE550E16160D2CZ4	10138154	2	D	E16	16,0	15,5	19,2	29,2	0,2	–	4	12	■
XSE550E20200D2CZ4	10138155	2	D	E20	20,0	19,3	24,0	34,3	0,25	–	4	16	■
XSE550E10100D1R050Z4	10138156	1	D	E10	10,0	9,7	5,5	12,3	–	0,5	4	8	■
XSE550E12120D1R050Z4	10138157	1	D	E12	12,0	11,7	6,6	14,4	–	0,5	4	10	■
XSE550E16160D1R050Z4	10138158	1	D	E16	16,0	15,5	8,8	18,6	–	0,5	4	12	■
XSE550E20200D1R100Z4	10138159	1	D	E20	20,0	19,3	11,0	21,2	–	1,0	4	16	■
XSE550E10100D2R100Z4	10138161	2	D	E10	10,0	9,7	12,0	18,7	–	1,0	4	8	■
XSE550E12120D2R100Z4	10138165	2	D	E12	12,0	11,7	14,4	22,1	–	1,0	4	10	■
XSE550E16160D2R100Z4	10138169	2	D	E16	16,0	15,5	19,2	29,2	–	1,0	4	12	■
XSE550E20200D2R100Z4	10138172	2	D	E20	20,0	19,3	24,0	34,3	–	1,0	4	16	■
XSE550E10100D2R050Z4	10138160	2	D	E10	10,0	9,7	12,0	18,7	–	0,5	4	8	■
XSE550E10100D2R200Z4	10138162	2	D	E10	10,0	9,7	12,0	18,7	–	2,0	4	8	■
XSE550E10100D2R250Z4	10138163	2	D	E10	10,0	9,7	12,0	18,7	–	2,5	4	8	■
XSE550E12120D2R050Z4	10138164	2	D	E12	12,0	11,7	14,4	22,1	–	0,5	4	10	■
XSE550E12120D2R200Z4	10138166	2	D	E12	12,0	11,7	14,4	22,1	–	2,0	4	10	■
XSE550E12120D2R300Z4	10138167	2	D	E12	12,0	11,7	14,4	22,1	–	3,0	4	10	■
XSE550E16160D2R050Z4	10138168	2	D	E16	16,0	15,5	19,2	29,2	–	0,5	4	12	■
XSE550E16160D2R200Z4	10138170	2	D	E16	16,0	15,5	19,2	29,2	–	2,0	4	12	■
XSE550E16160D2R300Z4	10138171	2	D	E16	16,0	15,5	19,2	29,2	–	3,0	4	12	■
XSE550E20200D2R200Z4	10138173	2	D	E20	20,0	19,3	24,0	34,3	–	2,0	4	16	■
XSE550E20200D2R300Z4	10138174	2	D	E20	20,0	19,3	24,0	34,3	–	3,0	4	16	■
XSE550E20200D2R400Z4	10138175	2	D	E20	20,0	19,3	24,0	34,3	–	4,0	4	16	■

■ Stocked standard.

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and CFRP
Graphite
X-Heads
Minimaster Plus
Minimaster

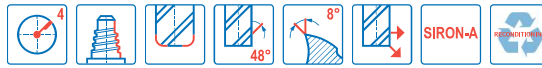
XSE550 – Inch

High performance – Universal – Square – 4 Flutes – Corner radius – Inch



D

- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					Inch	Inch	Inch	Inch	Inch			SIRA
XSE550E10.375D1R030Z4	10138176	1	D	E10	0.375	0.364	0.206	0.484	0.030	4	8	■
XSE550E12.500D1R030Z4	10138177	1	D	E12	0.500	0.484	0.275	0.567	0.030	4	10	■
XSE550E20.750D1R030Z4	10138178	1	D	E20	0.750	0.728	0.413	0.835	0.030	4	16	■
XSE550E10.375D2R030Z4	10138179	2	D	E10	0.375	0.364	0.450	0.720	0.030	4	8	■
XSE550E12.500D2R030Z4	10138180	2	D	E12	0.500	0.484	0.600	0.906	0.030	4	10	■
XSE550E20.750D2R030Z4	10138181	2	D	E20	0.750	0.728	0.900	1.295	0.030	4	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP


Graphite

X-Heads

Minimaster Plus

Minimaster


Cutting data – XSE550 – Side milling PCEDC 4

SMG		a _e /DC	a _p /DC	f _z				v _c	
				10	12	16	20		
P1	E/M/A/D	0,40	0,95	0,085	0,10	0,13	0,15	200 (180 – 220)	Universal
		0,40	0,95	0,0034	0,0040	0,0050	0,0060	660 (600 – 720)	
P2	E/M/A/D	0,40	0,95	0,090	0,10	0,13	0,15	195 (170 – 220)	Steel and cast iron
		0,40	0,95	0,0036	0,0040	0,0050	0,0060	640 (560 – 720)	
P3	E/M/A/D	0,40	0,95	0,085	0,10	0,12	0,14	170 (150 – 190)	Steel and cast iron
		0,40	0,95	0,0034	0,0040	0,0048	0,0055	560 (500 – 620)	
P4	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	150 (130 – 170)	Steel and cast iron
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	490 (430 – 550)	
P5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	145 (130 – 160)	Steel and cast iron
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	475 (430 – 520)	
P6	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,13	160 (140 – 180)	Steel and cast iron
		0,40	0,95	0,0032	0,0038	0,0048	0,0050	520 (460 – 590)	
P7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,13	150 (140 – 170)	Stainless steel and S-materials
		0,40	0,95	0,0032	0,0038	0,0048	0,0050	490 (460 – 550)	
P8	E/M/A/D	0,40	0,95	0,085	0,10	0,12	0,14	140 (130 – 160)	Stainless steel and S-materials
		0,40	0,95	0,0034	0,0040	0,0048	0,0055	460 (430 – 520)	
P11	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	95 (84 – 100)	Stainless steel and S-materials
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	310 (280 – 320)	
P12	E/M/A/D	0,30	0,95	0,044	0,055	0,065	0,075	60 (54 – 68)	Stainless steel and S-materials
		0,30	0,95	0,0017	0,0022	0,0026	0,0030	195 (180 – 220)	
M1	E/M/A	0,30	0,95	0,070	0,085	0,11	0,12	110 (97 – 120)	Non ferrous
		0,30	0,95	0,0028	0,0034	0,0044	0,0048	360 (320 – 390)	
M2	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	90 (80 – 100)	Non ferrous
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	295 (270 – 320)	
M3	E/M/A	0,30	0,95	0,055	0,065	0,080	0,090	60 (47 – 70)	Non ferrous
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	195 (160 – 220)	
M4	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	45 (37 – 54)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	150 (130 – 170)	
M5	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	38 (31 – 45)	Non ferrous
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	125 (110 – 140)	
K1	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	160 (160 – 190)	Hard
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	520 (530 – 620)	
K2	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	140 (140 – 170)	Hard
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	460 (460 – 550)	
K3	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	120 (120 – 140)	Hard
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	395 (400 – 450)	
K4	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	115 (110 – 130)	Hard
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	375 (370 – 420)	
K5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	150 (130 – 170)	Plastic and cfrp
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	490 (430 – 550)	
K6	E/M/A/D	0,40	0,95	0,090	0,11	0,13	0,15	215 (190 – 240)	Plastic and cfrp
		0,40	0,95	0,0036	0,0044	0,0050	0,0060	710 (630 – 780)	
K7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	190 (170 – 210)	Plastic and cfrp
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	620 (560 – 680)	
N1	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 770)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)	
N2	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	430 (360 – 490)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1400 (1200 – 1600)	
N3	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	285 (240 – 330)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	940 (790 – 1000)	
N11	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	335 (280 – 380)	Graphite
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1100 (920 – 1200)	
S1	E	0,15	0,95	0,090	0,11	0,13	0,15	43 (26 – 60)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	140 (86 – 190)	
S2	E	0,15	0,95	0,090	0,11	0,13	0,15	35 (21 – 48)	X-Heads
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	115 (69 – 150)	
S3	E	0,15	0,95	0,085	0,10	0,12	0,14	30 (19 – 42)	X-Heads
		0,15	0,95	0,0034	0,0040	0,0048	0,0055	100 (63 – 130)	
S11	E	0,40	0,95	0,060	0,070	0,090	0,10	105 (77 – 130)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	345 (260 – 420)	
S12	E	0,40	0,95	0,060	0,070	0,090	0,10	80 (59 – 100)	X-Heads
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	260 (200 – 320)	
S13	E	0,40	0,95	0,055	0,065	0,080	0,090	65 (47 – 83)	X-Heads
		0,40	0,95	0,0022	0,0026	0,0032	0,0036	215 (160 – 270)	
H5	M/A	0,050	0,95	0,090	0,11	0,13	0,15	75 (59 – 73)	Minimaster Plus
		0,050	0,95	0,0036	0,0044	0,0050	0,0060	245 (200 – 230)	
H8	M/A	0,050	0,95	0,070	0,085	0,10	0,12	75 (62 – 76)	Minimaster Plus
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	245 (210 – 240)	
H21	M/A	0,050	0,95	0,070	0,085	0,10	0,12	75 (62 – 76)	Minimaster Plus
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	245 (210 – 240)	
H31	M/A	0,050	0,95	0,060	0,070	0,090	0,10	60 (48 – 59)	Minimaster Plus
		0,050	0,95	0,0024	0,0028	0,0036	0,0040	195 (160 – 190)	
TS1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	275 (170 – 380)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	900 (560 – 1200)	
TP1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	275 (170 – 380)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	900 (560 – 1200)	
GR1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 770)	Minimaster
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)	

Cutting data – XSE550 – Slot milling PCEDC 4

SMG		a _p /DC	f _z				v _c
			10	12	16	20	
P1	E/M/A/D	0,80	0,040	0,048	0,065	0,080	190 (170 – 210)
		0,80	0,0016	0,0019	0,0026	0,0032	620 (560 – 680)
P2	E/M/A/D	0,80	0,040	0,048	0,065	0,080	185 (160 – 210)
		0,80	0,0016	0,0019	0,0026	0,0032	610 (530 – 680)
P3	E/M/A/D	0,80	0,040	0,048	0,065	0,080	160 (140 – 180)
		0,80	0,0016	0,0019	0,0026	0,0032	520 (460 – 590)
P4	E/M/A/D	0,80	0,040	0,048	0,065	0,080	140 (120 – 150)
		0,80	0,0016	0,0019	0,0026	0,0032	460 (400 – 490)
P5	E/M/A/D	0,80	0,040	0,048	0,065	0,080	135 (120 – 150)
		0,80	0,0016	0,0019	0,0026	0,0032	445 (400 – 490)
P6	E/M/A/D	0,80	0,040	0,048	0,065	0,080	150 (130 – 170)
		0,80	0,0016	0,0019	0,0026	0,0032	490 (430 – 550)
P7	E/M/A/D	0,80	0,040	0,048	0,065	0,080	140 (130 – 160)
		0,80	0,0016	0,0019	0,0026	0,0032	460 (430 – 520)
P8	E/M/A/D	0,80	0,040	0,048	0,065	0,080	135 (120 – 150)
		0,80	0,0016	0,0019	0,0026	0,0032	445 (400 – 490)
P11	E/M/A/D	0,60	0,030	0,036	0,048	0,060	85 (74 – 94)
		0,60	0,0012	0,0014	0,0019	0,0024	280 (250 – 300)
P12	E/M/A/D	0,60	0,030	0,036	0,048	0,060	50 (44 – 55)
		0,60	0,0012	0,0014	0,0019	0,0024	165 (150 – 180)
M1	E/M/A	0,60	0,030	0,036	0,048	0,060	100 (87 – 110)
		0,60	0,0012	0,0014	0,0019	0,0024	330 (290 – 360)
M2	E/M/A	0,60	0,030	0,036	0,048	0,060	80 (70 – 90)
		0,60	0,0012	0,0014	0,0019	0,0024	260 (230 – 290)
M3	E/M/A	0,60	0,030	0,036	0,048	0,060	50 (40 – 60)
		0,60	0,0012	0,0014	0,0019	0,0024	165 (140 – 190)
M4	E/M/A	0,60	0,030	0,036	0,048	0,060	37 (30 – 45)
		0,60	0,0012	0,0014	0,0019	0,0024	120 (99 – 140)
M5	E/M/A	0,60	0,030	0,036	0,048	0,060	31 (25 – 37)
		0,60	0,0012	0,0014	0,0019	0,0024	100 (83 – 120)
K1	E/M/A/D	0,80	0,040	0,048	0,065	0,080	150 (150 – 180)
		0,80	0,0016	0,0019	0,0026	0,0032	490 (500 – 590)
K2	E/M/A/D	0,80	0,040	0,048	0,065	0,080	130 (130 – 150)
		0,80	0,0016	0,0019	0,0026	0,0032	425 (430 – 490)
K3	E/M/A/D	0,80	0,040	0,048	0,065	0,080	110 (110 – 130)
		0,80	0,0016	0,0019	0,0026	0,0032	360 (370 – 420)
K4	E/M/A/D	0,80	0,040	0,048	0,065	0,080	105 (99 – 120)
		0,80	0,0016	0,0019	0,0026	0,0032	345 (330 – 390)
K5	E/M/A/D	0,80	0,040	0,048	0,065	0,080	140 (120 – 160)
		0,80	0,0016	0,0019	0,0026	0,0032	460 (400 – 520)
K6	E/M/A/D	0,80	0,040	0,048	0,065	0,080	205 (180 – 230)
		0,80	0,0016	0,0019	0,0026	0,0032	670 (600 – 750)
K7	E/M/A/D	0,80	0,040	0,048	0,065	0,080	180 (160 – 200)
		0,80	0,0016	0,0019	0,0026	0,0032	590 (530 – 650)
N1	E/M/A	0,60	0,050	0,060	0,080	0,10	600 (510 – 700)
		0,60	0,0020	0,0024	0,0032	0,0040	1975 (1700 – 2200)
N2	E/M/A	0,60	0,050	0,060	0,080	0,10	385 (330 – 450)
		0,60	0,0020	0,0024	0,0032	0,0040	1275 (1100 – 1400)
N3	E/M/A	0,60	0,050	0,060	0,080	0,10	255 (220 – 300)
		0,60	0,0020	0,0024	0,0032	0,0040	840 (730 – 980)
N11	E/M/A	0,60	0,050	0,060	0,080	0,10	300 (250 – 350)
		0,60	0,0020	0,0024	0,0032	0,0040	980 (830 – 1100)
S1	E	0,30	0,030	0,036	0,048	0,060	36 (22 – 50)
		0,30	0,0012	0,0014	0,0019	0,0024	120 (73 – 160)
S2	E	0,30	0,030	0,036	0,048	0,060	29 (18 – 40)
		0,30	0,0012	0,0014	0,0019	0,0024	95 (60 – 130)
S3	E	0,30	0,030	0,036	0,048	0,060	25 (15 – 34)
		0,30	0,0012	0,0014	0,0019	0,0024	80 (50 – 110)
S11	E	0,50	0,050	0,060	0,080	0,10	90 (65 – 110)
		0,50	0,0020	0,0024	0,0032	0,0040	295 (220 – 360)
S12	E	0,50	0,050	0,060	0,080	0,10	70 (50 – 90)
		0,50	0,0020	0,0024	0,0032	0,0040	230 (170 – 290)
S13	E	0,50	0,050	0,060	0,075	0,090	55 (39 – 69)
		0,50	0,0020	0,0024	0,0030	0,0036	180 (130 – 220)
H5	M/A	0,26	0,025	0,030	0,040	0,050	50 (41 – 50)
		0,26	0,0010	0,0012	0,0016	0,0020	165 (140 – 160)
H8	M/A	0,26	0,025	0,030	0,040	0,050	50 (41 – 50)
		0,26	0,0010	0,0012	0,0016	0,0020	165 (140 – 160)
H21	M/A	0,26	0,025	0,030	0,040	0,050	50 (41 – 50)
		0,26	0,0010	0,0012	0,0016	0,0020	165 (140 – 160)
H31	M/A	0,26	0,025	0,030	0,038	0,044	38 (31 – 38)
		0,26	0,0010	0,0012	0,0015	0,0017	125 (110 – 120)
TS1	A/D	0,60	0,050	0,060	0,080	0,10	250 (150 – 340)
		0,60	0,0020	0,0024	0,0032	0,0040	820 (500 – 1100)
TP1	A/D	0,60	0,050	0,060	0,080	0,10	250 (150 – 340)
		0,60	0,0020	0,0024	0,0032	0,0040	820 (500 – 1100)
GR1	A/D	0,60	0,050	0,060	0,080	0,10	600 (510 – 700)
		0,60	0,0020	0,0024	0,0032	0,0040	1975 (1700 – 2200)

Cutting data – XSE550 – Side milling PCEDC 4 inch

SMG		a _e /DC	a _p /DC	f _z				v _c
				3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,40	0,95	0,085	0,10	0,13	0,15	200 (180 – 220)
		0,40	0,95	0,0034	0,0040	0,0050	0,0060	660 (600 – 720)
P2	E/M/A/D	0,40	0,95	0,090	0,10	0,13	0,15	195 (170 – 220)
		0,40	0,95	0,0036	0,0040	0,0050	0,0060	640 (560 – 720)
P3	E/M/A/D	0,40	0,95	0,085	0,10	0,12	0,14	170 (150 – 190)
		0,40	0,95	0,0034	0,0040	0,0048	0,0055	560 (500 – 620)
P4	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	150 (130 – 170)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	490 (430 – 550)
P5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	145 (130 – 160)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	475 (430 – 520)
P6	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,13	160 (140 – 180)
		0,40	0,95	0,0032	0,0038	0,0048	0,0050	520 (460 – 590)
P7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,13	150 (140 – 170)
		0,40	0,95	0,0032	0,0038	0,0048	0,0050	490 (460 – 550)
P8	E/M/A/D	0,40	0,95	0,085	0,10	0,12	0,14	140 (130 – 160)
		0,40	0,95	0,0034	0,0040	0,0048	0,0055	460 (430 – 520)
P11	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	95 (84 – 100)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	310 (280 – 320)
P12	E/M/A/D	0,30	0,95	0,044	0,055	0,065	0,075	60 (54 – 68)
		0,30	0,95	0,0017	0,0022	0,0026	0,0030	195 (180 – 220)
M1	E/M/A	0,30	0,95	0,070	0,085	0,11	0,12	110 (97 – 120)
		0,30	0,95	0,0028	0,0034	0,0044	0,0048	360 (320 – 390)
M2	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	90 (80 – 100)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	295 (270 – 320)
M3	E/M/A	0,30	0,95	0,055	0,065	0,080	0,090	60 (47 – 70)
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	195 (160 – 220)
M4	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	45 (37 – 54)
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	150 (130 – 170)
M5	E/M/A	0,30	0,95	0,048	0,055	0,070	0,080	38 (31 – 45)
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	125 (110 – 140)
K1	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	160 (160 – 190)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	520 (530 – 620)
K2	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	140 (140 – 170)
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	460 (460 – 550)
K3	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	120 (120 – 140)
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	395 (400 – 450)
K4	E/M/A/D	0,40	0,95	0,075	0,090	0,11	0,13	115 (110 – 130)
		0,40	0,95	0,0030	0,0036	0,0044	0,0050	375 (370 – 420)
K5	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	150 (130 – 170)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	490 (430 – 550)
K6	E/M/A/D	0,40	0,95	0,090	0,11	0,13	0,15	215 (190 – 240)
		0,40	0,95	0,0036	0,0044	0,0050	0,0060	710 (630 – 780)
K7	E/M/A/D	0,40	0,95	0,080	0,095	0,12	0,14	190 (170 – 210)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	620 (560 – 680)
N1	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 770)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)
N2	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	430 (360 – 490)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1400 (1200 – 1600)
N3	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	285 (240 – 330)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	940 (790 – 1000)
N11	E/M/A	0,40	0,95	0,080	0,095	0,12	0,14	335 (280 – 380)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	1100 (920 – 1200)
S1	E	0,15	0,95	0,090	0,11	0,13	0,15	43 (26 – 60)
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	140 (86 – 190)
S2	E	0,15	0,95	0,090	0,11	0,13	0,15	35 (21 – 48)
		0,15	0,95	0,0036	0,0044	0,0050	0,0060	115 (69 – 150)
S3	E	0,15	0,95	0,085	0,10	0,12	0,14	30 (19 – 42)
		0,15	0,95	0,0034	0,0040	0,0048	0,0055	100 (63 – 130)
S11	E	0,40	0,95	0,060	0,070	0,090	0,10	105 (77 – 130)
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	345 (260 – 420)
S12	E	0,40	0,95	0,060	0,070	0,090	0,10	80 (59 – 100)
		0,40	0,95	0,0024	0,0028	0,0036	0,0040	260 (200 – 320)
S13	E	0,40	0,95	0,055	0,065	0,080	0,090	65 (47 – 83)
		0,40	0,95	0,0022	0,0026	0,0032	0,0036	215 (160 – 270)
H5	M/A	0,050	0,95	0,090	0,11	0,13	0,15	75 (59 – 73)
		0,050	0,95	0,0036	0,0044	0,0050	0,0060	245 (200 – 230)
H8	M/A	0,050	0,95	0,070	0,085	0,10	0,12	75 (62 – 76)
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	245 (210 – 240)
H21	M/A	0,050	0,95	0,070	0,085	0,10	0,12	75 (62 – 76)
		0,050	0,95	0,0028	0,0034	0,0040	0,0048	245 (210 – 240)
H31	M/A	0,050	0,95	0,060	0,070	0,090	0,10	60 (48 – 59)
		0,050	0,95	0,0024	0,0028	0,0036	0,0040	195 (160 – 190)
TS1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	275 (170 – 380)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	900 (560 – 1200)
TP1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	275 (170 – 380)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	900 (560 – 1200)
GR1	A/D	0,40	0,95	0,080	0,095	0,12	0,14	670 (560 – 770)
		0,40	0,95	0,0032	0,0038	0,0048	0,0055	2200 (1900 – 2500)

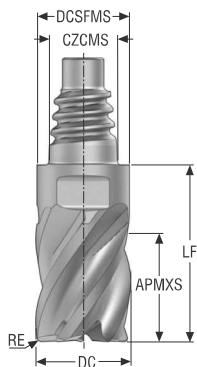
Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XSE550 – Slot milling PCEDC 4 inch

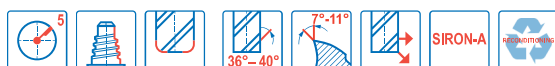
SMG		a _p /DC	f _z				v _c	
			3/8	1/2	5/8	3/4		
Universal Steel and cast iron	P1	E/M/A/D	0,80	0,040	0,048	0,065	0,080	190 (170 – 210)
			0,80	0,0016	0,0019	0,0026	0,0032	620 (560 – 680)
	P2	E/M/A/D	0,80	0,040	0,048	0,065	0,080	185 (160 – 210)
			0,80	0,0016	0,0019	0,0026	0,0032	610 (530 – 680)
	P3	E/M/A/D	0,80	0,040	0,048	0,065	0,080	160 (140 – 180)
			0,80	0,0016	0,0019	0,0026	0,0032	520 (460 – 590)
	P4	E/M/A/D	0,80	0,040	0,048	0,065	0,080	140 (120 – 150)
			0,80	0,0016	0,0019	0,0026	0,0032	460 (400 – 490)
	P5	E/M/A/D	0,80	0,040	0,048	0,065	0,080	135 (120 – 150)
			0,80	0,0016	0,0019	0,0026	0,0032	445 (400 – 490)
	P6	E/M/A/D	0,80	0,040	0,048	0,065	0,080	150 (130 – 170)
			0,80	0,0016	0,0019	0,0026	0,0032	490 (430 – 550)
P7	E/M/A/D	0,80	0,040	0,048	0,065	0,080	140 (130 – 160)	
		0,80	0,0016	0,0019	0,0026	0,0032	460 (430 – 520)	
P8	E/M/A/D	0,80	0,040	0,048	0,065	0,080	135 (120 – 150)	
		0,80	0,0016	0,0019	0,0026	0,0032	445 (400 – 490)	
P11	E/M/A/D	0,60	0,030	0,036	0,048	0,060	85 (74 – 94)	
		0,60	0,0012	0,0014	0,0019	0,0024	280 (250 – 300)	
P12	E/M/A/D	0,60	0,030	0,036	0,048	0,060	50 (44 – 55)	
		0,60	0,0012	0,0014	0,0019	0,0024	165 (150 – 180)	
Non ferrous	M1	E/M/A	0,60	0,030	0,036	0,048	0,060	100 (87 – 110)
			0,60	0,0012	0,0014	0,0019	0,0024	330 (290 – 360)
	M2	E/M/A	0,60	0,030	0,036	0,048	0,060	80 (70 – 90)
			0,60	0,0012	0,0014	0,0019	0,0024	260 (230 – 290)
	M3	E/M/A	0,60	0,030	0,036	0,048	0,060	50 (40 – 60)
		0,60	0,0012	0,0014	0,0019	0,0024	165 (140 – 190)	
M4	E/M/A	0,60	0,030	0,036	0,048	0,060	37 (30 – 45)	
		0,60	0,0012	0,0014	0,0019	0,0024	120 (99 – 140)	
M5	E/M/A	0,60	0,030	0,036	0,048	0,060	31 (25 – 37)	
		0,60	0,0012	0,0014	0,0019	0,0024	100 (83 – 120)	
Hard	K1	E/M/A/D	0,80	0,040	0,048	0,065	0,080	150 (150 – 180)
			0,80	0,0016	0,0019	0,0026	0,0032	490 (500 – 590)
	K2	E/M/A/D	0,80	0,040	0,048	0,065	0,080	130 (130 – 150)
			0,80	0,0016	0,0019	0,0026	0,0032	425 (430 – 490)
	K3	E/M/A/D	0,80	0,040	0,048	0,065	0,080	110 (110 – 130)
			0,80	0,0016	0,0019	0,0026	0,0032	360 (370 – 420)
	K4	E/M/A/D	0,80	0,040	0,048	0,065	0,080	105 (99 – 120)
		0,80	0,0016	0,0019	0,0026	0,0032	345 (330 – 390)	
K5	E/M/A/D	0,80	0,040	0,048	0,065	0,080	140 (120 – 160)	
		0,80	0,0016	0,0019	0,0026	0,0032	460 (400 – 520)	
K6	E/M/A/D	0,80	0,040	0,048	0,065	0,080	205 (180 – 230)	
		0,80	0,0016	0,0019	0,0026	0,0032	670 (600 – 750)	
K7	E/M/A/D	0,80	0,040	0,048	0,065	0,080	180 (160 – 200)	
		0,80	0,0016	0,0019	0,0026	0,0032	590 (530 – 650)	
Plastic and cfrp	N1	E/M/A	0,60	0,050	0,060	0,080	0,10	600 (510 – 700)
			0,60	0,0020	0,0024	0,0032	0,0040	1975 (1700 – 2200)
	N2	E/M/A	0,60	0,050	0,060	0,080	0,10	385 (330 – 450)
			0,60	0,0020	0,0024	0,0032	0,0040	1275 (1100 – 1400)
N3	E/M/A	0,60	0,050	0,060	0,080	0,10	255 (220 – 300)	
		0,60	0,0020	0,0024	0,0032	0,0040	840 (730 – 980)	
N11	E/M/A	0,60	0,050	0,060	0,080	0,10	300 (250 – 350)	
		0,60	0,0020	0,0024	0,0032	0,0040	980 (830 – 1100)	
X-Heads	S1	E	0,30	0,030	0,036	0,048	0,060	36 (22 – 50)
			0,30	0,0012	0,0014	0,0019	0,0024	120 (73 – 160)
	S2	E	0,30	0,030	0,036	0,048	0,060	29 (18 – 40)
			0,30	0,0012	0,0014	0,0019	0,0024	95 (60 – 130)
	S3	E	0,30	0,030	0,036	0,048	0,060	25 (15 – 34)
			0,30	0,0012	0,0014	0,0019	0,0024	80 (50 – 110)
S11	E	0,50	0,050	0,060	0,080	0,10	90 (65 – 110)	
		0,50	0,0020	0,0024	0,0032	0,0040	295 (220 – 360)	
S12	E	0,50	0,050	0,060	0,080	0,10	70 (50 – 90)	
		0,50	0,0020	0,0024	0,0032	0,0040	230 (170 – 290)	
S13	E	0,50	0,050	0,060	0,075	0,090	55 (39 – 69)	
		0,50	0,0020	0,0024	0,0030	0,0036	180 (130 – 220)	
Minimaster Plus	H5	M/A	0,26	0,025	0,030	0,040	0,050	50 (41 – 50)
			0,26	0,0010	0,0012	0,0016	0,0020	165 (140 – 160)
	H8	M/A	0,26	0,025	0,030	0,040	0,050	50 (41 – 50)
Minimaster	H21	M/A	0,26	0,025	0,030	0,040	0,050	50 (41 – 50)
			0,26	0,0010	0,0012	0,0016	0,0020	165 (140 – 160)
	H31	M/A	0,26	0,025	0,030	0,038	0,044	38 (31 – 38)
Minimaster	TS1	A/D	0,60	0,050	0,060	0,080	0,10	250 (150 – 340)
			0,60	0,0020	0,0024	0,0032	0,0040	820 (500 – 1100)
	TP1	A/D	0,60	0,050	0,060	0,080	0,10	250 (150 – 340)
			0,60	0,0020	0,0024	0,0032	0,0040	820 (500 – 1100)
GR1	A/D	0,60	0,050	0,060	0,080	0,10	600 (510 – 700)	
		0,60	0,0020	0,0024	0,0032	0,0040	1975 (1700 – 2200)	

XSE550

High performance – Universal – Square – 5 Flutes – Corner radius



D



- Tolerances:
- DC= 0/-0,0508 mm
- RE= ±0,0254 mm
- Regrind possible if DC is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XSE550E10100D2R050Z5	10138337	2	D	E10	10,0	9,7	12,0	18,7	0,5	5	8	■
XSE550E10100D2R100Z5	10138338	2	D	E10	10,0	9,7	12,0	18,7	1,0	5	8	■
XSE550E12120D2R050Z5	10138339	2	D	E12	12,0	11,7	14,4	22,1	0,5	5	10	■
XSE550E12120D2R100Z5	10138340	2	D	E12	12,0	11,7	14,4	22,1	1,0	5	10	■
XSE550E16160D2R050Z5	10138341	2	D	E16	16,0	15,5	19,2	29,2	0,5	5	12	■
XSE550E16160D2R100Z5	10138342	2	D	E16	16,0	15,5	19,2	29,2	1,0	5	12	■
XSE550E20200D2R050Z5	10138343	2	D	E20	20,0	19,3	24,0	34,3	0,5	5	16	■
XSE550E20200D2R100Z5	10138344	2	D	E20	20,0	19,3	24,0	34,3	1,0	5	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

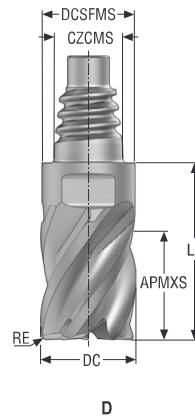
X-Heads

Minimaster Plus

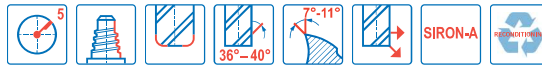
Minimaster

XSE550

High performance – Universal – Square – 5 Flutes – Corner radius – Inch




- Tolerances:
- DC= 0/- .002 Inch
- RE= ±.001 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>			SIRA
XSE550E10.375D2R015Z5	10138345	2	D	E10	0.375	0.364	0.450	0.720	0.015	5	8	■
XSE550E10.375D2R030Z5	10138346	2	D	E10	0.375	0.364	0.450	0.720	0.030	5	8	■
XSE550E10.375D2R045Z5	10138347	2	D	E10	0.375	0.364	0.450	0.720	0.044	5	8	■
XSE550E12.500D2R030Z5	10138348	2	D	E12	0.500	0.484	0.600	0.906	0.030	5	10	■
XSE550E12.500D2R060Z5	10138349	2	D	E12	0.500	0.484	0.600	0.906	0.060	5	10	■
XSE550E12.500D2R120Z5	10138350	2	D	E12	0.500	0.484	0.600	0.906	0.120	5	10	■
XSE550E16.625D2R030Z5	10138351	2	D	E16	0.625	0.610	0.750	1.150	0.030	5	12	■
XSE550E16.625D2R060Z5	10138352	2	D	E16	0.625	0.610	0.750	1.150	0.060	5	12	■
XSE550E16.625D2R120Z5	10138353	2	D	E16	0.625	0.610	0.750	1.150	0.120	5	12	■
XSE550E20.750D2R030Z5	10138354	2	D	E20	0.750	0.728	0.900	1.295	0.030	5	16	■
XSE550E20.750D2R060Z5	10138355	2	D	E20	0.750	0.728	0.900	1.295	0.060	5	16	■
XSE550E20.750D2R120Z5	10138356	2	D	E20	0.750	0.728	0.900	1.295	0.120	5	16	■
XSE550E251.000D2R030Z5	10138357	2	D	E25	1.000	0.965	1.200	1.673	0.030	5	20	■
XSE550E251.000D2R060Z5	10138358	2	D	E25	1.000	0.965	1.200	1.673	0.060	5	20	■
XSE550E251.000D2R120Z5	10138359	2	D	E25	1.000	0.965	1.200	1.673	0.120	5	20	■

■ Stocked standard.

Cutting data – XSE550 – Side milling PCEDC 5

SMG		a _p /DC	a _p /DC	f _z				v _c	
				10	12	16	20		
P1	E/M/A/D	0,30	0,95	0,080	0,095	0,12	0,14	0,15	200 (180 – 220)
		0,30	0,95	0,0032	0,0038	0,0048	0,0055	0,0060	660 (600 – 720)
P2	E/M/A/D	0,30	0,95	0,080	0,095	0,12	0,14	0,16	195 (170 – 220)
		0,30	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	640 (560 – 720)
P3	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,15	170 (150 – 190)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0060	560 (500 – 620)
P4	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,14	150 (130 – 170)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	490 (430 – 550)
P5	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,14	145 (130 – 160)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	475 (430 – 520)
P6	E/M/A/D	0,30	0,95	0,075	0,085	0,11	0,12	0,14	160 (140 – 180)
		0,30	0,95	0,0030	0,0034	0,0044	0,0048	0,0055	520 (460 – 590)
P7	E/M/A/D	0,30	0,95	0,075	0,085	0,11	0,12	0,14	150 (130 – 170)
		0,30	0,95	0,0030	0,0034	0,0044	0,0048	0,0055	490 (430 – 550)
P8	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,15	145 (130 – 160)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0060	475 (430 – 520)
P11	E/M/A/D	0,20	0,95	0,060	0,070	0,090	0,10	0,12	100 (89 – 110)
		0,20	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	330 (300 – 360)
P12	E/M/A/D	0,20	0,95	0,042	0,050	0,060	0,070	0,080	65 (56 – 71)
		0,20	0,95	0,0017	0,0020	0,0024	0,0028	0,0032	215 (190 – 230)
M1	E/M/A	0,20	0,95	0,070	0,080	0,10	0,12	0,13	115 (110 – 120)
		0,20	0,95	0,0028	0,0032	0,0040	0,0048	0,0050	375 (370 – 390)
M2	E/M/A	0,20	0,95	0,060	0,075	0,090	0,10	0,12	95 (84 – 100)
		0,20	0,95	0,0024	0,0030	0,0036	0,0040	0,0048	310 (280 – 320)
M3	E/M/A	0,20	0,95	0,060	0,075	0,090	0,10	0,12	60 (47 – 69)
		0,20	0,95	0,0024	0,0030	0,0036	0,0040	0,0048	195 (160 – 220)
M4	E/M/A	0,20	0,95	0,055	0,065	0,080	0,090	0,10	44 (36 – 53)
		0,20	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	145 (120 – 170)
M5	E/M/A	0,20	0,95	0,055	0,065	0,080	0,090	0,10	37 (30 – 44)
		0,20	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	120 (99 – 140)
K1	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	165 (160 – 190)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	540 (530 – 620)
K2	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	145 (140 – 170)
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	475 (460 – 550)
K3	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	125 (120 – 140)
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	410 (400 – 450)
K4	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	120 (110 – 140)
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	395 (370 – 450)
K5	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	155 (140 – 170)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	510 (460 – 550)
K6	E/M/A/D	0,30	0,95	0,070	0,085	0,11	0,12	0,14	225 (200 – 250)
		0,30	0,95	0,0028	0,0034	0,0044	0,0048	0,0055	740 (660 – 820)
K7	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	200 (170 – 220)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	660 (560 – 720)
N1	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	690 (580 – 800)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	2275 (2000 – 2600)
N2	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	445 (380 – 520)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	1450 (1300 – 1700)
N3	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	300 (250 – 340)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	980 (830 – 1100)
N11	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	345 (290 – 400)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	1125 (960 – 1300)
S1	E	0,15	0,95	0,075	0,090	0,11	0,13	0,14	44 (27 – 61)
		0,15	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	145 (89 – 200)
S2	E	0,15	0,95	0,075	0,090	0,11	0,13	0,14	35 (22 – 49)
		0,15	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	115 (73 – 160)
S3	E	0,15	0,95	0,070	0,080	0,10	0,12	0,13	31 (19 – 43)
		0,15	0,95	0,0028	0,0032	0,0040	0,0048	0,0050	100 (63 – 140)
S11	E	0,30	0,95	0,055	0,065	0,080	0,090	0,10	105 (75 – 130)
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	345 (250 – 420)
S12	E	0,30	0,95	0,055	0,065	0,080	0,090	0,10	80 (58 – 100)
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	260 (200 – 320)
S13	E	0,30	0,95	0,048	0,055	0,070	0,080	0,090	65 (46 – 81)
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	0,0036	215 (160 – 260)
H5	M/A	0,050	0,95	0,090	0,10	0,13	0,15	0,17	70 (56 – 83)
		0,050	0,95	0,0036	0,0040	0,0050	0,0060	0,0065	230 (190 – 270)
H8	M/A	0,050	0,95	0,070	0,080	0,10	0,11	0,13	70 (58 – 86)
		0,050	0,95	0,0028	0,0032	0,0040	0,0044	0,0050	230 (200 – 280)
H21	M/A	0,050	0,95	0,070	0,080	0,10	0,11	0,13	70 (58 – 86)
		0,050	0,95	0,0028	0,0032	0,0040	0,0044	0,0050	230 (200 – 280)
H31	M/A	0,050	0,95	0,060	0,070	0,085	0,10	0,11	55 (45 – 67)
		0,050	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	180 (150 – 210)
TS1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	290 (180 – 400)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	950 (600 – 1300)
TP1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	290 (180 – 400)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	950 (600 – 1300)
GR1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	690 (580 – 800)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	2275 (2000 – 2600)

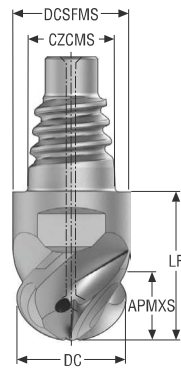
Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XSE550 – Side milling PCEDC 5 inch

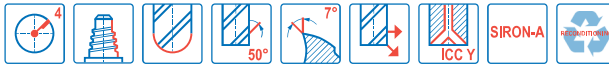
SMG		a _p /DC	a _p /DC	f _z					v _c
				3/8	1/2	5/8	3/4	1	
P1	E/M/A/D	0,30	0,95	0,080	0,095	0,12	0,14	0,15	200 (180 – 220)
		0,30	0,95	0,0032	0,0038	0,0048	0,0055	0,0060	660 (600 – 720)
P2	E/M/A/D	0,30	0,95	0,080	0,095	0,12	0,14	0,16	195 (170 – 220)
		0,30	0,95	0,0032	0,0038	0,0048	0,0055	0,0065	640 (560 – 720)
P3	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,15	170 (150 – 190)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0060	560 (500 – 620)
P4	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,14	150 (130 – 170)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	490 (430 – 550)
P5	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,14	145 (130 – 160)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	475 (430 – 520)
P6	E/M/A/D	0,30	0,95	0,075	0,085	0,11	0,12	0,14	160 (140 – 180)
		0,30	0,95	0,0030	0,0034	0,0044	0,0048	0,0055	520 (460 – 590)
P7	E/M/A/D	0,30	0,95	0,075	0,085	0,11	0,12	0,14	150 (130 – 170)
		0,30	0,95	0,0030	0,0034	0,0044	0,0048	0,0055	490 (430 – 550)
P8	E/M/A/D	0,30	0,95	0,075	0,090	0,11	0,13	0,15	145 (130 – 160)
		0,30	0,95	0,0030	0,0036	0,0044	0,0050	0,0060	475 (430 – 520)
P11	E/M/A/D	0,20	0,95	0,060	0,070	0,090	0,10	0,12	100 (89 – 110)
		0,20	0,95	0,0024	0,0028	0,0036	0,0040	0,0048	330 (300 – 360)
P12	E/M/A/D	0,20	0,95	0,042	0,050	0,060	0,070	0,080	65 (56 – 71)
		0,20	0,95	0,0017	0,0020	0,0024	0,0028	0,0032	215 (190 – 230)
M1	E/M/A	0,20	0,95	0,070	0,080	0,10	0,12	0,13	115 (110 – 120)
		0,20	0,95	0,0028	0,0032	0,0040	0,0048	0,0050	375 (370 – 390)
M2	E/M/A	0,20	0,95	0,060	0,075	0,090	0,10	0,12	95 (84 – 100)
		0,20	0,95	0,0024	0,0030	0,0036	0,0040	0,0048	310 (280 – 320)
M3	E/M/A	0,20	0,95	0,060	0,075	0,090	0,10	0,12	60 (47 – 69)
		0,20	0,95	0,0024	0,0030	0,0036	0,0040	0,0048	195 (160 – 220)
M4	E/M/A	0,20	0,95	0,055	0,065	0,080	0,090	0,10	44 (36 – 53)
		0,20	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	145 (120 – 170)
M5	E/M/A	0,20	0,95	0,055	0,065	0,080	0,090	0,10	37 (30 – 44)
		0,20	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	120 (99 – 140)
K1	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	165 (160 – 190)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	540 (530 – 620)
K2	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	145 (140 – 170)
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	475 (460 – 550)
K3	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	125 (120 – 140)
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	410 (400 – 450)
K4	E/M/A/D	0,30	0,95	0,060	0,070	0,085	0,10	0,11	120 (110 – 140)
		0,30	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	395 (370 – 450)
K5	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	155 (140 – 170)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	510 (460 – 550)
K6	E/M/A/D	0,30	0,95	0,070	0,085	0,11	0,12	0,14	225 (200 – 250)
		0,30	0,95	0,0028	0,0034	0,0044	0,0048	0,0055	740 (660 – 820)
K7	E/M/A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	200 (170 – 220)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	660 (560 – 720)
N1	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	690 (580 – 800)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	2275 (2000 – 2600)
N2	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	445 (380 – 520)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	1450 (1300 – 1700)
N3	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	300 (250 – 340)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	980 (830 – 1100)
N11	E/M/A	0,30	0,95	0,065	0,075	0,095	0,11	0,12	345 (290 – 400)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	1125 (960 – 1300)
S1	E	0,15	0,95	0,075	0,090	0,11	0,13	0,14	44 (27 – 61)
		0,15	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	145 (89 – 200)
S2	E	0,15	0,95	0,075	0,090	0,11	0,13	0,14	35 (22 – 49)
		0,15	0,95	0,0030	0,0036	0,0044	0,0050	0,0055	115 (73 – 160)
S3	E	0,15	0,95	0,070	0,080	0,10	0,12	0,13	31 (19 – 43)
		0,15	0,95	0,0028	0,0032	0,0040	0,0048	0,0050	100 (63 – 140)
S11	E	0,30	0,95	0,055	0,065	0,080	0,090	0,10	105 (75 – 130)
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	345 (250 – 420)
S12	E	0,30	0,95	0,055	0,065	0,080	0,090	0,10	80 (58 – 100)
		0,30	0,95	0,0022	0,0026	0,0032	0,0036	0,0040	260 (200 – 320)
S13	E	0,30	0,95	0,048	0,055	0,070	0,080	0,090	65 (46 – 81)
		0,30	0,95	0,0019	0,0022	0,0028	0,0032	0,0036	215 (160 – 260)
H5	M/A	0,050	0,95	0,090	0,10	0,13	0,15	0,17	70 (56 – 83)
		0,050	0,95	0,0036	0,0040	0,0050	0,0060	0,0065	230 (190 – 270)
H8	M/A	0,050	0,95	0,070	0,080	0,10	0,11	0,13	70 (58 – 86)
		0,050	0,95	0,0028	0,0032	0,0040	0,0044	0,0050	230 (200 – 280)
H21	M/A	0,050	0,95	0,070	0,080	0,10	0,11	0,13	70 (58 – 86)
		0,050	0,95	0,0028	0,0032	0,0040	0,0044	0,0050	230 (200 – 280)
H31	M/A	0,050	0,95	0,060	0,070	0,085	0,10	0,11	55 (45 – 67)
		0,050	0,95	0,0024	0,0028	0,0034	0,0040	0,0044	180 (150 – 210)
TS1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	290 (180 – 400)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	950 (600 – 1300)
TP1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	290 (180 – 400)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	950 (600 – 1300)
GR1	A/D	0,30	0,95	0,065	0,075	0,095	0,11	0,12	690 (580 – 800)
		0,30	0,95	0,0026	0,0030	0,0038	0,0044	0,0048	2275 (2000 – 2600)

XSB540

High performance – Universal – Ball nose – 4 Flutes – ICC



D



- Tolerances:
- DC= e8
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CSP	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
						mm	mm	mm	mm			SIRA
XSB540E10100D1BZ4A	10138334	1	D	■	E10	10,0	9,7	5,5	12,3	4	8	■
XSB540E12120D1BZ4A	10138335	1	D	■	E12	12,0	11,7	6,6	14,4	4	10	■
XSB540E16160D1BZ4A	10138336	1	D	■	E16	16,0	15,5	8,8	18,6	4	12	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

X-Heads

Minimaster Plus

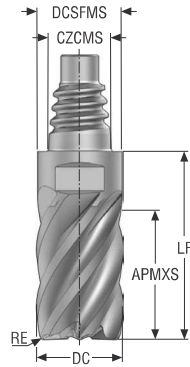
Minimaster

Cutting data – XSB540 Copy milling roughing

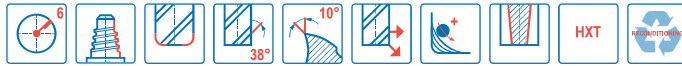
SMG		a _g /DC	a _p /DC	f _z			v _c	
				10	12	16		
Universal Steel and cast iron	P1	E/M/A/D	0,10	0,50	0,055	0,065	0,080	210 (190 – 240)
			0,10	0,50	0,0022	0,0026	0,0032	690 (630 – 780)
	P2	E/M/A/D	0,10	0,50	0,055	0,065	0,080	205 (180 – 230)
			0,10	0,50	0,0022	0,0026	0,0032	670 (600 – 750)
	P3	E/M/A/D	0,10	0,50	0,050	0,060	0,075	180 (160 – 200)
			0,10	0,50	0,0020	0,0024	0,0030	590 (530 – 650)
	P4	E/M/A/D	0,10	0,50	0,050	0,060	0,075	155 (140 – 170)
			0,10	0,50	0,0020	0,0024	0,0030	510 (460 – 550)
	P5	E/M/A/D	0,10	0,50	0,050	0,060	0,075	150 (130 – 170)
			0,10	0,50	0,0020	0,0024	0,0030	490 (430 – 550)
	P6	E/M/A/D	0,10	0,50	0,050	0,060	0,075	170 (150 – 190)
			0,10	0,50	0,0020	0,0024	0,0030	560 (500 – 620)
P7	E/M/A/D	0,10	0,50	0,050	0,060	0,075	160 (140 – 180)	
		0,10	0,50	0,0020	0,0024	0,0030	520 (460 – 590)	
P8	E/M/A/D	0,10	0,50	0,050	0,060	0,075	150 (130 – 170)	
		0,10	0,50	0,0020	0,0024	0,0030	490 (430 – 550)	
P11	E/M/A/D	0,10	0,50	0,070	0,085	0,11	190 (160 – 220)	
		0,10	0,50	0,0028	0,0034	0,0044	620 (530 – 720)	
P12	E/M/A/D	0,10	0,50	0,050	0,060	0,075	115 (97 – 130)	
		0,10	0,50	0,0020	0,0024	0,0030	375 (320 – 420)	
Non ferrous	M1	E/M/A	0,10	0,50	0,055	0,065	0,080	145 (120 – 170)
			0,10	0,50	0,0022	0,0026	0,0032	475 (400 – 550)
	M2	E/M/A	0,10	0,50	0,050	0,060	0,075	115 (97 – 130)
			0,10	0,50	0,0020	0,0024	0,0030	375 (320 – 420)
	M3	E/M/A	0,10	0,50	0,040	0,048	0,060	95 (75 – 110)
		0,10	0,50	0,0016	0,0019	0,0024	310 (250 – 360)	
M4	E/M/A	0,10	0,50	0,036	0,042	0,050	75 (57 – 88)	
		0,10	0,50	0,0014	0,0017	0,0020	245 (190 – 280)	
M5	E/M/A	0,10	0,50	0,036	0,042	0,050	60 (48 – 74)	
		0,10	0,50	0,0014	0,0017	0,0020	195 (160 – 240)	
Hard	K1	E/M/A/D	0,15	0,50	0,040	0,048	0,060	205 (190 – 220)
			0,15	0,50	0,0016	0,0019	0,0024	670 (630 – 720)
	K2	E/M/A/D	0,15	0,50	0,036	0,044	0,055	180 (160 – 190)
			0,15	0,50	0,0014	0,0017	0,0022	590 (530 – 620)
	K3	E/M/A/D	0,15	0,50	0,036	0,044	0,055	150 (140 – 160)
			0,15	0,50	0,0014	0,0017	0,0022	490 (460 – 520)
	K4	E/M/A/D	0,10	0,50	0,040	0,048	0,060	170 (150 – 190)
		0,10	0,50	0,0016	0,0019	0,0024	560 (500 – 620)	
K5	E/M/A/D	0,10	0,50	0,036	0,042	0,055	105 (90 – 110)	
		0,10	0,50	0,0014	0,0017	0,0022	345 (300 – 360)	
K6	E/M/A/D	0,10	0,50	0,040	0,048	0,060	150 (140 – 160)	
		0,10	0,50	0,0016	0,0019	0,0024	490 (460 – 520)	
K7	E/M/A/D	0,10	0,50	0,036	0,042	0,055	130 (120 – 140)	
		0,10	0,50	0,0014	0,0017	0,0022	425 (400 – 450)	
Graphite	N1	E/M/A	0,20	0,50	0,070	0,085	0,10	640 (540 – 740)
			0,20	0,50	0,0028	0,0034	0,0040	2100 (1800 – 2400)
	N2	E/M/A	0,20	0,50	0,070	0,085	0,10	415 (350 – 480)
			0,20	0,50	0,0028	0,0034	0,0040	1350 (1200 – 1500)
	N3	E/M/A	0,20	0,50	0,070	0,085	0,10	275 (230 – 320)
		0,20	0,50	0,0028	0,0034	0,0040	900 (760 – 1000)	
N11	E/M/A	0,15	0,50	0,070	0,085	0,10	430 (380 – 480)	
		0,15	0,50	0,0028	0,0034	0,0040	1400 (1300 – 1500)	
X-Heads	S1	E	0,10	0,50	0,050	0,060	0,075	65 (54 – 74)
			0,10	0,50	0,0020	0,0024	0,0030	215 (180 – 240)
	S2	E	0,10	0,50	0,050	0,060	0,075	65 (59 – 75)
			0,10	0,50	0,0020	0,0024	0,0030	215 (200 – 240)
	S3	E	0,10	0,50	0,020	0,024	0,030	32 (22 – 42)
		0,10	0,50	0,00080	0,00095	0,0012	105 (73 – 130)	
Minimaster Plus	S11	E	0,15	0,50	0,050	0,060	0,075	110 (98 – 120)
			0,15	0,50	0,0020	0,0024	0,0030	360 (330 – 390)
	S12	E	0,15	0,50	0,050	0,060	0,075	85 (75 – 96)
Minimaster	S13	E	0,15	0,50	0,044	0,050	0,065	65 (59 – 75)
			0,15	0,50	0,0017	0,0020	0,0026	215 (200 – 240)
	H5	M/A	0,030	0,44	0,050	0,060	0,075	135 (120 – 150)
H8	M/A	0,030	0,44	0,038	0,046	0,055	135 (120 – 150)	
		0,030	0,44	0,0015	0,0018	0,0022	445 (400 – 490)	
		0,030	0,44	0,038	0,046	0,055	135 (120 – 150)	
H21	M/A	0,030	0,44	0,038	0,046	0,055	135 (120 – 150)	
		0,030	0,44	0,0015	0,0018	0,0022	445 (400 – 490)	
		0,030	0,44	0,034	0,040	0,048	100 (86 – 110)	
H31	M/A	0,030	0,44	0,034	0,040	0,048	100 (86 – 110)	
		0,030	0,44	0,0013	0,0016	0,0019	330 (290 – 360)	
		0,030	0,44	0,034	0,040	0,048	100 (86 – 110)	
TS1	A/D	0,15	0,50	0,10	0,12	0,15	270 (170 – 370)	
		0,15	0,50	0,0040	0,0048	0,0060	890 (560 – 1200)	
		0,15	0,50	0,10	0,12	0,15	270 (170 – 370)	
TP1	A/D	0,15	0,50	0,10	0,12	0,15	270 (170 – 370)	
		0,15	0,50	0,0040	0,0048	0,0060	890 (560 – 1200)	
		0,15	0,50	0,10	0,12	0,15	270 (170 – 370)	
GR1	A/D	0,15	0,50	0,10	0,12	0,15	640 (540 – 740)	
		0,15	0,50	0,0040	0,0048	0,0060	2100 (1800 – 2400)	
		0,15	0,50	0,10	0,12	0,15	640 (540 – 740)	

XSE720

High performance – Superalloy – Square – 6 Flutes – Corner radius



D



- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			HXT
XSE720E10100D3R050Z6	10138187	3	D	E10	10,0	9,7	15,0	21,8	0,5	6	8	■
XSE720E10100D3R100Z6	10138188	3	D	E10	10,0	9,7	15,0	21,8	1,0	6	8	■
XSE720E12120D3R050Z6	10138189	3	D	E12	12,0	11,7	18,0	25,9	0,5	6	10	■
XSE720E12120D3R100Z6	10138190	3	D	E12	12,0	11,7	18,0	25,9	1,0	6	10	■
XSE720E12120D3R200Z6	10138191	3	D	E12	12,0	11,7	18,0	25,9	2,0	6	10	■
XSE720E12120D3R300Z6	10138192	3	D	E12	12,0	11,7	18,0	25,9	3,0	6	10	■
XSE720E16160D3R050Z6	10138193	3	D	E16	16,0	15,5	24,0	34,1	0,5	6	12	■
XSE720E16160D3R100Z6	10138194	3	D	E16	16,0	15,5	24,0	34,1	1,0	6	12	■
XSE720E16160D3R200Z6	10138195	3	D	E16	16,0	15,5	24,0	34,1	2,0	6	12	■
XSE720E16160D3R300Z6	10138196	3	D	E16	16,0	15,5	24,0	34,1	3,0	6	12	■
XSE720E20200D3R050Z6	10138197	3	D	E20	20,0	19,3	30,0	40,2	0,5	6	16	■
XSE720E20200D3R100Z6	10138198	3	D	E20	20,0	19,3	30,0	40,2	1,0	6	16	■
XSE720E20200D3R200Z6	10138199	3	D	E20	20,0	19,3	30,0	40,2	2,0	6	16	■
XSE720E20200D3R300Z6	10138200	3	D	E20	20,0	19,3	30,0	40,2	3,0	6	16	■
XSE720E25250D3R200Z6	10138201	3	D	E25	25,0	24,2	37,5	49,5	2,0	6	20	■
XSE720E25250D3R300Z6	10138202	3	D	E25	25,0	24,2	37,5	49,5	3,0	6	20	■
XSE720E25250D3R400Z6	10138203	3	D	E25	25,0	24,2	37,5	49,5	4,0	6	20	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

Graphite

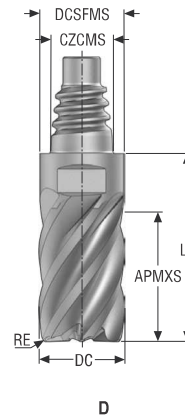
X-Heads

Minimaster Plus

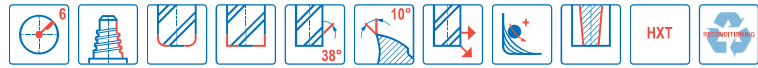
Minimaster

XSE720

High performance – Superalloy – Square – 6 Flutes – Corner radius or sharp – Inch




- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>			HXT
XSE720E10.375D3S26	10138204	3	D	E10	0.375	0.364	0.563	0.827	–	6	8	■
XSE720E12.500D3S26	10138205	3	D	E12	0.500	0.484	0.750	1.055	–	6	10	■
XSE720E16.625D3S26	10138206	3	D	E16	0.625	0.610	0.938	1.343	–	6	12	■
XSE720E20.750D3S26	10138207	3	D	E20	0.750	0.728	1.125	1.524	–	6	16	■
XSE720E251.00D3S26	10138208	3	D	E25	1.000	0.965	1.500	1.980	–	6	20	■
XSE720E10.375D3R030Z6	10138209	3	D	E10	0.375	0.364	0.563	0.827	0.030	6	8	■
XSE720E12.500D3R030Z6	10138210	3	D	E12	0.500	0.484	0.750	1.055	0.030	6	10	■
XSE720E12.500D3R060Z6	10138211	3	D	E12	0.500	0.484	0.750	1.055	0.060	6	10	■
XSE720E12.500D3R120Z6	10138212	3	D	E12	0.500	0.484	0.750	1.055	0.125	6	10	■
XSE720E16.625D3R030Z6	10138213	3	D	E16	0.625	0.610	0.938	1.343	0.030	6	12	■
XSE720E16.625D3R060Z6	10138214	3	D	E16	0.625	0.610	0.938	1.343	0.060	6	12	■
XSE720E16.625D3R120Z6	10138215	3	D	E16	0.625	0.610	0.938	1.343	0.125	6	12	■
XSE720E20.750D3R030Z6	10138216	3	D	E20	0.750	0.728	1.125	1.524	0.030	6	16	■
XSE720E20.750D3R060Z6	10138217	3	D	E20	0.750	0.728	1.125	1.524	0.060	6	16	■
XSE720E20.750D3R120Z6	10138218	3	D	E20	0.750	0.728	1.125	1.524	0.125	6	16	■
XSE720E251.00D3R030Z6	10138219	3	D	E25	1.000	0.965	1.500	1.980	0.030	6	20	■
XSE720E251.00D3R060Z6	10138220	3	D	E25	1.000	0.965	1.500	1.980	0.060	6	20	■
XSE720E251.00D3R120Z6	10138221	3	D	E25	1.000	0.965	1.500	1.980	0.125	6	20	■

■ Stocked standard.

Cutting data – XSE720 Side milling

SMG		a _e /DC	a _p /DC	f _z					v _c
				10	12	16	20	25	
P1	E/M/A/D	0,12	1,4	0,080	0,095	0,12	0,13	0,15	265 (200 — 320)
		0.12	1.4	0.0032	0.0038	0.0048	0.0050	0.0060	870 (660 — 1000)
P2	E/M/A/D	0,12	1,4	0,080	0,095	0,12	0,14	0,15	255 (200 — 320)
		0.12	1.4	0.0032	0.0038	0.0048	0.0055	0.0060	840 (660 — 1000)
P3	E/M/A/D	0,12	1,4	0,075	0,090	0,11	0,13	0,15	225 (170 — 270)
		0.12	1.4	0.0030	0.0036	0.0044	0.0050	0.0060	740 (560 — 880)
P4	E/M/A/D	0,12	1,4	0,075	0,090	0,11	0,13	0,14	195 (150 — 240)
		0.12	1.4	0.0030	0.0036	0.0044	0.0050	0.0055	640 (500 — 780)
P5	E/M/A/D	0,12	1,4	0,060	0,070	0,090	0,10	0,11	160 (120 — 190)
		0.12	1.4	0.0024	0.0028	0.0036	0.0040	0.0044	520 (400 — 620)
P6	E/M/A/D	0,12	1,4	0,060	0,070	0,085	0,10	0,11	180 (140 — 220)
		0.12	1.4	0.0024	0.0028	0.0034	0.0040	0.0044	590 (460 — 720)
P7	E/M/A/D	0,12	1,4	0,060	0,070	0,085	0,10	0,11	170 (130 — 210)
		0.12	1.4	0.0024	0.0028	0.0034	0.0040	0.0044	560 (430 — 680)
P8	E/M/A/D	0,12	1,4	0,060	0,075	0,090	0,11	0,12	160 (120 — 190)
		0.12	1.4	0.0024	0.0030	0.0036	0.0044	0.0048	520 (400 — 620)
P11	E/M/A/D	0,12	1,4	0,070	0,080	0,10	0,12	0,13	160 (130 — 200)
		0.12	1.4	0.0028	0.0032	0.0040	0.0048	0.0050	520 (430 — 650)
P12	E/M/A/D	0,12	1,4	0,048	0,055	0,070	0,080	0,090	95 (80 — 100)
		0.12	1.4	0.0019	0.0022	0.0028	0.0032	0.0036	310 (270 — 320)
M1	E/M/A	0,12	1,4	0,075	0,090	0,11	0,13	0,15	170 (150 — 190)
		0.12	1.4	0.0030	0.0036	0.0044	0.0050	0.0060	560 (500 — 620)
M2	E/M/A	0,12	1,4	0,070	0,085	0,10	0,12	0,13	140 (120 — 150)
		0.12	1.4	0.0028	0.0034	0.0040	0.0048	0.0050	460 (400 — 490)
M3	E/M/A	0,10	1,4	0,060	0,075	0,090	0,10	0,12	120 (100 — 110)
		0.10	1.4	0.0024	0.0030	0.0036	0.0040	0.0048	395 (330 — 360)
M4	E/M/A	0,10	1,4	0,055	0,065	0,080	0,090	0,10	90 (77 — 91)
		0.10	1.4	0.0022	0.0026	0.0032	0.0036	0.0040	295 (260 — 290)
M5	E/M/A	0,10	1,4	0,055	0,065	0,080	0,090	0,10	75 (64 — 76)
		0.10	1.4	0.0022	0.0026	0.0032	0.0036	0.0040	245 (210 — 240)
S1	E	0,060	1,4	0,046	0,055	0,070	0,080	0,090	45 (35 — 54)
		0.060	1.4	0.0018	0.0022	0.0028	0.0032	0.0036	150 (120 — 170)
S2	E	0,060	1,4	0,042	0,050	0,065	0,075	0,080	35 (25 — 44)
		0.060	1.4	0.0017	0.0020	0.0026	0.0030	0.0032	115 (83 — 140)
S3	E	0,060	1,4	0,042	0,050	0,065	0,075	0,080	30 (20 — 39)
		0.060	1.4	0.0017	0.0020	0.0026	0.0030	0.0032	100 (66 — 120)
S11	E	0,10	1,4	0,060	0,070	0,090	0,10	0,11	105 (78 — 120)
		0.10	1.4	0.0024	0.0028	0.0036	0.0040	0.0044	345 (260 — 390)
S12	E	0,10	1,4	0,060	0,070	0,090	0,10	0,11	80 (60 — 99)
		0.10	1.4	0.0024	0.0028	0.0036	0.0040	0.0044	260 (200 — 320)
S13	E	0,10	1,4	0,050	0,060	0,075	0,090	0,10	65 (48 — 79)
		0.10	1.4	0.0020	0.0024	0.0030	0.0036	0.0040	215 (160 — 250)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values

Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and cfrp
 Graphite
 X-Heads
 Minimaster Plus
 Minimaster


Cutting data – XSE720 advanced roughing

SMG		a _p /DC	f _z					v _c
			10	12	16	20	25	
P1	E/M/A/D	1,4	0,10	0,12	0,15	0,17	0,19	285 (220 — 350)
		1,4	0,0040	0,0048	0,0060	0,0065	0,0075	940 (730 — 1100)
P2	E/M/A/D	1,4	0,10	0,12	0,15	0,18	0,20	275 (210 — 340)
		1,4	0,0040	0,0048	0,0060	0,0070	0,0080	900 (690 — 1100)
P3	E/M/A/D	1,4	0,10	0,12	0,14	0,17	0,19	240 (180 — 290)
		1,4	0,0040	0,0048	0,0055	0,0065	0,0075	790 (600 — 950)
P4	E/M/A/D	1,4	0,095	0,11	0,14	0,16	0,18	210 (160 — 260)
		1,4	0,0038	0,0044	0,0055	0,0065	0,0070	690 (530 — 850)
P5	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	175 (130 — 210)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	570 (430 — 680)
P6	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	195 (150 — 240)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	640 (500 — 780)
P7	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	185 (140 — 220)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	610 (460 — 720)
P8	E/M/A/D	1,4	0,080	0,095	0,12	0,14	0,15	170 (130 — 210)
		1,4	0,0032	0,0038	0,0048	0,0055	0,0060	560 (430 — 680)
P11	E/M/A/D	1,4	0,090	0,11	0,13	0,15	0,17	170 (130 — 210)
		1,4	0,0036	0,0044	0,0050	0,0060	0,0065	560 (430 — 680)
P12	E/M/A/D	1,4	0,060	0,070	0,090	0,10	0,12	100 (86 — 110)
		1,4	0,0024	0,0028	0,0036	0,0040	0,0048	330 (290 — 360)
M1	E/M/A	1,4	0,10	0,12	0,15	0,17	0,19	180 (160 — 200)
		1,4	0,0040	0,0048	0,0060	0,0065	0,0075	590 (530 — 650)
M2	E/M/A	1,4	0,090	0,11	0,13	0,15	0,17	150 (130 — 170)
		1,4	0,0036	0,0044	0,0050	0,0060	0,0065	490 (430 — 550)
M3	E/M/A	1,4	0,075	0,085	0,11	0,12	0,14	125 (110 — 120)
		1,4	0,0030	0,0034	0,0044	0,0048	0,0055	410 (370 — 390)
M4	E/M/A	1,4	0,065	0,075	0,095	0,11	0,12	95 (80 — 95)
		1,4	0,0026	0,0030	0,0038	0,0044	0,0048	310 (270 — 310)
M5	E/M/A	1,4	0,065	0,075	0,095	0,11	0,12	80 (67 — 79)
		1,4	0,0026	0,0030	0,0038	0,0044	0,0048	260 (220 — 250)
S1	E	1,4	0,044	0,050	0,065	0,075	0,085	44 (35 — 53)
		1,4	0,0017	0,0020	0,0026	0,0030	0,0034	145 (120 — 170)
S2	E	1,4	0,040	0,048	0,060	0,070	0,075	34 (25 — 43)
		1,4	0,0016	0,0019	0,0024	0,0028	0,0030	110 (83 — 140)
S3	E	1,4	0,040	0,048	0,060	0,070	0,075	29 (20 — 39)
		1,4	0,0016	0,0019	0,0024	0,0028	0,0030	95 (66 — 120)
S11	E	1,4	0,070	0,085	0,10	0,12	0,14	110 (82 — 130)
		1,4	0,0028	0,0034	0,0040	0,0048	0,0055	360 (270 — 420)
S12	E	1,4	0,070	0,085	0,10	0,12	0,14	85 (63 — 100)
		1,4	0,0028	0,0034	0,0040	0,0048	0,0055	280 (210 — 320)
S13	E	1,4	0,060	0,075	0,090	0,10	0,12	65 (50 — 83)
		1,4	0,0024	0,0030	0,0036	0,0040	0,0048	215 (170 — 270)

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c = m/min (sf/min)
f_z = mm (in/tooth)
a_p = mm/DC (in/DC) = factor
a_e = mm/DC (in/DC) = factor
All cutting data are target values

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XSE720 Side milling inch

SMG		a _g /DC	a _p /DC	f _z					v _c
				3/8	1/2	5/8	3/4	1	
P1	E/M/A/D	0,12	1,4	0,080	0,095	0,12	0,13	0,15	265 (200 — 320)
		0.12	1.4	0.0032	0.0038	0.0048	0.0050	0.0060	870 (660 — 1000)
P2	E/M/A/D	0,12	1,4	0,080	0,095	0,12	0,14	0,15	255 (200 — 320)
		0.12	1.4	0.0032	0.0038	0.0048	0.0055	0.0060	840 (660 — 1000)
P3	E/M/A/D	0,12	1,4	0,075	0,090	0,11	0,13	0,15	225 (170 — 270)
		0.12	1.4	0.0030	0.0036	0.0044	0.0050	0.0060	740 (560 — 880)
P4	E/M/A/D	0,12	1,4	0,075	0,090	0,11	0,13	0,14	195 (150 — 240)
		0.12	1.4	0.0030	0.0036	0.0044	0.0050	0.0055	640 (500 — 780)
P5	E/M/A/D	0,12	1,4	0,060	0,070	0,090	0,10	0,11	160 (120 — 190)
		0.12	1.4	0.0024	0.0028	0.0036	0.0040	0.0044	520 (400 — 620)
P6	E/M/A/D	0,12	1,4	0,060	0,070	0,085	0,10	0,11	180 (140 — 220)
		0.12	1.4	0.0024	0.0028	0.0034	0.0040	0.0044	590 (460 — 720)
P7	E/M/A/D	0,12	1,4	0,060	0,070	0,085	0,10	0,11	170 (130 — 210)
		0.12	1.4	0.0024	0.0028	0.0034	0.0040	0.0044	560 (430 — 680)
P8	E/M/A/D	0,12	1,4	0,060	0,075	0,090	0,11	0,12	160 (120 — 190)
		0.12	1.4	0.0024	0.0030	0.0036	0.0044	0.0048	520 (400 — 620)
P11	E/M/A/D	0,12	1,4	0,070	0,080	0,10	0,12	0,13	160 (130 — 200)
		0.12	1.4	0.0028	0.0032	0.0040	0.0048	0.0050	520 (430 — 650)
P12	E/M/A/D	0,12	1,4	0,048	0,055	0,070	0,080	0,090	95 (80 — 100)
		0.12	1.4	0.0019	0.0022	0.0028	0.0032	0.0036	310 (270 — 320)
M1	E/M/A	0,12	1,4	0,075	0,090	0,11	0,13	0,15	170 (150 — 190)
		0.12	1.4	0.0030	0.0036	0.0044	0.0050	0.0060	560 (500 — 620)
M2	E/M/A	0,12	1,4	0,070	0,085	0,10	0,12	0,13	140 (120 — 150)
		0.12	1.4	0.0028	0.0034	0.0040	0.0048	0.0050	460 (400 — 490)
M3	E/M/A	0,10	1,4	0,060	0,075	0,090	0,10	0,12	120 (100 — 110)
		0.10	1.4	0.0024	0.0030	0.0036	0.0040	0.0048	395 (330 — 360)
M4	E/M/A	0,10	1,4	0,055	0,065	0,080	0,090	0,10	90 (77 — 91)
		0.10	1.4	0.0022	0.0026	0.0032	0.0036	0.0040	295 (260 — 290)
M5	E/M/A	0,10	1,4	0,055	0,065	0,080	0,090	0,10	75 (64 — 76)
		0.10	1.4	0.0022	0.0026	0.0032	0.0036	0.0040	245 (210 — 240)
S1	E	0,060	1,4	0,046	0,055	0,070	0,080	0,090	45 (35 — 54)
		0.060	1.4	0.0018	0.0022	0.0028	0.0032	0.0036	150 (120 — 170)
S2	E	0,060	1,4	0,042	0,050	0,065	0,075	0,080	35 (25 — 44)
		0.060	1.4	0.0017	0.0020	0.0026	0.0030	0.0032	115 (83 — 140)
S3	E	0,060	1,4	0,042	0,050	0,065	0,075	0,080	30 (20 — 39)
		0.060	1.4	0.0017	0.0020	0.0026	0.0030	0.0032	100 (66 — 120)
S11	E	0,10	1,4	0,060	0,070	0,090	0,10	0,11	105 (78 — 120)
		0.10	1.4	0.0024	0.0028	0.0036	0.0040	0.0044	345 (260 — 390)
S12	E	0,10	1,4	0,060	0,070	0,090	0,10	0,11	80 (60 — 99)
		0.10	1.4	0.0024	0.0028	0.0036	0.0040	0.0044	260 (200 — 320)
S13	E	0,10	1,4	0,050	0,060	0,075	0,090	0,10	65 (48 — 79)
		0.10	1.4	0.0020	0.0024	0.0030	0.0036	0.0040	215 (160 — 250)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_g = mm/DC (in/DC) = factor
 All cutting data are target values

Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and cfrp
 Graphite
 X-Heads
 Minimaster Plus
 Minimaster

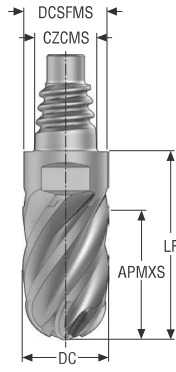
Cutting data – XSE720 advanced roughing inch

SMG		a _p /DC	f _z					v _c
			3/8	1/2	5/8	3/4	1	
P1	E/M/A/D	1,4	0,10	0,12	0,15	0,17	0,19	285 (220 — 350)
		1,4	0,0040	0,0048	0,0060	0,0065	0,0075	940 (730 — 1100)
P2	E/M/A/D	1,4	0,10	0,12	0,15	0,18	0,20	275 (210 — 340)
		1,4	0,0040	0,0048	0,0060	0,0070	0,0080	900 (690 — 1100)
P3	E/M/A/D	1,4	0,10	0,12	0,14	0,17	0,19	240 (180 — 290)
		1,4	0,0040	0,0048	0,0055	0,0065	0,0075	790 (600 — 950)
P4	E/M/A/D	1,4	0,095	0,11	0,14	0,16	0,18	210 (160 — 260)
		1,4	0,0038	0,0044	0,0055	0,0065	0,0070	690 (530 — 850)
P5	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	175 (130 — 210)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	570 (430 — 680)
P6	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	195 (150 — 240)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	640 (500 — 780)
P7	E/M/A/D	1,4	0,075	0,090	0,11	0,13	0,15	185 (140 — 220)
		1,4	0,0030	0,0036	0,0044	0,0050	0,0060	610 (460 — 720)
P8	E/M/A/D	1,4	0,080	0,095	0,12	0,14	0,15	170 (130 — 210)
		1,4	0,0032	0,0038	0,0048	0,0055	0,0060	560 (430 — 680)
P11	E/M/A/D	1,4	0,090	0,11	0,13	0,15	0,17	170 (130 — 210)
		1,4	0,0036	0,0044	0,0050	0,0060	0,0065	560 (430 — 680)
P12	E/M/A/D	1,4	0,060	0,070	0,090	0,10	0,12	100 (86 — 110)
		1,4	0,0024	0,0028	0,0036	0,0040	0,0048	330 (290 — 360)
M1	E/M/A	1,4	0,10	0,12	0,15	0,17	0,19	180 (160 — 200)
		1,4	0,0040	0,0048	0,0060	0,0065	0,0075	590 (530 — 650)
M2	E/M/A	1,4	0,090	0,11	0,13	0,15	0,17	150 (130 — 170)
		1,4	0,0036	0,0044	0,0050	0,0060	0,0065	490 (430 — 550)
M3	E/M/A	1,4	0,075	0,085	0,11	0,12	0,14	125 (110 — 120)
		1,4	0,0030	0,0034	0,0044	0,0048	0,0055	410 (370 — 390)
M4	E/M/A	1,4	0,065	0,075	0,095	0,11	0,12	95 (80 — 95)
		1,4	0,0026	0,0030	0,0038	0,0044	0,0048	310 (270 — 310)
M5	E/M/A	1,4	0,065	0,075	0,095	0,11	0,12	80 (67 — 79)
		1,4	0,0026	0,0030	0,0038	0,0044	0,0048	260 (220 — 250)
S1	E	1,4	0,044	0,050	0,065	0,075	0,085	44 (35 — 53)
		1,4	0,0017	0,0020	0,0026	0,0030	0,0034	145 (120 — 170)
S2	E	1,4	0,040	0,048	0,060	0,070	0,075	34 (25 — 43)
		1,4	0,0016	0,0019	0,0024	0,0028	0,0030	110 (83 — 140)
S3	E	1,4	0,040	0,048	0,060	0,070	0,075	29 (20 — 39)
		1,4	0,0016	0,0019	0,0024	0,0028	0,0030	95 (66 — 120)
S11	E	1,4	0,070	0,085	0,10	0,12	0,14	110 (82 — 130)
		1,4	0,0028	0,0034	0,0040	0,0048	0,0055	360 (270 — 420)
S12	E	1,4	0,070	0,085	0,10	0,12	0,14	85 (63 — 100)
		1,4	0,0028	0,0034	0,0040	0,0048	0,0055	280 (210 — 320)
S13	E	1,4	0,060	0,075	0,090	0,10	0,12	65 (50 — 83)
		1,4	0,0024	0,0030	0,0036	0,0040	0,0048	215 (170 — 270)

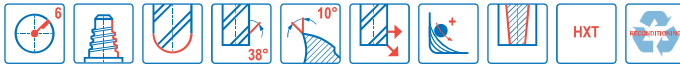
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c = m/min (sf/min)
f_z = mm (in/tooth)
a_p = mm/DC (in/DC) = factor
a_e = mm/DC (in/DC) = factor
All cutting data are target values

XSB720

High performance – Superalloy – Ball nose – 6 Flutes



D



- Tolerances:
- DC= e7
- RE= ±0,02 mm
- Regrind possible if DC is ≥Ø12 mm

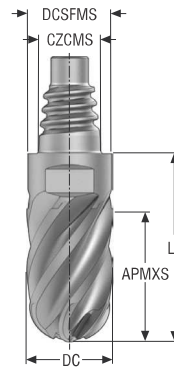
Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
					mm	mm	mm	mm			HXT
XSB720E10100D3BZ6	10138222	3	D	E10	10,0	9,7	15,0	21,8	6	8	■
XSB720E12120D3BZ6	10138223	3	D	E12	12,0	11,7	18,0	25,9	6	10	■
XSB720E16160D3BZ6	10138224	3	D	E16	16,0	15,5	24,0	34,1	6	12	■
XSB720E20200D3BZ6	10138225	3	D	E20	20,0	19,3	30,0	40,2	6	16	■

■ Stocked standard.

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

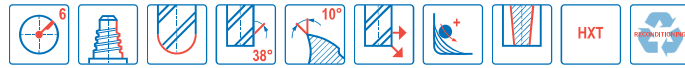
XSB720

High performance – Superalloy – Ball nose – 6 Flutes – Inch



D

- Tolerances:
- DC= e7
- RE= ±.0008 Inch
- Regrind possible if DC is ≥Ø.500 Inch




Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
					<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>			HXT
XSB720E10.375D3BZ6	10138226	3	D	E10	0.375	0.364	0.563	0.827	6	8	■
XSB720E12.500D3BZ6	10138227	3	D	E12	0.500	0.484	0.750	1.055	6	10	■
XSB720E16.625D3BZ6	10138228	3	D	E16	0.625	0.610	0.938	1.343	6	12	■
XSB720E20.750D3BZ6	10138229	3	D	E20	0.750	0.728	1.125	1.524	6	16	■
XSB720E251.00D3BZ6	10138230	3	D	E25	1.000	0.965	1.500	1.980	6	20	■

■ Stocked standard.

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XSB720 Side milling

SMG		a _e /DC	a _p /DC	f _z				v _c
				10	12	16	20	
P1	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	195 (170 – 220)
		0,12	1,2	0,0038	0,0044	0,0055	0,0065	640 (560 – 720)
P2	E/M/A/D	0,12	1,2	0,10	0,12	0,15	0,17	190 (170 – 210)
		0,12	1,2	0,0040	0,0048	0,0060	0,0065	620 (560 – 680)
P3	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	165 (150 – 180)
		0,12	1,2	0,0038	0,0044	0,0055	0,0065	540 (500 – 590)
P4	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,16	145 (130 – 160)
		0,12	1,2	0,0036	0,0044	0,0050	0,0065	475 (430 – 520)
P5	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	140 (130 – 160)
		0,12	1,2	0,0036	0,0044	0,0050	0,0060	460 (430 – 520)
P6	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	155 (140 – 170)
		0,12	1,2	0,0036	0,0044	0,0050	0,0060	510 (460 – 550)
P7	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	150 (130 – 160)
		0,12	1,2	0,0036	0,0044	0,0050	0,0060	490 (430 – 520)
P8	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	140 (120 – 150)
		0,12	1,2	0,0038	0,0044	0,0055	0,0065	460 (400 – 490)
P11	E/M/A/D	0,12	1,2	0,070	0,080	0,10	0,12	150 (130 – 170)
		0,12	1,2	0,0028	0,0032	0,0040	0,0048	490 (430 – 550)
P12	E/M/A/D	0,12	1,2	0,048	0,055	0,070	0,080	95 (81 – 100)
		0,12	1,2	0,0019	0,0022	0,0028	0,0032	310 (270 – 320)
M1	E/M/A	0,12	1,2	0,075	0,090	0,11	0,13	220 (180 – 260)
		0,12	1,2	0,0030	0,0036	0,0044	0,0050	720 (600 – 850)
M2	E/M/A	0,12	1,2	0,070	0,085	0,10	0,12	180 (140 – 220)
		0,12	1,2	0,0028	0,0034	0,0040	0,0048	590 (460 – 720)
M3	E/M/A	0,10	1,2	0,060	0,070	0,090	0,10	160 (120 – 200)
		0,10	1,2	0,0024	0,0028	0,0036	0,0040	520 (400 – 650)
M4	E/M/A	0,10	1,2	0,050	0,060	0,075	0,090	125 (93 – 150)
		0,10	1,2	0,0020	0,0024	0,0030	0,0036	410 (310 – 490)
M5	E/M/A	0,10	1,2	0,050	0,060	0,075	0,090	105 (77 – 120)
		0,10	1,2	0,0020	0,0024	0,0030	0,0036	345 (260 – 390)
S1	E	0,070	1,2	0,048	0,055	0,070	0,080	45 (35 – 54)
		0,070	1,2	0,0019	0,0022	0,0028	0,0032	150 (120 – 170)
S2	E	0,070	1,2	0,048	0,055	0,070	0,080	37 (27 – 47)
		0,070	1,2	0,0019	0,0022	0,0028	0,0032	120 (89 – 150)
S3	E	0,070	1,2	0,048	0,055	0,070	0,080	30 (20 – 40)
		0,070	1,2	0,0019	0,0022	0,0028	0,0032	100 (66 – 130)
S11	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)
		0,10	1,2	0,0024	0,0028	0,0036	0,0040	260 (210 – 320)
S12	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)
		0,10	1,2	0,0024	0,0028	0,0036	0,0040	260 (210 – 320)
S13	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)
		0,10	1,2	0,0024	0,0028	0,0036	0,0040	260 (210 – 320)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values


Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and cfrp
 Graphite
 X-Heads
 Minimaster Plus
 Minimaster

Cutting data – XSB720 Side milling advanced roughing $a_p/DC=0,07$

SMG		a_p/DC	f_z				v_c
			10	12	16	20	
P1	E/M/A/D	1,2	0,12	0,14	0,18	0,22	210 (190 – 240)
		1,2	0,0048	0,0055	0,0070	0,0085	690 (630 – 780)
P2	E/M/A/D	1,2	0,12	0,14	0,19	0,22	205 (180 – 230)
		1,2	0,0048	0,0055	0,0075	0,0085	670 (600 – 750)
P3	E/M/A/D	1,2	0,12	0,14	0,18	0,20	180 (160 – 200)
		1,2	0,0048	0,0055	0,0070	0,0080	590 (530 – 650)
P4	E/M/A/D	1,2	0,12	0,14	0,17	0,20	155 (140 – 170)
		1,2	0,0048	0,0055	0,0065	0,0080	510 (460 – 550)
P5	E/M/A/D	1,2	0,12	0,14	0,17	0,20	150 (130 – 170)
		1,2	0,0048	0,0055	0,0065	0,0080	490 (430 – 550)
P6	E/M/A/D	1,2	0,11	0,14	0,17	0,19	170 (150 – 190)
		1,2	0,0044	0,0055	0,0065	0,0075	560 (500 – 620)
P7	E/M/A/D	1,2	0,11	0,14	0,17	0,19	160 (140 – 180)
		1,2	0,0044	0,0055	0,0065	0,0075	520 (460 – 590)
P8	E/M/A/D	1,2	0,12	0,14	0,18	0,20	150 (130 – 170)
		1,2	0,0048	0,0055	0,0070	0,0080	490 (430 – 550)
P11	E/M/A/D	1,2	0,090	0,11	0,13	0,15	160 (140 – 180)
		1,2	0,0036	0,0044	0,0050	0,0060	520 (460 – 590)
P12	E/M/A/D	1,2	0,060	0,070	0,090	0,10	100 (87 – 110)
		1,2	0,0024	0,0028	0,0036	0,0040	330 (290 – 360)
M1	E/M/A	1,2	0,10	0,12	0,15	0,17	235 (190 – 280)
		1,2	0,0040	0,0048	0,0060	0,0065	770 (630 – 910)
M2	E/M/A	1,2	0,090	0,11	0,13	0,15	195 (160 – 230)
		1,2	0,0036	0,0044	0,0050	0,0060	640 (530 – 750)
M3	E/M/A	1,2	0,070	0,085	0,10	0,12	170 (130 – 200)
		1,2	0,0028	0,0034	0,0040	0,0048	560 (430 – 650)
M4	E/M/A	1,2	0,060	0,075	0,090	0,10	130 (97 – 160)
		1,2	0,0024	0,0030	0,0036	0,0040	425 (320 – 520)
M5	E/M/A	1,2	0,060	0,075	0,090	0,10	105 (81 – 130)
		1,2	0,0024	0,0030	0,0036	0,0040	345 (270 – 420)
S1	E	1,2	0,048	0,055	0,070	0,080	45 (35 – 54)
		1,2	0,0019	0,0022	0,0028	0,0032	150 (120 – 170)
S2	E	1,2	0,048	0,055	0,070	0,080	37 (27 – 47)
		1,2	0,0019	0,0022	0,0028	0,0032	120 (89 – 150)
S3	E	1,2	0,048	0,055	0,070	0,080	30 (20 – 40)
		1,2	0,0019	0,0022	0,0028	0,0032	100 (66 – 130)
S11	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)
S12	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)
S13	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
All cutting data are target values

Cutting data – XSB720 Side milling inch

SMG		a _e /DC	a _p /DC	f _z				v _c
				3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	195 (170 – 220)
		0,12	1,2	0,0038	0,0044	0,0055	0,0065	640 (560 – 720)
P2	E/M/A/D	0,12	1,2	0,10	0,12	0,15	0,17	190 (170 – 210)
		0,12	1,2	0,0040	0,0048	0,0060	0,0065	620 (560 – 680)
P3	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	165 (150 – 180)
		0,12	1,2	0,0038	0,0044	0,0055	0,0065	540 (500 – 590)
P4	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,16	145 (130 – 160)
		0,12	1,2	0,0036	0,0044	0,0050	0,0065	475 (430 – 520)
P5	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	140 (130 – 160)
		0,12	1,2	0,0036	0,0044	0,0050	0,0060	460 (430 – 520)
P6	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	155 (140 – 170)
		0,12	1,2	0,0036	0,0044	0,0050	0,0060	510 (460 – 550)
P7	E/M/A/D	0,12	1,2	0,090	0,11	0,13	0,15	150 (130 – 160)
		0,12	1,2	0,0036	0,0044	0,0050	0,0060	490 (430 – 520)
P8	E/M/A/D	0,12	1,2	0,095	0,11	0,14	0,16	140 (120 – 150)
		0,12	1,2	0,0038	0,0044	0,0055	0,0065	460 (400 – 490)
P11	E/M/A/D	0,12	1,2	0,070	0,080	0,10	0,12	150 (130 – 170)
		0,12	1,2	0,0028	0,0032	0,0040	0,0048	490 (430 – 550)
P12	E/M/A/D	0,12	1,2	0,048	0,055	0,070	0,080	95 (81 – 100)
		0,12	1,2	0,0019	0,0022	0,0028	0,0032	310 (270 – 320)
M1	E/M/A	0,12	1,2	0,075	0,090	0,11	0,13	220 (180 – 260)
		0,12	1,2	0,0030	0,0036	0,0044	0,0050	720 (600 – 850)
M2	E/M/A	0,12	1,2	0,070	0,085	0,10	0,12	180 (140 – 220)
		0,12	1,2	0,0028	0,0034	0,0040	0,0048	590 (460 – 720)
M3	E/M/A	0,10	1,2	0,060	0,070	0,090	0,10	160 (120 – 200)
		0,10	1,2	0,0024	0,0028	0,0036	0,0040	520 (400 – 650)
M4	E/M/A	0,10	1,2	0,050	0,060	0,075	0,090	125 (93 – 150)
		0,10	1,2	0,0020	0,0024	0,0030	0,0036	410 (310 – 490)
M5	E/M/A	0,10	1,2	0,050	0,060	0,075	0,090	105 (77 – 120)
		0,10	1,2	0,0020	0,0024	0,0030	0,0036	345 (260 – 390)
S1	E	0,070	1,2	0,048	0,055	0,070	0,080	45 (35 – 54)
		0,070	1,2	0,0019	0,0022	0,0028	0,0032	150 (120 – 170)
S2	E	0,070	1,2	0,048	0,055	0,070	0,080	37 (27 – 47)
		0,070	1,2	0,0019	0,0022	0,0028	0,0032	120 (89 – 150)
S3	E	0,070	1,2	0,048	0,055	0,070	0,080	30 (20 – 40)
		0,070	1,2	0,0019	0,0022	0,0028	0,0032	100 (66 – 130)
S11	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)
		0,10	1,2	0,0024	0,0028	0,0036	0,0040	260 (210 – 320)
S12	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)
		0,10	1,2	0,0024	0,0028	0,0036	0,0040	260 (210 – 320)
S13	E	0,10	1,2	0,060	0,070	0,090	0,10	80 (61 – 100)
		0,10	1,2	0,0024	0,0028	0,0036	0,0040	260 (210 – 320)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values

Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and cfrp
 Graphite
 X-Heads
 Minimaster Plus
 Minimaster

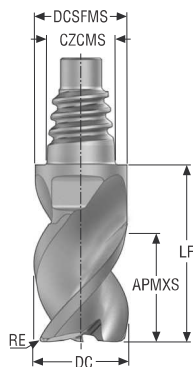
Cutting data – XSB720 Side milling advanced roughing $a_p/DC=0,07$ inch

SMG		a_p/DC	f_z				v_c
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	1,2	0,12	0,14	0,18	0,22	210 (190 – 240)
		1,2	0,0048	0,0055	0,0070	0,0085	690 (630 – 780)
P2	E/M/A/D	1,2	0,12	0,14	0,19	0,22	205 (180 – 230)
		1,2	0,0048	0,0055	0,0075	0,0085	670 (600 – 750)
P3	E/M/A/D	1,2	0,12	0,14	0,18	0,20	180 (160 – 200)
		1,2	0,0048	0,0055	0,0070	0,0080	590 (530 – 650)
P4	E/M/A/D	1,2	0,12	0,14	0,17	0,20	155 (140 – 170)
		1,2	0,0048	0,0055	0,0065	0,0080	510 (460 – 550)
P5	E/M/A/D	1,2	0,12	0,14	0,17	0,20	150 (130 – 170)
		1,2	0,0048	0,0055	0,0065	0,0080	490 (430 – 550)
P6	E/M/A/D	1,2	0,11	0,14	0,17	0,19	170 (150 – 190)
		1,2	0,0044	0,0055	0,0065	0,0075	560 (500 – 620)
P7	E/M/A/D	1,2	0,11	0,14	0,17	0,19	160 (140 – 180)
		1,2	0,0044	0,0055	0,0065	0,0075	520 (460 – 590)
P8	E/M/A/D	1,2	0,12	0,14	0,18	0,20	150 (130 – 170)
		1,2	0,0048	0,0055	0,0070	0,0080	490 (430 – 550)
P11	E/M/A/D	1,2	0,090	0,11	0,13	0,15	160 (140 – 180)
		1,2	0,0036	0,0044	0,0050	0,0060	520 (460 – 590)
P12	E/M/A/D	1,2	0,060	0,070	0,090	0,10	100 (87 – 110)
		1,2	0,0024	0,0028	0,0036	0,0040	330 (290 – 360)
M1	E/M/A	1,2	0,10	0,12	0,15	0,17	235 (190 – 280)
		1,2	0,0040	0,0048	0,0060	0,0065	770 (630 – 910)
M2	E/M/A	1,2	0,090	0,11	0,13	0,15	195 (160 – 230)
		1,2	0,0036	0,0044	0,0050	0,0060	640 (530 – 750)
M3	E/M/A	1,2	0,070	0,085	0,10	0,12	170 (130 – 200)
		1,2	0,0028	0,0034	0,0040	0,0048	560 (430 – 650)
M4	E/M/A	1,2	0,060	0,075	0,090	0,10	130 (97 – 160)
		1,2	0,0024	0,0030	0,0036	0,0040	425 (320 – 520)
M5	E/M/A	1,2	0,060	0,075	0,090	0,10	105 (81 – 130)
		1,2	0,0024	0,0030	0,0036	0,0040	345 (270 – 420)
S1	E	1,2	0,048	0,055	0,070	0,080	45 (35 – 54)
		1,2	0,0019	0,0022	0,0028	0,0032	150 (120 – 170)
S2	E	1,2	0,048	0,055	0,070	0,080	37 (27 – 47)
		1,2	0,0019	0,0022	0,0028	0,0032	120 (89 – 150)
S3	E	1,2	0,048	0,055	0,070	0,080	30 (20 – 40)
		1,2	0,0019	0,0022	0,0028	0,0032	100 (66 – 130)
S11	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)
S12	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)
S13	E	1,2	0,070	0,085	0,10	0,12	85 (63 – 100)
		1,2	0,0028	0,0034	0,0040	0,0048	280 (210 – 320)

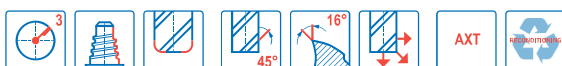
SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
All cutting data are target values

XSE450

High performance – Aluminium – Square – 3 Flutes – Corner radius



D



- Tolerances:
- DC= 0/-0,0508 mm
- RE= ±0,0254 mm
- Regrind possible if DC is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			AXT
XSE450E10100D2R050Z3	10138362	2	D	E10	10,0	9,7	12,0	18,7	0,5	3	8	■
XSE450E12120D2R050Z3	10138363	2	D	E12	12,0	11,7	14,4	22,1	0,5	3	10	■
XSE450E12120D2R100Z3	10138364	2	D	E12	12,0	11,7	14,4	22,1	1,0	3	10	■
XSE450E16160D2R050Z3	10138365	2	D	E16	16,0	15,5	19,2	29,2	0,5	3	12	■
XSE450E16160D2R100Z3	10138366	2	D	E16	16,0	15,5	19,2	29,2	1,0	3	12	■
XSE450E20200D2R050Z3	10138367	2	D	E20	20,0	19,3	24,0	34,3	0,5	3	16	■
XSE450E20200D2R100Z3	10138369	2	D	E20	20,0	19,3	24,0	34,3	1,0	3	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

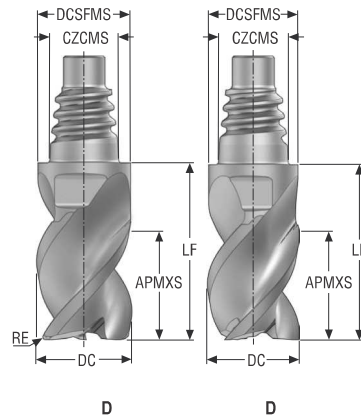
X-Heads

Minimaster Plus

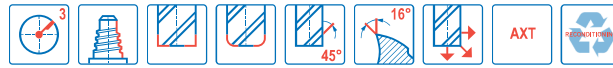
Minimaster

XSE450

High performance – Aluminium – Square – 3 Flutes – Corner radius – Inch



- Tolerances:
- DC= 0/- .002 Inch
- RE= ±.001 Inch
- Regrind possible if DC is ≥Ø.500 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>			AXT
XSE450E10.375D2SZ3	10138370	2	D	E10	0.375	0.364	0.450	0.720	-	3	8	■
XSE450E12.500D2SZ3	10138371	2	D	E12	0.500	0.484	0.600	0.906	-	3	10	■
XSE450E16.625D2SZ3	10138372	2	D	E16	0.625	0.610	0.750	1.150	-	3	12	■
XSE450E20.750D2SZ3	10138373	2	D	E20	0.750	0.728	0.900	1.295	-	3	16	■
XSE450E251.00D2SZ3	10138374	2	D	E25	1.000	0.965	1.200	1.673	-	3	20	■
XSE450E10.375D2R030Z3	10138375	2	D	E10	0.375	0.364	0.450	0.720	0.030	3	8	■
XSE450E12.500D2R030Z3	10138376	2	D	E12	0.500	0.484	0.600	0.906	0.030	3	10	■
XSE450E12.500D2R060Z3	10138377	2	D	E12	0.500	0.484	0.600	0.906	0.060	3	10	■
XSE450E16.625D2R030Z3	10138378	2	D	E16	0.625	0.610	0.750	1.150	0.030	3	12	■
XSE450E16.625D2R060Z3	10138379	2	D	E16	0.625	0.610	0.750	1.150	0.060	3	12	■
XSE450E16.625D2R120Z3	10138380	2	D	E16	0.625	0.610	0.750	1.150	0.120	3	12	■
XSE450E20.750D2R030Z3	10138381	2	D	E20	0.750	0.728	0.900	1.295	0.030	3	16	■
XSE450E20.750D2R060Z3	10138382	2	D	E20	0.750	0.728	0.900	1.295	0.060	3	16	■
XSE450E20.750D2R120Z3	10138383	2	D	E20	0.750	0.728	0.900	1.295	0.120	3	16	■
XSE450E251.00D2R030Z3	10138384	2	D	E25	1.000	0.965	1.200	1.673	0.030	3	20	■
XSE450E251.00D2R060Z3	10138385	2	D	E25	1.000	0.965	1.200	1.673	0.060	3	20	■
XSE450E251.00D2R120Z3	10138386	2	D	E25	1.000	0.965	1.200	1.673	0.120	3	20	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp


Graphite

X-Heads


Minimaster Plus

Minimaster

Cutting data – XSE450 Side milling

SMG		a _p /DC	a _p /DC	f _z				v _c	
				10	12	16	20		
N1	E/M/A	0,40	1,1	0,15	0,18	0,22	0,26	0,30	560 (450 — 670)
		0,40	1,1	0,0060	0,0070	0,0085	0,010	0,012	1825 (1500 — 2100)
N2	E/M/A	0,40	1,1	0,13	0,16	0,20	0,22	0,25	445 (340 — 550)
		0,40	1,1	0,0050	0,0065	0,0080	0,0085	0,010	1450 (1200 — 1800)
N3	E/M/A	0,40	1,1	0,13	0,16	0,20	0,22	0,25	295 (230 — 360)
		0,40	1,1	0,0050	0,0065	0,0080	0,0085	0,010	970 (760 — 1100)
N11	E/M/A	0,40	1,1	0,13	0,16	0,20	0,22	0,25	395 (300 — 490)
		0,40	1,1	0,0050	0,0065	0,0080	0,0085	0,010	1300 (990 — 1600)
TS1	A/D	0,40	1,1	0,15	0,18	0,22	0,26	0,30	280 (170 — 390)
		0,40	1,1	0,0060	0,0070	0,0085	0,010	0,012	920 (560 — 1200)
TP1	A/D	0,40	1,1	0,15	0,18	0,22	0,26	0,30	280 (170 — 390)
		0,40	1,1	0,0060	0,0070	0,0085	0,010	0,012	920 (560 — 1200)

Cutting data – XSE450 Slot milling

SMG		a _p /DC	f _z				v _c	
			10	12	16	20		
N1	E/M/A	1,1	0,10	0,12	0,16	0,20	0,25	500 (400 — 590)
		1,1	0,0040	0,0048	0,0065	0,0080	0,010	1650 (1400 — 1900)
N2	E/M/A	1,1	0,080	0,095	0,13	0,16	0,20	400 (300 — 490)
		1,1	0,0032	0,0038	0,0050	0,0065	0,0080	1300 (990 — 1600)
N3	E/M/A	1,1	0,080	0,095	0,13	0,16	0,20	265 (200 — 330)
		1,1	0,0032	0,0038	0,0050	0,0065	0,0080	870 (660 — 1000)
N11	E/M/A	1,1	0,080	0,095	0,13	0,16	0,20	355 (270 — 440)
		1,1	0,0032	0,0038	0,0050	0,0065	0,0080	1175 (890 — 1400)
TS1	A/D	1,1	0,10	0,12	0,16	0,20	0,25	250 (150 — 340)
		1,1	0,0040	0,0048	0,0065	0,0080	0,010	820 (500 — 1100)
TP1	A/D	1,1	0,10	0,12	0,16	0,20	0,25	250 (150 — 340)
		1,1	0,0040	0,0048	0,0065	0,0080	0,010	820 (500 — 1100)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values

Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and CFRP
 Graphite
 X-Heads
 Minimaster Plus
 Minimaster

Cutting data – XSE450 Side milling inch

SMG		a _e /DC	a _p /DC	f _z					v _c
				3/8	1/2	5/8	3/4	1	
N1	E/M/A	0,40	1,1	0,15	0,18	0,22	0,26	0,30	560 (450 — 670)
		0,40	1,1	0,0060	0,0070	0,0085	0,010	0,012	1825 (1500 — 2100)
N2	E/M/A	0,40	1,1	0,13	0,16	0,20	0,22	0,25	445 (340 — 550)
		0,40	1,1	0,0050	0,0065	0,0080	0,0085	0,010	1450 (1200 — 1800)
N3	E/M/A	0,40	1,1	0,13	0,16	0,20	0,22	0,25	295 (230 — 360)
		0,40	1,1	0,0050	0,0065	0,0080	0,0085	0,010	970 (760 — 1100)
N11	E/M/A	0,40	1,1	0,13	0,16	0,20	0,22	0,25	395 (300 — 490)
		0,40	1,1	0,0050	0,0065	0,0080	0,0085	0,010	1300 (990 — 1600)
TS1	A/D	0,40	1,1	0,15	0,18	0,22	0,26	0,30	280 (170 — 390)
		0,40	1,1	0,0060	0,0070	0,0085	0,010	0,012	920 (560 — 1200)
TP1	A/D	0,40	1,1	0,15	0,18	0,22	0,26	0,30	280 (170 — 390)
		0,40	1,1	0,0060	0,0070	0,0085	0,010	0,012	920 (560 — 1200)

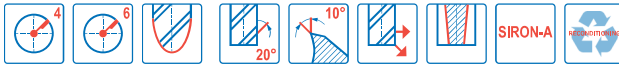
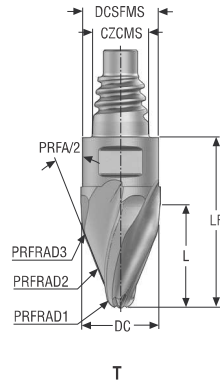
Cutting data – XSE450 Slot milling inch

SMG		a _p /DC	f _z					v _c
			3/8	1/2	5/8	3/4	1	
N1	E/M/A	1,1	0,10	0,12	0,16	0,20	0,25	500 (400 — 590)
		1,1	0,0040	0,0048	0,0065	0,0080	0,010	1650 (1400 — 1900)
N2	E/M/A	1,1	0,080	0,095	0,13	0,16	0,20	400 (300 — 490)
		1,1	0,0032	0,0038	0,0050	0,0065	0,0080	1300 (990 — 1600)
N3	E/M/A	1,1	0,080	0,095	0,13	0,16	0,20	265 (200 — 330)
		1,1	0,0032	0,0038	0,0050	0,0065	0,0080	870 (660 — 1000)
N11	E/M/A	1,1	0,080	0,095	0,13	0,16	0,20	355 (270 — 440)
		1,1	0,0032	0,0038	0,0050	0,0065	0,0080	1175 (890 — 1400)
TS1	A/D	1,1	0,10	0,12	0,16	0,20	0,25	250 (150 — 340)
		1,1	0,0040	0,0048	0,0065	0,0080	0,010	820 (500 — 1100)
TP1	A/D	1,1	0,10	0,12	0,16	0,20	0,25	250 (150 — 340)
		1,1	0,0040	0,0048	0,0065	0,0080	0,010	820 (500 — 1100)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values

XHT740

High speed – ISO– M and ISO– S - Taper Shape – 4-6 Flutes



- Tolerances:
- PRFRAD1= ±0,03 mm
- Form tolerance PRFRAD2= 0,02 mm
- Regrind possible if DC is ≥Ø12 mm and PRFRAD1 is ≥1,5 mm

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	L	LF	PRFRAD1	PRFRAD2	PRFRAD3	PRFA/2°	PCEDC	SW	Grade
															SIRA
XHT740E10100T2R1.5R250Z4	10138388	2	T	E10	10,0	9,7	5,4	18,7	1,5	250,0	2,0	65,0	4	8	■
XHT740E12120T2R3R250Z4	10138389	2	T	E12	12,0	11,7	10,5	22,1	3,0	250,0	6,0	32,5	4	10	■
XHT740E16160T2R4R500Z4	10138390	2	T	E16	16,0	15,5	14,6	29,2	4,0	500,0	8,0	27,5	4	12	■
XHT740E10100T3R2R250Z4	10138391	3	T	E10	10,0	9,7	12,7	21,8	2,0	250,0	5,0	20,0	4	8	■
XHT740E12120T3R3R250Z4	10138392	3	T	E12	12,0	11,7	13,7	25,9	3,0	250,0	6,0	20,0	4	10	■
XHT740E16160T3R4R1000Z4	10138394	3	T	E16	16,0	15,5	24,0	34,1	4,0	1000,0	5,0	20,0	4	12	■
XHT740E16160T3R4R500Z4	10138393	3	T	E16	16,0	15,5	17,6	34,1	4,0	500,0	8,0	20,0	4	12	■
XHT740E10100T3R2R250Z6	10138395	3	T	E10	10,0	9,7	12,7	21,8	2,0	250,0	5,0	20,0	6	8	■
XHT740E12120T3R3R250Z6	10138396	3	T	E12	12,0	11,7	13,7	25,9	3,0	250,0	6,0	20,0	6	10	■
XHT740E16160T3R4R500Z6	10138397	3	T	E16	16,0	15,5	17,6	34,1	4,0	500,0	8,0	20,0	6	12	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads

Minimaster Plus

Minimaster

Cutting data – XHT740 – Copy milling PCEDC 4

SMG		a _p /DC	f _z			v _c
			10	12	16	
P8	E/M/A/D	0,010	0,05	0,06	0,08	170 (150 - 195)
		0.010	0.0022	0.0024	0.0032	560 (490 - 640)
P12	E/M/A/D	0,010	0,05	0,06	0,08	120 (95 - 135)
		0.010	0.0022	0.0024	0.0032	400 (310 - 445)
M1	E/M/A	0,010	0,05	0,06	0,08	150 (125 - 155)
		0.010	0.0022	0.0024	0.0032	490 (410 - 510)
M2	E/M/A	0,010	0,05	0,06	0,08	145 (120 - 150)
		0.010	0.0022	0.0024	0.0032	475 (400 - 490)
M3	E/M/A	0,010	0,05	0,06	0,08	130 (90 - 140)
		0.010	0.0022	0.0024	0.0032	425 (295 - 460)
S2	E	0,010	0,05	0,06	0,08	60 (50 - 70)
		0.010	0.0022	0.0024	0.0032	195 (165 - 230)
S11	E	0,010	0,05	0,06	0,08	100 (85 - 105)
		0.010	0.0022	0.0024	0.0032	320 (280 - 345)
S12	E	0,010	0,05	0,06	0,08	95 (80 - 100)
		0.010	0.0022	0.0024	0.0032	310 (260 - 320)
S13	E	0,010	0,05	0,06	0,08	90 (75 - 95)
		0.010	0.0022	0.0024	0.0032	295 (245 - 310)

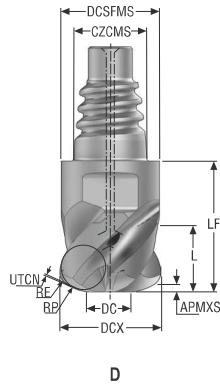
Cutting data – XHT740 – Copy milling PCEDC 6

SMG		a _p /DC	f _z			v _c
			10	12	16	
P8	E/M/A/D	0,010	0,05	0,06	0,08	170 (150 - 195)
		0.010	0.0022	0.0024	0.0032	560 (490 - 640)
P12	E/M/A/D	0,010	0,05	0,06	0,08	120 (95 - 135)
		0.010	0.0022	0.0024	0.0032	400 (310 - 445)
M1	E/M/A	0,010	0,05	0,06	0,08	150 (125 - 155)
		0.010	0.0022	0.0024	0.0032	490 (410 - 510)
M2	E/M/A	0,010	0,05	0,06	0,08	145 (120 - 150)
		0.010	0.0022	0.0024	0.0032	475 (400 - 490)
M3	E/M/A	0,010	0,05	0,06	0,08	130 (90 - 140)
		0.010	0.0022	0.0024	0.0032	425 (295 - 460)
S2	E	0,010	0,05	0,06	0,08	60 (50 - 70)
		0.010	0.0022	0.0024	0.0032	195 (165 - 230)
S11	E	0,010	0,05	0,06	0,08	100 (85 - 105)
		0.010	0.0022	0.0024	0.0032	320 (280 - 345)
S12	E	0,010	0,05	0,06	0,08	95 (80 - 100)
		0.010	0.0022	0.0024	0.0032	310 (260 - 320)
S13	E	0,010	0,05	0,06	0,08	90 (75 - 95)
		0.010	0.0022	0.0024	0.0032	295 (245 - 310)

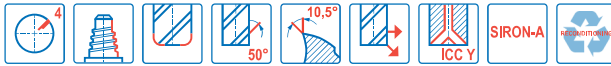
SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values

XHF580

High feed – Universal – 4 Flutes – Corner radius – ICC



D



- Tolerances:
- DCX= h9
- RE= ±0,03 mm
- Regrind possible if DCX is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CSP	CZCMS	DCX	DC	DCSFMS	APMXS	L	LF	RE	RP	UTCN	PCEDC	SW	Grades
						mm	mm	mm	mm	mm	mm	mm	mm	mm			SIRA
XHF580E10100D1HZ4A	10137971	1	D	■	E10	10,0	3,4	9,7	0,7	6,0	12,4	1,5	1,99	0,27	4	8	■
XHF580E12120D1HZ4A	10137972	1	D	■	E12	12,0	4,5	11,7	0,8	7,5	14,5	1,5	2,1	0,323	4	10	■
XHF580E16160D1HZ4A	10137973	1	D	■	E16	16,0	6,2	15,5	1,0	10,0	18,7	2,0	2,747	0,426	4	12	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

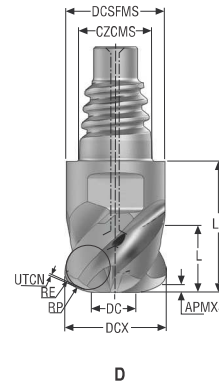
X-Heads

Minimaster Plus

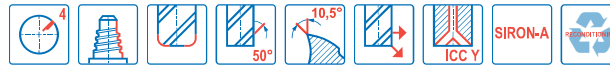
Minimaster

XHF580

High feed – Universal – 4 Flutes – Corner radius – ICC – Inch



- Tolerances:
- DCX= h9
- RE= ±.0012 Inch
- Regrind possible if DCX is ≥Ø.500 Inch




Designation	Item number	Length index	Tool shape	CSP	CZCMS	DCX	DC	DCSFMS	APMXS	L	LF	RE	RP	UTCN	PCEDC	SW	Grades
						<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>			SIRA
XHF580E10.375D1HZ4A	10137974	1	D	■	E10	0.375	0.134	0.364	0.024	0.236	0.488	0.060	0.076	0.008	4	8	■
XHF580E12.500D1HZ4A	10137975	1	D	■	E12	0.500	0.197	0.484	0.033	0.315	0.571	0.060	0.086	0.014	4	10	■
XHF580E16.625D1HZ4A	10137976	1	D	■	E16	0.614	0.236	0.610	0.039	0.394	0.736	0.080	0.110	0.016	4	12	■

■ Stocked standard.

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XHF580 Side milling

SMG		a _e /DCX	a _p /DCX	f _z			v _c
				10	12	16	
P1	E/M/A/D	0,30	0,060	0,50	0,60	0,80	485 (440 – 530)
		0,30	0,060	0,020	0,024	0,032	1600 (1500 – 1700)
P2	E/M/A/D	0,30	0,060	0,50	0,60	0,80	475 (430 – 520)
		0,30	0,060	0,020	0,024	0,032	1550 (1500 – 1700)
P3	E/M/A/D	0,30	0,060	0,50	0,60	0,80	405 (370 – 450)
		0,30	0,060	0,020	0,024	0,032	1325 (1300 – 1400)
P4	E/M/A/D	0,30	0,060	0,50	0,60	0,80	360 (320 – 390)
		0,30	0,060	0,020	0,024	0,032	1175 (1100 – 1200)
P5	E/M/A/D	0,34	0,060	0,50	0,60	0,80	260 (240 – 290)
		0,34	0,060	0,020	0,024	0,032	850 (790 – 950)
P6	E/M/A/D	0,34	0,060	0,50	0,60	0,80	295 (270 – 320)
		0,34	0,060	0,020	0,024	0,032	970 (890 – 1000)
P7	E/M/A/D	0,34	0,060	0,50	0,60	0,80	280 (250 – 300)
		0,34	0,060	0,020	0,024	0,032	920 (830 – 980)
P8	E/M/A/D	0,34	0,060	0,50	0,60	0,80	260 (240 – 290)
		0,34	0,060	0,020	0,024	0,032	850 (790 – 950)
P11	E/M/A/D	0,30	0,055	0,40	0,48	0,65	160 (140 – 170)
		0,30	0,055	0,016	0,019	0,026	520 (460 – 550)
P12	E/M/A/D	0,30	0,055	0,40	0,48	0,65	95 (83 – 100)
		0,30	0,055	0,016	0,019	0,026	310 (280 – 320)
M1	E/M/A	0,30	0,055	0,40	0,48	0,65	185 (170 – 200)
		0,30	0,055	0,016	0,019	0,026	610 (560 – 650)
M2	E/M/A	0,30	0,055	0,40	0,48	0,65	150 (140 – 160)
		0,30	0,055	0,016	0,019	0,026	490 (460 – 520)
M3	E/M/A	0,30	0,055	0,40	0,48	0,65	115 (97 – 130)
		0,30	0,055	0,016	0,019	0,026	375 (320 – 420)
M4	E/M/A	0,30	0,055	0,40	0,48	0,65	85 (73 – 99)
		0,30	0,055	0,016	0,019	0,026	280 (240 – 320)
M5	E/M/A	0,30	0,055	0,40	0,48	0,65	70 (61 – 82)
		0,30	0,055	0,016	0,019	0,026	230 (210 – 260)
K1	E/M/A/D	0,30	0,060	0,50	0,60	0,80	475 (430 – 520)
		0,30	0,060	0,020	0,024	0,032	1550 (1500 – 1700)
K2	E/M/A/D	0,30	0,060	0,50	0,60	0,80	415 (370 – 450)
		0,30	0,060	0,020	0,024	0,032	1350 (1300 – 1400)
K3	E/M/A/D	0,30	0,060	0,50	0,60	0,80	350 (320 – 380)
		0,30	0,060	0,020	0,024	0,032	1150 (1100 – 1200)
K4	E/M/A/D	0,30	0,060	0,50	0,60	0,80	335 (300 – 370)
		0,30	0,060	0,020	0,024	0,032	1100 (990 – 1200)
K5	E/M/A/D	0,30	0,060	0,50	0,60	0,80	200 (180 – 220)
		0,30	0,060	0,020	0,024	0,032	660 (600 – 720)
K6	E/M/A/D	0,30	0,060	0,50	0,60	0,80	295 (270 – 320)
		0,30	0,060	0,020	0,024	0,032	970 (890 – 1000)
K7	E/M/A/D	0,30	0,060	0,50	0,60	0,80	255 (230 – 280)
		0,30	0,060	0,020	0,024	0,032	840 (760 – 910)
S1	E	0,30	0,034	0,24	0,28	0,38	55 (36 – 71)
		0,30	0,034	0,0095	0,011	0,015	180 (120 – 230)
S2	E	0,30	0,034	0,24	0,28	0,38	43 (29 – 57)
		0,30	0,034	0,0095	0,011	0,015	140 (96 – 180)
S3	E	0,30	0,034	0,24	0,28	0,38	37 (25 – 49)
		0,30	0,034	0,0095	0,011	0,015	120 (83 – 160)
S11	E	0,30	0,034	0,36	0,42	0,55	170 (150 – 190)
		0,30	0,034	0,014	0,017	0,022	560 (500 – 620)
S12	E	0,30	0,034	0,36	0,42	0,55	130 (120 – 140)
		0,30	0,034	0,014	0,017	0,022	425 (400 – 450)
S13	E	0,30	0,034	0,36	0,42	0,55	100 (89 – 110)
		0,30	0,034	0,014	0,017	0,022	330 (300 – 360)
H5	M/A	0,30	0,060	0,40	0,48	0,65	115 (98 – 130)
		0,30	0,060	0,016	0,019	0,026	375 (330 – 420)
H8	M/A	0,30	0,060	0,40	0,48	0,65	115 (98 – 130)
		0,30	0,060	0,016	0,019	0,026	375 (330 – 420)
H21	M/A	0,30	0,060	0,40	0,48	0,65	115 (98 – 130)
		0,30	0,060	0,016	0,019	0,026	375 (330 – 420)
H31	M/A	0,30	0,060	0,40	0,48	0,65	90 (74 – 100)
		0,30	0,060	0,016	0,019	0,026	295 (250 – 320)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values


Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and cfrp
 Graphite
 X-Heads
 Minmaster Plus
 Minmaster

Cutting data – XHF580 Slot milling

SMG		a _p /DCX	f _z			v _c
			10	12	16	
P1	E/M/A/D	0,060	0,30	0,36	0,48	440 (400 – 480)
		0,060	0,012	0,014	0,019	1450 (1400 – 1500)
P2	E/M/A/D	0,060	0,30	0,36	0,48	430 (390 – 470)
		0,060	0,012	0,014	0,019	1400 (1300 – 1500)
P3	E/M/A/D	0,060	0,30	0,36	0,48	370 (330 – 400)
		0,060	0,012	0,014	0,019	1225 (1100 – 1300)
P4	E/M/A/D	0,060	0,30	0,36	0,48	325 (290 – 360)
		0,060	0,012	0,014	0,019	1075 (960 – 1100)
P5	E/M/A/D	0,060	0,30	0,36	0,48	245 (220 – 270)
		0,060	0,012	0,014	0,019	800 (730 – 880)
P6	E/M/A/D	0,060	0,30	0,36	0,48	275 (250 – 300)
		0,060	0,012	0,014	0,019	900 (830 – 980)
P7	E/M/A/D	0,060	0,30	0,36	0,48	260 (240 – 280)
		0,060	0,012	0,014	0,019	850 (790 – 910)
P8	E/M/A/D	0,060	0,30	0,36	0,48	245 (220 – 270)
		0,060	0,012	0,014	0,019	800 (730 – 880)
P11	E/M/A/D	0,055	0,24	0,28	0,38	145 (130 – 160)
		0,055	0,0095	0,011	0,015	475 (430 – 520)
P12	E/M/A/D	0,055	0,24	0,28	0,38	85 (75 – 94)
		0,055	0,0095	0,011	0,015	280 (250 – 300)
M1	E/M/A	0,055	0,24	0,28	0,38	170 (150 – 180)
		0,055	0,0095	0,011	0,015	560 (500 – 590)
M2	E/M/A	0,055	0,24	0,28	0,38	135 (120 – 150)
		0,055	0,0095	0,011	0,015	445 (400 – 490)
M3	E/M/A	0,055	0,24	0,28	0,38	105 (88 – 110)
		0,055	0,0095	0,011	0,015	345 (290 – 360)
M4	E/M/A	0,055	0,24	0,28	0,38	80 (66 – 89)
		0,055	0,0095	0,011	0,015	260 (220 – 290)
M5	E/M/A	0,055	0,24	0,28	0,38	65 (55 – 74)
		0,055	0,0095	0,011	0,015	215 (190 – 240)
K1	E/M/A/D	0,060	0,30	0,36	0,48	430 (390 – 480)
		0,060	0,012	0,014	0,019	1400 (1300 – 1500)
K2	E/M/A/D	0,060	0,30	0,36	0,48	375 (340 – 410)
		0,060	0,012	0,014	0,019	1225 (1200 – 1300)
K3	E/M/A/D	0,060	0,30	0,36	0,48	315 (290 – 350)
		0,060	0,012	0,014	0,019	1025 (960 – 1100)
K4	E/M/A/D	0,060	0,30	0,36	0,48	305 (270 – 330)
		0,060	0,012	0,014	0,019	1000 (890 – 1000)
K5	E/M/A/D	0,060	0,30	0,36	0,48	180 (170 – 200)
		0,060	0,012	0,014	0,019	590 (560 – 650)
K6	E/M/A/D	0,060	0,30	0,36	0,48	265 (240 – 290)
		0,060	0,012	0,014	0,019	870 (790 – 950)
K7	E/M/A/D	0,060	0,30	0,36	0,48	230 (210 – 250)
		0,060	0,012	0,014	0,019	750 (690 – 820)
S1	E	0,034	0,18	0,22	0,28	47 (32 – 62)
		0,034	0,0070	0,0085	0,011	155 (110 – 200)
S2	E	0,034	0,18	0,22	0,28	38 (26 – 50)
		0,034	0,0070	0,0085	0,011	125 (86 – 160)
S3	E	0,034	0,18	0,22	0,28	32 (22 – 43)
		0,034	0,0070	0,0085	0,011	105 (73 – 140)
S11	E	0,034	0,18	0,22	0,28	160 (150 – 180)
		0,034	0,0070	0,0085	0,011	520 (500 – 590)
S12	E	0,034	0,18	0,22	0,28	125 (110 – 140)
		0,034	0,0070	0,0085	0,011	410 (370 – 450)
S13	E	0,034	0,18	0,22	0,28	95 (84 – 100)
		0,034	0,0070	0,0085	0,011	310 (280 – 320)
H5	M/A	0,060	0,24	0,28	0,38	105 (88 – 120)
		0,060	0,0095	0,011	0,015	345 (290 – 390)
H8	M/A	0,060	0,24	0,28	0,38	105 (88 – 120)
		0,060	0,0095	0,011	0,015	345 (290 – 390)
H21	M/A	0,060	0,24	0,28	0,38	105 (88 – 120)
		0,060	0,0095	0,011	0,015	345 (290 – 390)
H31	M/A	0,060	0,24	0,28	0,38	80 (67 – 91)
		0,060	0,0095	0,011	0,015	260 (220 – 290)

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c = m/min (sf/min)
f_z = mm (in/tooth)
a_p = mm/DC (in/DC) = factor
a_e = mm/DC (in/DC) = factor
All cutting data are target values

Cutting data – XHF580 Side milling inch

SMG		a _e /DCX	a _p /DCX	f _z			v _c
				3/8	1/2	5/8	
P1	E/M/A/D	0,30	0,060	0,50	0,60	0,80	485 (440 – 530)
		0,30	0,060	0,020	0,024	0,032	1600 (1500 – 1700)
P2	E/M/A/D	0,30	0,060	0,50	0,60	0,80	475 (430 – 520)
		0,30	0,060	0,020	0,024	0,032	1550 (1500 – 1700)
P3	E/M/A/D	0,30	0,060	0,50	0,60	0,80	405 (370 – 450)
		0,30	0,060	0,020	0,024	0,032	1325 (1300 – 1400)
P4	E/M/A/D	0,30	0,060	0,50	0,60	0,80	360 (320 – 390)
		0,30	0,060	0,020	0,024	0,032	1175 (1100 – 1200)
P5	E/M/A/D	0,34	0,060	0,50	0,60	0,80	260 (240 – 290)
		0,34	0,060	0,020	0,024	0,032	850 (790 – 950)
P6	E/M/A/D	0,34	0,060	0,50	0,60	0,80	295 (270 – 320)
		0,34	0,060	0,020	0,024	0,032	970 (890 – 1000)
P7	E/M/A/D	0,34	0,060	0,50	0,60	0,80	280 (250 – 300)
		0,34	0,060	0,020	0,024	0,032	920 (830 – 980)
P8	E/M/A/D	0,34	0,060	0,50	0,60	0,80	260 (240 – 290)
		0,34	0,060	0,020	0,024	0,032	850 (790 – 950)
P11	E/M/A/D	0,30	0,055	0,40	0,48	0,65	160 (140 – 170)
		0,30	0,055	0,016	0,019	0,026	520 (460 – 550)
P12	E/M/A/D	0,30	0,055	0,40	0,48	0,65	95 (83 – 100)
		0,30	0,055	0,016	0,019	0,026	310 (280 – 320)
M1	E/M/A	0,30	0,055	0,40	0,48	0,65	185 (170 – 200)
		0,30	0,055	0,016	0,019	0,026	610 (560 – 650)
M2	E/M/A	0,30	0,055	0,40	0,48	0,65	150 (140 – 160)
		0,30	0,055	0,016	0,019	0,026	490 (460 – 520)
M3	E/M/A	0,30	0,055	0,40	0,48	0,65	115 (97 – 130)
		0,30	0,055	0,016	0,019	0,026	375 (320 – 420)
M4	E/M/A	0,30	0,055	0,40	0,48	0,65	85 (73 – 99)
		0,30	0,055	0,016	0,019	0,026	280 (240 – 320)
M5	E/M/A	0,30	0,055	0,40	0,48	0,65	70 (61 – 82)
		0,30	0,055	0,016	0,019	0,026	230 (210 – 260)
K1	E/M/A/D	0,30	0,060	0,50	0,60	0,80	475 (430 – 520)
		0,30	0,060	0,020	0,024	0,032	1550 (1500 – 1700)
K2	E/M/A/D	0,30	0,060	0,50	0,60	0,80	415 (370 – 450)
		0,30	0,060	0,020	0,024	0,032	1350 (1300 – 1400)
K3	E/M/A/D	0,30	0,060	0,50	0,60	0,80	350 (320 – 380)
		0,30	0,060	0,020	0,024	0,032	1150 (1100 – 1200)
K4	E/M/A/D	0,30	0,060	0,50	0,60	0,80	335 (300 – 370)
		0,30	0,060	0,020	0,024	0,032	1100 (990 – 1200)
K5	E/M/A/D	0,30	0,060	0,50	0,60	0,80	200 (180 – 220)
		0,30	0,060	0,020	0,024	0,032	660 (600 – 720)
K6	E/M/A/D	0,30	0,060	0,50	0,60	0,80	295 (270 – 320)
		0,30	0,060	0,020	0,024	0,032	970 (890 – 1000)
K7	E/M/A/D	0,30	0,060	0,50	0,60	0,80	255 (230 – 280)
		0,30	0,060	0,020	0,024	0,032	840 (760 – 910)
S1	E	0,30	0,034	0,24	0,28	0,38	55 (36 – 71)
		0,30	0,034	0,0095	0,011	0,015	180 (120 – 230)
S2	E	0,30	0,034	0,24	0,28	0,38	43 (29 – 57)
		0,30	0,034	0,0095	0,011	0,015	140 (96 – 180)
S3	E	0,30	0,034	0,24	0,28	0,38	37 (25 – 49)
		0,30	0,034	0,0095	0,011	0,015	120 (83 – 160)
S11	E	0,30	0,034	0,36	0,42	0,55	170 (150 – 190)
		0,30	0,034	0,014	0,017	0,022	560 (500 – 620)
S12	E	0,30	0,034	0,36	0,42	0,55	130 (120 – 140)
		0,30	0,034	0,014	0,017	0,022	425 (400 – 450)
S13	E	0,30	0,034	0,36	0,42	0,55	100 (89 – 110)
		0,30	0,034	0,014	0,017	0,022	330 (300 – 360)
H5	M/A	0,30	0,060	0,40	0,48	0,65	115 (98 – 130)
		0,30	0,060	0,016	0,019	0,026	375 (330 – 420)
H8	M/A	0,30	0,060	0,40	0,48	0,65	115 (98 – 130)
		0,30	0,060	0,016	0,019	0,026	375 (330 – 420)
H21	M/A	0,30	0,060	0,40	0,48	0,65	115 (98 – 130)
		0,30	0,060	0,016	0,019	0,026	375 (330 – 420)
H31	M/A	0,30	0,060	0,40	0,48	0,65	90 (74 – 100)
		0,30	0,060	0,016	0,019	0,026	295 (250 – 320)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values

Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and cfrp
 Graphite
 X-Heads
 Minmaster Plus
 Minmaster

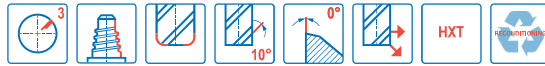
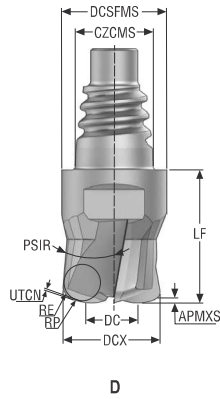
Cutting data – XHF580 Slot milling inch

SMG		a _p /DCX	f _z			v _c
			3/8	1/2	5/8	
P1	E/M/A/D	0,060	0,30	0,36	0,48	440 (400 – 480)
		0,060	0,012	0,014	0,019	1450 (1400 – 1500)
P2	E/M/A/D	0,060	0,30	0,36	0,48	430 (390 – 470)
		0,060	0,012	0,014	0,019	1400 (1300 – 1500)
P3	E/M/A/D	0,060	0,30	0,36	0,48	370 (330 – 400)
		0,060	0,012	0,014	0,019	1225 (1100 – 1300)
P4	E/M/A/D	0,060	0,30	0,36	0,48	325 (290 – 360)
		0,060	0,012	0,014	0,019	1075 (960 – 1100)
P5	E/M/A/D	0,060	0,30	0,36	0,48	245 (220 – 270)
		0,060	0,012	0,014	0,019	800 (730 – 880)
P6	E/M/A/D	0,060	0,30	0,36	0,48	275 (250 – 300)
		0,060	0,012	0,014	0,019	900 (830 – 980)
P7	E/M/A/D	0,060	0,30	0,36	0,48	260 (240 – 280)
		0,060	0,012	0,014	0,019	850 (790 – 910)
P8	E/M/A/D	0,060	0,30	0,36	0,48	245 (220 – 270)
		0,060	0,012	0,014	0,019	800 (730 – 880)
P11	E/M/A/D	0,055	0,24	0,28	0,38	145 (130 – 160)
		0,055	0,0095	0,011	0,015	475 (430 – 520)
P12	E/M/A/D	0,055	0,24	0,28	0,38	85 (75 – 94)
		0,055	0,0095	0,011	0,015	280 (250 – 300)
M1	E/M/A	0,055	0,24	0,28	0,38	170 (150 – 180)
		0,055	0,0095	0,011	0,015	560 (500 – 590)
M2	E/M/A	0,055	0,24	0,28	0,38	135 (120 – 150)
		0,055	0,0095	0,011	0,015	445 (400 – 490)
M3	E/M/A	0,055	0,24	0,28	0,38	105 (88 – 110)
		0,055	0,0095	0,011	0,015	345 (290 – 360)
M4	E/M/A	0,055	0,24	0,28	0,38	80 (66 – 89)
		0,055	0,0095	0,011	0,015	260 (220 – 290)
M5	E/M/A	0,055	0,24	0,28	0,38	65 (55 – 74)
		0,055	0,0095	0,011	0,015	215 (190 – 240)
K1	E/M/A/D	0,060	0,30	0,36	0,48	430 (390 – 480)
		0,060	0,012	0,014	0,019	1400 (1300 – 1500)
K2	E/M/A/D	0,060	0,30	0,36	0,48	375 (340 – 410)
		0,060	0,012	0,014	0,019	1225 (1200 – 1300)
K3	E/M/A/D	0,060	0,30	0,36	0,48	315 (290 – 350)
		0,060	0,012	0,014	0,019	1025 (960 – 1100)
K4	E/M/A/D	0,060	0,30	0,36	0,48	305 (270 – 330)
		0,060	0,012	0,014	0,019	1000 (890 – 1000)
K5	E/M/A/D	0,060	0,30	0,36	0,48	180 (170 – 200)
		0,060	0,012	0,014	0,019	590 (560 – 650)
K6	E/M/A/D	0,060	0,30	0,36	0,48	265 (240 – 290)
		0,060	0,012	0,014	0,019	870 (790 – 950)
K7	E/M/A/D	0,060	0,30	0,36	0,48	230 (210 – 250)
		0,060	0,012	0,014	0,019	750 (690 – 820)
S1	E	0,034	0,18	0,22	0,28	47 (32 – 62)
		0,034	0,0070	0,0085	0,011	155 (110 – 200)
S2	E	0,034	0,18	0,22	0,28	38 (26 – 50)
		0,034	0,0070	0,0085	0,011	125 (86 – 160)
S3	E	0,034	0,18	0,22	0,28	32 (22 – 43)
		0,034	0,0070	0,0085	0,011	105 (73 – 140)
S11	E	0,034	0,18	0,22	0,28	160 (150 – 180)
		0,034	0,0070	0,0085	0,011	520 (500 – 590)
S12	E	0,034	0,18	0,22	0,28	125 (110 – 140)
		0,034	0,0070	0,0085	0,011	410 (370 – 450)
S13	E	0,034	0,18	0,22	0,28	95 (84 – 100)
		0,034	0,0070	0,0085	0,011	310 (280 – 320)
H5	M/A	0,060	0,24	0,28	0,38	105 (88 – 120)
		0,060	0,0095	0,011	0,015	345 (290 – 390)
H8	M/A	0,060	0,24	0,28	0,38	105 (88 – 120)
		0,060	0,0095	0,011	0,015	345 (290 – 390)
H21	M/A	0,060	0,24	0,28	0,38	105 (88 – 120)
		0,060	0,0095	0,011	0,015	345 (290 – 390)
H31	M/A	0,060	0,24	0,28	0,38	80 (67 – 91)
		0,060	0,0095	0,011	0,015	260 (220 – 290)

SMG = Seco material group
Coolant = A=air D=dry E=emulsion M=mist spray
v_c = m/min (sf/min)
f_z = mm (in/tooth)
a_p = mm/DC (in/DC) = factor
a_e = mm/DC (in/DC) = factor
All cutting data are target values

XHF780

High feed – ISO– M and ISO– S – 3 Flutes – Corner radius



- Tolerances:
- DCX= -0,02/-0,04 mm
- RE= ±0,05 mm
- Regrind possible if DCX is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	Lf	RE	RP	UTCN	PSIR°	PCEDC	SW	Grades
					mm	mm	mm	mm	mm	mm	mm	mm				HXT
XHF780E10100D1HZ3	10137957	1	D	E10	10,0	5,0	9,7	0,45	12,3	0,8	1,175	0,232	-5,0	3	8	■
XHF780E12120D1HZ3	10137958	1	D	E12	12,0	6,0	11,7	0,5	14,4	1,0	1,416	0,262	-5,0	3	10	■
XHF780E16160D1HZ3	10137959	1	D	E16	16,0	8,0	15,5	0,6	18,6	1,5	1,989	0,32	-5,0	3	12	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

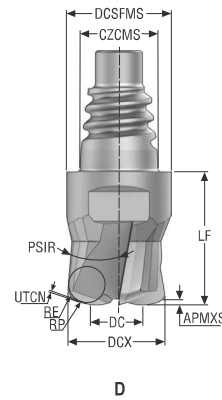
X-Heads

Minimaster Plus

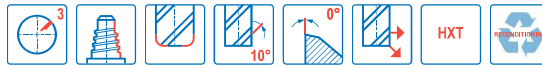
Minimaster

XHF780

High feed – ISO– M and ISO– S – 3 Flutes – Corner radius – Inch



- Tolerances:
- DCX= -.0008/-0.0016 Inch
- RE= ±.002 Inch
- Regrind possible if DCX is ≥Ø.500 Inch




Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	LF	RE	RP	UTCN	PSIR°	PCEDC	SW	Grades
					<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>				HXT
XHF780E10.375D1HZ3	10137960	1	D	E10	0.375	0.188	0.364	0.018	0.484	0.028	0.043	0.009	-5,0	3	8	■
XHF780E12.500D1HZ3	10137961	1	D	E12	0.461	0.250	0.484	0.020	0.567	0.045	0.061	0.010	-5,0	3	10	■
XHF780E16.625D1HZ3	10137962	1	D	E16	0.625	0.313	0.610	0.024	0.732	0.061	0.080	0.012	-5,0	3	12	■

■ Stocked standard.

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and CFRP
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XHF780 Side milling

SMG		a _e /DCX	a _p /DCX	f _z			v _c
				10	12	16	
P1	E/M/A/D	0,30	0,040	0,50	0,60	0,80	370 (330 — 410)
		0,30	0,040	0,020	0,024	0,032	1225 (1100 — 1300)
P2	E/M/A/D	0,30	0,040	0,50	0,60	0,80	360 (320 — 390)
		0,30	0,040	0,020	0,024	0,032	1175 (1100 — 1200)
P3	E/M/A/D	0,30	0,040	0,50	0,60	0,80	310 (280 — 340)
		0,30	0,040	0,020	0,024	0,032	1025 (920 — 1100)
P4	E/M/A/D	0,30	0,040	0,50	0,60	0,80	270 (250 — 300)
		0,30	0,040	0,020	0,024	0,032	890 (830 — 980)
P5	E/M/A/D	0,30	0,040	0,50	0,60	0,80	270 (250 — 300)
		0,30	0,040	0,020	0,024	0,032	890 (830 — 980)
P6	E/M/A/D	0,30	0,040	0,50	0,60	0,80	305 (280 — 330)
		0,30	0,040	0,020	0,024	0,032	1000 (920 — 1000)
P7	E/M/A/D	0,30	0,040	0,50	0,60	0,80	290 (260 — 320)
		0,30	0,040	0,020	0,024	0,032	950 (860 — 1000)
P8	E/M/A/D	0,30	0,040	0,50	0,60	0,80	270 (250 — 300)
		0,30	0,040	0,020	0,024	0,032	890 (830 — 980)
P11	E/M/A/D	0,30	0,036	0,40	0,48	0,65	160 (150 — 170)
		0,30	0,036	0,016	0,019	0,026	520 (500 — 550)
P12	E/M/A/D	0,30	0,036	0,40	0,48	0,65	95 (83 — 100)
		0,30	0,036	0,016	0,019	0,026	310 (280 — 320)
M1	E/M/A	0,30	0,036	0,40	0,48	0,65	190 (170 — 210)
		0,30	0,036	0,016	0,019	0,026	620 (560 — 680)
M2	E/M/A	0,30	0,036	0,40	0,48	0,65	150 (140 — 160)
		0,30	0,036	0,016	0,019	0,026	490 (460 — 520)
M3	E/M/A	0,30	0,036	0,40	0,48	0,65	115 (97 — 130)
		0,30	0,036	0,016	0,019	0,026	375 (320 — 420)
M4	E/M/A	0,30	0,036	0,40	0,48	0,65	85 (73 — 100)
		0,30	0,036	0,016	0,019	0,026	280 (240 — 320)
M5	E/M/A	0,30	0,036	0,40	0,48	0,65	70 (61 — 83)
		0,30	0,036	0,016	0,019	0,026	230 (210 — 270)
S1	E	0,30	0,022	0,24	0,28	0,38	55 (36 — 71)
		0,30	0,022	0,0095	0,011	0,015	180 (120 — 230)
S2	E	0,30	0,022	0,24	0,28	0,38	43 (29 — 57)
		0,30	0,022	0,0095	0,011	0,015	140 (96 — 180)
S3	E	0,30	0,022	0,24	0,28	0,38	37 (25 — 49)
		0,30	0,022	0,0095	0,011	0,015	120 (83 — 160)
S11	E	0,30	0,022	0,36	0,42	0,55	175 (160 — 190)
		0,30	0,022	0,014	0,017	0,022	570 (530 — 620)
S12	E	0,30	0,022	0,36	0,42	0,55	135 (120 — 150)
		0,30	0,022	0,014	0,017	0,022	445 (400 — 490)
S13	E	0,30	0,022	0,36	0,42	0,55	105 (90 — 110)
		0,30	0,022	0,014	0,017	0,022	345 (300 — 360)
H5	M/A	0,30	0,040	0,40	0,48	0,65	115 (99 — 130)
		0,30	0,040	0,016	0,019	0,026	375 (330 — 420)
H8	M/A	0,30	0,040	0,40	0,48	0,65	115 (99 — 130)
		0,30	0,040	0,016	0,019	0,026	375 (330 — 420)
H11	M/A	0,30	0,040	0,40	0,48	0,65	150 (130 — 170)
		0,30	0,040	0,016	0,019	0,026	490 (430 — 550)
H21	M/A	0,30	0,040	0,40	0,48	0,65	115 (99 — 130)
		0,30	0,040	0,016	0,019	0,026	375 (330 — 420)
H31	M/A	0,30	0,040	0,40	0,48	0,65	90 (75 — 100)
		0,30	0,040	0,016	0,019	0,026	295 (250 — 320)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values


Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and cfrp
 Graphite
 X-Heads
 Minmaster Plus
 Minmaster

Cutting data – XHF780 Slot milling

SMG		a _p /DCX	f _z			v _c
			10	12	16	
P1	E/M/A/D	0,040	0,30	0,36	0,48	325 (290 – 350)
		0.040	0.012	0.014	0.019	1075 (960 – 1100)
P2	E/M/A/D	0,040	0,30	0,36	0,48	315 (290 – 350)
		0.040	0.012	0.014	0.019	1025 (960 – 1100)
P3	E/M/A/D	0,040	0,30	0,36	0,48	270 (250 – 300)
		0.040	0.012	0.014	0.019	890 (830 – 980)
P4	E/M/A/D	0,040	0,30	0,36	0,48	240 (220 – 260)
		0.040	0.012	0.014	0.019	790 (730 – 850)
P5	E/M/A/D	0,040	0,30	0,36	0,48	240 (220 – 260)
		0.040	0.012	0.014	0.019	790 (730 – 850)
P6	E/M/A/D	0,040	0,30	0,36	0,48	270 (240 – 290)
		0.040	0.012	0.014	0.019	890 (790 – 950)
P7	E/M/A/D	0,040	0,30	0,36	0,48	255 (230 – 280)
		0.040	0.012	0.014	0.019	840 (760 – 910)
P8	E/M/A/D	0,040	0,30	0,36	0,48	240 (220 – 260)
		0.040	0.012	0.014	0.019	790 (730 – 850)
P11	E/M/A/D	0,036	0,24	0,28	0,38	140 (130 – 150)
		0.036	0.0095	0.011	0.015	460 (430 – 490)
P12	E/M/A/D	0,036	0,24	0,28	0,38	80 (73 – 92)
		0.036	0.0095	0.011	0.015	260 (240 – 300)
M1	E/M/A	0,036	0,24	0,28	0,38	165 (150 – 180)
		0.036	0.0095	0.011	0.015	540 (500 – 590)
M2	E/M/A	0,036	0,24	0,28	0,38	130 (120 – 140)
		0.036	0.0095	0.011	0.015	425 (400 – 450)
M3	E/M/A	0,036	0,24	0,28	0,38	100 (85 – 110)
		0.036	0.0095	0.011	0.015	330 (280 – 360)
M4	E/M/A	0,036	0,24	0,28	0,38	75 (64 – 87)
		0.036	0.0095	0.011	0.015	245 (210 – 280)
M5	E/M/A	0,036	0,24	0,28	0,38	65 (53 – 72)
		0.036	0.0095	0.011	0.015	215 (180 – 230)
S1	E	0,022	0,18	0,22	0,28	45 (31 – 60)
		0.022	0.0070	0.0085	0.011	150 (110 – 190)
S2	E	0,022	0,18	0,22	0,28	36 (25 – 48)
		0.022	0.0070	0.0085	0.011	120 (83 – 150)
S3	E	0,022	0,18	0,22	0,28	31 (21 – 41)
		0.022	0.0070	0.0085	0.011	100 (69 – 130)
S11	E	0,022	0,18	0,22	0,28	155 (140 – 170)
		0.022	0.0070	0.0085	0.011	510 (460 – 550)
S12	E	0,022	0,18	0,22	0,28	120 (110 – 130)
		0.022	0.0070	0.0085	0.011	395 (370 – 420)
S13	E	0,022	0,18	0,22	0,28	95 (82 – 100)
		0.022	0.0070	0.0085	0.011	310 (270 – 320)
H5	M/A	0,040	0,24	0,28	0,38	100 (86 – 110)
		0.040	0.0095	0.011	0.015	330 (290 – 360)
H8	M/A	0,040	0,24	0,28	0,38	100 (86 – 110)
		0.040	0.0095	0.011	0.015	330 (290 – 360)
H11	M/A	0,040	0,24	0,28	0,38	130 (110 – 140)
		0.040	0.0095	0.011	0.015	425 (370 – 450)
H21	M/A	0,040	0,24	0,28	0,38	100 (86 – 110)
		0.040	0.0095	0.011	0.015	330 (290 – 360)
H31	M/A	0,040	0,24	0,28	0,38	75 (65 – 88)
		0.040	0.0095	0.011	0.015	245 (220 – 280)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values

Cutting data – XHF780 Side milling inch

SMG		a _e /DCX	a _p /DCX	f _z			v _c
				3/8	1/2	5/8	
P1	E/M/A/D	0,30	0,040	0,50	0,60	0,80	370 (330 — 410)
		0,30	0,040	0,020	0,024	0,032	1225 (1100 — 1300)
P2	E/M/A/D	0,30	0,040	0,50	0,60	0,80	360 (320 — 390)
		0,30	0,040	0,020	0,024	0,032	1175 (1100 — 1200)
P3	E/M/A/D	0,30	0,040	0,50	0,60	0,80	310 (280 — 340)
		0,30	0,040	0,020	0,024	0,032	1025 (920 — 1100)
P4	E/M/A/D	0,30	0,040	0,50	0,60	0,80	270 (250 — 300)
		0,30	0,040	0,020	0,024	0,032	890 (830 — 980)
P5	E/M/A/D	0,30	0,040	0,50	0,60	0,80	270 (250 — 300)
		0,30	0,040	0,020	0,024	0,032	890 (830 — 980)
P6	E/M/A/D	0,30	0,040	0,50	0,60	0,80	305 (280 — 330)
		0,30	0,040	0,020	0,024	0,032	1000 (920 — 1000)
P7	E/M/A/D	0,30	0,040	0,50	0,60	0,80	290 (260 — 320)
		0,30	0,040	0,020	0,024	0,032	950 (860 — 1000)
P8	E/M/A/D	0,30	0,040	0,50	0,60	0,80	270 (250 — 300)
		0,30	0,040	0,020	0,024	0,032	890 (830 — 980)
P11	E/M/A/D	0,30	0,036	0,40	0,48	0,65	160 (150 — 170)
		0,30	0,036	0,016	0,019	0,026	520 (500 — 550)
P12	E/M/A/D	0,30	0,036	0,40	0,48	0,65	95 (83 — 100)
		0,30	0,036	0,016	0,019	0,026	310 (280 — 320)
M1	E/M/A	0,30	0,036	0,40	0,48	0,65	190 (170 — 210)
		0,30	0,036	0,016	0,019	0,026	620 (560 — 680)
M2	E/M/A	0,30	0,036	0,40	0,48	0,65	150 (140 — 160)
		0,30	0,036	0,016	0,019	0,026	490 (460 — 520)
M3	E/M/A	0,30	0,036	0,40	0,48	0,65	115 (97 — 130)
		0,30	0,036	0,016	0,019	0,026	375 (320 — 420)
M4	E/M/A	0,30	0,036	0,40	0,48	0,65	85 (73 — 100)
		0,30	0,036	0,016	0,019	0,026	280 (240 — 320)
M5	E/M/A	0,30	0,036	0,40	0,48	0,65	70 (61 — 83)
		0,30	0,036	0,016	0,019	0,026	230 (210 — 270)
S1	E	0,30	0,022	0,24	0,28	0,38	55 (36 — 71)
		0,30	0,022	0,0095	0,011	0,015	180 (120 — 230)
S2	E	0,30	0,022	0,24	0,28	0,38	43 (29 — 57)
		0,30	0,022	0,0095	0,011	0,015	140 (96 — 180)
S3	E	0,30	0,022	0,24	0,28	0,38	37 (25 — 49)
		0,30	0,022	0,0095	0,011	0,015	120 (83 — 160)
S11	E	0,30	0,022	0,36	0,42	0,55	175 (160 — 190)
		0,30	0,022	0,014	0,017	0,022	570 (530 — 620)
S12	E	0,30	0,022	0,36	0,42	0,55	135 (120 — 150)
		0,30	0,022	0,014	0,017	0,022	445 (400 — 490)
S13	E	0,30	0,022	0,36	0,42	0,55	105 (90 — 110)
		0,30	0,022	0,014	0,017	0,022	345 (300 — 360)
H5	M/A	0,30	0,040	0,40	0,48	0,65	115 (99 — 130)
		0,30	0,040	0,016	0,019	0,026	375 (330 — 420)
H8	M/A	0,30	0,040	0,40	0,48	0,65	115 (99 — 130)
		0,30	0,040	0,016	0,019	0,026	375 (330 — 420)
H11	M/A	0,30	0,040	0,40	0,48	0,65	150 (130 — 170)
		0,30	0,040	0,016	0,019	0,026	490 (430 — 550)
H21	M/A	0,30	0,040	0,40	0,48	0,65	115 (99 — 130)
		0,30	0,040	0,016	0,019	0,026	375 (330 — 420)
H31	M/A	0,30	0,040	0,40	0,48	0,65	90 (75 — 100)
		0,30	0,040	0,016	0,019	0,026	295 (250 — 320)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values

Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and cfrp
 Graphite
 X-Heads
 Minimaxter Plus
 Minimaxter

Cutting data – XHF780 Slot milling inch

SMG		a _p /DCX	f _z			v _c
			3/8	1/2	5/8	
P1	E/M/A/D	0,040	0,30	0,36	0,48	325 (290 – 350)
		0.040	0.012	0.014	0.019	1075 (960 – 1100)
P2	E/M/A/D	0,040	0,30	0,36	0,48	315 (290 – 350)
		0.040	0.012	0.014	0.019	1025 (960 – 1100)
P3	E/M/A/D	0,040	0,30	0,36	0,48	270 (250 – 300)
		0.040	0.012	0.014	0.019	890 (830 – 980)
P4	E/M/A/D	0,040	0,30	0,36	0,48	240 (220 – 260)
		0.040	0.012	0.014	0.019	790 (730 – 850)
P5	E/M/A/D	0,040	0,30	0,36	0,48	240 (220 – 260)
		0.040	0.012	0.014	0.019	790 (730 – 850)
P6	E/M/A/D	0,040	0,30	0,36	0,48	270 (240 – 290)
		0.040	0.012	0.014	0.019	890 (790 – 950)
P7	E/M/A/D	0,040	0,30	0,36	0,48	255 (230 – 280)
		0.040	0.012	0.014	0.019	840 (760 – 910)
P8	E/M/A/D	0,040	0,30	0,36	0,48	240 (220 – 260)
		0.040	0.012	0.014	0.019	790 (730 – 850)
P11	E/M/A/D	0,036	0,24	0,28	0,38	140 (130 – 150)
		0.036	0.0095	0.011	0.015	460 (430 – 490)
P12	E/M/A/D	0,036	0,24	0,28	0,38	80 (73 – 92)
		0.036	0.0095	0.011	0.015	260 (240 – 300)
M1	E/M/A	0,036	0,24	0,28	0,38	165 (150 – 180)
		0.036	0.0095	0.011	0.015	540 (500 – 590)
M2	E/M/A	0,036	0,24	0,28	0,38	130 (120 – 140)
		0.036	0.0095	0.011	0.015	425 (400 – 450)
M3	E/M/A	0,036	0,24	0,28	0,38	100 (85 – 110)
		0.036	0.0095	0.011	0.015	330 (280 – 360)
M4	E/M/A	0,036	0,24	0,28	0,38	75 (64 – 87)
		0.036	0.0095	0.011	0.015	245 (210 – 280)
M5	E/M/A	0,036	0,24	0,28	0,38	65 (53 – 72)
		0.036	0.0095	0.011	0.015	215 (180 – 230)
S1	E	0,022	0,18	0,22	0,28	45 (31 – 60)
		0.022	0.0070	0.0085	0.011	150 (110 – 190)
S2	E	0,022	0,18	0,22	0,28	36 (25 – 48)
		0.022	0.0070	0.0085	0.011	120 (83 – 150)
S3	E	0,022	0,18	0,22	0,28	31 (21 – 41)
		0.022	0.0070	0.0085	0.011	100 (69 – 130)
S11	E	0,022	0,18	0,22	0,28	155 (140 – 170)
		0.022	0.0070	0.0085	0.011	510 (460 – 550)
S12	E	0,022	0,18	0,22	0,28	120 (110 – 130)
		0.022	0.0070	0.0085	0.011	395 (370 – 420)
S13	E	0,022	0,18	0,22	0,28	95 (82 – 100)
		0.022	0.0070	0.0085	0.011	310 (270 – 320)
H5	M/A	0,040	0,24	0,28	0,38	100 (86 – 110)
		0.040	0.0095	0.011	0.015	330 (290 – 360)
H8	M/A	0,040	0,24	0,28	0,38	100 (86 – 110)
		0.040	0.0095	0.011	0.015	330 (290 – 360)
H11	M/A	0,040	0,24	0,28	0,38	130 (110 – 140)
		0.040	0.0095	0.011	0.015	425 (370 – 450)
H21	M/A	0,040	0,24	0,28	0,38	100 (86 – 110)
		0.040	0.0095	0.011	0.015	330 (290 – 360)
H31	M/A	0,040	0,24	0,28	0,38	75 (65 – 88)
		0.040	0.0095	0.011	0.015	245 (220 – 280)

SMG = Seco material group
 Coolant = A=air D=dry E=emulsion M=mist spray
 v_c = m/min (sf/min)
 f_z = mm (in/tooth)
 a_p = mm/DC (in/DC) = factor
 a_e = mm/DC (in/DC) = factor
 All cutting data are target values

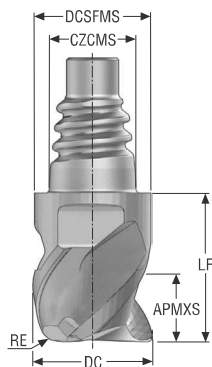
X-Heads

Minimaster Plus

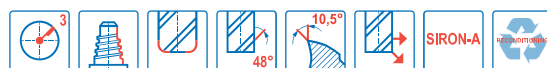
Minimaster

XVE540

General purpose – Universal – Square – 3 Flutes – Corner radius



D



- Tolerances:
- DC= h9
- RE= ±0,015 mm
- Regrind possible if DC is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XVE540E10100D1R050Z3	10137981	1	D	E10	10,0	9,7	5,5	12,4	0,5	3	8	■
XVE540E12120D1R050Z3	10137982	1	D	E12	12,0	11,7	6,5	14,5	0,5	3	10	■
XVE540E16160D1R050Z3	10137983	1	D	E16	16,0	15,5	8,5	18,7	0,5	3	12	■
XVE540E20200D1R050Z3	10137984	1	D	E20	20,0	19,3	11,0	21,3	0,5	3	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfrp

Graphite

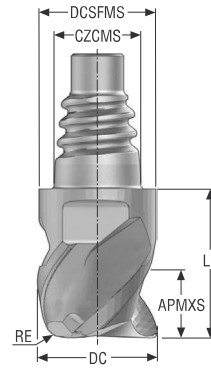
X-Heads

Minimaster Plus

Minimaster

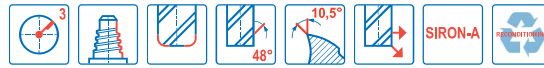
XVE540

General purpose – Universal – Square – 3 Flutes – Corner radius – Inch



D

- Tolerances:
- DC= h9
- RE= .015 Inch= ±.0006 Inch
- RE= .031 Inch= ±.0012 Inch
- Regrind possible if DC is ≥Ø.500 Inch




Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>			SIRA
XVE540E10.375D1R015Z3	10137985	1	D	E10	0.375	0.364	0.209	0.488	0.015	3	8	■
XVE540E12.500D1R015Z3	10137986	1	D	E12	0.500	0.484	0.276	0.575	0.015	3	10	■
XVE540E16.625D1R015Z3	10137987	1	D	E16	0.625	0.610	0.335	0.736	0.015	3	12	■
XVE540E20.750D1R031Z3	10137988	1	D	E20	0.750	0.728	0.413	0.839	0.031	3	16	■

■ Stocked standard.

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XVE540 – Side milling PCEDC 3

SMG		a _e /DC	a _p /DC	f _z				v _c
				10	12	16	20	
P1	E/M/A/D	0,50	0,50	0,055	0,065	0,080	0,090	185 (150 – 210)
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	610 (500 – 680)
P2	E/M/A/D	0,50	0,50	0,055	0,065	0,080	0,090	180 (150 – 200)
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	590 (500 – 650)
P3	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	155 (130 – 180)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	510 (430 – 590)
P4	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	140 (120 – 160)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	460 (400 – 520)
P5	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	110 (89 – 130)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	360 (300 – 420)
P6	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	125 (100 – 140)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	410 (330 – 450)
P7	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	115 (94 – 140)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	375 (310 – 450)
P8	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,090	110 (89 – 130)
		0,50	0,50	0,0020	0,0024	0,0030	0,0036	360 (300 – 420)
P11	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	95 (70 – 110)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	310 (230 – 360)
P12	E/M/A/D	0,50	0,50	0,034	0,040	0,050	0,060	60 (45 – 73)
		0,50	0,50	0,0013	0,0016	0,0020	0,0024	195 (150 – 230)
M1	E/M/A	0,50	0,50	0,055	0,065	0,080	0,095	105 (81 – 130)
		0,50	0,50	0,0022	0,0026	0,0032	0,0038	345 (270 – 420)
M2	E/M/A	0,50	0,50	0,050	0,060	0,075	0,085	90 (67 – 110)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	295 (220 – 360)
M3	E/M/A	0,50	0,50	0,050	0,060	0,075	0,085	75 (56 – 99)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	245 (190 – 320)
M4	E/M/A	0,50	0,50	0,044	0,050	0,065	0,075	60 (43 – 76)
		0,50	0,50	0,0017	0,0020	0,0026	0,0030	195 (150 – 240)
M5	E/M/A	0,50	0,50	0,044	0,050	0,065	0,075	50 (36 – 63)
		0,50	0,50	0,0017	0,0020	0,0026	0,0030	165 (120 – 200)
K1	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	140 (120 – 160)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	460 (400 – 520)
K2	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	120 (110 – 140)
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	395 (370 – 450)
K3	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	105 (87 – 110)
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	345 (290 – 360)
K4	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	110 (89 – 130)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	360 (300 – 420)
K5	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	65 (54 – 80)
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	215 (180 – 260)
K6	E/M/A/D	0,50	0,50	0,050	0,060	0,075	0,085	95 (78 – 110)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	310 (260 – 360)
K7	E/M/A/D	0,50	0,50	0,046	0,055	0,065	0,075	85 (69 – 100)
		0,50	0,50	0,0018	0,0022	0,0026	0,0030	280 (230 – 320)
N1	E/M/A	0,40	0,50	0,080	0,095	0,12	0,14	610 (510 – 710)
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2300)
N2	E/M/A	0,40	0,50	0,080	0,095	0,12	0,14	395 (330 – 450)
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	1300 (1100 – 1400)
N3	E/M/A	0,40	0,50	0,080	0,095	0,12	0,14	260 (220 – 300)
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	850 (730 – 980)
N11	E/M/A	0,50	0,50	0,070	0,080	0,11	0,13	300 (250 – 340)
		0,50	0,30	0,0028	0,0032	0,0044	0,0055	1025 (860 – 1100)
S1	E	0,50	0,50	0,055	0,065	0,080	0,090	39 (32 – 46)
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	130 (110 – 150)
S2	E	0,50	0,50	0,055	0,065	0,080	0,090	31 (26 – 37)
		0,50	0,50	0,0022	0,0026	0,0032	0,0036	100 (86 – 120)
S3	E	0,50	0,50	0,050	0,060	0,075	0,085	28 (23 – 33)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	90 (76 – 100)
S11	E	0,50	0,50	0,050	0,060	0,075	0,085	115 (87 – 140)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	375 (290 – 450)
S12	E	0,50	0,50	0,050	0,060	0,075	0,085	90 (67 – 110)
		0,50	0,50	0,0020	0,0024	0,0030	0,0034	295 (220 – 360)
S13	E	0,50	0,50	0,044	0,050	0,065	0,075	70 (53 – 87)
		0,50	0,50	0,0017	0,0020	0,0026	0,0030	230 (180 – 280)
TS1	A/D	0,40	0,50	0,080	0,095	0,12	0,14	255 (160 – 350)
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	840 (530 – 1100)
TP1	A/D	0,40	0,50	0,080	0,095	0,12	0,14	255 (160 – 350)
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	840 (530 – 1100)
GR1	A/D	0,40	0,50	0,080	0,095	0,12	0,14	610 (510 – 710)
		0,40	0,50	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2300)

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XVE540 – Slot milling PCEDC 3

SMG		a _p /DC	f _z				v _c
			10	12	16	20	
P1	E/M/A/D	0,50	0,034	0,042	0,055	0,070	170 (140 – 190)
		0,50	0,0013	0,0017	0,0022	0,0028	560 (460 – 620)
P2	E/M/A/D	0,50	0,034	0,042	0,055	0,070	165 (140 – 190)
		0,50	0,0013	0,0017	0,0022	0,0028	540 (460 – 620)
P3	E/M/A/D	0,50	0,034	0,042	0,055	0,070	140 (120 – 160)
		0,50	0,0013	0,0017	0,0022	0,0028	460 (400 – 520)
P4	E/M/A/D	0,50	0,034	0,042	0,055	0,070	125 (100 – 140)
		0,50	0,0013	0,0017	0,0022	0,0028	410 (330 – 450)
P5	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (81 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (270 – 390)
P6	E/M/A/D	0,50	0,034	0,042	0,055	0,070	110 (90 – 130)
		0,50	0,0013	0,0017	0,0022	0,0028	360 (300 – 420)
P7	E/M/A/D	0,50	0,034	0,042	0,055	0,070	105 (85 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	345 (280 – 390)
P8	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (81 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (270 – 390)
P11	E/M/A/D	0,50	0,034	0,042	0,055	0,070	85 (64 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	280 (210 – 320)
P12	E/M/A/D	0,50	0,034	0,040	0,050	0,060	50 (38 – 62)
		0,50	0,0013	0,0016	0,0020	0,0024	165 (130 – 200)
M1	E/M/A	0,50	0,034	0,042	0,055	0,070	100 (75 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (250 – 390)
M2	E/M/A	0,50	0,034	0,042	0,055	0,070	80 (61 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	260 (210 – 320)
M3	E/M/A	0,50	0,034	0,042	0,055	0,070	70 (50 – 89)
		0,50	0,0013	0,0017	0,0022	0,0028	230 (170 – 290)
M4	E/M/A	0,50	0,034	0,042	0,055	0,070	50 (38 – 67)
		0,50	0,0013	0,0017	0,0022	0,0028	165 (130 – 210)
M5	E/M/A	0,50	0,034	0,042	0,055	0,070	44 (32 – 56)
		0,50	0,0013	0,0017	0,0022	0,0028	145 (110 – 180)
K1	E/M/A/D	0,50	0,034	0,042	0,055	0,070	125 (110 – 140)
		0,50	0,0013	0,0017	0,0022	0,0028	410 (370 – 450)
K2	E/M/A/D	0,50	0,034	0,042	0,055	0,070	110 (92 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	360 (310 – 390)
K3	E/M/A/D	0,50	0,034	0,042	0,055	0,070	90 (78 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	295 (260 – 320)
K4	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (81 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (270 – 390)
K5	E/M/A/D	0,50	0,034	0,042	0,055	0,070	60 (48 – 71)
		0,50	0,0013	0,0017	0,0022	0,0028	195 (160 – 230)
K6	E/M/A/D	0,50	0,034	0,042	0,055	0,070	90 (71 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	295 (240 – 320)
K7	E/M/A/D	0,50	0,034	0,042	0,055	0,070	75 (61 – 91)
		0,50	0,0013	0,0017	0,0022	0,0028	245 (210 – 290)
N1	E/M/A	0,30	0,034	0,042	0,055	0,070	600 (500 – 700)
		0,30	0,0013	0,0017	0,0022	0,0028	1975 (1700 – 2200)
N2	E/M/A	0,30	0,034	0,042	0,055	0,070	385 (330 – 450)
		0,30	0,0013	0,0017	0,0022	0,0028	1275 (1100 – 1400)
N3	E/M/A	0,30	0,034	0,042	0,055	0,070	255 (220 – 300)
		0,30	0,0013	0,0017	0,0022	0,0028	840 (730 – 980)
N11	E/M/A	0,30	0,034	0,042	0,055	0,070	300 (260 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	980 (860 – 1100)
S1	E	0,50	0,034	0,042	0,055	0,070	36 (29 – 43)
		0,50	0,0013	0,0017	0,0022	0,0028	120 (96 – 140)
S2	E	0,50	0,034	0,042	0,055	0,070	29 (24 – 34)
		0,50	0,0013	0,0017	0,0022	0,0028	95 (79 – 110)
S3	E	0,50	0,034	0,042	0,055	0,070	25 (20 – 30)
		0,50	0,0013	0,0017	0,0022	0,0028	80 (66 – 98)
S11	E	0,50	0,034	0,042	0,055	0,070	105 (79 – 130)
		0,50	0,0013	0,0017	0,0022	0,0028	345 (260 – 420)
S12	E	0,50	0,034	0,042	0,055	0,070	80 (61 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	260 (210 – 320)
S13	E	0,50	0,034	0,042	0,055	0,070	60 (47 – 77)
		0,50	0,0013	0,0017	0,0022	0,0028	195 (160 – 250)
TS1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 350)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
TP1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 350)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
GR1	A/D	0,30	0,034	0,042	0,055	0,070	600 (500 – 700)
		0,30	0,0013	0,0017	0,0022	0,0028	1975 (1700 – 2200)

Cutting data – XVE540 – Side milling PCEDC 3 inch

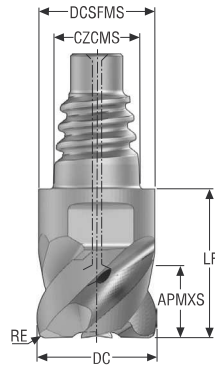
SMG		a_e/DC	a_p/DC	f_z				v_c		
				3/8	1/2	5/8	3/4			
P1	E/M/A/D	0,50 0,50	0,50 0,50	0,055 0,0022	0,065 0,0026	0,080 0,0032	0,090 0,0036	185 (150 – 210) 610 (500 – 680)	Universal Steel and cast iron	
P2	E/M/A/D	0,50 0,50	0,50 0,50	0,055 0,0022	0,065 0,0026	0,080 0,0032	0,090 0,0036	180 (150 – 200) 590 (500 – 650)		
P3	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	155 (130 – 180) 510 (430 – 590)		
P4	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	140 (120 – 160) 460 (400 – 520)		
P5	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	110 (89 – 130) 360 (300 – 420)		
P6	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	125 (100 – 140) 410 (330 – 450)		
P7	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	115 (94 – 140) 375 (310 – 450)		
P8	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,090 0,0036	110 (89 – 130) 360 (300 – 420)		
P11	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	95 (70 – 110) 310 (230 – 360)		
P12	E/M/A/D	0,50 0,50	0,50 0,50	0,034 0,0013	0,040 0,0016	0,050 0,0020	0,060 0,0024	60 (45 – 73) 195 (150 – 230)		
M1	E/M/A	0,50 0,50	0,50 0,50	0,055 0,0022	0,065 0,0026	0,080 0,0032	0,095 0,0038	105 (81 – 130) 345 (270 – 420)		Non ferrous
M2	E/M/A	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	90 (67 – 110) 295 (220 – 360)		
M3	E/M/A	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	75 (56 – 99) 245 (190 – 320)		
M4	E/M/A	0,50 0,50	0,50 0,50	0,044 0,0017	0,050 0,0020	0,065 0,0026	0,075 0,0030	60 (43 – 76) 195 (150 – 240)		
M5	E/M/A	0,50 0,50	0,50 0,50	0,044 0,0017	0,050 0,0020	0,065 0,0026	0,075 0,0030	50 (36 – 63) 165 (120 – 200)		
K1	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	140 (120 – 160) 460 (400 – 520)	Hard	
K2	E/M/A/D	0,50 0,50	0,50 0,50	0,046 0,0018	0,055 0,0022	0,065 0,0026	0,075 0,0030	120 (110 – 140) 395 (370 – 450)		
K3	E/M/A/D	0,50 0,50	0,50 0,50	0,046 0,0018	0,055 0,0022	0,065 0,0026	0,075 0,0030	105 (87 – 110) 345 (290 – 360)		
K4	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	110 (89 – 130) 360 (300 – 420)		
K5	E/M/A/D	0,50 0,50	0,50 0,50	0,046 0,0018	0,055 0,0022	0,065 0,0026	0,075 0,0030	65 (54 – 80) 215 (180 – 260)		
K6	E/M/A/D	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	95 (78 – 110) 310 (260 – 360)		
K7	E/M/A/D	0,50 0,50	0,50 0,50	0,046 0,0018	0,055 0,0022	0,065 0,0026	0,075 0,0030	85 (69 – 100) 280 (230 – 320)		
N1	E/M/A	0,40 0,40	0,50 0,50	0,080 0,0032	0,095 0,0038	0,12 0,0048	0,14 0,0055	610 (510 – 710) 2000 (1700 – 2300)	Graphite	
N2	E/M/A	0,40 0,40	0,50 0,50	0,080 0,0032	0,095 0,0038	0,12 0,0048	0,14 0,0055	395 (330 – 450) 1300 (1100 – 1400)		
N3	E/M/A	0,40 0,40	0,50 0,50	0,080 0,0032	0,095 0,0038	0,12 0,0048	0,14 0,0055	260 (220 – 300) 850 (730 – 980)		
N11	E/M/A	0,50 0,50	0,50 0,30	0,070 0,0028	0,080 0,0032	0,11 0,0044	0,13 0,0055	300 (250 – 340) 1025 (860 – 1100)		
S1	E	0,50 0,50	0,50 0,50	0,055 0,0022	0,065 0,0026	0,080 0,0032	0,090 0,0036	39 (32 – 46) 130 (110 – 150)	X-Heads	
S2	E	0,50 0,50	0,50 0,50	0,055 0,0022	0,065 0,0026	0,080 0,0032	0,090 0,0036	31 (26 – 37) 100 (86 – 120)		
S3	E	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	28 (23 – 33) 90 (76 – 100)		
S11	E	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	115 (87 – 140) 375 (290 – 450)		
S12	E	0,50 0,50	0,50 0,50	0,050 0,0020	0,060 0,0024	0,075 0,0030	0,085 0,0034	90 (67 – 110) 295 (220 – 360)		
S13	E	0,50 0,50	0,50 0,50	0,044 0,0017	0,050 0,0020	0,065 0,0026	0,075 0,0030	70 (53 – 87) 230 (180 – 280)		
TS1	A/D	0,40 0,40	0,50 0,50	0,080 0,0032	0,095 0,0038	0,12 0,0048	0,14 0,0055	255 (160 – 350) 840 (530 – 1100)		Minimaster Plus
TP1	A/D	0,40 0,40	0,50 0,50	0,080 0,0032	0,095 0,0038	0,12 0,0048	0,14 0,0055	255 (160 – 350) 840 (530 – 1100)		
GR1	A/D	0,40 0,40	0,50 0,50	0,080 0,0032	0,095 0,0038	0,12 0,0048	0,14 0,0055	610 (510 – 710) 2000 (1700 – 2300)	Minimaster	

Cutting data – XVE540 – Slot milling PCEDC 3 inch

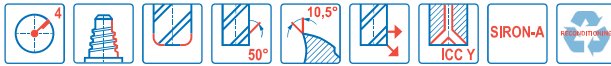
SMG		a _p /DC	f _z				v _c
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,50	0,034	0,042	0,055	0,070	170 (140 – 190)
		0,50	0,0013	0,0017	0,0022	0,0028	560 (460 – 620)
P2	E/M/A/D	0,50	0,034	0,042	0,055	0,070	165 (140 – 190)
		0,50	0,0013	0,0017	0,0022	0,0028	540 (460 – 620)
P3	E/M/A/D	0,50	0,034	0,042	0,055	0,070	140 (120 – 160)
		0,50	0,0013	0,0017	0,0022	0,0028	460 (400 – 520)
P4	E/M/A/D	0,50	0,034	0,042	0,055	0,070	125 (100 – 140)
		0,50	0,0013	0,0017	0,0022	0,0028	410 (330 – 450)
P5	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (81 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (270 – 390)
P6	E/M/A/D	0,50	0,034	0,042	0,055	0,070	110 (90 – 130)
		0,50	0,0013	0,0017	0,0022	0,0028	360 (300 – 420)
P7	E/M/A/D	0,50	0,034	0,042	0,055	0,070	105 (85 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	345 (280 – 390)
P8	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (81 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (270 – 390)
P11	E/M/A/D	0,50	0,034	0,042	0,055	0,070	85 (64 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	280 (210 – 320)
P12	E/M/A/D	0,50	0,034	0,040	0,050	0,060	50 (38 – 62)
		0,50	0,0013	0,0016	0,0020	0,0024	165 (130 – 200)
M1	E/M/A	0,50	0,034	0,042	0,055	0,070	100 (75 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (250 – 390)
M2	E/M/A	0,50	0,034	0,042	0,055	0,070	80 (61 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	260 (210 – 320)
M3	E/M/A	0,50	0,034	0,042	0,055	0,070	70 (50 – 89)
		0,50	0,0013	0,0017	0,0022	0,0028	230 (170 – 290)
M4	E/M/A	0,50	0,034	0,042	0,055	0,070	50 (38 – 67)
		0,50	0,0013	0,0017	0,0022	0,0028	165 (130 – 210)
M5	E/M/A	0,50	0,034	0,042	0,055	0,070	44 (32 – 56)
		0,50	0,0013	0,0017	0,0022	0,0028	145 (110 – 180)
K1	E/M/A/D	0,50	0,034	0,042	0,055	0,070	125 (110 – 140)
		0,50	0,0013	0,0017	0,0022	0,0028	410 (370 – 450)
K2	E/M/A/D	0,50	0,034	0,042	0,055	0,070	110 (92 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	360 (310 – 390)
K3	E/M/A/D	0,50	0,034	0,042	0,055	0,070	90 (78 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	295 (260 – 320)
K4	E/M/A/D	0,50	0,034	0,042	0,055	0,070	100 (81 – 120)
		0,50	0,0013	0,0017	0,0022	0,0028	330 (270 – 390)
K5	E/M/A/D	0,50	0,034	0,042	0,055	0,070	60 (48 – 71)
		0,50	0,0013	0,0017	0,0022	0,0028	195 (160 – 230)
K6	E/M/A/D	0,50	0,034	0,042	0,055	0,070	90 (71 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	295 (240 – 320)
K7	E/M/A/D	0,50	0,034	0,042	0,055	0,070	75 (61 – 91)
		0,50	0,0013	0,0017	0,0022	0,0028	245 (210 – 290)
N1	E/M/A	0,30	0,034	0,042	0,055	0,070	600 (500 – 700)
		0,30	0,0013	0,0017	0,0022	0,0028	1975 (1700 – 2200)
N2	E/M/A	0,30	0,034	0,042	0,055	0,070	385 (330 – 450)
		0,30	0,0013	0,0017	0,0022	0,0028	1275 (1100 – 1400)
N3	E/M/A	0,30	0,034	0,042	0,055	0,070	255 (220 – 300)
		0,30	0,0013	0,0017	0,0022	0,0028	840 (730 – 980)
N11	E/M/A	0,30	0,034	0,042	0,055	0,070	300 (260 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	980 (860 – 1100)
S1	E	0,50	0,034	0,042	0,055	0,070	36 (29 – 43)
		0,50	0,0013	0,0017	0,0022	0,0028	120 (96 – 140)
S2	E	0,50	0,034	0,042	0,055	0,070	29 (24 – 34)
		0,50	0,0013	0,0017	0,0022	0,0028	95 (79 – 110)
S3	E	0,50	0,034	0,042	0,055	0,070	25 (20 – 30)
		0,50	0,0013	0,0017	0,0022	0,0028	80 (66 – 98)
S11	E	0,50	0,034	0,042	0,055	0,070	105 (79 – 130)
		0,50	0,0013	0,0017	0,0022	0,0028	345 (260 – 420)
S12	E	0,50	0,034	0,042	0,055	0,070	80 (61 – 100)
		0,50	0,0013	0,0017	0,0022	0,0028	260 (210 – 320)
S13	E	0,50	0,034	0,042	0,055	0,070	60 (47 – 77)
		0,50	0,0013	0,0017	0,0022	0,0028	195 (160 – 250)
TS1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 350)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
TP1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 350)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
GR1	A/D	0,30	0,034	0,042	0,055	0,070	600 (500 – 700)
		0,30	0,0013	0,0017	0,0022	0,0028	1975 (1700 – 2200)

XVE540

General purpose – Universal – Square – 4 Flutes – Corner radius – ICC



D



- Tolerances:
- DC= h9
- RE= ±0,015 mm
- Regrind possible if DC is ≥Ø12 mm

Designation	Item number	Length index	Tool shape	CSP	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
						mm	mm	mm	mm	mm			SIRA
XVE540E10100D1R050Z4A	10137989	1	D	■	E10	10,0	9,7	6,0	12,4	0,5	4	8	■
XVE540E12120D1R050Z4A	10137990	1	D	■	E12	12,0	11,7	7,5	14,5	0,5	4	10	■
XVE540E16160D1R050Z4A	10137991	1	D	■	E16	16,0	15,5	10,0	18,7	0,5	4	12	■
XVE540E20200D1R050Z4A	10137992	1	D	■	E20	20,0	19,3	12,0	21,3	0,5	4	16	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and cfpr

Graphite

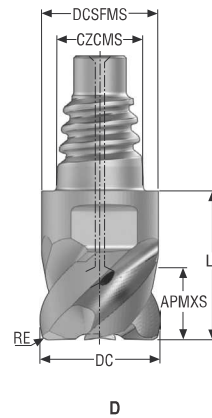
X-Heads

Minimaster Plus

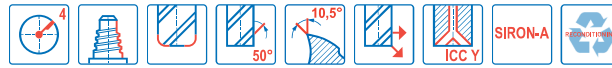
Minimaster

XVE540

General purpose – Universal – Square – 4 Flutes – Corner radius – ICC – Inch



- Tolerances:
- DC= h9
- RE= .015 Inch= ±.0006 Inch
- RE= .031 Inch= ±.0012 Inch
- Regrind possible if DC is ≥Ø.500 Inch




Designation	Item number	Length index	Tool shape	CSP	CZCMS	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
						<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>			SIRA
XVE540E10.375D1R015Z4A	10137993	1	D	■	E10	0.375	0.364	0.236	0.488	0.015	4	8	■
XVE540E12.500D1R031Z4A	10137994	1	D	■	E12	0.500	0.484	0.315	0.571	0.031	4	12	■
XVE540E16.625D1R031Z4A	10137995	1	D	■	E16	0.625	0.610	0.394	0.736	0.031	4	16	■
XVE540E20.750D1R031Z4A	10137996	1	D	■	E20	0.750	0.728	0.453	0.839	0.031	4	18	■

■ Stocked standard.

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XVE540 – Side milling PCEDC 4

SMG		a _e /DC	a _p /DC	f _z				v _c
				10	12	16	20	
P1	E/M/A/D	0,50	0,55	0,055	0,065	0,080	0,090	180 (150 – 210)
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	590 (500 – 680)
P2	E/M/A/D	0,50	0,55	0,055	0,065	0,080	0,090	175 (150 – 200)
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	570 (500 – 650)
P3	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	155 (130 – 180)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	510 (430 – 590)
P4	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	135 (110 – 150)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	445 (370 – 490)
P5	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	110 (88 – 130)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	360 (290 – 420)
P6	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	125 (99 – 140)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	410 (330 – 450)
P7	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	115 (93 – 130)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	375 (310 – 420)
P8	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,090	110 (88 – 130)
		0,50	0,55	0,0020	0,0024	0,0030	0,0036	360 (290 – 420)
P11	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	90 (70 – 110)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	295 (230 – 360)
P12	E/M/A/D	0,50	0,55	0,034	0,040	0,050	0,060	60 (44 – 73)
		0,50	0,55	0,0013	0,0016	0,0020	0,0024	195 (150 – 230)
M1	E/M/A	0,50	0,55	0,055	0,065	0,080	0,095	105 (80 – 130)
		0,50	0,55	0,0022	0,0026	0,0032	0,0038	345 (270 – 420)
M2	E/M/A	0,50	0,55	0,050	0,060	0,075	0,085	90 (66 – 100)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	295 (220 – 320)
M3	E/M/A	0,50	0,55	0,050	0,060	0,075	0,085	75 (55 – 98)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	245 (190 – 320)
M4	E/M/A	0,50	0,55	0,044	0,050	0,065	0,075	60 (43 – 75)
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	195 (150 – 240)
M5	E/M/A	0,50	0,55	0,044	0,050	0,065	0,075	49 (36 – 63)
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	160 (120 – 200)
K1	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	135 (120 – 150)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	445 (400 – 490)
K2	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	120 (110 – 130)
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	395 (370 – 420)
K3	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	100 (86 – 110)
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	330 (290 – 360)
K4	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	110 (88 – 130)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	360 (290 – 420)
K5	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	65 (54 – 79)
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	215 (180 – 250)
K6	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	95 (78 – 110)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	310 (260 – 360)
K7	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	85 (68 – 100)
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	280 (230 – 320)
N1	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	610 (510 – 700)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2200)
N2	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	390 (330 – 450)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	1275 (1100 – 1400)
N3	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	260 (220 – 300)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	850 (730 – 980)
N11	E/M/A	0,50	0,55	0,070	0,080	0,11	0,13	295 (250 – 340)
		0,50	0,30	0,0028	0,0032	0,0044	0,0055	1000 (860 – 1100)
S1	E	0,50	0,55	0,055	0,065	0,080	0,090	39 (31 – 46)
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	130 (110 – 150)
S2	E	0,50	0,55	0,055	0,065	0,080	0,090	31 (25 – 37)
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	100 (83 – 120)
S3	E	0,50	0,55	0,050	0,060	0,075	0,085	27 (22 – 32)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	90 (73 – 100)
S11	E	0,50	0,55	0,050	0,060	0,075	0,085	115 (86 – 140)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	375 (290 – 450)
S12	E	0,50	0,55	0,050	0,060	0,075	0,085	90 (66 – 100)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	295 (220 – 320)
S13	E	0,50	0,55	0,044	0,050	0,065	0,075	70 (53 – 87)
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	230 (180 – 280)
TS1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	250 (160 – 350)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	820 (530 – 1100)
TP1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	250 (160 – 350)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	820 (530 – 1100)
GR1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	610 (510 – 700)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2200)

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XVE540 – Slot milling PCEDC 4

SMG		a _p /DC	f _z				v _c
			10	12	16	20	
P1	E/M/A/D	0,55	0,034	0,042	0,055	0,070	170 (140 – 190)
		0,55	0,0013	0,0017	0,0022	0,0028	560 (460 – 620)
P2	E/M/A/D	0,55	0,034	0,042	0,055	0,070	165 (140 – 180)
		0,55	0,0013	0,0017	0,0022	0,0028	540 (460 – 590)
P3	E/M/A/D	0,55	0,034	0,042	0,055	0,070	140 (120 – 160)
		0,55	0,0013	0,0017	0,0022	0,0028	460 (400 – 520)
P4	E/M/A/D	0,55	0,034	0,042	0,055	0,070	125 (100 – 140)
		0,55	0,0013	0,0017	0,0022	0,0028	410 (330 – 450)
P5	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (80 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (270 – 360)
P6	E/M/A/D	0,55	0,034	0,042	0,055	0,070	110 (89 – 130)
		0,55	0,0013	0,0017	0,0022	0,0028	360 (300 – 420)
P7	E/M/A/D	0,55	0,034	0,042	0,055	0,070	105 (84 – 120)
		0,55	0,0013	0,0017	0,0022	0,0028	345 (280 – 390)
P8	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (80 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (270 – 360)
P11	E/M/A/D	0,55	0,034	0,042	0,055	0,070	85 (63 – 100)
		0,55	0,0013	0,0017	0,0022	0,0028	280 (210 – 320)
P12	E/M/A/D	0,55	0,034	0,040	0,050	0,060	49 (37 – 61)
		0,55	0,0013	0,0016	0,0020	0,0024	160 (130 – 200)
M1	E/M/A	0,55	0,034	0,042	0,055	0,070	100 (74 – 120)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (250 – 390)
M2	E/M/A	0,55	0,034	0,042	0,055	0,070	80 (60 – 99)
		0,55	0,0013	0,0017	0,0022	0,0028	260 (200 – 320)
M3	E/M/A	0,55	0,034	0,042	0,055	0,070	70 (50 – 89)
		0,55	0,0013	0,0017	0,0022	0,0028	230 (170 – 290)
M4	E/M/A	0,55	0,034	0,042	0,055	0,070	50 (38 – 66)
		0,55	0,0013	0,0017	0,0022	0,0028	165 (130 – 210)
M5	E/M/A	0,55	0,034	0,042	0,055	0,070	43 (31 – 55)
		0,55	0,0013	0,0017	0,0022	0,0028	140 (110 – 180)
K1	E/M/A/D	0,55	0,034	0,042	0,055	0,070	125 (110 – 140)
		0,55	0,0013	0,0017	0,0022	0,0028	410 (370 – 450)
K2	E/M/A/D	0,55	0,034	0,042	0,055	0,070	105 (91 – 120)
		0,55	0,0013	0,0017	0,0022	0,0028	345 (300 – 390)
K3	E/M/A/D	0,55	0,034	0,042	0,055	0,070	90 (77 – 100)
		0,55	0,0013	0,0017	0,0022	0,0028	295 (260 – 320)
K4	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (80 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (270 – 360)
K5	E/M/A/D	0,55	0,034	0,042	0,055	0,070	60 (48 – 70)
		0,55	0,0013	0,0017	0,0022	0,0028	195 (160 – 220)
K6	E/M/A/D	0,55	0,034	0,042	0,055	0,070	85 (70 – 100)
		0,55	0,0013	0,0017	0,0022	0,0028	280 (230 – 320)
K7	E/M/A/D	0,55	0,034	0,042	0,055	0,070	75 (61 – 90)
		0,55	0,0013	0,0017	0,0022	0,0028	245 (210 – 290)
N1	E/M/A	0,30	0,034	0,042	0,055	0,070	590 (500 – 690)
		0,30	0,0013	0,0017	0,0022	0,0028	1925 (1700 – 2200)
N2	E/M/A	0,30	0,034	0,042	0,055	0,070	380 (320 – 440)
		0,30	0,0013	0,0017	0,0022	0,0028	1250 (1100 – 1400)
N3	E/M/A	0,30	0,034	0,042	0,055	0,070	255 (220 – 290)
		0,30	0,0013	0,0017	0,0022	0,0028	840 (730 – 950)
N11	E/M/A	0,30	0,034	0,042	0,055	0,070	295 (250 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	970 (830 – 1100)
S1	E	0,55	0,034	0,042	0,055	0,070	36 (29 – 42)
		0,55	0,0013	0,0017	0,0022	0,0028	120 (96 – 130)
S2	E	0,55	0,034	0,042	0,055	0,070	29 (23 – 34)
		0,55	0,0013	0,0017	0,0022	0,0028	95 (76 – 110)
S3	E	0,55	0,034	0,042	0,055	0,070	25 (20 – 29)
		0,55	0,0013	0,0017	0,0022	0,0028	80 (66 – 95)
S11	E	0,55	0,034	0,042	0,055	0,070	105 (78 – 120)
		0,55	0,0013	0,0017	0,0022	0,0028	345 (260 – 390)
S12	E	0,55	0,034	0,042	0,055	0,070	80 (60 – 99)
		0,55	0,0013	0,0017	0,0022	0,0028	260 (200 – 320)
S13	E	0,55	0,034	0,042	0,055	0,070	60 (47 – 76)
		0,55	0,0013	0,0017	0,0022	0,0028	195 (160 – 240)
TS1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
TP1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
GR1	A/D	0,30	0,034	0,042	0,055	0,070	590 (500 – 690)
		0,30	0,0013	0,0017	0,0022	0,0028	1925 (1700 – 2200)

Cutting data – XVE540 – Side milling PCEDC 4 inch

SMG		a _e /DC	a _p /DC	f _z				v _c
				3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,50	0,55	0,055	0,065	0,080	0,090	180 (150 – 210)
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	590 (500 – 680)
P2	E/M/A/D	0,50	0,55	0,055	0,065	0,080	0,090	175 (150 – 200)
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	570 (500 – 650)
P3	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	155 (130 – 180)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	510 (430 – 590)
P4	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	135 (110 – 150)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	445 (370 – 490)
P5	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	110 (88 – 130)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	360 (290 – 420)
P6	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	125 (99 – 140)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	410 (330 – 450)
P7	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	115 (93 – 130)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	375 (310 – 420)
P8	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,090	110 (88 – 130)
		0,50	0,55	0,0020	0,0024	0,0030	0,0036	360 (290 – 420)
P11	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	90 (70 – 110)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	295 (230 – 360)
P12	E/M/A/D	0,50	0,55	0,034	0,040	0,050	0,060	60 (44 – 73)
		0,50	0,55	0,0013	0,0016	0,0020	0,0024	195 (150 – 230)
M1	E/M/A	0,50	0,55	0,055	0,065	0,080	0,095	105 (80 – 130)
		0,50	0,55	0,0022	0,0026	0,0032	0,0038	345 (270 – 420)
M2	E/M/A	0,50	0,55	0,050	0,060	0,075	0,085	90 (66 – 100)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	295 (220 – 320)
M3	E/M/A	0,50	0,55	0,050	0,060	0,075	0,085	75 (55 – 98)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	245 (190 – 320)
M4	E/M/A	0,50	0,55	0,044	0,050	0,065	0,075	60 (43 – 75)
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	195 (150 – 240)
M5	E/M/A	0,50	0,55	0,044	0,050	0,065	0,075	49 (36 – 63)
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	160 (120 – 200)
K1	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	135 (120 – 150)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	445 (400 – 490)
K2	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	120 (110 – 130)
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	395 (370 – 420)
K3	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	100 (86 – 110)
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	330 (290 – 360)
K4	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	110 (88 – 130)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	360 (290 – 420)
K5	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	65 (54 – 79)
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	215 (180 – 250)
K6	E/M/A/D	0,50	0,55	0,050	0,060	0,075	0,085	95 (78 – 110)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	310 (260 – 360)
K7	E/M/A/D	0,50	0,55	0,046	0,055	0,065	0,075	85 (68 – 100)
		0,50	0,55	0,0018	0,0022	0,0026	0,0030	280 (230 – 320)
N1	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	610 (510 – 700)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2200)
N2	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	390 (330 – 450)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	1275 (1100 – 1400)
N3	E/M/A	0,40	0,55	0,080	0,095	0,12	0,14	260 (220 – 300)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	850 (730 – 980)
N11	E/M/A	0,50	0,55	0,070	0,080	0,11	0,13	295 (250 – 340)
		0,50	0,30	0,0028	0,0032	0,0044	0,0055	1000 (860 – 1100)
S1	E	0,50	0,55	0,055	0,065	0,080	0,090	39 (31 – 46)
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	130 (110 – 150)
S2	E	0,50	0,55	0,055	0,065	0,080	0,090	31 (25 – 37)
		0,50	0,55	0,0022	0,0026	0,0032	0,0036	100 (83 – 120)
S3	E	0,50	0,55	0,050	0,060	0,075	0,085	27 (22 – 32)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	90 (73 – 100)
S11	E	0,50	0,55	0,050	0,060	0,075	0,085	115 (86 – 140)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	375 (290 – 450)
S12	E	0,50	0,55	0,050	0,060	0,075	0,085	90 (66 – 100)
		0,50	0,55	0,0020	0,0024	0,0030	0,0034	295 (220 – 320)
S13	E	0,50	0,55	0,044	0,050	0,065	0,075	70 (53 – 87)
		0,50	0,55	0,0017	0,0020	0,0026	0,0030	230 (180 – 280)
TS1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	250 (160 – 350)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	820 (530 – 1100)
TP1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	250 (160 – 350)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	820 (530 – 1100)
GR1	A/D	0,40	0,55	0,080	0,095	0,12	0,14	610 (510 – 700)
		0,40	0,55	0,0032	0,0038	0,0048	0,0055	2000 (1700 – 2200)

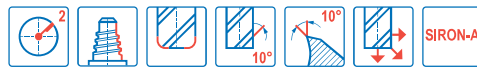
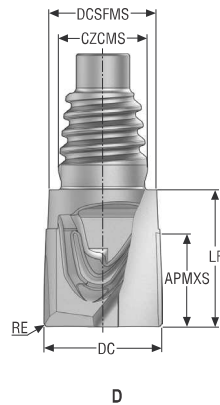
Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XVE540 – Slot milling PCEDC 4 inch

SMG		a _p /DC	f _z				v _c
			3/8	1/2	5/8	3/4	
P1	E/M/A/D	0,55	0,034	0,042	0,055	0,070	170 (140 – 190)
		0,55	0,0013	0,0017	0,0022	0,0028	560 (460 – 620)
P2	E/M/A/D	0,55	0,034	0,042	0,055	0,070	165 (140 – 180)
		0,55	0,0013	0,0017	0,0022	0,0028	540 (460 – 590)
P3	E/M/A/D	0,55	0,034	0,042	0,055	0,070	140 (120 – 160)
		0,55	0,0013	0,0017	0,0022	0,0028	460 (400 – 520)
P4	E/M/A/D	0,55	0,034	0,042	0,055	0,070	125 (100 – 140)
		0,55	0,0013	0,0017	0,0022	0,0028	410 (330 – 450)
P5	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (80 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (270 – 360)
P6	E/M/A/D	0,55	0,034	0,042	0,055	0,070	110 (89 – 130)
		0,55	0,0013	0,0017	0,0022	0,0028	360 (300 – 420)
P7	E/M/A/D	0,55	0,034	0,042	0,055	0,070	105 (84 – 120)
		0,55	0,0013	0,0017	0,0022	0,0028	345 (280 – 390)
P8	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (80 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (270 – 360)
P11	E/M/A/D	0,55	0,034	0,042	0,055	0,070	85 (63 – 100)
		0,55	0,0013	0,0017	0,0022	0,0028	280 (210 – 320)
P12	E/M/A/D	0,55	0,034	0,040	0,050	0,060	49 (37 – 61)
		0,55	0,0013	0,0016	0,0020	0,0024	160 (130 – 200)
M1	E/M/A	0,55	0,034	0,042	0,055	0,070	100 (74 – 120)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (250 – 390)
M2	E/M/A	0,55	0,034	0,042	0,055	0,070	80 (60 – 99)
		0,55	0,0013	0,0017	0,0022	0,0028	260 (200 – 320)
M3	E/M/A	0,55	0,034	0,042	0,055	0,070	70 (50 – 89)
		0,55	0,0013	0,0017	0,0022	0,0028	230 (170 – 290)
M4	E/M/A	0,55	0,034	0,042	0,055	0,070	50 (38 – 66)
		0,55	0,0013	0,0017	0,0022	0,0028	165 (130 – 210)
M5	E/M/A	0,55	0,034	0,042	0,055	0,070	43 (31 – 55)
		0,55	0,0013	0,0017	0,0022	0,0028	140 (110 – 180)
K1	E/M/A/D	0,55	0,034	0,042	0,055	0,070	125 (110 – 140)
		0,55	0,0013	0,0017	0,0022	0,0028	410 (370 – 450)
K2	E/M/A/D	0,55	0,034	0,042	0,055	0,070	105 (91 – 120)
		0,55	0,0013	0,0017	0,0022	0,0028	345 (300 – 390)
K3	E/M/A/D	0,55	0,034	0,042	0,055	0,070	90 (77 – 100)
		0,55	0,0013	0,0017	0,0022	0,0028	295 (260 – 320)
K4	E/M/A/D	0,55	0,034	0,042	0,055	0,070	100 (80 – 110)
		0,55	0,0013	0,0017	0,0022	0,0028	330 (270 – 360)
K5	E/M/A/D	0,55	0,034	0,042	0,055	0,070	60 (48 – 70)
		0,55	0,0013	0,0017	0,0022	0,0028	195 (160 – 220)
K6	E/M/A/D	0,55	0,034	0,042	0,055	0,070	85 (70 – 100)
		0,55	0,0013	0,0017	0,0022	0,0028	280 (230 – 320)
K7	E/M/A/D	0,55	0,034	0,042	0,055	0,070	75 (61 – 90)
		0,55	0,0013	0,0017	0,0022	0,0028	245 (210 – 290)
N1	E/M/A	0,30	0,034	0,042	0,055	0,070	590 (500 – 690)
		0,30	0,0013	0,0017	0,0022	0,0028	1925 (1700 – 2200)
N2	E/M/A	0,30	0,034	0,042	0,055	0,070	380 (320 – 440)
		0,30	0,0013	0,0017	0,0022	0,0028	1250 (1100 – 1400)
N3	E/M/A	0,30	0,034	0,042	0,055	0,070	255 (220 – 290)
		0,30	0,0013	0,0017	0,0022	0,0028	840 (730 – 950)
N11	E/M/A	0,30	0,034	0,042	0,055	0,070	295 (250 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	970 (830 – 1100)
S1	E	0,55	0,034	0,042	0,055	0,070	36 (29 – 42)
		0,55	0,0013	0,0017	0,0022	0,0028	120 (96 – 130)
S2	E	0,55	0,034	0,042	0,055	0,070	29 (23 – 34)
		0,55	0,0013	0,0017	0,0022	0,0028	95 (76 – 110)
S3	E	0,55	0,034	0,042	0,055	0,070	25 (20 – 29)
		0,55	0,0013	0,0017	0,0022	0,0028	80 (66 – 95)
S11	E	0,55	0,034	0,042	0,055	0,070	105 (78 – 120)
		0,55	0,0013	0,0017	0,0022	0,0028	345 (260 – 390)
S12	E	0,55	0,034	0,042	0,055	0,070	80 (60 – 99)
		0,55	0,0013	0,0017	0,0022	0,0028	260 (200 – 320)
S13	E	0,55	0,034	0,042	0,055	0,070	60 (47 – 76)
		0,55	0,0013	0,0017	0,0022	0,0028	195 (160 – 240)
TS1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
TP1	A/D	0,30	0,034	0,042	0,055	0,070	250 (150 – 340)
		0,30	0,0013	0,0017	0,0022	0,0028	820 (500 – 1100)
GR1	A/D	0,30	0,034	0,042	0,055	0,070	590 (500 – 690)
		0,30	0,0013	0,0017	0,0022	0,0028	1925 (1700 – 2200)

XVE510

General purpose – Universal – Square – 2 Flutes – Corner radius



- Tolerances:
- DC= h10
- RE= ±0,015 mm

Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	Lf	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm			SIRA
XVE510E10100D1R050Z2	10138003	1	D	E10	10,0	9,7	8,0	11,8	0,5	2	6	■
XVE510E12120D1R050Z2	10138004	1	D	E12	12,0	11,7	10,0	14,0	0,5	2	8	■

■ Stocked standard.

Universal

Steel and cast iron

Stainless steel and S-materials

Non ferrous

Hard

Plastic and CFRP

Graphite

X-Heads


Minimaster Plus

Minimaster

Cutting data – XVE510 Side milling

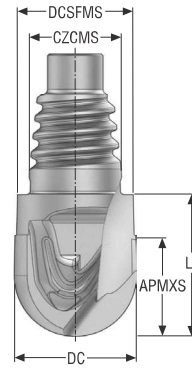
SMG		a _p /DC	a _p /DC	f _z		v _c	
				10	12		
Universal Steel and cast iron	P1	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	255 (220 – 290) 840 (730 – 950)	
	P2	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	245 (210 – 280) 800 (690 – 910)	
	P3	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	210 (180 – 240) 690 (600 – 780)	
	P4	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	185 (160 – 210) 610 (530 – 680)	
	P5	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	155 (130 – 180) 510 (430 – 590)	
	P6	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	175 (140 – 200) 570 (460 – 650)	
	P7	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	165 (140 – 190) 540 (460 – 620)	
	P8	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	155 (130 – 180) 510 (430 – 590)	
	P11	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	130 (99 – 160) 425 (330 – 520)	
	P12	E/M/A/D 0,10 0,10	0,65 0,65	0,070 0,0028	0,080 0,0032	80 (60 – 98) 260 (200 – 320)	
	Non ferrous	M1	E/M/A 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	155 (120 – 190) 510 (400 – 620)
		M2	E/M/A 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	125 (94 – 150) 410 (310 – 490)
M3		E/M/A 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	110 (78 – 130) 360 (260 – 420)	
M4		E/M/A 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	80 (59 – 100) 260 (200 – 320)	
M5		E/M/A 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	70 (49 – 87) 230 (170 – 280)	
Hard	K1	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	185 (160 – 210) 610 (530 – 680)	
	K2	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	160 (140 – 180) 520 (460 – 590)	
	K3	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	135 (120 – 150) 445 (400 – 490)	
	K4	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	130 (110 – 150) 425 (370 – 490)	
	K5	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	155 (130 – 180) 510 (430 – 590)	
	K6	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	230 (190 – 270) 750 (630 – 880)	
	K7	E/M/A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	100 (83 – 110) 330 (280 – 360)	
Graphite	N1	E/M/A 0,20 0,20	0,65 0,65	0,075 0,0030	0,090 0,0036	810 (680 – 940) 2650 (2300 – 3000)	
	N2	E/M/A 0,20 0,20	0,65 0,65	0,075 0,0030	0,090 0,0036	520 (440 – 600) 1700 (1500 – 1900)	
	N3	E/M/A 0,20 0,20	0,65 0,65	0,075 0,0030	0,090 0,0036	345 (290 – 400) 1125 (960 – 1300)	
	N11	E/M/A 0,10 0,10	0,65 0,65	0,10 0,0040	0,12 0,0048	445 (380 – 520) 1450 (1300 – 1700)	
X-Heads	S1	E 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	60 (39 – 85) 195 (130 – 270)	
	S2	E 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	55 (32 – 77) 180 (110 – 250)	
	S3	E 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	39 (24 – 54) 130 (79 – 170)	
	S11	E 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	160 (130 – 200) 520 (430 – 650)	
	S12	E 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	125 (94 – 150) 410 (310 – 490)	
	S13	E 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	95 (73 – 120) 310 (240 – 390)	
Minimaster Plus	TS1	A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	390 (240 – 540) 1275 (790 – 1700)	
	TP1	A/D 0,10 0,10	0,65 0,65	0,080 0,0032	0,095 0,0038	390 (240 – 540) 1275 (790 – 1700)	
Minimaster	GR1	A/D 0,20 0,20	0,65 0,65	0,10 0,0040	0,12 0,0048	760 (640 – 880) 2500 (2100 – 2800)	

Cutting data – XVE510 Slot milling

SMG		a _p /DC	f _z		v _c	
			10	12		
P1	E/M/A/D	0,50	0,050	0,060	165 (140 – 180)	Universal
		0,50	0,0020	0,0024	540 (460 – 590)	
P2	E/M/A/D	0,50	0,050	0,060	160 (140 – 180)	Steel and cast iron
		0,50	0,0020	0,0024	520 (460 – 590)	
P3	E/M/A/D	0,50	0,050	0,060	135 (120 – 150)	Steel and cast iron
		0,50	0,0020	0,0024	445 (400 – 490)	
P4	E/M/A/D	0,50	0,050	0,060	120 (100 – 130)	Steel and cast iron
		0,50	0,0020	0,0024	395 (330 – 420)	
P5	E/M/A/D	0,50	0,050	0,060	100 (81 – 120)	Steel and cast iron
		0,50	0,0020	0,0024	330 (270 – 390)	
P6	E/M/A/D	0,50	0,050	0,060	110 (90 – 130)	Steel and cast iron
		0,50	0,0020	0,0024	360 (300 – 420)	
P7	E/M/A/D	0,50	0,050	0,060	105 (85 – 120)	Stainless steel and S-materials
		0,50	0,0020	0,0024	345 (280 – 390)	
P8	E/M/A/D	0,50	0,050	0,060	100 (81 – 120)	Stainless steel and S-materials
		0,50	0,0020	0,0024	330 (270 – 390)	
P11	E/M/A/D	0,50	0,050	0,060	85 (64 – 100)	Stainless steel and S-materials
		0,50	0,0020	0,0024	280 (210 – 320)	
P12	E/M/A/D	0,50	0,040	0,048	50 (39 – 64)	Stainless steel and S-materials
		0,50	0,0016	0,0019	165 (130 – 200)	
M1	E/M/A	0,50	0,050	0,060	100 (75 – 120)	Non ferrous
		0,50	0,0020	0,0024	330 (250 – 390)	
M2	E/M/A	0,50	0,050	0,060	80 (60 – 99)	Non ferrous
		0,50	0,0020	0,0024	260 (200 – 320)	
M3	E/M/A	0,50	0,050	0,060	70 (50 – 89)	Non ferrous
		0,50	0,0020	0,0024	230 (170 – 290)	
M4	E/M/A	0,50	0,050	0,060	50 (38 – 67)	Non ferrous
		0,50	0,0020	0,0024	165 (130 – 210)	
M5	E/M/A	0,50	0,050	0,060	44 (32 – 56)	Non ferrous
		0,50	0,0020	0,0024	145 (110 – 180)	
K1	E/M/A/D	0,50	0,050	0,060	120 (100 – 130)	Hard
		0,50	0,0020	0,0024	395 (330 – 420)	
K2	E/M/A/D	0,50	0,050	0,060	105 (87 – 120)	Hard
		0,50	0,0020	0,0024	345 (290 – 390)	
K3	E/M/A/D	0,50	0,050	0,060	90 (74 – 100)	Hard
		0,50	0,0020	0,0024	295 (250 – 320)	
K4	E/M/A/D	0,50	0,050	0,060	85 (70 – 97)	Hard
		0,50	0,0020	0,0024	280 (230 – 310)	
K5	E/M/A/D	0,50	0,050	0,060	100 (80 – 120)	Plastic and cfrp
		0,50	0,0020	0,0024	330 (270 – 390)	
K6	E/M/A/D	0,50	0,050	0,060	150 (120 – 170)	Plastic and cfrp
		0,50	0,0020	0,0024	490 (400 – 550)	
K7	E/M/A/D	0,50	0,050	0,060	65 (54 – 74)	Plastic and cfrp
		0,50	0,0020	0,0024	215 (180 – 240)	
N1	E/M/A	0,50	0,050	0,060	600 (500 – 690)	Graphite
		0,50	0,0020	0,0024	1975 (1700 – 2200)	
N2	E/M/A	0,50	0,050	0,060	385 (330 – 440)	Graphite
		0,50	0,0020	0,0024	1275 (1100 – 1400)	
N3	E/M/A	0,50	0,050	0,060	255 (220 – 290)	Graphite
		0,50	0,0020	0,0024	840 (730 – 950)	
N11	E/M/A	0,50	0,050	0,060	300 (250 – 340)	Graphite
		0,50	0,0020	0,0024	980 (830 – 1100)	
S1	E	0,50	0,050	0,060	40 (25 – 54)	X-Heads
		0,50	0,0020	0,0024	130 (83 – 170)	
S2	E	0,50	0,050	0,060	35 (20 – 49)	X-Heads
		0,50	0,0020	0,0024	115 (66 – 160)	
S3	E	0,50	0,050	0,060	25 (15 – 34)	X-Heads
		0,50	0,0020	0,0024	80 (50 – 110)	
S11	E	0,50	0,050	0,060	105 (78 – 120)	X-Heads
		0,50	0,0020	0,0024	345 (260 – 390)	
S12	E	0,50	0,050	0,060	80 (60 – 99)	X-Heads
		0,50	0,0020	0,0024	260 (200 – 320)	
S13	E	0,50	0,050	0,060	60 (47 – 77)	X-Heads
		0,50	0,0020	0,0024	195 (160 – 250)	
TS1	A/D	0,50	0,050	0,060	250 (150 – 340)	Minimaster Plus
		0,50	0,0020	0,0024	820 (500 – 1100)	
TP1	A/D	0,50	0,050	0,060	250 (150 – 340)	Minimaster Plus
		0,50	0,0020	0,0024	820 (500 – 1100)	
GR1	A/D	0,50	0,050	0,060	600 (500 – 690)	Minimaster Plus
		0,50	0,0020	0,0024	1975 (1700 – 2200)	

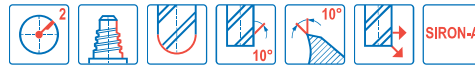
XVB510

General purpose – Universal – Ball nose – 2 Flutes



D

- Tolerances:
- DC= h9
- RE= ±0,01 mm



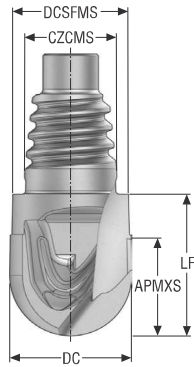
Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
					mm	mm	mm	mm			SIRA
XVB510E10100D1BZ2	10138005	1	D	E10	10,0	9,7	8,0	11,8	2	6	■
XVB510E12120D1BZ2	10138006	1	D	E12	12,0	11,7	10,0	14,0	2	8	■
XVB510E16160D1BZ2	10138007	1	D	E16	16,0	15,5	13,0	18,1	2	10	■

■ Stocked standard.

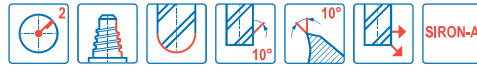
Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

XVB510

General purpose – Universal – Ball nose – 2 Flutes – Inch



D



- Tolerances:
- DC= h9
- RE= ±.0004 Inch



Designation	Item number	Length index	Tool shape	CZCMS	DC	DCSFMS	APMXS	LF	PCEDC	SW	Grade
					<i>Inch</i>	<i>Inch</i>	<i>Inch</i>	<i>Inch</i>			SIRA
XVB510E10.375D1BZ2	10138008	1	D	E10	0.375	0.364	0.315	0.465	2	6	■
XVB510E12.500D1BZ2	10138009	1	D	E12	0.500	0.484	0.413	0.551	2	8	■
XVB510E16.625D1BZ2	10138010	1	D	E16	0.624	0.610	0.512	0.713	2	10	■


■ Stocked standard.

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XVB510 Copy milling roughing

SMG		a _p /DC	a _p /DC	f _z			v _c
				10	12	16	
P1	E/M/A/D	0,10	0,65	0,070	0,085	0,11	365 (320 – 420)
		0,10	0,65	0,0028	0,0034	0,0044	1200 (1100 – 1300)
P2	E/M/A/D	0,10	0,65	0,070	0,085	0,11	355 (310 – 400)
		0,10	0,65	0,0028	0,0034	0,0044	1175 (1100 – 1300)
P3	E/M/A/D	0,10	0,65	0,070	0,085	0,11	305 (270 – 350)
		0,10	0,65	0,0028	0,0034	0,0044	1000 (890 – 1100)
P4	E/M/A/D	0,10	0,65	0,070	0,085	0,11	270 (230 – 310)
		0,10	0,65	0,0028	0,0034	0,0044	890 (760 – 1000)
P5	E/M/A/D	0,10	0,65	0,070	0,085	0,11	175 (140 – 210)
		0,10	0,65	0,0028	0,0034	0,0044	570 (460 – 680)
P6	E/M/A/D	0,10	0,65	0,070	0,085	0,11	195 (160 – 240)
		0,10	0,65	0,0028	0,0034	0,0044	640 (530 – 780)
P7	E/M/A/D	0,10	0,65	0,070	0,085	0,11	185 (150 – 220)
		0,10	0,65	0,0028	0,0034	0,0044	610 (500 – 720)
P8	E/M/A/D	0,10	0,65	0,070	0,085	0,11	175 (140 – 210)
		0,10	0,65	0,0028	0,0034	0,0044	570 (460 – 680)
P11	E/M/A/D	0,10	0,65	0,070	0,085	0,11	155 (130 – 180)
		0,10	0,65	0,0028	0,0034	0,0044	510 (430 – 590)
P12	E/M/A/D	0,10	0,65	0,060	0,075	0,090	95 (78 – 110)
		0,10	0,65	0,0024	0,0030	0,0036	310 (260 – 360)
M1	E/M/A	0,10	0,65	0,070	0,085	0,11	185 (160 – 210)
		0,10	0,65	0,0028	0,0034	0,0044	610 (530 – 680)
M2	E/M/A	0,10	0,65	0,070	0,085	0,11	150 (130 – 170)
		0,10	0,65	0,0028	0,0034	0,0044	490 (430 – 550)
M3	E/M/A	0,10	0,65	0,070	0,085	0,11	120 (95 – 140)
		0,10	0,65	0,0028	0,0034	0,0044	395 (320 – 450)
M4	E/M/A	0,10	0,65	0,070	0,085	0,11	90 (71 – 110)
		0,10	0,65	0,0028	0,0034	0,0044	295 (240 – 360)
M5	E/M/A	0,10	0,65	0,070	0,085	0,11	75 (59 – 92)
		0,10	0,65	0,0028	0,0034	0,0044	245 (200 – 300)
K1	E/M/A/D	0,10	0,65	0,070	0,085	0,11	360 (310 – 410)
		0,10	0,65	0,0028	0,0034	0,0044	1175 (1100 – 1300)
K2	E/M/A/D	0,10	0,65	0,070	0,085	0,11	310 (270 – 350)
		0,10	0,65	0,0028	0,0034	0,0044	1025 (890 – 1100)
K3	E/M/A/D	0,10	0,65	0,070	0,085	0,11	265 (230 – 300)
		0,10	0,65	0,0028	0,0034	0,0044	870 (760 – 980)
K4	E/M/A/D	0,10	0,65	0,070	0,085	0,11	250 (220 – 280)
		0,10	0,65	0,0028	0,0034	0,0044	820 (730 – 910)
K5	E/M/A/D	0,10	0,65	0,070	0,085	0,11	100 (79 – 120)
		0,10	0,65	0,0028	0,0034	0,0044	330 (260 – 390)
K6	E/M/A/D	0,10	0,65	0,070	0,085	0,11	150 (120 – 180)
		0,10	0,65	0,0028	0,0034	0,0044	490 (400 – 590)
K7	E/M/A/D	0,10	0,65	0,070	0,085	0,11	130 (110 – 160)
		0,10	0,65	0,0028	0,0034	0,0044	425 (370 – 520)
N1	E/M/A	0,10	0,65	0,10	0,12	0,15	510 (390 – 630)
		0,10	0,65	0,0040	0,0048	0,0060	1675 (1300 – 2000)
N2	E/M/A	0,10	0,65	0,10	0,12	0,15	330 (250 – 400)
		0,10	0,65	0,0040	0,0048	0,0060	1075 (830 – 1300)
N3	E/M/A	0,10	0,65	0,10	0,12	0,15	220 (170 – 270)
		0,10	0,65	0,0040	0,0048	0,0060	720 (560 – 880)
N11	E/M/A	0,10	0,65	0,070	0,085	0,11	405 (270 – 530)
		0,10	0,65	0,0028	0,0034	0,0044	1325 (890 – 1700)
S1	E	0,050	0,65	0,060	0,070	0,095	110 (66 – 150)
		0,050	0,65	0,0024	0,0028	0,0038	360 (220 – 490)
S2	E	0,050	0,65	0,070	0,070	0,095	90 (53 – 120)
		0,050	0,65	0,0024	0,0028	0,0038	295 (180 – 390)
S3	E	0,050	0,65	0,060	0,070	0,095	75 (46 – 100)
		0,050	0,65	0,0024	0,0028	0,0038	245 (160 – 320)
S11	E	0,10	0,65	0,070	0,085	0,11	175 (130 – 220)
		0,10	0,65	0,0028	0,0034	0,0044	570 (430 – 720)
S12	E	0,10	0,65	0,070	0,085	0,11	135 (95 – 170)
		0,10	0,65	0,0028	0,0034	0,0044	445 (320 – 550)
S13	E	0,10	0,65	0,070	0,085	0,11	105 (74 – 130)
		0,10	0,65	0,0028	0,0034	0,0044	345 (250 – 420)
TS1	A/D	0,10	0,65	0,10	0,12	0,15	320 (200 – 440)
		0,10	0,65	0,0040	0,0048	0,0060	1050 (660 – 1400)
TP1	A/D	0,10	0,65	0,10	0,12	0,15	320 (200 – 440)
		0,10	0,65	0,0040	0,0048	0,0060	1050 (660 – 1400)
GR1	A/D	0,10	0,65	0,070	0,085	0,11	850 (710 – 980)
		0,10	0,65	0,0028	0,0034	0,0044	2800 (2400 – 3200)

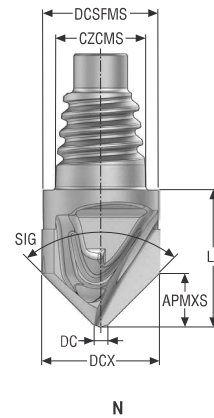
Cutting data – XVB510 Copy milling roughing inch

SMG		a _d /DC	a _p /DC	f _z			v _c
				3/8	1/2	5/8	
P1	E/M/A/D	0,10	0,65	0,070	0,085	0,11	365 (320 – 420)
		0,10	0,65	0,0028	0,0034	0,0044	1200 (1100 – 1300)
P2	E/M/A/D	0,10	0,65	0,070	0,085	0,11	355 (310 – 400)
		0,10	0,65	0,0028	0,0034	0,0044	1175 (1100 – 1300)
P3	E/M/A/D	0,10	0,65	0,070	0,085	0,11	305 (270 – 350)
		0,10	0,65	0,0028	0,0034	0,0044	1000 (890 – 1100)
P4	E/M/A/D	0,10	0,65	0,070	0,085	0,11	270 (230 – 310)
		0,10	0,65	0,0028	0,0034	0,0044	890 (760 – 1000)
P5	E/M/A/D	0,10	0,65	0,070	0,085	0,11	175 (140 – 210)
		0,10	0,65	0,0028	0,0034	0,0044	570 (460 – 680)
P6	E/M/A/D	0,10	0,65	0,070	0,085	0,11	195 (160 – 240)
		0,10	0,65	0,0028	0,0034	0,0044	640 (530 – 780)
P7	E/M/A/D	0,10	0,65	0,070	0,085	0,11	185 (150 – 220)
		0,10	0,65	0,0028	0,0034	0,0044	610 (500 – 720)
P8	E/M/A/D	0,10	0,65	0,070	0,085	0,11	175 (140 – 210)
		0,10	0,65	0,0028	0,0034	0,0044	570 (460 – 680)
P11	E/M/A/D	0,10	0,65	0,070	0,085	0,11	155 (130 – 180)
		0,10	0,65	0,0028	0,0034	0,0044	510 (430 – 590)
P12	E/M/A/D	0,10	0,65	0,060	0,075	0,090	95 (78 – 110)
		0,10	0,65	0,0024	0,0030	0,0036	310 (260 – 360)
M1	E/M/A	0,10	0,65	0,070	0,085	0,11	185 (160 – 210)
		0,10	0,65	0,0028	0,0034	0,0044	610 (530 – 680)
M2	E/M/A	0,10	0,65	0,070	0,085	0,11	150 (130 – 170)
		0,10	0,65	0,0028	0,0034	0,0044	490 (430 – 550)
M3	E/M/A	0,10	0,65	0,070	0,085	0,11	120 (95 – 140)
		0,10	0,65	0,0028	0,0034	0,0044	395 (320 – 450)
M4	E/M/A	0,10	0,65	0,070	0,085	0,11	90 (71 – 110)
		0,10	0,65	0,0028	0,0034	0,0044	295 (240 – 360)
M5	E/M/A	0,10	0,65	0,070	0,085	0,11	75 (59 – 92)
		0,10	0,65	0,0028	0,0034	0,0044	245 (200 – 300)
K1	E/M/A/D	0,10	0,65	0,070	0,085	0,11	360 (310 – 410)
		0,10	0,65	0,0028	0,0034	0,0044	1175 (1100 – 1300)
K2	E/M/A/D	0,10	0,65	0,070	0,085	0,11	310 (270 – 350)
		0,10	0,65	0,0028	0,0034	0,0044	1025 (890 – 1100)
K3	E/M/A/D	0,10	0,65	0,070	0,085	0,11	265 (230 – 300)
		0,10	0,65	0,0028	0,0034	0,0044	870 (760 – 980)
K4	E/M/A/D	0,10	0,65	0,070	0,085	0,11	250 (220 – 280)
		0,10	0,65	0,0028	0,0034	0,0044	820 (730 – 910)
K5	E/M/A/D	0,10	0,65	0,070	0,085	0,11	100 (79 – 120)
		0,10	0,65	0,0028	0,0034	0,0044	330 (260 – 390)
K6	E/M/A/D	0,10	0,65	0,070	0,085	0,11	150 (120 – 180)
		0,10	0,65	0,0028	0,0034	0,0044	490 (400 – 590)
K7	E/M/A/D	0,10	0,65	0,070	0,085	0,11	130 (110 – 160)
		0,10	0,65	0,0028	0,0034	0,0044	425 (370 – 520)
N1	E/M/A	0,10	0,65	0,10	0,12	0,15	510 (390 – 630)
		0,10	0,65	0,0040	0,0048	0,0060	1675 (1300 – 2000)
N2	E/M/A	0,10	0,65	0,10	0,12	0,15	330 (250 – 400)
		0,10	0,65	0,0040	0,0048	0,0060	1075 (830 – 1300)
N3	E/M/A	0,10	0,65	0,10	0,12	0,15	220 (170 – 270)
		0,10	0,65	0,0040	0,0048	0,0060	720 (560 – 880)
N11	E/M/A	0,10	0,65	0,070	0,085	0,11	405 (270 – 530)
		0,10	0,65	0,0028	0,0034	0,0044	1325 (890 – 1700)
S1	E	0,050	0,65	0,060	0,070	0,095	110 (66 – 150)
		0,050	0,65	0,0024	0,0028	0,0038	360 (220 – 490)
S2	E	0,050	0,65	0,060	0,070	0,095	90 (53 – 120)
		0,050	0,65	0,0024	0,0028	0,0038	295 (180 – 390)
S3	E	0,050	0,65	0,060	0,070	0,095	75 (46 – 100)
		0,050	0,65	0,0024	0,0028	0,0038	245 (160 – 320)
S11	E	0,10	0,65	0,070	0,085	0,11	175 (130 – 220)
		0,10	0,65	0,0028	0,0034	0,0044	570 (430 – 720)
S12	E	0,10	0,65	0,070	0,085	0,11	135 (95 – 170)
		0,10	0,65	0,0028	0,0034	0,0044	445 (320 – 550)
S13	E	0,10	0,65	0,070	0,085	0,11	105 (74 – 130)
		0,10	0,65	0,0028	0,0034	0,0044	345 (250 – 420)
TS1	A/D	0,10	0,65	0,10	0,12	0,15	320 (200 – 440)
		0,10	0,65	0,0040	0,0048	0,0060	1050 (660 – 1400)
TP1	A/D	0,10	0,65	0,10	0,12	0,15	320 (200 – 440)
		0,10	0,65	0,0040	0,0048	0,0060	1050 (660 – 1400)
GR1	A/D	0,10	0,65	0,070	0,085	0,11	850 (710 – 980)
		0,10	0,65	0,0028	0,0034	0,0044	2800 (2400 – 3200)

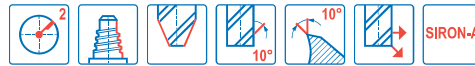
Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfpr
Graphite
X-Heads
Minimaster Plus
Minimaster

XVC506/509/512

General purpose – Universal – Chamfer – 2 Flutes



- Tolerances:
- SIG= ±1°




Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	LF	SIG°	PCEDC	SW	Grade
					mm	mm	mm	mm	mm				SIRA
XVC506E10100N1SZ2	10138012	1	N	E10	10,0	1,5	9,7	7,23	11,8	60,0	2	6	■
XVC506E12120N1SZ2	10138013	1	N	E12	12,0	1,5	11,7	7,73	14,0	60,0	2	8	■
XVC509E10100N1SZ2	10138014	1	N	E10	10,0	1,5	9,7	4,23	11,8	90,0	2	6	■
XVC509E12120N1SZ2	10138015	1	N	E12	12,0	1,5	11,7	5,23	14,0	90,0	2	8	■
XVC509E16160N1SZ2	10138016	1	N	E16	16,0	1,5	15,5	7,23	18,1	90,0	2	10	■
XVC512E12120N1SZ2	10138017	1	N	E12	12,0	1,5	11,7	3,03	14,0	120,0	2	8	■

■ Stocked standard.

Universal
 Steel and cast iron
 Stainless steel and S-materials
 Non ferrous
 Hard
 Plastic and CFRP
 Graphite
 X-Heads
 Minimaster Plus
 Minimaster

Cutting data – XVC506 Chamfering


SMG		a _p /DC		f _z		v _c
		0,10 0,10	2,0 2,0	10		
				0,25 0,010	0,26 0,010	
P1	E/M/A/D	0,10 0,10	2,0 2,0	0,25 0,010	0,26 0,010	200 (180 – 220) 660 (600 – 720)
P2	E/M/A/D	0,10 0,10	2,0 2,0	0,25 0,010	0,26 0,010	195 (180 – 220) 640 (600 – 720)
P3	E/M/A/D	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	170 (150 – 190) 560 (500 – 620)
P4	E/M/A/D	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	150 (130 – 160) 490 (430 – 520)
P5	E/M/A/D	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	150 (140 – 170) 490 (460 – 550)
P6	E/M/A/D	0,10 0,10	2,0 2,0	0,24 0,0095	0,24 0,0095	170 (150 – 190) 560 (500 – 620)
P7	E/M/A/D	0,10 0,10	2,0 2,0	0,24 0,0095	0,24 0,0095	160 (140 – 180) 520 (460 – 590)
P8	E/M/A/D	0,10 0,10	2,0 2,0	0,24 0,0095	0,26 0,010	150 (140 – 170) 490 (460 – 550)
P11	E/M/A/D	0,10 0,10	2,0 2,0	0,24 0,0095	0,24 0,0095	105 (86 – 120) 345 (290 – 390)
P12	E/M/A/D	0,10 0,10	2,0 2,0	0,16 0,0065	0,17 0,0065	65 (53 – 78) 215 (180 – 250)
M1	E/M/A	0,10 0,10	2,0 2,0	0,26 0,010	0,28 0,011	125 (99 – 140) 410 (330 – 450)
M2	E/M/A	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	100 (80 – 120) 330 (270 – 390)
M3	E/M/A	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	65 (45 – 84) 215 (150 – 270)
M4	E/M/A	0,10 0,10	2,0 2,0	0,20 0,0080	0,22 0,0085	50 (35 – 65) 165 (120 – 210)
M5	E/M/A	0,10 0,10	2,0 2,0	0,20 0,0080	0,22 0,0085	42 (29 – 54) 140 (96 – 170)
K1	E/M/A/D	0,10 0,10	2,0 2,0	0,25 0,010	0,26 0,010	200 (180 – 220) 660 (600 – 720)
K2	E/M/A/D	0,10 0,10	2,0 2,0	0,22 0,0085	0,24 0,0095	175 (160 – 190) 570 (530 – 620)
K3	E/M/A/D	0,10 0,10	2,0 2,0	0,22 0,0085	0,24 0,0095	150 (130 – 160) 490 (430 – 520)
K4	E/M/A/D	0,10 0,10	2,0 2,0	0,22 0,0085	0,24 0,0095	140 (130 – 150) 460 (430 – 490)
K5	E/M/A/D	0,10 0,10	2,0 2,0	0,20 0,0080	0,22 0,0085	85 (74 – 95) 280 (250 – 310)
K6	E/M/A/D	0,10 0,10	2,0 2,0	0,22 0,0085	0,24 0,0095	125 (110 – 140) 410 (370 – 450)
K7	E/M/A/D	0,10 0,10	2,0 2,0	0,20 0,0080	0,22 0,0085	110 (94 – 120) 360 (310 – 390)
N1	E/M/A	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	600 (500 – 690) 1975 (1700 – 2200)
N2	E/M/A	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	385 (330 – 440) 1275 (1100 – 1400)
N3	E/M/A	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	255 (220 – 290) 840 (730 – 950)
N11	E/M/A	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	400 (350 – 450) 1300 (1200 – 1400)
S1	E	0,10 0,10	2,0 2,0	0,12 0,0048	0,13 0,0050	43 (15 – 71) 140 (50 – 230)
S2	E	0,10 0,10	2,0 2,0	0,12 0,0048	0,13 0,0050	35 (12 – 57) 115 (40 – 180)
S3	E	0,10 0,10	2,0 2,0	0,12 0,0048	0,12 0,0048	30 (10 – 49) 100 (33 – 160)
S11	E	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	95 (72 – 120) 310 (240 – 390)
S12	E	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	75 (55 – 94) 245 (190 – 300)
S13	E	0,10 0,10	2,0 2,0	0,20 0,0080	0,22 0,0085	60 (44 – 75) 195 (150 – 240)
H5	M/A	0,050 0,050	2,0 2,0	0,11 0,0044	0,12 0,0048	120 (110 – 140) 395 (370 – 450)
H8	M/A	0,050 0,050	2,0 2,0	0,085 0,0034	0,090 0,0036	120 (110 – 140) 395 (370 – 450)
H21	M/A	0,050 0,050	2,0 2,0	0,085 0,0034	0,090 0,0036	120 (110 – 140) 395 (370 – 450)
H31	M/A	0,050 0,050	2,0 2,0	0,075 0,0030	0,080 0,0032	95 (78 – 100) 310 (260 – 320)
TS1	A/D	0,10 0,10	2,0 2,0	0,17 0,0065	0,18 0,0070	260 (160 – 360) 850 (530 – 1100)
TP1	A/D	0,10 0,10	2,0 2,0	0,17 0,0065	0,18 0,0070	260 (160 – 360) 850 (530 – 1100)
GR1	A/D	0,10 0,10	2,0 2,0	0,24 0,0095	0,25 0,010	600 (500 – 690) 1975 (1700 – 2200)

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XVC509 Chamfering

SMG		a _q /DC	a _p /DC	f _z			v _c	
				10	12	16		
Universal Steel and cast iron	P1	E/M/A/D	0,10	2,0	0,24	0,25	0,28	200 (180 – 220)
			0,10	2,0	0,0095	0,010	0,011	660 (600 – 720)
	P2	E/M/A/D	0,10	2,0	0,24	0,26	0,28	195 (180 – 220)
			0,10	2,0	0,0095	0,010	0,011	640 (600 – 720)
	P3	E/M/A/D	0,10	2,0	0,24	0,24	0,26	170 (150 – 190)
			0,10	2,0	0,0095	0,0095	0,010	560 (500 – 620)
	P4	E/M/A/D	0,10	2,0	0,22	0,24	0,26	150 (130 – 160)
			0,10	2,0	0,0085	0,0095	0,010	490 (430 – 520)
	P5	E/M/A/D	0,10	2,0	0,22	0,24	0,26	150 (140 – 170)
			0,10	2,0	0,0085	0,0095	0,010	490 (460 – 550)
	P6	E/M/A/D	0,10	2,0	0,22	0,24	0,26	170 (150 – 190)
			0,10	2,0	0,0085	0,0095	0,010	560 (500 – 620)
P7	E/M/A/D	0,10	2,0	0,22	0,24	0,26	160 (140 – 180)	
		0,10	2,0	0,0085	0,0095	0,010	520 (460 – 590)	
P8	E/M/A/D	0,10	2,0	0,24	0,25	0,28	150 (130 – 160)	
		0,10	2,0	0,0095	0,010	0,011	490 (430 – 520)	
P11	E/M/A/D	0,10	2,0	0,22	0,24	0,26	105 (85 – 120)	
		0,10	2,0	0,0085	0,0095	0,010	345 (280 – 390)	
P12	E/M/A/D	0,10	2,0	0,15	0,16	0,18	65 (52 – 77)	
		0,10	2,0	0,0060	0,0065	0,0070	215 (180 – 250)	
Non ferrous	M1	E/M/A	0,10	2,0	0,25	0,26	0,28	120 (98 – 140)
			0,10	2,0	0,010	0,010	0,011	395 (330 – 450)
	M2	E/M/A	0,10	2,0	0,22	0,24	0,26	100 (80 – 120)
			0,10	2,0	0,0085	0,0095	0,010	330 (270 – 390)
	M3	E/M/A	0,10	2,0	0,22	0,24	0,26	65 (45 – 84)
		0,10	2,0	0,0085	0,0095	0,010	215 (150 – 270)	
M4	E/M/A	0,10	2,0	0,20	0,20	0,22	49 (35 – 64)	
		0,10	2,0	0,0080	0,0080	0,0085	160 (120 – 200)	
M5	E/M/A	0,10	2,0	0,20	0,20	0,22	41 (29 – 53)	
		0,10	2,0	0,0080	0,0080	0,0085	135 (96 – 170)	
Hard	K1	E/M/A/D	0,10	2,0	0,24	0,26	0,28	200 (180 – 220)
			0,10	2,0	0,0095	0,010	0,011	660 (600 – 720)
	K2	E/M/A/D	0,10	2,0	0,22	0,24	0,26	175 (160 – 190)
			0,10	2,0	0,0085	0,0095	0,010	570 (530 – 620)
	K3	E/M/A/D	0,10	2,0	0,22	0,24	0,26	145 (130 – 160)
			0,10	2,0	0,0085	0,0095	0,010	475 (430 – 520)
	K4	E/M/A/D	0,10	2,0	0,22	0,24	0,26	140 (130 – 150)
		0,10	2,0	0,0085	0,0095	0,010	460 (430 – 490)	
K5	E/M/A/D	0,10	2,0	0,20	0,22	0,24	85 (74 – 95)	
		0,10	2,0	0,0080	0,0085	0,0095	280 (250 – 310)	
K6	E/M/A/D	0,10	2,0	0,22	0,24	0,26	125 (110 – 130)	
		0,10	2,0	0,0085	0,0095	0,010	410 (370 – 420)	
K7	E/M/A/D	0,10	2,0	0,20	0,22	0,24	110 (94 – 120)	
		0,10	2,0	0,0080	0,0085	0,0095	360 (310 – 390)	
Plastic and cfrp	N1	E/M/A	0,10	2,0	0,22	0,24	0,26	600 (500 – 700)
			0,10	2,0	0,0085	0,0095	0,010	1975 (1700 – 2200)
	N2	E/M/A	0,10	2,0	0,22	0,24	0,26	385 (330 – 450)
			0,10	2,0	0,0085	0,0095	0,010	1275 (1100 – 1400)
N3	E/M/A	0,10	2,0	0,22	0,24	0,26	255 (220 – 300)	
		0,10	2,0	0,0085	0,0095	0,010	840 (730 – 980)	
N11	E/M/A	0,10	2,0	0,22	0,24	0,26	400 (350 – 450)	
		0,10	2,0	0,0085	0,0095	0,010	1300 (1200 – 1400)	
X-Heads	S1	E	0,10	2,0	0,13	0,13	0,15	43 (15 – 71)
			0,10	2,0	0,0050	0,0050	0,0060	140 (50 – 230)
	S2	E	0,10	2,0	0,13	0,13	0,15	35 (12 – 57)
			0,10	2,0	0,0050	0,0050	0,0060	115 (40 – 180)
	S3	E	0,10	2,0	0,12	0,12	0,14	30 (10 – 50)
			0,10	2,0	0,0048	0,0048	0,0055	100 (33 – 160)
	S11	E	0,10	2,0	0,22	0,24	0,26	100 (72 – 120)
		0,10	2,0	0,0085	0,0095	0,010	330 (240 – 390)	
S12	E	0,10	2,0	0,22	0,24	0,26	75 (55 – 94)	
		0,10	2,0	0,0085	0,0095	0,010	245 (190 – 300)	
S13	E	0,10	2,0	0,20	0,22	0,22	60 (44 – 74)	
		0,10	2,0	0,0080	0,0085	0,0085	195 (150 – 240)	
Minimaster Plus	H5	M/A	0,10	2,0	0,12	0,12	0,14	120 (110 – 140)
			0,10	2,0	0,0048	0,0048	0,0055	395 (370 – 450)
	H8	M/A	0,10	2,0	0,090	0,095	0,10	120 (110 – 140)
Minimaster	H21	M/A	0,10	2,0	0,090	0,095	0,10	120 (110 – 140)
			0,10	2,0	0,0036	0,0038	0,0040	395 (370 – 450)
	H31	M/A	0,10	2,0	0,075	0,080	0,090	90 (77 – 100)
Minimaster	TS1	A/D	0,10	2,0	0,22	0,24	0,26	250 (150 – 350)
			0,10	2,0	0,0085	0,0095	0,010	820 (500 – 1100)
	TP1	A/D	0,10	2,0	0,22	0,24	0,26	250 (150 – 350)
			0,10	2,0	0,0085	0,0095	0,010	820 (500 – 1100)
	GR1	A/D	0,10	2,0	0,22	0,24	0,26	600 (500 – 700)
		0,10	2,0	0,0085	0,0095	0,010	1975 (1700 – 2200)	

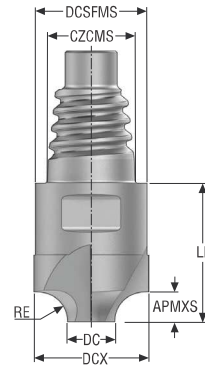
Cutting data – XVC512 Chamfering

SMG		a _e /DC	a _p /DC	f _z		v _c
					12	
P1	E/M/A/D	0,10	1,3	0,36		165 (150 – 180)
		0,10	1,3	0,014		540 (500 – 590)
P2	E/M/A/D	0,10	1,3	0,36		160 (140 – 170)
		0,10	1,3	0,014		520 (460 – 550)
P3	E/M/A/D	0,10	1,3	0,34		135 (120 – 150)
		0,10	1,3	0,013		445 (400 – 490)
P4	E/M/A/D	0,10	1,3	0,34		120 (110 – 130)
		0,10	1,3	0,013		395 (370 – 420)
P5	E/M/A/D	0,10	1,3	0,34		120 (110 – 130)
		0,10	1,3	0,013		395 (370 – 420)
P6	E/M/A/D	0,10	1,3	0,32		135 (120 – 150)
		0,10	1,3	0,013		445 (400 – 490)
P7	E/M/A/D	0,10	1,3	0,32		125 (120 – 140)
		0,10	1,3	0,013		410 (400 – 450)
P8	E/M/A/D	0,10	1,3	0,34		120 (110 – 130)
		0,10	1,3	0,013		395 (370 – 420)
P11	E/M/A/D	0,10	1,3	0,32		85 (68 – 100)
		0,10	1,3	0,013		280 (230 – 320)
P12	E/M/A/D	0,10	1,3	0,22		50 (41 – 61)
		0,10	1,3	0,0085		165 (140 – 200)
M1	E/M/A	0,10	1,3	0,36		100 (80 – 110)
		0,10	1,3	0,014		330 (270 – 360)
M2	E/M/A	0,10	1,3	0,34		80 (65 – 96)
		0,10	1,3	0,013		260 (220 – 310)
M3	E/M/A	0,10	1,3	0,34		50 (37 – 68)
		0,10	1,3	0,013		165 (130 – 220)
M4	E/M/A	0,10	1,3	0,30		39 (28 – 51)
		0,10	1,3	0,012		130 (92 – 160)
M5	E/M/A	0,10	1,3	0,30		33 (23 – 42)
		0,10	1,3	0,012		110 (76 – 130)
K1	E/M/A/D	0,10	1,3	0,36		160 (140 – 180)
		0,10	1,3	0,014		520 (460 – 590)
K2	E/M/A/D	0,10	1,3	0,32		140 (130 – 150)
		0,10	1,3	0,013		460 (430 – 490)
K3	E/M/A/D	0,10	1,3	0,32		115 (110 – 130)
		0,10	1,3	0,013		375 (370 – 420)
K4	E/M/A/D	0,10	1,3	0,32		110 (98 – 120)
		0,10	1,3	0,013		360 (330 – 390)
K5	E/M/A/D	0,10	1,3	0,30		65 (58 – 75)
		0,10	1,3	0,012		215 (200 – 240)
K6	E/M/A/D	0,10	1,3	0,32		100 (86 – 110)
		0,10	1,3	0,013		330 (290 – 360)
K7	E/M/A/D	0,10	1,3	0,30		85 (74 – 96)
		0,10	1,3	0,012		280 (250 – 310)
N1	E/M/A	0,10	1,3	0,34		480 (410 – 560)
		0,10	1,3	0,013		1575 (1400 – 1800)
N2	E/M/A	0,10	1,3	0,34		310 (260 – 360)
		0,10	1,3	0,013		1025 (860 – 1100)
N3	E/M/A	0,10	1,3	0,34		205 (180 – 240)
		0,10	1,3	0,013		670 (600 – 780)
N11	E/M/A	0,10	1,3	0,34		320 (290 – 360)
		0,10	1,3	0,013		1050 (960 – 1100)
S1	E	0,10	1,3	0,19		35 (12 – 58)
		0,10	1,3	0,0075		115 (40 – 190)
S2	E	0,10	1,3	0,19		29 (9,6 – 47)
		0,10	1,3	0,0075		95 (32 – 150)
S3	E	0,10	1,3	0,17		25 (8,3 – 41)
		0,10	1,3	0,0065		80 (28 – 130)
S11	E	0,10	1,3	0,34		80 (58 – 98)
		0,10	1,3	0,013		260 (200 – 320)
S12	E	0,10	1,3	0,34		60 (45 – 76)
		0,10	1,3	0,013		195 (150 – 240)
S13	E	0,10	1,3	0,30		47 (35 – 59)
		0,10	1,3	0,012		155 (120 – 190)
H5	M/A	0,10	1,3	0,17		100 (83 – 110)
		0,10	1,3	0,0065		330 (280 – 360)
H8	M/A	0,10	1,3	0,13		100 (84 – 110)
		0,10	1,3	0,0050		330 (280 – 360)
H21	M/A	0,10	1,3	0,13		100 (84 – 110)
		0,10	1,3	0,0050		330 (280 – 360)
H31	M/A	0,10	1,3	0,11		75 (64 – 88)
		0,10	1,3	0,0044		245 (210 – 280)
TS1	A/D	0,10	1,3	0,34		200 (130 – 280)
		0,10	1,3	0,013		660 (430 – 910)
TP1	A/D	0,10	1,3	0,34		200 (130 – 280)
		0,10	1,3	0,013		660 (430 – 910)
GR1	A/D	0,10	1,3	0,34		480 (410 – 560)
		0,10	1,3	0,013		1575 (1400 – 1800)

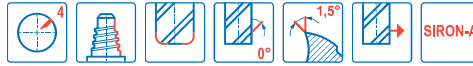
Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfrp
Graphite
X-Heads
Minimaster Plus
Minimaster

XVK310

General purpose – Universal – Concave – 4 Flutes



- Tolerances:
- RE= ≤5= ±0,05 mm
- RE= >5= ±0,01 mm



Designation	Item number	Length index	Tool shape	CZCMS	DCX	DC	DCSFMS	APMXS	LF	RE	PCEDC	SW	Grade
					mm	mm	mm	mm	mm	mm			SIRA
XVK310E12120D1K300Z4	10137998	1	D	E12	12,0	5,0	11,7	3,0	14,5	3,0	4	10	■
XVK310E12120D1K400Z4	10137999	1	D	E12	12,0	4,0	11,7	4,0	14,5	4,0	4	10	■
XVK310E16160D1K500Z4	10138000	1	D	E16	16,0	6,0	15,5	5,0	18,7	5,0	4	12	■
XVK310E20200D1K600Z4	10138001	1	D	E20	20,0	8,0	19,3	6,0	21,3	6,0	4	16	■

■ Stocked standard.

Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and CFRP
Graphite
X-Heads
Minimaster Plus
Minimaster

Cutting data – XVK310 Side milling roughing

SMG		a _p /D _c	f _z			v _c
			12	16	20	
P1	E/M/A/D	0,24	0,048	0,065	0,080	290 (195 – 310)
		0,24	0,0019	0,0026	0,0032	950 (640 – 1100)
P2	E/M/A/D	0,24	0,050	0,065	0,080	280 (190 – 305)
		0,24	0,0022	0,0026	0,0032	910 (620 – 1000)
P3	E/M/A/D	0,24	0,046	0,060	0,075	240 (165 – 260)
		0,24	0,0018	0,0024	0,003	790 (540 – 850)
P4	E/M/A/D	0,24	0,046	0,060	0,075	210 (145 – 230)
		0,24	0,0018	0,0024	0,003	680 (475 – 760)
P5	E/M/A/D	0,24	0,046	0,060	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)
P6	E/M/A/D	0,24	0,044	0,060	0,075	230 (155 – 245)
		0,24	0,0017	0,0024	0,003	760 (510 – 800)
P7	E/M/A/D	0,24	0,044	0,060	0,075	215 (145 – 230)
		0,24	0,0017	0,0024	0,003	710 (475 – 760)
P8	E/M/A/D	0,24	0,046	0,060	0,075	205 (140 – 220)
		0,24	0,0018	0,0024	0,003	670 (460 – 730)
P11	E/M/A/D	0,24	0,044	0,060	0,075	210 (140 – 225)
		0,24	0,0017	0,0024	0,003	680 (460 – 740)
M1	E/M/A	0,24	0,050	0,065	0,080	255 (170 – 270)
		0,24	0,0022	0,0026	0,0032	840 (560 – 890)
M2	E/M/A	0,24	0,046	0,075	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)
M3	E/M/A	0,24	0,036	0,048	0,060	150 (105 – 165)
		0,24	0,0014	0,0019	0,0024	490 (345 – 540)
M4	E/M/A	0,24	0,032	0,042	0,050	110 (75 – 120)
		0,24	0,0013	0,0017	0,0022	360 (250 – 400)
M5	E/M/A	0,24	0,032	0,042	0,050	95 (65 – 100)
		0,24	0,0013	0,0017	0,0022	310 (220 – 320)
K1	E/M/A/D	0,24	0,046	0,060	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)
K2	E/M/A/D	0,24	0,040	0,055	0,065	175 (120 – 190)
		0,24	0,0016	0,0022	0,0026	570 (400 – 620)
K3	E/M/A/D	0,24	0,040	0,055	0,065	150 (100 – 160)
		0,24	0,0016	0,0022	0,0026	490 (320 – 530)
K4	E/M/A/D	0,24	0,040	0,055	0,065	140 (95 – 150)
		0,24	0,0016	0,0022	0,0026	460 (310 – 490)
K5	E/M/A/D	0,24	0,036	0,050	0,060	85 (55 – 90)
		0,24	0,0014	0,0022	0,0024	280 (180 – 300)
K6	E/M/A/D	0,24	0,040	0,055	0,065	125 (85 – 135)
		0,24	0,0016	0,0022	0,0026	410 (280 – 445)
K7	E/M/A/D	0,24	0,036	0,050	0,060	105 (70 – 115)
		0,24	0,0014	0,0022	0,0024	345 (220 – 375)
N1	E/M/A	0,24	0,046	0,060	0,075	315 (215 – 340)
		0,24	0,0018	0,0024	0,003	1025 (710 – 1125)
N2	E/M/A	0,24	0,046	0,060	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)
N3	E/M/A	0,24	0,046	0,060	0,075	135 (90 – 145)
		0,24	0,0018	0,0024	0,003	445 (300 – 475)
N11	E/M/A	0,24	0,046	0,060	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)
S1	E	0,24	0,048	0,065	0,080	205 (140 – 220)
		0,24	0,0019	0,0026	0,0032	670 (460 – 730)
S2	E	0,24	0,048	0,065	0,080	205 (140 – 220)
		0,24	0,0019	0,0026	0,0032	670 (460 – 730)
S3	E	0,24	0,046	0,060	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)
S11	E	0,24	0,046	0,060	0,075	265 (180 – 285)
		0,24	0,0018	0,0024	0,003	870 (590 – 940)
S12	E	0,24	0,046	0,060	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)
S13	E	0,24	0,040	0,050	0,065	155 (105 – 165)
		0,24	0,0016	0,0022	0,0026	510 (345 – 540)
TS1	A/D	0,24	0,046	0,060	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)
TP1	A/D	0,24	0,046	0,060	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)
GR1	A/D	0,24	0,046	0,060	0,075	205 (135 – 220)
		0,24	0,0018	0,0024	0,003	670 (445 – 730)







Universal
Steel and cast iron
Stainless steel and S-materials
Non ferrous
Hard
Plastic and cfpr
Graphite
X-Heads
Minimaster Plus
Minimaster

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!										
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Drilling				
							a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	f_z	$a_p/360^\circ$ (% of DC)	hole \varnothing (\geq % of DC)	f_z	a_p (% of DC)
JS412																				
LV2	100	100	100	100	100	140	3	40	120	$\leq 30^\circ$ *	80	100	50	10	130	50	100			
JS413										$\leq 10^\circ$ *										
LV2	100	100	100	100	100	150	3	40	120	70	50	50	10	130	X	X				
LV3	X	X	25	60	240	120	3	40	230	70	50	50	10	130	X	X				
JS452										$\leq 30^\circ$ *										
LV2	100	100	100	100	100	140	3	35	120	70	100	50	10	130	50	100				
LV3	50	60	75	60	50	120	3	40	100	70	70	50	10	130	20	10				
JS453										$\leq 10^\circ$ *										
LV2	100	100	100	100	100	140	3	35	120	70	50	50	10	130	20	10				
LV3	X	X	25	60	240	120	3	40	230	70	70	50	10	130	20	10				
JSE512										$\leq 30^\circ$ *										
LV2	100	100	100	100	100	110	3	65	125	40	40	100	5	130	40	40				
JSE513										$\leq 5^\circ$ *										
LV2	100	100	100	100	100	110	3	85	150	100	100	100	5	130	50	40				
LV3	30	100	30	50	200	110	3	85	250	X	X	X	X	X	X	X				
JSE514										$\leq 5^\circ$ *										
LV2	100	100	100	100	100	110	3	60	150	100	100	100	5	130	X	X				
LV3	X	X	25	50	200	110	3	60	250	X	X	X	X	X	X	X				
JS553										$\leq 45^\circ$ *										
LV1	100	100	100	100	100	110	3	55	150	50	55	35	3	130	35	50				
LV2	100	100	100	100	100	110	3	55	150	50	55	35	3	130	35	50				
LV3	40	60	40	105	200	110	3	55	250	50	15	35	3	130	35	50				
JS554										$\leq 5^\circ$ *										
LV1	100	100	100	100	100	110	3	53	150	100	100	100	3	130	X	X				
LV2	100	100	100	100	100	110	3	53	150	100	100	100	3	130	X	X				
LV3	40	60	38	105	200	110	3	53	250	50	50	60	3	130	X	X				
JS564																				
LV2	X	X	100	100	100	110	3	55	100	X	X	100	2	130	X	X				
LV3	X	X	38	105	140	110	3	55	140	X	X	60	1,5	130	X	X				
JS565																				
LV2	X	X	100	100	100	110	3	55	100	X	X	100	2	130	X	X				
LV3	X	X	38	105	140	110	3	55	140	X	X	60	1,5	130	X	X				

*Max ramping angle
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!								
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Drilling		
																		
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	$a_p/360^\circ$ (% of DC)	hole \varnothing (\geq % of DC)	f_z	a_p (% of DC)		
J28 LV2	100	100	100	100	100	140	3	100	135	$\leq 45^\circ$ *		40	25	100	10	130	25	60
J36 LV2	X	X	100	100	100	120	3	85	150	$\leq X^\circ$ *		X	X	X	X	X	X	X
J93F LV2	100	100	100	100	100	133	3	40	100	$\leq 20^\circ$ *		100	100	100	3	130	25	30
JH120 LV2	100	100	100	100	100	120	3	120	80	$\leq 1^\circ$		17	100	100	2	130	X	X
JH130 LV2	X	X	100	100	100	120	3	120	80	$\leq X^\circ$ *		X	X	X	X	X	X	X
JH142 LV2	X	X	100	100	100	110	3	80	70	$\leq X^\circ$ *		X	X	30	2	130	X	X
JH142 LV3	X	X	100	100	100	110	3	80	70	$\leq 45^\circ$ *		X	X	20	1	130	X	X
JH142 LV6	X	X	100	100	100	110	3	80	70	$\leq 45^\circ$ *		X	X	10	1	130	X	X
JH830 LV2	100	100	100	100	100	110	3	110	80	$\leq 45^\circ$ *		9	135	135	3	130	X	X
JH910 LV2	100	100	100	100	100	125	4	100	80	$\leq X^\circ$ *		15	140	140	3	130	X	X
JH910 LV3	80	80	100	80	80	125	4	80	65	$\leq X^\circ$ *		10	110	110	3	130	X	X
JH930 LV2	X	X	100	100	100	125	2	30	100	$\leq X^\circ$ *		X	X	X	X	X	X	X

*Max ramping angle




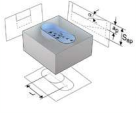


All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!										
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Drilling				
							a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	f_z	$a_p/360^\circ$ (% of DC)	hole \varnothing (\geq % of DC)	f_z	a_p (% of DC)
										$\leq 5^\circ$ *										
JH40	100	100	100	100	100	100	3	35	100	83	55	55	25	130	55	80				
LV2	100	100	100	100	100	100	3	35	100	83	55	55	25	130	55	80				
LV3	100	100	100	100	100	100	3	35	100	83	55	55	25	130	55	80				
										$\leq 45^\circ$ *										
JH410	100	100	100	100	100	125	2	25	100	100	67	67	40	130	67	80				
LV2	100	100	100	100	100	125	2	25	100	60	40	40	40	130	40	50				
LV2 (ML)	75	60	80	60	100	125	2	25	100	100	50	100	40	130	150	80				
LV2 (TL)	125	100	100	100	100	100	2	100	100	100	50	100	40	130	150	80				
LV2 (RS)	125	100	100	100	100	100	2	100	100	100	50	100	40	130	150	80				
LV3 (RS)	95	95	80	100	100	100	2	100	100	50	50	50	40	130	75	40				
										$\leq 45^\circ$ *										
JH421	100	100	100	100	100	100	4	35	100	100	100	100	25	130	45	80				
LV2	100	100	100	100	100	100	4	35	100	100	100	100	25	130	45	80				
										$\leq 30^\circ$ *										
JH440	100	100	100	100	100	125	3	40	100	100	100	100	5	130	X	X				
LV2	100	100	100	100	100	125	3	40	100	100	100	100	5	130	X	X				
										$\leq 5^\circ$ *										
JHP750	115	120	115	115	100	100	2	145	100	100	120	120	3	130	10	70				
LV1	115	120	115	115	100	100	2	145	100	100	120	120	3	130	10	70				
LV2	100	100	100	100	100	100	2	145	100	100	100	100	3	130	10	60				
										$\leq 5^\circ$ *										
JHP951	100	100	100	100	100	158	2	50	113	20	100	125	3	130	6	20				
LV2	100	100	100	100	100	158	2	50	113	20	100	125	3	130	6	20				
										$\leq 10^\circ$ *										
JHP993	100	100	100	100	100	X	X	X	X	30	100	100	3	130	4	40				
LV2	100	100	100	100	100	X	X	X	X	30	100	100	3	130	4	40				
LV3	80	80	80	80	80	X	X	X	X	20	80	80	3	130	3	30				
										$\leq X^\circ$ *										
JS520	X	X	100	100	100	133	2	65	100	X	X	X	X	X	X	X				
LV2	X	X	100	100	100	133	2	65	100	X	X	X	X	X	X	X				
LV3	X	X	X	X	X	133	2	65	175	X	X	X	X	X	X	X				
										$\leq X^\circ$ *										
JS522	X	X	100	100	100	129	2	140	100	X	X	X	X	X	X	X				
LV4	X	X	100	100	100	129	2	140	100	X	X	X	X	X	X	X				
										$\leq X^\circ$ *										
JS720	X	X	100	100	100	110	2	65	100	X	X	100	2	130	X	X				
LV2	X	X	100	100	100	110	2	65	100	X	X	100	2	130	X	X				
LV3	X	X	100	100	100	110	2	65	100	X	X	100	2	130	X	X				
										$\leq X^\circ$ *										
JS754	100	100	100	100	100	110	3	55	150	100	100	100	3	130	X	X				
LV2	100	100	100	100	100	110	3	55	150	100	100	100	3	130	X	X				
LV3	40	60	38	105	200	110	3	55	250	50	50	60	3	130	X	X				
										$\leq X^\circ$ *										
JS755	100	100	100	100	100	110	3	55	150	100	100	100	3	130	X	X				
LV2	100	100	100	100	100	110	3	55	150	100	100	100	3	130	X	X				
LV3	40	60	38	105	100	110	3	55	250	50	50	60	3	130	X	X				

*Max ramping angle
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version side milling cutting data then recalculate parameters!						
Straight	Slotting		Side rough			Side finish				Ramping		Helical			Drilling	
																
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	$a_p/360^\circ$ (% of DC)	hole \varnothing (\geq % of DC)	f_z	a_p (% of DC)
										$\leq X^\circ$						
JME542-JME562-JME564																
LV1	100	100	100	100	100	125	2	150	5	X	X	X	X	X	X	X
LV2	63	100	100	100	65	125	2	150	3	X	X	X	X	X	X	X
LV3	25	100	100	100	25	125	2	150	1	X	X	X	X	X	X	X
LV4 (TL)	18	100	100	100	20	125	2	150	1	X	X	X	X	X	X	X
LV4 (XL)	12	100	100	100	10	125	2	150	1	X	X	X	X	X	X	X
LV5	10	100	100	100	10	125	2	150	1	X	X	X	X	X	X	X
LV6	4	100	100	100	5	125	2	150	1	X	X	X	X	X	X	X
LV7	2	100	100	100	2	125	2	150	1	X	X	X	X	X	X	X
										$\leq X^\circ$						
JME142-JME144																
LV1	100	100	100	100	100	100	2	150	5	X	X	X	X	X	X	X
LV2	85	85	100	100	63	100	2	150	3	X	X	X	X	X	X	X
LV3	75	75	100	100	25	100	2	150	1	X	X	X	X	X	X	X
LV4	60	60	100	100	20	100	2	150	1	X	X	X	X	X	X	X
LV5	50	50	100	100	10	100	2	150	1	X	X	X	X	X	X	X
LV6	40	40	100	100	5	100	2	150	1	X	X	X	X	X	X	X
										$\leq X^\circ$ *						
JM403-JM404-JM406																
LV1	100	100	100	100	100	X	X	X	X	X	X	X	X	X	X	X
LV2	100	75	100	75	100	X	X	X	X	X	X	X	X	X	X	X
LV3 (L)	100	75	100	75	90	X	X	X	X	X	X	X	X	X	X	X
LV3 (TL)	90	75	100	75	70	X	X	X	X	X	X	X	X	X	X	X
LV4 (XL)	75	75	100	75	70	X	X	X	X	X	X	X	X	X	X	X
LV4 (SL)	75	75	100	75	45	X	X	X	X	X	X	X	X	X	X	X
LV5	50	50	100	50	30	X	X	X	X	X	X	X	X	X	X	X
										≤ 2						
JC898																
LV3	X	X	100	100	100	X	X	X	X	X	50	80	3	130-160	X	X
										$\leq 5^\circ$						
JC899																
LV3	X	X	100	100	100	100	3	50	100	X	X	X	X	X	X	X

*Max ramping angle



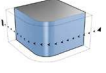


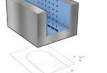
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!							
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Drilling	
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_p	f_z	f_z	$a_p/360^\circ$ (% of DC)	hole \varnothing (\geq % of DC)	f_z	a_p (% of DC)	
										$\leq 1^\circ$							
JHP170 LV2	100	100	100	100	100	130	3	175	80	100	100	100	2	130	X	X	
										$\leq 30^\circ$							
JHP490 LV2	100	100	100	100	100	X	X	X	X	50	50	35	5	130	30	50	
JHP490 LV2 (E-Shape)	100	75	100	100	100	X	X	X	X	50	50	35	5	130	30	50	
JHP490 LV3	100	75	80	100	100	X	X	X	X	50	50	35	5	130	30	50	
JHP490 LV4	150	75	80	100	100	X	X	X	X	50	50	35	5	130	30	50	
										$\leq 5^\circ$							
JHP760 LV2	100	100	100	100	100	140	2	125	15	30	100	100	3	130	10	50	
JHP760 LV3	50	50	100	50	50	140	2	125	15	15	50	50	3	130	5	25	
										$\leq 15^\circ$							
JHP770 LV2	100	100	100	100	100	170	3	125	100	100	40	40	3	130	X	X	
										$\leq 5^\circ$							
JHP780 LV1	100	100	100	100	100	160	2	135	140	100	100	35	3	130	35	50	
JHP780 LV2	100	100	100	100	100	160	2	135	140	100	100	35	3	130	35	50	
JHP780 LV3	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
JHP780 LV4	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
										$\leq X^\circ$							
JHP780 LV2	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
JHP780 LV3	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
JHP780 LV4	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
										$\leq X^\circ$							
JHP780 LV2	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
JHP780 LV3	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	
JHP780 LV4	100	100	100	100	100	100	2	110	4	X	X	X	X	X	X	X	

*Max ramping angle
All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!									
Straight	Slotting		Side rough			Side finish					Ramping		Helical			Plunging			
																			
	a _p	f _z	a _e	f _z	a _p	v _c	a _e (% of DC)	f _z	a _p	a _p	f _z	f _z	a _p /360° (% of DC)	hole Ø (≥ % of DC)	v _c	a _e (% of DC)	f _z	a _e -sd (% of DC)	
JHF181																			
LV1	100	100	100	100	100	X	X	X	X	X	X	100	3,4	130	X	X	X	X	
LV2	80	85	100	85	80	X	X	X	X	X	X	85	3,0	130	X	X	X	X	
LV3	60	70	100	70	60	X	X	X	X	X	X	70	2,5	130	X	X	X	X	
										≤ 1,5° *									
JHF980																			
LV1	100	100	100	100	100	X	X	X	X	100	100	100	3	130	70	30	33	200	
LV2	100	100	100	100	100	X	X	X	X	100	100	100	3	130	70	30	33	200	
LV3	80	85	80	85	80	X	X	X	X	80	85	85	3	130	70	30	33	200	
LV4	50	70	50	70	60	X	X	X	X	60	70	70	3	130	70	30	33	200	

*Max ramping angle

All values are percentages of original (100%) cutting data.



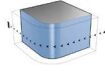
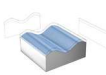
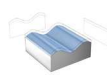

Recalculation

Use original standard version cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!										
BALL	Slotting		Side rough			Side finish					Copy milling roughing			Copy milling finishing				Helical		
	a_p	f_z	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	a_e	f_z	a_p	v_c	a_e (% of DC)	f_z	a_p	f_z	$a_p/360^\circ$ (% of DC)	hole \varnothing (\geq % of DC)	
JSB512																				
LV2	X	X	100	100	100	125	3	125	10	X	X	X	X	X	X	X	100	5	130	
JS532																				
LV1	X	X	100	100	100	125	3	125	10	X	X	X	X	X	X	X	75	5	130	
LV2	X	X	70	100	70	125	3	125	10	X	X	X	X	X	X	X	75	5	130	
LV3	X	X	X	X	X	125	3	125	10	X	X	X	X	X	X	X	X	X	X	
JS533																				
LV1	X	X	100	100	100	125	3	125	15	X	X	X	X	X	X	X	75	5	130	
LV2	X	X	75	75	75	125	3	125	15	X	X	X	X	X	X	X	75	5	130	
JS534																				
LV1	X	X	100	100	100	125	3	170	20	X	X	X	X	X	X	X	100	3	130	
LV2	X	X	70	100	70	125	3	170	20	X	X	X	X	X	X	X	100	3	130	
LV3	X	X	70	100	70	125	3	170	20	X	X	X	X	X	X	X	100	3	130	
JHB970																				
LV1	X	X	100	100	100	155	2	30	15	X	X	X	X	X	X	X	40	3	130	
LV2	X	X	100	100	100	155	2	30	15	X	X	X	X	X	X	X	40	3	130	
LV3	X	X	100	100	100	155	2	30	15	X	X	X	X	X	X	X	40	3	130	
JHB720																				
LV2	X	X	100	100	100	125	2	90	75	X	X	X	X	X	X	X	40	3	130	
JH112																				
LV1	X	X	100	100	100	110	2	70	100	X	X	X	X	X	X	X	20	2	130	
LV2	X	X	100	100	100	110	2	70	100	X	X	X	X	X	X	X	20	2	130	
LV3	X	X	100	100	100	110	1,6	55	100	X	X	X	X	X	X	X	X	X	X	
LV4	X	X	100	100	100	130	1,4	55	100	X	X	X	X	X	X	X	X	X	X	
LV5	X	X	100	100	100	130	1,4	50	100	X	X	X	X	X	X	X	X	X	X	
LV6	X	X	100	100	100	130	1	35	100	X	X	X	X	X	X	X	X	X	X	
JH150																				
LV2	X	X	100	100	100	165	1	90	35	X	X	X	X	X	X	X	30	2	130	

*Max ramping angle

All values are percentages of original (100%) cutting data.

Recalculation

Use original standard version side rough cutting data then recalculate parameters!										Use original standard version slotting cutting data then recalculate parameters!										
BALL	Slotting		Side rough			Side finish					Copy milling roughing			Copy milling finishing				Helical		
																				
	a _p	f _z	a _e	f _z	a _p	v _c	a _e (% of DC)	f _z	a _p	a _e	f _z	a _p	v _c	a _e (% of DC)	f _z	a _p	f _z	a _p /360° (% of DC)	hole Ø (≥ % of DC)	
JH160 Standard (2)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	
JH450 Standard (2)	X	X	100	100	100	120	5	90	25	X	X	X	X	X	X	X	45	5	130	
JH460 Standard (2)	X	X	100	100	100	120	5	90	25	X	X	X	X	X	X	X	X	X	X	
JMB542-JMB562- JMB563																				
LV1	100	100	X	X	X	X	X	X	X	100	100	100	125	2	150	5	X	X	X	
LV2	65	100	X	X	X	X	X	X	X	100	100	63	125	2	150	3	X	X	X	
LV3	26	100	X	X	X	X	X	X	X	100	100	25	125	2	150	1	X	X	X	
LV4 (TL)	20	100	X	X	X	X	X	X	X	100	100	19	125	2	150	1	X	X	X	
LV4 (XL)	12	100	X	X	X	X	X	X	X	100	100	12	125	2	150	1	X	X	X	
LV5	10	100	X	X	X	X	X	X	X	100	100	10	125	2	150	1	X	X	X	
LV6	4	100	X	X	X	X	X	X	X	100	100	4	125	2	150	1	X	X	X	
LV7	2	100	X	X	X	X	X	X	X	100	100	2	125	2	150	1	X	X	X	
JMB112																				
LV1	100	100	X	X	X	X	X	X	X	100	100	100	118	2	120	5	X	X	X	
LV2	65	100	X	X	X	X	X	X	X	64	85	85	118	2	120	3	X	X	X	
LV3	26	100	X	X	X	X	X	X	X	56	75	75	118	2	120	1	X	X	X	
LV4	20	100	X	X	X	X	X	X	X	45	60	60	118	2	120	1	X	X	X	
LV5	10	100	X	X	X	X	X	X	X	38	50	50	118	2	120	1	X	X	X	
LV6	4	100	X	X	X	X	X	X	X	30	40	40	118	2	120	1	X	X	X	
JM413-JM416																				
LV1	X	X	100	100	100	100	5	40	35	X	X	X	X	X	X	X	X	X	X	
LV2	X	X	100	60	100	100	5	40	15	X	X	X	X	X	X	X	X	X	X	
LV3	X	X	100	80	100	100	5	40	15	X	X	X	X	X	X	X	X	X	X	
LV4	X	X	100	60	75	100	5	40	10	X	X	X	X	X	X	X	X	X	X	
JMB642																				
LV1	100	100	100	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
LV3	100	100	100	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
LV5	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
LV6	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
LV7	30	100	60	100	100	100	2	85	200	X	X	X	X	X	X	X	X	X	X	
JD660																				
LV1	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	
LV2	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	
LV3	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	
LV4	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	
LV5	X	X	100	100	100	100	2	100	100	X	X	X	X	X	X	X	X	X	X	

*Max ramping angle

All values are percentages of original (100%) cutting data.

Nomenclature and formulae

RPM	
$n = \frac{v_c \cdot 1000}{\pi \cdot D_c}$	(rev/min)
Cutting speed	
$v_c = \frac{n \cdot \pi \cdot D_c}{1000}$	(m/min)
Feed speed	
$v_f = n \cdot z_n \cdot f_z$	(mm/min)
Feed per revolution	
$f = z_n \cdot f_z$	(mm/rev)
Metal removal rate	
$Q = \frac{a_e \cdot a_p \cdot v_f}{1000}$	(cm ³ /min)
Cutting speed and RPM for copying	
$v_c = \frac{n \cdot \pi \cdot D_w}{1000}$	(m/min)
$n = \frac{v_c \cdot 1000}{\pi \cdot D_w}$	(RPM)
$D_w = 2 \cdot \sqrt{a_p (D_c - a_p)}$	(mm)

Calculation of a_p vs. overhang length:

If the overhang length (XS) is longer than 4 x DC and Cylindrical shanks are used it is important to adopt another depth of cut (a_p) value than that indicated in the table.

Use the following formula to calculate the new a_p value

$$a_{p\text{new}} = a_p \times (4 \times DC/XS)^2$$

Profile heigth

$$H = \frac{D_c}{2} - \frac{\sqrt{D_c^2 - a_e^2}}{2}$$

$$D_w = 2 \cdot \sqrt{a_p (D_c - a_p)} \quad (\text{mm})$$

Profile height H (um)

DC	Pitch a_e (um)						
	0,06	0,08	0,11	0,15	0,20	0,3	0,45
1	0,90	1,60	3,00	5,70	10,0	23,0	53,0
2	0,45	0,80	1,50	2,80	5,0	11,0	26,0
4	0,23	0,40	0,76	1,40	2,5	5,60	13,0
6	0,15	0,27	0,50	0,94	1,7	3,80	8,40
8	0,11	0,20	0,38	0,70	1,3	2,80	6,30
10	0,09	0,16	0,30	0,56	1,0	2,30	5,10
12	0,08	0,13	0,25	0,47	0,83	1,90	4,20

- a_p = Depth of cut mm/axial depth of cut (mm)
- a_e = Width of cut mm/radial depth of cut (mm)
- DC = Cutter diameter
- f = Feed per revolution (mm/rev)
- f_z = Feed per tooth (mm/tooth)
- z_n = No. of teeth
- n = RPM (rev/min)
- Q = Material removal rate (cm³/min)
- v_c = Cutting speed (m/min)
- v_f = Feed speed (mm/min)
- D_w = Working diameter

Operation recommendations

Ramping method

The table below shows the feed rate percentage to use at certain ramping angles

Recommended diameter of hole for helical interpolation ramping

Diameter of end mill DC	Diameter of hole
1-2,5	1,4 x DC
3-6	1,3 x DC
8-12	1,2 x DC
16-32	1,15 x DC

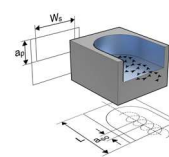


Trochoidal method

The figure below shows a method often called the trochoidal method for milling slots

Recommendation of width of slot

Diameter of end mill DC	Slot width
1-2,5	1,8 x DC
3-6	1,6 x DC
8-12	1,4 x DC
16-32	1,2 x DC



ONE SECO TAP – A MULTITUDE OF APPLICATIONS

SECO THREADING TAPS

YOUR CHALLENGE

High-mix/low production involves various part materials and types that require extensive inventories of thread cutting and forming taps.

OUR SOLUTION

For versatility and cost savings, the Seco Tools line of thread cutting and forming taps handles a wide range of materials.

YOUR CHALLENGE

Spending too much time selecting proper tap for the application at hand.

OUR SOLUTION

The Seco range of thread cutting and forming taps offers various performance levels that encompass versatile and cost-effective general-purpose tools.

YOUR CHALLENGE

Chips can cause tool breakage when threading stainless steel and other long chip materials.

OUR SOLUTION

Seco thread cutting and forming taps efficiently control chips at hole depths up to 3 x diameter.



CUSTOMER BENEFITS

- Do more with less tooling and reduce tooling inventory and costs
- Get jobs up and running faster
- Improve process stability and consistency
- Process a wider range of part materials with single universal-type tools
- Uninterrupted machining operations
- Process security



SECO THREADING TAPS

THREAD WITH SECO VERSATILITY

To help shops accomplish more work with less tooling, Seco Taps provide versatile and cost-effective thread cutting taps and forming taps for a wide range of materials and part types. The product line encompasses three available performance levels that give manufacturers the perfectly matched taps for their applications. With the combination of superior base materials, advanced coatings and special edge preparations, Seco Taps generate precision threads while they also maximize chip evacuation, shorten setup times and extend tool life.

T34 - NEW HIGH PERFORMANCE VERSATILE TAPS



THREADS RANGE

M 1 ÷ 36; MF 3x0,35 ÷ 24x1,5

UNC #4-40 ÷ 5/8-11; UNF #4-48 ÷ 5/8-18

G 1/8 ÷ 1

EG (M, UNC, UNF)

APPLICATION (Rm UP TO 1200 MPa):

P, M, K, N

MATERIAL & COATING:

HSSE-PM & TiAIN+WC/C

TYPE OF FLUTES & CHAMFERS:

Spiral point & chamfer B – through holes / available also with internal radial cooling

Helix flutes 45° & chamfer C or E – blind holes / available also with internal axial cooling

ACC. TO STANDARDS:

DIN 371

DIN 376/374

DIN 5156

TOLERANCE:

6HX (4H for <M1,4) – for Metric threads

2BX – for UN threads

Normal-X – for G threads

T32 - REPLACEMENT OF –V TAPS



THREADS RANGE

M 1 ÷ 52, MF 8x1 ÷ 30x2

UNC #4-40 ÷ 1 1/2 -6; UNF #12-28 ÷ 1 1/2 -12

G 1/2" – 1"

APPLICATION (Rm UP TO 1000 MPa):

P, M, K, N

MATERIAL & COATING:

HSSE & TiAIN+TiN

TYPE OF FLUTES & CHAMFERS:

Straight & chamfer C – both types of holes

Spiral point & chamfer B – through holes

Helix flutes 40° & chamfer C – blind holes

ACC. TO STANDARDS:

DIN 371 + Extra long version (EL)

DIN 376/374 + Extra long version (EL)

DIN 5156

TOLERANCE:

6H (4H for <M1,4), 6G – for M threads

2B – for UN threads

Normal – for G threads

T33 - REPLACEMENT OF –MF FORMING TAPS



THREADS RANGE

M 2 ÷ 20; MF 4x0,5 ÷ 20x1,5

UNC #5-40 ÷ 5/8-11; UNF #5-44 ÷ 5/8-18

G 1/8" ÷ 3/4"

APPLICATION:

P, M, N

MATERIAL & COATING:

HSSE-PM & TiAIN+TiN

HSSE-PM & TiCN

CHAMFER:

C for both types of holes

E recommended mainly for blind holes / also available with radial or axial internal cooling

ACC. TO STANDARDS:

DIN 371

DIN 376/374

DIN 5156

TOLERANCE:

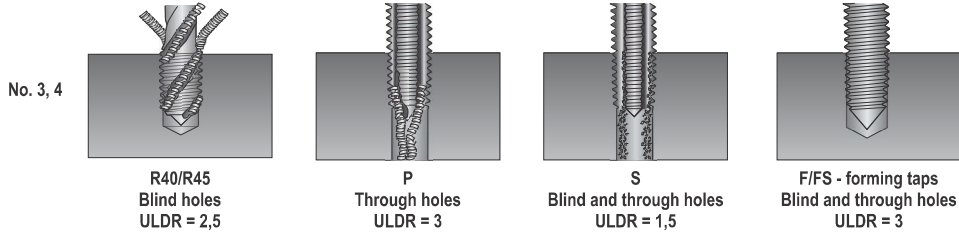
6HX, 6GX – M threads

2BX – UN threads

Normal-X – G threads

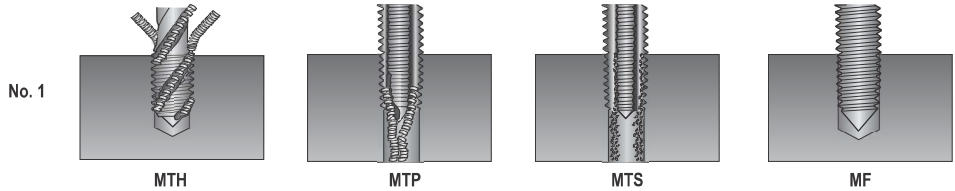
Please note that the data shown is just an extract and more products are available.
For more information please visit www.secotools.com.

Code key – Taps T34, T33 and T32



Description	
1	Family T34 – High performance versatile cutting taps T33 – Forming taps T32 – Versatile cutting taps
2	Internal coolant [Blank] – Without coolant A – Axial B – Radial
3	Design P – Helix Point S – Straight Flutes R – Right hand spiral flutes L – Left hand flute F – Forming tap FS – Forming tap with oil grooves
4	Flute angle 40 45 Used for Design R and L
5	Coating C – TiN + TiCN H – TiAlN + WC/C N – TiAlN + TiN
6	Thread Type 01 – M 02 – MF 04 – EGM 08 – UNC 09 – UNF 16 – EGUNC 17 – EGUNF 21 – G
7	Type of chamfer B C E
8	Standard 03 – DIN371 04 – DIN371/EL 05 – DIN374 06 – DIN376 07 – DIN376/EL 09 – DIN5156
9	Thread size
10	Pitch
11	Tolerance M threads: 41 – 4H 61 – 6G 62 – 6GX 63 – 6H 64 – 6H mod (for EG M) 65 – 6HX For UNC and UNF threads 21 – 2B 22 – 2BX For G threads: 11 – Normal 12 – Normal X
12	Hand R - Right L - Left

Code key – Taps MTH, MTS, MF and MTP



Description	
1	MTH = Threadmaster™ Tap Helix flute MTP = Threadmaster™ Tap Helix point MTS = Threadmaster™ Tap Straight flute tap MF = Threadmaster™ FormTap
2	Thread type and size
3	Pitch and thread form
4	Tolerance (ctr) 4H, 6H, 6HX, 6G, 6GX metric and 2B, 2BX, 3B, 3BX, Normal, NormalX inch
5	Operation B = Blind hole T = Through hole X = Blind and Through hole
6	Entering Chamfer(THCHT) B = Entering chamfer 3,5 - 5 threads C = Entering chamfer 2 - 3 threads E = Entering chamfer 1,5 - 2 threads
7	V = Versatile P = Steel M = Stainless Steel K = Cast Iron N = Non ferrous metals S = Superalloys and titanium
8	Release No. = 0 (2014)
9	Tool type No. = 01, 02, 03, 04 etc
10	A = Through coolant

Taps – Entering chamfer THCHT

Thread turning	B-type	<p>Length 3.5 – 5 threads High torque Best surface finish Thin chip thickness Low pressure at the chamfer Long tool life Most common for through holes (Helix point)</p>	
MDT	C-type	<p>Length 2 - 3 threads Medium torque Good surface finish Normal chip thickness Normal pressure at the chamfer Normal tool life Most common design Standard for blind holes Most common for blind holes (Helix flute)</p>	
Mini-Shaft™	E-type	<p>Length 1.5 – 2 threads Low torque Good surface finish Thick chip thickness High pressure at the chamfer Shorter tool life When limited space in the bottom of a hole</p>	

Thread turning

MDT

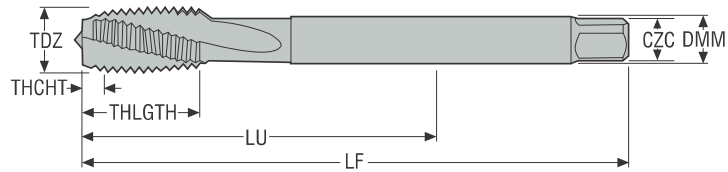
Mini-Shaft™

Thread milling

Thread tapping

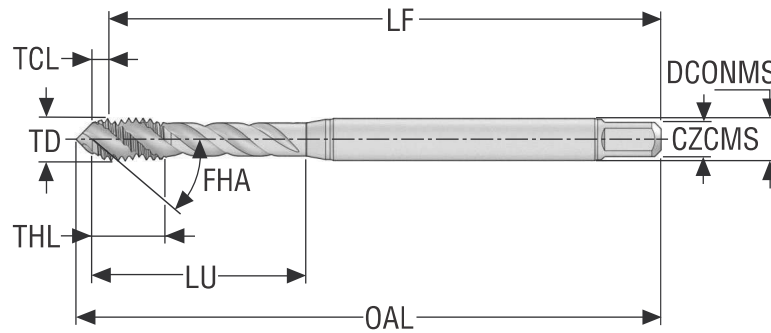
Annex

Definitions for -P, -M, -K, -N, -S, -V and MF



Definitions Seco Threadmaster™	
BSG	= Basic standard group
CZC	= Connection size code
DMM	= Shank diameter
FHA	= Flute helix angle
LF	= Functional length
LU	= Usable length
NOF	= Number of flutes
PHDR	= Recommended premachined hole diameter
PHDX	= Maximum premachined hole diameter
TCTR	= Thread tolerance class
TD	= Thread diameter
TDZ	= Thread diameter size
THCHT	= Thread chamfer type
THFT	= Thread form type ISO, Withworth, UN...
THLGTH	= Thread length
TPIX	= Threads per inch maximum
TTP	= Thread type internal/external/both
TPX	= Thread pitch maximum
ULDR	= Usable length diameter ratio

Definitions for T32, T33 and T34



Definitions Seco Threadmaster™

BSG	= Basic standard group
TD	= Thread diameter
TDZ	= Thread diameter size
THCHT	= Threading chamfer type
TCL	= Thread chamfer length
THL	= Thread length
LU	= Usable length
LF	= Functional length
OAL	= Overall length
FHA	= Flute Helix angle
DCONS	= Connection diameter machine side
CZCMS	= Connection size code machine side
NOF	= Flute count
PHDR	= Recommended premachined hole diameter
PHDX	= Maximum premachined hole diameter
TCTR	= Thread tolerance class
TPI	= Threads per inch
ULDR	= Usable length diameter ratio

Taps - Choice of toolholder

The tool holder choice is made according to the machine spindle, with or without synchronization.

Modern CNC machine with synchronization:

The modern CNC machines can synchronize the spindle feed rate and rotation in order to make a rigid tapping operation. The TCER – tapping chucks with micro-compensation is the most suitable for synchronized tapping.

TCER Tapping chucks with micro-compensation, for synchronized tapping:



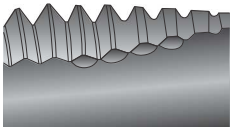
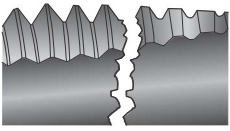
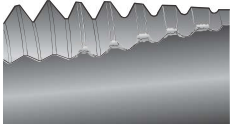
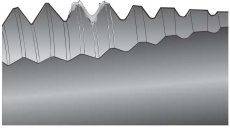
TCER for synchronized tapping has a micro-compensation system to avoid the small discrepancies and axial forces during rigid tapping machining. The taps are mounted in specific ER collets with square drive.

Note: These ER collets with square drive can also be mounted in ER collet chucks, but then without micro-compensation.



TCER

Troubleshooting

<p>Oversized thread</p> <p>Wrong tap for application - Refer to application charts</p> <p>Incorrect axial feed - Ensure feed rate is controlled - If possible, use tool holder for synchronized tapping</p> <p>Wrong cutting speed - Refer to recommendations</p> <p>Wrong tolerance - Choose tap with lower tolerance</p> 	<p>Undersized thread</p> <p>Tap worn out - Replace tap</p> <p>Tap drill hole too small - Check drilling recommendations</p> <p>Material closing after tapping - Increase drill diameter</p> <p>Wrong tolerance on tap - Choose tap with higher tolerance</p> 
<p>Chipping</p> <p>Wrong tap for the application - Check for tool selection</p> <p>Incorrect or lack of lubricant - Use appropriate emulsion or oil</p> <p>Tap hitting bottom of hole - Increase drill depth or reduce thread depth</p> <p>Trapped chip - Check tool selection</p> <p>Surface hardening in drilled hole - Check drilling recommendations</p> 	<p>Breakage</p> <p>Too high torque - Use tap holder with torque settings</p> <p>Tap worn out - Replace tap</p> <p>Incorrect or lack of lubricant - Use appropriate emulsion or oil</p> <p>Tap hitting bottom of hole - Increase drill depth or reduce thread depth</p> <p>Wrong cutting speed - Refer to recommendations</p> <p>Birdnest around tool - Check tool selection</p> <p>Tap drill hole too small - Check drilling recommendations</p> 
<p>Rapid wear</p> <p>Wrong type of tap for application - Refer to tap choice</p> <p>Incorrect or lack of lubricant - Use appropriate emulsion or oil</p> <p>Too high cutting speed - Refer to recommendations</p> <p>Work (surface) hardening in drilled hole - Check drilling recommendations - Drill worn out</p> <p>Tap drill hole too small - Check drilling recommendations</p> 	<p>Built-up edge</p> <p>Incorrect or lack of lubricant - Use appropriate emulsion or oil</p> <p>Tap worn out - Replace tap</p> <p>Wrong cutting speed - Refer to recommendations</p> <p>Wrong type of tap for application - Refer to tap choice</p> 

Thread turning

MDT









Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection T32

Type of tap		T32-SNC-micro	T32-SNC	T32-PNB-micro	T32-PNB	T32-PNB	T32-R40NC-micro	T32-R40NC	T32-R40NC
									
Type of hole		Blind and through holes	Blind and through holes	Through holes	Through holes	Through holes	Blind holes	Blind holes	Blind holes
Chamfer form		C	C	B	B	B	C	C	C
Coolant		External	External	External	External	External	External	External	External
Substrate:		HSS-PM	HSSE	HSS-PM	HSSE	HSSE	HSS-PM	HSSE	HSSE
Page(s)	M	293, 294	295, 296, 297	304, 305	306, 307, 308	309, 310	323, 324	325, 326, 327	328, 329
	M 6G				311, 312			330, 331	
	M LH		298, 299		313, 314			332, 333	
	MF		300, 301, 302		315, 316, 317			334, 335, 336	
	UNC				318, 319			337, 338	
	UNF				320, 321			339, 340	
	G		303		322			341	
	EG M								
	EG UNC								
EG UNF									

For cutting data see page(s) 260

Cutting data T32

SMG	V _c					
	T32-SNC-micro	T32-SNC	T32-PNB-micro	T32-PNB	T32-R40NC-micro	T32-R40NC
P1	20	20	20	20	20	20
	65	65	65	65	65	65
P2	20	20	20	20	20	20
	65	65	65	65	65	65
P3	17	17	17	17	17	17
	55	55	55	55	55	55
P4	15	15	15	15	15	15
	49	49	49	49	49	49
P5	14	14	14	14	14	14
	46	46	46	46	46	46
P6	16	16	16	16	16	16
	50	50	50	50	50	50
P7	15	15	15	15	15	15
	49	49	49	49	49	49
P8	14	14	14	14	14	14
	46	46	46	46	46	46
P11	15	15	15	15	15	15
	49	49	49	49	49	49
P12	8,7	8,7	8,7	8,7	8,7	8,7
	29	29	29	29	29	29
M1	12	12	12	12	12	12
	39	39	39	39	39	39
M2	10	10	10	10	10	10
	33	33	33	33	33	33
M3	7,6	7,6	7,6	7,6	7,6	7,6
	25	25	25	25	25	25
M4	5,7	5,7	5,7	5,7	5,7	5,7
	19	19	19	19	19	19
M5	4,8	4,8	4,8	4,8	4,8	4,8
	16	16	16	16	16	16
K1	17	17	17	17	—	—
	55	55	55	55	—	—
K2	15	15	15	15	—	—
	49	49	49	49	—	—
K3	13	13	13	13	13	13
	43	43	43	43	43	43
K4	12	12	12	12	12	12
	39	39	39	39	39	39
K5	—	—	—	—	—	—
	—	—	—	—	—	—
K6	—	—	—	—	—	—
	—	—	—	—	—	—
K7	—	—	—	—	—	—
	—	—	—	—	—	—
N1	23	23	23	23	23	23
	75	75	75	75	75	75
N2	15	15	15	15	15	15
	49	49	49	49	49	49
N3	10	10	10	10	10	10
	33	33	33	33	33	33
N11	13	13	13	13	13	13
	43	43	43	43	43	43
S1	—	—	—	—	—	—
	—	—	—	—	—	—
S2	—	—	—	—	—	—
	—	—	—	—	—	—
S3	—	—	—	—	—	—
	—	—	—	—	—	—
S11	—	—	—	—	—	—
	—	—	—	—	—	—
S12	—	—	—	—	—	—
	—	—	—	—	—	—
S13	—	—	—	—	—	—
	—	—	—	—	—	—

SMG = Seco material group
Cutting speeds, (v_c = m/min, (sf/min), in the table are recommendations for a start value.

For more detailed information on cutting data, please visit MyPages or Seco Suggest on secotools.com

Taps Selection T34

Type of tap	T34-PHB-micro	T34-PHB	T34B-PHB	T34-R45HC-micro	T34-R45HC	T34A-R45HC	T34-R45HE	T34A-R45HE	
									
Type of hole	Through holes	Through holes	Through holes	Blind holes	Blind holes	Blind holes	Blind holes	Blind holes	
Chamfer form	B	B	B	C	C	C	E	E	
Coolant	External	External	Internal	External	External	Internal	External	Internal	
Substrate:	HSS-PM	HSSE-PM	HSSE-PM	HSS-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	
Page(s)	M	342, 343	344, 345	346, 347	363, 364	365, 366	369, 370	367, 368	
	M 6G								
	M LH								
	MF		348, 349	350, 351		371, 372	375, 376	373, 374	377
	UNC		352, 353			378, 379			
	UNF		354, 355			380, 381			
	G		356			382			
	EG M		357, 358					383, 384	
	EG UNC		359, 360					385, 386	
	EG UNF		361, 362					387, 388	

For cutting data, see next page







Cutting data T34

SMG	V _c							
	T34-PHB-micro	T34-PHB	T34B-PHB	T34-R45HC-micro	T34-R45HC	T34A-R45HC	T34-R45HE	T34A-R45HE
P1	28	28	43	28	28	43	28	43
	90	90	140	90	90	140	90	140
P2	28	28	41	28	28	41	28	41
	90	90	135	90	90	135	90	135
P3	24	24	36	24	24	36	24	36
	80	80	120	80	80	120	80	120
P4	21	21	31	21	21	31	21	31
	70	70	100	70	70	100	70	100
P5	20	20	30	20	20	30	20	30
	65	65	100	65	65	100	65	100
P6	22	22	34	22	22	34	22	34
	70	70	110	70	70	110	70	110
P7	21	21	32	21	21	32	21	32
	70	70	105	70	70	105	70	105
P8	20	20	30	20	20	30	20	30
	65	65	100	65	65	100	65	100
P11	21	21	31	21	21	31	21	31
	70	70	100	70	70	100	70	100
P12	12	12	18	12	12	18	12	18
	39	39	60	39	39	60	39	60
M1	15	15	21	15	15	21	15	21
	49	49	70	49	49	70	49	70
M2	12	12	17	12	12	17	12	17
	39	39	55	39	39	55	39	55
M3	9,1	9,1	13	9,1	9,1	13	9,1	13
	30	30	43	30	30	43	30	43
M4	6,9	6,9	9,7	6,9	6,9	9,7	6,9	9,7
	23	23	32	23	23	32	23	32
M5	5,7	5,7	8,1	5,7	5,7	8,1	5,7	8,1
	19	19	27	19	19	27	19	27
K1	24	24	36	24	24	36	24	36
	80	80	120	80	80	120	80	120
K2	21	21	31	21	21	31	21	31
	70	70	100	70	70	100	70	100
K3	18	18	26	18	18	26	18	26
	60	60	85	60	60	85	60	85
K4	17	17	25	17	17	25	17	25
	55	55	80	55	55	80	55	80
K5	—	10	15	—	10	15	10	15
	—	33	49	—	33	49	33	49
K6	15	15	22	15	15	22	15	22
	49	49	70	49	49	70	49	70
K7	13	13	19	13	13	19	13	19
	43	43	60	43	43	60	43	60
N1	26	26	39	26	26	39	26	39
	85	85	130	85	85	130	85	130
N2	17	17	25	17	17	25	17	25
	55	55	80	55	55	80	55	80
N3	11	11	17	11	11	17	11	17
	36	36	55	36	36	55	36	55
N11	15	15	22	15	15	22	15	22
	49	49	70	49	49	70	49	70
S1	—	4,0	4,0	—	4,0	4,0	4,0	4,0
	—	13	13	—	13	13	13	13
S2	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
S3	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
S11	—	4,0	4,0	—	4,0	4,0	4,0	4,0
	—	13	13	—	13	13	13	13
S12	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
S13	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—

SMG = Seco material group
Cutting speeds, (v_c = m/min, (sf/min), in the table are recommendations for a start value.

For more detailed information on cutting data, please visit MyPages or Seco Suggest on secotools.com

Taps Selection T33

Type of tap		T33-FNC	T33-FSNC	T33-FSCC	T33-FSCE	T33B-FSCE	T33A-FSCE
							
Type of hole		Blind and through holes	Blind and through holes	Blind and through holes	Blind and through holes	Through holes	Blind holes
Chamfer form		C	C	C	E	E	E
Coolant		External	External	External	External	Internal	Internal
Substrate:		HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
Page(s)	M	389, 390	391, 392	402	403	405	404
	M 6G		393, 394				
	M LH						
	MF		395, 396	406, 407			
	UNC		397, 398				
	UNF		399, 400				
	G		401				
	EG M						
	EG UNC						
	EG UNF						

For cutting data, see next page

Cutting data T33

SMG	V _c					
	T33-FNC	T33-FSNC	T33-FSCC	T33-FSCE	T33A-FSCE	T33B-FSCE
P1	21	21	21	21	28	28
	70	70	70	70	90	90
P2	21	21	21	21	28	28
	70	70	70	70	90	90
P3	18	18	18	18	24	24
	60	60	60	60	80	80
P4	16	16	16	16	21	21
	50	50	50	50	70	70
P5	15	15	15	15	20	20
	49	49	49	49	65	65
P6	17	17	17	17	22	22
	55	55	55	55	70	70
P7	16	16	16	16	21	21
	50	50	50	50	70	70
P8	—	—	—	—	—	—
	—	—	—	—	—	—
P11	—	—	—	—	—	—
	—	—	—	—	—	—
P12	—	—	—	—	—	—
	—	—	—	—	—	—
M1	19	19	19	19	19	19
	60	60	60	60	60	60
M2	15	15	15	15	15	15
	49	49	49	49	49	49
M3	11	11	11	11	11	11
	36	36	36	36	36	36
M4	—	—	8,6	8,6	8,6	8,6
	—	—	28	28	28	28
M5	—	—	—	—	—	—
	—	—	—	—	—	—
K1	—	—	—	—	—	—
	—	—	—	—	—	—
K2	—	—	—	—	—	—
	—	—	—	—	—	—
K3	—	—	—	—	—	—
	—	—	—	—	—	—
K4	—	—	—	—	—	—
	—	—	—	—	—	—
K5	—	—	—	—	—	—
	—	—	—	—	—	—
K6	—	—	—	—	—	—
	—	—	—	—	—	—
K7	—	—	—	—	—	—
	—	—	—	—	—	—
N1	31	31	47	47	47	47
	100	100	155	155	155	155
N2	20	20	30	30	30	30
	65	65	100	100	100	100
N3	—	—	20	20	20	20
	—	—	65	65	65	65
N11	—	—	27	27	27	27
	—	—	90	90	90	90
S1	—	—	—	—	—	—
	—	—	—	—	—	—
S2	—	—	—	—	—	—
	—	—	—	—	—	—
S3	—	—	—	—	—	—
	—	—	—	—	—	—
S11	—	—	—	—	—	—
	—	—	—	—	—	—
S12	—	—	—	—	—	—
	—	—	—	—	—	—
S13	—	—	—	—	—	—
	—	—	—	—	—	—

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Cutting speeds, (v_c = m/min, (sf/min), in the table are recommendations for a start value.

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Taps Selection MTH-P001 (-A) – MTH-P011

Tool type	MTH-P001 30-48 HRC	MTH-P001-A 30-48 HRC	MTH-P002 30-48 HRC	MTH-P002-A 30-48 HRC	MTH-P003	MTH-P003-A	MTH-P004	MTH-P004-A	MTH-P011
Thread type	M	M	M	M	M	M	M	M	MF
TCTR	6H	6H	6H	6H	6HX	6HX	6HX	6HX	6HX
ULDR	1.5	1.5	1.5	1.5	3	3	3	3	3
THCHT	C	C	C	C	C	C	C	C	C
BSG	SECO-DIN	SECO-DIN	DIN376	DIN376	DIN371	DIN371	DIN376	DIN376	DIN374
Thread size	M3 - M10	M4 - M10	M12 - M20	M12 - M20	M1.6 - M10	M4 - M10	M5 - M30	M12 - M30	MF 4X0.5 - MF 30X2.0
FHA	15°	15°	15°	15°	48°	48°	48°	48°	48°
									
Coolant	No	Yes	No	Yes	No	Yes	No	Yes	No
Page(s)	437	438	439	440	441	442	443	444	445, 446

For cutting data, see next page

Cutting data MTH-P001 (-A) – P011

SMG	V _c								
	MTH- P001	MTH- P001-A	MTH- P002	MTH- P002-A	MTH- P003	MTH- P003-A	MTH- P004	MTH- P004-A	MTH- P011
P1	—	—	—	—	55	55	55	55	55
	—	—	—	—	180	180	180	180	180
P2	—	—	—	—	55	55	55	55	55
	—	—	—	—	180	180	180	180	180
P3	—	—	—	—	45	45	45	45	45
	—	—	—	—	150	150	150	150	150
P4	—	—	—	—	40	40	40	40	40
	—	—	—	—	130	130	130	130	130
P5	—	—	—	—	38	38	38	38	38
	—	—	—	—	125	125	125	125	125
P6	—	—	—	—	43	43	43	43	43
	—	—	—	—	140	140	140	140	140
P7	—	—	—	—	40	40	40	40	40
	—	—	—	—	130	130	130	130	130
P8	—	—	—	—	38	38	38	38	38
	—	—	—	—	125	125	125	125	125
P11	—	—	—	—	39	39	39	39	39
	—	—	—	—	130	130	130	130	130
P12	—	—	—	—	23	23	23	23	23
	—	—	—	—	75	75	75	75	75
M1	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
M2	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
M4	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
M5	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K1	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—
H5	17	17	17	17	—	—	—	—	—
	55	55	55	55	—	—	—	—	—
H8	17	17	17	17	—	—	—	—	—
	55	55	55	55	—	—	—	—	—

SMG = Seco material group
V_c = m/min (sf/min)


Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

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Recommended ranges to use for each type of tap:

- K001-K002: +25% / -25%
- V015-V016: +15% / -15%
- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

Taps Selection MTP-P001 – MTP-P011

Tool type	MTP-P001 30-48 HRC	MTP-P002 30-48 HRC	MTP-P003	MTP-P003-A	MTP-P004	MTP-P004-A	MTP-P011
Thread type	M	M	M	M	M	M	MF
TCTR	6H	6H	5HX/6HX	6HX	6HX	6HX	6HX
ULDR	2.5	2.5	3	3	3	3	3
THCHT	B	B	B	B	B	B	B
BSG	SECO-DIN	DIN376	DIN371	DIN371	DIN376	DIN376	DIN374
Thread size	M3 - M10	M12 - M20	M1 - M10	M4 - M10	M4 - M30	M12 - M30	MF 4X0.5 - MF 30X2.0
							
Coolant	No	No	No	Yes	No	Yes	No
Page(s)	408	409	410	411	412	413	414, 415

For cutting data, see next page

Cutting data MTP-P001 – P011

SMG	V _c						
	MTP- P001	MTP- P002	MTP- P003	MTP- P003-A	MTP- P004	MTP- P004-A	MTP- P011
P1	—	—	60	60	60	60	60
	—	—	195	195	195	195	195
P2	—	—	60	60	60	60	60
	—	—	195	195	195	195	195
P3	—	—	50	50	50	50	50
	—	—	165	165	165	165	165
P4	—	—	45	45	45	45	45
	—	—	150	150	150	150	150
P5	—	—	43	43	43	43	43
	—	—	140	140	140	140	140
P6	—	—	48	48	48	48	48
	—	—	155	155	155	155	155
P7	—	—	46	46	46	46	46
	—	—	150	150	150	150	150
P8	—	—	43	43	43	43	43
	—	—	140	140	140	140	140
P11	—	—	44	44	44	44	44
	—	—	145	145	145	145	145
P12	—	—	26	26	26	26	26
	—	—	85	85	85	85	85
M1	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
M2	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
M4	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
M5	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K1	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—
	—	—	—	—	—	—	—
H5	17	17	—	—	—	—	—
	55	55	—	—	—	—	—
H8	17	17	—	—	—	—	—
	55	55	—	—	—	—	—

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- V001-V045: +15% / -15%
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- V053-V063: +15% / -15%

Taps Selection MTH-M003 (-A) – MTP-M004 (-A)

Tool type	MTH-M003	MTH-M003-A	MTH-M004	MTH-M004-A	MTP-M003-A	MTP-M004	MTP-M004-A
Thread type	M	M	M	M	M	M	M
TCTR	6H	6H	6H	6H	6H	6H	6H
ULDR	2.5	2.5	2.5	2.5	2.5	2.5	2.5
THCHT	C	C	C	C	B	B	B
BSG	DIN371	DIN371	DIN376	DIN376	DIN371	DIN376	DIN376
Thread size	M1.6 - M10	M4 - M10	M12 - M20	M12 - M20	M4 - M10	M12 - M20	M12 - M24
FHA	48°	48°	48°	48°	-	-	-
							
Coolant	No	Yes	No	Yes	Yes	No	Yes
Page(s)	447	448	449	450	416	417	418

For cutting data, see next page

Cutting data MTH-M003 (-A) – M004 (-A)

SMG	V _c						
	MTH- M003	MTH- M003-A	MTH- M004	MTH- M004-A	MTP- M003-A	MTP- M004	MTP- M004-A
P1	—	—	—	—	—	—	—
P2	—	—	—	—	—	—	—
P3	—	—	—	—	—	—	—
P4	—	—	—	—	—	—	—
P5	—	—	—	—	—	—	—
P6	—	—	—	—	—	—	—
P7	—	—	—	—	—	—	—
P8	—	—	—	—	—	—	—
P11	—	—	—	—	—	—	—
P12	—	—	—	—	—	—	—
M1	12 39	12 39	12 39	12 39	12 39	12 39	12 39
M2	10 33	10 33	10 33	10 33	10 33	10 33	10 33
M3	8 26	8 26	8 26	8 26	8 26	8 26	8 26
M4	6 20	6 20	6 20	6 20	6 20	6 20	6 20
M5	5 16	5 16	5 16	5 16	5 16	5 16	5 16
K1	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—
H5	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—

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V_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

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- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

Taps Selection MTH-N001 – MTP-N002 (-A)

Tool type	MTH-N001	MTH-N002	MTP-N001	MTP-N001-A	MTP-N002	MTP-N002-A
Thread type	M	M	M	M	M	M
TCTR	6H	6H	6H	6H	6H	6H
ULDR	1.5	1.5	3	3	3	3
THCHT	C	C	B	B	B	B
BSG	DIN371	DIN376	DIN371	DIN371	DIN376	DIN376
Thread size	M3 - M10	M12 - M16	M3 - M10	M4 - M10	M12 - M16	M12 - M16
FHA	15°	15°	-	-	-	-
						
Coolant	No	No	No	Yes	No	Yes
Page(s)	451	452	419	420	421	422

For cutting data, see next page

Cutting data MTH-N001 – N002 (-A)

SMG	V _c					
	MTH- N001	MTH- N002	MTP- N001	MTP- N001-A	MTP- N002	MTP- N002-A
P1	—	—	—	—	—	—
P2	—	—	—	—	—	—
P3	—	—	—	—	—	—
P4	—	—	—	—	—	—
P5	—	—	—	—	—	—
P6	—	—	—	—	—	—
P7	—	—	—	—	—	—
P8	—	—	—	—	—	—
P11	—	—	—	—	—	—
P12	—	—	—	—	—	—
M1	—	—	—	—	—	—
M2	—	—	—	—	—	—
M3	—	—	—	—	—	—
M4	—	—	—	—	—	—
M5	—	—	—	—	—	—
K1	—	—	—	—	—	—
K2	—	—	—	—	—	—
K3	—	—	—	—	—	—
K4	—	—	—	—	—	—
K5	—	—	—	—	—	—
K6	—	—	—	—	—	—
K7	—	—	—	—	—	—
N1	55 180	55 180	55 180	55 180	55 180	55 180
N2	35 115	35 115	35 115	35 115	35 115	35 115
N3	23 75	23 75	23 75	23 75	23 75	23 75
N11	31 100	31 100	31 100	31 100	31 100	31 100
H5	—	—	—	—	—	—
H8	—	—	—	—	—	—

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V_c = m/min (sf/min)









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- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

Taps Selection MTH-S001 – MTH-S032










Tool type	MTH-S001	MTH-S002	MTH-S003	MTH-S004	MTH-S011	MTH-S012	MTH-S031	MTH-S032
Thread type	M	M	M	M	MF	MJ	UNC	UNJC
TCTR	6HX	6HX	6HX	6HX	6HX	4H	2B	3B
ULDR	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
THCHT	C	C	C	C	C	C	C	C
BSG	DIN371	DIN371	DIN371	DIN371	DIN371	DIN371	DIN2184-1	DIN2184-1
Thread size	M3-M10	M12-M16	M3-M10	M12-M16	MF8X1-MF12X1,5	MJ3-MJ6	UNC2-56- UNC3/8-16	UNJC4-40- UNJC3/8-16
FHA	10°	10°	10°	10°	10°	10°	25°	10°
								
Coolant	No	No	No	No	No	No	No	No
Page(s)	453	454	455	456	457	458	459	460

For cutting data, see next page

Cutting data MTH-S001 – S032

SMG	V _c							
	MTH-S001	MTH-S002	MTH-S003	MTH-S004	MTH-S011	MTH-S012	MTH-S031	MTH-S032
Thread turning								
P1	—	—	—	—	—	—	—	—
P2	—	—	—	—	—	—	—	—
P3	—	—	—	—	—	—	—	—
P4	—	—	—	—	—	—	—	—
P5	—	—	—	—	—	—	—	—
P6	3 10	3 10	7 23	7 23	3 10	3 10	3 10	3 10
P7	3 10	3 10	7 23	7 23	3 10	3 10	3 10	3 10
P8	—	—	—	—	—	—	—	—
P11	3 10	3 10	6 20	6 20	3 10	3 10	3 10	3 10
P12	2 7	2 7	4 13	4 13	2 7	2 7	2 7	2 7
MDT								
M1	—	—	—	—	—	—	—	—
M2	—	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—	—
M4	—	—	—	—	—	—	2 7	—
M5	—	—	—	—	—	—	2 7	—
Mini-Shaft™								
K1	—	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—	—
Thread milling								
N1	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—
N3	16 50	16 50	25 80	25 80	16 50	16 50	—	16 50
N11	—	—	—	—	—	—	—	—
Thread tapping								
S1	2 7	2 7	4 13	4 13	2 7	2 7	2 7	2 7
S2	2 7	2 7	3 10	3 10	2 7	2 7	2 7	2 7
S3	2 7	2 7	3 10	3 10	2 7	2 7	2 7	2 7
S11	—	—	—	—	—	—	—	—
S12	—	—	—	—	—	—	—	—
S13	—	—	—	—	—	—	—	—
Annex								
H5	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—

Taps Selection MTH-S041 – MTH-S142








Tool type	MTH-S041	MTH-S042	MTH-S043	MTH-S044	MTH-S101	MTH-S102	MTH-S111	MTH-S112	MTH-S142
Thread type	UNF	UNJF	EGUNF	EGUNF	M	M	MF	MJ	UNJF
TCTR	3B	3B	3B	3B	6HX	6HX	6HX	4H	3B
ULDR	1.5	1.5	2.0	1.5	2.0	2.0	2.0	2.0	2.0
THCHT	C	C	C	C	C	C	C	C	C
BSG	DIN2184-1	DIN2184-1	DIN2184-1	DIN2184-1	DIN371	DIN376	DIN376	DIN371	DIN2184-1
Thread size	UNF6-40- UNF3/8-24	UNJF6-40-UN- JF3/8-24	EGUNF6-40- EGUNF3/8-24	EGUNF6-40- EGUNF3/8-24	M2-M10	M12-M20	MF6X0,75- MF14X1,5	MJ3-MJ10	UNJF10-32- UNJF3/8-24
FHA	25°	10°	15°	10°	15°	15°	15°	15°	15°
									
Coolant	No	No	No	No	No	No	No	No	No
Page(s)	461	462	463	464	465	466	467	468	469

For cutting data, see next page

Cutting data MTH-S041 – S142

SMG	V _c								
	MTH-S041	MTH-S042	MTH-S043	MTH-S044	MTH-S101	MTH-S102	MTH-S111	MTH-S112	MTH-S142
Thread turning									
P1	—	—	—	—	—	—	—	—	—
P2	—	—	—	—	—	—	—	—	—
P3	—	—	—	—	—	—	—	—	—
P4	—	—	—	—	—	—	—	—	—
P5	—	—	—	—	—	—	—	—	—
P6	3 10	3 10	7 23	3 10	7 23	7 23	7 23	7 23	7 23
P7	3 10	3 10	7 23	3 10	7 23	7 23	7 23	7 23	7 23
P8	—	—	—	—	—	—	—	—	—
P11	3 10	3 10	6 20	3 10	6 20	6 20	6 20	6 20	6 20
P12	2 7	2 7	4 13	2 7	4 13	4 13	4 13	4 13	4 13
MDT									
M1	—	—	—	—	—	—	—	—	—
M2	—	—	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—	—	—
M4	2 7	—	6 20	—	6 20	6 20	6 20	6 20	6 20
M5	2 7	—	5 16	—	5 16	5 16	5 16	5 16	5 16
Mini-Shaft™									
K1	—	—	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—	—	—
Thread milling									
N1	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—
N3	—	16 50	25 80	16 50	25 80	25 80	25 80	25 80	25 80
N11	—	—	—	—	—	—	—	—	—
Thread tapping									
S1	2 7	2 7	—	2 7	—	—	—	—	—
S2	2 7	2 7	—	2 7	—	—	—	—	—
S3	2 7	2 7	—	2 7	—	—	—	—	—
S11	—	—	5 16	—	5 16	5 16	5 16	5 16	5 16
S12	—	—	4 13	—	4 13	4 13	4 13	4 13	4 13
S13	—	—	3 10	—	3 10	3 10	3 10	3 10	3 10
Annex									
H5	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—

Taps Selection MTP-S001 – MTP-S043

Tool type	MTP-S001	MTP-S002	MTP-S011	MTP-S012	MTP-S013	MTP-S042	MTP-S043
Thread type	M	M	MF	MJ	EGM	UNFJ	EGUNF
TCTR	6HX	6HX	6HX	4H	4H	3B	3B
ULDR	2.0	2.0	2.0	2.0	2.0	2.0	2.0
THCHT	B	B	B	B	B	B	B
BSG	DIN371	DIN376	DIN371	DIN371	DIN40435	DIN2184-1	DIN2184-1
Thread size	M2-M10	M12-M20	MF6X0,75-MF14X1,5	MJ4-MJ8	EGM4-EGM8	UNJF10-32-UNJF3/8-24	EGUNF10-32-EGUNF3/8-24
FHA	-	-	-	-	-	-	-
							
Coolant	No	No	No	No	No	No	No
Page(s)	423	424	425	426	427	428	429

For cutting data, see next page

Cutting data MTP-S001 – S043

SMG	V _c						
	MTP-S001	MTP-S002	MTP-S011	MTP-S012	MTP-S013	MTP-S042	MTP-S043
Thread turning							
P1	—	—	—	—	—	—	—
P2	—	—	—	—	—	—	—
P3	—	—	—	—	—	—	—
P4	—	—	—	—	—	—	—
P5	—	—	—	—	—	—	—
P6	—	—	—	—	—	—	—
P7	—	—	—	—	—	—	—
P8	—	—	—	—	—	—	—
P11	—	—	—	—	—	—	—
P12	—	—	—	—	—	—	—
MDT							
M1	—	—	—	—	—	—	—
M2	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—
M4	6 20	6 20	6 20	6 20	2 7	6 20	2 7
M5	5 16	5 16	5 16	5 16	2 7	5 16	2 7
Mini-Shaft™							
K1	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—
Thread milling							
N1	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—
N3	25 80	25 80	25 80	25 80	16 50	25 80	16 50
N11	—	—	—	—	—	—	—
Thread tapping							
S1	4 13	4 13	4 13	4 13	4 13	4 13	4 13
S2	3 10	3 10	3 10	3 10	3 10	3 10	3 10
S3	3 10	3 10	3 10	3 10	3 10	3 10	3 10
S11	5 16	5 16	5 16	5 16	4 13	5 16	4 13
S12	4 13	4 13	4 13	4 13	3 10	4 13	3 10
S13	3 10	3 10	3 10	3 10	2 7	3 10	2 7
Annex							
H5	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—

Taps Selection MTS-K101 (-A) – MTS-K141

Tool type	MTS-K101	MTS-K101-A	MTS-K002	MTS-K002-A	MTS-K102	MTS-K102-A	MTS-K111	MTS-K121	MTS-K131	MTS-K141
Thread type	M	M	M	M	M	M	MF	G	UNC	UNF
TCTR	6HX	6HX	6HX	6HX	6HX	6HX	6HX	NORMAL-X	2BX	2BX
ULDR	2.5	2.5	2	2.5	2.5	2.5	2.5	2.5	2.5	2.5
THCHT	C	C/E	C	C/E	C	C/E	C	C	C	C
BSG	DIN371	DIN371	DIN376	DIN376	DIN376	DIN376	DIN374	DIN5156	DIN2184-1	DIN2184-1
Thread size	M3 - M10	M4 - M10	M27 - M42	M27 - M42	M8 - M24	M12 - M24	MF 10X1 - MF 20X1.5	G1/8-28 - G1-11	UNC 1/4-20 - UNC 7/8-9	UNF 1/4-28 - UNF 7/8-14
FHA	-	-	-	-	-	-	-	-	-	-
										
Coolant	No	Yes	No	Yes	No	Yes	No	No	No	No
Page(s)	487	488	489	490	491	492	493	494	495	496

For cutting data, see next page

Cutting data MTS-K101 – MTS-K141

SMG	V _c							
	MTS- K101	MTS- K101-A	MTS- K102	MTS- K102-A	MTS- K111	MTS- K121	MTS- K131	MTS- K141
P1	—	—	—	—	—	—	—	—
P2	—	—	—	—	—	—	—	—
P3	—	—	—	—	—	—	—	—
P4	—	—	—	—	—	—	—	—
P5	—	—	—	—	—	—	—	—
P6	—	—	—	—	—	—	—	—
P7	—	—	—	—	—	—	—	—
P8	—	—	—	—	—	—	—	—
P11	—	—	—	—	—	—	—	—
P12	—	—	—	—	—	—	—	—
M1	—	—	—	—	—	—	—	—
M2	—	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—	—
M4	—	—	—	—	—	—	—	—
M5	—	—	—	—	—	—	—	—
K1	85 280	85 280	85 280	85 280	85 280	85 280	85 280	85 280
K2	75 245	75 245	75 245	75 245	75 245	75 245	75 245	75 245
K3	65 215	65 215	65 215	65 215	65 215	65 215	65 215	65 215
K4	60 195	60 195	60 195	60 195	60 195	60 195	60 195	60 195
K5	36 120	36 120	36 120	36 120	36 120	36 120	36 120	36 120
K6	55 180	55 180	55 180	55 180	55 180	55 180	55 180	55 180
K7	46 150	46 150	46 150	46 150	46 150	46 150	46 150	46 150
N1	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—
N3	—	—	—	—	—	—	—	—
N11	—	—	—	—	—	—	—	—
H5	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—

SMG = Seco material group
V_c = m/min (sf/min)




Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

When running in 1,5xD increase speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%.
Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap:

- K001-K002: +25% / -25%
- V015-V016: +15% / -15%
- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

Taps Selection MTH-V011 – MTH-V030 (-A)

Tool type	MTH-V011	MTH-V015	MTH-V016	MTH-V025	MTH-V026	MTH-V029	MTH-V030	MTH-V030-A
Thread type	MF	M	M	M	M	M	M	M
TCTR	6HX	6H	6H	6H	6H	6G	6H	6H
ULDR	2	2	2	3	3	3	2.5	2.5
THCHT	C	C	C	C	C	C	C	C
BSG	DIN374	DIN371	DIN376	DIN371	DIN376	DIN376	DIN371	DIN371
Thread size	MF 8X0.75 - MF 24X2.0	M3 - M10	M12 - M36	M3 - M10	M12 - M20	M12 - M20	M2 - M10	M4 - M10
FHA	15°	15°	15°	45°	45°	45°	45°	45°
								
Coolant	No	No	No	No	No	No	No	Yes
Page(s)	470	471	472	473	474	475	476	477

For cutting data, see next page

Cutting data MTH-V011 – MTH-V030 (-A)

SMG	V _c							
	MTH- V011	MTH- V015	MTH- V016	MTH- V025	MTH- V026	MTH- V029	MTH- V030	MTH- V030-A
P1	40	40	40	40	40	40	40	40
	130	130	130	130	130	130	130	130
P2	39	39	39	39	39	39	39	39
	130	130	130	130	130	130	130	130
P3	33	33	33	33	33	33	33	33
	110	110	110	110	110	110	110	110
P4	29	29	29	29	29	29	29	29
	95	95	95	95	95	95	95	95
P5	28	28	28	28	28	28	28	28
	90	90	90	90	90	90	90	90
P6	31	31	31	31	31	31	31	31
	100	100	100	100	100	100	100	100
P7	30	30	30	30	30	30	30	30
	100	100	100	100	100	100	100	100
P8	28	28	28	28	28	28	28	28
	90	90	90	90	90	90	90	90
P11	29	29	29	29	29	29	29	29
	95	95	95	95	95	95	95	95
P12	17	17	17	17	17	17	17	17
	55	55	55	55	55	55	55	55
M1	9	9	9	9	9	9	9	9
	30	30	30	30	30	30	30	30
M2	7	7	7	7	7	7	7	7
	23	23	23	23	23	23	23	23
M3	5	5	5	5	5	5	5	5
	16	16	16	16	16	16	16	16
M4	4	4	4	4	4	4	4	4
	13	13	13	13	13	13	13	13
M5	3	3	3	3	3	3	3	3
	10	10	10	10	10	10	10	10
K1	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
N1	37	37	37	37	37	37	37	37
	120	120	120	120	120	120	120	120
N2	24	24	24	24	24	24	24	24
	80	80	80	80	80	80	80	80
N3	16	16	16	16	16	16	16	16
	50	50	50	50	50	50	50	50
N11	21	21	21	21	21	21	21	21
	70	70	70	70	70	70	70	70
H5	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—

SMG = Seco material group
V_c = m/min (sf/min)







Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

When running in 1,5xD increase speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%.
Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap:

- K001-K002: +25% / -25%
- V015-V016: +15% / -15%
- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

Taps Selection MTH-V033 (-A) – MTH-V045

Tool type	MTH-V033	MTH-V033-A	MTH-V038	MTH-V038-A	MTH-V043	MTH-V045
Thread type	M	M	MF	MF	UNF	G
TCTR	6H	6H	6H	6H	2B	NORMAL
ULDR	2.5	2.5	2.5	2.5	2.5	2.5
THCHT	C	C	C	C	C	C
BSG	DIN376	DIN376	DIN374	DIN374	DIN2184-1	DIN5156
Thread size	M6 - M64	M12 - M64	MF 4X0.5 - MF 30X2.0	MF 6X0.75 - MF 30X2.0	UNF 8-36 - UNF 1-12	G 1/8-28 - G11/2-11
FHA	45°	45°	45°	45°	45°	45°
						
Coolant	No	No	No	No	No	Yes
Page(s)	478	479	480	481, 482	483	484

For cutting data, see next page

Cutting data MTH-V033 (-A) – MTH-V045

SMG	V _c					
	MTH- V033	MTH- V033-A	MTH- V038	MTH- V038-A	MTH- V043	MTH- V045
P1	40	40	40	40	40	40
	130	130	130	130	130	130
P2	39	39	39	39	39	39
	130	130	130	130	130	130
P3	33	33	33	33	33	33
	110	110	110	110	110	110
P4	29	29	29	29	29	29
	95	95	95	95	95	95
P5	28	28	28	28	28	28
	90	90	90	90	90	90
P6	31	31	31	31	31	31
	100	100	100	100	100	100
P7	30	30	30	30	30	30
	100	100	100	100	100	100
P8	28	28	28	28	28	28
	90	90	90	90	90	90
P11	29	29	29	29	29	29
	95	95	95	95	95	95
P12	17	17	17	17	17	17
	55	55	55	55	55	55
M1	9	9	9	9	9	9
	30	30	30	30	30	30
M2	7	7	7	7	7	7
	23	23	23	23	23	23
M3	5	5	5	5	5	5
	16	16	16	16	16	16
M4	4	4	4	4	4	4
	13	13	13	13	13	13
M5	3	3	3	3	3	3
	10	10	10	10	10	10
K1	—	—	—	—	—	—
	—	—	—	—	—	—
K2	—	—	—	—	—	—
	—	—	—	—	—	—
K3	—	—	—	—	—	—
	—	—	—	—	—	—
K4	—	—	—	—	—	—
	—	—	—	—	—	—
K5	—	—	—	—	—	—
	—	—	—	—	—	—
K6	—	—	—	—	—	—
	—	—	—	—	—	—
K7	—	—	—	—	—	—
	—	—	—	—	—	—
N1	37	37	37	37	37	37
	120	120	120	120	120	120
N2	24	24	24	24	24	24
	80	80	80	80	80	80
N3	16	16	16	16	16	16
	50	50	50	50	50	50
N11	21	21	21	21	21	21
	70	70	70	70	70	70
H5	—	—	—	—	—	—
	—	—	—	—	—	—
H8	—	—	—	—	—	—
	—	—	—	—	—	—

SMG = Seco material group
V_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

When running in 1,5xD increase speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%.
Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap:

- K001-K002: +25% / -25%
- V015-V016: +15% / -15%
- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

Taps Selection MTP-V002 – MTP-V008 (-A)

Tool type	MTP-V002	MTP-V007	MTP-V007-A	MTP-V008	MTP-V008-A
Thread type	M	M	M	M	M
TCTR	6H	6H	6H	6H	6H
ULDR	3	2.5	2.5	2.5	2.5
THCHT	B	B	B	B	B
BSG	DIN376	DIN371	DIN371	DIN376	DIN376
Thread size	M12 - M20	M2 - M10	M4 - M10	M3 - M36	M12 - M36
FHA	-	-	-	-	-
					
Coolant	No	No	Yes	No	Yes
Page(s)	430	431	432	433	434

For cutting data, see next page

Cutting data MTP-V002 – MTP-V008 (-A)

SMG	V _c				
	MTP- V002	MTP- V005	MTP- V007-A	MTP- V008	MTP- V008-A
P1	40	40	40	40	40
	130	130	130	130	130
P2	39	39	39	39	39
	130	130	130	130	130
P3	33	33	33	33	33
	110	110	110	110	110
P4	29	29	29	29	29
	95	95	95	95	95
P5	28	28	28	28	28
	90	90	90	90	90
P6	31	31	31	31	31
	100	100	100	100	100
P7	30	30	30	30	30
	100	100	100	100	100
P8	28	28	28	28	28
	90	90	90	90	90
P11	29	29	29	29	29
	95	95	95	95	95
P12	17	17	17	17	17
	55	55	55	55	55
M1	9	9	9	9	9
	30	30	30	30	30
M2	7	7	7	7	7
	23	23	23	23	23
M3	5	5	5	5	5
	16	16	16	16	16
M4	4	4	4	4	4
	13	13	13	13	13
M5	3	3	3	3	3
	10	10	10	10	10
K1	—	—	—	—	—
	—	—	—	—	—
K2	—	—	—	—	—
	—	—	—	—	—
K3	—	—	—	—	—
	—	—	—	—	—
K4	—	—	—	—	—
	—	—	—	—	—
K5	—	—	—	—	—
	—	—	—	—	—
K6	—	—	—	—	—
	—	—	—	—	—
K7	—	—	—	—	—
	—	—	—	—	—
N1	37	37	37	37	37
	120	120	120	120	120
N2	24	24	24	24	24
	80	80	80	80	80
N3	16	16	16	16	16
	50	50	50	50	50
N11	21	21	21	21	21
	70	70	70	70	70
H5	—	—	—	—	—
	—	—	—	—	—
H8	—	—	—	—	—
	—	—	—	—	—

SMG = Seco material group
V_c = m/min (sf/min)



Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

When running in 1,5xD increase speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%.
Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap:

- K001-K002: +25% / -25%
- V015-V016: +15% / -15%
- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

Taps Selection MTP-V014 (-A) – MTP-V023

Tool type	MTP-V014	MTP-V014-A
Thread type	MF	MF
TCTR	6H	6H
ULDR	2.5	2.5
THCHT	B	B
BSG	DIN374	DIN374
Thread size	MF 4X0.5 - MF 30X2.0	MF 6X0.75 - MF 24X2.0
FHA	-	-
		
Coolant	No	Yes
Page(s)	435	436

For cutting data, see next page

Cutting data MTP-V014 (-A) – MTP-V023

SMG	V _c			
	MTP- V014	MTP- V014-A		
Thread turning	P1	40 130	40 130	
	P2	39 130	39 130	
	P3	33 110	33 110	
	P4	29 95	29 95	
	P5	28 90	28 90	
	P6	31 100	31 100	
	P7	30 100	30 100	
	P8	28 90	28 90	
	P11	29 95	29 95	
	P12	17 55	17 55	
	MDT	M1	9 30	9 30
		M2	7 23	7 23
M3		5 16	5 16	
M4		4 13	4 13	
M5		3 10	3 10	
Mini-Shaft™	K1	—	—	
	K2	—	—	
	K3	—	—	
	K4	—	—	
	K5	—	—	
	K6	—	—	
	K7	—	—	
Thread milling	N1	37 120	37 120	
	N2	24 80	24 80	
	N3	16 50	16 50	
	N11	21 70	21 70	
	H5	—	—	
	H8	—	—	
	Thread tapping			

SMG = Seco material group
V_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

When running in 1,5xD increase speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%.
Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap:

- K001-K002: +25% / -25%
- V015-V016: +15% / -15%
- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

Taps Selection MTH-V048 – MTH-V050

Tool type	MTH-V048	MTH-V050
Thread type	NPT	NPTF
TCTR	NORMAL	NORMAL
ULDR	1.5	1.5
THCHT	C	C
BSG	DIN/ANSI	DIN/ANSI
Thread size	NPT 1/16-27 NPT 1-11.5	NPTF 1/16-27 NPTF 3/4-14
FHA	15°	15°
		
Coolant	No	No
Page(s)	485	486

For cutting data, see next page

Cutting data MTH-V048 – V050

SMG	V _c	
	MTH- V048	MTH- V050
P1	11	11
	36	36
P2	11	11
	36	36
P3	10	10
	33	33
P4	8	8
	26	26
P5	8	8
	26	26
P6	9	9
	30	30
P7	8	8
	26	26
P8	8	8
	26	26
P11	8	8
	26	26
P12	5	5
	16	16
M1	9	9
	30	30
M2	7	7
	23	23
M3	5	5
	16	16
M4	4	4
	13	13
M5	3	3
	10	10
K1	14	14
	46	46
K2	12	12
	39	39
K3	10	10
	33	33
K4	10	10
	33	33
K5	6	6
	20	20
K6	9	9
	30	30
K7	8	8
	26	26
N1	23	23
	75	75
N2	15	15
	49	49
N3	10	10
	33	33
N11	13	13
	43	43
H5	—	—
H8	—	—

SMG = Seco material group
v_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

When running in 1,5xD increase speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%.
Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap:

- K001-K002: +25% / -25%
- V015-V016: +15% / -15%
- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

Taps Selection MF-V053 – MF-V063 (-A)

Tool type	MF-V054	MF-V055	MF-V056	MF-V057	MF-V058	MF-V060-A	MF-V063	MF-V063-A
Thread type	M	M	UNC	UNF	M	M	MF	MF
TCTR	5HX/6HX	6HX	2BX	2BX	6GX	6HX	6HX	6HX
ULDR	3	3	3	3	3	3	3	3
THCHT	C	C	C	C	C	C	C	C
BSG	DIN2174	DIN2174	DIN2184-1	DIN2184-1	DIN2174	DIN2174	DIN2174	DIN2174
Thread size	M1 - M2.6	M3 - M48	UNC 4-40 - UNC 1-8	UNF 10-32 - UNF 1-12	M3 - M12	M5 - M48	MF 5X0.5 - MF 16X1.5	MF 5X0.5 - MF 16X1.5
FHA	-	-	-	-	-	-	-	-
								
Coolant	No	No	No	No	No	Yes	No	Yes
Page(s)	497	498	499	500	501	502	503	504

For cutting data, see next page

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Cutting data MF-V053 – MF-V063 (-A)

SMG	V _c							
	MF- V054	MF- V055	MF- V056	MF- V057	MF- V058	MF- V060	MF- V063	MF- V063-A
P1	55	55	55	55	55	55	55	55
	180	180	180	180	180	180	180	180
P2	55	55	55	55	55	55	55	55
	180	180	180	180	180	180	180	180
P3	48	48	48	48	48	48	48	48
	155	155	155	155	155	155	155	155
P4	42	42	42	42	42	42	42	42
	140	140	140	140	140	140	140	140
P5	40	40	40	40	40	40	40	40
	130	130	130	130	130	130	130	130
P6	45	45	45	45	45	45	45	45
	150	150	150	150	150	150	150	150
P7	42	42	42	42	42	42	42	42
	140	140	140	140	140	140	140	140
P8	40	40	40	40	40	40	40	40
	130	130	130	130	130	130	130	130
P11	41	41	41	41	41	41	41	41
	135	135	135	135	135	135	135	135
P12	24	24	24	24	24	24	24	24
	80	80	80	80	80	80	80	80
M1	17	17	17	17	17	17	17	17
	55	55	55	55	55	55	55	55
M2	14	14	14	14	14	14	14	14
	46	46	46	46	46	46	46	46
M3	11	11	11	11	11	11	11	11
	36	36	36	36	36	36	36	36
M4	8	8	8	8	8	8	8	8
	26	26	26	26	26	26	26	26
M5	7	7	7	7	7	7	7	7
	23	23	23	23	23	23	23	23
K1	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
N1	55	55	55	55	55	55	55	55
	180	180	180	180	180	180	180	180
N2	35	35	35	35	35	35	35	35
	115	115	115	115	115	115	115	115
N3	23	23	23	23	23	23	23	23
	75	75	75	75	75	75	75	75
N11	31	31	31	31	31	31	31	31
	100	100	100	100	100	100	100	100
H5	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—

SMG = Seco material group
V_c = m/min (sf/min)

Cutting speeds (V_c) in the table are recommendations for a start value and calculated when running in 2xD, except for V048, V050 and MTH-S (001, 002, 003, 004, 011, 012, 031, 032, 041, 042 and 044) that are calculated from 1,5xD.

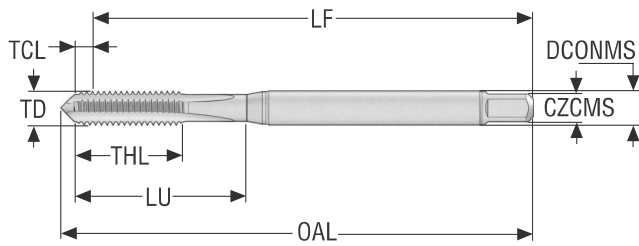
When running in 1,5xD increase speed by 20% and at 2,5 x D reduce speed by 20%. At 3 x D reduce by 30%.
Due to machine, material and setup condition it is advisable also to optimize cutting data.

Recommended ranges to use for each type of tap:

- K001-K002: +25% / -25%
- V015-V016: +15% / -15%
- V001-V045: +15% / -15%
- V048-V050: +35% / -35%
- V053-V063: +15% / -15%

T32-SNC-micro

Blind and through holes – Metric coarse threads



- Substrate: HSS-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 4H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T32-SN01C03-1X0.25-41R	10139661	M1	0,25	0,68 0.027	6,0 0.236	13 0.512	39,32 1.548	40,9 1.610	2,5 0.098	2.50X2.10	0,75 0.030	2	C
T32-SN01C03-1.1X0.25-41R	10139662	M1.1	0,25	0,68 0.027	6,0 0.236	13 0.512	39,32 1.548	41,0 1.614	2,5 0.098	2.50X2.10	0,85 0.033	2	C
T32-SN01C03-1.2X0.25-41R	10139663	M1.2	0,25	0,68 0.027	6,0 0.236	13 0.512	39,32 1.548	41,1 1.618	2,5 0.098	2.50X2.10	0,95 0.037	2	C
T32-SN01C03-1.4X0.3-41R	10139664	M1.4	0,3	0,79 0.031	7,0 0.276	13 0.512	39,21 1.544	41,3 1.626	2,5 0.098	2.50X2.10	1,1 0.043	2	C

Thread turning

MDT

Mini-Shaft™

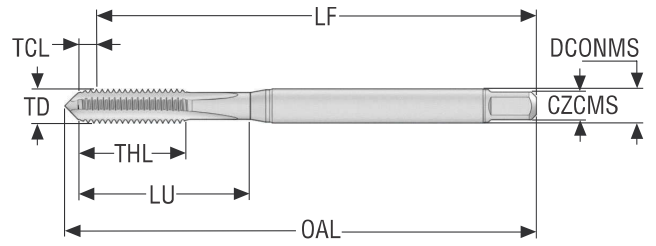
Thread milling

Thread tapping

Annex

T32-SNC-micro

Blind and through holes – Metric coarse threads

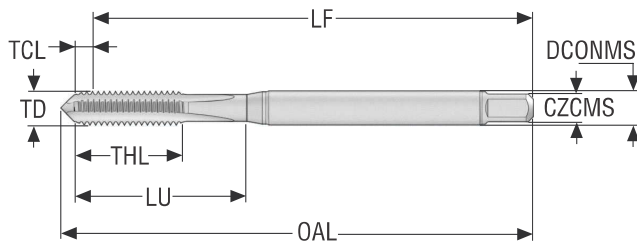


- Substrate: HSS-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-SN01C03-1.6X0.35-63R	10139665	M1.6	0,35	0,92 <i>0.036</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,08 <i>1.539</i>	41,4 <i>1.630</i>	2,5 <i>0.098</i>	2.50X2.10	1,25 <i>0.049</i>	2	C
T32-SN01C03-1.7X0.35-63R	10139666	M1.7	0,35	0,92 <i>0.036</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,08 <i>1.539</i>	41,5 <i>1.634</i>	2,5 <i>0.098</i>	2.50X2.10	1,35 <i>0.053</i>	2	C
T32-SN01C03-1.8X0.35-63R	10139667	M1.8	0,35	0,92 <i>0.036</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,08 <i>1.539</i>	41,6 <i>1.638</i>	2,5 <i>0.098</i>	2.50X2.10	1,45 <i>0.057</i>	2	C
T32-SN01C03-2X0.4-63R	10139668	M2	0,4	1,13 <i>0.044</i>	10,0 <i>0.394</i>	13 <i>0.512</i>	43,87 <i>1.727</i>	46,3 <i>1.823</i>	2,8 <i>0.110</i>	2.80X2.10	1,6 <i>0.063</i>	2	C
T32-SN01C03-2.2X0.45-63R	10139669	M2.2	0,45	1,24 <i>0.049</i>	10,0 <i>0.394</i>	13 <i>0.512</i>	43,76 <i>1.723</i>	46,3 <i>1.823</i>	2,8 <i>0.110</i>	2.80X2.10	1,75 <i>0.069</i>	2	C
T32-SN01C03-2.3X0.4-63R	10139670	M2.3	0,4	1,13 <i>0.044</i>	10,0 <i>0.394</i>	13 <i>0.512</i>	43,87 <i>1.727</i>	46,3 <i>1.823</i>	2,8 <i>0.110</i>	2.80X2.10	1,9 <i>0.075</i>	2	C
T32-SN01C03-2.5X0.45-63R	10139672	M2.5	0,45	1,24 <i>0.049</i>	9,0 <i>0.354</i>	14 <i>0.551</i>	48,76 <i>1.920</i>	51,7 <i>2.035</i>	2,8 <i>0.110</i>	2.80X2.10	2,05 <i>0.081</i>	2	C
T32-SN01C03-2.6X0.45-63R	10139673	M2.6	0,45	1,24 <i>0.049</i>	9,0 <i>0.354</i>	14 <i>0.551</i>	48,76 <i>1.920</i>	51,7 <i>2.035</i>	2,8 <i>0.110</i>	2.80X2.10	2,15 <i>0.085</i>	2	C

T32-SNC

Blind and through holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T32-SN01C03-3X0.5-63R	10139674	M3	0,5	1,1 0.043	10,0 0.394	18 0.709	54,9 2.161	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	C
T32-SN01C03-3.5X0.6-63R	10139675	M3.5	0,6	1,28 0.050	12,0 0.472	20 0.787	54,72 2.154	57,4 2.260	4,0 0.157	4.00X3.00	2,9 0.114	3	C
T32-SN01C03-4X0.7-63R	10139676	M4	0,7	1,61 0.063	12,0 0.472	21 0.827	61,39 2.417	64,6 2.543	4,5 0.177	4.50X3.40	3,3 0.130	3	C
T32-SN01C03-4.5X0.75-63R	10139677	M4.5	0,75	1,61 0.063	14,0 0.551	25 0.984	68,39 2.693	71,8 2.827	6,0 0.236	6.00X4.90	3,8 0.150	3	C
T32-SN01C03-5X0.8-63R	10139678	M5	0,8	1,78 0.070	14,0 0.551	25 0.984	68,22 2.686	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	C
T32-SN01C03-6X1-63R	10139679	M6	1,0	2,14 0.084	18,0 0.709	30 1.181	77,86 3.065	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	3	C
T32-SN01C03-7X1-63R	10139680	M7	1,0	2,14 0.084	18,0 0.709	30 1.181	77,86 3.065	82,9 3.264	7,0 0.276	7.00X5.50	6,0 0.236	3	C
T32-SN01C03-8X1.25-63R	10139681	M8	1,25	2,94 0.116	20,0 0.787	35 1.378	87,06 3.428	93,3 3.673	8,0 0.315	8.00X6.20	6,8 0.268	3	C
T32-SN01C03-9X1.25-63R	10139682	M9	1,25	2,94 0.116	20,0 0.787	35 1.378	87,06 3.428	91,7 3.610	9,0 0.354	9.00X7.00	7,8 0.307	3	C
T32-SN01C03-10X1.5-63R	10139683	M10	1,5	3,55 0.140	20,0 0.787	39 1.535	96,45 3.797	101,8 4.008	10,0 0.394	10.00X8.00	8,5 0.335	3	C

Thread turning

MDT

Mini-Shaft™

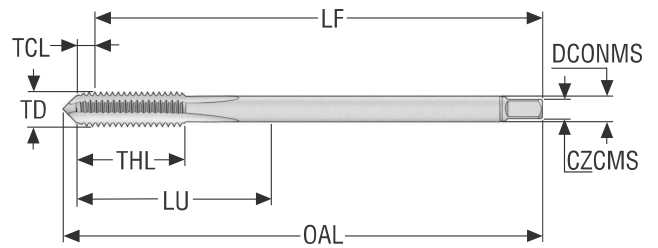
Thread milling

Thread tapping

Annex

T32-SNC

Blind and through holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAIN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	
T32-SN01C06-3X0.5-63R	10139694	M3	0,5	1,1 <i>0.043</i>	11,0 <i>0.433</i>	36 <i>1.417</i>	54,9 <i>2.161</i>	57,2 <i>2.252</i>	2,2 <i>0.087</i>	2.20X1.80	2,5 <i>0.098</i>	3	C
T32-SN01C06-4X0.7-63R	10139696	M4	0,7	1,61 <i>0.063</i>	12,0 <i>0.472</i>	43 <i>1.693</i>	61,39 <i>2.417</i>	64,6 <i>2.543</i>	2,8 <i>0.110</i>	2.80X2.10	3,3 <i>0.130</i>	3	C
T32-SN01C06-5X0.8-63R	10139697	M5	0,8	1,78 <i>0.070</i>	14,0 <i>0.551</i>	49 <i>1.929</i>	68,22 <i>2.686</i>	72,0 <i>2.835</i>	3,5 <i>0.138</i>	3.50X2.70	4,2 <i>0.165</i>	3	C
T32-SN01C06-6X1-63R	10139698	M6	1,0	2,14 <i>0.084</i>	18,0 <i>0.709</i>	59 <i>2.323</i>	77,86 <i>3.065</i>	82,4 <i>3.244</i>	4,5 <i>0.177</i>	4.50X3.40	5,0 <i>0.197</i>	3	C

Thread turning

MDT

Mini-Shaft™

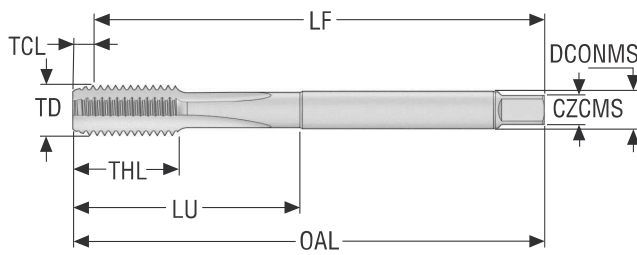
Thread milling

Thread tapping

Annex

T32-SNC

Blind and through holes – Metric coarse threads

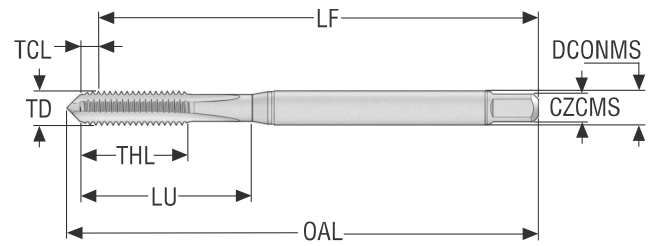


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T32-SN01C06-8X1.25-63R	10139700	M8	1,25	2,94 0.116	20,0 0.787	67 2.638	87,06 3.428	90,0 3.543	6,0 0.236	6.00X4.90	6,8 0.268	3	C
T32-SN01C06-10X1.5-63R	10139702	M10	1,5	3,55 0.140	20,0 0.787	77 3.031	96,45 3.797	100,0 3.937	7,0 0.276	7.00X5.50	8,5 0.335	3	C
T32-SN01C06-12X1.75-63R	10139703	M12	1,75	4,17 0.164	24,0 0.945	83 3.268	105,83 4.167	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	C
T32-SN01C06-14X2-63R	10139704	M14	2,0	4,78 0.188	25,0 0.984	81 3.189	105,22 4.143	110,0 4.331	11,0 0.433	11.00X9.00	12,0 0.472	4	C
T32-SN01C06-16X2-63R	10139705	M16	2,0	4,88 0.192	32,0 1.260	68 2.677	105,12 4.139	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	4	C
T32-SN01C06-18X2.5-63R	10139706	M18	2,5	5,97 0.235	32,0 1.260	81 3.189	119,03 4.686	125,0 4.921	14,0 0.551	14.00X11.00	15,5 0.610	4	C
T32-SN01C06-20X2.5-63R	10139707	M20	2,5	6,17 0.243	32,0 1.260	95 3.740	133,83 5.269	140,0 5.512	16,0 0.630	16.00X12.00	17,5 0.689	4	C
T32-SN01C06-22X2.5-63R	10139708	M22	2,5	6,17 0.243	32,0 1.260	93 3.661	133,83 5.269	140,0 5.512	18,0 0.709	18.00X14.50	19,5 0.768	4	C
T32-SN01C06-24X3-63R	10139709	M24	3,0	7,4 0.291	38,0 1.496	113 4.449	152,6 6.008	160,0 6.299	18,0 0.709	18.00X14.50	21,0 0.827	4	C
T32-SN01C06-27X3-63R	10139710	M27	3,0	7,4 0.291	38,0 1.496	97 3.819	152,6 6.008	160,0 6.299	20,0 0.787	20.00X16.00	24,0 0.945	4	C
T32-SN01C06-30X3.5-63R	10139711	M30	3,5	8,4 0.331	45,0 1.772	115 4.528	171,6 6.756	180,0 7.087	22,0 0.866	22.00X18.00	26,5 1.043	4	C
T32-SN01C06-33X3.5-63R	10139712	M33	3,5	8,4 0.331	45,0 1.772	113 4.449	171,6 6.756	180,0 7.087	25,0 0.984	25.00X20.00	29,5 1.161	4	C
T32-SN01C06-36X4-63R	10139713	M36	4,0	9,4 0.370	50,0 1.969	131 5.157	190,6 7.504	200,0 7.874	28,0 1.102	28.00X22.00	32,0 1.260	4	C
T32-SN01C06-39X4-63R	10139714	M39	4,0	9,4 0.370	50,0 1.969	102 4.016	190,6 7.504	200,0 7.874	32,0 1.260	32.00X24.00	35,0 1.378	4	C
T32-SN01C06-42X4.5-63R	10139715	M42	4,5	10,4 0.409	60,0 2.362	102 4.016	189,6 7.465	200,0 7.874	32,0 1.260	32.00X24.00	37,5 1.476	5	C
T32-SN01C06-45X4.5-63R	10139716	M45	4,5	10,42 0.410	60,0 2.362	117 4.606	209,58 8.251	220,0 8.661	36,0 1.417	36.00X29.00	40,5 1.594	5	C
T32-SN01C06-48X5-63R	10139717	M48	5,0	11,4 0.449	65,0 2.559	147 5.787	238,6 9.394	250,0 9.843	36,0 1.417	36.00X29.00	43,0 1.693	5	C
T32-SN01C06-52X5-63R	10139718	M52	5,0	11,4 0.449	65,0 2.559	120 4.724	238,6 9.394	250,0 9.843	40,0 1.575	40.00X32.00	47,0 1.850	5	C

T32-SNC

Blind and through holes – Metric coarse threads, left hand thread

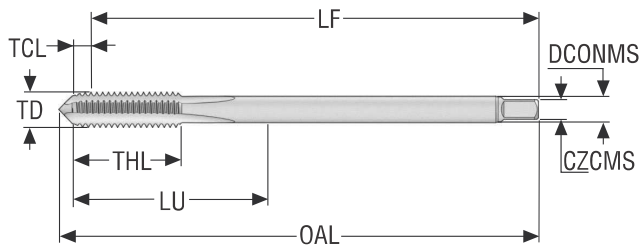


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch
T32-SN01C03-3X0.5-63L	10139686	M3	0,5	1,1 0.043	10,0 0.394	18 0.709	54,9 2.161	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	C
T32-SN01C03-4X0.7-63L	10139687	M4	0,7	1,61 0.063	12,0 0.472	21 0.827	61,39 2.417	64,6 2.543	4,5 0.177	4.50X3.40	3,3 0.130	3	C
T32-SN01C03-5X0.8-63L	10139688	M5	0,8	1,78 0.070	14,0 0.551	25 0.984	68,22 2.686	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	C
T32-SN01C03-6X1-63L	10139689	M6	1,0	2,14 0.084	18,0 0.709	30 1.181	77,86 3.065	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	3	C
T32-SN01C03-7X1-63L	10139690	M7	1,0	2,14 0.084	18,0 0.709	30 1.181	77,86 3.065	82,9 3.264	7,0 0.276	7.00X5.50	6,0 0.236	3	C
T32-SN01C03-8X1.25-63L	10139691	M8	1,25	2,94 0.116	20,0 0.787	35 1.378	87,06 3.428	93,3 3.673	8,0 0.315	8.00X6.20	6,8 0.268	3	C
T32-SN01C03-9X1.25-63L	10139692	M9	1,25	2,94 0.116	20,0 0.787	35 1.378	87,06 3.428	91,7 3.610	9,0 0.354	9.00X7.00	7,8 0.307	3	C
T32-SN01C03-10X1.5-63L	10139693	M10	1,5	3,55 0.140	20,0 0.787	39 1.535	96,45 3.797	101,8 4.008	10,0 0.394	10.00X8.00	8,5 0.335	3	C

T32-SNC

Blind and through holes – Metric coarse threads, left hand thread

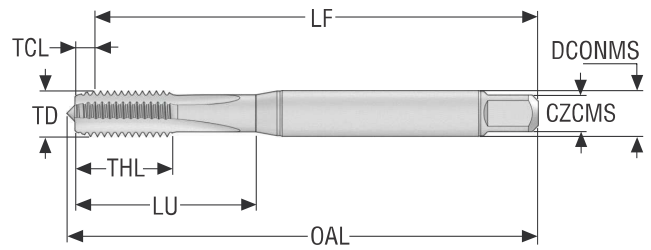


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-SN01C06-12X1.75-63L	10139751	M12	1,75	4,17 0.164	24,0 0.945	83 3.268	105,83 4.167	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	C
T32-SN01C06-16X2-63L	10139752	M16	2,0	4,88 0.192	32,0 1.260	68 2.677	105,12 4.139	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	4	C
T32-SN01C06-20X2.5-63L	10139753	M20	2,5	6,17 0.243	32,0 1.260	95 3.740	133,83 5.269	140,0 5.512	16,0 0.630	16.00X12.00	17,5 0.689	4	C
T32-SN01C06-24X3-63L	10139754	M24	3,0	7,4 0.291	38,0 1.496	113 4.449	152,6 6.008	160,0 6.299	18,0 0.709	18.00X14.50	21,0 0.827	4	C

T32-SNC

Blind and through holes – MF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T32-SN02C03-8X1-63R	10139684	MF8X1	1,0	2,44 0.096	20,0 0.787	35 1.378	87,56 3.447	93,3 3.673	8,0 0.315	8.00X6.20	7,0 0.276	3	C
T32-SN02C03-10X1-63R	10139685	MF10X1	1,0	2,54 0.100	20,0 0.787	35 1.378	87,46 3.443	91,8 3.614	10,0 0.394	10.00X8.00	9,0 0.354	3	C

Thread turning

MDT

Mini-Shaft™

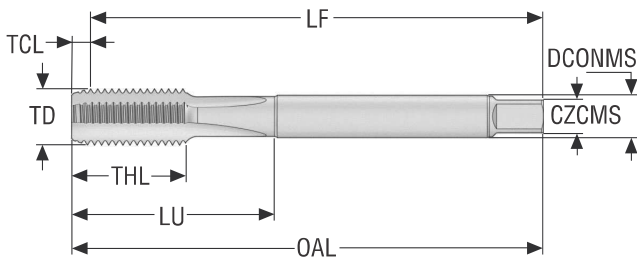
Thread milling

Thread tapping

Annex

T32-SNC

Blind and through holes – MF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T32-SN02C05-8X1-63R	10139719	MF8X1	1,0	2,44 0.096	20,0 0.787	67 2.638	87,56 3.447	90,0 3.543	6,0 0.236	6.00X4.90	7,0 0.276	3	C
T32-SN02C05-10X0.75-63R	10139720	MF10X0.75	0,75	3,43 0.135	18,0 0.709	67 2.638	86,57 3.408	90,0 3.543	7,0 0.276	7.00X5.50	9,2 0.362	3	C
T32-SN02C05-10X1-63R	10139721	MF10X1	1,0	2,54 0.100	20,0 0.787	67 2.638	87,46 3.443	90,0 3.543	7,0 0.276	7.00X5.50	9,0 0.354	3	C
T32-SN02C05-10X1.25-63R	10139722	MF10X1.25	1,25	3,04 0.120	20,0 0.787	77 3.031	96,96 3.817	100,0 3.937	7,0 0.276	7.00X5.50	8,8 0.346	3	C
T32-SN02C05-12X1-63R	10139723	MF12X1	1,0	2,65 0.104	20,0 0.787	73 2.874	97,35 3.833	100,0 3.937	9,0 0.354	9.00X7.00	11,0 0.433	3	C
T32-SN02C05-12X1.25-63R	10139724	MF12X1.25	1,25	3,16 0.124	20,0 0.787	73 2.874	96,84 3.813	100,0 3.937	9,0 0.354	9.00X7.00	10,8 0.425	3	C
T32-SN02C05-12X1.5-63R	10139725	MF12X1.5	1,5	3,66 0.144	20,0 0.787	73 2.874	96,34 3.793	100,0 3.937	9,0 0.354	9.00X7.00	10,5 0.413	3	C
T32-SN02C05-14X1-63R	10139726	MF14X1	1,0	2,75 0.108	20,0 0.787	71 2.795	97,25 3.829	100,0 3.937	11,0 0.433	11.00X9.00	13,0 0.512	4	C
T32-SN02C05-14X1.25-63R	10139727	MF14X1.25	1,25	3,26 0.128	20,0 0.787	71 2.795	96,74 3.809	100,0 3.937	11,0 0.433	11.00X9.00	12,8 0.504	4	C
T32-SN02C05-14X1.5-63R	10139728	MF14X1.5	1,5	3,76 0.148	20,0 0.787	71 2.795	96,24 3.789	100,0 3.937	11,0 0.433	11.00X9.00	12,5 0.492	4	C
T32-SN02C05-16X1-63R	10139729	MF16X1	1,0	2,85 0.112	20,0 0.787	58 2.283	97,15 3.825	100,0 3.937	12,0 0.472	12.00X9.00	15,0 0.591	4	C
T32-SN02C05-16X1.5-63R	10139730	MF16X1.5	1,5	3,86 0.152	20,0 0.787	58 2.283	96,14 3.785	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	4	C
T32-SN02C05-18X1.5-63R	10139731	MF18X1.5	1,5	3,96 0.156	24,0 0.945	66 2.598	106,04 4.175	110,0 4.331	14,0 0.551	14.00X11.00	16,5 0.650	4	C
T32-SN02C05-18X2-63R	10139732	MF18X2	2,0	4,98 0.196	27,0 1.063	81 3.189	120,02 4.725	125,0 4.921	14,0 0.551	14.00X11.00	16,0 0.630	4	C
T32-SN02C05-20X1.5-63R	10139733	MF20X1.5	1,5	4,16 0.164	24,0 0.945	80 3.150	120,84 4.757	125,0 4.921	16,0 0.630	16.00X12.00	18,5 0.728	4	C
T32-SN02C05-20X2-63R	10139734	MF20X2	2,0	5,18 0.204	27,0 1.063	95 3.740	134,82 5.308	140,0 5.512	16,0 0.630	16.00X12.00	18,0 0.709	4	C
T32-SN02C05-22X1.5-63R	10139735	MF22X1.5	1,5	4,16 0.164	24,0 0.945	78 3.071	120,84 4.757	125,0 4.921	18,0 0.709	18.00X14.50	20,5 0.807	4	C
T32-SN02C05-22X2-63R	10139736	MF22X2	2,0	5,18 0.204	27,0 1.063	93 3.661	134,82 5.308	140,0 5.512	18,0 0.709	18.00X14.50	20,0 0.787	4	C
T32-SN02C05-24X1.5-63R	10139737	MF24X1.5	1,5	3,88 0.153	27,0 1.063	93 3.661	136,12 5.359	140,0 5.512	18,0 0.709	18.00X14.50	22,5 0.886	4	C
T32-SN02C05-24X2-63R	10139738	MF24X2	2,0	4,89 0.193	27,0 1.063	93 3.661	135,11 5.319	140,0 5.512	18,0 0.709	18.00X14.50	22,0 0.866	4	C
T32-SN02C05-27X1.5-63R	10139739	MF27X1.5	1,5	4,38 0.172	27,0 1.063	77 3.031	135,62 5.339	140,0 5.512	20,0 0.787	20.00X16.00	25,5 1.004	4	C

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-SN02C05-27X2-63R	10139740	MF27X2	2,0	5,39 <i>0.212</i>	27,0 <i>1.063</i>	77 <i>3.031</i>	134,61 <i>5.300</i>	140,0 <i>5.512</i>	20,0 <i>0.787</i>	20.00X16.00	25,0 <i>0.984</i>	4	C
T32-SN02C05-30X1.5-63R	10139741	MF30X1.5	1,5	4,38 <i>0.172</i>	27,0 <i>1.063</i>	85 <i>3.346</i>	145,62 <i>5.733</i>	150,0 <i>5.906</i>	22,0 <i>0.866</i>	22.00X18.00	28,5 <i>1.122</i>	4	C
T32-SN02C05-30X2-63R	10139742	MF30X2	2,0	5,39 <i>0.212</i>	27,0 <i>1.063</i>	85 <i>3.346</i>	144,61 <i>5.693</i>	150,0 <i>5.906</i>	22,0 <i>0.866</i>	22.00X18.00	28,0 <i>1.102</i>	4	C

Thread turning

MDT

Mini-Shaft™

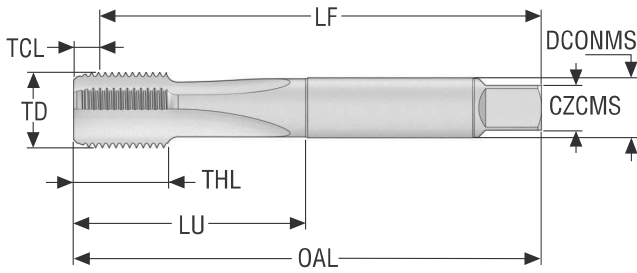
Thread milling

Thread tapping

Annex

T32-SNC

Blind and through holes – G threads

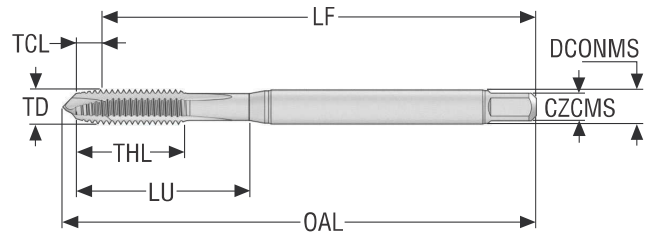


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T32-SN21C09-1/8-28-11R	10139743	G1/8	9,728 0.383	28.0	2,43 0.096	18,0 0.709	67 2.638	87,57 3.448	90,0 3.543	7,0 0.276	7.00X5.50	8,8 0.346	3	C
T32-SN21C09-1/4-19-11R	10139744	G1/4	13,157 0.518	19.0	3,52 0.139	22,0 0.866	71 2.795	96,48 3.798	100,0 3.937	11,0 0.433	11.00X9.00	11,8 0.465	4	C
T32-SN21C09-3/8-19-11R	10139745	G3/8	16,662 0.656	19.0	3,72 0.146	22,0 0.866	58 2.283	96,28 3.791	100,0 3.937	12,0 0.472	12.00X9.00	15,25 0.600	4	C
T32-SN21C09-1/2-14-11R	10139746	G1/2	20,955 0.825	14.0	5,02 0.198	25,0 0.984	80 3.150	119,98 4.724	125,0 4.921	16,0 0.630	16.00X12.00	19,0 0.748	4	C
T32-SN21C09-5/8-14-11R	10139747	G5/8	22,911 0.902	14.0	4,94 0.194	25,0 0.984	78 3.071	120,06 4.727	125,0 4.921	18,0 0.709	18.00X14.50	21,0 0.827	4	C
T32-SN21C09-3/4-14-11R	10139748	G3/4	26,441 1.041	14.0	5,19 0.204	28,0 1.102	77 3.031	134,81 5.307	140,0 5.512	20,0 0.787	20.00X16.00	24,5 0.965	4	C
T32-SN21C09-7/8-14-11R	10139749	G7/8	30,201 1.189	14.0	5,13 0.202	30,0 1.181	85 3.346	144,87 5.704	150,0 5.906	22,0 0.866	22.00X18.00	28,25 1.112	4	C
T32-SN21C09-1-11-11R	10139750	G1	33,249 1.309	11.0	6,03 0.237	32,0 1.260	93 3.661	153,97 6.062	160,0 6.299	25,0 0.984	25.00X20.00	30,75 1.211	4	C

T32-PNB-micro

Through holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 4H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	
T32-PN01B03-1X0.25-41R	10139427	M1	0,25	1,13 <i>0.044</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	38,87 <i>1.530</i>	40,9 <i>1.610</i>	2,5 <i>0.098</i>	2.50X2.10	0,75 <i>0.030</i>	2	B
T32-PN01B03-1.1X0.25-41R	10139428	M1.1	0,25	1,13 <i>0.044</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	38,87 <i>1.530</i>	41,0 <i>1.614</i>	2,5 <i>0.098</i>	2.50X2.10	0,85 <i>0.033</i>	2	B
T32-PN01B03-1.2X0.25-41R	10139429	M1.2	0,25	1,13 <i>0.044</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	38,87 <i>1.530</i>	41,1 <i>1.618</i>	2,5 <i>0.098</i>	2.50X2.10	0,95 <i>0.037</i>	2	B
T32-PN01B03-1.4X0.3-41R	10139430	M1.4	0,3	1,32 <i>0.052</i>	7,0 <i>0.276</i>	13 <i>0.512</i>	38,68 <i>1.523</i>	41,3 <i>1.626</i>	2,5 <i>0.098</i>	2.50X2.10	1,1 <i>0.043</i>	2	B

Thread turning

MDT

Mini-Shaft™

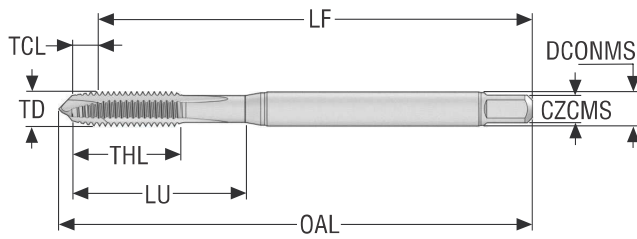
Thread milling

Thread tapping

Annex

T32-PNB-micro

Through holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T32-PN01B03-1.6X0.35-63R	10139431	M1.6	0,35	1,54 0.061	8,0 0.315	13 0.512	38,46 1.514	41,4 1.630	2,5 0.098	2.50X2.10	1,25 0.049	2	B
T32-PN01B03-1.7X0.35-63R	10139432	M1.7	0,35	1,54 0.061	8,0 0.315	13 0.512	38,46 1.514	41,5 1.634	2,5 0.098	2.50X2.10	1,35 0.053	2	B
T32-PN01B03-1.8X0.35-63R	10139433	M1.8	0,35	1,54 0.061	8,0 0.315	13 0.512	38,46 1.514	41,6 1.638	2,5 0.098	2.50X2.10	1,45 0.057	2	B
T32-PN01B03-2X0.4-63R	10139434	M2	0,4	1,89 0.074	10,0 0.394	13 0.512	43,11 1.697	46,3 1.823	2,8 0.110	2.80X2.10	1,6 0.063	2	B
T32-PN01B03-2.2X0.45-63R	10139435	M2.2	0,45	2,07 0.081	10,0 0.394	13 0.512	42,93 1.690	46,3 1.823	2,8 0.110	2.80X2.10	1,75 0.069	2	B
T32-PN01B03-2.3X0.4-63R	10139436	M2.3	0,4	1,89 0.074	10,0 0.394	13 0.512	43,11 1.697	46,3 1.823	2,8 0.110	2.80X2.10	1,9 0.075	2	B
T32-PN01B03-2.5X0.45-63R	10139437	M2.5	0,45	2,07 0.081	9,0 0.354	14 0.551	47,93 1.887	51,7 2.035	2,8 0.110	2.80X2.10	2,05 0.081	2	B
T32-PN01B03-2.6X0.45-63R	10139438	M2.6	0,45	2,07 0.081	9,0 0.354	14 0.551	47,93 1.887	51,7 2.035	2,8 0.110	2.80X2.10	2,15 0.085	2	B

Thread turning

MDT

Mini-Shaft™

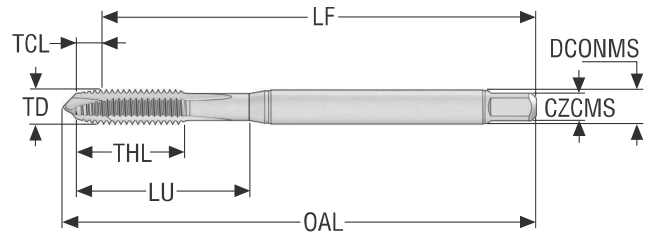
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – Metric coarse threads

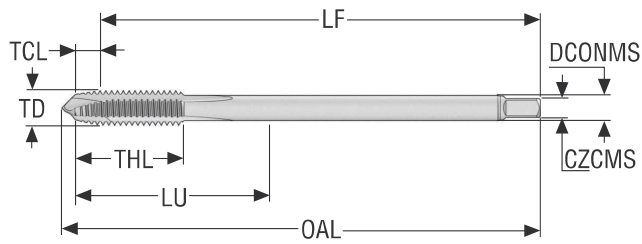


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-PN01B03-3X0.5-63R	10139439	M3	0,5	2,28 0.090	10,0 0.394	18 0.709	53,72 2.115	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	B
T32-PN01B03-3.5X0.6-63R	10139440	M3.5	0,6	2,65 0.104	12,0 0.472	20 0.787	53,35 2.100	57,4 2.260	4,0 0.157	4.00X3.00	2,9 0.114	3	B
T32-PN01B03-4X0.7-63R	10139441	M4	0,7	3,33 0.131	12,0 0.472	21 0.827	59,67 2.349	64,6 2.543	4,5 0.177	4.50X3.40	3,3 0.130	3	B
T32-PN01B03-4.5X0.75-63R	10139442	M4.5	0,75	3,33 0.131	14,0 0.551	25 0.984	66,67 2.625	71,8 2.827	6,0 0.236	6.00X4.90	3,8 0.150	3	B
T32-PN01B03-5X0.8-63R	10139443	M5	0,8	3,68 0.145	14,0 0.551	25 0.984	66,32 2.611	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	B
T32-PN01B03-6X1-63R	10139444	M6	1,0	4,41 0.174	18,0 0.709	30 1.181	75,59 2.976	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	3	B
T32-PN01B03-7X1-63R	10139445	M7	1,0	4,41 0.174	18,0 0.709	30 1.181	75,59 2.976	82,9 3.264	7,0 0.276	7.00X5.50	6,0 0.236	3	B
T32-PN01B03-8X1.25-63R	10139446	M8	1,25	5,43 0.214	20,0 0.787	35 1.378	84,57 3.330	93,3 3.673	8,0 0.315	8.00X6.20	6,8 0.268	3	B
T32-PN01B03-9X1.25-63R	10139447	M9	1,25	5,7 0.224	20,0 0.787	35 1.378	84,3 3.319	91,7 3.610	9,0 0.354	9.00X7.00	7,8 0.307	3	B
T32-PN01B03-10X1.5-63R	10139448	M10	1,5	6,84 0.269	20,0 0.787	39 1.535	93,16 3.668	101,8 4.008	10,0 0.394	10.00X8.00	8,5 0.335	3	B

T32-PNB

Through holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>			
T32-PN01B06-3X0.5-63R	10139482	M3	0,5	2,2 0.087	11,0 0.433	36 1.417	53,8 2.118	57,2 2.252	2,2 0.087	2.20X1.80	2,5 0.098	3	B
T32-PN01B06-4X0.7-63R	10139484	M4	0,7	3,3 0.130	12,0 0.472	43 1.693	59,7 2.350	64,6 2.543	2,8 0.110	2.80X2.10	3,3 0.130	3	B
T32-PN01B06-5X0.8-63R	10139485	M5	0,8	3,6 0.142	14,0 0.551	49 1.929	66,4 2.614	72,0 2.835	3,5 0.138	3.50X2.70	4,2 0.165	3	B
T32-PN01B06-6X1-63R	10139486	M6	1,0	4,4 0.173	18,0 0.709	59 2.323	75,6 2.976	82,4 3.244	4,5 0.177	4.50X3.40	5,0 0.197	3	B

Thread turning

MDT

Mini-Shaft™

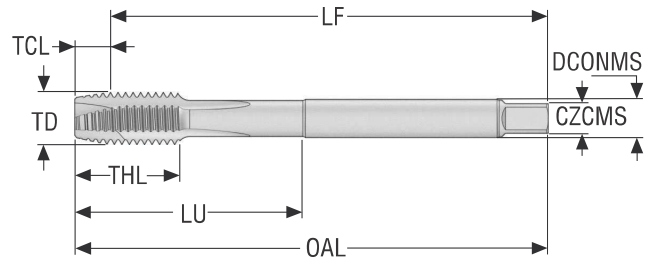
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – Metric coarse threads

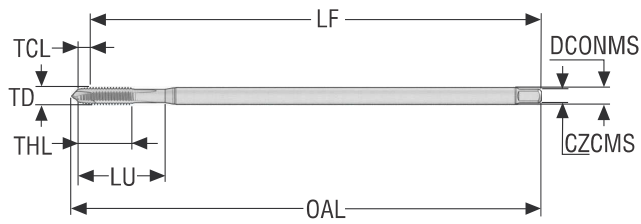


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-PN01B06-8X1.25-63R	10139488	M8	1,25	5,7 0.224	20,0 0.787	67 2.638	84,3 3.319	90,0 3.543	6,0 0.236	6.00X4.90	6,8 0.268	3	B
T32-PN01B06-9X1.25-63R	10139489	M9	1,25	5,7 0.224	20,0 0.787	67 2.638	84,3 3.319	90,0 3.543	7,0 0.276	7.00X5.50	7,8 0.307	3	B
T32-PN01B06-10X1.5-63R	10139490	M10	1,5	6,84 0.269	20,0 0.787	77 3.031	93,16 3.668	100,0 3.937	7,0 0.276	7.00X5.50	8,5 0.335	3	B
T32-PN01B06-12X1.75-63R	10139491	M12	1,75	8,01 0.315	24,0 0.945	83 3.268	101,99 4.015	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	B
T32-PN01B06-14X2-63R	10139492	M14	2,0	9,14 0.360	25,0 0.984	81 3.189	100,86 3.971	110,0 4.331	11,0 0.433	11.00X9.00	12,0 0.472	3	B
T32-PN01B06-16X2-63R	10139493	M16	2,0	9,24 0.364	32,0 1.260	68 2.677	100,76 3.967	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	3	B
T32-PN01B06-18X2.5-63R	10139494	M18	2,5	11,38 0.448	32,0 1.260	81 3.189	113,62 4.473	125,0 4.921	14,0 0.551	14.00X11.00	15,5 0.610	4	B
T32-PN01B06-20X2.5-63R	10139495	M20	2,5	11,58 0.456	32,0 1.260	95 3.740	128,42 5.056	140,0 5.512	16,0 0.630	16.00X12.00	17,5 0.689	4	B
T32-PN01B06-22X2.5-63R	10139496	M22	2,5	11,78 0.464	32,0 1.260	93 3.661	128,22 5.048	140,0 5.512	18,0 0.709	18.00X14.50	19,5 0.768	4	B
T32-PN01B06-24X3-63R	10139497	M24	3,0	13,68 0.539	38,0 1.496	113 4.449	146,32 5.761	160,0 6.299	18,0 0.709	18.00X14.50	21,0 0.827	4	B
T32-PN01B06-27X3-63R	10139498	M27	3,0	13,88 0.546	38,0 1.496	97 3.819	146,12 5.753	160,0 6.299	20,0 0.787	20.00X16.00	24,0 0.945	4	B
T32-PN01B06-30X3.5-63R	10139499	M30	3,5	15,93 0.627	45,0 1.772	115 4.528	164,07 6.459	180,0 7.087	22,0 0.866	22.00X18.00	26,5 1.043	4	B
T32-PN01B06-33X3.5-63R	10139500	M33	3,5	15,93 0.627	45,0 1.772	113 4.449	164,07 6.459	180,0 7.087	25,0 0.984	25.00X20.00	29,5 1.161	4	B
T32-PN01B06-36X4-63R	10139501	M36	4,0	17,97 0.707	50,0 1.969	131 5.157	182,03 7.167	200,0 7.874	28,0 1.102	28.00X22.00	32,0 1.260	4	B
T32-PN01B06-39X4-63R	10139502	M39	4,0	17,97 0.707	50,0 1.969	102 4.016	182,03 7.167	200,0 7.874	32,0 1.260	32.00X24.00	35,0 1.378	4	B
T32-PN01B06-42X4.5-63R	10139503	M42	4,5	20,02 0.788	60,0 2.362	102 4.016	179,98 7.086	200,0 7.874	32,0 1.260	32.00X24.00	37,5 1.476	5	B
T32-PN01B06-45X4.5-63R	10139504	M45	4,5	20,02 0.788	60,0 2.362	117 4.606	199,98 7.873	220,0 8.661	36,0 1.417	36.00X29.00	40,5 1.594	5	B
T32-PN01B06-48X5-63R	10139505	M48	5,0	22,07 0.869	65,0 2.559	147 5.787	227,93 8.974	250,0 9.843	36,0 1.417	36.00X29.00	43,0 1.693	5	B
T32-PN01B06-52X5-63R	10139506	M52	5,0	22,07 0.869	65,0 2.559	120 4.724	227,93 8.974	250,0 9.843	40,0 1.575	40.00X32.00	47,0 1.850	5	B

T32-PNB

Through holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371/EL
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-PN01B04-3X0.5-63R	10139652	M3	0,5	2,28 0.090	10,0 0.394	18 0.709	97,72 3.847	101,2 3.984	3,5 0.138	3.50X2.70	2,5 0.098	3	B
T32-PN01B04-4X0.7-63R	10139653	M4	0,7	3,33 0.131	12,0 0.472	21 0.827	121,67 4.790	126,6 4.984	4,5 0.177	4.50X3.40	3,3 0.130	3	B
T32-PN01B04-5X0.8-63R	10139654	M5	0,8	3,68 0.145	14,0 0.551	25 0.984	136,32 5.367	142,0 5.591	6,0 0.236	6.00X4.90	4,2 0.165	3	B
T32-PN01B04-6X1-63R	10139655	M6	1,0	4,41 0.174	18,0 0.709	30 1.181	155,59 6.126	162,4 6.394	6,0 0.236	6.00X4.90	5,0 0.197	3	B

Thread turning

MDT

Mini-Shaft™

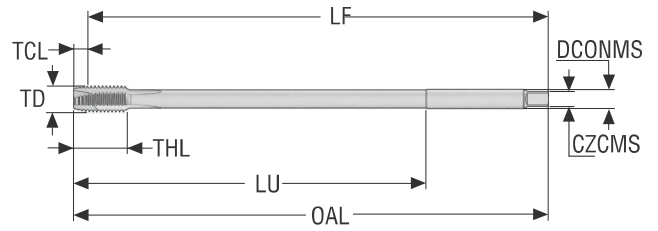
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376/EL
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-PN01B07-8X1.25-63R	10139656	M8	1,25	5,7 0.224	20,0 0.787	157 6.181	174,3 6.862	180,0 7.087	6,0 0.236	6.00X4.90	6,8 0.268	3	B
T32-PN01B07-10X1.5-63R	10139657	M10	1,5	6,84 0.269	20,0 0.787	177 6.969	193,16 7.605	200,0 7.874	7,0 0.276	7.00X5.50	8,5 0.335	3	B
T32-PN01B07-12X1.75-63R	10139658	M12	1,75	8,01 0.315	24,0 0.945	83 3.268	211,99 8.346	220,0 8.661	9,0 0.354	9.00X7.00	10,2 0.402	3	B
T32-PN01B07-16X2-63R	10139659	M16	2,0	9,24 0.364	32,0 1.260	191 7.520	210,76 8.298	220,0 8.661	11,0 0.433	11.00X9.00	14,0 0.551	3	B

Thread turning

MDT

Mini-Shaft™

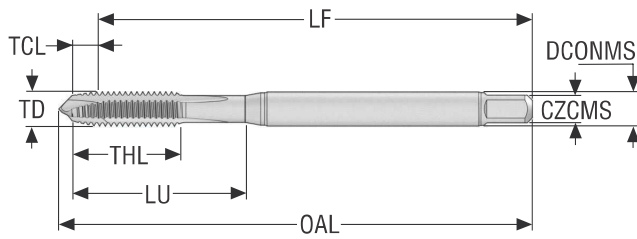
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – Metric coarse threads, 6G



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6G
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T32-PN01B03-3X0.5-61R	10139474	M3	0,5	2,28 0.090	10,0 0.394	18 0.709	53,72 2.115	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	B
T32-PN01B03-4X0.7-61R	10139475	M4	0,7	3,33 0.131	12,0 0.472	21 0.827	59,67 2.349	64,6 2.543	4,5 0.177	4.50X3.40	3,3 0.130	3	B
T32-PN01B03-5X0.8-61R	10139476	M5	0,8	3,68 0.145	14,0 0.551	25 0.984	66,32 2.611	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	B
T32-PN01B03-6X1-61R	10139477	M6	1,0	4,41 0.174	18,0 0.709	30 1.181	75,59 2.976	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	3	B
T32-PN01B03-7X1-61R	10139478	M7	1,0	4,41 0.174	18,0 0.709	30 1.181	75,59 2.976	82,9 3.264	7,0 0.276	7.00X5.50	6,0 0.236	3	B
T32-PN01B03-8X1.25-61R	10139479	M8	1,25	5,43 0.214	20,0 0.787	35 1.378	84,57 3.330	93,3 3.673	8,0 0.315	8.00X6.20	6,8 0.268	3	B
T32-PN01B03-9X1.25-61R	10139480	M9	1,25	5,7 0.224	20,0 0.787	35 1.378	84,3 3.319	91,7 3.610	9,0 0.354	9.00X7.00	7,8 0.307	3	B
T32-PN01B03-10X1.5-61R	10139481	M10	1,5	6,84 0.269	20,0 0.787	39 1.535	93,16 3.668	101,8 4.008	10,0 0.394	10.00X8.00	8,5 0.335	3	B

Thread turning

MDT

Mini-Shaft™

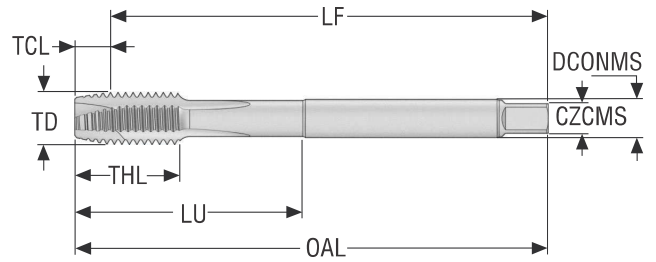
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – Metric coarse threads, 6G



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6G
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T32-PN01B06-12X1.75-61R	10139564	M12	1,75	8,01 0.315	24,0 0.945	83 3.268	101,99 4.015	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	B
T32-PN01B06-16X2-61R	10139565	M16	2,0	9,24 0.364	32,0 1.260	68 2.677	100,76 3.967	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	3	B
T32-PN01B06-20X2.5-61R	10139566	M20	2,5	11,58 0.456	32,0 1.260	95 3.740	128,42 5.056	140,0 5.512	16,0 0.630	16.00X12.00	17,5 0.689	4	B
T32-PN01B06-24X3-61R	10139567	M24	3,0	13,68 0.539	38,0 1.496	113 4.449	146,32 5.761	160,0 6.299	18,0 0.709	18.00X14.50	21,0 0.827	4	B

Thread turning

MDT

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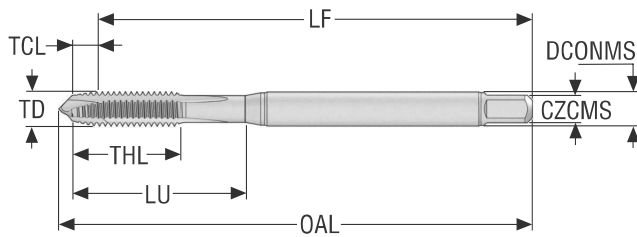
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – Metric coarse threads, left hand thread



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T32-PN01B03-3X0.5-63L	10139466	M3	0,5	2,2 0.087	10,0 0.394	18 0.709	53,8 2.118	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	B
T32-PN01B03-4X0.7-63L	10139467	M4	0,7	3,3 0.130	12,0 0.472	21 0.827	59,7 2.350	64,6 2.543	4,5 0.177	4.50X3.40	3,3 0.130	3	B
T32-PN01B03-5X0.8-63L	10139468	M5	0,8	3,6 0.142	14,0 0.551	25 0.984	66,4 2.614	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	B
T32-PN01B03-6X1-63L	10139469	M6	1,0	4,4 0.173	18,0 0.709	30 1.181	75,6 2.976	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	3	B
T32-PN01B03-7X1-63L	10139470	M7	1,0	4,4 0.173	18,0 0.709	30 1.181	75,6 2.976	82,9 3.264	7,0 0.276	7.00X5.50	6,0 0.236	3	B
T32-PN01B03-8X1.25-63L	10139471	M8	1,25	5,4 0.213	20,0 0.787	35 1.378	84,6 3.331	93,3 3.673	8,0 0.315	8.00X6.20	6,8 0.268	3	B
T32-PN01B03-9X1.25-63L	10139472	M9	1,25	5,7 0.224	20,0 0.787	35 1.378	84,3 3.319	91,7 3.610	9,0 0.354	9.00X7.00	7,8 0.307	3	B
T32-PN01B03-10X1.5-63L	10139473	M10	1,5	6,8 0.268	20,0 0.787	39 1.535	93,2 3.669	101,8 4.008	10,0 0.394	10.00X8.00	8,5 0.335	3	B

Thread turning

MDT

Mini-Shaft™

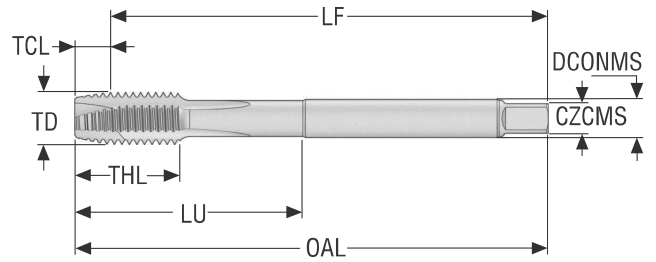
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – Metric coarse threads, left hand thread



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T32-PN01B06-12X1.75-63L	10139560	M12	1,75	8,01 0.315	24,0 0.945	83 3.268	101,99 4.015	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	B
T32-PN01B06-16X2-63L	10139561	M16	2,0	9,24 0.364	32,0 1.260	68 2.677	100,76 3.967	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	3	B
T32-PN01B06-20X2.5-63L	10139562	M20	2,5	11,58 0.456	32,0 1.260	95 3.740	128,42 5.056	140,0 5.512	16,0 0.630	16.00X12.00	17,5 0.689	4	B
T32-PN01B06-24X3-63L	10139563	M24	3,0	13,68 0.539	38,0 1.496	113 4.449	146,32 5.761	160,0 6.299	18,0 0.709	18.00X14.50	21,0 0.827	4	B

Thread turning

MDT

Mini-Shaft™

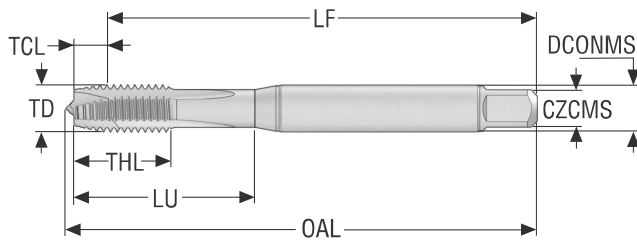
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – MF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T32-PN02B03-8X1-63R	10139449	MF8X1	1,0	4,41 0.174	20,0 0.787	35 1.378	85,59 3.370	93,3 3.673	8,0 0.315	8.00X6.20	7,0 0.276	3	B
T32-PN02B03-10X1-63R	10139450	MF10X1	1,0	4,77 0.188	20,0 0.787	35 1.378	85,23 3.356	91,8 3.614	10,0 0.394	10.00X8.00	9,0 0.354	3	B
T32-PN02B03-10X1.25-63R	10139451	MF10X1.25	1,25	5,8 0.228	20,0 0.787	39 1.535	94,2 3.709	101,8 4.008	10,0 0.394	10.00X8.00	8,8 0.346	3	B

Thread turning

MDT

Mini-Shaft™

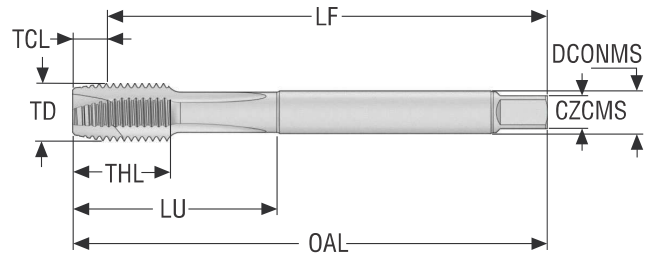
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – MF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6H
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-PN02B05-8X1-63R	10139507	MF8X1	1,0	4,67 0.184	20,0 0.787	67 2.638	85,33 3.359	90,0 3.543	6,0 0.236	6.00X4.90	7,0 0.276	3	B
T32-PN02B05-10X0.75-63R	10139508	MF10X0.75	0,75	3,73 0.147	18,0 0.709	67 2.638	86,27 3.396	90,0 3.543	7,0 0.276	7.00X5.50	9,2 0.362	3	B
T32-PN02B05-10X1-63R	10139509	MF10X1	1,0	4,79 0.189	20,0 0.787	67 2.638	85,21 3.355	90,0 3.543	7,0 0.276	7.00X5.50	9,0 0.354	3	B
T32-PN02B05-10X1.25-63R	10139510	MF10X1.25	1,25	5,8 0.228	20,0 0.787	77 3.031	94,2 3.709	100,0 3.937	7,0 0.276	7.00X5.50	8,8 0.346	3	B
T32-PN02B05-12X1-63R	10139511	MF12X1	1,0	4,89 0.193	20,0 0.787	73 2.874	95,11 3.744	100,0 3.937	9,0 0.354	9.00X7.00	11,0 0.433	3	B
T32-PN02B05-12X1.25-63R	10139512	MF12X1.25	1,25	5,94 0.234	20,0 0.787	73 2.874	94,06 3.703	100,0 3.937	9,0 0.354	9.00X7.00	10,8 0.425	3	B
T32-PN02B05-12X1.5-63R	10139513	MF12X1.5	1,5	6,97 0.274	20,0 0.787	73 2.874	93,03 3.663	100,0 3.937	9,0 0.354	9.00X7.00	10,5 0.413	3	B
T32-PN02B05-14X1-63R	10139514	MF14X1	1,0	4,99 0.196	20,0 0.787	71 2.795	95,01 3.741	100,0 3.937	11,0 0.433	11.00X9.00	13,0 0.512	3	B
T32-PN02B05-14X1.25-63R	10139515	MF14X1.25	1,25	6,04 0.238	20,0 0.787	71 2.795	93,96 3.699	100,0 3.937	11,0 0.433	11.00X9.00	12,8 0.504	3	B
T32-PN02B05-14X1.5-63R	10139516	MF14X1.5	1,5	7,07 0.278	20,0 0.787	71 2.795	92,93 3.659	100,0 3.937	11,0 0.433	11.00X9.00	12,5 0.492	3	B
T32-PN02B05-16X1-63R	10139517	MF16X1	1,0	5,09 0.200	20,0 0.787	58 2.283	94,91 3.737	100,0 3.937	12,0 0.472	12.00X9.00	15,0 0.591	3	B
T32-PN02B05-16X1.5-63R	10139518	MF16X1.5	1,5	7,17 0.282	20,0 0.787	58 2.283	92,83 3.655	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	3	B
T32-PN02B05-18X1.5-63R	10139519	MF18X1.5	1,5	7,27 0.286	24,0 0.945	66 2.598	102,73 4.044	110,0 4.331	14,0 0.551	14.00X11.00	16,5 0.650	4	B
T32-PN02B05-18X2-63R	10139520	MF18X2	2,0	9,34 0.368	27,0 1.063	81 3.189	115,66 4.554	125,0 4.921	14,0 0.551	14.00X11.00	16,0 0.630	4	B
T32-PN02B05-20X1.5-63R	10139521	MF20X1.5	1,5	7,47 0.294	24,0 0.945	80 3.150	117,53 4.627	125,0 4.921	16,0 0.630	16.00X12.00	18,5 0.728	4	B
T32-PN02B05-20X2-63R	10139522	MF20X2	2,0	9,54 0.376	27,0 1.063	95 3.740	130,46 5.136	140,0 5.512	16,0 0.630	16.00X12.00	18,0 0.709	4	B
T32-PN02B05-22X1.5-63R	10139523	MF22X1.5	1,5	7,67 0.302	24,0 0.945	78 3.071	117,33 4.619	125,0 4.921	18,0 0.709	18.00X14.50	20,5 0.807	4	B
T32-PN02B05-22X2-63R	10139524	MF22X2	2,0	9,74 0.383	27,0 1.063	93 3.661	130,26 5.128	140,0 5.512	18,0 0.709	18.00X14.50	20,0 0.787	4	B
T32-PN02B05-24X1.5-63R	10139525	MF24X1.5	1,5	7,5 0.295	27,0 1.063	93 3.661	132,5 5.217	140,0 5.512	18,0 0.709	18.00X14.50	22,5 0.886	4	B
T32-PN02B05-24X2-63R	10139526	MF24X2	2,0	9,57 0.377	27,0 1.063	93 3.661	130,43 5.135	140,0 5.512	18,0 0.709	18.00X14.50	22,0 0.866	4	B
T32-PN02B05-27X1.5-63R	10139527	MF27X1.5	1,5	7,7 0.303	27,0 1.063	77 3.031	132,3 5.209	140,0 5.512	20,0 0.787	20.00X16.00	25,5 1.004	4	B

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-PN02B05-27X2-63R	10139528	MF27X2	2,0	9,77 0.385	27,0 1.063	77 3.031	130,23 5.127	140,0 5.512	20,0 0.787	20.00X16.00	25,0 0.984	4	B
T32-PN02B05-30X1.5-63R	10139529	MF30X1.5	1,5	7,7 0.303	27,0 1.063	85 3.346	142,3 5.602	150,0 5.906	22,0 0.866	22.00X18.00	28,5 1.122	4	B
T32-PN02B05-30X2-63R	10139530	MF30X2	2,0	9,77 0.385	27,0 1.063	85 3.346	140,23 5.521	150,0 5.906	22,0 0.866	22.00X18.00	28,0 1.102	4	B

Thread turning

MDT

Mini-Shaft™

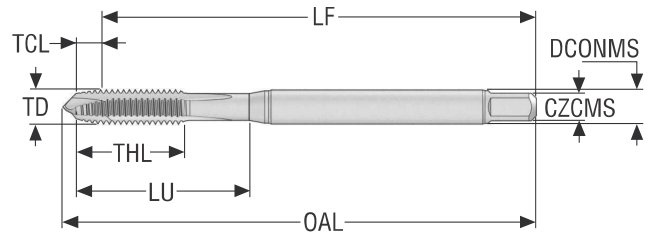
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – UNC threads

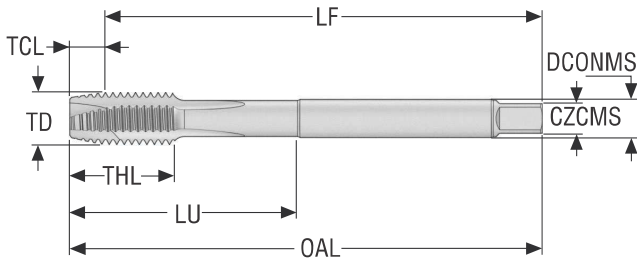


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-PN08B03-4-40-21R	10139452	UNC4-40	2,845 0.112	40.0	2,81 0.111	10,0 0.394	18 0.709	53,19 2.094	56,0 2.205	3,5 0.138	3.50X2.70	2.35 0.093	3	B
T32-PN08B03-5-40-21R	10139453	UNC5-40	3,175 0.125	40.0	2,92 0.115	10,0 0.394	18 0.709	53,08 2.090	57,2 2.252	3,5 0.138	3.50X2.70	2.65 0.104	3	B
T32-PN08B03-6-32-21R	10139454	UNC6-32	3,505 0.138	32.0	3,71 0.146	12,0 0.472	20 0.787	52,29 2.059	57,4 2.260	4,0 0.157	4.00X3.00	2.85 0.112	3	B
T32-PN08B03-8-32-21R	10139455	UNC8-32	4,166 0.164	32.0	3,59 0.141	12,0 0.472	21 0.827	59,41 2.339	64,6 2.543	4,5 0.177	4.50X3.40	3.5 0.138	3	B
T32-PN08B03-10-24-21R	10139456	UNC10-24	4,826 0.190	24.0	4,82 0.190	14,0 0.551	25 0.984	65,18 2.566	72,0 2.835	6,0 0.236	6.00X4.90	3.9 0.154	3	B
T32-PN08B03-12-24-21R	10139457	UNC12-24	5,486 0.216	24.0	4,69 0.185	18,0 0.709	30 1.181	75,31 2.965	82,2 3.236	6,0 0.236	6.00X4.90	4.5 0.177	3	B
T32-PN08B03-1/4-20-21R	10139458	UNC1/4-20	6,35 0.250	20.0	5,6 0.220	18,0 0.709	32 1.260	74,4 2.929	82,4 3.244	7,0 0.276	7.00X5.50	5.1 0.201	3	B
T32-PN08B03-5/16-18-21R	10139459	UNC5/16-18	7,937 0.312	18.0	6,26 0.246	20,0 0.787	35 1.378	83,74 3.297	93,3 3.673	8,0 0.315	8.00X6.20	6.6 0.260	3	B
T32-PN08B03-3/8-16-21R	10139460	UNC3/8-16	9,525 0.375	16.0	7,28 0.287	20,0 0.787	39 1.535	92,72 3.650	100,0 3.937	10,0 0.394	10.00X8.00	8.0 0.315	3	B

T32-PNB

Through holes – UNC threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-PN08B06-7/16-14-21R	10139531	UNC7/16-14	11,112 0.437	14.0	8,27 0.326	22,0 0.866	76 2.992	91,73 3.611	100,0 3.937	8,0 0.315	8.00X6.20	9,3 0.366	3	B
T32-PN08B06-1/2-13-21R	10139540	UNC1/2-13	12,7 0.500	13.0	9,01 0.355	24,0 0.945	83 3.268	100,99 3.976	110,0 4.331	9,0 0.354	9.00X7.00	10,7 0.421	3	B
T32-PN08B06-9/16-12-21R	10139533	UNC9/16-12	14,287 0.562	12.0	9,76 0.384	25,0 0.984	81 3.189	100,24 3.946	110,0 4.331	11,0 0.433	11.00X9.00	12,3 0.484	3	B
T32-PN08B06-5/8-11-21R	10139534	UNC5/8-11	15,875 0.625	11.0	10,51 0.414	32,0 1.260	68 2.677	99,49 3.917	110,0 4.331	12,0 0.472	12.00X9.00	13,5 0.531	3	B
T32-PN08B06-3/4-10-21R	10139535	UNC3/4-10	19,05 0.750	10.0	11,55 0.455	32,0 1.260	81 3.189	113,45 4.467	125,0 4.921	14,0 0.551	14.00X11.00	16,5 0.650	4	B
T32-PN08B06-7/8-9-21R	10139536	UNC7/8-9	22,225 0.875	9.0	13,04 0.513	32,0 1.260	93 3.661	126,96 4.998	140,0 5.512	18,0 0.709	18.00X14.50	19,5 0.768	4	B
T32-PN08B06-1-8-21R	10139537	UNC1-8	25,4 1.000	8.0	14,86 0.585	38,0 1.496	97 3.819	145,14 5.714	160,0 6.299	20,0 0.787	20.00X16.00	22,25 0.876	4	B
T32-PN08B06-1_1/8-7-21R	10139756	UNC1 1/8-7	28,575 1.125	7.0	16,48 0.649	45,0 1.772	115 4.528	163,52 6.438	180,0 7.087	22,0 0.866	22.00X18.00	25,0 0.984	4	B
T32-PN08B06-1_1/4-7-21R	10139538	UNC1 1/4-7	31,75 1.250	7.0	16,74 0.659	45,0 1.772	115 4.528	163,26 6.428	180,0 7.087	22,0 0.866	22.00X18.00	28,0 1.102	4	B
T32-PN08B06-1_3/8-6-21R	10139532	UNC1 3/8-6	34,925 1.375	6.0	19,04 0.750	50,0 1.969	131 5.157	180,96 7.124	200,0 7.874	28,0 1.102	28.00X22.00	30,75 1.211	4	B
T32-PN08B06-1_1/2-6-21R	10139539	UNC1 1/2-6	38,1 1.500	6.0	19,3 0.760	55,0 2.165	131 5.157	180,7 7.114	200,0 7.874	28,0 1.102	28.00X22.00	34,0 1.339	4	B

Thread turning

MDT

Mini-Shaft™

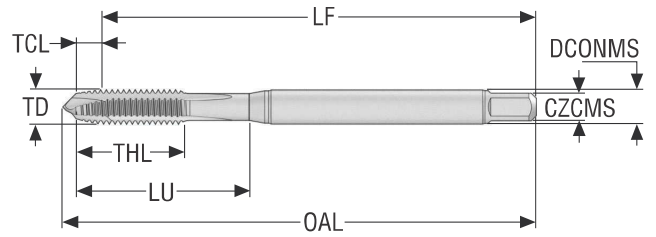
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – UNF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-PN09B03-10-32-21R	10139461	UNF10-32	4,826 0.190	32.0	3,8 0.150	14,0 0.551	25 0.984	66,2 2.606	72,0 2.835	6,0 0.236	6.00X4.90	4,1 0.161	3	B
T32-PN09B03-12-28-21R	10139462	UNF12-28	5,486 0.216	28.0	4,01 0.158	18,0 0.709	30 1.181	75,99 2.992	82,4 3.244	6,0 0.236	6.00X4.90	4,6 0.181	3	B
T32-PN09B03-1/4-28-21R	10139463	UNF1/4-28	6,35 0.250	28.0	4,24 0.167	18,0 0.709	30 1.181	75,76 2.983	82,4 3.244	7,0 0.276	7.00X5.50	5,5 0.217	3	B
T32-PN09B03-5/16-24-21R	10139464	UNF5/16-24	7,937 0.312	24.0	4,89 0.193	20,0 0.787	35 1.378	85,11 3.351	93,3 3.673	8,0 0.315	8.00X6.20	6,9 0.272	3	B
T32-PN09B03-3/8-24-21R	10139465	UNF3/8-24	9,525 0.375	24.0	5,22 0.206	20,0 0.787	35 1.378	84,78 3.338	90,0 3.543	10,0 0.394	10.00X8.00	8,5 0.335	3	B

Thread turning

MDT

Mini-Shaft™

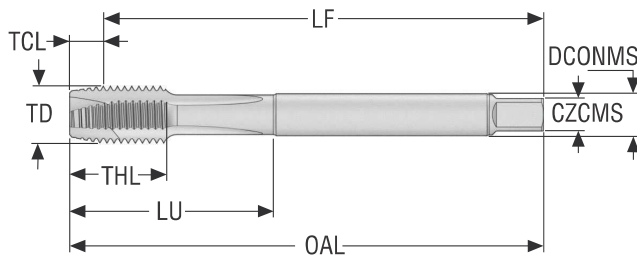
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – UNF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 2B
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-PN09B05-7/16-20-21R	10139542	UNF7/16-20	11,112 0.437	20.0	5,88 0.231	20,0 0.787	76 2.992	94,12 3.706	100,0 3.937	8,0 0.315	8.00X6.20	9,9 0.390	3	B
T32-PN09B05-1/2-20-21R	10139551	UNF1/2-20	12,7 0.500	20.0	6,28 0.247	20,0 0.787	73 2.874	93,72 3.690	100,0 3.937	9,0 0.354	9.00X7.00	11,5 0.453	3	B
T32-PN09B05-9/16-18-21R	10139544	UNF9/16-18	14,287 0.562	18.0	6,69 0.263	20,0 0.787	71 2.795	93,31 3.674	100,0 3.937	11,0 0.433	11.00X9.00	13,0 0.512	3	B
T32-PN09B05-5/8-18-21R	10139545	UNF5/8-18	15,875 0.625	18.0	6,76 0.266	20,0 0.787	58 2.283	93,24 3.671	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	3	B
T32-PN09B05-3/4-16-21R	10139546	UNF3/4-16	19,05 0.750	16.0	7,81 0.307	24,0 0.945	66 2.598	102,19 4.023	110,0 4.331	14,0 0.551	14.00X11.00	17,5 0.689	4	B
T32-PN09B05-7/8-14-21R	10139547	UNF7/8-14	22,225 0.875	14.0	8,96 0.353	24,0 0.945	78 3.071	116,04 4.569	125,0 4.921	18,0 0.709	18.00X14.50	20,5 0.807	4	B
T32-PN09B05-1-12-21R	10139548	UNF1-12	25,4 1.000	12.0	10,44 0.411	27,0 1.063	93 3.661	129,56 5.101	140,0 5.512	18,0 0.709	18.00X14.50	23,3 0.917	4	B
T32-PN09B05-1_1/8-12-21R	10139757	UNF1 1/8-12	28,575 1.125	12.0	10,37 0.408	27,0 1.063	85 3.346	139,63 5.497	150,0 5.906	22,0 0.866	22.00X18.00	26,5 1.043	4	B
T32-PN09B05-1_1/4-12-21R	10139549	UNF1 1/4-12	31,75 1.250	12.0	10,29 0.405	27,0 1.063	85 3.346	139,71 5.500	150,0 5.906	22,0 0.866	22.00X18.00	29,5 1.161	4	B
T32-PN09B05-1_3/8-12-21R	10139543	UNF1 3/8-12	34,925 1.375	12.0	10,55 0.415	30,0 1.181	101 3.976	159,45 6.278	170,0 6.693	28,0 1.102	28.00X22.00	32,8 1.291	4	B
T32-PN09B05-1_1/2-12-21R	10139550	UNF1 1/2-12	38,1 1.500	12.0	10,48 0.413	30,0 1.181	101 3.976	159,52 6.280	170,0 6.693	28,0 1.102	28.00X22.00	36,0 1.417	4	B

Thread turning

MDT

Mini-Shaft™

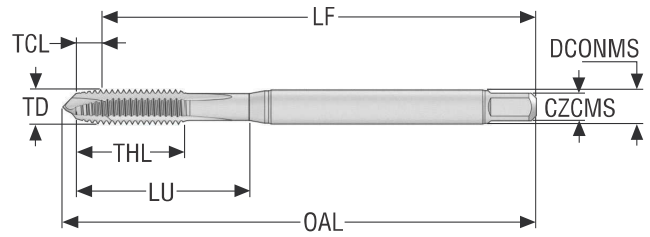
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – G threads

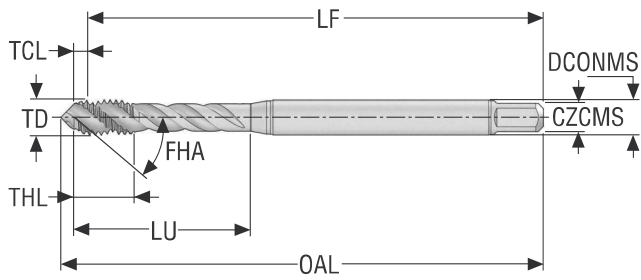


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-PN21B09-1/8-28-11R	10139552	G1/8	9,728 0.383	28.0	4,76 0.187	18,0 0.709	67 2.638	85,24 3.356	90,0 3.543	7,0 0.276	7.00X5.50	8,8 0.346	3	B
T32-PN21B09-1/4-19-11R	10139553	G1/4	13,157 0.518	19.0	6,77 0.267	22,0 0.866	71 2.795	93,23 3.670	100,0 3.937	11,0 0.433	11.00X9.00	11,8 0.465	3	B
T32-PN21B09-3/8-19-11R	10139554	G3/8	16,662 0.656	19.0	6,89 0.271	22,0 0.866	58 2.283	93,11 3.666	100,0 3.937	12,0 0.472	12.00X9.00	15,25 0.600	4	B
T32-PN21B09-1/2-14-11R	10139555	G1/2	20,955 0.825	14.0	9,22 0.363	25,0 0.984	80 3.150	115,78 4.558	125,0 4.921	16,0 0.630	16.00X12.00	19,0 0.748	4	B
T32-PN21B09-5/8-14-11R	10139556	G5/8	22,911 0.902	14.0	9,4 0.370	25,0 0.984	78 3.071	115,6 4.551	125,0 4.921	18,0 0.709	18.00X14.50	21,0 0.827	4	B
T32-PN21B09-3/4-14-11R	10139557	G3/4	26,441 1.041	14.0	9,36 0.369	28,0 1.102	77 3.031	130,64 5.143	140,0 5.512	20,0 0.787	20.00X16.00	24,5 0.965	4	B
T32-PN21B09-7/8-14-11R	10139558	G7/8	30,201 1.189	14.0	9,03 0.356	30,0 1.181	85 3.346	140,97 5.550	150,0 5.906	22,0 0.866	22.00X18.00	28,25 1.112	4	B
T32-PN21B09-1-11-11R	10139559	G1	33,249 1.309	11.0	11,49 0.452	32,0 1.260	93 3.661	148,51 5.847	160,0 6.299	25,0 0.984	25.00X20.00	30,75 1.211	4	B

T32-R40NC-micro

Blind holes – Metric coarse threads



- Substrate: HSS-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 4H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N01C03-1X0.25-41R	10139129	M1	0,25	0,59 <i>0.023</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	39,41 <i>1.552</i>	40,9 <i>1.610</i>	2,5 <i>0.098</i>	2.50X2.10	0,75 <i>0.030</i>	2	C
T32-R40N01C03-1.1X0.25-41R	10139130	M1.1	0,25	0,59 <i>0.023</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	39,41 <i>1.552</i>	41,0 <i>1.614</i>	2,5 <i>0.098</i>	2.50X2.10	0,85 <i>0.033</i>	2	C
T32-R40N01C03-1.2X0.25-41R	10139131	M1.2	0,25	0,59 <i>0.023</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	39,41 <i>1.552</i>	41,1 <i>1.618</i>	2,5 <i>0.098</i>	2.50X2.10	0,95 <i>0.037</i>	2	C
T32-R40N01C03-1.4X0.3-41R	10139132	M1.4	0,3	0,69 <i>0.027</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,31 <i>1.548</i>	41,3 <i>1.626</i>	2,5 <i>0.098</i>	2.50X2.10	1,1 <i>0.043</i>	2	C

Thread turning

MDT

Mini-Shaft™

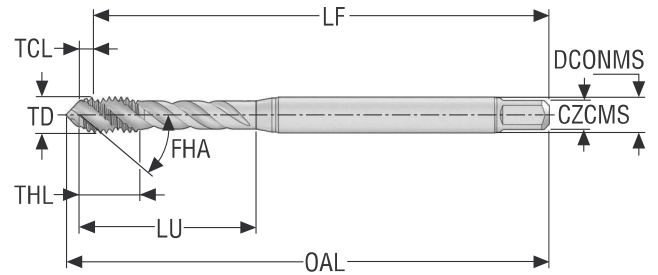
Thread milling

Thread tapping

Annex

T32-R40NC-micro

Blind holes – Metric coarse threads

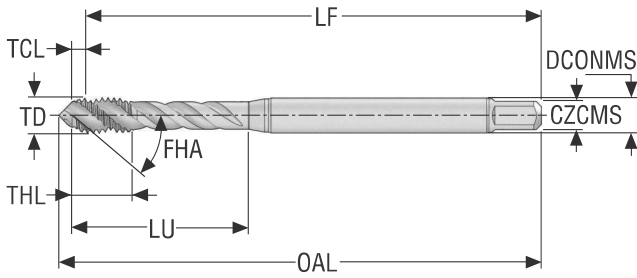


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N01C03-1.6X0.35-63R	10139133	M1.6	0,35	0,8 <i>0.031</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,2 <i>1.543</i>	41,4 <i>1.630</i>	2,5 <i>0.098</i>	2.50X2.10	1,25 <i>0.049</i>	2	C
T32-R40N01C03-1.7X0.35-63R	10139134	M1.7	0,35	0,8 <i>0.031</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,2 <i>1.543</i>	41,5 <i>1.634</i>	2,5 <i>0.098</i>	2.50X2.10	1,35 <i>0.053</i>	2	C
T32-R40N01C03-1.8X0.35-63R	10139135	M1.8	0,35	0,8 <i>0.031</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,2 <i>1.543</i>	41,6 <i>1.638</i>	2,5 <i>0.098</i>	2.50X2.10	1,45 <i>0.057</i>	2	C
T32-R40N01C03-2X0.4-63R	10139136	M2	0,4	1,03 <i>0.041</i>	10,0 <i>0.394</i>	13 <i>0.512</i>	43,974 <i>1.731</i>	46,3 <i>1.823</i>	2,8 <i>0.110</i>	2.80X2.10	1,6 <i>0.063</i>	2	C
T32-R40N01C03-2.2X0.45-63R	10139137	M2.2	0,45	1,15 <i>0.045</i>	10,0 <i>0.394</i>	13 <i>0.512</i>	43,847 <i>1.726</i>	46,3 <i>1.823</i>	2,8 <i>0.110</i>	2.80X2.10	1,75 <i>0.069</i>	2	C
T32-R40N01C03-2.3X0.4-63R	10139138	M2.3	0,4	1,05 <i>0.041</i>	10,0 <i>0.394</i>	13 <i>0.512</i>	43,948 <i>1.730</i>	46,3 <i>1.823</i>	2,8 <i>0.110</i>	2.80X2.10	1,9 <i>0.075</i>	2	C
T32-R40N01C03-2.5X0.45-63R	10139139	M2.5	0,45	1,06 <i>0.042</i>	5,0 <i>0.197</i>	14 <i>0.551</i>	48,94 <i>1.927</i>	51,7 <i>2.035</i>	2,8 <i>0.110</i>	2.80X2.10	2,05 <i>0.081</i>	2	C
T32-R40N01C03-2.6X0.45-63R	10139140	M2.6	0,45	1,15 <i>0.045</i>	5,0 <i>0.197</i>	14 <i>0.551</i>	48,847 <i>1.923</i>	51,7 <i>2.035</i>	2,8 <i>0.110</i>	2.80X2.10	2,15 <i>0.085</i>	2	C

T32-R40NC

Blind holes – Metric coarse threads

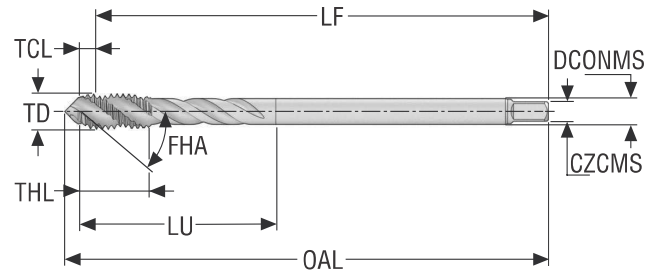


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N01C03-3X0.5-63R	10139141	M3	0,5	1,2 0.047	5,0 0.197	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	C
T32-R40N01C03-3.5X0.6-63R	10139142	M3.5	0,6	1,36 0.054	6,0 0.236	20 0.787	54,64 2.151	57,4 2.260	4,0 0.157	4.00X3.00	2,9 0.114	3	C
T32-R40N01C03-4X0.7-63R	10139143	M4	0,7	1,54 0.061	7,0 0.276	21 0.827	61,46 2.420	64,6 2.543	4,5 0.177	4.50X3.40	3,3 0.130	3	C
T32-R40N01C03-5X0.8-63R	10139144	M5	0,8	1,9 0.075	8,0 0.315	25 0.984	68,1 2.681	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	C
T32-R40N01C03-6X1-63R	10139145	M6	1,0	2,28 0.090	10,0 0.394	30 1.181	77,72 3.060	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	3	C
T32-R40N01C03-7X1-63R	10139146	M7	1,0	2,28 0.090	10,0 0.394	30 1.181	77,72 3.060	82,9 3.264	7,0 0.276	7.00X5.50	6,0 0.236	3	C
T32-R40N01C03-8X1.25-63R	10139147	M8	1,25	3,11 0.122	13,0 0.512	35 1.378	86,89 3.421	91,7 3.610	8,0 0.315	8.00X6.20	6,8 0.268	3	C
T32-R40N01C03-9X1.25-63R	10139148	M9	1,25	3,11 0.122	13,0 0.512	35 1.378	86,89 3.421	91,7 3.610	9,0 0.354	9.00X7.00	7,8 0.307	3	C
T32-R40N01C03-10X1.5-63R	10139149	M10	1,5	3,76 0.148	15,0 0.591	39 1.535	96,24 3.789	101,8 4.008	10,0 0.394	10.00X8.00	8,5 0.335	3	C

T32-R40NC

Blind holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N01C06-3X0.5-63R	10139568	M3	0,5	1,17 0.046	5,0 0.197	36 1.417	54,83 2.159	57,2 2.252	2,2 0.087	2.20X1.80	2,5 0.098	3	C
T32-R40N01C06-4X0.7-63R	10139570	M4	0,7	1,72 0.068	8,0 0.315	43 1.693	61,28 2.413	64,6 2.543	2,8 0.110	2.80X2.10	3,3 0.130	3	C
T32-R40N01C06-5X0.8-63R	10139571	M5	0,8	1,9 0.075	10,0 0.394	49 1.929	68,1 2.681	72,0 2.835	3,5 0.138	3.50X2.70	4,2 0.165	3	C
T32-R40N01C06-6X1-63R	10139572	M6	1,0	2,28 0.090	12,0 0.472	59 2.323	77,72 3.060	82,4 3.244	4,5 0.177	4.50X3.40	5,0 0.197	3	C
T32-R40N01C06-8X1.25-63R	10139574	M8	1,25	3,11 0.122	15,0 0.591	67 2.638	86,89 3.421	90,0 3.543	6,0 0.236	6.00X4.90	6,8 0.268	3	C
T32-R40N01C06-9X1.25-63R	10139575	M9	1,25	3,21 0.126	15,0 0.591	67 2.638	86,79 3.417	90,0 3.543	7,0 0.276	7.00X5.50	7,8 0.307	3	C
T32-R40N01C06-10X1.5-63R	10139576	M10	1,5	3,76 0.148	17,0 0.669	77 3.031	96,24 3.789	100,0 3.937	7,0 0.276	7.00X5.50	8,5 0.335	3	C
T32-R40N01C06-12X1.75-63R	10139577	M12	1,75	4,41 0.174	18,0 0.709	83 3.268	105,59 4.157	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	C
T32-R40N01C06-14X2-63R	10139578	M14	2,0	5,07 0.200	20,0 0.787	81 3.189	104,93 4.131	110,0 4.331	11,0 0.433	11.00X9.00	12,0 0.472	4	C
T32-R40N01C06-16X2-63R	10139579	M16	2,0	5,15 0.203	20,0 0.787	68 2.677	104,85 4.128	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	4	C
T32-R40N01C06-18X2.5-63R	10139580	M18	2,5	6,31 0.248	25,0 0.984	81 3.189	118,69 4.673	125,0 4.921	14,0 0.551	14.00X11.00	15,5 0.610	4	C
T32-R40N01C06-20X2.5-63R	10139581	M20	2,5	6,51 0.256	25,0 0.984	95 3.740	133,49 5.256	140,0 5.512	16,0 0.630	16.00X12.00	17,5 0.689	4	C
T32-R40N01C06-22X2.5-63R	10139582	M22	2,5	6,51 0.256	25,0 0.984	93 3.661	133,49 5.256	140,0 5.512	18,0 0.709	18.00X14.50	19,5 0.768	4	C
T32-R40N01C06-24X3-63R	10139583	M24	3,0	7,81 0.307	30,0 1.181	113 4.449	152,19 5.992	160,0 6.299	18,0 0.709	18.00X14.50	21,0 0.827	4	C
T32-R40N01C06-27X3-63R	10139584	M27	3,0	7,81 0.307	30,0 1.181	97 3.819	152,19 5.992	160,0 6.299	20,0 0.787	20.00X16.00	24,0 0.945	4	C
T32-R40N01C06-30X3.5-63R	10139585	M30	3,5	8,88 0.350	35,0 1.378	115 4.528	171,12 6.737	180,0 7.087	22,0 0.866	22.00X18.00	26,5 1.043	4	C
T32-R40N01C06-33X3.5-63R	10139586	M33	3,5	8,88 0.350	35,0 1.378	113 4.449	171,12 6.737	180,0 7.087	25,0 0.984	25.00X20.00	29,5 1.161	4	C
T32-R40N01C06-36X4-63R	10139587	M36	4,0	9,94 0.391	40,0 1.575	131 5.157	190,06 7.483	200,0 7.874	28,0 1.102	28.00X22.00	32,0 1.260	4	C
T32-R40N01C06-39X4-63R	10139588	M39	4,0	9,94 0.391	40,0 1.575	102 4.016	190,06 7.483	200,0 7.874	32,0 1.260	32.00X24.00	35,0 1.378	4	C
T32-R40N01C06-42X4.5-63R	10139589	M42	4,5	11,01 0.433	45,0 1.772	102 4.016	188,99 7.441	200,0 7.874	32,0 1.260	32.00X24.00	37,5 1.476	5	C

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N01C06-45X4.5-63R	10139590	M45	4,5	11,01 0.433	45,0 1.772	117 4.606	208,99 8.228	220,0 8.661	36,0 1.417	36.00X29.00	40,5 1.594	5	C
T32-R40N01C06-48X5-63R	10139591	M48	5,0	12,08 0.476	50,0 1.969	147 5.787	237,92 9.367	250,0 9.843	36,0 1.417	36.00X29.00	43,0 1.693	5	C
T32-R40N01C06-52X5-63R	10139592	M52	5,0	12,08 0.476	50,0 1.969	120 4.724	237,92 9.367	250,0 9.843	40,0 1.575	40.00X32.00	47,0 1.850	5	C

Thread turning

MDT

Mini-Shaft™

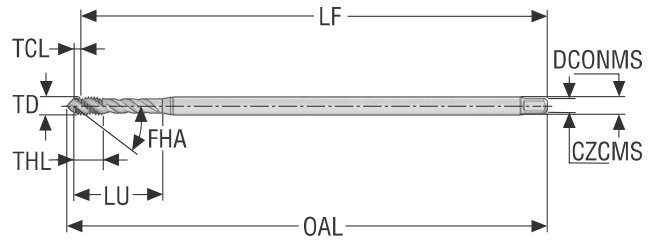
Thread milling

Thread tapping

Annex

T32-R40NC

Blind holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371/EL
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N01C04-3X0.5-63R	10139179	M3	0,5	1,17 <i>0.046</i>	5,0 <i>0.197</i>	18 <i>0.709</i>	98,83 <i>3.891</i>	101,2 <i>3.984</i>	3,5 <i>0.138</i>	3.50X2.70	2,5 <i>0.098</i>	3	C
T32-R40N01C04-4X0.7-63R	10139180	M4	0,7	1,45 <i>0.057</i>	7,0 <i>0.276</i>	21 <i>0.827</i>	123,55 <i>4.864</i>	126,6 <i>4.984</i>	4,5 <i>0.177</i>	4.50X3.40	3,3 <i>0.130</i>	3	C
T32-R40N01C04-5X0.8-63R	10139181	M5	0,8	1,9 <i>0.075</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	138,1 <i>5.437</i>	142,0 <i>5.591</i>	6,0 <i>0.236</i>	6.00X4.90	4,2 <i>0.165</i>	3	C
T32-R40N01C04-6X1-63R	10139182	M6	1,0	2,28 <i>0.090</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	157,72 <i>6.209</i>	162,4 <i>6.394</i>	6,0 <i>0.236</i>	6.00X4.90	5,0 <i>0.197</i>	3	C

Thread turning

MDT

Mini-Shaft™

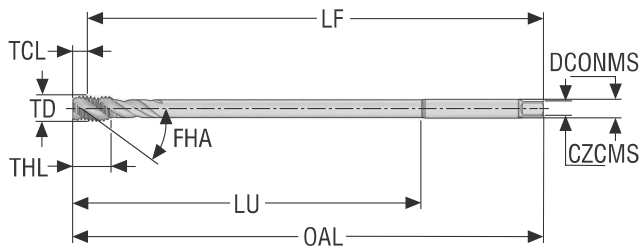
Thread milling

Thread tapping

Annex

T32-R40NC

Blind holes – Metric coarse threads

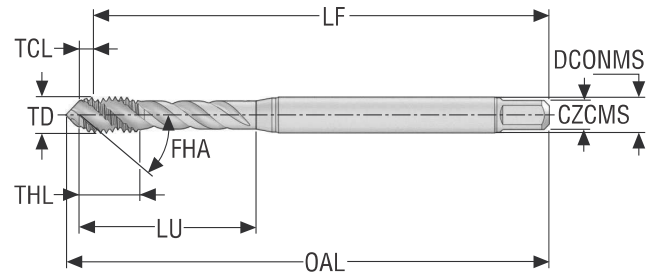


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376/EL
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N01C07-8X1.25-63R	10139183	M8	1,25	3,11 0.122	15,0 0.591	157 6.181	176,89 6.964	180,0 7.087	6,0 0.236	6.00X4.90	6,8 0.268	3	C
T32-R40N01C07-10X1.5-63R	10139185	M10	1,5	3,76 0.148	17,0 0.669	177 6.969	196,24 7.726	200,0 7.874	7,0 0.276	7.00X5.50	8,5 0.335	3	C
T32-R40N01C07-12X1.75-63R	10139186	M12	1,75	4,41 0.174	18,0 0.709	193 7.598	215,59 8.488	220,0 8.661	9,0 0.354	9.00X7.00	10,2 0.402	3	C
T32-R40N01C07-16X2-63R	10139187	M16	2,0	5,21 0.205	20,0 0.787	178 7.008	214,79 8.456	220,0 8.661	12,0 0.472	12.00X9.00	14,0 0.551	4	C

T32-R40NC

Blind holes – Metric coarse threads, 6G



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6G
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N01C03-3X0.5-61R	10139173	M3	0,5	1,2 <i>0.047</i>	5,0 <i>0.197</i>	18 <i>0.709</i>	54,8 <i>2.157</i>	57,2 <i>2.252</i>	3,5 <i>0.138</i>	3.50X2.70	2,5 <i>0.098</i>	3	C
T32-R40N01C03-4X0.7-61R	10139174	M4	0,7	1.54 <i>0.061</i>	7,0 <i>0.276</i>	21 <i>0.827</i>	61.46 <i>2.420</i>	64.6 <i>2.543</i>	4,5 <i>0.177</i>	4.50X3.40	3,3 <i>0.130</i>	3	C
T32-R40N01C03-5X0.8-61R	10139175	M5	0,8	1,9 <i>0.075</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	68,1 <i>2.681</i>	72,0 <i>2.835</i>	6,0 <i>0.236</i>	6.00X4.90	4,2 <i>0.165</i>	3	C
T32-R40N01C03-6X1-61R	10139176	M6	1,0	2,28 <i>0.090</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	77,72 <i>3.060</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,0 <i>0.197</i>	3	C
T32-R40N01C03-8X1.25-61R	10139177	M8	1,25	3,11 <i>0.122</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	86,89 <i>3.421</i>	91,7 <i>3.610</i>	8,0 <i>0.315</i>	8.00X6.20	6,8 <i>0.268</i>	3	C
T32-R40N01C03-10X1.5-61R	10139178	M10	1,5	3,76 <i>0.148</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	96,24 <i>3.789</i>	101,8 <i>4.008</i>	10,0 <i>0.394</i>	10.00X8.00	8,5 <i>0.335</i>	3	C

Thread turning

MDT

Mini-Shaft™

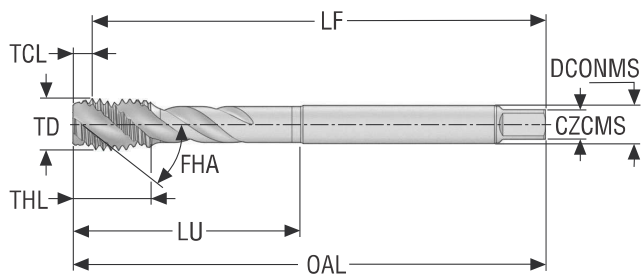
Thread milling

Thread tapping

Annex

T32-R40NC

Blind holes – Metric coarse threads, 6G

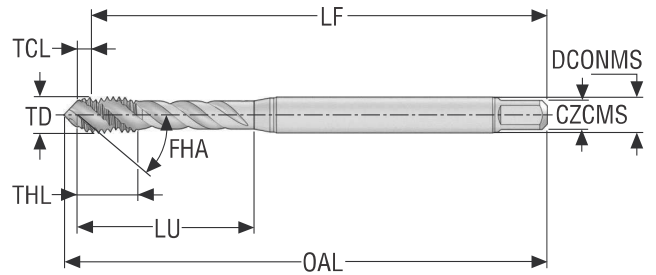


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6G
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N01C06-12X1.75-61R	10139649	M12	1,75	4,41 <i>0.174</i>	18,0 <i>0.709</i>	83 <i>3.268</i>	105,59 <i>4.157</i>	110,0 <i>4.331</i>	9,0 <i>0.354</i>	9.00X7.00	10,2 <i>0.402</i>	3	C
T32-R40N01C06-16X2-61R	10139650	M16	2,0	5,15 <i>0.203</i>	20,0 <i>0.787</i>	81 <i>3.189</i>	104,85 <i>4.128</i>	110,0 <i>4.331</i>	11,0 <i>0.433</i>	11.00X9.00	14,0 <i>0.551</i>	4	C
T32-R40N01C06-20X2.5-61R	10139651	M20	2,5	6,51 <i>0.256</i>	25,0 <i>0.984</i>	95 <i>3.740</i>	133,49 <i>5.256</i>	140,0 <i>5.512</i>	16,0 <i>0.630</i>	16.00X12.00	17,5 <i>0.689</i>	4	C

T32-R40NC

Blind holes – Metric coarse threads, left hand thread



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-L40N01C03-3X0.5-63L	10139167	M3	0,5	1,2 <i>0.047</i>	5,0 <i>0.197</i>	18 <i>0.709</i>	54,8 <i>2.157</i>	57,2 <i>2.252</i>	3,5 <i>0.138</i>	3.50X2.70	2,5 <i>0.098</i>	3	C
T32-L40N01C03-4X0.7-63L	10139168	M4	0,7	1,54 <i>0.061</i>	7,0 <i>0.276</i>	21 <i>0.827</i>	61,46 <i>2.420</i>	64,6 <i>2.543</i>	4,5 <i>0.177</i>	4.50X3.40	3,3 <i>0.130</i>	3	C
T32-L40N01C03-5X0.8-63L	10139169	M5	0,8	1,9 <i>0.075</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	68,1 <i>2.681</i>	72,0 <i>2.835</i>	6,0 <i>0.236</i>	6.00X4.90	4,2 <i>0.165</i>	3	C
T32-L40N01C03-6X1-63L	10139170	M6	1,0	2,28 <i>0.090</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	77,72 <i>3.060</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,0 <i>0.197</i>	3	C
T32-L40N01C03-8X1.25-63L	10139171	M8	1,25	3,11 <i>0.122</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	86,89 <i>3.421</i>	91,7 <i>3.610</i>	8,0 <i>0.315</i>	8.00X6.20	6,8 <i>0.268</i>	3	C
T32-L40N01C03-10X1.5-63L	10139172	M10	1,5	3,76 <i>0.148</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	96,24 <i>3.789</i>	101,8 <i>4.008</i>	10,0 <i>0.394</i>	10.00X8.00	8,5 <i>0.335</i>	3	C

Thread turning

MDT

Mini-Shaft™

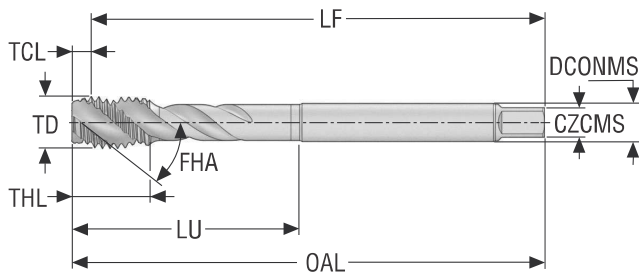
Thread milling

Thread tapping

Annex

T32-R40NC

Blind holes – Metric coarse threads, left hand thread

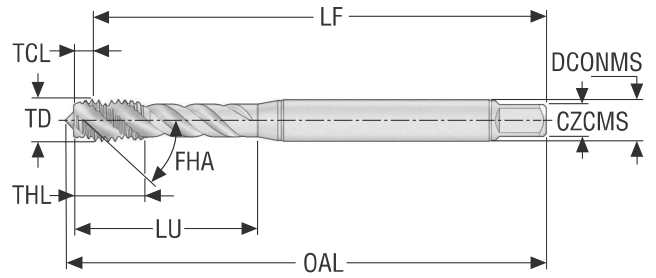


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-L40N01C06-12X1.75-63L	10139645	M12	1,75	4,41 <i>0.174</i>	18,0 <i>0.709</i>	83 <i>3.268</i>	105,59 <i>4.157</i>	110,0 <i>4.331</i>	9,0 <i>0.354</i>	9.00X7.00	10,2 <i>0.402</i>	3	C
T32-L40N01C06-16X2-63L	10139646	M16	2,0	5,15 <i>0.203</i>	20,0 <i>0.787</i>	68 <i>2.677</i>	104,85 <i>4.128</i>	110,0 <i>4.331</i>	12,0 <i>0.472</i>	12.00X9.00	14,0 <i>0.551</i>	4	C
T32-L40N01C06-20X2.5-63L	10139647	M20	2,5	6,51 <i>0.256</i>	25,0 <i>0.984</i>	95 <i>3.740</i>	133,49 <i>5.256</i>	140,0 <i>5.512</i>	16,0 <i>0.630</i>	16.00X12.00	17,5 <i>0.689</i>	4	C
T32-L40N01C06-24X3-63L	10139648	M24	3,0	7,81 <i>0.307</i>	30,0 <i>1.181</i>	113 <i>4.449</i>	152,19 <i>5.992</i>	160,0 <i>6.299</i>	18,0 <i>0.709</i>	18.00X14.50	21,0 <i>0.827</i>	4	C

T32-R40NC

Blind holes – MF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N02C03-8X1-63R	10139150	MF8X1	1,0	2,58 <i>0.102</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	87,42 <i>3.442</i>	91,7 <i>3.610</i>	8,0 <i>0.315</i>	8.00X6.20	7,0 <i>0.276</i>	3	C
T32-R40N02C03-10X1-63R	10139151	MF10X1	1,0	2,68 <i>0.106</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	87,32 <i>3.438</i>	90,0 <i>3.543</i>	10,0 <i>0.394</i>	10.00X8.00	9,0 <i>0.354</i>	3	C
T32-R40N02C03-10X1.25-63R	10139152	MF10X1.25	1,25	3,21 <i>0.126</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	96,79 <i>3.811</i>	101,8 <i>4.008</i>	10,0 <i>0.394</i>	10.00X8.00	8,8 <i>0.346</i>	3	C

Thread turning

MDT

Mini-Shaft™

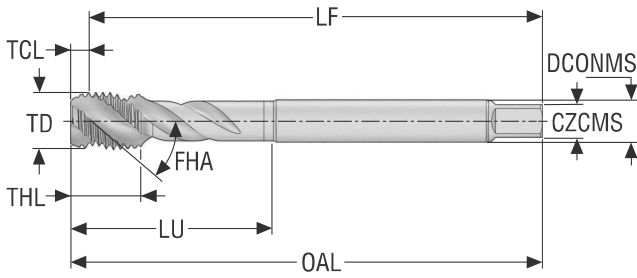
Thread milling

Thread tapping

Annex

T32-R40NC

Blind holes – MF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N02C05-8X1-63R	10139593	MF8X1	1,0	2,58 0.102	10,0 0.394	67 2.638	87,42 3.442	90,0 3.543	6,0 0.236	6.00X4.90	7,0 0.276	3	C
T32-R40N02C05-10X0.75-63R	10139594	MF10X0.75	0,75	2,13 0.084	10,0 0.394	67 2.638	87,87 3.459	90,0 3.543	7,0 0.276	7.00X5.50	9,2 0.362	3	C
T32-R40N02C05-10X1-63R	10139595	MF10X1	1,0	2,68 0.106	13,0 0.512	67 2.638	87,32 3.438	90,0 3.543	7,0 0.276	7.00X5.50	9,0 0.354	3	C
T32-R40N02C05-10X1.25-63R	10139596	MF10X1.25	1,25	3,21 0.126	15,0 0.591	77 3.031	96,79 3.811	100,0 3.937	7,0 0.276	7.00X5.50	8,8 0.346	3	C
T32-R40N02C05-12X1-63R	10139597	MF12X1	1,0	2,79 0.110	10,0 0.394	73 2.874	97,21 3.827	100,0 3.937	9,0 0.354	9.00X7.00	11,0 0.433	3	C
T32-R40N02C05-12X1.25-63R	10139598	MF12X1.25	1,25	3,34 0.131	15,0 0.591	73 2.874	96,66 3.806	100,0 3.937	9,0 0.354	9.00X7.00	10,8 0.425	3	C
T32-R40N02C05-12X1.5-63R	10139599	MF12X1.5	1,5	3,87 0.152	15,0 0.591	73 2.874	96,13 3.785	100,0 3.937	9,0 0.354	9.00X7.00	10,5 0.413	3	C
T32-R40N02C05-14X1-63R	10139600	MF14X1	1,0	2,89 0.114	10,0 0.394	71 2.795	97,11 3.823	100,0 3.937	11,0 0.433	11.00X9.00	13,0 0.512	4	C
T32-R40N02C05-14X1.25-63R	10139601	MF14X1.25	1,25	3,44 0.135	15,0 0.591	71 2.795	96,56 3.802	100,0 3.937	11,0 0.433	11.00X9.00	12,8 0.504	4	C
T32-R40N02C05-14X1.5-63R	10139602	MF14X1.5	1,5	3,97 0.156	15,0 0.591	71 2.795	96,03 3.781	100,0 3.937	11,0 0.433	11.00X9.00	12,5 0.492	4	C
T32-R40N02C05-16X1-63R	10139603	MF16X1	1,0	2,79 0.110	10,0 0.394	58 2.283	97,21 3.827	100,0 3.937	12,0 0.472	12.00X9.00	15,0 0.591	4	C
T32-R40N02C05-16X1.5-63R	10139604	MF16X1.5	1,5	4,07 0.160	15,0 0.591	58 2.283	95,93 3.777	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	4	C
T32-R40N02C05-18X1.5-63R	10139605	MF18X1.5	1,5	4,17 0.164	17,0 0.669	66 2.598	105,83 4.167	110,0 4.331	14,0 0.551	14.00X11.00	16,5 0.650	4	C
T32-R40N02C05-18X2-63R	10139606	MF18X2	2,0	5,25 0.207	20,0 0.787	81 3.189	119,75 4.715	125,0 4.921	14,0 0.551	14.00X11.00	16,0 0.630	4	C
T32-R40N02C05-20X1.5-63R	10139607	MF20X1.5	1,5	4,37 0.172	17,0 0.669	80 3.150	120,63 4.749	125,0 4.921	16,0 0.630	16.00X12.00	18,5 0.728	4	C
T32-R40N02C05-20X2-63R	10139608	MF20X2	2,0	5,45 0.215	20,0 0.787	95 3.740	134,55 5.297	140,0 5.512	16,0 0.630	16.00X12.00	18,0 0.709	4	C
T32-R40N02C05-22X1.5-63R	10139609	MF22X1.5	1,5	4,37 0.172	17,0 0.669	78 3.071	120,63 4.749	125,0 4.921	18,0 0.709	18.00X14.50	20,5 0.807	4	C
T32-R40N02C05-22X2-63R	10139610	MF22X2	2,0	5,45 0.215	20,0 0.787	93 3.661	134,55 5.297	140,0 5.512	18,0 0.709	18.00X14.50	20,0 0.787	4	C
T32-R40N02C05-24X1.5-63R	10139611	MF24X1.5	1,5	4,39 0.173	20,0 0.787	93 3.661	135,61 5.339	140,0 5.512	18,0 0.709	18.00X14.50	22,5 0.886	4	C
T32-R40N02C05-24X2-63R	10139612	MF24X2	2,0	5,67 0.223	20,0 0.787	93 3.661	134,33 5.289	140,0 5.512	18,0 0.709	18.00X14.50	22,0 0.866	4	C

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T32-R40N02C05-27X1.5-63R	10139613	MF27X1.5	1,5	4,59 <i>0.181</i>	20,0 <i>0.787</i>	77 <i>3.031</i>	135,41 <i>5.331</i>	140,0 <i>5.512</i>	20,0 <i>0.787</i>	20.00X16.00	25,5 <i>1.004</i>	4	C
T32-R40N02C05-27X2-63R	10139614	MF27X2	2,0	5,67 <i>0.223</i>	20,0 <i>0.787</i>	77 <i>3.031</i>	134,33 <i>5.289</i>	140,0 <i>5.512</i>	20,0 <i>0.787</i>	20.00X16.00	25,0 <i>0.984</i>	4	C
T32-R40N02C05-30X1.5-63R	10139615	MF30X1.5	1,5	4,19 <i>0.165</i>	22,0 <i>0.866</i>	85 <i>3.346</i>	145,81 <i>5.741</i>	150,0 <i>5.906</i>	22,0 <i>0.866</i>	22.00X18.00	28,5 <i>1.122</i>	4	C
T32-R40N02C05-30X2-63R	10139616	MF30X2	2,0	5,67 <i>0.223</i>	22,0 <i>0.866</i>	85 <i>3.346</i>	144,33 <i>5.682</i>	150,0 <i>5.906</i>	22,0 <i>0.866</i>	22.00X18.00	28,0 <i>1.102</i>	4	C

Thread turning

MDT

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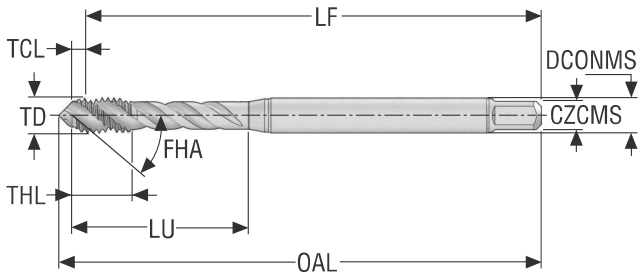
Thread milling

Thread tapping

Annex

T32-R40NC

Blind holes – UNC threads

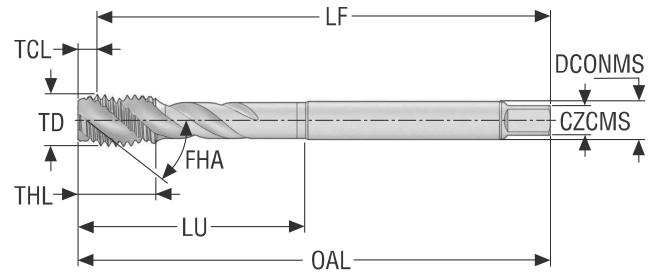


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-R40N08C03-4-40-21R	10139153	UNC4-40	2,845 0.112	40.0	1,45 0.057	5,0 0.197	18 0.709	54,55 2.148	56,0 2.205	3,5 0.138	3.50X2.70	2,35 0.093	3	C
T32-R40N08C03-5-40-21R	10139154	UNC5-40	3,175 0.125	40.0	1,5 0.059	7,0 0.276	18 0.709	54,5 2.146	57,2 2.252	3,5 0.138	3.50X2.70	2,65 0.104	3	C
T32-R40N08C03-6-32-21R	10139155	UNC6-32	3,505 0.138	32.0	1,92 0.076	6,0 0.236	20 0.787	54,08 2.129	57,4 2.260	4,0 0.157	4.00X3.00	2,85 0.112	3	C
T32-R40N08C03-8-32-21R	10139156	UNC8-32	4,166 0.164	32.0	1,85 0.073	7,0 0.276	21 0.827	61,15 2.407	64,6 2.543	4,5 0.177	4.50X3.40	3,5 0.138	3	C
T32-R40N08C03-10-24-21R	10139157	UNC10-24	4,826 0.190	24.0	2,49 0.098	8,0 0.315	25 0.984	67,51 2.658	72,0 2.835	6,0 0.236	6.00X4.90	3,9 0.154	3	C
T32-R40N08C03-12-24-21R	10139158	UNC12-24	5,486 0.216	24.0	2,43 0.096	10,0 0.394	30 1.181	77,57 3.054	82,2 3.236	6,0 0.236	6.00X4.90	4,5 0.177	3	C
T32-R40N08C03-1/4-20-21R	10139159	UNC1/4-20	6,35 0.250	20.0	2,9 0.114	13,0 0.512	32 1.260	77,1 3.035	82,4 3.244	7,0 0.276	7.00X5.50	5,1 0.201	3	C
T32-R40N08C03-5/16-18-21R	10139160	UNC5/16-18	7,937 0.312	18.0	3,54 0.139	13,0 0.512	35 1.378	86,46 3.404	90,0 3.543	8,0 0.315	8.00X6.20	6,6 0.260	3	C
T32-R40N08C03-3/8-16-21R	10139161	UNC3/8-16	9,525 0.375	16.0	3,99 0.157	15,0 0.591	39 1.535	96,01 3.780	100,0 3.937	10,0 0.394	10.00X8.00	8,0 0.315	3	C

T32-R40NC

Blind holes – UNC threads

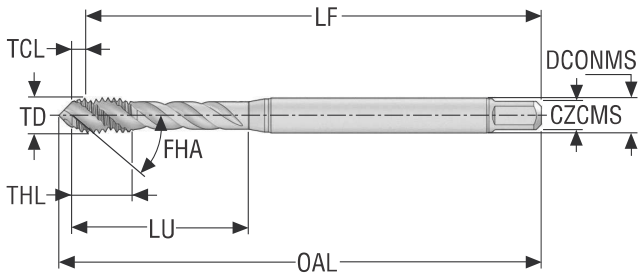


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-R40N08C06-7/16-14-21R	10139617	UNC7/16-14	11,112 0.437	14.0	4,6 0.181	15,0 0.591	76 2.992	95,4 3.756	100,0 3.937	8,0 0.315	8.00X6.20	9,3 0.366	3	C
T32-R40N08C06-1/2-13-21R	10139626	UNC1/2-13	12,7 0.500	13.0	4,94 0.194	18,0 0.709	83 3.268	105,06 4.136	110,0 4.331	9,0 0.354	9.00X7.00	10,7 0.421	4	C
T32-R40N08C06-9/16-12-21R	10139619	UNC9/16-12	14,287 0.562	12.0	5,37 0.211	20,0 0.787	81 3.189	104,63 4.119	110,0 4.331	11,0 0.433	11.00X9.00	12,3 0.484	4	C
T32-R40N08C06-5/8-11-21R	10139620	UNC5/8-11	15,875 0.625	11.0	5,81 0.229	22,0 0.866	68 2.677	104,19 4.102	110,0 4.331	12,0 0.472	12.00X9.00	13,5 0.531	4	C
T32-R40N08C06-3/4-10-21R	10139621	UNC3/4-10	19,05 0.750	10.0	6,78 0.267	25,0 0.984	81 3.189	118,22 4.654	125,0 4.921	14,0 0.551	14.00X11.00	16,5 0.650	4	C
T32-R40N08C06-7/8-9-21R	10139622	UNC7/8-9	22,225 0.875	9.0	7,27 0.286	30,0 1.181	93 3.661	132,73 5.226	140,0 5.512	18,0 0.709	18.00X14.50	19,5 0.768	4	C
T32-R40N08C06-1-8-21R	10139623	UNC1-8	25,4 1.000	8.0	8,32 0.328	30,0 1.181	97 3.819	151,68 5.972	160,0 6.299	20,0 0.787	20.00X16.00	22,25 0.876	4	C
T32-R40N08C06-1_1/8-7-21R	10139758	UNC1 1/8-7	28,575 1.125	7.0	9,17 0.361	37,0 1.457	115 4.528	170,83 6.726	180,0 7.087	22,0 0.866	22.00X18.00	25,0 0.984	4	C
T32-R40N08C06-1_1/4-7-21R	10139624	UNC1 1/4-7	31,75 1.250	7.0	9,3 0.366	37,0 1.457	115 4.528	170,7 6.720	180,0 7.087	22,0 0.866	22.00X18.00	28,0 1.102	4	C
T32-R40N08C06-1_3/8-6-21R	10139618	UNC1 3/8-6	34,925 1.375	6.0	10,5 0.413	40,0 1.575	131 5.157	189,5 7.461	200,0 7.874	28,0 1.102	28.00X22.00	30,75 1.211	4	C
T32-R40N08C06-1_1/2-6-21R	10139625	UNC1 1/2-6	38,1 1.500	6.0	10,63 0.419	40,0 1.575	131 5.157	189,37 7.456	200,0 7.874	28,0 1.102	28.00X22.00	34,0 1.339	4	C

T32-R40NC

Blind holes – UNF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-R40N09C03-10-32-21R	10139162	UNF10-32	4,826 0.190	32.0	1,96 0.077	8,0 0.315	25 0.984	68,04 2.679	72,0 2.835	6,0 0.236	6.00X4.90	4,1 0.161	3	C
T32-R40N09C03-12-28-21R	10139163	UNF12-28	5,486 0.216	28.0	2,07 0.081	10,0 0.394	30 1.181	77,93 3.068	82,4 3.244	6,0 0.236	6.00X4.90	4,6 0.181	3	C
T32-R40N09C03-1/4-28-21R	10139164	UNF1/4-28	6,35 0.250	28.0	2,19 0.086	10,0 0.394	30 1.181	77,81 3.063	82,4 3.244	7,0 0.276	7.00X5.50	5,5 0.217	3	C
T32-R40N09C03-5/16-24-21R	10139165	UNF5/16-24	7,937 0.312	24.0	2,83 0.111	13,0 0.512	35 1.378	87,17 3.432	90,0 3.543	8,0 0.315	8.00X6.20	6,9 0.272	3	C
T32-R40N09C03-3/8-24-21R	10139166	UNF3/8-24	9,525 0.375	24.0	2,91 0.115	15,0 0.591	35 1.378	87,09 3.429	90,0 3.543	10,0 0.394	10.00X8.00	8,5 0.335	3	C

Thread turning

MDT

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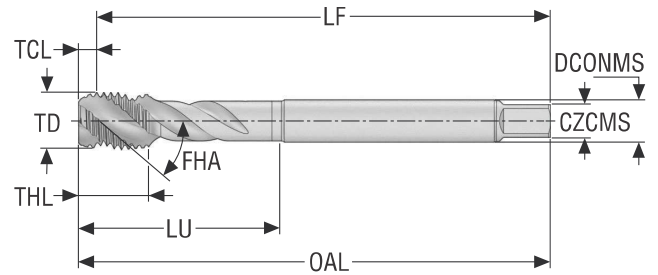
Thread milling

Thread tapping

Annex

T32-R40NC

Blind holes – UNF threads

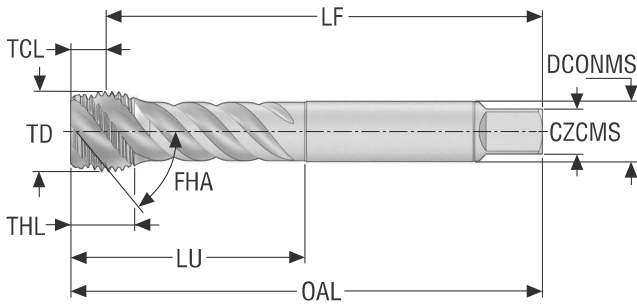


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-R40N09C05-7/16-20-21R	10139627	UNF7/16-20	11,112 0.437	20.0	3,35 0.132	15,0 0.591	76 2.992	96,65 3.805	100,0 3.937	8,0 0.315	8.00X6.20	9,9 0.390	3	C
T32-R40N09C05-1/2-20-21R	10139636	UNF1/2-20	12,7 0.500	20.0	3,51 0.138	15,0 0.591	73 2.874	96,49 3.799	100,0 3.937	9,0 0.354	9.00X7.00	11,5 0.453	4	C
T32-R40N09C05-9/16-18-21R	10139629	UNF9/16-18	14,287 0.562	18.0	3,77 0.148	15,0 0.591	71 2.795	96,23 3.789	100,0 3.937	11,0 0.433	11.00X9.00	13,0 0.512	4	C
T32-R40N09C05-5/8-18-21R	10139630	UNF5/8-18	15,875 0.625	18.0	3,86 0.152	15,0 0.591	58 2.283	96,14 3.785	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	4	C
T32-R40N09C05-3/4-16-21R	10139631	UNF3/4-16	19,05 0.750	16.0	4,45 0.175	17,0 0.669	66 2.598	105,55 4.156	110,0 4.331	14,0 0.551	14.00X11.00	17,5 0.689	4	C
T32-R40N09C05-7/8-14-21R	10139632	UNF7/8-14	22,225 0.875	14.0	5,15 0.203	17,0 0.669	78 3.071	119,85 4.719	125,0 4.921	18,0 0.709	18.00X14.50	20,5 0.807	4	C
T32-R40N09C05-1-12-21R	10139633	UNF1-12	25,4 1.000	12.0	5,82 0.229	22,0 0.866	93 3.661	134,18 5.283	140,0 5.512	18,0 0.709	18.00X14.50	23,3 0.917	4	C
T32-R40N09C05-1_1/8-12-21R	10139759	UNF1 1/8-12	28,575 1.125	12.0	5,98 0.235	22,0 0.866	85 3.346	144,02 5.670	150,0 5.906	22,0 0.866	22.00X18.00	26,5 1.043	4	C
T32-R40N09C05-1_1/4-12-21R	10139634	UNF1 1/4-12	31,75 1.250	12.0	5,94 0.234	22,0 0.866	85 3.346	144,06 5.672	150,0 5.906	22,0 0.866	22.00X18.00	29,5 1.161	4	C
T32-R40N09C05-1_3/8-12-21R	10139628	UNF1 3/8-12	34,925 1.375	12.0	6,07 0.239	22,0 0.866	101 3.976	163,93 6.454	170,0 6.693	28,0 1.102	28.00X22.00	32,8 1.291	4	C
T32-R40N09C05-1_1/2-12-21R	10139635	UNF1 1/2-12	38,1 1.500	12.0	6,04 0.238	24,0 0.945	101 3.976	163,96 6.455	170,0 6.693	28,0 1.102	28.00X22.00	36,0 1.417	4	C

T32-R40NC

Blind holes – G threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL
- FHA = 40°
- For cutting data see page(s) 260

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-R40N21C09-1/8-28-11R	10139637	G1/8	9,728 0.383	28.0	2,67 0.105	10,0 0.394	67 2.638	87,33 3.438	90,0 3.543	7,0 0.276	7.00X5.50	8,8 0.346	3	C
T32-R40N21C09-1/4-19-11R	10139638	G1/4	13,157 0.518	19.0	3,72 0.146	14,0 0.551	71 2.795	96,28 3.791	100,0 3.937	11,0 0.433	11.00X9.00	11,8 0.465	3	C
T32-R40N21C09-3/8-19-11R	10139639	G3/8	16,662 0.656	19.0	3,92 0.154	15,0 0.591	58 2.283	96,08 3.783	100,0 3.937	12,0 0.472	12.00X9.00	15,25 0.600	4	C
T32-R40N21C09-1/2-14-11R	10139640	G1/2	20,955 0.825	14.0	5,28 0.208	17,0 0.669	80 3.150	119,72 4.713	125,0 4.921	16,0 0.630	16.00X12.00	19,0 0.748	4	C
T32-R40N21C09-5/8-14-11R	10139641	G5/8	22,911 0.902	14.0	5,21 0.205	20,0 0.787	78 3.071	119,79 4.716	125,0 4.921	18,0 0.709	18.00X14.50	21,0 0.827	4	C
T32-R40N21C09-3/4-14-11R	10139642	G3/4	26,441 1.041	14.0	5,45 0.215	20,0 0.787	77 3.031	134,55 5.297	140,0 5.512	20,0 0.787	20.00X16.00	24,5 0.965	4	C
T32-R40N21C09-7/8-14-11R	10139643	G7/8	30,201 1.189	14.0	5,38 0.212	22,0 0.866	85 3.346	144,62 5.694	150,0 5.906	22,0 0.866	22.00X18.00	28,25 1.112	4	C
T32-R40N21C09-1-11-11R	10139644	G1	33,249 1.309	11.0	6,56 0.258	24,0 0.945	93 3.661	153,44 6.041	160,0 6.299	25,0 0.984	25.00X20.00	30,75 1.211	4	C

Thread turning

MDT

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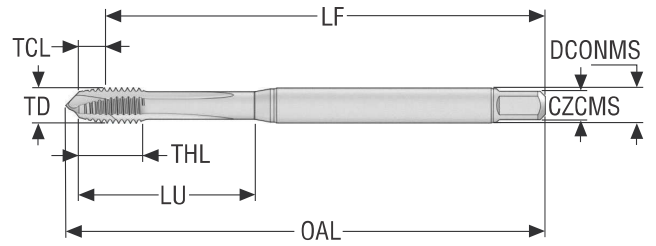
Thread milling

Thread tapping

Annex

T34-PHB-micro

Through holes – Metric coarse threads



- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 4H
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-PH01B03-1X0.25-41R	10139302	M1	0,25	1,13 <i>0.044</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	38,87 <i>1.530</i>	40,9 <i>1.610</i>	2,5 <i>0.098</i>	2.50X2.10	0,75 <i>0.030</i>	2	B
T34-PH01B03-1.1X0.25-41R	10139303	M1.1	0,25	1,13 <i>0.044</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	38,87 <i>1.530</i>	41,0 <i>1.614</i>	2,5 <i>0.098</i>	2.50X2.10	0,85 <i>0.033</i>	2	B
T34-PH01B03-1.2X0.25-41R	10139304	M1.2	0,25	1,13 <i>0.044</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	38,87 <i>1.530</i>	41,1 <i>1.618</i>	2,5 <i>0.098</i>	2.50X2.10	0,95 <i>0.037</i>	2	B
T34-PH01B03-1.4X0.3-41R	10139305	M1.4	0,3	1,32 <i>0.052</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	38,68 <i>1.523</i>	41,3 <i>1.626</i>	2,5 <i>0.098</i>	2.50X2.10	1,1 <i>0.043</i>	2	B

Thread turning

MDT

Mini-Shaft™

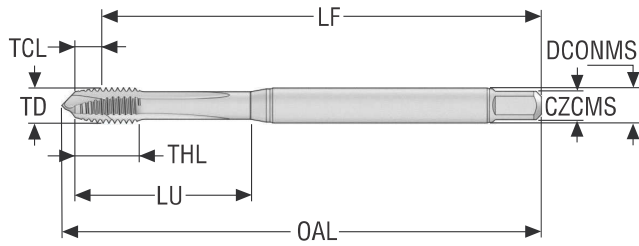
Thread milling

Thread tapping

Annex

T34-PHB-micro

Through holes – Metric coarse threads

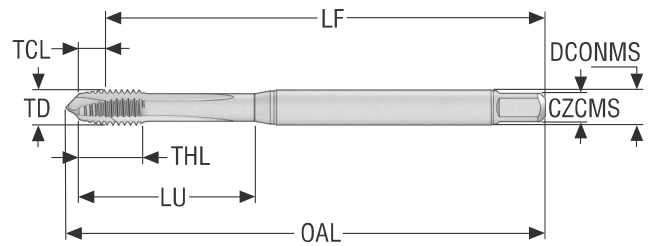


- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T34-PH01B03-1.6X0.35-63R	10139306	M1.6	0,35	1,54 0.061	8,0 0.315	13 0.512	38,46 1.514	41,4 1.630	2,5 0.098	2.50X2.10	1,25 0.049	2	B
T34-PH01B03-1.7X0.35-63R	10139307	M1.7	0,35	1,54 0.061	8,0 0.315	13 0.512	38,46 1.514	41,5 1.634	2,5 0.098	2.50X2.10	1,35 0.053	2	B
T34-PH01B03-1.8X0.35-63R	10139308	M1.8	0,35	1,54 0.061	8,0 0.315	13 0.512	38,46 1.514	41,6 1.638	2,5 0.098	2.50X2.10	1,45 0.057	2	B
T34-PH01B03-2X0.4-63R	10139309	M2	0,4	1,89 0.074	10,0 0.394	13 0.512	43,11 1.697	46,3 1.823	2,8 0.110	2.80X2.10	1,6 0.063	2	B
T34-PH01B03-2.2X0.45-63R	10139310	M2.2	0,45	2,07 0.081	10,0 0.394	13 0.512	42,93 1.690	46,3 1.823	2,8 0.110	2.80X2.10	1,75 0.069	2	B
T34-PH01B03-2.3X0.4-63R	10139311	M2.3	0,4	1,89 0.074	10,0 0.394	13 0.512	43,11 1.697	46,3 1.823	2,8 0.110	2.80X2.10	1,9 0.075	2	B
T34-PH01B03-2.5X0.45-63R	10139312	M2.5	0,45	2,07 0.081	9,0 0.354	14 0.551	47,93 1.887	51,7 2.035	2,8 0.110	2.80X2.10	2,05 0.081	2	B
T34-PH01B03-2.6X0.45-63R	10139313	M2.6	0,45	2,07 0.081	9,0 0.354	14 0.551	47,93 1.887	51,7 2.035	2,8 0.110	2.80X2.10	2,15 0.085	2	B

T34-PHB

Through holes – Metric coarse threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T34-PH01B03-3X0.5-65R	10139314	M3	0,5	2,3 0.091	5,0 0.197	18 0.709	53,7 2.114	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	B
T34-PH01B03-3.5X0.6-65R	10139315	M3.5	0,6	2,67 0.105	6,0 0.236	20 0.787	53,33 2.100	57,4 2.260	4,0 0.157	4.00X3.00	2,9 0.114	3	B
T34-PH01B03-4X0.7-65R	10139316	M4	0,7	3,03 0.119	7,0 0.276	21 0.827	59,97 2.361	64,6 2.543	4,5 0.177	4.50X3.40	3,3 0.130	3	B
T34-PH01B03-4.5X0.75-65R	10139317	M4.5	0,75	3,36 0.132	7,5 0.295	25 0.984	66,64 2.624	71,8 2.827	6,0 0.236	6.00X4.90	3,8 0.150	3	B
T34-PH01B03-5X0.8-65R	10139318	M5	0,8	3,71 0.146	8,0 0.315	25 0.984	66,29 2.610	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	B
T34-PH01B03-6X1-65R	10139319	M6	1,0	4,5 0.177	10,0 0.394	30 1.181	75,5 2.972	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	3	B
T34-PH01B03-8X1.25-65R	10139320	M8	1,25	5,48 0.216	13,0 0.512	35 1.378	84,52 3.328	93,3 3.673	8,0 0.315	8.00X6.20	6,8 0.268	3	B
T34-PH01B03-10X1.5-65R	10139321	M10	1,5	6,9 0.272	15,0 0.591	39 1.535	93,1 3.665	101,8 4.008	10,0 0.394	10.00X8.00	8,5 0.335	3	B

Thread turning

MDT

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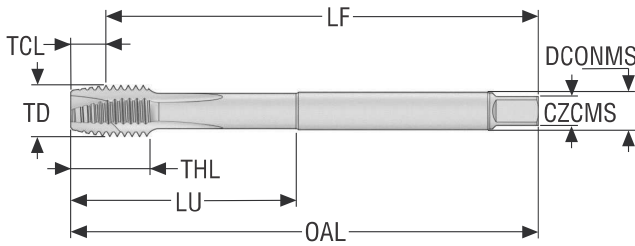
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – Metric coarse threads

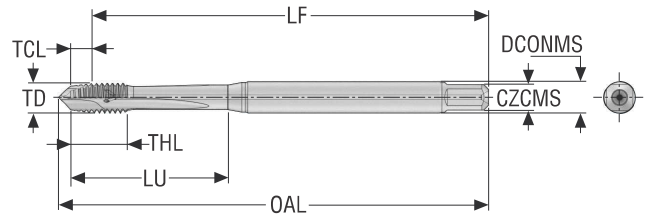


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T34-PH01B06-12X1.75-65R	10139322	M12	1,75	8,11 0.319	18,0 0.709	83 3.268	101,89 4.011	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	B
T34-PH01B06-14X2-65R	10139323	M14	2,0	9,26 0.365	20,0 0.787	81 3.189	100,74 3.966	110,0 4.331	11,0 0.433	11.00X9.00	12,0 0.472	3	B
T34-PH01B06-16X2-65R	10139324	M16	2,0	9,36 0.369	20,0 0.787	68 2.677	100,64 3.962	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	3	B
T34-PH01B06-18X2.5-65R	10139325	M18	2,5	11,3 0.445	25,0 0.984	81 3.189	113,7 4.476	125,0 4.921	14,0 0.551	14.00X11.00	15,5 0.610	4	B
T34-PH01B06-20X2.5-65R	10139326	M20	2,5	11,4 0.449	25,0 0.984	95 3.740	128,6 5.063	140,0 5.512	16,0 0.630	16.00X12.00	17,5 0.689	4	B
T34-PH01B06-22X2.5-65R	10139327	M22	2,5	11,4 0.449	25,0 0.984	93 3.661	128,6 5.063	140,0 5.512	18,0 0.709	18.00X14.50	19,5 0.768	4	B
T34-PH01B06-24X3-65R	10139328	M24	3,0	13,62 0.536	30,0 1.181	113 4.449	146,38 5.763	160,0 6.299	18,0 0.709	18.00X14.50	21,0 0.827	4	B
T34-PH01B06-27X3-65R	10139329	M27	3,0	13,82 0.544	30,0 1.181	97 3.819	146,18 5.755	160,0 6.299	20,0 0.787	20.00X16.00	24,0 0.945	4	B
T34-PH01B06-30X3.5-65R	10139330	M30	3,5	15,87 0.625	35,0 1.378	115 4.528	164,13 6.462	180,0 7.087	22,0 0.866	22.00X18.00	26,5 1.043	4	B
T34-PH01B06-33X3.5-65R	10139331	M33	3,5	15,87 0.625	35,0 1.378	113 4.449	164,13 6.462	180,0 7.087	25,0 0.984	25.00X20.00	29,5 1.161	4	B
T34-PH01B06-36X4-65R	10139332	M36	4,0	18,13 0.714	40,0 1.575	131 5.157	181,87 7.160	200,0 7.874	28,0 1.102	28.00X22.00	32,0 1.260	4	B

T34B-PHB

Through holes – Metric coarse threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAIN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34B-PH01B03-5X0.8-65R	10139333	M5	0,8	3,71 <i>0.146</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	66,29 <i>2.610</i>	72,0 <i>2.835</i>	6,0 <i>0.236</i>	6.00X4.90	4,2 <i>0.165</i>	3	B
T34B-PH01B03-6X1-65R	10139334	M6	1,0	4,5 <i>0.177</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	75,5 <i>2.972</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,0 <i>0.197</i>	3	B
T34B-PH01B03-8X1.25-65R	10139335	M8	1,25	5,48 <i>0.216</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	84,52 <i>3.328</i>	93,3 <i>3.673</i>	8,0 <i>0.315</i>	8.00X6.20	6,8 <i>0.268</i>	3	B
T34B-PH01B03-10X1.5-65R	10139336	M10	1,5	6,9 <i>0.272</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	93,1 <i>3.665</i>	100,0 <i>3.937</i>	10,0 <i>0.394</i>	10.00X8.00	8,5 <i>0.335</i>	3	B

Thread turning

MDT

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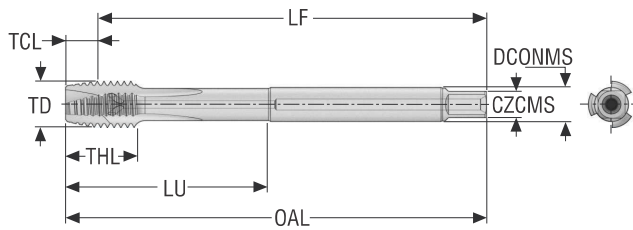
Thread milling

Thread tapping

Annex

T34B-PHB

Through holes – Metric coarse threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34B-PH01B06-12X1.75-65R	10139337	M12	1,75	8,11 0.319	18,0 0.709	83 3.268	101,89 4.011	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	B
T34B-PH01B06-14X2-65R	10139338	M14	2,0	9,26 0.365	20,0 0.787	81 3.189	100,74 3.966	110,0 4.331	11,0 0.433	11.00X9.00	12,0 0.472	3	B
T34B-PH01B06-16X2-65R	10139339	M16	2,0	9,36 0.369	20,0 0.787	68 2.677	100,64 3.962	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	3	B

Thread turning

MDT

Mini-Shaft™

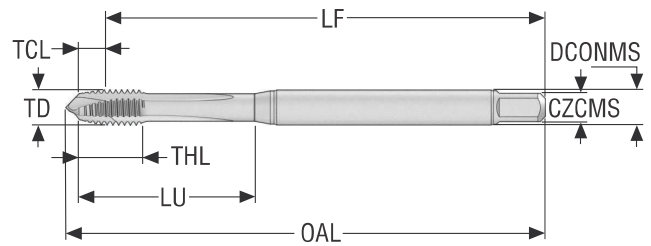
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – MF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-PH02B03-3X0.35-65R	10139340	MF3X0.35	0,35	1,6 <i>0.063</i>	5,0 <i>0.197</i>	18 <i>0.709</i>	54,4 <i>2.142</i>	57,2 <i>2.252</i>	3,5 <i>0.138</i>	3.50X2.70	2,65 <i>0.104</i>	3	B
T34-PH02B03-3.5X0.35-65R	10139341	MF3.5X0.35	0,35	1,6 <i>0.063</i>	5,0 <i>0.197</i>	20 <i>0.787</i>	54,4 <i>2.142</i>	57,4 <i>2.260</i>	4,0 <i>0.157</i>	4.00X3.00	3,15 <i>0.124</i>	3	B
T34-PH02B03-4X0.5-65R	10139342	MF4X0.5	0,5	2,3 <i>0.091</i>	7,0 <i>0.276</i>	21 <i>0.827</i>	60,7 <i>2.390</i>	64,6 <i>2.543</i>	4,5 <i>0.177</i>	4.50X3.40	3,5 <i>0.138</i>	3	B
T34-PH02B03-5X0.5-65R	10139343	MF5X0.5	0,5	2,3 <i>0.091</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	67,7 <i>2.665</i>	72,0 <i>2.835</i>	6,0 <i>0.236</i>	6.00X4.90	4,5 <i>0.177</i>	3	B
T34-PH02B03-6X0.5-65R	10139344	MF6X0.5	0,5	2,34 <i>0.092</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	77,66 <i>3.057</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,5 <i>0.217</i>	3	B
T34-PH02B03-6X0.75-65R	10139345	MF6X0.75	0,75	3,4 <i>0.134</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	76,6 <i>3.016</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,2 <i>0.205</i>	3	B
T34-PH02B03-8X0.75-65R	10139346	MF8X0.75	0,75	3,4 <i>0.134</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	76,6 <i>3.016</i>	83,6 <i>3.291</i>	8,0 <i>0.315</i>	8.00X6.20	7,2 <i>0.283</i>	3	B
T34-PH02B03-8X1-65R	10139347	MF8X1	1,0	4,45 <i>0.175</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	85,55 <i>3.368</i>	93,3 <i>3.673</i>	8,0 <i>0.315</i>	8.00X6.20	7,0 <i>0.276</i>	3	B
T34-PH02B03-10X0.75-65R	10139348	MF10X0.75	0,75	3,8 <i>0.150</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	86,2 <i>3.394</i>	91,8 <i>3.614</i>	10,0 <i>0.394</i>	10.00X8.00	9,2 <i>0.362</i>	3	B
T34-PH02B03-10X1-65R	10139349	MF10X1	1,0	5,25 <i>0.207</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	84,75 <i>3.337</i>	91,8 <i>3.614</i>	10,0 <i>0.394</i>	10.00X8.00	9,0 <i>0.354</i>	3	B
T34-PH02B03-10X1.25-65R	10139350	MF10X1.25	1,25	6,28 <i>0.247</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	93,72 <i>3.690</i>	101,8 <i>4.008</i>	10,0 <i>0.394</i>	10.00X8.00	8,8 <i>0.346</i>	3	B

Thread turning

MDT

Mini-Shaft™

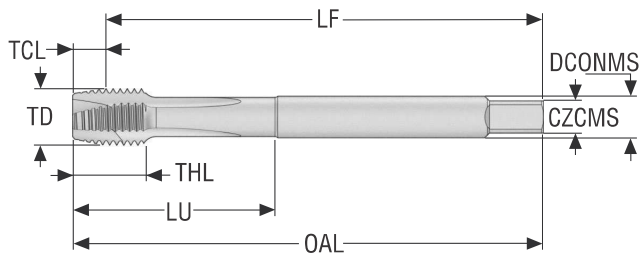
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – MF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T34-PH02B05-8X1-65R	10139351	MF8X1	1,0	4,75 0.187	10,0 0.394	35 1.378	85,25 3.356	90,0 3.543	6,0 0.236	6.00X4.90	7,0 0.276	3	B
T34-PH02B05-10X1-65R	10139352	MF10X1	1,0	4,85 0.191	10,0 0.394	35 1.378	85,15 3.352	90,0 3.543	7,0 0.276	7.00X5.50	9,0 0.354	3	B
T34-PH02B05-12X1-65R	10139353	MF12X1	1,0	4,98 0.196	10,0 0.394	73 2.874	95,02 3.741	100,0 3.937	9,0 0.354	9.00X7.00	11,0 0.433	3	B
T34-PH02B05-12X1.25-65R	10139354	MF12X1.25	1,25	7,07 0.278	15,0 0.591	73 2.874	92,93 3.659	100,0 3.937	9,0 0.354	9.00X7.00	10,8 0.425	3	B
T34-PH02B05-12X1.5-65R	10139355	MF12X1.5	1,5	6,03 0.237	15,0 0.591	73 2.874	93,97 3.700	100,0 3.937	9,0 0.354	9.00X7.00	10,5 0.413	3	B
T34-PH02B05-14X1.5-65R	10139356	MF14X1.5	1,5	7,17 0.282	15,0 0.591	71 2.795	92,83 3.655	100,0 3.937	11,0 0.433	11.00X9.00	12,5 0.492	3	B
T34-PH02B05-16X1.5-65R	10139357	MF16X1.5	1,5	7,27 0.286	15,0 0.591	58 2.283	92,73 3.651	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	3	B
T34-PH02B05-18X1.5-65R	10139358	MF18X1.5	1,5	7,17 0.282	17,0 0.669	66 2.598	102,83 4.048	110,0 4.331	14,0 0.551	14.00X11.00	16,5 0.650	4	B
T34-PH02B05-20X1.5-65R	10139359	MF20X1.5	1,5	7,27 0.286	17,0 0.669	80 3.150	117,73 4.635	125,0 4.921	16,0 0.630	16.00X12.00	18,5 0.728	4	B
T34-PH02B05-22X1.5-65R	10139360	MF22X1.5	1,5	7,27 0.286	17,0 0.669	78 3.071	117,73 4.635	125,0 4.921	18,0 0.709	18.00X14.50	20,5 0.807	4	B
T34-PH02B05-24X1.5-65R	10139361	MF24X1.5	1,5	7,41 0.292	20,0 0.787	93 3.661	132,59 5.220	140,0 5.512	18,0 0.709	18.00X14.50	22,5 0.886	4	B

Thread turning

MDT

Mini-Shaft™

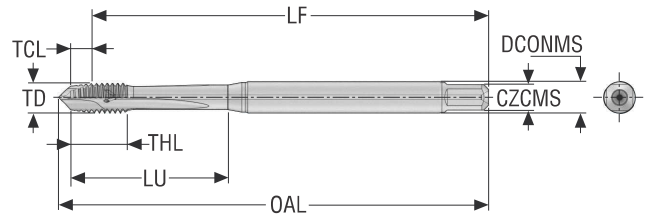
Thread milling

Thread tapping

Annex

T34B-PHB

Through holes – MF threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAIN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34B-PH02B03-8X1-65R	10139362	MF8X1	1,0	4,45 <i>0.175</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	85,55 <i>3.368</i>	93,4 <i>3.677</i>	8,0 <i>0.315</i>	8.00X6.20	7,0 <i>0.276</i>	3	B
T34B-PH02B03-10X1-65R	10139363	MF10X1	1,0	5,25 <i>0.207</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	84,75 <i>3.337</i>	90,0 <i>3.543</i>	10,0 <i>0.394</i>	10.00X8.00	9,0 <i>0.354</i>	3	B

Thread turning

MDT

Mini-Shaft™

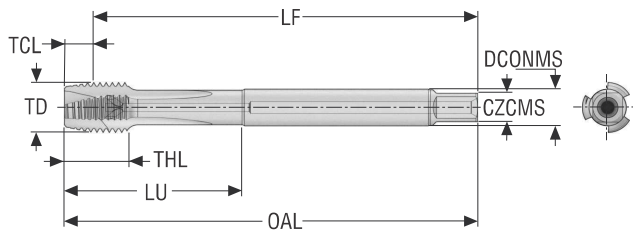
Thread milling

Thread tapping

Annex

T34B-PHB

Through holes – MF threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34B-PH02B05-8X1-65R	10139364	MF8X1	1,0	4,75 <i>0.187</i>	10,0 <i>0.394</i>	35 <i>1.378</i>	85,25 <i>3.356</i>	90,0 <i>3.543</i>	6,0 <i>0.236</i>	6.00X4.90	7,0 <i>0.276</i>	3	B
T34B-PH02B05-10X1-65R	10139365	MF10X1	1,0	4,85 <i>0.191</i>	10,0 <i>0.394</i>	35 <i>1.378</i>	85,15 <i>3.352</i>	90,0 <i>3.543</i>	7,0 <i>0.276</i>	7.00X5.50	9,0 <i>0.354</i>	3	B
T34B-PH02B05-12X1.5-65R	10139366	MF12X1.5	1,5	7,07 <i>0.278</i>	15,0 <i>0.591</i>	73 <i>2.874</i>	92,93 <i>3.659</i>	100,0 <i>3.937</i>	9,0 <i>0.354</i>	9.00X7.00	10,5 <i>0.413</i>	3	B
T34B-PH02B05-14X1.5-65R	10139367	MF14X1.5	1,5	7,17 <i>0.282</i>	15,0 <i>0.591</i>	71 <i>2.795</i>	92,83 <i>3.655</i>	100,0 <i>3.937</i>	11,0 <i>0.433</i>	11.00X9.00	12,5 <i>0.492</i>	3	B
T34B-PH02B05-16X1.5-65R	10139368	MF16X1.5	1,5	7,27 <i>0.286</i>	15,0 <i>0.591</i>	58 <i>2.283</i>	92,73 <i>3.651</i>	100,0 <i>3.937</i>	12,0 <i>0.472</i>	12.00X9.00	14,5 <i>0.571</i>	3	B

Thread turning

MDT

Mini-Shaft™

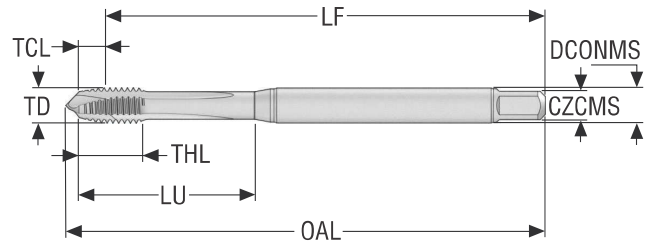
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – UNC threads

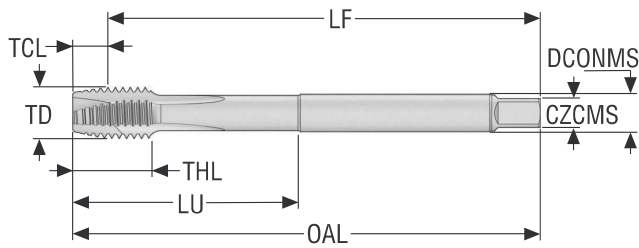


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-PH08B03-4-40-22R	10139041	UNC4-40	2,845 0.112	40.0	2,83 0.111	5,0 0.197	18 0.709	53,17 2.093	56,0 2.205	3,5 0.138	3.50X2.70	2,35 0.093	3	B
T34-PH08B03-5-40-22R	10139042	UNC5-40	3,175 0.125	40.0	2,94 0.116	7,0 0.276	18 0.709	53,06 2.089	57,2 2.252	3,5 0.138	3.50X2.70	2,65 0.104	3	B
T34-PH08B03-6-32-22R	10139043	UNC6-32	3,505 0.138	32.0	3,74 0.147	6,0 0.236	20 0.787	52,26 2.057	57,4 2.260	4,0 0.157	4.00X3.00	2,85 0.112	3	B
T34-PH08B03-8-32-22R	10139044	UNC8-32	4,166 0.164	32.0	3,62 0.143	7,0 0.276	21 0.827	59,38 2.338	64,6 2.543	4,5 0.177	4.50X3.40	3,5 0.138	3	B
T34-PH08B03-10-24-22R	10139045	UNC10-24	4,826 0.190	24.0	4,86 0.191	8,0 0.315	25 0.984	65,14 2.565	72,0 2.835	6,0 0.236	6.00X4.90	3,9 0.154	3	B
T34-PH08B03-12-24-22R	10139046	UNC12-24	5,486 0.216	24.0	4,74 0.187	10,0 0.394	30 1.181	75,26 2.963	82,2 3.236	6,0 0.236	6.00X4.90	4,5 0.177	3	B
T34-PH08B03-1/4-20-22R	10139047	UNC1/4-20	6,35 0.250	20.0	5,65 0.222	13,0 0.512	32 1.260	74,35 2.927	82,4 3.244	7,0 0.276	7.00X5.50	5,1 0.201	3	B
T34-PH08B03-5/16-18-22R	10139048	UNC5/16-18	7,937 0.312	18.0	6,31 0.248	13,0 0.512	35 1.378	83,69 3.295	93,3 3.673	8,0 0.315	8.00X6.20	6,6 0.260	3	B
T34-PH08B03-3/8-16-22R	10139049	UNC3/8-16	9,525 0.375	16.0	7,37 0.290	15,0 0.591	39 1.535	92,63 3.647	100,0 3.937	10,0 0.394	10.00X8.00	8,0 0.315	3	B

T34-PHB

Through holes – UNC threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2BX
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-PH08B06-7/16-14-22R	10139050	UNC7/16-14	11,112 0.437	14.0	8,36 0.329	15,0 0.591	76 2.992	91,64 3.608	100,0 3.937	8,0 0.315	8.00X6.20	9,3 0.366	3	B
T34-PH08B06-1/2-13-22R	10139051	UNC1/2-13	12,7 0.500	13.0	9,01 0.355	18,0 0.709	83 3.268	100,99 3.976	110,0 4.331	9,0 0.354	9.00X7.00	10,7 0.421	3	B
T34-PH08B06-9/16-12-22R	10139052	UNC9/16-12	14,287 0.562	12.0	9,87 0.389	20,0 0.787	81 3.189	100,13 3.942	110,0 4.331	11,0 0.433	11.00X9.00	12,3 0.484	3	B
T34-PH08B06-5/8-11-22R	10139053	UNC5/8-11	15,875 0.625	11.0	10,62 0.418	22,0 0.866	68 2.677	99,38 3.913	110,0 4.331	12,0 0.472	12.00X9.00	13,5 0.531	3	B

Thread turning

MDT

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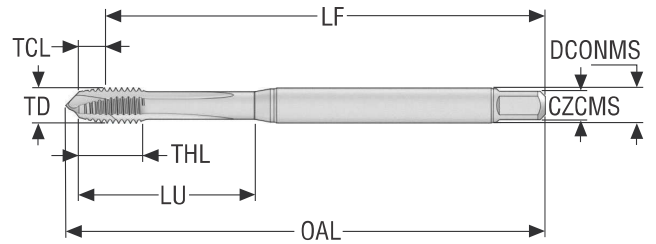
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – UNF threads

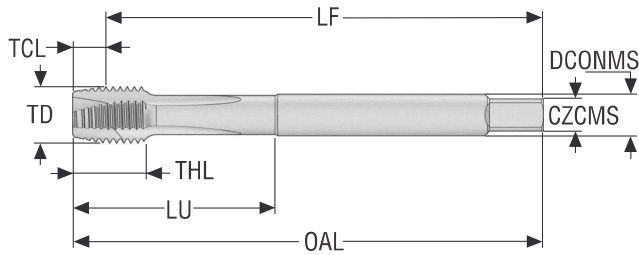


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-PH09B03-4-48-22R	10139369	UNF4-48	2,845 0.112	48.0	2,48 0.098	5,0 0.197	18 0.709	53,52 2.107	57,2 2.252	3,5 0.138	3.50X2.70	2,4 0.094	3	B
T34-PH09B03-5-44-22R	10139370	UNF5-44	3,175 0.125	44.0	2,6 0.102	7,0 0.276	18 0.709	53,4 2.102	57,2 2.252	3,5 0.138	3.50X2.70	2,7 0.106	3	B
T34-PH09B03-6-40-22R	10139371	UNF6-40	3,505 0.138	40.0	3,05 0.120	6,0 0.236	20 0.787	52,95 2.085	57,4 2.260	4,0 0.157	4.00X3.00	2,95 0.116	3	B
T34-PH09B03-8-36-22R	10139372	UNF8-36	4,166 0.164	36.0	3,28 0.129	7,0 0.276	21 0.827	59,72 2.351	64,6 2.543	4,5 0.177	4.50X3.40	3,5 0.138	3	B
T34-PH09B03-10-32-22R	10139373	UNF10-32	4,826 0.190	32.0	3,5 0.138	8,0 0.315	25 0.984	66,5 2.618	72,0 2.835	6,0 0.236	6.00X4.90	4,1 0.161	3	B
T34-PH09B03-12-28-22R	10139374	UNF12-28	5,486 0.216	28.0	4,05 0.159	10,0 0.394	30 1.181	75,95 2.990	82,2 3.236	6,0 0.236	6.00X4.90	4,6 0.181	3	B
T34-PH09B03-1/4-28-22R	10139375	UNF1/4-28	6,35 0.250	28.0	3,94 0.155	10,0 0.394	30 1.181	76,06 2.994	82,4 3.244	7,0 0.276	7.00X5.50	5,5 0.217	3	B
T34-PH09B03-5/16-24-22R	10139376	UNF5/16-24	7,937 0.312	24.0	4,6 0.181	13,0 0.512	35 1.378	85,4 3.362	93,3 3.673	8,0 0.315	8.00X6.20	6,9 0.272	3	B
T34-PH09B03-3/8-24-22R	10139377	UNF3/8-24	9,525 0.375	24.0	4,98 0.196	15,0 0.591	35 1.378	85,02 3.347	90,0 3.543	10,0 0.394	10.00X8.00	8,5 0.335	3	B

T34-PHB

Through holes – UNF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2BX
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T34-PH09B05-7/16-20-22R	10139378	UNF7/16-20	11,112 0.437	20.0	5,95 0.234	15,0 0.591	76 2.992	94,05 3.703	100,0 3.937	8,0 0.315	8.00X6.20	9,9 0.390	3	B
T34-PH09B05-1/2-20-22R	10139379	UNF1/2-20	12,7 0.500	20.0	6,14 0.242	15,0 0.591	73 2.874	93,86 3.695	100,0 3.937	9,0 0.354	9.00X7.00	11,5 0.453	3	B
T34-PH09B05-9/16-18-22R	10139380	UNF9/16-18	14,287 0.562	18.0	6,8 0.268	15,0 0.591	71 2.795	93,2 3.669	100,0 3.937	11,0 0.433	11.00X9.00	13,0 0.512	3	B
T34-PH09B05-5/8-18-22R	10139381	UNF5/8-18	15,875 0.625	18.0	6,87 0.270	15,0 0.591	58 2.283	93,13 3.667	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	3	B

Thread turning

MDT

Mini-Shaft™

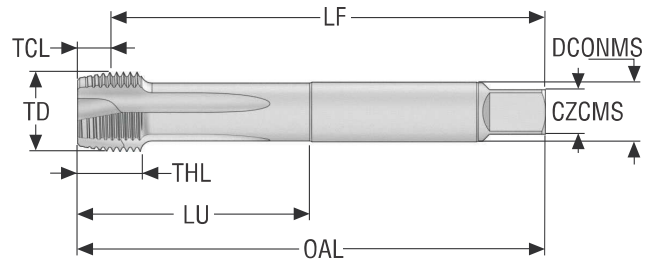
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – G threads

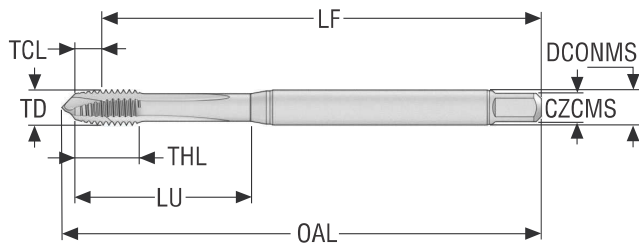


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN5156
- Thread tolerance class: NORMAL-X
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-PH21B09-1/8-28-12R	10139401	G1/8	9,728 0.383	28.0	4,49 0.177	10,0 0.394	36 1.417	85,51 3.367	90,0 3.543	7,0 0.276	7.00X5.50	8,8 0.346	3	B
T34-PH21B09-1/4-19-12R	10139402	G1/4	13,157 0.518	19.0	6,85 0.270	14,0 0.551	71 2.795	93,15 3.667	100,0 3.937	11,0 0.433	11.00X9.00	11,8 0.465	3	B
T34-PH21B09-3/8-19-12R	10139403	G3/8	16,662 0.656	19.0	6,97 0.274	15,0 0.591	58 2.283	93,03 3.663	100,0 3.937	12,0 0.472	12.00X9.00	15,25 0.600	4	B
T34-PH21B09-1/2-14-12R	10139404	G1/2	20,955 0.825	14.0	9,0 0.354	17,0 0.669	80 3.150	116,0 4.567	125,0 4.921	16,0 0.630	16.00X12.00	19,0 0.748	4	B
T34-PH21B09-5/8-14-12R	10139405	G5/8	22,911 0.902	14.0	9,4 0.370	20,0 0.787	78 3.071	115,6 4.551	125,0 4.921	18,0 0.709	18.00X14.50	21,0 0.827	4	B
T34-PH21B09-3/4-14-12R	10139406	G3/4	26,441 1.041	14.0	9,16 0.361	20,0 0.787	77 3.031	130,84 5.151	140,0 5.512	20,0 0.787	20.00X16.00	24,5 0.965	4	B
T34-PH21B09-7/8-14-12R	10139407	G7/8	30,201 1.189	14.0	9,03 0.356	22,0 0.866	85 3.346	140,97 5.550	150,0 5.906	22,0 0.866	22.00X18.00	28,25 1.112	4	B
T34-PH21B09-1-11-12R	10139408	G1	33,249 1.309	11.0	11,49 0.452	24,0 0.945	93 3.661	148,51 5.847	160,0 6.299	25,0 0.984	25.00X20.00	30,75 1.211	4	B

T34-PHB

Through holes – EGM threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H mod.
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T34-PH04B03-2X0.4-64R	10139382	EGM2	0,4	2,07 0.081	9,0 0.354	14 0.551	47,93 1.887	51,7 2.035	2,8 0.110	2.80X2.10	2,1 0.083	2	B
T34-PH04B03-2.5X0.45-64R	10139383	EGM2.5	0,45	2,13 0.084	10,0 0.394	18 0.709	53,87 2.121	57,2 2.252	3,5 0.138	3.50X2.70	2,65 0.104	3	B
T34-PH04B03-3X0.5-64R	10139384	EGM3	0,5	2,03 0.080	12,0 0.472	21 0.827	60,97 2.400	64,6 2.543	4,5 0.177	4.50X3.40	3,15 0.124	3	B
T34-PH04B03-4X0.7-64R	10139385	EGM4	0,7	3,27 0.129	14,0 0.551	25 0.984	66,73 2.627	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	B
T34-PH04B03-5X0.8-64R	10139386	EGM5	0,8	3,72 0.146	18,0 0.709	30 1.181	76,28 3.003	82,4 3.244	6,0 0.236	6.00X4.90	5,25 0.207	3	B
T34-PH04B03-6X1-64R	10139387	EGM6	1,0	4,7 0.185	18,0 0.709	35 1.378	85,3 3.358	90,0 3.543	8,0 0.315	8.00X6.20	6,3 0.248	3	B
T34-PH04B03-8X1.25-64R	10139388	EGM8	1,25	5,8 0.228	20,0 0.787	39 1.535	94,2 3.709	100,0 3.937	10,0 0.394	10.00X8.00	8,4 0.331	3	B

Thread turning

MDT

Mini-Shaft™

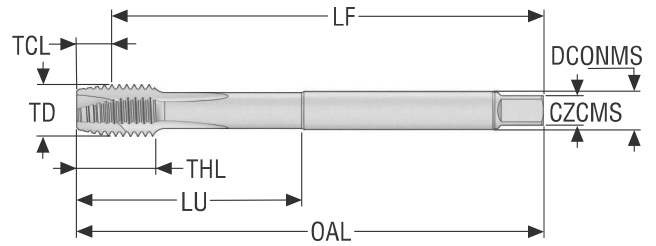
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – EGM threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6H mod.
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-PH04B06-10X1.5-64R	10139409	EGM10	1,5	7,41 0.292	15,0 0.591	73 2.874	92,59 3.645	100,0 3.937	9,0 0.354	9.00X7.00	10,5 0.413	3	B
T34-PH04B06-12X1.75-64R	10139410	EGM12	1,75	8,29 0.326	20,0 0.787	81 3.189	101,71 4.004	110,0 4.331	11,0 0.433	11.00X9.00	12,5 0.492	4	B
T34-PH04B06-14X2-64R	10139411	EGM14	2,0	9,14 0.360	20,0 0.787	68 2.677	100,86 3.971	110,0 4.331	12,0 0.472	12.00X9.00	14,5 0.571	4	B
T34-PH04B06-16X2-64R	10139412	EGM16	2,0	9,14 0.360	20,0 0.787	81 3.189	115,86 4.561	125,0 4.921	14,0 0.551	14.00X11.00	16,5 0.650	4	B
T34-PH04B06-18X2.5-64R	10139413	EGM18	2,5	11,45 0.451	27,0 1.063	93 3.661	128,55 5.061	140,0 5.512	18,0 0.709	18.00X14.50	18,75 0.738	4	B
T34-PH04B06-20X2.5-64R	10139414	EGM20	2,5	11,45 0.451	30,0 1.181	113 4.449	148,55 5.848	160,0 6.299	18,0 0.709	18.00X14.50	20,75 0.817	4	B

Thread turning

MDT

Mini-Shaft™

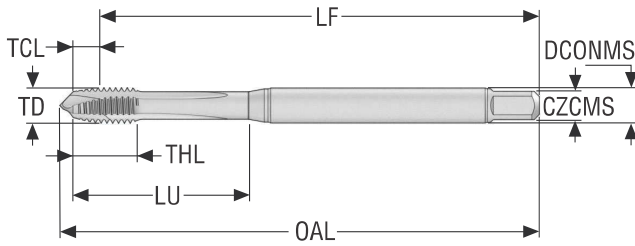
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – EGUNC threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T34-PH16B03-4-40-21R	10139389	EGUNC4-40	3,67 0.144	40.0	2,83 0.111	13,0 0.512	21 0.827	60,17 2.369	64,6 2.543	4,5 0.177	4.50X3.40	3,1 0.122	3	B
T34-PH16B03-6-32-21R	10139390	EGUNC6-32	4,536 0.179	32.0	3,75 0.148	14,0 0.551	25 0.984	66,25 2.608	71,8 2.827	6,0 0.236	6.00X4.90	3,8 0.150	3	B
T34-PH16B03-8-32-21R	10139391	EGUNC8-32	5,197 0.205	32.0	3,73 0.147	16,0 0.630	30 1.181	76,27 3.003	82,1 3.232	6,0 0.236	6.00X4.90	4,4 0.173	3	B
T34-PH16B03-10-24-21R	10139392	EGUNC10-24	6,2 0.244	24.0	3,5 0.138	17,0 0.669	30 1.181	76,5 3.012	82,4 3.244	7,0 0.276	7.00X5.50	5,2 0.205	3	B
T34-PH16B03-1/4-20-21R	10139393	EGUNC1/4-20	8,001 0.315	20.0	5,71 0.225	20,0 0.787	35 1.378	84,29 3.319	93,3 3.673	8,0 0.315	8.00X6.20	6,7 0.264	3	B
T34-PH16B03-5/16-18-21R	10139394	EGUNC5/16-18	9,771 0.385	18.0	6,61 0.260	22,0 0.866	39 1.535	93,39 3.677	100,0 3.937	10,0 0.394	10.00X8.00	8,4 0.331	3	B

Thread turning

MDT

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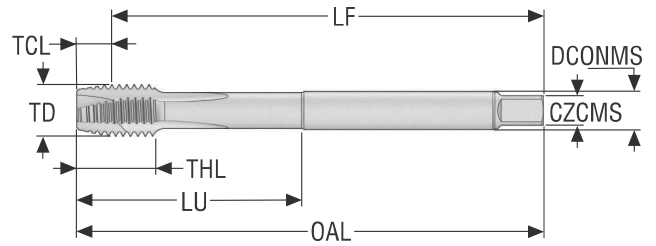
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – EGUNC threads

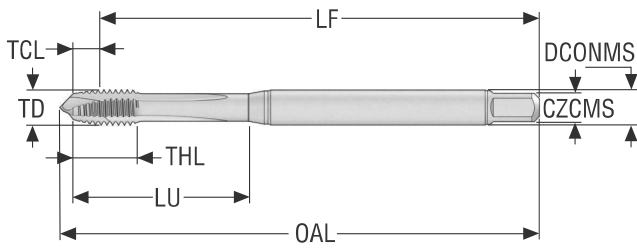


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-PH16B06-3/8-16-21R	10139415	EGUNC3/8-16	11,587 0.456	16.0	7,6 0.299	15,0 0.591	73 2.874	92,4 3.638	100,0 3.937	9,0 0.354	9.00X7.00	10,0 0.394	3	B
T34-PH16B06-7/16-14-21R	10139416	EGUNC7/16-14	13,47 0.530	14.0	8,6 0.339	18,0 0.709	81 3.189	101,4 3.992	110,0 4.331	11,0 0.433	11.00X9.00	11,6 0.457	3	B
T34-PH16B06-1/2-13-21R	10139417	EGUNC1/2-13	15,237 0.600	13.0	9,3 0.366	18,0 0.709	68 2.677	100,7 3.965	110,0 4.331	12,0 0.472	12.00X9.00	13,3 0.524	3	B
T34-PH16B06-9/16-12-21R	10139418	EGUNC9/16-12	17,038 0.671	12.0	9,7 0.382	20,0 0.787	68 2.677	100,3 3.949	110,0 4.331	12,0 0.472	12.00X9.00	14,9 0.587	4	B
T34-PH16B06-5/8-11-21R	10139419	EGUNC5/8-11	18,875 0.743	11.0	10,6 0.417	20,0 0.787	81 3.189	114,4 4.504	125,0 4.921	14,0 0.551	14.00X11.00	16,5 0.650	4	B
T34-PH16B06-3/4-10-21R	10139420	EGUNC3/4-10	22,349 0.880	10.0	11,8 0.465	25,0 0.984	93 3.661	128,2 5.047	140,0 5.512	18,0 0.709	18.00X14.50	19,75 0.778	4	B

T34-PHB

Through holes – EGUNF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T34-PH17B03-4-48-21R	10139395	EGUNF4-48	3,533 0.139	48.0	2,36 0.093	9,0 0.354	20 0.787	53,64 2.112	57,4 2.260	4,0 0.157	4.00X3.00	3,0 0.118	3	B
T34-PH17B03-6-40-21R	10139396	EGUNF6-40	4,331 0.171	40.0	2,75 0.108	10,0 0.394	25 0.984	67,25 2.648	71,8 2.827	6,0 0.236	6.00X4.90	3,7 0.146	3	B
T34-PH17B03-8-36-21R	10139397	EGUNF8-36	5,083 0.200	36.0	2,93 0.115	13,0 0.512	30 1.181	77,07 3.034	82,1 3.232	6,0 0.236	6.00X4.90	4,4 0.173	3	B
T34-PH17B03-10-32-21R	10139398	EGUNF10-32	5,857 0.231	32.0	3,5 0.138	13,0 0.512	30 1.181	76,5 3.012	82,4 3.244	6,0 0.236	6.00X4.90	5,1 0.201	3	B
T34-PH17B03-1/4-28-21R	10139399	EGUNF1/4-28	7,529 0.296	28.0	4,09 0.161	17,0 0.669	35 1.378	85,91 3.382	93,2 3.669	8,0 0.315	8.00X6.20	6,6 0.260	3	B
T34-PH17B03-5/16-24-21R	10139400	EGUNF5/16-24	9,312 0.367	24.0	5,1 0.201	18,0 0.709	35 1.378	84,97 3.345	90,0 3.543	10,0 0.394	10.00X8.00	8,25 0.325	3	B

Thread turning

MDT

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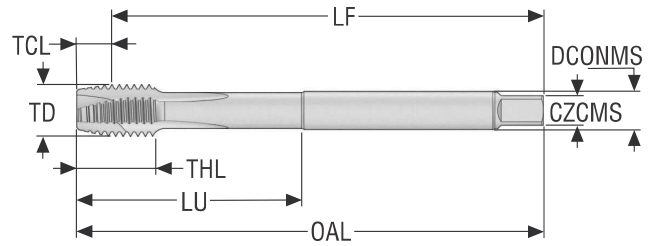
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – EGUNF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-PH17B06-3/8-24-21R	10139421	EGUNF3/8-24	10,899 0.429	24.0	4,43 0.174	12,0 0.472	66 2.598	85,57 3.369	90,0 3.543	8,0 0.315	8.00X6.00	9,8 0.386	3	B
T34-PH17B06-7/16-20-21R	10139422	EGUNF7/16-20	12,763 0.502	20.0	6,2 0.244	15,0 0.591	73 2.874	93,8 3.693	100,0 3.937	9,0 0.354	9.00X7.00	11,5 0.453	3	B
T34-PH17B06-1/2-20-21R	10139423	EGUNF1/2-20	14,351 0.565	20.0	6,2 0.244	15,0 0.591	71 2.795	93,8 3.693	100,0 3.937	11,0 0.433	11.00X9.00	13,1 0.516	3	B
T34-PH17B06-9/16-18-21R	10139424	EGUNF9/16-18	16,121 0.635	18.0	6,9 0.272	15,0 0.591	58 2.283	93,1 3.665	100,0 3.937	12,0 0.472	12.00X9.00	14,7 0.579	4	B
T34-PH17B06-5/8-18-21R	10139425	EGUNF5/8-18	17,709 0.697	18.0	6,9 0.272	15,0 0.591	66 2.598	103,1 4.059	110,0 4.331	14,0 0.551	14.00X11.00	16,25 0.640	4	B
T34-PH17B06-3/4-16-21R	10139426	EGUNF3/4-16	21,112 0.831	16.0	7,9 0.311	17,0 0.669	80 3.150	117,1 4.610	125,0 4.921	16,0 0.630	16.00X12.00	19,5 0.768	4	B

Thread turning

MDT

Mini-Shaft™

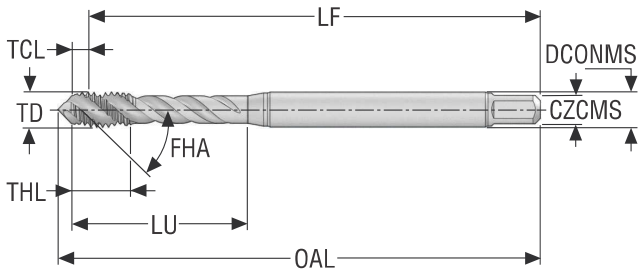
Thread milling

Thread tapping

Annex

T34-R45HC-micro

Blind holes – Metric coarse threads



- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 4H
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H01C03-1X0.25-41R	10138952	M1	0,25	0,59 <i>0.023</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	39,41 <i>1.552</i>	40,9 <i>1.610</i>	2,5 <i>0.098</i>	2.50X2.10	0,75 <i>0.030</i>	2	C
T34-R45H01C03-1.1X0.25-41R	10138953	M1.1	0,25	0,59 <i>0.023</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	39,41 <i>1.552</i>	41,0 <i>1.614</i>	2,5 <i>0.098</i>	2.50X2.10	0,85 <i>0.033</i>	2	C
T34-R45H01C03-1.2X0.25-41R	10138954	M1.2	0,25	0,59 <i>0.023</i>	6,0 <i>0.236</i>	13 <i>0.512</i>	39,41 <i>1.552</i>	41,1 <i>1.618</i>	2,5 <i>0.098</i>	2.50X2.10	0,95 <i>0.037</i>	2	C
T34-R45H01C03-1.4X0.3-41R	10138955	M1.4	0,3	0,69 <i>0.027</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,31 <i>1.548</i>	41,3 <i>1.626</i>	2,5 <i>0.098</i>	2.50X2.10	1,1 <i>0.043</i>	2	C

Thread turning

MDT

Mini-Shaft™

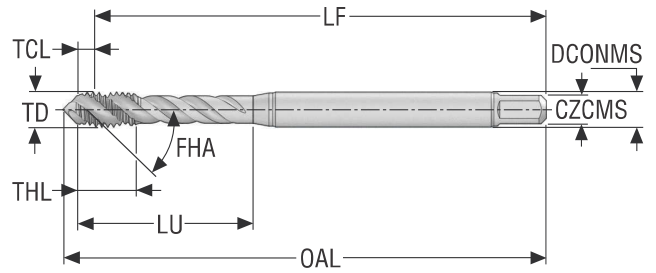
Thread milling

Thread tapping

Annex

T34-R45HC-micro

Blind holes – Metric coarse threads

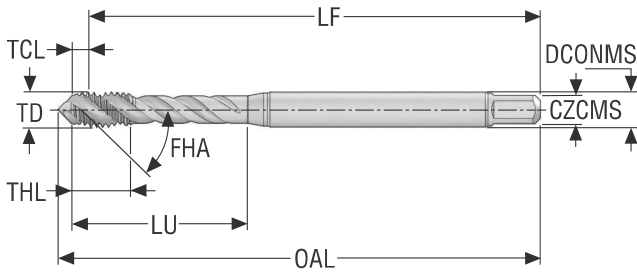


- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H01C03-1.6X0.35-63R	10138956	M1.6	0,35	0,8 <i>0.031</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,2 <i>1.543</i>	41,4 <i>1.630</i>	2,5 <i>0.098</i>	2.50X2.10	1,25 <i>0.049</i>	2	C
T34-R45H01C03-1.7X0.35-63R	10138957	M1.7	0,35	0,8 <i>0.031</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,2 <i>1.543</i>	41,5 <i>1.634</i>	2,5 <i>0.098</i>	2.50X2.10	1,35 <i>0.053</i>	2	C
T34-R45H01C03-1.8X0.35-63R	10138958	M1.8	0,35	0,8 <i>0.031</i>	8,0 <i>0.315</i>	13 <i>0.512</i>	39,2 <i>1.543</i>	41,6 <i>1.638</i>	2,5 <i>0.098</i>	2.50X2.10	1,45 <i>0.057</i>	2	C
T34-R45H01C03-2X0.4-63R	10138959	M2	0,4	1,05 <i>0.041</i>	10,0 <i>0.394</i>	13 <i>0.512</i>	43,95 <i>1.730</i>	46,3 <i>1.823</i>	2,8 <i>0.110</i>	2.80X2.10	1,6 <i>0.063</i>	2	C
T34-R45H01C03-2.2X0.45-63R	10138960	M2.2	0,45	1,15 <i>0.045</i>	10,0 <i>0.394</i>	13 <i>0.512</i>	43,85 <i>1.726</i>	46,3 <i>1.823</i>	2,8 <i>0.110</i>	2.80X2.10	1,75 <i>0.069</i>	2	C
T34-R45H01C03-2.3X0.4-63R	10138961	M2.3	0,4	1,05 <i>0.041</i>	10,0 <i>0.394</i>	13 <i>0.512</i>	43,95 <i>1.730</i>	46,3 <i>1.823</i>	2,8 <i>0.110</i>	2.80X2.10	1,9 <i>0.075</i>	2	C
T34-R45H01C03-2.5X0.45-63R	10138962	M2.5	0,45	1,06 <i>0.042</i>	5,0 <i>0.197</i>	14 <i>0.551</i>	48,94 <i>1.927</i>	51,7 <i>2.035</i>	2,8 <i>0.110</i>	2.80X2.10	2,05 <i>0.081</i>	2	C
T34-R45H01C03-2.6X0.45-63R	10138963	M2.6	0,45	1,15 <i>0.045</i>	5,0 <i>0.197</i>	14 <i>0.551</i>	48,85 <i>1.923</i>	51,7 <i>2.035</i>	2,8 <i>0.110</i>	2.80X2.10	2,15 <i>0.085</i>	2	C

T34-R45HC

Blind holes – Metric coarse threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H01C03-3X0.5-65R	10138964	M3	0,5	1,2 <i>0.047</i>	5,0 <i>0.197</i>	18 <i>0.709</i>	54,8 <i>2.157</i>	57,2 <i>2.252</i>	3,5 <i>0.138</i>	3.50X2.70	2,5 <i>0.098</i>	3	C
T34-R45H01C03-3.5X0.6-65R	10138966	M3.5	0,6	1,31 <i>0.052</i>	6,0 <i>0.236</i>	20 <i>0.787</i>	54,69 <i>2.153</i>	57,4 <i>2.260</i>	4,0 <i>0.157</i>	4.00X3.00	2,9 <i>0.114</i>	3	C
T34-R45H01C03-4X0.7-65R	10138967	M4	0,7	1,82 <i>0.072</i>	7,0 <i>0.276</i>	21 <i>0.827</i>	61,18 <i>2.409</i>	64,6 <i>2.543</i>	4,5 <i>0.177</i>	4.50X3.40	3,3 <i>0.130</i>	3	C
T34-R45H01C03-4.5X0.75-65R	10138968	M4.5	0,75	1,82 <i>0.072</i>	7,5 <i>0.295</i>	25 <i>0.984</i>	68,18 <i>2.684</i>	71,8 <i>2.827</i>	6,0 <i>0.236</i>	6.00X4.90	3,8 <i>0.150</i>	3	C
T34-R45H01C03-5X0.8-65R	10138969	M5	0,8	2,01 <i>0.079</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	67,99 <i>2.677</i>	72,0 <i>2.835</i>	6,0 <i>0.236</i>	6.00X4.90	4,2 <i>0.165</i>	3	C
T34-R45H01C03-6X1-65R	10138970	M6	1,0	2,32 <i>0.091</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	77,68 <i>3.058</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,0 <i>0.197</i>	3	C
T34-R45H01C03-8X1.25-65R	10138971	M8	1,25	3,16 <i>0.124</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	86,84 <i>3.419</i>	91,7 <i>3.610</i>	8,0 <i>0.315</i>	8.00X6.20	6,8 <i>0.268</i>	3	C
T34-R45H01C03-10X1.5-65R	10138972	M10	1,5	3,81 <i>0.150</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	96,19 <i>3.787</i>	101,8 <i>4.008</i>	10,0 <i>0.394</i>	10.00X8.00	8,5 <i>0.335</i>	3	C

Thread turning

MDT

Mini-Shaft™

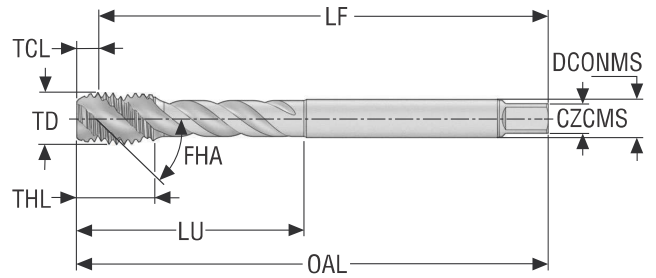
Thread milling

Thread tapping

Annex

T34-R45HC

Blind holes – Metric coarse threads

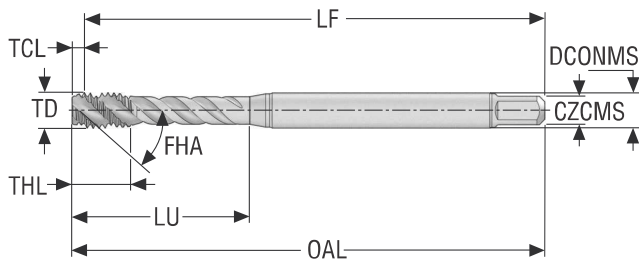


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H01C06-12X1.75-65R	10138973	M12	1,75	4,47 0.176	18,0 0.709	83 3.268	105,53 4.155	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	C
T34-R45H01C06-14X2-65R	10138974	M14	2,0	5,11 0.201	20,0 0.787	81 3.189	104,89 4.130	110,0 4.331	11,0 0.433	11.00X9.00	12,0 0.472	4	C
T34-R45H01C06-16X2-65R	10138975	M16	2,0	5,21 0.205	20,0 0.787	68 2.677	104,79 4.126	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	4	C
T34-R45H01C06-18X2.5-65R	10138976	M18	2,5	6,28 0.247	25,0 0.984	81 3.189	118,72 4.674	125,0 4.921	14,0 0.551	14.00X11.00	15,5 0.610	4	C
T34-R45H01C06-20X2.5-65R	10138977	M20	2,5	6,28 0.247	25,0 0.984	95 3.740	133,72 5.265	140,0 5.512	16,0 0.630	16.00X12.00	17,5 0.689	4	C
T34-R45H01C06-22X2.5-65R	10138978	M22	2,5	6,28 0.247	25,0 0.984	93 3.661	133,72 5.265	140,0 5.512	18,0 0.709	18.00X14.50	19,5 0.768	4	C
T34-R45H01C06-24X3-65R	10138979	M24	3,0	7,48 0.294	30,0 1.181	113 4.449	152,52 6.005	160,0 6.299	18,0 0.709	18.00X14.50	21,0 0.827	4	C
T34-R45H01C06-27X3-65R	10138980	M27	3,0	7,68 0.302	30,0 1.181	97 3.819	152,32 5.997	160,0 6.299	20,0 0.787	20.00X16.00	24,0 0.945	4	C
T34-R45H01C06-30X3.5-65R	10138981	M30	3,5	8,75 0.344	35,0 1.378	115 4.528	171,25 6.742	180,0 7.087	22,0 0.866	22.00X18.00	26,5 1.043	4	C
T34-R45H01C06-33X3.5-65R	10138982	M33	3,5	8,75 0.344	35,0 1.378	113 4.449	171,25 6.742	180,0 7.087	25,0 0.984	25.00X20.00	29,5 1.161	4	C
T34-R45H01C06-36X4-65R	10138983	M36	4,0	10,02 0.394	40,0 1.575	131 5.157	189,98 7.480	200,0 7.874	28,0 1.102	28.00X22.00	32,0 1.260	4	C

T34-R45HE

Blind holes – Metric coarse threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H01E03-3X0.5-65R	10138991	M3	0,5	0,81 0.032	5,0 0.197	18 0.709	55,19 2.173	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	E
T34-R45H01E03-3.5X0.6-65R	10138992	M3.5	0,6	0,94 0.037	6,0 0.236	20 0.787	55,06 2.168	57,4 2.260	4,0 0.157	4.00X3.00	2,9 0.114	3	E
T34-R45H01E03-4X0.7-65R	10138993	M4	0,7	1,18 0.046	7,0 0.276	21 0.827	61,82 2.434	64,6 2.543	4,5 0.177	4.50X3.40	3,3 0.130	3	E
T34-R45H01E03-4.5X0.75-65R	10138994	M4.5	0,75	1,18 0.046	7,5 0.295	25 0.984	68,82 2.709	71,8 2.827	6,0 0.236	6.00X4.90	3,8 0.150	3	E
T34-R45H01E03-5X0.8-65R	10138995	M5	0,8	1,31 0.052	8,0 0.315	25 0.984	68,69 2.704	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	E
T34-R45H01E03-6X1-65R	10138996	M6	1,0	1,57 0.062	10,0 0.394	30 1.181	78,43 3.088	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	3	E
T34-R45H01E03-8X1.25-65R	10138997	M8	1,25	2,23 0.088	13,0 0.512	35 1.378	87,77 3.456	90,0 3.543	8,0 0.315	8.00X6.20	6,8 0.268	3	E
T34-R45H01E03-10X1.5-65R	10138998	M10	1,5	2,6 0.102	15,0 0.591	39 1.535	97,4 3.835	100,0 3.937	10,0 0.394	10.00X8.00	8,5 0.335	3	E

Thread turning

MDT

Mini-Shaft™

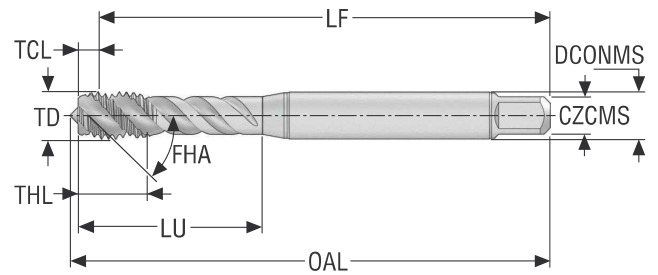
Thread milling

Thread tapping

Annex

T34-R45HE

Blind holes – Metric coarse threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H01E06-12X1.75-65R	10138999	M12	1,75	3,18 0.125	18,0 0.709	83 3.268	106,82 4.206	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	E
T34-R45H01E06-14X2-65R	10139000	M14	2,0	3,65 0.144	20,0 0.787	81 3.189	106,35 4.187	110,0 4.331	11,0 0.433	11.00X9.00	12,0 0.472	4	E
T34-R45H01E06-16X2-65R	10139001	M16	2,0	3,75 0.148	20,0 0.787	68 2.677	106,25 4.183	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	4	E

Thread turning

MDT

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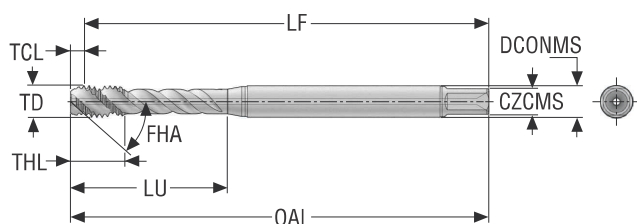
Thread milling

Thread tapping

Annex

T34A-R45HC

Blind holes – Metric coarse threads

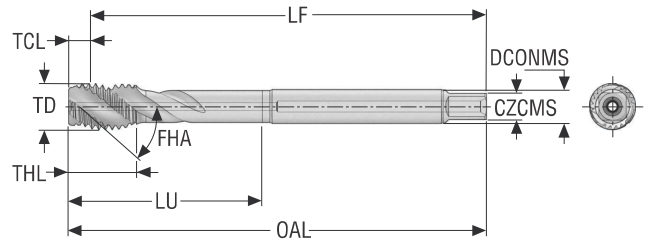


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34A-R45H01C03-5X0.8-65R	10138984	M5	0,8	1,94 <i>0.076</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	68,06 <i>2.680</i>	70,0 <i>2.756</i>	6,0 <i>0.236</i>	6.00X4.90	4,2 <i>0.165</i>	3	C
T34A-R45H01C03-6X1-65R	10138985	M6	1,0	2,32 <i>0.091</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	77,68 <i>3.058</i>	80,0 <i>3.150</i>	6,0 <i>0.236</i>	6.00X4.90	5,0 <i>0.197</i>	3	C
T34A-R45H01C03-8X1.25-65R	10138986	M8	1,25	3,16 <i>0.124</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	86,84 <i>3.419</i>	90,0 <i>3.543</i>	8,0 <i>0.315</i>	8.00X6.20	6,8 <i>0.268</i>	3	C
T34A-R45H01C05-10X1.5-65R	10138987	M10	1,5	3,81 <i>0.150</i>	17,0 <i>0.669</i>	39 <i>1.535</i>	96,19 <i>3.787</i>	100,0 <i>3.937</i>	10,0 <i>0.394</i>	10.00X8.00	8,5 <i>0.335</i>	3	C

T34A-R45HC

Blind holes – Metric coarse threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34A-R45H01C06-12X1.75-65R	10138988	M12	1,75	4,47 0.176	18,0 0.709	83 3.268	105,53 4.155	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	C
T34A-R45H01C06-14X2-65R	10138989	M14	2,0	5,11 0.201	20,0 0.787	81 3.189	104,89 4.130	110,0 4.331	11,0 0.433	11.00X9.00	12,0 0.472	4	C
T34A-R45H01C06-16X2-65R	10138990	M16	2,0	5,21 0.205	20,0 0.787	68 2.677	104,79 4.126	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	4	C

Thread turning

MDT

Mini-Shaft™

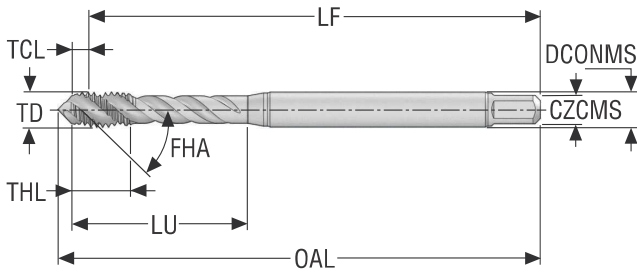
Thread milling

Thread tapping

Annex

T34-R45HC

Blind holes – MF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H02C03-3X0.35-65R	10139002	MF3X0.35	0,35	0,7 <i>0.028</i>	5,0 <i>0.197</i>	18 <i>0.709</i>	55,3 <i>2.177</i>	57,2 <i>2.252</i>	3,5 <i>0.138</i>	3.50X2.70	2,65 <i>0.104</i>	3	C
T34-R45H02C03-3.5X0.35-65R	10139003	MF3.5X0.35	0,35	0,69 <i>0.027</i>	5,0 <i>0.197</i>	20 <i>0.787</i>	55,31 <i>2.178</i>	57,4 <i>2.260</i>	4,0 <i>0.157</i>	4.00X3.00	3,15 <i>0.124</i>	3	C
T34-R45H02C03-4X0.5-65R	10139004	MF4X0.5	0,5	1,31 <i>0.052</i>	7,0 <i>0.276</i>	21 <i>0.827</i>	61,69 <i>2.429</i>	64,6 <i>2.543</i>	4,5 <i>0.177</i>	4.50X3.40	3,5 <i>0.138</i>	3	C
T34-R45H02C03-5X0.5-65R	10139005	MF5X0.5	0,5	1,2 <i>0.047</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	68,8 <i>2.709</i>	72,0 <i>2.835</i>	6,0 <i>0.236</i>	6.00X4.90	4,5 <i>0.177</i>	3	C
T34-R45H02C03-6X0.5-65R	10139006	MF6X0.5	0,5	1,22 <i>0.048</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	78,78 <i>3.102</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,5 <i>0.217</i>	3	C
T34-R45H02C03-6X0.75-65R	10139007	MF6X0.75	0,75	1,77 <i>0.070</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	78,23 <i>3.080</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,2 <i>0.205</i>	3	C
T34-R45H02C03-8X0.75-65R	10139008	MF8X0.75	0,75	2,07 <i>0.081</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	77,93 <i>3.068</i>	81,7 <i>3.217</i>	8,0 <i>0.315</i>	8.00X6.20	7,2 <i>0.283</i>	3	C
T34-R45H02C03-8X1-65R	10139009	MF8X1	1,0	2,62 <i>0.103</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	87,38 <i>3.440</i>	91,7 <i>3.610</i>	8,0 <i>0.315</i>	8.00X6.20	7,0 <i>0.276</i>	3	C
T34-R45H02C03-10X0.75-65R	10139011	MF10X0.75	0,75	2,17 <i>0.085</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	87,83 <i>3.458</i>	91,8 <i>3.614</i>	10,0 <i>0.394</i>	10.00X8.00	9,2 <i>0.362</i>	3	C
T34-R45H02C03-10X1-65R	10139012	MF10X1	1,0	2,72 <i>0.107</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	87,28 <i>3.436</i>	91,8 <i>3.614</i>	10,0 <i>0.394</i>	10.00X8.00	9,0 <i>0.354</i>	3	C
T34-R45H02C03-10X1.25-65R	10139013	MF10X1.25	1,25	3,26 <i>0.128</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	96,74 <i>3.809</i>	101,8 <i>4.008</i>	10,0 <i>0.394</i>	10.00X8.00	8,8 <i>0.346</i>	3	C

Thread turning

MDT

Mini-Shaft™

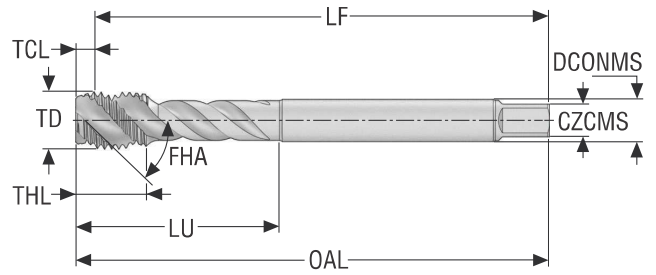
Thread milling

Thread tapping

Annex

T34-R45HC

Blind holes – MF threads

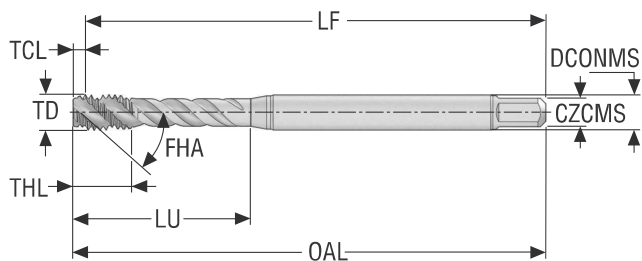


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H02C05-8X1-65R	10139014	MF8X1	1,0	2,62 <i>0.103</i>	10,0 <i>0.394</i>	35 <i>1.378</i>	87,38 <i>3.440</i>	90,0 <i>3.543</i>	6,0 <i>0.236</i>	6.00X4.90	7,0 <i>0.276</i>	3	C
T34-R45H02C05-10X1-65R	10139015	MF10X1	1,0	2,62 <i>0.103</i>	10,0 <i>0.394</i>	35 <i>1.378</i>	87,38 <i>3.440</i>	90,0 <i>3.543</i>	7,0 <i>0.276</i>	7.00X5.50	9,0 <i>0.354</i>	3	C
T34-R45H02C05-12X1-65R	10139016	MF12X1	1,0	2,83 <i>0.111</i>	10,0 <i>0.394</i>	73 <i>2.874</i>	97,17 <i>3.826</i>	100,0 <i>3.937</i>	9,0 <i>0.354</i>	9.00X7.00	11,0 <i>0.433</i>	3	C
T34-R45H02C05-12X1.25-65R	10139017	MF12X1.25	1,25	3,38 <i>0.133</i>	15,0 <i>0.591</i>	73 <i>2.874</i>	96,62 <i>3.804</i>	100,0 <i>3.937</i>	9,0 <i>0.354</i>	9.00X7.00	10,8 <i>0.425</i>	3	C
T34-R45H02C05-12X1.5-65R	10139018	MF12X1.5	1,5	3,93 <i>0.155</i>	15,0 <i>0.591</i>	73 <i>2.874</i>	96,07 <i>3.782</i>	100,0 <i>3.937</i>	9,0 <i>0.354</i>	9.00X7.00	10,5 <i>0.413</i>	3	C
T34-R45H02C05-14X1.5-65R	10139019	MF14X1.5	1,5	4,03 <i>0.159</i>	15,0 <i>0.591</i>	71 <i>2.795</i>	95,97 <i>3.778</i>	100,0 <i>3.937</i>	11,0 <i>0.433</i>	11.00X9.00	12,5 <i>0.492</i>	4	C
T34-R45H02C05-16X1.5-65R	10139020	MF16X1.5	1,5	4,13 <i>0.163</i>	15,0 <i>0.591</i>	58 <i>2.283</i>	95,87 <i>3.774</i>	100,0 <i>3.937</i>	12,0 <i>0.472</i>	12.00X9.00	14,5 <i>0.571</i>	4	C
T34-R45H02C05-18X1.5-65R	10139021	MF18X1.5	1,5	4,13 <i>0.163</i>	17,0 <i>0.669</i>	66 <i>2.598</i>	105,87 <i>4.168</i>	110,0 <i>4.331</i>	14,0 <i>0.551</i>	14.00X11.00	16,5 <i>0.650</i>	4	C
T34-R45H02C05-20X1.5-65R	10139022	MF20X1.5	1,5	4,13 <i>0.163</i>	17,0 <i>0.669</i>	80 <i>3.150</i>	120,87 <i>4.759</i>	125,0 <i>4.921</i>	16,0 <i>0.630</i>	16.00X12.00	18,5 <i>0.728</i>	4	C
T34-R45H02C05-22X1.5-65R	10139023	MF22X1.5	1,5	4,13 <i>0.163</i>	17,0 <i>0.669</i>	78 <i>3.071</i>	120,87 <i>4.759</i>	125,0 <i>4.921</i>	18,0 <i>0.709</i>	18.00X14.50	20,5 <i>0.807</i>	4	C
T34-R45H02C05-24X1.5-65R	10139024	MF24X1.5	1,5	4,25 <i>0.167</i>	20,0 <i>0.787</i>	93 <i>3.661</i>	135,75 <i>5.344</i>	140,0 <i>5.512</i>	18,0 <i>0.709</i>	18.00X14.50	22,5 <i>0.886</i>	4	C

T34-R45HE

Blind holes – MF threads

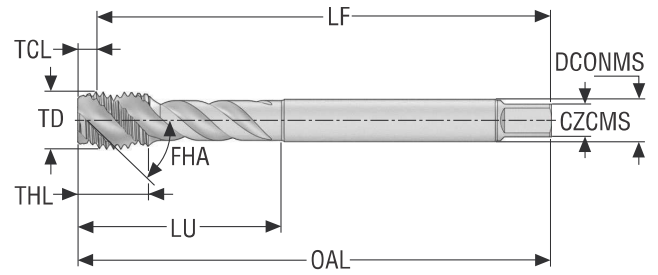


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H02E03-8X1-65R	10139032	MF8X1	1,0	1,87 <i>0.074</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	88,13 <i>3.470</i>	90,0 <i>3.543</i>	8,0 <i>0.315</i>	8.00X6.20	7,0 <i>0.276</i>	3	E
T34-R45H02E03-10X1-65R	10139033	MF10X1	1,0	1,97 <i>0.078</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	88,03 <i>3.466</i>	90,0 <i>3.543</i>	10,0 <i>0.394</i>	10.00X8.00	9,0 <i>0.354</i>	3	E

T34-R45HE

Blind holes – MF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H02E05-8X1-65R	10139034	MF8X1	1,0	1,87 <i>0.074</i>	10,0 <i>0.394</i>	35 <i>1.378</i>	88,13 <i>3.470</i>	90,0 <i>3.543</i>	6,0 <i>0.236</i>	6.00X4.90	7,0 <i>0.276</i>	3	E
T34-R45H02E05-10X1-65R	10139035	MF10X1	1,0	1,87 <i>0.074</i>	10,0 <i>0.394</i>	35 <i>1.378</i>	88,13 <i>3.470</i>	90,0 <i>3.543</i>	7,0 <i>0.276</i>	7.00X5.50	9,0 <i>0.354</i>	3	E
T34-R45H02E05-12X1.5-65R	10139036	MF12X1.5	1,5	2,81 <i>0.111</i>	15,0 <i>0.591</i>	73 <i>2.874</i>	97,19 <i>3.826</i>	100,0 <i>3.937</i>	9,0 <i>0.354</i>	9.00X7.00	10,5 <i>0.413</i>	3	E
T34-R45H02E05-14X1.5-65R	10139037	MF14X1.5	1,5	3,01 <i>0.119</i>	15,0 <i>0.591</i>	71 <i>2.795</i>	96,99 <i>3.819</i>	100,0 <i>3.937</i>	11,0 <i>0.433</i>	11.00X9.00	12,5 <i>0.492</i>	4	E
T34-R45H02E05-16X1.5-65R	10139038	MF16X1.5	1,5	3,01 <i>0.119</i>	15,0 <i>0.591</i>	58 <i>2.283</i>	96,99 <i>3.819</i>	100,0 <i>3.937</i>	12,0 <i>0.472</i>	12.00X9.00	14,5 <i>0.571</i>	4	E

Thread turning

MDT

Mini-Shaft™

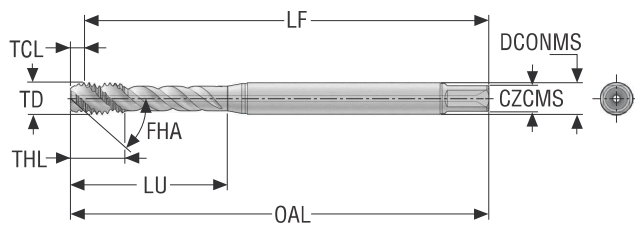
Thread milling

Thread tapping

Annex

T34A-R45HC

Blind holes – MF threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34A-R45H02C03-8X1-65R	10139025	MF8X1	1,0	2,62 0.103	13,0 0.512	35 1.378	87,38 3.440	90,0 3.543	8,0 0.315	8.00X6.20	7,0 0.276	3	C
T34A-R45H02C03-10X1-65R	10139026	MF10X1	1,0	2,72 0.107	13,0 0.512	35 1.378	87,28 3.436	90,0 3.543	10,0 0.394	10.00X8.00	9,0 0.354	3	C

Thread turning

MDT

Mini-Shaft™

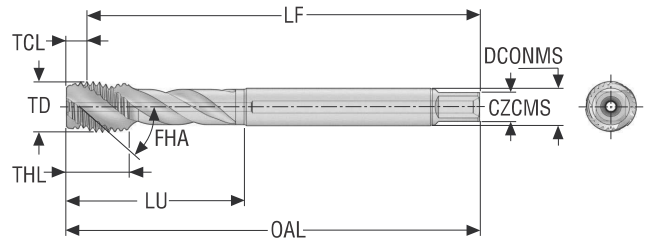
Thread milling

Thread tapping

Annex

T34A-R45HC

Blind holes – MF threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34A-R45H02C05-8X1-65R	10139027	MF8X1	1,0	2,62 0.103	10,0 0.394	35 1.378	87,38 3.440	90,0 3.543	6,0 0.236	6.00X4.90	7,0 0.276	3	C
T34A-R45H02C05-10X1-65R	10139028	MF10X1	1,0	2,62 0.103	10,0 0.394	35 1.378	87,38 3.440	90,0 3.543	7,0 0.276	7.00X5.50	9,0 0.354	3	C
T34A-R45H02C05-12X1.5-65R	10139029	MF12X1.5	1,5	3,93 0.155	15,0 0.591	73 2.874	96,07 3.782	100,0 3.937	9,0 0.354	9.00X7.00	10,5 0.413	3	C
T34A-R45H02C05-14X1.5-65R	10139030	MF14X1.5	1,5	4,03 0.159	15,0 0.591	71 2.795	95,97 3.778	100,0 3.937	11,0 0.433	11.00X9.00	12,5 0.492	4	C
T34A-R45H02C05-16X1.5-65R	10139031	MF16X1.5	1,5	4,13 0.163	15,0 0.591	58 2.283	95,87 3.774	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	4	C

Thread turning

MDT

Mini-Shaft™

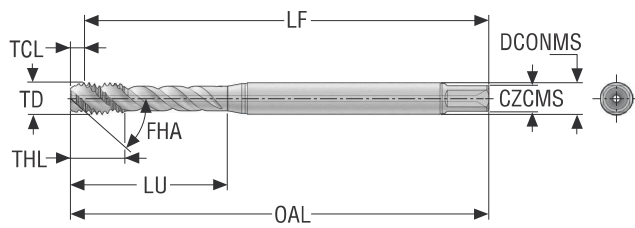
Thread milling

Thread tapping

Annex

T34A-R45HE

Blind holes – MF threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34A-R45H02E03-8X1-65R	10139039	MF8X1	1,0	1,87 <i>0.074</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	88,13 <i>3.470</i>	90,0 <i>3.543</i>	8,0 <i>0.315</i>	8.00X6.20	7,0 <i>0.276</i>	3	E
T34A-R45H02E03-10X1-65R	10139040	MF10X1	1,0	1,97 <i>0.078</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	88,03 <i>3.466</i>	90,0 <i>3.543</i>	10,0 <i>0.394</i>	10.00X8.00	9,0 <i>0.354</i>	3	E

Thread turning

MDT

Mini-Shaft™

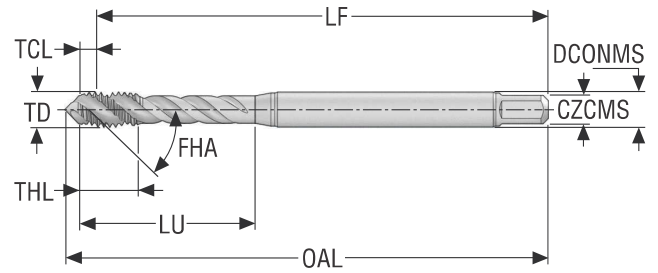
Thread milling

Thread tapping

Annex

T34-R45HC

Blind holes – UNC threads

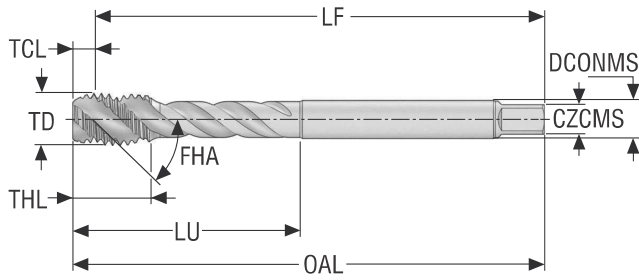


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H08C03-4-40-22R	10139054	UNC4-40	2,845 0.112	40.0	1,48 0.058	5,0 0.197	18 0.709	54,52 2.146	56,0 2.205	3,5 0.138	3.50X2.70	2,35 0.093	3	C
T34-R45H08C03-5-40-22R	10139055	UNC5-40	3,175 0.125	40.0	1,53 0.060	7,0 0.276	18 0.709	54,47 2.144	57,2 2.252	3,5 0.138	3.50X2.70	2,65 0.104	3	C
T34-R45H08C03-6-32-22R	10139056	UNC6-32	3,505 0.138	32.0	1,95 0.077	6,0 0.236	20 0.787	54,05 2.128	57,4 2.260	4,0 0.157	4.00X3.00	2,85 0.112	3	C
T34-R45H08C03-8-32-22R	10139057	UNC8-32	4,166 0.164	32.0	1,89 0.074	7,0 0.276	21 0.827	61,11 2.406	64,6 2.543	4,5 0.177	4.50X3.40	3,5 0.138	3	C
T34-R45H08C03-10-24-22R	10139058	UNC10-24	4,826 0.190	24.0	2,53 0.100	8,0 0.315	25 0.984	67,47 2.656	72,0 2.835	6,0 0.236	6.00X4.90	3,9 0.154	3	C
T34-R45H08C03-12-24-22R	10139059	UNC12-24	5,486 0.216	24.0	2,47 0.097	10,0 0.394	30 1.181	77,53 3.052	82,2 3.236	6,0 0.236	6.00X4.90	4,5 0.177	3	C
T34-R45H08C03-1/4-20-22R	10139060	UNC1/4-20	6,35 0.250	20.0	2,94 0.116	13,0 0.512	32 1.260	77,06 3.034	82,4 3.244	7,0 0.276	7.00X5.50	5,1 0.201	3	C
T34-R45H08C03-5/16-18-22R	10139061	UNC5/16-18	7,937 0.312	18.0	3,59 0.141	13,0 0.512	35 1.378	86,41 3.402	90,0 3.543	8,0 0.315	8.00X6.20	6,6 0.260	3	C
T34-R45H08C03-3/8-16-22R	10139062	UNC3/8-16	9,525 0.375	16.0	4,03 0.159	15,0 0.591	39 1.535	95,97 3.778	100,0 3.937	10,0 0.394	10.00X8.00	8,0 0.315	3	C

T34-R45HC

Blind holes – UNC threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-R45H08C06-7/16-14-22R	10139063	UNC7/16-14	11,112 0.437	14.0	4,65 0.183	15,0 0.591	76 2.992	95,35 3.754	100,0 3.937	8,0 0.315	8.00X6.20	9,3 0.366	3	C
T34-R45H08C06-1/2-13-22R	10139064	UNC1/2-13	12,7 0.500	13.0	4,99 0.196	18,0 0.709	83 3.268	105,01 4.134	110,0 4.331	9,0 0.354	9.00X7.00	10,7 0.421	4	C
T34-R45H08C06-9/16-12-22R	10139065	UNC9/16-12	14,287 0.562	12.0	5,43 0.214	20,0 0.787	81 3.189	104,57 4.117	110,0 4.331	11,0 0.433	11.00X9.00	12,3 0.484	4	C
T34-R45H08C06-5/8-11-22R	10139066	UNC5/8-11	15,875 0.625	11.0	5,87 0.231	22,0 0.866	68 2.677	104,13 4.100	110,0 4.331	12,0 0.472	12.00X9.00	13,5 0.531	4	C

Thread turning

MDT

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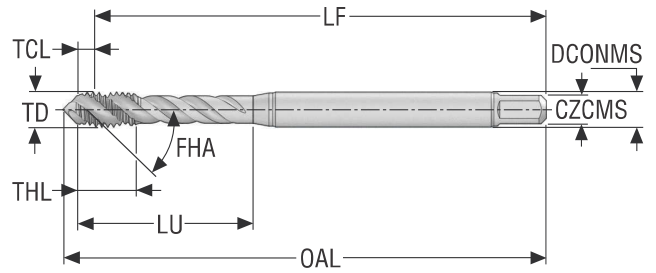
Thread milling

Thread tapping

Annex

T34-R45HC

Blind holes – UNF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H09C03-4-48-22R	10139067	UNF4-48	2,845 0.112	48.0	1,29 0.051	5,0 0.197	18 0.709	54,71 2.154	57,2 2.252	3,5 0.138	3.50X2.70	2,4 0.094	3	C
T34-R45H09C03-5-44-22R	10139068	UNF5-44	3,175 0.125	44.0	1,35 0.053	7,0 0.276	18 0.709	54,65 2.152	57,2 2.252	3,5 0.138	3.50X2.70	2,7 0.106	3	C
T34-R45H09C03-6-40-22R	10139073	UNF6-40	3,505 0.138	40.0	1,59 0.063	6,0 0.236	20 0.787	54,41 2.142	57,4 2.260	4,0 0.157	4.00X3.00	2,95 0.116	3	C
T34-R45H09C03-8-36-22R	10139074	UNF8-36	4,166 0.164	36.0	1,71 0.067	7,0 0.276	21 0.827	61,29 2.413	64,6 2.543	4,5 0.177	4.50X3.40	3,5 0.138	3	C
T34-R45H09C03-10-32-22R	10139075	UNF10-32	4,826 0.190	32.0	2,0 0.079	8,0 0.315	25 0.984	68,0 2.677	72,0 2.835	6,0 0.236	6.00X4.90	4,1 0.161	3	C
T34-R45H09C03-12-28-22R	10139076	UNF12-28	5,486 0.216	28.0	2,11 0.083	10,0 0.394	30 1.181	77,89 3.067	82,2 3.236	6,0 0.236	6.00X4.90	4,6 0.181	3	C
T34-R45H09C03-1/4-28-22R	10139077	UNF1/4-28	6,35 0.250	28.0	2,23 0.088	10,0 0.394	30 1.181	77,77 3.062	82,4 3.244	7,0 0.276	7.00X5.50	5,5 0.217	3	C
T34-R45H09C03-5/16-24-22R	10139078	UNF5/16-24	7,937 0.312	24.0	2,87 0.113	13,0 0.512	35 1.378	87,13 3.430	90,0 3.543	8,0 0.315	8.00X6.20	6,9 0.272	3	C
T34-R45H09C03-3/8-24-22R	10139079	UNF3/8-24	9,525 0.375	24.0	2,96 0.117	15,0 0.591	35 1.378	87,04 3.427	90,0 3.543	10,0 0.394	10.00X8.00	8,5 0.335	3	C

Thread turning

MDT

Mini-Shaft™

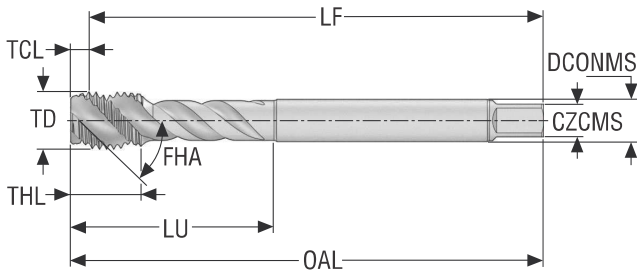
Thread milling

Thread tapping

Annex

T34-R45HC

Blind holes – UNF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-R45H09C05-7/16-20-22R	10139080	UNF7/16-20	11,112 0.437	20.0	3,39 0.133	15,0 0.591	76 2.992	96,61 3.804	100,0 3.937	8,0 0.315	8.00X6.20	9,9 0.390	3	C
T34-R45H09C05-1/2-20-22R	10139081	UNF1/2-20	12,7 0.500	20.0	3,56 0.140	15,0 0.591	73 2.874	96,44 3.797	100,0 3.937	9,0 0.354	9.00X7.00	11,5 0.453	4	C
T34-R45H09C05-9/16-18-22R	10139082	UNF9/16-18	14,287 0.562	18.0	3,86 0.152	15,0 0.591	71 2.795	96,14 3.785	100,0 3.937	11,0 0.433	11.00X9.00	13,0 0.512	4	C
T34-R45H09C05-5/8-18-22R	10139083	UNF5/8-18	15,875 0.625	18.0	3,91 0.154	15,0 0.591	58 2.283	96,09 3.783	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	4	C

Thread turning

MDT

Mini-Shaft™

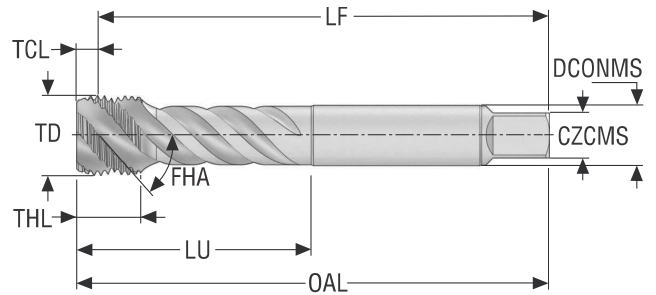
Thread milling

Thread tapping

Annex

T34-R45HC

Blind holes – G threads

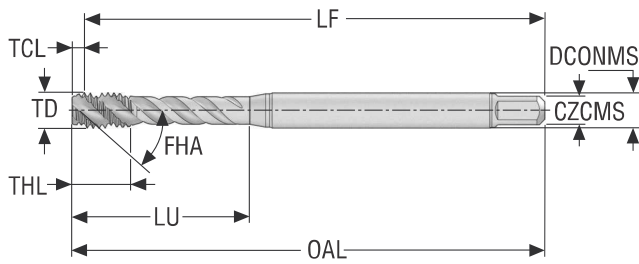


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN5156
- Thread tolerance class: NORMAL-X
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H21C09-1/8-28-12R	10139084	G1/8	9,728 0.383	28.0	2,43 0.096	10,0 0.394	36 1.417	87,57 3.448	90,0 3.543	7,0 0.276	7.00X5.50	8,8 0.346	3	C
T34-R45H21C09-1/4-19-12R	10139085	G1/4	13,157 0.518	19.0	3,66 0.144	14,0 0.551	71 2.795	96,34 3.793	100,0 3.937	11,0 0.433	11.00X9.00	11,8 0.465	3	C
T34-R45H21C09-3/8-19-12R	10139086	G3/8	16,662 0.656	19.0	3,67 0.144	15,0 0.591	58 2.283	96,33 3.793	100,0 3.937	12,0 0.472	12.00X9.00	15,25 0.600	4	C
T34-R45H21C09-1/2-14-12R	10139087	G1/2	20,955 0.825	14.0	4,93 0.194	17,0 0.669	80 3.150	120,07 4.727	125,0 4.921	16,0 0.630	16.00X12.00	19,0 0.748	4	C
T34-R45H21C09-5/8-14-12R	10139088	G5/8	22,911 0.902	14.0	5,06 0.199	20,0 0.787	78 3.071	119,94 4.722	125,0 4.921	18,0 0.709	18.00X14.50	21,0 0.827	4	C
T34-R45H21C09-3/4-14-12R	10139089	G3/4	26,441 1.041	14.0	5,05 0.199	20,0 0.787	73 2.874	134,95 5.313	140,0 5.512	20,0 0.787	20.00X16.00	24,5 0.965	4	C
T34-R45H21C09-7/8-14-12R	10139090	G7/8	30,201 1.189	14.0	4,98 0.196	22,0 0.866	85 3.346	145,02 5.709	150,0 5.906	22,0 0.866	22.00X18.00	28,25 1.112	4	C
T34-R45H21C09-1-11-12R	10139091	G1	33,249 1.309	11.0	6,56 0.258	24,0 0.945	93 3.661	153,44 6.041	160,0 6.299	25,0 0.984	25.00X20.00	30,75 1.211	4	C

T34-R45HE

Blind holes – EGM threads

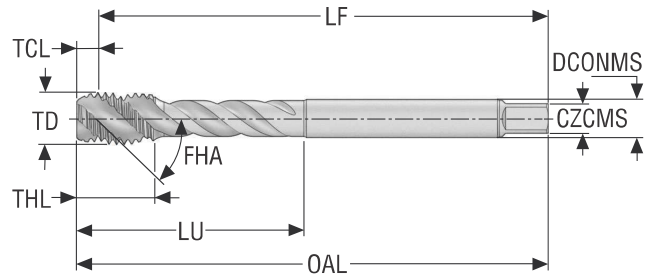


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H mod.
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H04E03-2X0.4-64R	10139092	EGM2	0,4	0,73 0.029	5,0 0.197	14 0.551	49,27 1.940	51,7 2.035	2,8 0.110	2.80X2.10	2,1 0.083	2	E
T34-R45H04E03-2.5X0.45-64R	10139093	EGM2.5	0,45	0,75 0.030	5,0 0.197	18 0.709	55,25 2.175	57,2 2.252	3,5 0.138	3.50X2.70	2,65 0.104	3	E
T34-R45H04E03-3X0.5-64R	10139094	EGM3	0,5	0,83 0.033	5,0 0.197	21 0.827	62,17 2.448	63,0 2.480	4,5 0.177	4.50X3.40	3,15 0.124	3	E
T34-R45H04E03-4X0.7-64R	10139095	EGM4	0,7	1,15 0.045	8,0 0.315	25 0.984	68,85 2.711	70,0 2.756	6,0 0.236	6.00X4.90	4,2 0.165	3	E
T34-R45H04E03-5X0.8-64R	10139096	EGM5	0,8	1,19 0.047	10,0 0.394	30 1.181	78,81 3.103	80,0 3.150	6,0 0.236	6.00X4.90	5,25 0.207	3	E
T34-R45H04E03-6X1-64R	10139097	EGM6	1,0	1,81 0.071	10,0 0.394	35 1.378	88,19 3.472	90,0 3.543	8,0 0.315	8.00X6.20	6,3 0.248	3	E
T34-R45H04E03-8X1.25-64R	10139098	EGM8	1,25	2,2 0.087	13,0 0.512	39 1.535	97,8 3.850	100,0 3.937	10,0 0.394	10.00X8.00	8,4 0.331	3	E

T34-R45HE

Blind holes – EGM threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6H mod.
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T34-R45H04E06-10X1.5-64R	10139111	EGM10	1,5	2,83 0.111	15,0 0.591	73 2.874	97,17 3.826	100,0 3.937	9,0 0.354	9.00X7.00	10,5 0.413	3	E
T34-R45H04E06-12X1.75-64R	10139112	EGM12	1,75	3,21 0.126	20,0 0.787	81 3.189	106,79 4.204	110,0 4.331	11,0 0.433	11.00X9.00	12,5 0.492	4	E
T34-R45H04E06-14X2-64R	10139113	EGM14	2,0	3,67 0.144	20,0 0.787	68 2.677	106,33 4.186	110,0 4.331	12,0 0.472	12.00X9.00	14,5 0.571	4	E
T34-R45H04E06-16X2-64R	10139114	EGM16	2,0	3,67 0.144	20,0 0.787	81 3.189	121,33 4.777	125,0 4.921	14,0 0.551	14.00X11.00	16,5 0.650	4	E
T34-R45H04E06-18X2.5-64R	10139115	EGM18	2,5	4,45 0.175	27,0 1.063	93 3.661	135,55 5.337	140,0 5.512	18,0 0.709	18.00X14.50	18,75 0.738	4	E
T34-R45H04E06-20X2.5-64R	10139116	EGM20	2,5	4,55 0.179	30,0 1.181	113 4.449	155,45 6.120	160,0 6.299	18,0 0.709	18.00X14.50	20,75 0.817	4	E

Thread turning

MDT

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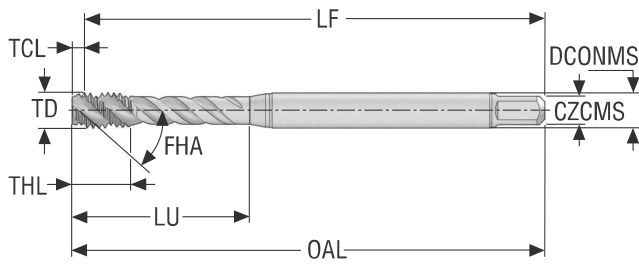
Thread milling

Thread tapping

Annex

T34-R45HE

Blind holes – EGUNC threads

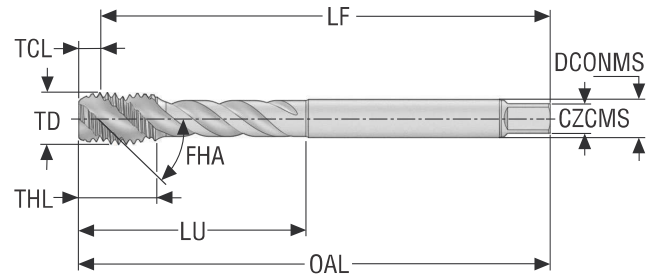


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-R45H16E03-4-40-21R	10139099	EGUNC4-40	3,67 0.144	40.0	1,0 0.039	7,0 0.276	21 0.827	62,0 2.441	63,0 2.480	4,5 0.177	4.50X3.40	3,1 0.122	3	E
T34-R45H16E03-6-32-21R	10139100	EGUNC6-32	4,536 0.179	32.0	1,32 0.052	8,0 0.315	25 0.984	68,68 2.704	70,0 2.756	6,0 0.236	6.00X4.90	3,8 0.150	3	E
T34-R45H16E03-8-32-21R	10139101	EGUNC8-32	5,197 0.205	32.0	1,32 0.052	10,0 0.394	30 1.181	78,68 3.098	80,0 3.150	6,0 0.236	6.00X4.90	4,4 0.173	3	E
T34-R45H16E03-10-24-21R	10139102	EGUNC10-24	6,2 0.244	24.0	1,64 0.065	12,0 0.472	30 1.181	78,36 3.085	80,0 3.150	7,0 0.276	7.00X5.50	5,2 0.205	3	E
T34-R45H16E03-1/4-20-21R	10139103	EGUNC1/4-20	8,001 0.315	20.0	2,29 0.090	15,0 0.591	35 1.378	87,71 3.453	90,0 3.543	8,0 0.315	8.00X6.20	6,7 0.264	3	E
T34-R45H16E03-5/16-18-21R	10139104	EGUNC5/16-18	9,771 0.385	18.0	2,5 0.098	18,0 0.709	39 1.535	97,5 3.839	100,0 3.937	10,0 0.394	10.00X8	8,4 0.331	3	E

T34-R45HE

Blind holes – EGUNC threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-R45H16E06-3/8-16-21R	10139117	EGUNC3/8-16	11,587 0.456	16.0	2,99 0.118	15,0 0.591	73 2.874	97,01 3.819	100,0 3.937	9,0 0.354	9.00X7.00	10,0 0.394	3	E
T34-R45H16E06-7/16-14-21R	10139118	EGUNC7/16-14	13,47 0.530	14.0	3,3 0.130	18,0 0.709	81 3.189	106,7 4.201	110,0 4.331	11,0 0.433	11.00X9.00	11,6 0.457	3	E
T34-R45H16E06-1/2-13-21R	10139119	EGUNC1/2-13	15,237 0.600	13.0	3,74 0.147	18,0 0.709	68 2.677	106,26 4.183	110,0 4.331	12,0 0.472	12.00X9.00	13,3 0.524	3	E
T34-R45H16E06-9/16-12-21R	10139120	EGUNC9/16-12	17,038 0.671	12.0	3,6 0.142	20,0 0.787	68 2.677	106,4 4.189	110,0 4.331	12,0 0.472	12.00X9.00	14,9 0.587	4	E
T34-R45H16E06-5/8-11-21R	10139121	EGUNC5/8-11	18,875 0.743	11.0	4,3 0.169	20,0 0.787	81 3.189	120,7 4.752	125,0 4.921	14,0 0.551	14.00X11.00	16,5 0.650	4	E
T34-R45H16E06-3/4-10-21R	10139122	EGUNC3/4-10	22,349 0.880	10.0	4,8 0.189	25,0 0.984	93 3.661	135,2 5.323	140,0 5.512	18,0 0.709	18.00X14.50	19,75 0.778	4	E

Thread turning

MDT

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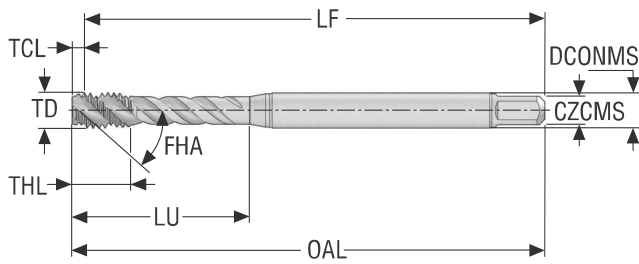
Thread milling

Thread tapping

Annex

T34-R45HE

Blind holes – EGUNF threads

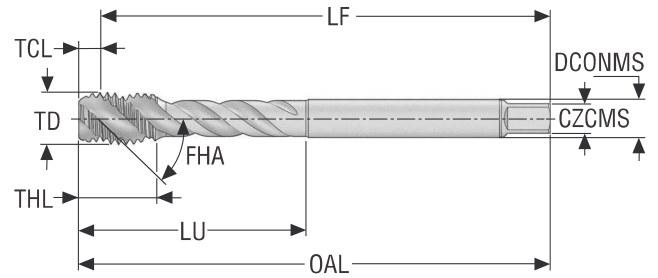


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 262"

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-R45H17E03-4-48-21R	10139105	EGUNF4-48	3,533 0.139	48.0	0,83 0.033	6,0 0.236	20 0.787	55,17 2.172	56,0 2.205	4,0 0.157	4.00X3.00	3,0 0.118	3	E
T34-R45H17E03-6-40-21R	10139106	EGUNF6-40	4,331 0.171	40.0	1,12 0.044	7,0 0.276	25 0.984	68,88 2.712	70,0 2.756	6,0 0.236	6.00X4.90	3,7 0.146	3	E
T34-R45H17E03-8-36-21R	10139107	EGUNF8-36	5,083 0.200	36.0	1,32 0.052	9,0 0.354	30 1.181	78,68 3.098	80,0 3.150	6,0 0.236	6.00X4.90	4,4 0.173	3	E
T34-R45H17E03-10-32-21R	10139108	EGUNF10-32	5,857 0.231	32.0	1,23 0.048	9,0 0.354	30 1.181	78,77 3.101	80,0 3.150	6,0 0.236	6.00X4.90	5,1 0.201	3	E
T34-R45H17E03-1/4-28-21R	10139109	EGUNF1/4-28	7,529 0.296	28.0	1,74 0.069	10,0 0.394	35 1.378	88,26 3.475	90,0 3.543	8,0 0.315	8.00X6.20	6,6 0.260	3	E
T34-R45H17E03-5/16-24-21R	10139110	EGUNF5/16-24	9,312 0.367	24.0	2,52 0.099	12,0 0.472	35 1.378	87,48 3.444	90,0 3.543	10,0 0.394	10.00X8.00	8,25 0.325	3	E

T34-R45HE

Blind holes – EGUNF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 262

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H17E06-3/8-24-21R	10139123	EGUNF3/8-24	10,899 0.429	24.0	2,0 0.079	12,0 0.472	66 2.598	88,0 3.465	90,0 3.543	8,0 0.315	8.00X6.00	9,8 0.386	3	E
T34-R45H17E06-7/16-20-21R	10139124	EGUNF7/16-20	12,763 0.502	20.0	2,5 0.098	15,0 0.591	73 2.874	97,5 3.839	100,0 3.937	9,0 0.354	9.00X7.00	11,5 0.453	3	E
T34-R45H17E06-1/2-20-21R	10139125	EGUNF1/2-20	14,351 0.565	20.0	2,5 0.098	15,0 0.591	71 2.795	97,5 3.839	100,0 3.937	11,0 0.433	11.00X9.00	13,1 0.516	3	E
T34-R45H17E06-9/16-18-21R	10139126	EGUNF9/16-18	16,121 0.635	18.0	2,58 0.102	15,0 0.591	58 2.283	97,42 3.835	100,0 3.937	12,0 0.472	12.00X9.00	14,7 0.579	4	E
T34-R45H17E06-5/8-18-21R	10139127	EGUNF5/8-18	17,709 0.697	18.0	2,7 0.106	15,0 0.591	66 2.598	107,3 4.224	110,0 4.331	14,0 0.551	14.00X11.00	16,25 0.640	4	E
T34-R45H17E06-3/4-16-21R	10139128	EGUNF3/4-16	21,112 0.831	16.0	3,0 0.118	17,0 0.669	80 3.150	122,0 4.803	125,0 4.921	16,0 0.630	16.00X12.00	19,5 0.768	4	E

Thread turning

MDT

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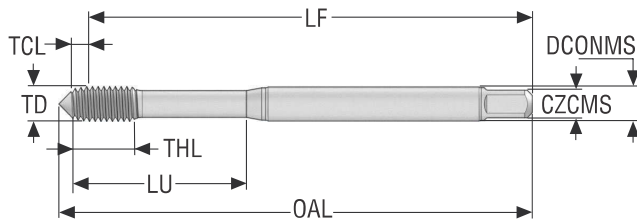
Thread milling

Thread tapping

Annex

T33-FNC

Blind and through holes – Metric coarse threads



- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T33-FN01C03-2X0.4-65R	10139189	M2	0,4	1,02 0.040	8,0 0.315	8 0.315	43,98 1.731	46,3 1.823	2,8 0.110	2.80X2.10	1,85 0.073	0	C
T33-FN01C03-2.5X0.45-65R	10139190	M2.5	0,45	1,1 0.043	9,0 0.354	9 0.354	48,9 1.925	51,7 2.035	2,8 0.110	2.80X2.10	2,33 0.092	0	C
T33-FN01C03-3X0.5-65R	10139191	M3	0,5	1,2 0.047	10,0 0.394	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50X2.70	2,8 0.110	0	C
T33-FN01C03-4X0.7-65R	10139192	M4	0,7	1,6 0.063	7,0 0.276	21 0.827	61,4 2.417	64,6 2.543	4,5 0.177	4.50X3.40	3,7 0.146	0	C
T33-FN01C03-5X0.8-65R	10139193	M5	0,8	2,1 0.083	8,0 0.315	25 0.984	67,9 2.673	72,0 2.835	6,0 0.236	6.00X4.90	4,65 0.183	0	C
T33-FN01C03-6X1-65R	10139195	M6	1,0	2,3 0.091	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00X4.90	5,6 0.220	0	C
T33-FN01C03-8X1.25-65R	10139196	M8	1,25	3,1 0.122	13,0 0.512	35 1.378	86,9 3.421	93,3 3.673	8,0 0.315	8.00X6.20	7,45 0.293	0	C
T33-FN01C03-10X1.5-65R	10139197	M10	1,5	3,5 0.138	15,0 0.591	39 1.535	96,5 3.799	101,8 4.008	10,0 0.394	10.00X8.00	9,35 0.368	0	C

Thread turning

MDT

Mini-Shaft™

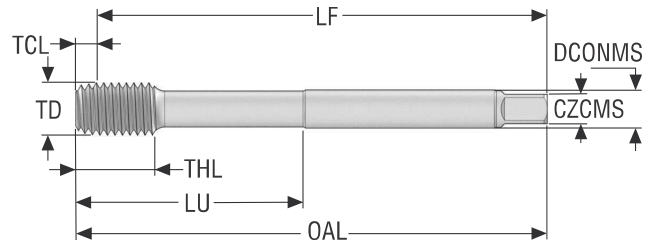
Thread milling

Thread tapping

Annex

T33-FNC

Blind and through holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>			
T33-FN01C06-12X1.75-65R	10139198	M12	1,75	3,7 <i>0.146</i>	18,0 <i>0.709</i>	83 <i>3.268</i>	106,3 <i>4.185</i>	110,0 <i>4.331</i>	9,0 <i>0.354</i>	9.00X7.00	11,25 <i>0.443</i>	0	C
T33-FN01C06-14X2-65R	10139199	M14	2,0	4,6 <i>0.181</i>	20,0 <i>0.787</i>	81 <i>3.189</i>	105,4 <i>4.150</i>	110,0 <i>4.331</i>	11,0 <i>0.433</i>	11.00X9.00	13,1 <i>0.516</i>	0	C
T33-FN01C06-16X2-65R	10139200	M16	2,0	4,6 <i>0.181</i>	20,0 <i>0.787</i>	81 <i>3.189</i>	105,4 <i>4.150</i>	110,0 <i>4.331</i>	11,0 <i>0.433</i>	11.00X9.00	15,1 <i>0.594</i>	0	C
T33-FN01C06-18X2.5-65R	10139201	M18	2,5	5,76 <i>0.227</i>	25,0 <i>0.984</i>	81 <i>3.189</i>	119,24 <i>4.694</i>	125,0 <i>4.921</i>	14,0 <i>0.551</i>	14.00X11.00	16,85 <i>0.663</i>	0	C
T33-FN01C06-20X2.5-65R	10139202	M20	2,5	5,8 <i>0.228</i>	25,0 <i>0.984</i>	95 <i>3.740</i>	134,2 <i>5.283</i>	140,0 <i>5.512</i>	16,0 <i>0.630</i>	16.00X12.00	18,85 <i>0.742</i>	0	C

Thread turning

MDT

Mini-Shaft™

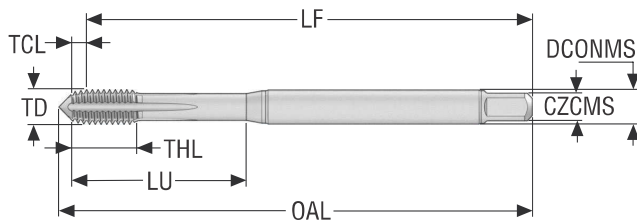
Thread milling

Thread tapping

Annex

T33-FSNC

Blind and through holes – Metric coarse threads

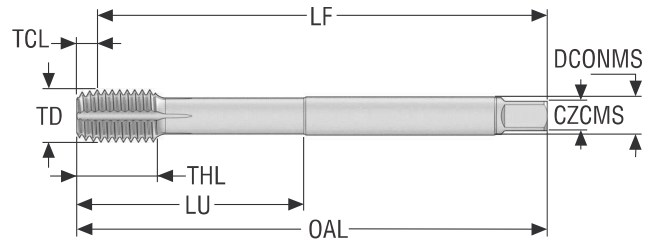


- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T33-FSN01C03-2X0.4-65R	10139204	M2	0,4	1,02 0.040	8,0 0.315	8 0.315	43,98 1.731	46,3 1.823	2,8 0.110	2.80X2.10	1,85 0.073	3	C
T33-FSN01C03-2.5X0.45-65R	10139205	M2.5	0,45	1,1 0.043	9,0 0.354	9 0.354	48,9 1.925	51,7 2.035	2,8 0.110	2.80X2.10	2,33 0.092	3	C
T33-FSN01C03-3X0.5-65R	10139206	M3	0,5	1,2 0.047	10,0 0.394	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50X2.70	2,8 0.110	3	C
T33-FSN01C03-4X0.7-65R	10139207	M4	0,7	1,6 0.063	7,0 0.276	21 0.827	61,4 2.417	64,6 2.543	4,5 0.177	4.50X3.40	3,7 0.146	5	C
T33-FSN01C03-5X0.8-65R	10139208	M5	0,8	2,1 0.083	8,0 0.315	25 0.984	67,9 2.673	72,0 2.835	6,0 0.236	6.00X4.90	4,65 0.183	5	C
T33-FSN01C03-6X1-65R	10139209	M6	1,0	2,3 0.091	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00X4.90	5,6 0.220	5	C
T33-FSN01C03-8X1.25-65R	10139210	M8	1,25	3,1 0.122	13,0 0.512	35 1.378	86,9 3.421	93,3 3.673	8,0 0.315	8.00X6.20	7,45 0.293	5	C
T33-FSN01C03-10X1.5-65R	10139211	M10	1,5	3,5 0.138	15,0 0.591	39 1.535	96,5 3.799	101,8 4.008	10,0 0.394	10.00X8.00	9,35 0.368	5	C

T33-FSNC

Blind and through holes– Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	
T33-FSN01C06-12X1.75-65R	10139212	M12	1,75	3,9 0.154	18,0 0.709	83 3.268	106,1 4.177	110,0 4.331	9,0 0.354	9.00X7.00	11,25 0.443	5	C
T33-FSN01C06-14X2-65R	10139213	M14	2,0	4,77 0.188	20,0 0.787	81 3.189	105,23 4.143	110,0 4.331	11,0 0.433	11.00X9.00	13,1 0.516	6	C
T33-FSN01C06-16X2-65R	10139214	M16	2,0	4,6 0.181	20,0 0.787	81 3.189	105,4 4.150	110,0 4.331	11,0 0.433	11.00X9.00	15,1 0.594	6	C
T33-FSN01C06-18X2.5-65R	10139215	M18	2,5	5,76 0.227	25,0 0.984	81 3.189	119,24 4.694	125,0 4.921	14,0 0.551	14.00X11.00	16,85 0.663	6	C
T33-FSN01C06-20X2.5-65R	10139216	M20	2,5	5,47 0.215	25,0 0.984	95 3.740	134,53 5.296	140,0 5.512	16,0 0.630	16.00X12.00	18,85 0.742	6	C

Thread turning

MDT

Mini-Shaft™

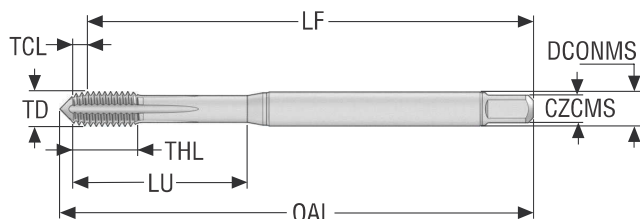
Thread milling

Thread tapping

Annex

T33-FSNC

Blind and through holes – Metric coarse threads, 6GX



- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6GX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T33-FSN01C03-3X0.5-62R	10139258	M3	0,5	1,2 0.047	10,0 0.394	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50X2.70	2,8 0.110	3	C
T33-FSN01C03-4X0.7-62R	10139259	M4	0,7	1,7 0.067	7,0 0.276	21 0.827	61,3 2.413	64,6 2.543	4,5 0.177	4.50X3.40	3,7 0.146	5	C
T33-FSN01C03-5X0.8-62R	10139260	M5	0,8	2,2 0.087	8,0 0.315	25 0.984	67,8 2.669	72,0 2.835	6,0 0.236	6.00X4.90	4,65 0.183	5	C
T33-FSN01C03-6X1-62R	10139261	M6	1,0	2,3 0.091	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00X4.90	5,6 0.220	5	C
T33-FSN01C03-8X1.25-62R	10139262	M8	1,25	3,2 0.126	13,0 0.512	35 1.378	86,8 3.417	93,3 3.673	8,0 0.315	8.00X6.20	7,45 0.293	5	C
T33-FSN01C03-10X1.5-62R	10139263	M10	1,5	4,4 0.173	15,0 0.591	39 1.535	95,6 3.764	101,8 4.008	10,0 0.394	10.00X8.00	9,35 0.368	5	C

Thread turning

MDT

Mini-Shaft™

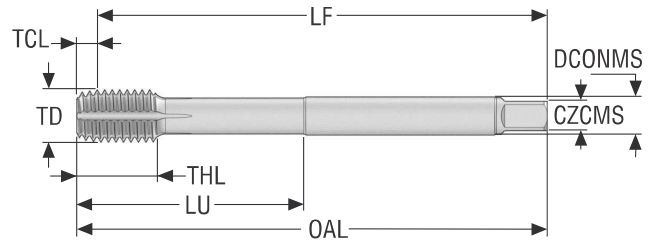
Thread milling

Thread tapping

Annex

T33-FSNC

Blind and through holes – Metric coarse threads, 6GX



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6GX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	
T33-FSN01C06-12X1.75-62R	10139264	M12	1,75	3,9 <i>0.154</i>	18,0 <i>0.709</i>	83 <i>3.268</i>	106,1 <i>4.177</i>	110,0 <i>4.331</i>	9,0 <i>0.354</i>	9.00X7.00	11,25 <i>0.443</i>	5	C
T33-FSN01C06-14X2-62R	10139265	M14	2,0	4,77 <i>0.188</i>	20,0 <i>0.787</i>	81 <i>3.189</i>	105,23 <i>4.143</i>	110,0 <i>4.331</i>	11,0 <i>0.433</i>	11.00X9.00	13,1 <i>0.516</i>	6	C
T33-FSN01C06-16X2-62R	10139266	M16	2,0	5,88 <i>0.231</i>	20,0 <i>0.787</i>	81 <i>3.189</i>	104,12 <i>4.099</i>	110,0 <i>4.331</i>	11,0 <i>0.433</i>	11.00X9.00	15,1 <i>0.594</i>	6	C
T33-FSN01C06-18X2.5-62R	10139267	M18	2,5	5,47 <i>0.215</i>	25,0 <i>0.984</i>	81 <i>3.189</i>	119,53 <i>4.706</i>	125,0 <i>4.921</i>	14,0 <i>0.551</i>	14.00X11.00	16,85 <i>0.663</i>	6	C
T33-FSN01C06-20X2.5-62R	10139268	M20	2,5	6,68 <i>0.263</i>	25,0 <i>0.984</i>	95 <i>3.740</i>	133,32 <i>5.249</i>	140,0 <i>5.512</i>	16,0 <i>0.630</i>	16.00X12.00	18,85 <i>0.742</i>	6	C

Thread turning

MDT

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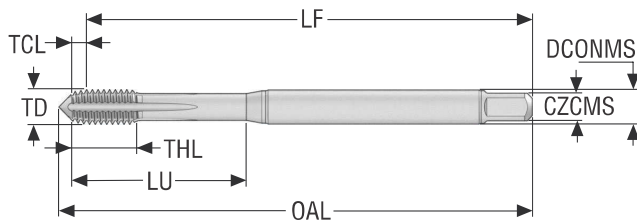
Thread milling

Thread tapping

Annex

T33-FSNC

Blind and through holes – MF threads

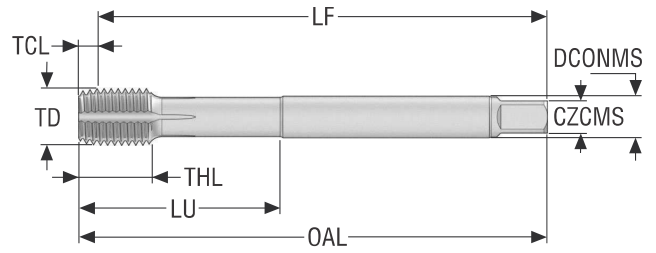


- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T33-FSN02C03-4X0.5-65R	10139217	MF4X0.5	0,5	1,4 0.055	7,0 0.276	21 0.827	61,6 2.425	64,6 2.543	4,5 0.177	4.50X3.40	3,8 0.150	5	C
T33-FSN02C03-5X0.5-65R	10139218	MF5X0.5	0,5	1,2 0.047	8,0 0.315	25 0.984	68,8 2.709	72,0 2.835	6,0 0.236	6.00X4.90	4,8 0.189	5	C
T33-FSN02C03-6X0.5-65R	10139219	MF6X0.5	0,5	1,35 0.053	10,0 0.394	30 1.181	78,65 3.096	82,4 3.244	6,0 0.236	6.00X4.90	5,8 0.228	5	C
T33-FSN02C03-6X0.75-65R	10139220	MF6X0.75	0,75	1,8 0.071	10,0 0.394	30 1.181	78,2 3.079	82,4 3.244	6,0 0.236	6.00X4.90	5,7 0.224	5	C
T33-FSN02C03-8X1-65R	10139221	MF8X1	1,0	2,25 0.089	13,0 0.512	35 1.378	87,75 3.455	93,3 3.673	8,0 0.315	8.00X6.20	7,6 0.299	5	C
T33-FSN02C03-10X1-65R	10139222	MF10X1	1,0	2,9 0.114	13,0 0.512	35 1.378	87,1 3.429	91,8 3.614	10,0 0.394	10.00X8.00	9,6 0.378	5	C
T33-FSN02C03-10X1.25-65R	10139223	MF10X1.25	1,25	3,1 0.122	15,0 0.591	39 1.535	96,9 3.815	101,8 4.008	10,0 0.394	10.00X8.00	9,45 0.372	5	C

T33-FSNC

Blind and through holes – MF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	
T33-FSN02C05-12X1-65R	10139224	MF12X1	1,0	3,27 <i>0.129</i>	10,0 <i>0.394</i>	73 <i>2.874</i>	96,73 <i>3.808</i>	100,0 <i>3.937</i>	9,0 <i>0.354</i>	9.00X7.00	11,6 <i>0.457</i>	5	C
T33-FSN02C05-12X1.25-65R	10139225	MF12X1.25	1,25	3,96 <i>0.156</i>	15,0 <i>0.591</i>	73 <i>2.874</i>	96,04 <i>3.781</i>	100,0 <i>3.937</i>	9,0 <i>0.354</i>	9.00X7.00	11,45 <i>0.451</i>	5	C
T33-FSN02C05-12X1.5-65R	10139226	MF12X1.5	1,5	4,15 <i>0.163</i>	15,0 <i>0.591</i>	73 <i>2.874</i>	95,85 <i>3.774</i>	100,0 <i>3.937</i>	9,0 <i>0.354</i>	9.00X7.00	11,35 <i>0.447</i>	5	C
T33-FSN02C05-16X1.5-65R	10139227	MF16X1.5	1,5	4,33 <i>0.170</i>	15,0 <i>0.591</i>	71 <i>2.795</i>	95,67 <i>3.767</i>	100,0 <i>3.937</i>	11,0 <i>0.433</i>	11.00X9.00	15,35 <i>0.604</i>	6	C
T33-FSN02C05-18X1.5-65R	10139228	MF18X1.5	1,5	4,4 <i>0.173</i>	17,0 <i>0.669</i>	66 <i>2.598</i>	105,6 <i>4.157</i>	110,0 <i>4.331</i>	14,0 <i>0.551</i>	14.00X11.00	17,35 <i>0.683</i>	6	C
T33-FSN02C05-20X1.5-65R	10139229	MF20X1.5	1,5	4,6 <i>0.181</i>	17,0 <i>0.669</i>	80 <i>3.150</i>	120,4 <i>4.740</i>	125,0 <i>4.921</i>	16,0 <i>0.630</i>	16.00X12.00	19,35 <i>0.762</i>	6	C

Thread turning

MDT

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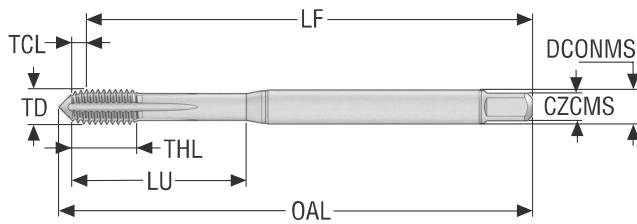
Thread milling

Thread tapping

Annex

T33-FSNC

Blind and through holes – UNC threads

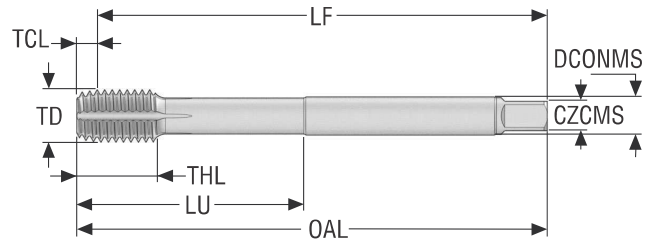


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T33-FSN08C03-5-40-22R	10139230	UNC5-40	3,175 0.125	40.0	1,6 0.063	7,0 0.276	18 0.709	54,4 2.142	57,2 2.252	3,5 0.138	3.50X2.70	2,9 0.114	3	C
T33-FSN08C03-6-32-22R	10139231	UNC6-32	3,505 0.138	32.0	1,8 0.071	6,0 0.236	20 0.787	54,2 2.134	57,4 2.260	4,0 0.157	4.00X3.00	3,15 0.124	3	C
T33-FSN08C03-8-32-22R	10139232	UNC8-32	4,166 0.164	32.0	2,0 0.079	7,0 0.276	21 0.827	61,0 2.402	64,6 2.543	4,5 0.177	4.50X3.40	3,8 0.150	5	C
T33-FSN08C03-10-24-22R	10139233	UNC10-24	4,826 0.190	24.0	2,7 0.106	8,0 0.315	25 0.984	67,3 2.650	72,0 2.835	6,0 0.236	6.00X4.90	4,35 0.171	5	C
T33-FSN08C03-12-24-22R	10139234	UNC12-24	5,486 0.216	24.0	2,7 0.106	10,0 0.394	30 1.181	77,3 3.043	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	5	C
T33-FSN08C03-1/4-20-22R	10139235	UNC1/4-20	6,35 0.250	20.0	3,9 0.154	13,0 0.512	30 1.181	76,1 2.996	80,0 3.150	7,0 0.276	7.00X5.50	5,75 0.226	5	C
T33-FSN08C03-5/16-18-22R	10139236	UNC5/16-18	7,937 0.312	18.0	3,6 0.142	13,0 0.512	35 1.378	86,4 3.402	93,3 3.673	8,2 0.323	8.20X6.20	7,3 0.287	5	C
T33-FSN08C03-3/8-16-22R	10139237	UNC3/8-16	9,525 0.375	16.0	4,74 0.187	15,0 0.591	39 1.535	95,26 3.750	100,0 3.937	10,0 0.394	10.00X8.00	8,8 0.346	5	C

T33-FSNC

Blind and through holes– UNC threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 2BX
- For cutting data see page(s) 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T33-FSN08C06-7/16-14-22R	10139238	UNC7/16-14	11,112 0.437	14.0	5,4 0.213	15,0 0.591	76 2.992	94,6 3.724	100,0 3.937	8,0 0.315	8.00X6.20	10,25 0.404	5	C
T33-FSN08C06-1/2-13-22R	10139239	UNC1/2-13	12,7 0.500	13.0	5,8 0.228	18,0 0.709	83 3.268	104,2 4.102	110,0 4.331	9,0 0.354	9.00X7.00	11,8 0.465	5	C
T33-FSN08C06-5/8-11-22R	10139240	UNC5/8-11	15,875 0.625	11.0	6,8 0.268	20,0 0.787	81 3.189	103,2 4.063	110,0 4.331	11,0 0.433	11.00X9.00	14,8 0.583	6	C

Thread turning

MDT

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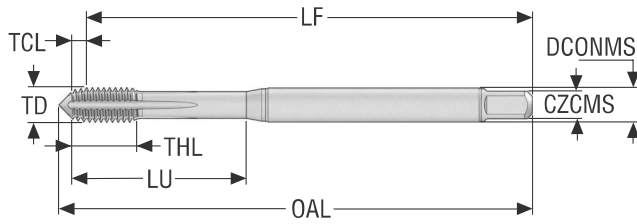
Thread milling

Thread tapping

Annex

T33-FSNC

Blind and through holes – UNF threads

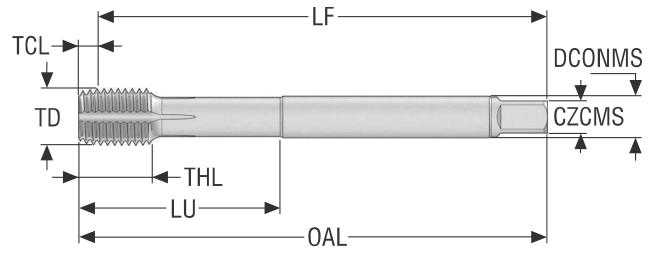


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T33-FSN09C03-5-44-22R	10139241	UNF5-44	3,175 0.125	44.0	1,4 0.055	7,0 0.276	18 0.709	54,6 2.150	57,2 2.252	3,5 0.138	3.50X2.70	2,92 0.115	3	C
T33-FSN09C03-6-40-22R	10139242	UNF6-40	3,505 0.138	40.0	1,6 0.063	6,0 0.236	20 0.787	54,4 2.142	57,4 2.260	4,0 0.157	4.00X3.00	3,22 0.127	3	C
T33-FSN09C03-8-36-22R	10139243	UNF8-36	4,166 0.164	36.0	1,8 0.071	7,0 0.276	21 0.827	61,2 2.409	64,6 2.543	4,5 0.177	4.50X3.40	3,85 0.152	5	C
T33-FSN09C03-10-32-22R	10139244	UNF10-32	4,826 0.190	32.0	1,9 0.075	8,0 0.315	25 0.984	68,1 2.681	72,0 2.835	6,0 0.236	6.00X4.90	4,45 0.175	5	C
T33-FSN09C03-12-28-22R	10139245	UNF12-28	5,486 0.216	28.0	1,9 0.075	10,0 0.394	30 1.181	78,1 3.075	82,4 3.244	6,0 0.236	6.00X4.90	5,1 0.201	5	C
T33-FSN09C03-1/4-28-22R	10139246	UNF1/4-28	6,35 0.250	28.0	2,23 0.088	10,0 0.394	30 1.181	77,77 3.062	82,4 3.244	7,0 0.276	7.00X5.50	5,95 0.234	5	C
T33-FSN09C03-5/16-24-22R	10139247	UNF5/16-24	7,937 0.312	24.0	2,6 0.102	13,0 0.512	35 1.378	87,4 3.441	93,3 3.673	8,0 0.315	8.00X6.20	7,45 0.293	5	C
T33-FSN09C03-3/8-24-22R	10139248	UNF3/8-24	9,525 0.375	24.0	3,5 0.138	15,0 0.591	35 1.378	86,5 3.406	90,0 3.543	10,0 0.394	10.00X8.00	9,05 0.356	5	C

T33-FSNC

Blind and through holes – UNF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 2BX
- For cutting data see page(s) 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T33-FSN09C05-7/16-20-22R	10139249	UNF7/16-20	11,112 0.437	20.0	3,8 0.150	15,0 0.591	76 2.992	96,2 3.787	100,0 3.937	8,0 0.315	8.00X6.20	10,55 0.415	5	C
T33-FSN09C05-1/2-20-22R	10139250	UNF1/2-20	12,7 0.500	20.0	3,8 0.150	15,0 0.591	83 3.268	106,2 4.181	110,0 4.331	9,0 0.354	9.00X7.00	12,15 0.478	5	C
T33-FSN09C05-5/8-18-22R	10139251	UNF5/8-18	15,875 0.625	18.0	4,7 0.185	15,0 0.591	68 2.677	105,3 4.146	110,0 4.331	12,0 0.472	12.00X9.00	15,25 0.600	6	C

Thread turning

MDT

Mini-Shaft™

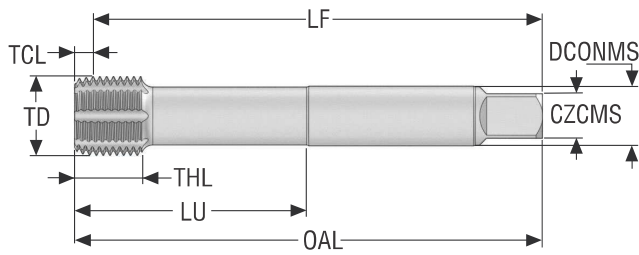
Thread milling

Thread tapping

Annex

T33-FSNC

Blind and through holes – G threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL-X
- For cutting data see page(s) 264

Designation	Item number	TDZ	TD	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
T33-FSN21C09-1/8-28-12R	10139252	G1/8	9,728 0.383	28.0	2,6 0.102	10,0 0.394	67 2.638	87,4 3.441	90,0 3.543	7,0 0.276	7.00X5.50	9,25 0.364	5	C
T33-FSN21C09-1/4-19-12R	10139253	G1/4	13,157 0.518	19.0	3,7 0.146	14,0 0.551	71 2.795	96,3 3.791	100,0 3.937	11,0 0.433	11.00X9.00	12,55 0.494	6	C
T33-FSN21C09-3/8-19-12R	10139254	G3/8	16,662 0.656	19.0	3,85 0.152	15,0 0.591	71 2.795	96,15 3.785	100,0 3.937	11,0 0.433	11.00X9.00	16,05 0.632	7	C
T33-FSN21C09-1/2-14-12R	10139255	G1/2	20,955 0.825	14.0	5,1 0.201	17,0 0.669	80 3.150	119,9 4.720	125,0 4.921	16,0 0.630	16.00X12.00	20,1 0.791	7	C
T33-FSN21C09-5/8-14-12R	10139256	G5/8	22,911 0.902	14.0	5,1 0.201	20,0 0.787	78 3.071	119,9 4.720	125,0 4.921	18,0 0.709	18.00X14.50	22,05 0.868	7	C
T33-FSN21C09-3/4-14-12R	10139257	G3/4	26,441 1.041	14.0	5,1 0.201	22,0 0.866	73 2.874	134,9 5.311	140,0 5.512	20,0 0.787	20.00X16.00	25,6 1.008	7	C

Thread turning

MDT

Mini-Shaft™

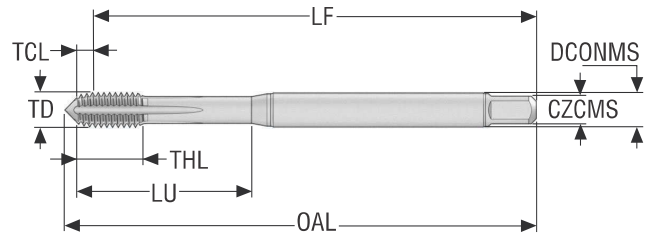
Thread milling

Thread tapping

Annex

T33-FSCC

Blind and through holes – Metric coarse threads



- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T33-FSC01C03-3X0.5-65R	10139282	M3	0,5	1,2 <i>0.047</i>	10,0 <i>0.394</i>	18 <i>0.709</i>	54,8 <i>2.157</i>	57,2 <i>2.252</i>	3,5 <i>0.138</i>	3.50X2.70	2,8 <i>0.110</i>	3	C
T33-FSC01C03-4X0.7-65R	10139283	M4	0,7	1,6 <i>0.063</i>	7,0 <i>0.276</i>	21 <i>0.827</i>	61,4 <i>2.417</i>	64,6 <i>2.543</i>	4,5 <i>0.177</i>	4.50X3.40	3,7 <i>0.146</i>	5	C
T33-FSC01C03-5X0.8-65R	10139284	M5	0,8	2,1 <i>0.083</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	67,9 <i>2.673</i>	72,0 <i>2.835</i>	6,0 <i>0.236</i>	6.00X4.90	4,65 <i>0.183</i>	5	C
T33-FSC01C03-6X1-65R	10139285	M6	1,0	2,3 <i>0.091</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	77,7 <i>3.059</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,6 <i>0.220</i>	5	C
T33-FSC01C03-8X1.25-65R	10139286	M8	1,25	3,1 <i>0.122</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	86,9 <i>3.421</i>	93,3 <i>3.673</i>	8,0 <i>0.315</i>	8.00X6.20	7,45 <i>0.293</i>	5	C
T33-FSC01C03-10X1.5-65R	10139287	M10	1,5	3,5 <i>0.138</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	96,5 <i>3.799</i>	101,8 <i>4.008</i>	10,0 <i>0.394</i>	10.00X8.00	9,35 <i>0.368</i>	5	C

Thread turning

MDT

Mini-Shaft™

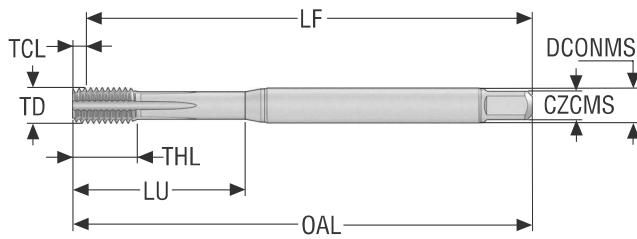
Thread milling

Thread tapping

Annex

T33-FSCE

Blind and through holes – Metric coarse threads

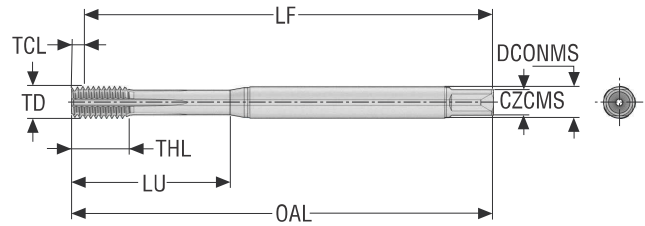


- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T33-FSC01E03-3X0.5-65R	10139288	M3	0,5	1,2 <i>0.047</i>	10,0 <i>0.394</i>	18 <i>0.709</i>	54,8 <i>2.157</i>	57,2 <i>2.252</i>	3,5 <i>0.138</i>	3.50X2.70	2,8 <i>0.110</i>	3	E
T33-FSC01E03-4X0.7-65R	10139289	M4	0,7	1,6 <i>0.063</i>	7,0 <i>0.276</i>	21 <i>0.827</i>	61,4 <i>2.417</i>	63,0 <i>2.480</i>	4,5 <i>0.177</i>	4.50X3.40	3,7 <i>0.146</i>	5	E
T33-FSC01E03-5X0.8-65R	10139290	M5	0,8	1,5 <i>0.059</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	68,5 <i>2.697</i>	70,0 <i>2.756</i>	6,0 <i>0.236</i>	6.00X4.90	4,65 <i>0.183</i>	5	E

T33A-FSCE

Blind holes – Metric coarse threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T33A-FSC01E03-5X0.8-65R	10139294	M5	0,8	1,7 <i>0.067</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	68,3 <i>2.689</i>	70,0 <i>2.756</i>	6,0 <i>0.236</i>	6.00X4.90	4,65 <i>0.183</i>	5	E
T33A-FSC01E03-6X1-65R	10139295	M6	1,0	1,95 <i>0.077</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	78,05 <i>3.073</i>	80,0 <i>3.150</i>	6,0 <i>0.236</i>	6.00X4.90	5,6 <i>0.220</i>	5	E
T33A-FSC01E03-8X1.25-65R	10139296	M8	1,25	2,55 <i>0.100</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	87,45 <i>3.443</i>	90,0 <i>3.543</i>	8,0 <i>0.315</i>	8.00X6.20	7,45 <i>0.293</i>	5	E
T33A-FSC01E03-10X1.5-65R	10139297	M10	1,5	2,84 <i>0.112</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	97,16 <i>3.825</i>	100,0 <i>3.937</i>	10,0 <i>0.394</i>	10.00X8.00	9,35 <i>0.368</i>	5	E

Thread turning

MDT

Mini-Shaft™

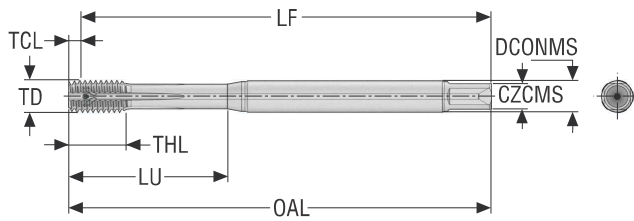
Thread milling

Thread tapping

Annex

T33B-FSCE

Through holes – Metric coarse threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T33B-FSC01E03-5X0.8-65R	10139298	M5	0,8	1,57 <i>0.062</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	68,43 <i>2.694</i>	70,0 <i>2.756</i>	6,0 <i>0.236</i>	6.00X4.90	4,65 <i>0.183</i>	5	E
T33B-FSC01E03-6X1-65R	10139299	M6	1,0	1,95 <i>0.077</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	78,05 <i>3.073</i>	80,0 <i>3.150</i>	6,0 <i>0.236</i>	6.00X4.90	5,6 <i>0.220</i>	5	E
T33B-FSC01E03-8X1.25-65R	10139300	M8	1,25	2,42 <i>0.095</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	87,58 <i>3.448</i>	90,0 <i>3.543</i>	8,0 <i>0.315</i>	8.00X6.20	7,45 <i>0.293</i>	5	E
T33B-FSC01E03-10X1.5-65R	10139301	M10	1,5	2,84 <i>0.112</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	97,16 <i>3.825</i>	100,0 <i>3.937</i>	10,0 <i>0.394</i>	10.00X8.00	9,35 <i>0.368</i>	5	E

Thread turning

MDT

Mini-Shaft™

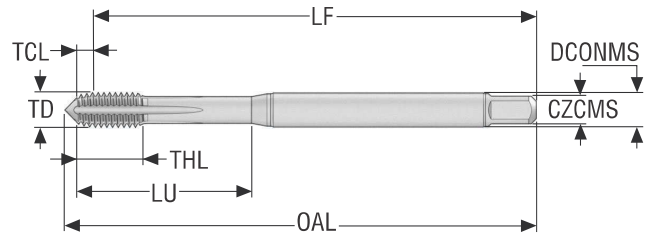
Thread milling

Thread tapping

Annex

T33-FSCC

Blind and through holes – MF threads



- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		
T33-FSC02C03-4X0.5-65R	10139269	MF4X0.5	0,5	1,4 <i>0.055</i>	7,0 <i>0.276</i>	21 <i>0.827</i>	61,6 <i>2.425</i>	64,6 <i>2.543</i>	4,5 <i>0.177</i>	4.50X3.40	3,8 <i>0.150</i>	5	C
T33-FSC02C03-5X0.5-65R	10139270	MF5X0.5	0,5	1,2 <i>0.047</i>	8,0 <i>0.315</i>	25 <i>0.984</i>	68,8 <i>2.709</i>	72,0 <i>2.835</i>	6,0 <i>0.236</i>	6.00X4.90	4,8 <i>0.189</i>	5	C
T33-FSC02C03-6X0.5-65R	10139271	MF6X0.5	0,5	1,35 <i>0.053</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	78,65 <i>3.096</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,8 <i>0.228</i>	5	C
T33-FSC02C03-6X0.75-65R	10139272	MF6X0.75	0,75	1,8 <i>0.071</i>	10,0 <i>0.394</i>	30 <i>1.181</i>	78,2 <i>3.079</i>	82,4 <i>3.244</i>	6,0 <i>0.236</i>	6.00X4.90	5,7 <i>0.224</i>	5	C
T33-FSC02C03-8X1-65R	10139273	MF8X1	1,0	2,25 <i>0.089</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	87,75 <i>3.455</i>	93,3 <i>3.673</i>	8,0 <i>0.315</i>	8.00X6.20	7,6 <i>0.299</i>	5	C
T33-FSC02C03-10X1-65R	10139274	MF10X1	1,0	2,9 <i>0.114</i>	13,0 <i>0.512</i>	35 <i>1.378</i>	87,1 <i>3.429</i>	91,8 <i>3.614</i>	10,0 <i>0.394</i>	10.00X8.00	9,6 <i>0.378</i>	5	C
T33-FSC02C03-10X1.25-65R	10139275	MF10X1.25	1,25	4,0 <i>0.157</i>	15,0 <i>0.591</i>	39 <i>1.535</i>	96,0 <i>3.780</i>	101,8 <i>4.008</i>	10,0 <i>0.394</i>	10.00X8.00	9,45 <i>0.372</i>	5	C

Thread turning

MDT

Mini-Shaft™

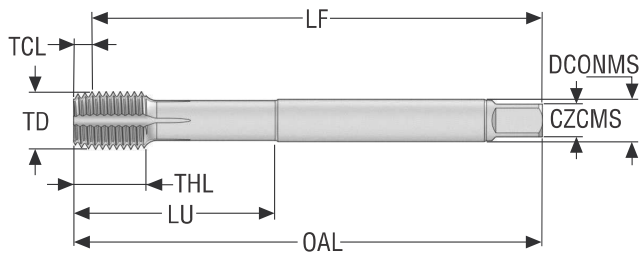
Thread milling

Thread tapping

Annex

T33-FSCC

Blind and through holes – MF threads

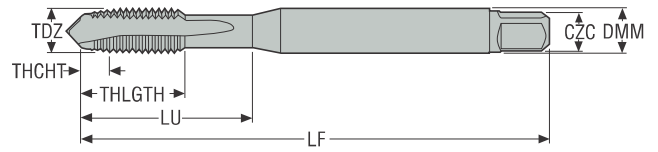


- Substrate: HSSE
- Coating: TiN + TiCN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 264

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
				mm	mm	mm	mm	mm	mm	mm			
T33-FSC02C05-12X1-65R	10139276	MF12X1	1,0	3,27 0.129	10,0 0.394	73 2.874	96,73 3.808	100,0 3.937	9,0 0.354	9.00X7.00	11,6 0.457	5	C
T33-FSC02C05-12X1.25-65R	10139277	MF12X1.25	1,25	3,96 0.156	15,0 0.591	73 2.874	96,04 3.781	100,0 3.937	9,0 0.354	9.00X7.00	11,45 0.451	5	C
T33-FSC02C05-12X1.5-65R	10139278	MF12X1.5	1,5	4,2 0.165	15,0 0.591	73 2.874	95,8 3.772	100,0 3.937	9,0 0.354	9.00X7.00	11,35 0.447	5	C
T33-FSC02C05-16X1.5-65R	10139279	MF16X1.5	1,5	4,33 0.170	15,0 0.591	71 2.795	95,67 3.767	100,0 3.937	11,0 0.433	11.00X9.00	15,35 0.604	5	C
T33-FSC02C05-18X1.5-65R	10139280	MF18X1.5	1,5	4,4 0.173	17,0 0.669	66 2.598	105,6 4.157	110,0 4.331	14,0 0.551	14.00X11.00	17,35 0.683	5	C
T33-FSC02C05-20X1.5-65R	10139281	MF20X1.5	1,5	4,6 0.181	17,0 0.669	80 3.150	120,4 4.740	125,0 4.921	16,0 0.630	16.00X12.00	19,35 0.762	5	C

MTP-P001

Through holes

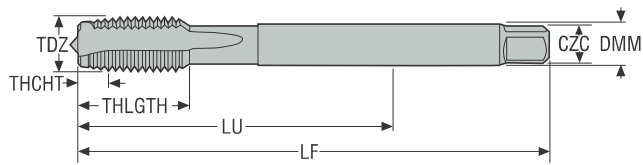


- For cutting data see page(s) 268
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
		mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch				
MTP-M3X0.50ISO6H-TB-P001	02999886	M3	0,5	–	4,5 0.177	12,0 0.472	12,0 0.472	61,625 2.426	2,5 0.098	4.50X3.40	3	SECO-DIN	6H B
MTP-M4X0.70ISO6H-TB-P001	02999887	M4	0,7	–	6,0 0.236	13,0 0.512	13,0 0.512	68,075 2.680	3,4 0.134	6.00X4.90	3	SECO-DIN	6H B
MTP-M5X0.80ISO6H-TB-P001	02999888	M5	0,8	–	6,0 0.236	15,0 0.591	15,0 0.591	76,3 3.004	4,3 0.169	6.00X4.90	3	SECO-DIN	6H B
MTP-M6X1.00ISO6H-TB-P001	02999889	M6	1,0	–	8,0 0.315	18,0 0.709	18,0 0.709	85,375 3.361	5,1 0.201	8.00X6.20	3	SECO-DIN	6H B
MTP-M8X1.25ISO6H-TB-P001	02999890	M8	1,25	–	10,0 0.394	20,0 0.787	20,0 0.787	94,21875 3.709	6,8 0.268	10.00X8.00	3	SECO-DIN	6H B
MTP-M10X1.50ISO6H-TB-P001	02999891	M10	1,5	–	10,0 0.394	39,0 1.535	20,0 0.787	95,875 3.775	8,6 0.339	10.00X8.00	3	SECO-DIN	6H B

MTP-P002

Through holes



- For cutting data see page(s) 268
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M12X1.75ISO6H-TB-P002	02999892	M12	1,75	–	9,0 0.354	83,0 3.268	23,0 0.906	105,1875 4.141	10,4 0.409	9.00X7.00	4	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-P002	02999893	M14	2,0	–	11,0 0.433	81,0 3.189	25,0 0.984	104,5 4.114	12,1 0.476	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-P002	02999894	M16	2,0	–	12,0 0.472	68,0 2.677	25,0 0.984	104,5 4.114	14,1 0.555	12.00X9.00	4	DIN376	6H	B
MTP-M18X2.50ISO6H-TB-P002	02999895	M18	2,5	–	14,0 0.551	81,0 3.189	30,0 1.181	112,63 4.434	15,7 0.618	14.00X11.00	4	DIN376	6H	B
MTP-M20X2.50ISO6H-TB-P002	02999896	M20	2,5	–	16,0 0.630	95,0 3.740	30,0 1.181	133,125 5.241	17,7 0.697	16.00X12.00	4	DIN376	6H	B

Thread turning

MDT

Mini-Shaft™

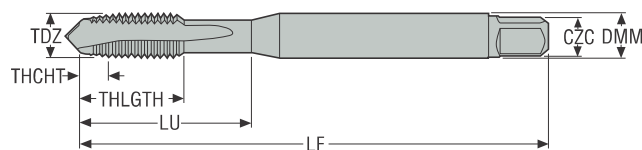
Thread milling

Thread tapping

Annex

MTP-P003

Through holes

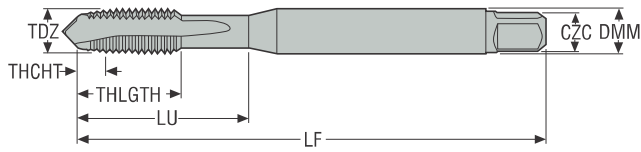


- For cutting data see page(s) 268
- Coating: AlTiN-based
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M1X0.25ISO5HX-TB-P003	02999897	M1	0,25 -	2,5 0.098	20,0 0.787	5,0 0.197	38,87 1.530	0,75 0.030	2.50X2.10	2	DIN371	5HX	B
MTP-M1.2X0.25ISO5HX-TB-P003	02999898	M1.2	0,25 -	2,5 0.098	20,0 0.787	5,0 0.197	38,87 1.530	0,95 0.037	2.50X2.10	2	DIN371	5HX	B
MTP-M1.4X0.30ISO5HX-TB-P003	02999899	M1.4	0,3 -	2,5 0.098	20,0 0.787	6,5 0.256	38,65 1.522	1,1 0.043	2.50X2.10	2	DIN371	5HX	B
MTP-M1.6X0.35ISO6HX-TB-P003	02999900	M1.6	0,35 -	2,5 0.098	12,5 0.492	7,0 0.276	38,42 1.513	1,3 0.051	2.50X2.10	2	DIN371	6HX	B
MTP-M1.8X0.35ISO6HX-TB-P003	02999901	M1.8	0,35 -	2,5 0.098	20,0 0.787	7,0 0.276	38,42 1.513	1,5 0.059	2.50X2.10	2	DIN371	6HX	B
MTP-M2X0.40ISO6HX-TB-P003	02999902	M2	0,4 -	2,8 0.110	9,0 0.354	6,0 0.236	43,2 1.701	1,6 0.063	2.80X2.10	2	DIN371	6HX	B
MTP-M2.2X0.45ISO6HX-TB-P003	02999903	M2.2	0,45 -	2,8 0.110	12,0 0.472	7,0 0.276	42,97 1.692	1,8 0.071	2.80X2.10	2	DIN371	6HX	B
MTP-M2.3X0.40ISO6HX-TB-P003	02999904	M2.3	0,4 -	2,8 0.110	12,0 0.472	7,0 0.276	43,2 1.701	1,9 0.075	2.80X2.10	2	DIN371	6HX	B
MTP-M2.5X0.45ISO6HX-TB-P003	02999905	M2.5	0,45 -	2,8 0.110	12,5 0.492	8,0 0.315	47,97 1.889	2,1 0.083	2.80X2.10	2	DIN371	6HX	B
MTP-M2.6X0.45ISO6HX-TB-P003	02999906	M2.6	0,45 -	2,8 0.110	12,5 0.492	8,0 0.315	47,97 1.889	2,15 0.085	2.80X2.10	2	DIN371	6HX	B
MTP-M3X0.50ISO6HX-TB-P003	02999907	M3	0,5 -	3,5 0.138	18,0 0.709	8,9 0.350	53,6875 2.114	2,5 0.098	3.50X2.70	3	DIN371	6HX	B
MTP-M3.5X0.60ISO6HX-TB-P003	02999908	M3.5	0,6 -	4,0 0.157	20,0 0.787	10,8 0.425	53,225 2.095	2,9 0.114	4.00X3.00	3	DIN371	6HX	B
MTP-M4X0.70ISO6HX-TB-P003	02999909	M4	0,7 -	4,5 0.177	21,0 0.827	11,7 0.461	59,7625 2.353	3,4 0.134	4.50X3.40	3	DIN371	6HX	B
MTP-M5X0.80ISO6HX-TB-P003	02999910	M5	0,8 -	6,0 0.236	25,0 0.984	12,6 0.496	66,3 2.610	4,3 0.169	6.00X4.90	3	DIN371	6HX	B
MTP-M6X1.00ISO6HX-TB-P003	02999911	M6	1,0 -	6,0 0.236	30,0 1.181	14,5 0.571	75,375 2.968	5,1 0.201	6.00X4.90	3	DIN371	6HX	B
MTP-M7X1.00ISO6HX-TB-P003	02999912	M7	1,0 -	7,0 0.276	30,0 1.181	14,5 0.571	78,275 3.082	6,1 0.240	7.00X5.50	3	DIN371	6HX	B
MTP-M8X1.25ISO6HX-TB-P003	02999913	M8	1,25 -	8,0 0.315	35,0 1.378	17,4 0.685	84,21875 3.316	6,8 0.268	8.00X6.20	3	DIN371	6HX	B
MTP-M10X1.50ISO6HX-TB-P003	02999914	M10	1,5 -	10,0 0.394	39,0 1.535	19,2 0.756	93,0625 3.664	8,6 0.339	10.00X8.00	3	DIN371	6HX	B

MTP-P003-A

Through holes

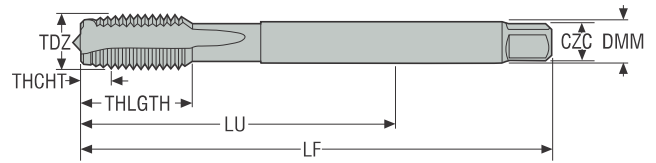


- For cutting data see page(s) 268
- Coating: AlTiN-based
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M4X0.70ISO6HX-TB-P003-A	02999929	M4	0,7	–	4,5 <i>0.177</i>	21,0 <i>0.827</i>	11,7 <i>0.461</i>	59,73 <i>2.352</i>	3,4 <i>0.134</i>	4.50X3.40	3	DIN371	6HX	B
MTP-M5X0.80ISO6HX-TB-P003-A	02999930	M5	0,8	–	6,0 <i>0.236</i>	25,0 <i>0.984</i>	12,6 <i>0.496</i>	66,35 <i>2.612</i>	4,3 <i>0.169</i>	6.00X4.90	3	DIN371	6HX	B
MTP-M6X1.00ISO6HX-TB-P003-A	02999931	M6	1,0	–	6,0 <i>0.236</i>	30,0 <i>1.181</i>	14,5 <i>0.571</i>	75,51 <i>2.973</i>	5,1 <i>0.201</i>	6.00X4.90	3	DIN371	6HX	B
MTP-M7X1.00ISO6HX-TB-P003-A	02999932	M7	1,0	–	7,0 <i>0.276</i>	30,0 <i>1.181</i>	14,5 <i>0.571</i>	75,51 <i>2.973</i>	6,1 <i>0.240</i>	7.00X5.50	3	DIN371	6HX	B
MTP-M8X1.25ISO6HX-TB-P003-A	02999933	M8	1,25	–	8,0 <i>0.315</i>	35,0 <i>1.378</i>	17,4 <i>0.685</i>	84,48 <i>3.326</i>	6,8 <i>0.268</i>	8.00X6.20	3	DIN371	6HX	B
MTP-M10X1.50ISO6HX-TB-P003-A	02999934	M10	1,5	–	10,0 <i>0.394</i>	39,0 <i>1.535</i>	19,2 <i>0.756</i>	93,46 <i>3.680</i>	8,6 <i>0.339</i>	10.00X8.00	3	DIN371	6HX	B

MTP-P004

Through holes

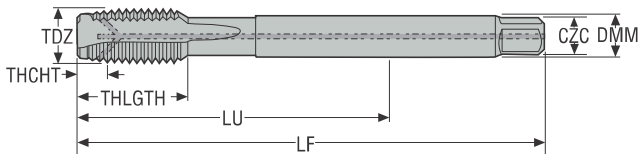


- For cutting data see page(s) 268
- Coating: AlTiN-based
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M4X0.70ISO6HX-TB-P004	02999915	M4	0,7 -	2,8 0.110	43,0 1.693	12,0 0.472	59,7625 2.353	3,4 0.134	2.80X2.10	3	DIN376	6HX	B
MTP-M5X0.80ISO6HX-TB-P004	02999916	M5	0,8 -	3,5 0.138	49,0 1.929	13,2 0.520	66,3 2.610	4,3 0.169	3.50X2.70	3	DIN376	6HX	B
MTP-M6X1.00ISO6HX-TB-P004	02999917	M6	1,0 -	4,5 0.177	59,0 2.323	15,1 0.594	75,375 2.968	5,1 0.201	4.50X3.40	3	DIN376	6HX	B
MTP-M8X1.25ISO6HX-TB-P004	02999918	M8	1,25 -	6,0 0.236	67,0 2.638	18,0 0.709	84,21875 3.316	6,8 0.268	6.00X4.90	3	DIN376	6HX	B
MTP-M10X1.50ISO6HX-TB-P004	02999919	M10	1,5 -	7,0 0.276	77,0 3.031	19,8 0.780	93,0625 3.664	8,6 0.339	7.00X5.50	3	DIN376	6HX	B
MTP-M12X1.75ISO6HX-TB-P004	02999920	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	101,90625 4.012	10,4 0.409	9.00X7.00	4	DIN376	6HX	B
MTP-M14X2.00ISO6HX-TB-P004	02999921	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	100,75 3.967	12,1 0.476	11.00X9.00	4	DIN376	6HX	B
MTP-M16X2.00ISO6HX-TB-P004	02999922	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	100,75 3.967	14,1 0.555	12.00X9.00	4	DIN376	6HX	B
MTP-M18X2.50ISO6HX-TB-P004	02999923	M18	2,5 -	14,0 0.551	81,0 3.189	30,0 1.181	114,46 4.506	15,7 0.618	14.00X11.00	4	DIN376	6HX	B
MTP-M20X2.50ISO6HX-TB-P004	02999924	M20	2,5 -	16,0 0.630	95,0 3.740	30,0 1.181	128,4375 5.057	17,7 0.697	16.00X12.00	4	DIN376	6HX	B
MTP-M22X2.50ISO6HX-TB-P004	02999925	M22	2,5 -	18,0 0.709	93,0 3.661	34,0 1.339	129,36 5.093	19,7 0.776	18.00X14.50	4	DIN376	6HX	B
MTP-M24X3.00ISO6HX-TB-P004	02999926	M24	3,0 -	18,0 0.709	113,0 4.449	38,0 1.496	146,125 5.753	21,0 0.827	18.00X14.50	4	DIN376	6HX	B
MTP-M27X3.00ISO6HX-TB-P004	02999927	M27	3,0 -	20,0 0.787	97,0 3.819	38,0 1.496	147,37 5.802	24,0 0.945	20.00X16.00	4	DIN376	6HX	B
MTP-M30X3.50ISO6HX-TB-P004	02999928	M30	3,5 -	22,0 0.866	115,0 4.528	45,0 1.772	165,42 6.513	26,5 1.043	22.00X18.00	4	DIN376	6HX	B

MTP-P004-A

Through holes

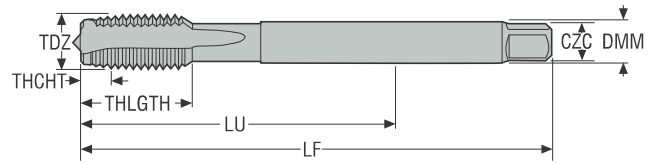


- For cutting data see page(s) 268
- Coating: AlTiN-based
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M12X1.75ISO6HX-TB-P004-A	02999935	M12	1,75	–	9,0 0.354	83,0 3.268	23,0 0.906	101,90625 4.012	10,4 0.409	9.00X7.00	4	DIN376	6HX	B
MTP-M14X2.00ISO6HX-TB-P004-A	02999936	M14	2,0	–	11,0 0.433	81,0 3.189	25,0 0.984	101,41 3.993	12,1 0.476	11.00X9.00	4	DIN376	6HX	B
MTP-M16X2.00ISO6HX-TB-P004-A	02999937	M16	2,0	–	12,0 0.472	68,0 2.677	25,0 0.984	100,75 3.967	14,1 0.555	12.00X9.00	4	DIN376	6HX	B
MTP-M18X2.50ISO6HX-TB-P004-A	02999938	M18	2,5	–	14,0 0.551	81,0 3.189	30,0 1.181	114,46 4.506	15,7 0.618	14.00X11.00	4	DIN376	6HX	B
MTP-M20X2.50ISO6HX-TB-P004-A	02999939	M20	2,5	–	16,0 0.630	95,0 3.740	30,0 1.181	129,46 5.097	17,7 0.697	16.00X12.00	4	DIN376	6HX	B
MTP-M22X2.50ISO6HX-TB-P004-A	02999940	M22	2,5	–	18,0 0.709	93,0 3.661	34,0 1.339	129,36 5.093	19,7 0.776	18.00X14.50	4	DIN376	6HX	B
MTP-M24X3.00ISO6HX-TB-P004-A	02999941	M24	3,0	–	18,0 0.709	113,0 4.449	38,0 1.496	146,125 5.753	21,0 0.827	18.00X14.50	4	DIN376	6HX	B
MTP-M27X3.00ISO6HX-TB-P004-A	02999942	M27	3,0	–	20,0 0.787	97,0 3.819	38,0 1.496	147,37 5.802	24,0 0.945	20.00X16.00	4	DIN376	6HX	B
MTP-M30X3.50ISO6HX-TB-P004-A	02999943	M30	3,5	–	22,0 0.866	115,0 4.528	45,0 1.772	165,42 6.513	26,5 1.043	22.00X18.00	4	DIN376	6HX	B

MTP-P011

Through holes



- For cutting data see page(s) 268
- Coating: AlTiN-based
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M4X0.50ISO6HX-TB-P011	02999944	MF4X0.5	0,5	–	2,8 <i>0.110</i>	43,0 <i>1.693</i>	12,0 <i>0.472</i>	60,6875 <i>2.389</i>	3,5 <i>0.138</i>	2.80X2.10	3	DIN374	6HX	B
MTP-M5X0.50ISO6HX-TB-P011	02999945	MF5X0.5	0,5	–	3,5 <i>0.138</i>	49,0 <i>1.929</i>	13,0 <i>0.512</i>	67,57 <i>2.660</i>	4,5 <i>0.177</i>	3.50X2.70	3	DIN374	6HX	B
MTP-M6X0.75ISO6HX-TB-P011	02999946	MF6X0.75	0,75	–	4,5 <i>0.177</i>	59,0 <i>2.323</i>	15,0 <i>0.591</i>	76,5 <i>3.012</i>	5,3 <i>0.209</i>	4.50X3.40	3	DIN374	6HX	B
MTP-M8X0.75ISO6HX-TB-P011	02999947	MF8X0.75	0,75	–	6,0 <i>0.236</i>	57,0 <i>2.244</i>	15,0 <i>0.591</i>	76,43 <i>3.009</i>	7,3 <i>0.287</i>	6.00X4.90	3	DIN374	6HX	B
MTP-M8X1.00ISO6HX-TB-P011	02999948	MF8X1.0	1,0	–	6,0 <i>0.236</i>	67,0 <i>2.638</i>	18,0 <i>0.709</i>	85,375 <i>3.361</i>	7,1 <i>0.280</i>	6.00X4.90	3	DIN374	6HX	B
MTP-M10X0.75ISO6HX-TB-P011	02999949	MF10X0.75	0,75	–	7,0 <i>0.276</i>	67,0 <i>2.638</i>	17,6 <i>0.693</i>	86,42 <i>3.402</i>	9,3 <i>0.366</i>	7.00X5.50	3	DIN374	6HX	B
MTP-M10X1.00ISO6HX-TB-P011	02999950	MF10X1.0	1,0	–	7,0 <i>0.276</i>	67,0 <i>2.638</i>	17,6 <i>0.693</i>	85,375 <i>3.361</i>	9,1 <i>0.358</i>	7.00X5.50	3	DIN374	6HX	B
MTP-M10X1.25ISO6HX-TB-P011	02999951	MF10X1.25	1,25	–	7,0 <i>0.276</i>	77,0 <i>3.031</i>	19,8 <i>0.780</i>	98,51875 <i>3.879</i>	8,8 <i>0.346</i>	7.00X5.50	3	DIN374	6HX	B
MTP-M12X1.00ISO6HX-TB-P011	02999952	MF12X1.0	1,0	–	9,0 <i>0.354</i>	73,0 <i>2.874</i>	21,0 <i>0.827</i>	95,36 <i>3.754</i>	11,1 <i>0.437</i>	9.00X7.00	4	DIN374	6HX	B
MTP-M12X1.25ISO6HX-TB-P011	02999953	MF12X1.25	1,25	–	9,0 <i>0.354</i>	73,0 <i>2.874</i>	21,0 <i>0.827</i>	94,21875 <i>3.709</i>	10,8 <i>0.425</i>	9.00X7.00	4	DIN374	6HX	B
MTP-M12X1.50ISO6HX-TB-P011	02999954	MF12X1.5	1,5	–	9,0 <i>0.354</i>	73,0 <i>2.874</i>	21,0 <i>0.827</i>	93,37 <i>3.676</i>	10,6 <i>0.417</i>	9.00X7.00	4	DIN374	6HX	B
MTP-M14X1.00ISO6HX-TB-P011	02999955	MF14X1.0	1,0	–	11,0 <i>0.433</i>	71,0 <i>2.795</i>	21,0 <i>0.827</i>	95,35 <i>3.754</i>	13,1 <i>0.516</i>	11.00X9.00	4	DIN374	6HX	B
MTP-M14X1.25ISO6HX-TB-P011	02999956	MF14X1.25	1,25	–	11,0 <i>0.433</i>	71,0 <i>2.795</i>	21,0 <i>0.827</i>	94,33 <i>3.714</i>	12,8 <i>0.504</i>	11.00X9.00	4	DIN374	6HX	B
MTP-M14X1.50ISO6HX-TB-P011	02999957	MF14X1.5	1,5	–	11,0 <i>0.433</i>	71,0 <i>2.795</i>	21,0 <i>0.827</i>	93,0625 <i>3.664</i>	12,6 <i>0.496</i>	11.00X9.00	4	DIN374	6HX	B
MTP-M16X1.00ISO6HX-TB-P011	02999958	MF16X1.0	1,0	–	12,0 <i>0.472</i>	58,0 <i>2.283</i>	21,0 <i>0.827</i>	95,35 <i>3.754</i>	15,1 <i>0.594</i>	12.00X9.00	4	DIN374	6HX	B
MTP-M16X1.50ISO6HX-TB-P011	02999959	MF16X1.5	1,5	–	12,0 <i>0.472</i>	58,0 <i>2.283</i>	21,0 <i>0.827</i>	93,0625 <i>3.664</i>	14,6 <i>0.575</i>	12.00X9.00	4	DIN374	6HX	B
MTP-M18X1.00ISO6HX-TB-P011	02999960	MF18X1.0	1,0	–	14,0 <i>0.551</i>	66,0 <i>2.598</i>	24,0 <i>0.945</i>	105,35 <i>4.148</i>	17,1 <i>0.673</i>	14.00X11.00	4	DIN374	6HX	B
MTP-M18X1.50ISO6HX-TB-P011	02999961	MF18X1.5	1,5	–	14,0 <i>0.551</i>	66,0 <i>2.598</i>	24,0 <i>0.945</i>	103,35 <i>4.069</i>	16,6 <i>0.654</i>	14.00X11.00	4	DIN374	6HX	B
MTP-M20X1.00ISO6HX-TB-P011	02999962	MF20X1.0	1,0	–	16,0 <i>0.630</i>	80,0 <i>3.150</i>	24,0 <i>0.945</i>	120,24 <i>4.734</i>	19,1 <i>0.752</i>	16.00X12.00	4	DIN374	6HX	B
MTP-M20X1.50ISO6HX-TB-P011	02999963	MF20X1.5	1,5	–	16,0 <i>0.630</i>	80,0 <i>3.150</i>	24,0 <i>0.945</i>	118,25 <i>4.656</i>	18,6 <i>0.732</i>	16.00X12.00	4	DIN374	6HX	B
MTP-M22X1.50ISO6HX-TB-P011	02999964	MF22X1.5	1,5	–	18,0 <i>0.709</i>	78,0 <i>3.071</i>	25,0 <i>0.984</i>	118,25 <i>4.656</i>	20,5 <i>0.807</i>	18.00X14.50	4	DIN374	6HX	B
MTP-M24X1.50ISO6HX-TB-P011	02999965	MF24X1.5	1,5	–	18,0 <i>0.709</i>	93,0 <i>3.661</i>	28,0 <i>1.102</i>	133,23 <i>5.245</i>	22,5 <i>0.886</i>	18.00X14.50	4	DIN374	6HX	B

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M24X2.00ISO6HX-TB-P011	02999966	MF24X2.0	2,0	–	18,0 <i>0.709</i>	93,0 <i>3.661</i>	28,0 <i>1.102</i>	131,28 <i>5.169</i>	22,0 <i>0.866</i>	18.00X14.50	4	DIN374	6HX	B
MTP-M25X1.50ISO6HX-TB-P011	02999967	MF25X1.5	1,5	–	18,0 <i>0.709</i>	93,0 <i>3.661</i>	28,0 <i>1.102</i>	133,23 <i>5.245</i>	23,5 <i>0.925</i>	18.00X14.50	4	DIN374	6HX	B
MTP-M26X1.50ISO6HX-TB-P011	02999968	MF26X1.5	1,5	–	18,0 <i>0.709</i>	93,0 <i>3.661</i>	28,0 <i>1.102</i>	133,23 <i>5.245</i>	24,5 <i>0.965</i>	18.00X14.50	4	DIN374	6HX	B
MTP-M27X1.50ISO6HX-TB-P011	02999969	MF27X1.5	1,5	–	20,0 <i>0.787</i>	77,0 <i>3.031</i>	28,0 <i>1.102</i>	133,22 <i>5.245</i>	25,5 <i>1.004</i>	20.00X16.00	4	DIN374	6HX	B
MTP-M27X2.00ISO6HX-TB-P011	02999970	MF27X2.0	2,0	–	20,0 <i>0.787</i>	77,0 <i>3.031</i>	28,0 <i>1.102</i>	131,28 <i>5.169</i>	25,0 <i>0.984</i>	20.00X16.00	4	DIN374	6HX	B
MTP-M28X1.50ISO6HX-TB-P011	02999971	MF28X1.5	1,5	–	20,0 <i>0.787</i>	77,0 <i>3.031</i>	28,0 <i>1.102</i>	133,22 <i>5.245</i>	26,5 <i>1.043</i>	20.00X16.00	4	DIN374	6HX	B
MTP-M30X1.50ISO6HX-TB-P011	02999972	MF30X1.5	1,5	–	22,0 <i>0.866</i>	85,0 <i>3.346</i>	28,0 <i>1.102</i>	143,22 <i>5.639</i>	28,5 <i>1.122</i>	22.00X18.00	4	DIN374	6HX	B
MTP-M30X2.00ISO6HX-TB-P011	02999973	MF30X2.0	2,0	–	22,0 <i>0.866</i>	85,0 <i>3.346</i>	28,0 <i>1.102</i>	141,27 <i>5.562</i>	28,0 <i>1.102</i>	22.00X18.00	4	DIN374	6HX	B

Thread turning

MDT

Mini-Shaft™

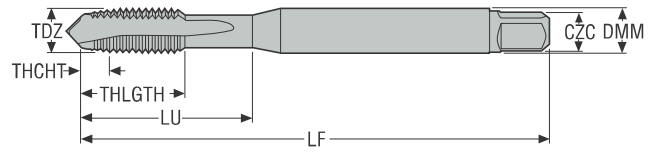
Thread milling

Thread tapping

Annex

MTP-M003-A

Through holes

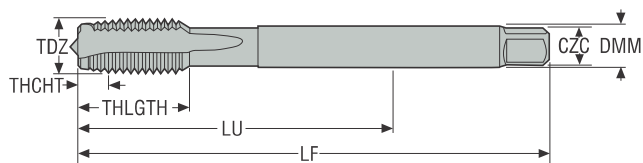


- For cutting data see page(s) 270
- Coating: TiCN
- Substrate: HSS-E
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M4X0.70ISO6H-TB-M003-A	03000094	M4	0,7 -	4,5 0.177	21,0 0.827	11,7 0.461	59,82 2.355	3,4 0.134	4.50X3.40	3	DIN371	6H	B
MTP-M5X0.80ISO6H-TB-M003-A	03000095	M5	0,8 -	6,0 0.236	25,0 0.984	12,6 0.496	66,4 2.614	4,3 0.169	6.00X4.90	3	DIN371	6H	B
MTP-M6X1.00ISO6H-TB-M003-A	03000096	M6	1,0 -	6,0 0.236	30,0 1.181	14,5 0.571	75,375 2.968	5,1 0.201	6.00X4.90	3	DIN371	6H	B
MTP-M8X1.25ISO6H-TB-M003-A	03000097	M8	1,25 -	8,0 0.315	35,0 1.378	17,4 0.685	84,21875 3.316	6,8 0.268	8.00X6.20	3	DIN371	6H	B
MTP-M10X1.50ISO6H-TB-M003-A	03000098	M10	1,5 -	10,0 0.394	39,0 1.535	19,2 0.756	93,0625 3.664	8,6 0.339	10.00X8.00	3	DIN371	6H	B

MTP-M004

Through holes

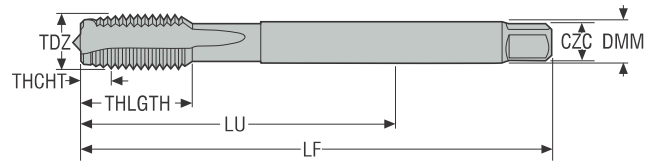


- For cutting data see page(s) 270
- Coating: TiCN
- Substrate: HSS-E
- Internal coolant

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M12X1.75ISO6H-TB-M004	03000087	M12	1,75	–	9,0 <i>0.354</i>	83,0 <i>3.268</i>	23,0 <i>0.906</i>	101,90625 <i>4.012</i>	10,4 <i>0.409</i>	9.00X7.00	4	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-M004	03000088	M14	2,0	–	11,0 <i>0.433</i>	81,0 <i>3.189</i>	25,0 <i>0.984</i>	100,75 <i>3.967</i>	12,1 <i>0.476</i>	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-M004	03000090	M16	2,0	–	12,0 <i>0.472</i>	68,0 <i>2.677</i>	25,0 <i>0.984</i>	100,75 <i>3.967</i>	14,1 <i>0.555</i>	12.00X9.00	4	DIN376	6H	B
MTP-M18X2.50ISO6H-TB-M004	03000091	M18	2,5	–	14,0 <i>0.551</i>	81,0 <i>3.189</i>	30,0 <i>1.181</i>	113,4375 <i>4.466</i>	15,7 <i>0.618</i>	14.00X11.00	4	DIN376	6H	B
MTP-M20X2.50ISO6H-TB-M004	03000092	M20	2,5	–	16,0 <i>0.630</i>	95,0 <i>3.740</i>	30,0 <i>1.181</i>	128,4375 <i>5.057</i>	17,7 <i>0.697</i>	16.00X12.00	4	DIN376	6H	B

MTP-M004-A

Through holes

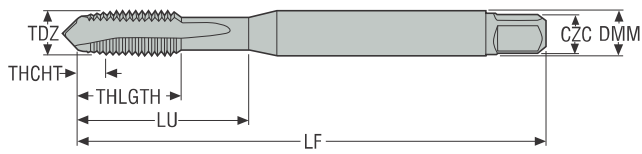


- For cutting data see page(s) 270
- Coating: TiCN
- Substrate: HSS-E
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M12X1.75ISO6H-TB-M004-A	03000099	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	101,90625 4.012	10,4 0.409	9.00X7.00	4	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-M004-A	03000100	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	101,14 3.982	12,1 0.476	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-M004-A	03000101	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	101,05 3.978	14,1 0.555	12.00X9.00	4	DIN376	6H	B
MTP-M18X2.50ISO6H-TB-M004-A	03000102	M18	2,5 -	14,0 0.551	81,0 3.189	30,0 1.181	114,15 4.494	15,7 0.618	14.00X11.00	4	DIN376	6H	B
MTP-M20X2.50ISO6H-TB-M004-A	03000103	M20	2,5 -	16,0 0.630	95,0 3.740	30,0 1.181	129,15 5.085	17,7 0.697	16.00X12.00	4	DIN376	6H	B
MTP-M22X2.50ISO6H-TB-M004-A	03000104	M22	2,5 -	18,0 0.709	93,0 3.661	34,0 1.339	129,53 5.100	19,7 0.776	18.00X14.50	4	DIN376	6H	B
MTP-M24X3.00ISO6H-TB-M004-A	03000105	M24	3,0 -	18,0 0.709	113,0 4.449	38,0 1.496	147,58 5.810	21,0 0.827	18.00X14.50	4	DIN376	6H	B

MTP-N001

Through holes



- For cutting data see page(s) 272
- Coating: BRIGHT
- Substrate: HSS-E

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M3X0.50ISO6H-TB-N001	03000136	M3	0,5	–	3,5 0.138	16,0 0.630	9,0 0.354	54,625 2.151	2,5 0.098	3.50X2.70	2	DIN371	6H	B
MTP-M4X0.70ISO6H-TB-N001	03000137	M4	0,7	–	4,5 0.177	19,0 0.748	12,0 0.472	59,85 2.356	3,4 0.134	4.50X3.40	2	DIN371	6H	B
MTP-M5X0.80ISO6H-TB-N001	03000138	M5	0,8	–	6,0 0.236	23,0 0.906	13,0 0.512	66,4 2.614	4,3 0.169	6.00X4.90	2	DIN371	6H	B
MTP-M6X1.00ISO6H-TB-N001	03000139	M6	1,0	–	6,0 0.236	27,0 1.063	15,0 0.591	75,375 2.968	5,1 0.201	6.00X4.90	3	DIN371	6H	B
MTP-M8X1.25ISO6H-TB-N001	03000140	M8	1,25	–	8,0 0.315	28,0 1.102	18,0 0.709	84,21875 3.316	6,8 0.268	8.00X6.20	3	DIN371	6H	B
MTP-M10X1.50ISO6H-TB-N001	03000141	M10	1,5	–	10,0 0.394	30,0 1.181	20,0 0.787	93,25 3.671	8,6 0.339	10.00X8.00	3	DIN371	6H	B

Thread turning

MDT

Mini-Shaft™

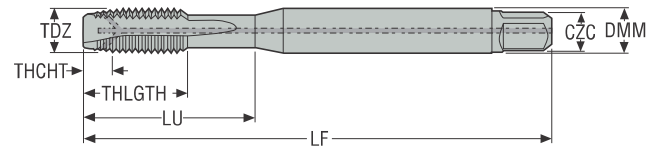
Thread milling

Thread tapping

Annex

MTP-N001-A

Through holes

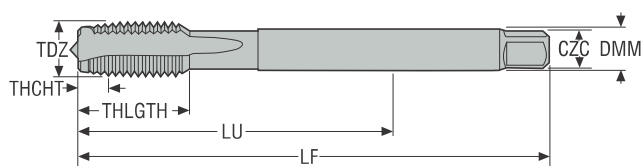


- For cutting data see page(s) 272
- Coating: BRIGHT
- Substrate: HSS-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
MTP-M4X0.70ISO6H-TB-N001-A	03000145	M4	0,7 -	4,5 <i>0.177</i>	19,0 <i>0.748</i>	12,0 <i>0.472</i>	59,85 <i>2.356</i>	3,4 <i>0.134</i>	4.50X3.40	2	DIN371	6H	B
MTP-M5X0.80ISO6H-TB-N001-A	03000146	M5	0,8 -	6,0 <i>0.236</i>	23,0 <i>0.906</i>	13,0 <i>0.512</i>	66,4 <i>2.614</i>	4,3 <i>0.169</i>	6.00X4.90	2	DIN371	6H	B
MTP-M6X1.00ISO6H-TB-N001-A	03000147	M6	1,0 -	6,0 <i>0.236</i>	27,0 <i>1.063</i>	15,0 <i>0.591</i>	75,5 <i>2.972</i>	5,1 <i>0.201</i>	6.00X4.90	3	DIN371	6H	B
MTP-M8X1.25ISO6H-TB-N001-A	03000148	M8	1,25 -	8,0 <i>0.315</i>	28,0 <i>1.102</i>	18,0 <i>0.709</i>	84,37 <i>3.322</i>	6,8 <i>0.268</i>	8.00X6.20	3	DIN371	6H	B
MTP-M10X1.50ISO6H-TB-N001-A	03000149	M10	1,5 -	10,0 <i>0.394</i>	30,0 <i>1.181</i>	20,0 <i>0.787</i>	93,25 <i>3.671</i>	8,6 <i>0.339</i>	10.00X8.00	3	DIN371	6H	B

MTP-N002

Through holes

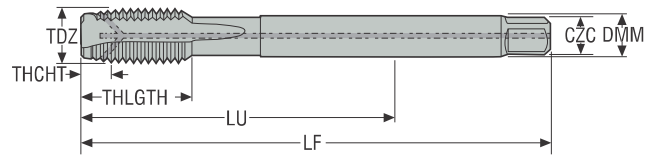


- For cutting data see page(s) 272
- Coating: BRIGHT
- Substrate: HSS-E

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M12X1.75ISO6H-TB-N002	03000142	M12	1,75	–	9,0 0.354	83,0 3.268	23,0 0.906	102,1 4.020	10,4 0.409	9.00X7.00	3	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-N002	03000143	M14	2,0	–	11,0 0.433	81,0 3.189	25,0 0.984	101,0 3.976	12,1 0.476	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-N002	03000144	M16	2,0	–	12,0 0.472	68,0 2.677	25,0 0.984	101,0 3.976	14,1 0.555	12.00X9.00	4	DIN376	6H	B

MTP-N002-A

Through holes

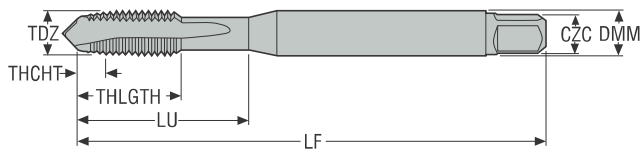


- For cutting data see page(s) 272
- Coating: BRIGHT
- Substrate: HSS-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M12X1.75ISO6H-TB-N002-A	03000150	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	102,1 4.020	10,4 0.409	9.00X7.00	3	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-N002-A	03000151	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	101,0 3.976	12,1 0.476	11.00X9.00	4	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-N002-A	03000152	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	101,0 3.976	14,1 0.555	12.00X9.00	4	DIN376	6H	B

MTP-S001

Through holes



- For cutting data see page(s) 278
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M2X0.40ISO6HX-TB-S001	10001159	M2	0,4	-	2,8 0.110	8,0 0.315	8,0 0.315	43,2 1.701	1,6 0.063	2.80X2.10	2	DIN371	6HX	B
MTP-M2.5X0.45ISO6HX-TB-S001	10001161	M2.5	0,45	-	2,8 0.110	9,0 0.354	9,0 0.354	47,97 1.889	2,1 0.083	2.80X2.10	2	DIN371	6HX	B
MTP-M3X0.50ISO6HX-TB-S001	10001162	M3	0,5	-	3,5 0.138	10,0 0.394	10,0 0.394	53,75 2.116	2,5 0.098	3.50X2.70	2	DIN371	6HX	B
MTP-M3.5X0.60ISO6HX-TB-S001	10001163	M3.5	0,6	-	4,0 0.157	12,0 0.472	12,0 0.472	53,3 2.098	2,9 0.114	4.00X3.00	3	DIN371	6HX	B
MTP-M4X0.70ISO6HX-TB-S001	10001164	M4	0,7	-	4,5 0.177	13,0 0.512	13,0 0.512	59,85 2.356	3,4 0.134	4.50X3.40	3	DIN371	6HX	B
MTP-M5X0.80ISO6HX-TB-S001	10001165	M5	0,8	-	6,0 0.236	16,0 0.630	16,0 0.630	66,4 2.614	4,3 0.169	6.00X4.90	3	DIN371	6HX	B
MTP-M6X1.00ISO6HX-TB-S001	10001166	M6	1,0	-	6,0 0.236	23,0 0.906	15,0 0.591	75,5 2.972	5,1 0.201	6.00X4.90	3	DIN371	6HX	B
MTP-M8X1.25ISO6HX-TB-S001	10001167	M8	1,25	-	8,0 0.315	29,5 1.161	18,0 0.709	84,37 3.322	6,8 0.268	8.00X6.20	3	DIN371	6HX	B
MTP-M10X1.50ISO6HX-TB-S001	10001168	M10	1,5	-	10,0 0.394	33,5 1.319	20,0 0.787	93,25 3.671	8,6 0.339	10.00X8.00	3	DIN371	6HX	B

Thread turning

MDT

Mini-Shaft™

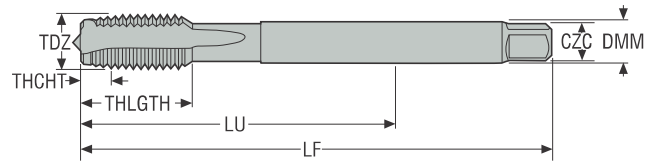
Thread milling

Thread tapping

Annex

MTP-S002

Through holes



- For cutting data see page(s) 278
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M12X1.75ISO6HX-TB-S002	10001169	M12	1,75	–	9,0 0.354	83,0 3.268	23,0 0.906	102,12 4.020	10,4 0.409	9.00X7.00	4	DIN376	6HX	B
MTP-M16X2.00ISO6HX-TB-S002	10001170	M16	2,0	–	12,0 0.472	68,0 2.677	25,0 0.984	101,0 3.976	14,1 0.555	12.00X9.00	4	DIN376	6HX	B
MTP-M20X2.50ISO6HX-TB-S002	10001171	M20	2,5	–	16,0 0.630	95,0 3.740	30,0 1.181	128,75 5.069	17,7 0.697	16.00X12.00	4	DIN376	6HX	B

Thread turning

MDT

Mini-Shaft™

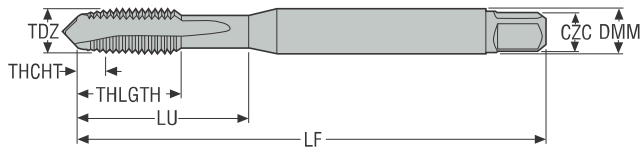
Thread milling

Thread tapping

Annex

MTP-S011

Through holes



- For cutting data see page(s) 278
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M6X0.75ISO6HX-TB-S011	10001176	MF6X0.75	0,75	–	6,0 0.236	23,0 0.906	15,0 0.591	76,62 3.017	5,25 0.207	6.00X4.90	3	DIN371	6HX	B
MTP-M8X0.75ISO6HX-TB-S011	10001177	MF8X0.75	0,75	–	8,0 0.315	29,5 1.161	18,0 0.709	86,62 3.410	7,25 0.285	8.00X6.20	3	DIN371	6HX	B
MTP-M8X1.00ISO6HX-TB-S011	10001178	MF8X1	1,0	–	8,0 0.315	29,5 1.161	18,0 0.709	85,5 3.366	7,0 0.276	8.00X6.20	3	DIN371	6HX	B
MTP-M10X1.00ISO6HX-TB-S011	10001179	MF10X1	1,0	–	10,0 0.394	33,5 1.319	20,0 0.787	95,5 3.760	9,0 0.354	10.00X8.00	3	DIN371	6HX	B
MTP-M12X1.00ISO6HX-TB-S011	10001180	MF12X1	1,0	–	9,0 0.354	73,0 2.874	21,0 0.827	95,5 3.760	11,0 0.433	9.00X7.00	4	DIN374	6HX	B
MTP-M12X1.50ISO6HX-TB-S011	10001181	MF12X1.5	1,5	–	9,0 0.354	73,0 2.874	21,0 0.827	93,25 3.671	10,5 0.413	9.00X7.00	4	DIN374	6HX	B
MTP-M14X1.50ISO6HX-TB-S011	10001182	MF14X1.5	1,5	–	11,0 0.433	71,0 2.795	21,0 0.827	93,25 3.671	12,5 0.492	11.00X9.00	4	DIN374	6HX	B

Thread turning

MDT

Mini-Shaft™

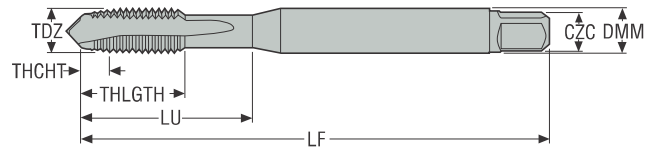
Thread milling

Thread tapping

Annex

MTP-S012

Through holes



- For cutting data see page(s) 278
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-MJ4X0.70ISO4H-TB-S012	10001172	MJ4X0.7	0,7 –	4,5 0.177	13,0 0.512	13,0 0.512	59,85 2.356	3,4 0.134	4.50X3.40	3	DIN371	4H	B
MTP-MJ5X0.80ISO4H-TB-S012	10001173	MJ5X0.8	0,8 –	6,0 0.236	16,0 0.630	16,0 0.630	66,4 2.614	4,3 0.169	6.00X4.90	3	DIN371	4H	B
MTP-MJ6X1.00ISO4H-TB-S012	10001174	MJ6X1	1,0 –	6,0 0.236	23,0 0.906	15,0 0.591	75,5 2.972	5,1 0.201	6.00X4.90	3	DIN371	4H	B
MTP-MJ8X1.25ISO4H-TB-S012	10001175	MJ8X1.25	1,25 –	8,0 0.315	29,5 1.161	18,0 0.709	84,37 3.322	6,9 0.272	8.00X6.20	3	DIN371	4H	B

Thread turning

MDT

Mini-Shaft™

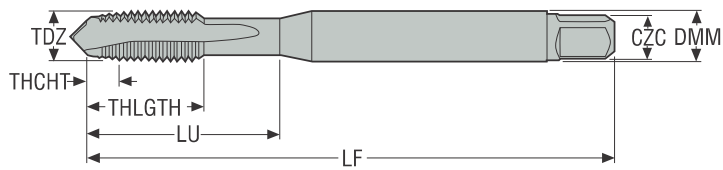
Thread milling

Thread tapping

Annex

MTP-S013

Through holes



- For cutting data see page(s) 278
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm inch	mm inch	mm inch	mm inch	mm inch					
MTP-EGM4X0.7ISO4H-TB-S013 MTP-STIM4X0.7ISO4H-TB-S013	10001218	EGM4	0,7 -	6,0 0.236	16 0.630	16,0 0.630	66,9 2.632	4,2 0.165	6.00X4.90	3	DIN40435	4H	B
MTP-EGM5X0.8ISO4H-TB-S013 MTP-STIM5X0.8ISO4H-TB-S013	10001219	EGM5	0,8 -	6,0 0.236	23 0.906	15,0 0.591	76,4 3.008	5,3 0.207	6.00X4.90	3	DIN40435	4H	B
MTP-EGM6X1.0ISO4H-TB-S013 MTP-STIM6X1.0ISO4H-TB-S013	10001220	EGM6	1,0 -	8,0 0.315	35 1.378	18,0 0.709	85,5 3.366	6,3 0.248	8.00X6.20	3	DIN40435	4H	B
MTP-EGM8X1.25ISO4H-TB-S013 MTP-STIM8X1.25ISO4H-TB-S013	10001221	EGM8	1,25 -	10,0 0.394	34 1.319	20,0 0.787	94,4 3.715	8,4 0.331	10.00X8.00	3	DIN40435	4H	B

Thread turning

MDT

Mini-Shaft™

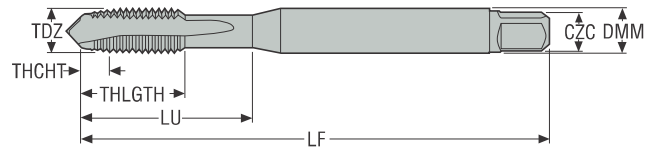
Thread milling

Thread tapping

Annex

MTP-S042

Through holes



- For cutting data see page(s) 278
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-10-32UNJF3B-TB-S042	10001183	UNJF10-32	-	32.0	6,0 0.236	16,0 0.630	16,0 0.630	66,43 2.615	4,15 0.163	6.00X4.90	3	DIN2184-1	3B	B
MTP-1/4-28UNJF3B-TB-S042	10001184	UNJF1/4-28	-	28.0	7,0 0.276	25,0 0.984	15,0 0.591	75,92 2.989	5,6 0.220	7.00X5.50	3	DIN2184-1	3B	B
MTP-5/16-24UNJF3B-TB-S042	10001186	UNJF5/16-24	-	24.0	8,0 0.315	29,5 1.161	18,0 0.709	85,24 3.356	7,0 0.276	8.00X6.20	3	DIN2184-1	3B	B
MTP-3/8-24UNJF3B-TB-S042	10001185	UNJF3/8-24	-	24.0	10,0 0.394	33,5 1.319	20,0 0.787	95,24 3.750	8,6 0.339	10.00X8.00	3	DIN2184-1	3B	B

Thread turning

MDT

Mini-Shaft™

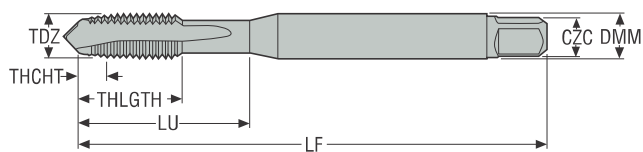
Thread milling

Thread tapping

Annex

MTP-S043

Through holes



- For cutting data see page(s) 278
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-10-32EGUNF3B-TB-S043	10001214	EGUN10-32	–	32.0	6,0 0.236	23,0 0.906	15,0 0.591	76,43 3.009	5,1 0.201	6.00X4.90	3	DIN2184-1	3B	B
MTP-1/4-28EGUNF3B-TB-S043	10001215	EGUNF1/4-28	–	28.0	8,0 0.315	29,5 1.161	18,0 0.709	85,92 3.383	6,6 0.260	8.00X6.20	3	DIN2184-1	3B	B
MTP-5/16-24EGUNF3B-TB-S043	10001216	EGUNF5/16-24	–	24.0	10,0 0.394	33,5 1.319	20,0 0.787	95,24 3.750	8,2 0.323	10.00X8.00	3	DIN2184-1	3B	B
MTP-3/8-24EGUNF3B-TB-S043	10001217	EGUNF3/8-24	–	24.0	8,0 0.315	76,0 2.992	20,0 0.787	95,24 3.750	9,8 0.386	8.00X6.20	3	DIN2184-1	3B	B

Thread turning

MDT

Mini-Shaft™

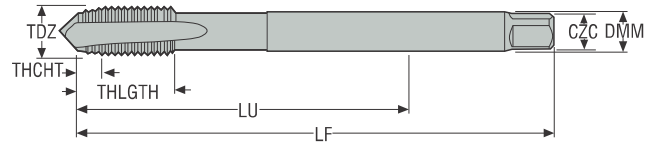
Thread milling

Thread tapping

Annex

MTP-V002

Through holes



- For cutting data see page(s) 286
- Coating: TiN
- Substrate: HSS-E
- Long version

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M14X2.00ISO6H-TB-V002	03019091	M14	2.0	11,0 0.433	151,0 5.945	25,0 0.984	171,0 6.732	12,1 0.476	11.00X9.00	3	DIN376	6H	B
MTP-M20X2.50ISO6H-TB-V002	03019093	M20	2,5	16,0 0.630	179,0 7.047	30,0 1.181	212,75 8.376	17,7 0.697	16.00X12.00	4	DIN376	6H	B

Thread turning

MDT

Mini-Shaft™

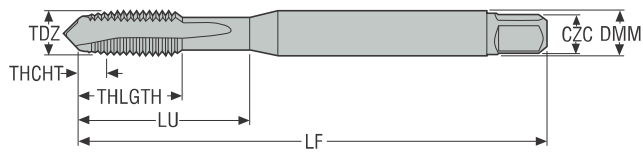
Thread milling

Thread tapping

Annex

MTP-V007

Through holes



- For cutting data see page(s) 286
- Coating: TiN
- Substrate: HSS-E ≤ M2,5; HSS-PM > M2,5

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M7X1.00ISO6H-TB-V007	03019111	M7	1,0 -	7,0 0.276	30,0 1.181	14,5 0.571	75,375 2.968	6,1 0.240	7.00X5.50	3	DIN371	6H	B

Thread turning

MDT

Mini-Shaft™

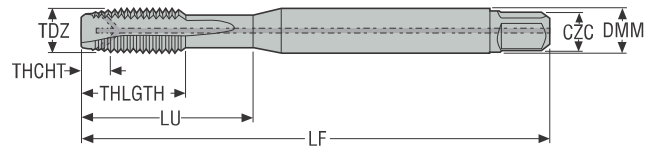
Thread milling

Thread tapping

Annex

MTP-V007-A

Through holes



- For cutting data see page(s) 286
- Coating: TiN
- Substrate: HSS-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M4X0.70ISO6H-TB-V007-A	03000184	M4	0,7 -	4,5 0.177	21,0 0.827	6,7 0.264	59,87 2.357	3,4 0.134	4.50X3.40	3	DIN371	6H	B

Thread turning

MDT

Mini-Shaft™

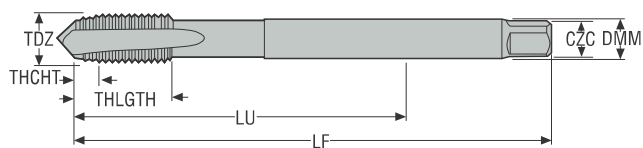
Thread milling

Thread tapping

Annex

MTP-V008

Through holes



- For cutting data see page(s) 286
- Coating: TiN
- Substrate: HSS-PM ≤ M16, HSS-E > M16

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M3X0.50ISO6H-TB-V008	03019124	M3	0,5	–	2,2 0.087	37,0 1.457	9,5 0.374	53,6875 2.114	2,5 0.098	2.20X1.80	3	DIN376	6H	B
MTP-M4X0.70ISO6H-TB-V008	03019125	M4	0,7	–	2,8 0.110	43,0 1.693	11,9 0.469	59,7625 2.353	3,4 0.134	2.80X2.10	3	DIN376	6H	B
MTP-M5X0.80ISO6H-TB-V008	03019126	M5	0,8	–	3,5 0.138	49,0 1.929	13,2 0.520	66,3 2.610	4,3 0.169	3.50X2.70	3	DIN376	6H	B
MTP-M6X1.00ISO6H-TB-V008	03019127	M6	1,0	–	4,5 0.177	59,0 2.323	15,1 0.594	75,375 2.968	5,1 0.201	4.50X3.40	3	DIN376	6H	B
MTP-M8X1.25ISO6H-TB-V008	03019128	M8	1,25	–	6,0 0.236	67,0 2.638	18,0 0.709	88,4375 3.482	6,8 0.268	6.00X4.90	3	DIN376	6H	B
MTP-M10X1.50ISO6H-TB-V008	03019129	M10	1,5	–	7,0 0.276	77,0 3.031	19,8 0.780	93,0625 3.664	8,6 0.339	7.00X5.50	3	DIN376	6H	B

Thread turning

MDT

Mini-Shaft™

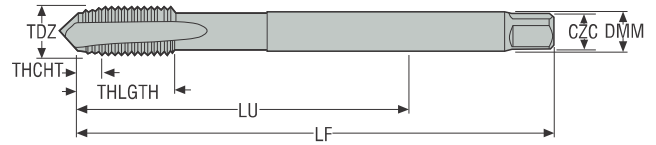
Thread milling

Thread tapping

Annex

MTP-V008-A

Through holes

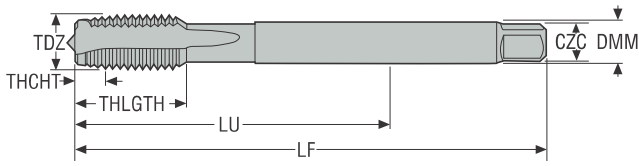


- For cutting data see page(s) 286
- Coating: TiN
- Substrate: HSS-PM ≤ M16, HSS-E > M16
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M12X1.75ISO6H-TB-V008-A	03000189	M12	1,75 -	9,0 0.354	83,0 3.268	16,0 0.630	102,57 4.038	10,4 0.409	9.00X7.00	3	DIN376	6H	B
MTP-M14X2.00ISO6H-TB-V008-A	03000190	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	101,61 4.000	12,1 0.476	11.00X9.00	3	DIN376	6H	B
MTP-M16X2.00ISO6H-TB-V008-A	03000191	M16	2,0 -	12,0 0.472	68,0 2.677	20,0 0.787	101,61 4.000	14,1 0.555	12.00X9.00	4	DIN376	6H	B
MTP-M18X2.50ISO6H-TB-V008-A	03000192	M18	2,5 -	14,0 0.551	81,0 3.189	25,0 0.984	114,68 4.515	15,7 0.618	14.00X11.00	4	DIN376	6H	B
MTP-M20X2.50ISO6H-TB-V008-A	03000193	M20	2,5 -	16,0 0.630	95,0 3.740	25,0 0.984	128,4375 5.057	17,7 0.697	16.00X12.00	4	DIN376	6H	B
MTP-M22X2.50ISO6H-TB-V008-A	03000194	M22	2,5 -	18,0 0.709	93,0 3.661	25,0 0.984	129,46 5.097	19,7 0.776	18.00X14.50	4	DIN376	6H	B
MTP-M24X3.00ISO6H-TB-V008-A	03000195	M24	3,0 -	18,0 0.709	113,0 4.449	30,0 1.181	146,125 5.753	21,0 0.827	18.00X14.50	4	DIN376	6H	B
MTP-M27X3.00ISO6H-TB-V008-A	03000196	M27	3,0 -	20,0 0.787	97,0 3.819	30,0 1.181	147,49 5.807	24,0 0.945	20.00X16.00	4	DIN376	6H	B
MTP-M30X3.50ISO6H-TB-V008-A	03000197	M30	3,5 -	22,0 0.866	115,0 4.528	36,0 1.417	165,53 6.517	26,5 1.043	22.00X18.00	4	DIN376	6H	B
MTP-M33X3.50ISO6H-TB-V008-A	03000198	M33	3,5 -	25,0 0.984	113,0 4.449	50,0 1.969	165,53 6.517	29,5 1.161	25.00X20.00	4	DIN376	6H	B
MTP-M36X4.00ISO6H-TB-V008-A	03000199	M36	4,0 -	28,0 1.102	131,0 5.157	55,0 2.165	183,93 7.241	32,0 1.260	28.00X22.00	4	DIN376	6H	B

MTP-V014

Through holes



- For cutting data see page(s) 288
- Coating: TiN
- Substrate: HSS-PM ≤ M16, HSS-E > M16

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M9X1.00ISO6H-TB-V014	03000358	MF9X1.0	1,0	–	7,0 0.276	67,0 2.638	17,0 0.669	85,375 3.361	8,1 0.319	7.00X5.50	3	DIN374	6H	B
MTP-M11X1.00ISO6H-TB-V014	03000359	MF11X1.0	1,0	–	8,0 0.315	63,0 2.480	18,0 0.709	85,375 3.361	10,1 0.398	8.00X6.20	3	DIN374	6H	B
MTP-M11X1.25ISO6H-TB-V014	03000360	MF11X1.25	1,25	–	8,0 0.315	63,0 2.480	22,0 0.866	84,21875 3.316	9,8 0.386	8.00X6.20	3	DIN374	6H	B
MTP-M14X1.00ISO6H-TB-V014	03019140	MF14X1.0	1,0	–	11,0 0.433	71,0 2.795	21,0 0.827	95,375 3.755	13,1 0.516	11.00X9.00	3	DIN374	6H	B
MTP-M14X1.25ISO6H-TB-V014	03019141	MF14X1.25	1,25	–	11,0 0.433	71,0 2.795	21,0 0.827	94,21875 3.709	12,8 0.504	11.00X9.00	3	DIN374	6H	B
MTP-M16X1.00ISO6H-TB-V014	03019143	MF16X1.0	1,0	–	12,0 0.472	58,0 2.283	21,0 0.827	95,375 3.755	15,1 0.594	12.00X9.00	3	DIN374	6H	B
MTP-M18X1.00ISO6H-TB-V014	03019145	MF18X1.0	1,0	–	14,0 0.551	66,0 2.598	24,0 0.945	105,375 4.149	17,1 0.673	14.00X11.00	4	DIN374	6H	B
MTP-M20X1.00ISO6H-TB-V014	03019147	MF20X1.0	1,0	–	16,0 0.630	80,0 3.150	24,0 0.945	120,375 4.739	19,1 0.752	16.00X12.00	4	DIN374	6H	B
MTP-M24X2.00ISO6H-TB-V014	03019152	MF24X2.0	2,0	–	18,0 0.709	93,0 3.661	28,0 1.102	130,75 5.148	22,0 0.866	18.00X14.50	4	DIN374	6H	B
MTP-M25X1.50ISO6H-TB-V014	03019153	MF25X1.5	1,5	–	18,0 0.709	93,0 3.661	28,0 1.102	133,34 5.250	23,5 0.925	18.00X14.50	4	DIN374	6H	B
MTP-M26X1.50ISO6H-TB-V014	03019155	MF26X1.5	1,5	–	18,0 0.709	93,0 3.661	28,0 1.102	133,34 5.250	24,5 0.965	18.00X14.50	4	DIN374	6H	B
MTP-M27X1.50ISO6H-TB-V014	03019156	MF27X1.5	1,5	–	20,0 0.787	77,0 3.031	28,0 1.102	133,35 5.250	25,5 1.004	20.00X16.00	4	DIN374	6H	B
MTP-M27X2.00ISO6H-TB-V014	03019157	MF27X2.0	2,0	–	20,0 0.787	77,0 3.031	28,0 1.102	131,39 5.173	25,0 0.984	20.00X16.00	4	DIN374	6H	B
MTP-M28X1.50ISO6H-TB-V014	03019158	MF28X1.5	1,5	–	20,0 0.787	77,0 3.031	28,0 1.102	133,35 5.250	26,5 1.043	20.00X16.00	4	DIN374	6H	B
MTP-M30X1.50ISO6H-TB-V014	03019159	MF30X1.5	1,5	–	22,0 0.866	85,0 3.346	28,0 1.102	143,33 5.643	28,5 1.122	22.00X18.00	4	DIN374	6H	B
MTP-M30X2.00ISO6H-TB-V014	03019160	MF30X2.0	2,0	–	22,0 0.866	85,0 3.346	28,0 1.102	141,39 5.567	28,0 1.102	22.00X18.00	4	DIN374	6H	B

Thread turning

MDT

Mini-Shaft™

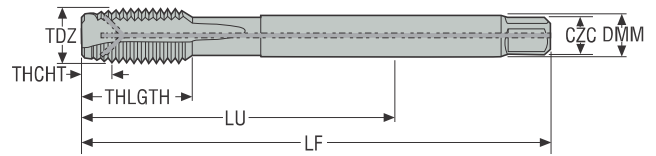
Thread milling

Thread tapping

Annex

MTP-V014-A

Through holes

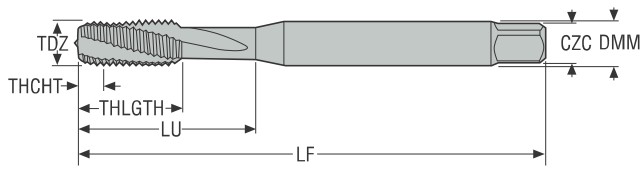


- For cutting data see page(s) 288
- Coating: TiN
- Substrate: HSS-PM ≤ M16, HSS-E > M16
- Internal coolant

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	C/ZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTP-M6X0.75ISO6H-TB-V014-A	03000200	MF6X0.75	0,75	-	4,5 0.177	59,0 2.323	15,1 0.594	76,66 3.018	5,3 0.209	4.50X3.40	3	DIN374	6H	B
MTP-M8X0.75ISO6H-TB-V014-A	03000201	MF8X0.75	0,75	-	6,0 0.236	57,0 2.244	14,9 0.587	76,58 3.015	7,3 0.287	6.00X4.90	3	DIN374	6H	B
MTP-M10X0.75ISO6H-TB-V014-A	03000203	MF10X0.75	0,75	-	7,0 0.276	67,0 2.638	17,6 0.693	86,58 3.409	9,3 0.366	7.00X5.50	3	DIN374	6H	B
MTP-M10X1.25ISO6H-TB-V014-A	03000205	MF10X1.25	1,25	-	7,0 0.276	77,0 3.031	19,8 0.780	94,61 3.725	8,8 0.346	7.00X5.50	3	DIN374	6H	B
MTP-M12X1.00ISO6H-TB-V014-A	03000206	MF12X1.0	1,0	-	9,0 0.354	73,0 2.874	21,0 0.827	95,49 3.759	11,1 0.437	9.00X7.00	3	DIN374	6H	B
MTP-M12X1.25ISO6H-TB-V014-A	03000207	MF12X1.25	1,25	-	9,0 0.354	73,0 2.874	21,0 0.827	94,5 3.720	10,8 0.425	9.00X7.00	3	DIN374	6H	B
MTP-M14X1.00ISO6H-TB-V014-A	03000209	MF14X1.0	1,0	-	11,0 0.433	71,0 2.795	21,0 0.827	95,49 3.759	13,1 0.516	11.00X9.00	3	DIN374	6H	B
MTP-M14X1.25ISO6H-TB-V014-A	03000210	MF14X1.25	1,25	-	11,0 0.433	71,0 2.795	21,0 0.827	94,5 3.720	12,8 0.504	11.00X9.00	3	DIN374	6H	B
MTP-M16X1.00ISO6H-TB-V014-A	03000212	MF16X1.0	1,0	-	12,0 0.472	58,0 2.283	21,0 0.827	95,49 3.759	15,1 0.594	12.00X9.00	3	DIN374	6H	B
MTP-M18X1.00ISO6H-TB-V014-A	03000214	MF18X1.0	1,0	-	14,0 0.551	66,0 2.598	24,0 0.945	105,49 4.153	17,1 0.673	14.00X11.00	4	DIN374	6H	B
MTP-M18X1.50ISO6H-TB-V014-A	03000215	MF18X1.5	1,5	-	14,0 0.551	66,0 2.598	24,0 0.945	103,0625 4.058	16,6 0.654	14.00X11.00	4	DIN374	6H	B
MTP-M20X1.00ISO6H-TB-V014-A	03000216	MF20X1.0	1,0	-	16,0 0.630	80,0 3.150	24,0 0.945	120,33 4.737	19,1 0.752	16.00X12.00	4	DIN374	6H	B
MTP-M20X1.50ISO6H-TB-V014-A	03000217	MF20X1.5	1,5	-	16,0 0.630	80,0 3.150	24,0 0.945	118,0625 4.648	18,6 0.732	16.00X12.00	4	DIN374	6H	B
MTP-M22X1.50ISO6H-TB-V014-A	03000218	MF22X1.5	1,5	-	18,0 0.709	78,0 3.071	25,0 0.984	118,0625 4.648	20,5 0.807	18.00X14.50	4	DIN374	6H	B
MTP-M24X1.50ISO6H-TB-V014-A	03000219	MF24X1.5	1,5	-	18,0 0.709	93,0 3.661	28,0 1.102	133,34 5.250	22,5 0.886	18.00X14.50	4	DIN374	6H	B
MTP-M24X2.00ISO6H-TB-V014-A	03000220	MF24X2.0	2,0	-	18,0 0.709	93,0 3.661	28,0 1.102	130,75 5.148	22,0 0.866	18.00X14.50	4	DIN374	6H	B

MTH-P001

Blind holes

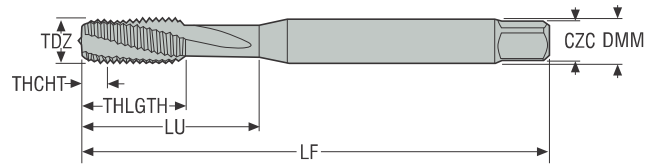


- For cutting data see page(s) 266
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M3X0.50ISO6H-BC-P001	02999974	M3	0,5	-	4,5 <i>0.177</i>	12,0 <i>0.472</i>	12,0 <i>0.472</i>	61,625 <i>2.426</i>	2,5 <i>0.098</i>	4.50X3.40	3	SECO-DIN	6H	C
MTH-M4X0.70ISO6H-BC-P001	02999975	M4	0,7	-	6,0 <i>0.236</i>	13,0 <i>0.512</i>	13,0 <i>0.512</i>	67,97 <i>2.676</i>	3,4 <i>0.134</i>	6.00X4.90	3	SECO-DIN	6H	C
MTH-M5X0.80ISO6H-BC-P001	02999976	M5	0,8	-	6,0 <i>0.236</i>	15,0 <i>0.591</i>	15,0 <i>0.591</i>	77,67 <i>3.058</i>	4,3 <i>0.169</i>	6.00X4.90	3	SECO-DIN	6H	C
MTH-M6X1.00ISO6H-BC-P001	02999977	M6	1,0	-	8,0 <i>0.315</i>	18,0 <i>0.709</i>	18,0 <i>0.709</i>	87,25 <i>3.435</i>	5,1 <i>0.201</i>	8.00X6.20	3	SECO-DIN	6H	C
MTH-M8X1.25ISO6H-BC-P001	02999978	M8	1,25	-	10,0 <i>0.394</i>	20,0 <i>0.787</i>	20,0 <i>0.787</i>	96,5625 <i>3.802</i>	6,8 <i>0.268</i>	10.00X8.00	3	SECO-DIN	6H	C
MTH-M10X1.50ISO6H-BC-P001	02999979	M10	1,5	-	10,0 <i>0.394</i>	39,0 <i>1.535</i>	20,0 <i>0.787</i>	95,875 <i>3.775</i>	8,6 <i>0.339</i>	10.00X8.00	3	SECO-DIN	6H	C

MTH-P001-A

Blind holes

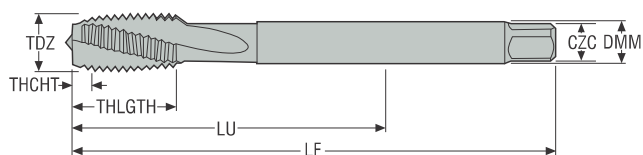


- For cutting data see page(s) 266
- Coating: TiAlN
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>				
MTH-M4X0.70ISO6H-BC-P001-A	02999985	M4	0,7	–	6,0 <i>0.236</i>	13,0 <i>0.512</i>	13,0 <i>0.512</i>	67,97 <i>2.676</i>	3,4 <i>0.134</i>	6.00X4.90	3	SECO-DIN	6H C
MTH-M5X0.80ISO6H-BC-P001-A	02999986	M5	0,8	–	6,0 <i>0.236</i>	15,0 <i>0.591</i>	15,0 <i>0.591</i>	77,67 <i>3.058</i>	4,3 <i>0.169</i>	6.00X4.90	3	SECO-DIN	6H C
MTH-M6X1.00ISO6H-BC-P001-A	02999987	M6	1,0	–	8,0 <i>0.315</i>	18,0 <i>0.709</i>	18,0 <i>0.709</i>	87,07 <i>3.428</i>	5,1 <i>0.201</i>	8.00X6.20	3	SECO-DIN	6H C
MTH-M8X1.25ISO6H-BC-P001-A	02999988	M8	1,25	–	10,0 <i>0.394</i>	20,0 <i>0.787</i>	20,0 <i>0.787</i>	96,32 <i>3.792</i>	6,8 <i>0.268</i>	10.00X8.00	3	SECO-DIN	6H C
MTH-M10X1.50ISO6H-BC-P001-A	02999989	M10	1,5	–	10,0 <i>0.394</i>	39,0 <i>1.535</i>	20,0 <i>0.787</i>	95,57 <i>3.763</i>	8,6 <i>0.339</i>	10.00X8.00	3	SECO-DIN	6H C

MTH-P002

Blind holes



- For cutting data see page(s) 266
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M12X1.75ISO6H-BC-P002	02999980	M12	1,75	–	9,0 0.354	83,0 3.268	23,0 0.906	105,1875 4.141	10,4 0.409	9.00X7.00	4	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-P002	02999981	M14	2,0	–	11,0 0.433	81,0 3.189	25,0 0.984	104,5 4.114	12,1 0.476	11.00X9.00	4	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-P002	02999982	M16	2,0	–	12,0 0.472	68,0 2.677	25,0 0.984	104,5 4.114	14,1 0.555	12.00X9.00	4	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-P002	02999983	M18	2,5	–	14,0 0.551	81,0 3.189	30,0 1.181	118,125 4.651	15,7 0.618	14.00X11.00	4	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-P002	02999984	M20	2,5	–	16,0 0.630	95,0 3.740	30,0 1.181	133,125 5.241	17,7 0.697	16.00X12.00	4	DIN376	6H	C

Thread turning

MDT

Mini-Shaft™

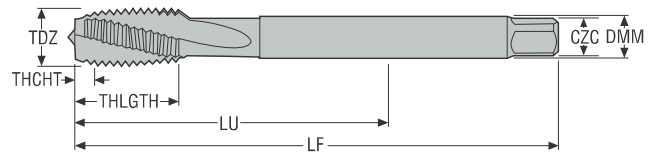
Thread milling

Thread tapping

Annex

MTH-P002-A

Blind holes



- For cutting data see page(s) 266
- Coating: TiAlN
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M12X1.75ISO6H-BC-P002-A	02999990	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	104,38 4.109	10,4 0.409	9.00X7.00	4	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-P002-A	02999991	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	103,74 4.084	12,1 0.476	11.00X9.00	4	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-P002-A	02999992	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	103,74 4.084	14,1 0.555	12.00X9.00	4	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-P002-A	02999993	M18	2,5 -	14,0 0.551	81,0 3.189	30,0 1.181	117,05 4.608	15,7 0.618	14.00X11.00	4	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-P002-A	02999994	M20	2,5 -	16,0 0.630	95,0 3.740	30,0 1.181	132,05 5.199	17,7 0.697	16.00X12.00	4	DIN376	6H	C

Thread turning

MDT

Mini-Shaft™

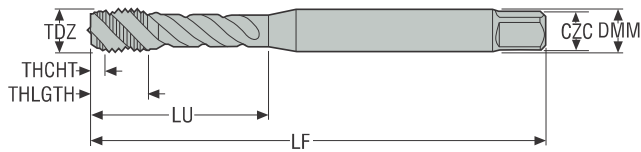
Thread milling

Thread tapping

Annex

MTH-P003

Blind holes



- For cutting data see page(s) 266
- Coating: TiAlN
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M1.6X0.35ISO6HX-BC-P003	02999995	M1.6	0,35	–	2,5 0.098	6,0 0.236	4,0 0.157	39,3 1.547	1,3 0.051	2.50X2.10	2	DIN371	6HX	C
MTH-M2X0.40ISO6HX-BC-P003	02999996	M2	0,4	–	2,8 0.110	9,0 0.354	4,0 0.157	44,2 1.740	1,6 0.063	2.80X2.10	2	DIN371	6HX	C
MTH-M2.2X0.45ISO6HX-BC-P003	02999997	M2.2	0,45	–	2,8 0.110	12,0 0.472	4,0 0.157	44,1 1.736	1,8 0.071	2.80X2.10	2	DIN371	6HX	C
MTH-M2.3X0.40ISO6HX-BC-P003	02999998	M2.3	0,4	–	2,8 0.110	12,0 0.472	4,0 0.157	44,2 1.740	1,9 0.075	2.80X2.10	2	DIN371	6HX	C
MTH-M2.5X0.45ISO6HX-BC-P003	02999999	M2.5	0,45	–	2,8 0.110	12,5 0.492	4,0 0.157	49,1 1.933	2,1 0.083	2.80X2.10	2	DIN371	6HX	C
MTH-M2.6X0.45ISO6HX-BC-P003	03000000	M2.6	0,45	–	2,8 0.110	12,5 0.492	4,0 0.157	49,1 1.933	2,15 0.085	2.80X2.10	2	DIN371	6HX	C
MTH-M3X0.50ISO6HX-BC-P003	03000001	M3	0,5	–	3,5 0.138	18,0 0.709	5,9 0.232	54,625 2.151	2,5 0.098	3.50X2.70	3	DIN371	6HX	C
MTH-M3.5X0.60ISO6HX-BC-P003	03000002	M3.5	0,6	–	4,0 0.157	20,0 0.787	7,0 0.276	54,35 2.140	2,9 0.114	4.00X3.00	3	DIN371	6HX	C
MTH-M4X0.70ISO6HX-BC-P003	03000003	M4	0,7	–	4,5 0.177	21,0 0.827	6,7 0.264	61,075 2.405	3,4 0.134	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-P003	03000004	M5	0,8	–	6,0 0.236	25,0 0.984	7,7 0.303	67,8 2.669	4,3 0.169	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-P003	03000006	M6	1,0	–	6,0 0.236	30,0 1.181	10,0 0.394	77,25 3.041	5,1 0.201	6.00X4.90	3	DIN371	6HX	C
MTH-M7X1.00ISO6HX-BC-P003	03000007	M7	1,0	–	7,0 0.276	30,0 1.181	10,0 0.394	77,25 3.041	6,1 0.240	7.00X5.50	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-P003	03000008	M8	1,25	–	8,0 0.315	35,0 1.378	11,6 0.457	86,5625 3.408	6,8 0.268	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-P003	03000009	M10	1,5	–	10,0 0.394	39,0 1.535	15,1 0.594	95,875 3.775	8,6 0.339	10.00X8.00	3	DIN371	6HX	C

Thread turning

MDT

Mini-Shaft™

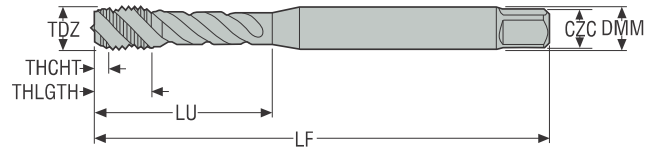
Thread milling

Thread tapping

Annex

MTH-P003-A

Blind holes

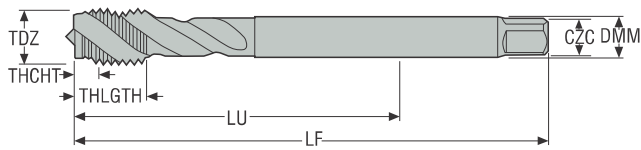


- For cutting data see page(s) 266
- Coating: AlTiN-based
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M4X0.70ISO6HX-BC-P003-A	03000024	M4	0,7 -	4,5 0.177	21,0 0.827	6,7 0.264	61,075 2.405	3,4 0.134	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-P003-A	03000025	M5	0,8 -	6,0 0.236	25,0 0.984	7,7 0.303	68,1 2.681	4,3 0.169	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-P003-A	03000026	M6	1,0 -	6,0 0.236	30,0 1.181	10,0 0.394	77,39 3.047	5,1 0.201	6.00X4.90	3	DIN371	6HX	C
MTH-M7X1.00ISO6HX-BC-P003-A	03000027	M7	1,0 -	7,0 0.276	30,0 1.181	10,0 0.394	77,25 3.041	6,1 0.240	7.00X5.50	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-P003-A	03000028	M8	1,25 -	8,0 0.315	35,0 1.378	11,6 0.457	86,5625 3.408	6,8 0.268	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-P003-A	03000029	M10	1,5 -	10,0 0.394	39,0 1.535	15,1 0.594	95,875 3.775	8,6 0.339	10.00X8.00	3	DIN371	6HX	C

MTH-P004

Blind holes



- For cutting data see page(s) 266
- Coating: AlTiN-based
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M5X0.80ISO6HX-BC-P004	03000010	M5	0,8	–	3,5 0.138	49,0 1.929	8,0 0.315	67,8 2.669	4,3 0.169	3.50X2.70	3	DIN376	6HX	C
MTH-M6X1.00ISO6HX-BC-P004	03000011	M6	1,0	–	4,5 0.177	59,0 2.323	10,0 0.394	77,25 3.041	5,1 0.201	4.50X3.40	3	DIN376	6HX	C
MTH-M7X1.00ISO6HX-BC-P004	03000012	M7	1,0	–	5,5 0.217	59,0 2.323	10,0 0.394	77,25 3.041	6,1 0.240	5.50X4.30	3	DIN376	6HX	C
MTH-M8X1.25ISO6HX-BC-P004	03000013	M8	1,25	–	6,0 0.236	67,0 2.638	13,0 0.512	86,5625 3.408	6,8 0.268	6.00X4.90	3	DIN376	6HX	C
MTH-M10X1.50ISO6HX-BC-P004	03000014	M10	1,5	–	7,0 0.276	77,0 3.031	20,0 0.787	95,875 3.775	8,6 0.339	7.00X5.50	3	DIN376	6HX	C
MTH-M12X1.75ISO6HX-BC-P004	03000015	M12	1,75	–	9,0 0.354	83,0 3.268	16,0 0.630	105,59 4.157	10,4 0.409	9.00X7.00	3	DIN376	6HX	C
MTH-M14X2.00ISO6HX-BC-P004	03000016	M14	2,0	–	11,0 0.433	81,0 3.189	25,0 0.984	104,5 4.114	12,1 0.476	11.00X9.00	3	DIN376	6HX	C
MTH-M16X2.00ISO6HX-BC-P004	03000017	M16	2,0	–	12,0 0.472	68,0 2.677	20,0 0.787	104,5 4.114	14,1 0.555	12.00X9.00	4	DIN376	6HX	C
MTH-M18X2.50ISO6HX-BC-P004	03000018	M18	2,5	–	14,0 0.551	81,0 3.189	25,0 0.984	118,75 4.675	15,7 0.618	14.00X11.00	4	DIN376	6HX	C
MTH-M20X2.50ISO6HX-BC-P004	03000019	M20	2,5	–	16,0 0.630	95,0 3.740	25,0 0.984	133,75 5.266	17,7 0.697	16.00X12.00	4	DIN376	6HX	C
MTH-M22X2.50ISO6HX-BC-P004	03000020	M22	2,5	–	18,0 0.709	93,0 3.661	25,0 0.984	133,73 5.265	19,7 0.776	18.00X14.50	4	DIN376	6HX	C
MTH-M24X3.00ISO6HX-BC-P004	03000021	M24	3,0	–	18,0 0.709	113,0 4.449	30,0 1.181	152,72 6.013	21,0 0.827	18.00X14.50	4	DIN376	6HX	C
MTH-M27X3.00ISO6HX-BC-P004	03000022	M27	3,0	–	20,0 0.787	97,0 3.819	30,0 1.181	152,76 6.014	24,0 0.945	20.00X16.00	4	DIN376	6HX	C
MTH-M30X3.50ISO6HX-BC-P004	03000023	M30	3,5	–	22,0 0.866	115,0 4.528	36,0 1.417	171,78 6.763	26,5 1.043	22.00X18.00	4	DIN376	6HX	C

Thread turning

MDT

Mini-Shaft™

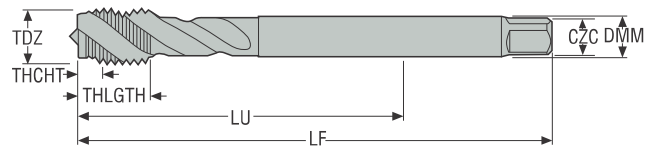
Thread milling

Thread tapping

Annex

MTH-P004-A

Blind holes

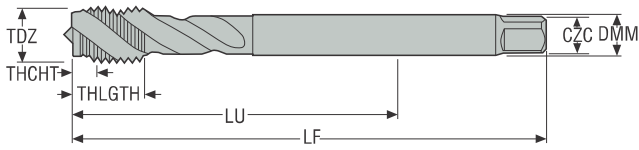


- For cutting data see page(s) 266
- Coating: AlTiN-based
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M12X1.75ISO6HX-BC-P004-A	03000030	M12	1,75 -	9,0 0.354	83,0 3.268	16,0 0.630	105,59 4.157	10,4 0.409	9.00X7.00	3	DIN376	6HX	C
MTH-M14X2.00ISO6HX-BC-P004-A	03000031	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	105,08 4.137	12,1 0.476	11.00X9.00	3	DIN376	6HX	C
MTH-M16X2.00ISO6HX-BC-P004-A	03000032	M16	2,0 -	12,0 0.472	68,0 2.677	20,0 0.787	104,5 4.114	14,1 0.555	12.00X9.00	4	DIN376	6HX	C
MTH-M18X2.50ISO6HX-BC-P004-A	03000033	M18	2,5 -	14,0 0.551	81,0 3.189	25,0 0.984	118,75 4.675	15,7 0.618	14.00X11.00	4	DIN376	6HX	C
MTH-M20X2.50ISO6HX-BC-P004-A	03000034	M20	2,5 -	16,0 0.630	95,0 3.740	25,0 0.984	133,75 5.266	17,7 0.697	16.00X12.00	4	DIN376	6HX	C
MTH-M22X2.50ISO6HX-BC-P004-A	03000036	M22	2,5 -	18,0 0.709	93,0 3.661	25,0 0.984	133,73 5.265	19,7 0.776	18.00X14.50	4	DIN376	6HX	C
MTH-M24X3.00ISO6HX-BC-P004-A	03000037	M24	3,0 -	18,0 0.709	113,0 4.449	30,0 1.181	152,72 6.013	21,0 0.827	18.00X14.50	4	DIN376	6HX	C
MTH-M27X3.00ISO6HX-BC-P004-A	03000038	M27	3,0 -	20,0 0.787	97,0 3.819	30,0 1.181	151,75 5.974	24,0 0.945	20.00X16.00	4	DIN376	6HX	C
MTH-M30X3.50ISO6HX-BC-P004-A	03000039	M30	3,5 -	22,0 0.866	115,0 4.528	36,0 1.417	171,78 6.763	26,5 1.043	22.00X18.00	4	DIN376	6HX	C

MTH-P011

Blind holes



- For cutting data see page(s) 266
- Coating: AlTiN-based
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCR	THCHT
			mm	TPI										
MTH-M4X0.50ISO6HX-BC-P011	03000040	MF4X0.5	0,5	–	2,8 0.110	43,0 1.693	7,0 0.276	61,625 2.426	3,5 0.138	2.80X2.10	3	DIN374	6HX	C
MTH-M5X0.50ISO6HX-BC-P011	03000041	MF5X0.5	0,5	–	3,5 0.138	49,0 1.929	8,0 0.315	68,75 2.707	4,5 0.177	3.50X2.70	3	DIN374	6HX	C
MTH-M6X0.75ISO6HX-BC-P011	03000042	MF6X0.75	0,75	–	4,5 0.177	59,0 2.323	10,0 0.394	77,7 3.059	5,3 0.209	4.50X3.40	3	DIN374	6HX	C
MTH-M8X0.75ISO6HX-BC-P011	03000043	MF8X0.75	0,75	–	6,0 0.236	57,0 2.244	13,0 0.512	77,72 3.060	7,3 0.287	6.00X4.90	3	DIN374	6HX	C
MTH-M8X1.00ISO6HX-BC-P011	03000044	MF8X1.0	1,0	–	6,0 0.236	67,0 2.638	13,0 0.512	87,2 3.433	7,1 0.280	6.00X4.90	3	DIN374	6HX	C
MTH-M10X0.75ISO6HX-BC-P011	03000045	MF10X0.75	0,75	–	7,0 0.276	67,0 2.638	13,0 0.512	87,73 3.454	9,3 0.366	7.00X5.50	3	DIN374	6HX	C
MTH-M10X1.00ISO6HX-BC-P011	03000046	MF10X1.0	1,0	–	7,0 0.276	67,0 2.638	13,0 0.512	87,25 3.435	9,1 0.358	7.00X5.50	3	DIN374	6HX	C
MTH-M10X1.25ISO6HX-BC-P011	03000047	MF10X1.25	1,25	–	7,0 0.276	77,0 3.031	15,0 0.591	96,5625 3.802	8,8 0.346	7.00X5.50	3	DIN374	6HX	C
MTH-M12X1.00ISO6HX-BC-P011	03000048	MF12X1.0	1,0	–	9,0 0.354	73,0 2.874	15,0 0.591	97,25 3.829	11,1 0.437	9.00X7.00	3	DIN374	6HX	C
MTH-M12X1.25ISO6HX-BC-P011	03000049	MF12X1.25	1,25	–	9,0 0.354	73,0 2.874	15,0 0.591	96,5625 3.802	10,8 0.425	9.00X7.00	3	DIN374	6HX	C
MTH-M12X1.50ISO6HX-BC-P011	03000050	MF12X1.5	1,5	–	9,0 0.354	73,0 2.874	15,0 0.591	96,07 3.782	10,6 0.417	9.00X7.00	3	DIN374	6HX	C
MTH-M14X1.00ISO6HX-BC-P011	03000051	MF14X1.0	1,0	–	11,0 0.433	71,0 2.795	15,0 0.591	97,11 3.823	13,1 0.516	11.00X9.00	3	DIN374	6HX	C
MTH-M14X1.25ISO6HX-BC-P011	03000052	MF14X1.25	1,25	–	11,0 0.433	71,0 2.795	15,0 0.591	96,5625 3.802	12,8 0.504	11.00X9.00	3	DIN374	6HX	C
MTH-M14X1.50ISO6HX-BC-P011	03000053	MF14X1.5	1,5	–	11,0 0.433	71,0 2.795	15,0 0.591	95,875 3.775	12,6 0.496	11.00X9.00	3	DIN374	6HX	C
MTH-M16X1.00ISO6HX-BC-P011	03000054	MF16X1.0	1,0	–	12,0 0.472	58,0 2.283	15,0 0.591	97,25 3.829	15,1 0.594	12.00X9.00	4	DIN374	6HX	C
MTH-M16X1.50ISO6HX-BC-P011	03000055	MF16X1.5	1,5	–	12,0 0.472	58,0 2.283	15,0 0.591	95,875 3.775	14,6 0.575	12.00X9.00	4	DIN374	6HX	C
MTH-M18X1.00ISO6HX-BC-P011	03000056	MF18X1.0	1,0	–	14,0 0.551	66,0 2.598	17,0 0.669	105,875 4.168	17,1 0.673	14.00X11.00	4	DIN374	6HX	C
MTH-M18X1.50ISO6HX-BC-P011	03000057	MF18X1.5	1,5	–	14,0 0.551	66,0 2.598	17,0 0.669	105,71 4.162	16,6 0.654	14.00X11.00	4	DIN374	6HX	C
MTH-M20X1.00ISO6HX-BC-P011	03000058	MF20X1.0	1,0	–	16,0 0.630	80,0 3.150	17,0 0.669	122,25 4.813	19,1 0.752	16.00X12.00	4	DIN374	6HX	C
MTH-M20X1.50ISO6HX-BC-P011	03000059	MF20X1.5	1,5	–	16,0 0.630	80,0 3.150	17,0 0.669	120,875 4.759	18,6 0.732	16.00X12.00	4	DIN374	6HX	C
MTH-M22X1.50ISO6HX-BC-P011	03000060	MF22X1.5	1,5	–	18,0 0.709	78,0 3.071	17,0 0.669	120,875 4.759	20,5 0.807	18.00X14.50	4	DIN374	6HX	C
MTH-M24X1.50ISO6HX-BC-P011	03000061	MF24X1.5	1,5	–	18,0 0.709	93,0 3.661	20,0 0.787	135,875 5.349	22,5 0.886	18.00X14.50	4	DIN374	6HX	C

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M24X2.00ISO6HX-BC-P011	03000062	MF24X2.0	2,0	–	18,0 <i>0.709</i>	93,0 <i>3.661</i>	20,0 <i>0.787</i>	134,7 <i>5.303</i>	22,0 <i>0.866</i>	18.00X14.50	4	DIN374	6HX	C
MTH-M25X1.50ISO6HX-BC-P011	03000063	MF25X1.5	1,5	–	18,0 <i>0.709</i>	93,0 <i>3.661</i>	20,0 <i>0.787</i>	135,7 <i>5.343</i>	23,5 <i>0.925</i>	18.00X14.50	4	DIN374	6HX	C
MTH-M26X1.50ISO6HX-BC-P011	03000064	MF26X1.5	1,5	–	18,0 <i>0.709</i>	93,0 <i>3.661</i>	20,0 <i>0.787</i>	135,7 <i>5.343</i>	24,5 <i>0.965</i>	18.00X14.50	4	DIN374	6HX	C
MTH-M27X1.50ISO6HX-BC-P011	03000065	MF27X1.5	1,5	–	20,0 <i>0.787</i>	77,0 <i>3.031</i>	20,0 <i>0.787</i>	135,875 <i>5.349</i>	25,5 <i>1.004</i>	20.00X16.00	4	DIN374	6HX	C
MTH-M27X2.00ISO6HX-BC-P011	03000066	MF27X2.0	2,0	–	20,0 <i>0.787</i>	77,0 <i>3.031</i>	20,0 <i>0.787</i>	134,73 <i>5.304</i>	25,0 <i>0.984</i>	20.00X16.00	4	DIN374	6HX	C
MTH-M28X1.50ISO6HX-BC-P011	03000067	MF28X1.5	1,5	–	20,0 <i>0.787</i>	77,0 <i>3.031</i>	20,0 <i>0.787</i>	135,72 <i>5.343</i>	26,5 <i>1.043</i>	20.00X16.00	4	DIN374	6HX	C
MTH-M30X1.50ISO6HX-BC-P011	03000068	MF30X1.5	1,5	–	22,0 <i>0.866</i>	85,0 <i>3.346</i>	20,0 <i>0.787</i>	150,0 <i>5.906</i>	28,5 <i>1.122</i>	22.00X18.00	4	DIN374	6HX	C
MTH-M30X2.00ISO6HX-BC-P011	03000069	MF30X2.0	2,0	–	22,0 <i>0.866</i>	85,0 <i>3.346</i>	20,0 <i>0.787</i>	144,73 <i>5.698</i>	28,0 <i>1.102</i>	22.00X18.00	4	DIN374	6HX	C

Thread turning

MDT

Mini-Shaft™

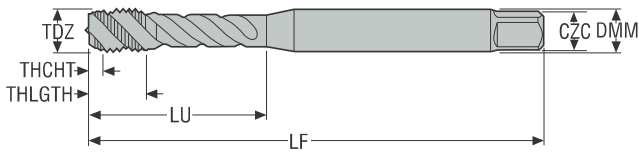
Thread milling

Thread tapping

Annex

MTH-M003

Blind holes



- For cutting data see page(s) 270
- Coating: TiCN
- Substrate: HSS-E

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M1.6X0.35ISO6H-BC-M003	03000106	M1.6	0,35	–	2,5 0.098	6,0 0.236	4,0 0.157	39,21 1.544	1,3 0.051	2.50X2.10	2	DIN371	6H	C
MTH-M2X0.40ISO6H-BC-M003	03000107	M2	0,4	–	2,8 0.110	9,0 0.354	4,0 0.157	44,2 1.740	1,6 0.063	2.80X2.10	3	DIN371	6H	C
MTH-M2.2X0.45ISO6H-BC-M003	03000108	M2.2	0,45	–	2,8 0.110	12,0 0.472	4,0 0.157	44,41 1.748	1,8 0.071	2.80X2.10	3	DIN371	6H	C
MTH-M2.3X0.40ISO6H-BC-M003	03000109	M2.3	0,4	–	2,8 0.110	12,0 0.472	4,0 0.157	44,4 1.748	1,9 0.075	2.80X2.10	3	DIN371	6H	C
MTH-M2.5X0.45ISO6H-BC-M003	03000110	M2.5	0,45	–	2,8 0.110	12,5 0.492	4,0 0.157	49,32 1.942	2,1 0.083	2.80X2.10	3	DIN371	6H	C
MTH-M2.6X0.45ISO6H-BC-M003	03000111	M2.6	0,45	–	2,8 0.110	12,5 0.492	4,0 0.157	49,32 1.942	2,15 0.085	2.80X2.10	3	DIN371	6H	C
MTH-M3X0.50ISO6H-BC-M003	03000112	M3	0,5	–	3,5 0.138	18,0 0.709	5,9 0.232	54,625 2.151	2,5 0.098	3.50X2.70	3	DIN371	6H	C
MTH-M3.5X0.60ISO6H-BC-M003	03000113	M3.5	0,6	–	4,0 0.157	20,0 0.787	7,0 0.276	54,35 2.140	2,9 0.114	4.00X3.00	3	DIN371	6H	C
MTH-M4X0.70ISO6H-BC-M003	03000114	M4	0,7	–	4,5 0.177	21,0 0.827	6,7 0.264	61,075 2.405	3,4 0.134	4.50X3.40	3	DIN371	6H	C
MTH-M5X0.80ISO6H-BC-M003	03000115	M5	0,8	–	6,0 0.236	25,0 0.984	7,7 0.303	67,8 2.669	4,3 0.169	6.00X4.90	3	DIN371	6H	C
MTH-M6X1.00ISO6H-BC-M003	03000116	M6	1,0	–	6,0 0.236	30,0 1.181	10,0 0.394	77,25 3.041	5,1 0.201	6.00X4.90	3	DIN371	6H	C
MTH-M7X1.00ISO6H-BC-M003	03000117	M7	1,0	–	7,0 0.276	30,0 1.181	10,0 0.394	77,25 3.041	6,1 0.240	7.00X5.50	3	DIN371	6H	C
MTH-M8X1.25ISO6H-BC-M003	03000118	M8	1,25	–	8,0 0.315	35,0 1.378	11,6 0.457	86,5625 3.408	6,8 0.268	8.00X6.20	3	DIN371	6H	C
MTH-M10X1.50ISO6H-BC-M003	03000119	M10	1,5	–	10,0 0.394	39,0 1.535	15,1 0.594	95,875 3.775	8,6 0.339	10.00X8.00	3	DIN371	6H	C

Thread turning

MDT

Mini-Shaft™

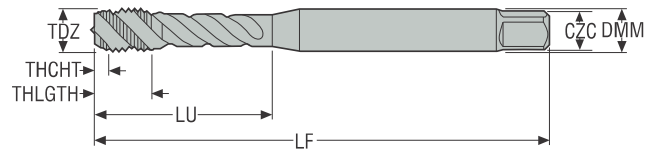
Thread milling

Thread tapping

Annex

MTH-M003-A

Blind holes

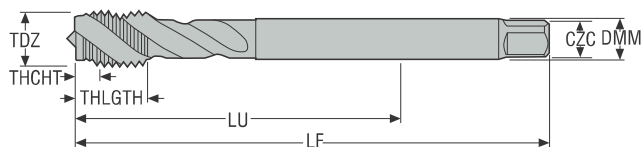


- For cutting data see page(s) 270
- Coating: TiCN
- Substrate: HSS-E
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M4X0.70ISO6H-BC-M003-A	03000125	M4	0,7 -	4,5 0.177	21,0 0.827	6,7 0.264	61,075 2.405	3,4 0.134	4.50X3.40	3	DIN371	6H	C
MTH-M5X0.80ISO6H-BC-M003-A	03000126	M5	0,8 -	6,0 0.236	25,0 0.984	7,7 0.303	67,8 2.669	4,3 0.169	6.00X4.90	3	DIN371	6H	C
MTH-M6X1.00ISO6H-BC-M003-A	03000127	M6	1,0 -	6,0 0.236	30,0 1.181	10,0 0.394	77,25 3.041	5,1 0.201	6.00X4.90	3	DIN371	6H	C
MTH-M7X1.00ISO6H-BC-M003-A	03000128	M7	1,0 -	7,0 0.276	30,0 1.181	10,0 0.394	77,57 3.054	6,1 0.240	7.00X5.50	3	DIN371	6H	C
MTH-M8X1.25ISO6H-BC-M003-A	03000129	M8	1,25 -	8,0 0.315	35,0 1.378	11,6 0.457	86,5625 3.408	6,8 0.268	8.00X6.20	3	DIN371	6H	C
MTH-M10X1.50ISO6H-BC-M003-A	03000130	M10	1,5 -	10,0 0.394	39,0 1.535	15,1 0.594	95,875 3.775	8,6 0.339	10.00X8.00	3	DIN371	6H	C

MTH-M004

Blind holes



- For cutting data see page(s) 270
- Coating: TiCN
- Substrate: HSS-E

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M12X1.75ISO6H-BC-M004	03000120	M12	1,75	–	9,0 0.354	83,0 3.268	23,0 0.906	105,1875 4.141	10,4 0.409	9.00X7.00	3	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-M004	03000121	M14	2,0	–	11,0 0.433	81,0 3.189	25,0 0.984	104,5 4.114	12,1 0.476	11.00X9.00	3	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-M004	03000122	M16	2,0	–	12,0 0.472	68,0 2.677	20,0 0.787	104,5 4.114	14,1 0.555	12.00X9.00	4	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-M004	03000123	M18	2,5	–	14,0 0.551	81,0 3.189	25,0 0.984	118,125 4.651	15,7 0.618	14.00X11.00	4	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-M004	03000124	M20	2,5	–	16,0 0.630	95,0 3.740	25,0 0.984	133,125 5.241	17,7 0.697	16.00X12.00	4	DIN376	6H	C

Thread turning

MDT

Mini-Shaft™

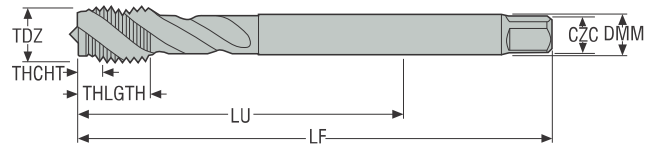
Thread milling

Thread tapping

Annex

MTH-M004-A

Blind holes



- For cutting data see page(s) 270
- Coating: TiCN
- Substrate: HSS-E
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M12X1.75ISO6H-BC-M004-A	03000131	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	105,1875 4.141	10,4 0.409	9.00X7.00	3	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-M004-A	03000132	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	105,63 4.159	12,1 0.476	11.00X9.00	3	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-M004-A	03000133	M16	2,0 -	12,0 0.472	68,0 2.677	20,0 0.787	104,5 4.114	14,1 0.555	12.00X9.00	4	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-M004-A	03000134	M18	2,5 -	14,0 0.551	81,0 3.189	25,0 0.984	119,42 4.702	15,7 0.618	14.00X11.00	4	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-M004-A	03000135	M20	2,5 -	16,0 0.630	95,0 3.740	25,0 0.984	134,43 5.293	17,7 0.697	16.00X12.00	4	DIN376	6H	C

Thread turning

MDT

Mini-Shaft™

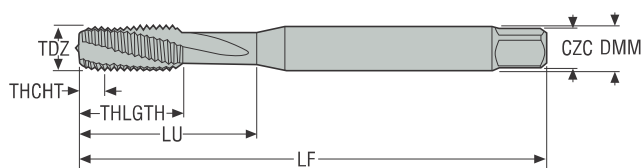
Thread milling

Thread tapping

Annex

MTH-N001

Blind holes

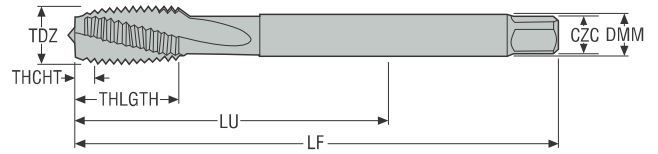


- For cutting data see page(s) 272
- Coating: BRIGHT
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M3X0.50ISO6H-BC-N001	03000153	M3	0,5	–	3,5 0.138	18,0 0.709	9,0 0.354	54,625 2.151	2,5 0.098	3.50X2.70	3	DIN371	6H	C
MTH-M4X0.70ISO6H-BC-N001	03000154	M4	0,7	–	4,5 0.177	21,0 0.827	12,0 0.472	61,075 2.405	3,4 0.134	4.50X3.40	3	DIN371	6H	C
MTH-M5X0.80ISO6H-BC-N001	03000155	M5	0,8	–	6,0 0.236	25,0 0.984	13,0 0.512	68,2 2.685	4,3 0.169	6.00X4.90	3	DIN371	6H	C
MTH-M6X1.00ISO6H-BC-N001	03000156	M6	1,0	–	6,0 0.236	30,0 1.181	15,0 0.591	77,25 3.041	5,1 0.201	6.00X4.90	3	DIN371	6H	C
MTH-M8X1.25ISO6H-BC-N001	03000157	M8	1,25	–	8,0 0.315	35,0 1.378	18,0 0.709	87,0 3.425	6,8 0.268	8.00X6.20	3	DIN371	6H	C
MTH-M10X1.50ISO6H-BC-N001	03000158	M10	1,5	–	10,0 0.394	39,0 1.535	20,0 0.787	96,3 3.791	8,6 0.339	10.00X8.00	3	DIN371	6H	C

MTH-N002

Blind holes



- For cutting data see page(s) 272
- Coating: BRIGHT
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M12X1.75ISO6H-BC-N002	03000159	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	105,25 4.144	10,4 0.409	9.00X7.00	3	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-N002	03000160	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	104,6 4.118	12,1 0.476	11.00X9.00	3	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-N002	03000161	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	104,5 4.114	14,1 0.555	12.00X9.00	3	DIN376	6H	C

Thread turning

MDT

Mini-Shaft™

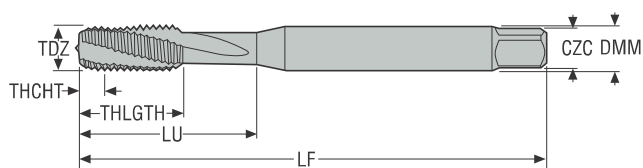
Thread milling

Thread tapping

Annex

MTH-S001

Blind holes



- For cutting data see page(s) 274
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M3X0.50ISO6HX-BC-S001	10001105	M3	0,5	–	3,5 0.138	8,0 0.315	8,0 0.315	54,75 2.156	2,5 0.098	3.50X2.70	3	DIN371	6HX	C
MTH-M4X0.70ISO6HX-BC-S001	10001106	M4	0,7	–	4,5 0.177	10,5 0.413	10,5 0.413	61,25 2.411	3,4 0.134	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-S001	10001107	M5	0,8	–	6,0 0.236	13,0 0.512	13,0 0.512	68,0 2.677	4,3 0.169	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-S001	10001108	M6	1,0	–	6,0 0.236	16,0 0.630	16,0 0.630	77,5 3.051	5,1 0.201	6.00X4.90	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-S001	10001109	M8	1,25	–	8,0 0.315	20,5 0.807	20,5 0.807	86,87 3.420	6,8 0.268	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-S001	10001110	M10	1,5	–	10,0 0.394	25,5 1.004	25,5 1.004	96,25 3.789	8,6 0.339	10.00X8.00	3	DIN371	6HX	C

Thread turning

MDT

Mini-Shaft™

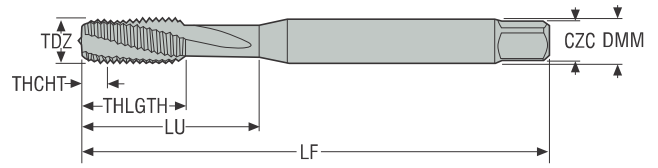
Thread milling

Thread tapping

Annex

MTH-S002

Blind holes



- For cutting data see page(s) 274
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M12X1.75ISO6HX-BC-S002	10001111	M12	1,75	-	12,0 <i>0.472</i>	30,5 <i>1.201</i>	30,5 <i>1.201</i>	105,09 <i>4.137</i>	10,4 <i>0.409</i>	12.00X9.00	4	DIN371	6HX	C
MTH-M16X2.00ISO6HX-BC-S002	10001112	M16	2,0	-	16,0 <i>0.630</i>	39,5 <i>1.555</i>	39,5 <i>1.555</i>	104,4 <i>4.110</i>	14,1 <i>0.555</i>	16.00X12.00	4	DIN371	6HX	C

Thread turning

MDT

Mini-Shaft™

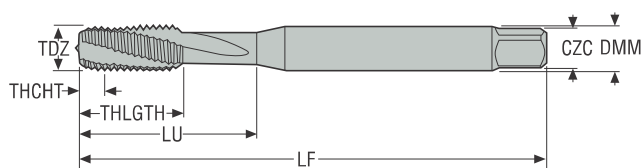
Thread milling

Thread tapping

Annex

MTH-S003

Blind holes



- For cutting data see page(s) 274
- Coating: TiN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M3X0.50ISO6HX-BC-S003	10001073	M3	0,5	–	3,5 0.138	8,0 0.315	8,0 0.315	54,75 2.156	2,5 0.098	3.50X2.70	3	DIN371	6HX	C
MTH-M4X0.70ISO6HX-BC-S003	10001074	M4	0,7	–	4,5 0.177	10,5 0.413	10,5 0.413	61,25 2.411	3,4 0.134	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-S003	10001075	M5	0,8	–	6,0 0.236	13,0 0.512	13,0 0.512	68,0 2.677	4,3 0.169	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-S003	10001076	M6	1,0	–	6,0 0.236	16,0 0.630	16,0 0.630	77,5 3.051	5,1 0.201	6.00X4.90	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-S003	10001077	M8	1,25	–	8,0 0.315	20,5 0.807	20,5 0.807	86,87 3.420	6,8 0.268	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-S003	10001078	M10	1,5	–	10,0 0.394	25,5 1.004	25,5 1.004	96,25 3.789	8,6 0.339	10.00X8.00	3	DIN371	6HX	C

Thread turning

MDT

Mini-Shaft™

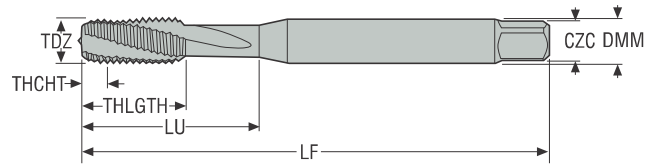
Thread milling

Thread tapping

Annex

MTH-S004

Blind holes



- For cutting data see page(s) 274
- Coating: TiN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
MTH-M12X1.75ISO6HX-BC-S004	10001079	M12	1,75 -	12,0 <i>0.472</i>	30,5 <i>1.201</i>	30,5 <i>1.201</i>	105,09 <i>4.137</i>	10,4 <i>0.409</i>	12.00X9.00	4	DIN371	6HX	C
MTH-M16X2.00ISO6HX-BC-S004	10001080	M16	2,0 -	16,0 <i>0.630</i>	39,5 <i>1.555</i>	39,5 <i>1.555</i>	104,4 <i>4.110</i>	14,1 <i>0.555</i>	16.00X12.00	4	DIN371	6HX	C

Thread turning

MDT

Mini-Shaft™

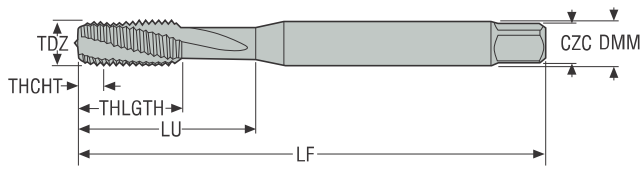
Thread milling

Thread tapping

Annex

MTH-S011

Blind holes



- For cutting data see page(s) 274
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M8X1.00ISO6HX-BC-S011	10001082	MF8X1	1,0	–	8,0 0.315	20,0 0.787	20,0 0.787	87,5 3.445	7,0 0.276	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.00ISO6HX-BC-S011	10001083	MF10X1	1,0	–	10,0 0.394	24,0 0.945	24,0 0.945	87,5 3.445	9,0 0.354	10.00X8.00	3	DIN371	6HX	C
MTH-M10X1.25ISO6HX-BC-S011	10001084	MF10X1.25	1,25	–	10,0 0.394	24,5 0.965	24,5 0.965	96,87 3.814	8,75 0.344	10.00X8.00	3	DIN371	6HX	C
MTH-M12X1.25ISO6HX-BC-S011	10001085	MF12X1.25	1,25	–	12,0 0.472	28,5 1.122	28,5 1.122	96,49 3.799	10,75 0.423	12.00X9.00	4	DIN371	6HX	C
MTH-M12X1.50ISO6HX-BC-S011	10001086	MF12X1.5	1,5	–	12,0 0.472	29,5 1.161	29,5 1.161	95,8 3.772	10,5 0.413	12.00X9.00	4	DIN371	6HX	C

Thread turning

MDT

Mini-Shaft™

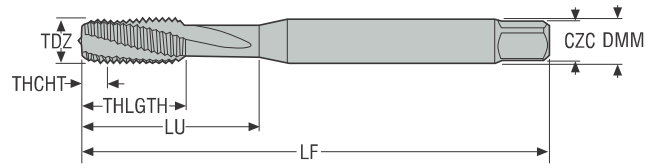
Thread milling

Thread tapping

Annex

MTH-S012

Blind holes



- For cutting data see page(s) 274
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-MJ3X0.50ISO4H-BC-S012	10001069	MJ3X0.5	0,5	–	3,5 0.138	8,0 0.315	8,0 0.315	54,75 2.156	2,6 0.102	3.50X2.70	3	DIN371	4H	C
MTH-MJ4X0.70ISO4H-BC-S012	10001070	MJ4X0.7	0,7	–	4,5 0.177	10,5 0.413	10,5 0.413	61,25 2.411	3,4 0.134	4.50X3.40	3	DIN371	4H	C
MTH-MJ5X0.80ISO4H-BC-S012	10001071	MJ5X0.8	0,8	–	6,0 0.236	13,0 0.512	13,0 0.512	68,0 2.677	4,3 0.169	6.00X4.90	3	DIN371	4H	C
MTH-MJ6X1.00ISO4H-BC-S012	10001072	MJ6X1	1,0	–	6,0 0.236	15,5 0.610	15,5 0.610	77,5 3.051	5,1 0.201	6.00X4.90	3	DIN371	4H	C

Thread turning

MDT

Mini-Shaft™

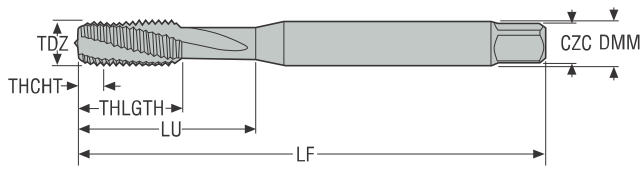
Thread milling

Thread tapping

Annex

MTH-S031

Blind holes

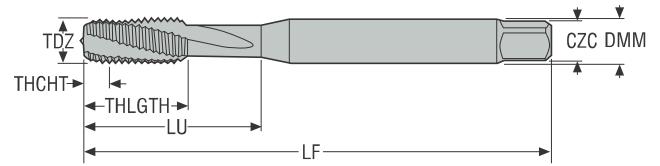


- For cutting data see page(s) 274
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-2-56UNC2B-BC-S031	10001113	UNC2-56	–	56.0	2,8 0.110	9,0 0.354	9,0 0.354	43,87 1.727	1,85 0.073	2.80X2.10	3	DIN2184-1	2B	C
MTH-3-48UNC2B-BC-S031	10001114	UNC3-48	–	48.0	2,8 0.110	9,0 0.354	9,0 0.354	48,68 1.917	2,1 0.083	2.80X2.10	3	DIN2184-1	2B	C
MTH-4-40UNC2B-BC-S031	10001115	UNC4-40	–	40.0	3,5 0.138	10,0 0.394	10,0 0.394	54,41 2.142	2,35 0.093	3.50X2.70	3	DIN2184-1	2B	C
MTH-6-32UNC2B-BC-S031	10001116	UNC6-32	–	32.0	4,0 0.157	12,0 0.472	12,0 0.472	54,02 2.127	2,85 0.112	4.00X3.00	3	DIN2184-1	2B	C
MTH-8-32UNC2B-BC-S031	10001117	UNC8-32	–	32.0	4,5 0.177	13,0 0.512	13,0 0.512	61,02 2.402	3,5 0.138	4.50X3.40	3	DIN2184-1	2B	C
MTH-10-24UNC2B-BC-S031	10001119	UNC10-24	–	24.0	6,0 0.236	16,0 0.630	16,0 0.630	67,35 2.652	3,9 0.154	6.00X4.90	3	DIN2184-1	2B	C
MTH-1/4-20UNC2B-BC-S031	10001120	UNC1/4-20	–	20.0	7,0 0.276	15,0 0.591	15,0 0.591	76,44 3.009	5,1 0.201	7.00X5.50	3	DIN2184-1	2B	C
MTH-5/16-18UNC2B-BC-S031	10001122	UNC5/16-18	–	18.0	8,0 0.315	18,0 0.709	18,0 0.709	86,05 3.388	6,6 0.260	8.00X6.20	3	DIN2184-1	2B	C
MTH-3/8-16UNC2B-BC-S031	10001121	UNC3/8-16	–	16.0	10,0 0.394	20,0 0.787	20,0 0.787	95,55 3.762	8,0 0.315	10.00X8.00	4	DIN2184-1	2B	C

MTH-S032

Blind holes



- For cutting data see page(s) 274
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-4-40UNJC3B-BC-S032	10001087	UNJC4-40	-	40.0	3,5 <i>0.138</i>	8,0 <i>0.315</i>	8,0 <i>0.315</i>	54,41 <i>2.142</i>	2,3 <i>0.091</i>	3.50X2.70	3	DIN2184-1	3B	C
MTH-6-32UNJC3B-BC-S032	10001088	UNJC6-32	-	32.0	4,0 <i>0.157</i>	10,0 <i>0.394</i>	10,0 <i>0.394</i>	54,02 <i>2.127</i>	2,8 <i>0.110</i>	4.00X3.00	3	DIN2184-1	3B	C
MTH-8-32UNJC3B-BC-S032	10001089	UNJC8-32	-	32.0	4,5 <i>0.177</i>	11,0 <i>0.433</i>	11,0 <i>0.433</i>	61,02 <i>2.402</i>	3,5 <i>0.138</i>	4.50X3.40	3	DIN2184-1	3B	C
MTH-10-24UNJC3B-BC-S032	10001090	UNJC10-24	-	24.0	6,0 <i>0.236</i>	13,5 <i>0.531</i>	13,5 <i>0.531</i>	67,35 <i>2.652</i>	3,9 <i>0.154</i>	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-20UNJC3B-BC-S032	10001091	UNJC1/4-20	-	20.0	7,0 <i>0.276</i>	17,5 <i>0.689</i>	17,5 <i>0.689</i>	76,82 <i>3.024</i>	5,2 <i>0.205</i>	7.00X5.50	3	DIN2184-1	3B	C
MTH-5/16-18UNJC3B-BC-S032	10001093	UNJC5/16-18	-	18.0	8,0 <i>0.315</i>	21,0 <i>0.827</i>	21,0 <i>0.827</i>	86,47 <i>3.404</i>	6,7 <i>0.264</i>	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-16UNJC3B-BC-S032	10001092	UNJC3/8-16	-	16.0	10,0 <i>0.394</i>	25,0 <i>0.984</i>	25,0 <i>0.984</i>	96,03 <i>3.781</i>	8,1 <i>0.319</i>	10.00X8.00	3	DIN2184-1	3B	C

Thread turning

MDT

Mini-Shaft™

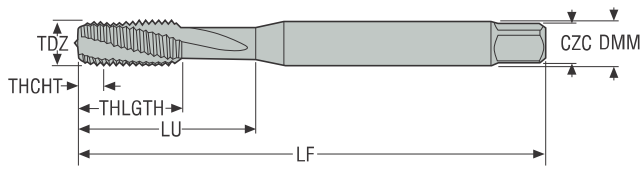
Thread milling

Thread tapping

Annex

MTH-S041

Blind holes



- For cutting data see page(s) 276
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-6-40UNF3B-BC-S041	10001123	UNF6-40	–	40.0	4,0 0.157	12,0 0.472	12,0 0.472	54,41 2.142	2,95 0.116	4.00X3.00	3	DIN2184-1	3B	C
MTH-8-36UNF3B-BC-S041	10001126	UNF8-36	–	36.0	4,5 0.177	13,0 0.512	13,0 0.512	61,24 2.411	3,5 0.138	4.50X3.40	3	DIN2184-1	3B	C
MTH-10-32UNF3B-BC-S041	10001127	UNF10-32	–	32.0	6,0 0.236	16,0 0.630	16,0 0.630	68,02 2.678	4,1 0.161	6.00X4.90	3	DIN2184-1	3B	C
MTH-12-28UNF3B-BC-S041	10001129	UNF12-28	–	28.0	6,0 0.236	15,0 0.591	15,0 0.591	77,46 3.050	4,6 0.181	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28UNF3B-BC-S041	10001130	UNF1/4-28	–	28.0	7,0 0.276	25,0 0.984	15,0 0.591	77,46 3.050	5,5 0.217	7.00X5.50	3	DIN2184-1	3B	C
MTH-5/16-24UNF3B-BC-S041	10001133	UNF5/16-24	–	24.0	8,0 0.315	29,5 1.161	18,0 0.709	87,03 3.426	6,9 0.272	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-24UNF3B-BC-S041	10001131	UNF3/8-24	–	24.0	10,0 0.394	33,5 1.319	20,0 0.787	97,03 3.820	8,5 0.335	10.00X8.00	4	DIN2184-1	3B	C

Thread turning

MDT

Mini-Shaft™

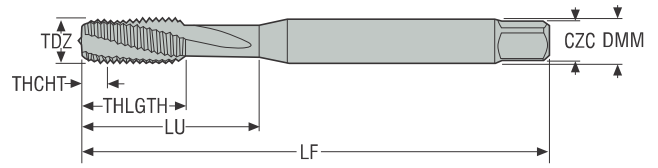
Thread milling

Thread tapping

Annex

MTH-S042

Blind holes



- For cutting data see page(s) 276
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-6-40UNJF3B-BC-S042	10001094	UNJF6-40	-	40.0	4,0 <i>0.157</i>	9,5 <i>0.374</i>	9,5 <i>0.374</i>	54,41 <i>2.142</i>	2,95 <i>0.116</i>	4.00X3.00	3	DIN2184-1	3B	C
MTH-8-36UNJF3B-BC-S042	10001095	UNJF8-36	-	36.0	4,5 <i>0.177</i>	11,0 <i>0.433</i>	11,0 <i>0.433</i>	61,24 <i>2.411</i>	3,6 <i>0.142</i>	4.50X3.40	3	DIN2184-1	3B	C
MTH-10-32UNJF3B-BC-S042	10001097	UNJF10-32	-	32.0	6,0 <i>0.236</i>	12,5 <i>0.492</i>	12,5 <i>0.492</i>	68,02 <i>2.678</i>	4,15 <i>0.163</i>	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28UNJF3B-BC-S042	10001098	UNJF1/4-28	-	28.0	7,0 <i>0.276</i>	16,0 <i>0.630</i>	16,0 <i>0.630</i>	77,73 <i>3.060</i>	5,6 <i>0.220</i>	7.00X5.50	3	DIN2184-1	3B	C
MTH-5/16-24UNJF3B-BC-S042	10001100	UNJF5/16-24	-	24.0	8,0 <i>0.315</i>	20,0 <i>0.787</i>	20,0 <i>0.787</i>	87,35 <i>3.439</i>	7,0 <i>0.276</i>	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-24UNJF3B-BC-S042	10001099	UNJF3/8-24	-	24.0	10,0 <i>0.394</i>	23,0 <i>0.906</i>	23,0 <i>0.906</i>	97,35 <i>3.833</i>	8,6 <i>0.339</i>	10.00X8.00	3	DIN2184-1	3B	C

Thread turning

MDT

Mini-Shaft™

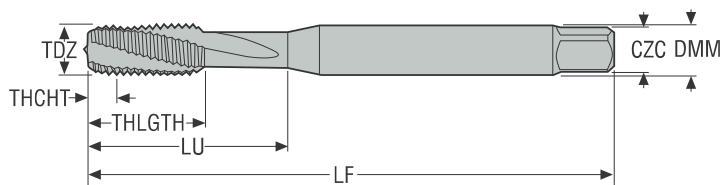
Thread milling

Thread tapping

Annex

MTH-S043

Blind holes



- For cutting data see page(s) 276
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-10-32EGUNF3B-BC-S043 MTH-10-32STIUNF3B-BC-S043	10001199	EGUN10-32	-	32.0	6,0 <i>0.236</i>	23 <i>0.906</i>	15,0 <i>0.591</i>	77,8 <i>3.062</i>	5,1 <i>0.201</i>	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28EGUNF3B-BC-S043 MTH-1/4-28STIUNF3B-BC-S043	10001200	EGUNF1/4-28	-	28.0	8,0 <i>0.315</i>	30 <i>1.161</i>	18,0 <i>0.709</i>	87,5 <i>3.443</i>	6,6 <i>0.260</i>	8.00X6.20	3	DIN2184-1	3B	C
MTH-5/16-24EGUNF3B-BC-S043 MTH-5/16-24STIUNF3B-BC-S043	10001201	EGUNF5/16-24	-	24.0	10,0 <i>0.394</i>	34 <i>1.319</i>	20,0 <i>0.787</i>	97,0 <i>3.820</i>	8,2 <i>0.323</i>	10.00X8.00	3	DIN2184-1	3B	C
MTH-3/8-24EGUNF3B-BC-S043 MTH-3/8-24STIUNF3B-BC-S043	10001202	EGUNF3/8-24	-	24.0	8,0 <i>0.315</i>	76 <i>2.992</i>	20,0 <i>0.787</i>	97,0 <i>3.820</i>	9,8 <i>0.386</i>	8.00X6.20	4	DIN2184-1	3B	C

Thread turning

MDT

Mini-Shaft™

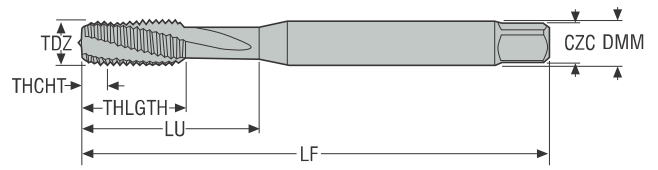
Thread milling

Thread tapping

Annex

MTH-S044

Blind holes



- For cutting data see page(s) 276
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm inch	mm inch	mm inch	mm inch	mm inch					
MTH-10-32EGUNF3B-BC-S044 MTH-10-32STIUNF3B-BC-S044	10001101	EGUNF10-32	– 32.0	6,0 0.236	15 0.591	15,0 0.591	78,0 3.072	5,1 0.201	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28EGUNF3B-BC-S044 MTH-1/4-28STIUNF3B-BC-S044	10001102	EGUNF1/4-28	– 28.0	8,0 0.315	18 0.709	18,0 0.709	87,7 3.454	6,6 0.260	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-24EGUNF3B-BC-S044 MTH-3/8-24STIUNF3B-BC-S044	10001103	EGUNF3/8-24	– 24.0	11,0 0.433	20 0.787	20,0 0.787	87,0 3.426	9,8 0.386	11.00X9.00	4	DIN2184-1	3B	C
MTH-5/16-24EGUNF3B-BC-S044 MTH-5/16-24STIUNF3B-BC-S044	10001104	EGUNF5/16-24	– 24.0	10,0 0.394	20 0.787	20,0 0.787	87,4 3.439	8,2 0.323	10.00X8.00	3	DIN2184-1	3B	C

Thread turning

MDT

Mini-Shaft™

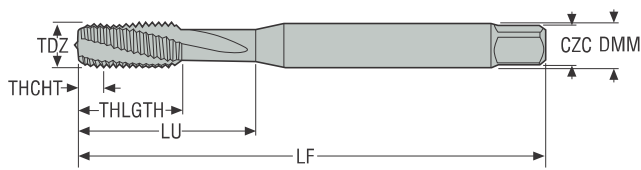
Thread milling

Thread tapping

Annex

MTH-S101

Blind holes



- For cutting data see page(s) 276
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M2X0.40ISO6HX-BC-S101	10001134	M2	0,4	–	2,8 0.110	8,0 0.315	8,0 0.315	44,0 1.732	1,6 0.063	2.80X2.10	3	DIN371	6HX	C
MTH-M2.5X0.45ISO6HX-BC-S101	10001135	M2.5	0,45	–	2,8 0.110	9,0 0.354	9,0 0.354	48,87 1.924	2,1 0.083	2.80X2.10	3	DIN371	6HX	C
MTH-M3X0.50ISO6HX-BC-S101	10001136	M3	0,5	–	3,5 0.138	10,0 0.394	10,0 0.394	54,75 2.156	2,5 0.098	3.50X2.70	3	DIN371	6HX	C
MTH-M3.5X0.60ISO6HX-BC-S101	10001137	M3.5	0,6	–	4,0 0.157	12,0 0.472	12,0 0.472	54,5 2.146	2,9 0.114	4.00X3.00	3	DIN371	6HX	C
MTH-M4X0.70ISO6HX-BC-S101	10001138	M4	0,7	–	4,5 0.177	13,0 0.512	13,0 0.512	61,25 2.411	3,4 0.134	4.50X3.40	3	DIN371	6HX	C
MTH-M5X0.80ISO6HX-BC-S101	10001139	M5	0,8	–	6,0 0.236	16,0 0.630	16,0 0.630	68,0 2.677	4,3 0.169	6.00X4.90	3	DIN371	6HX	C
MTH-M6X1.00ISO6HX-BC-S101	10001140	M6	1,0	–	6,0 0.236	23,0 0.906	15,0 0.591	77,2 3.039	5,1 0.201	6.00X4.90	3	DIN371	6HX	C
MTH-M8X1.25ISO6HX-BC-S101	10001141	M8	1,25	–	8,0 0.315	29,5 1.161	18,0 0.709	86,49 3.405	6,8 0.268	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.50ISO6HX-BC-S101	10001142	M10	1,5	–	10,0 0.394	33,5 1.319	20,0 0.787	95,8 3.772	8,6 0.339	10.00X8.00	3	DIN371	6HX	C

Thread turning

MDT

Mini-Shaft™

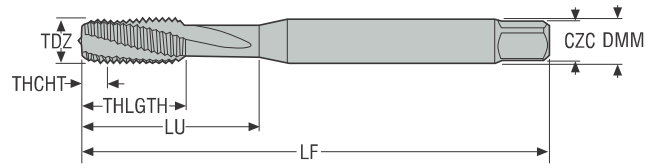
Thread milling

Thread tapping

Annex

MTH-S102

Blind holes



- For cutting data see page(s) 276
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M12X1.75ISO6HX-BC-S102	10001143	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	105,09 4.137	10,4 0.409	9.00X7.00	4	DIN376	6HX	C
MTH-M16X2.00ISO6HX-BC-S102	10001145	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	104,4 4.110	14,1 0.555	12.00X9.00	4	DIN376	6HX	C
MTH-M20X2.50ISO6HX-BC-S102	10001146	M20	2,5 -	16,0 0.630	95,0 3.740	30,0 1.181	133,0 5.236	17,7 0.697	16.00X12.00	4	DIN376	6HX	C

Thread turning

MDT

Mini-Shaft™

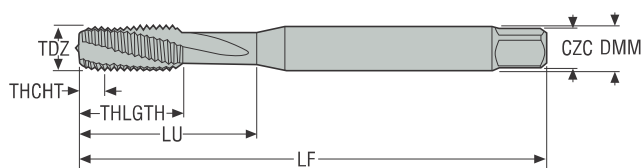
Thread milling

Thread tapping

Annex

MTH-S111

Blind holes

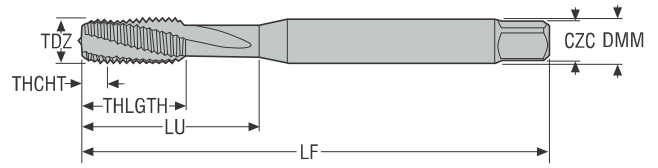


- For cutting data see page(s) 276
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M6X0.75ISO6HX-BC-S111	10001147	MF6X0.75	0,75	–	6,0 0.236	23,0 0.906	15,0 0.591	77,89 3.067	5,25 0.207	6.00X4.90	3	DIN371	6HX	C
MTH-M8X0.75ISO6HX-BC-S111	10001148	MF8X0.75	0,75	–	8,0 0.315	29,5 1.161	18,0 0.709	87,89 3.460	7,25 0.285	8.00X6.20	3	DIN371	6HX	C
MTH-M8X1.00ISO6HX-BC-S111	10001149	MF8X1	1,0	–	8,0 0.315	29,5 1.161	18,0 0.709	87,2 3.433	7,0 0.276	8.00X6.20	3	DIN371	6HX	C
MTH-M10X1.00ISO6HX-BC-S111	10001150	MF10X1	1,0	–	10,0 0.394	33,5 1.319	20,0 0.787	97,2 3.827	9,0 0.354	10.00X8.00	3	DIN371	6HX	C
MTH-M12X1.50ISO6HX-BC-S111	10001151	MF12X1.5	1,5	–	9,0 0.354	73,0 2.874	21,0 0.827	95,8 3.772	10,5 0.413	9.00X7.00	4	DIN374	6HX	C
MTH-M14X1.50ISO6HX-BC-S111	10001152	MF14X1.5	1,5	–	11,0 0.433	71,0 2.795	21,0 0.827	95,8 3.772	12,5 0.492	11.00X9.00	4	DIN374	6HX	C

MTH-S112

Blind holes



- For cutting data see page(s) 276
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-MJ3X0.50ISO4H-BC-S112	10001203	MJ3X0.5	0,5 -	3,5 0.138	10,0 0.394	10,0 0.394	54,75 2.156	2,6 0.102	3.50X2.70	3	DIN371	4H	C
MTH-MJ4X0.70ISO4H-BC-S112	10001204	MJ4X0.7	0,7 -	4,5 0.177	13,0 0.512	13,0 0.512	61,25 2.411	3,4 0.134	4.50X3.40	3	DIN371	4H	C
MTH-MJ5X0.80ISO4H-BC-S112	10001205	MJ5X0.8	0,8 -	6,0 0.236	16,0 0.630	16,0 0.630	68,0 2.677	4,3 0.169	6.00X4.90	3	DIN371	4H	C
MTH-MJ6X1.00ISO4H-BC-S112	10001206	MJ6X1	1,0 -	6,0 0.236	23,0 0.906	15,0 0.591	77,2 3.039	5,1 0.201	6.00X4.90	3	DIN371	4H	C
MTH-MJ8X1.25ISO4H-BC-S112	10001207	MJ8X1.25	1,25 -	8,0 0.315	29,5 1.161	18,0 0.709	86,49 3.405	6,9 0.272	8.00X6.20	3	DIN371	4H	C
MTH-MJ10X1.5ISO4H-BC-S112	10001208	MJ10X1.5	1,5 -	10,0 0.394	33,5 1.319	20,0 0.787	95,8 3.772	8,7 0.343	10.00X8.00	3	DIN371	4H	C

Thread turning

MDT

Mini-Shaft™

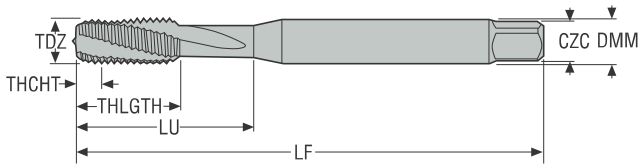
Thread milling

Thread tapping

Annex

MTH-S142

Blind holes



- For cutting data see page(s) 276
- Coating: AlCrN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-10-32UNJF3B-BC-S142	10001153	UNJF10-32	–	32.0	6,0 0.236	16,0 0.630	16,0 0.630	68,02 2.678	4,15 0.163	6.00X4.90	3	DIN2184-1	3B	C
MTH-1/4-28UNJF3B-BC-S142	10001154	UNJF1/4-28	–	28.0	7,0 0.276	25,0 0.984	15,0 0.591	77,73 3.060	5,6 0.220	7.00X5.50	3	DIN2184-1	3B	C
MTH-5/16-24UNJF3B-BC-S142	10001155	UNJF5/16-24	–	24.0	8,0 0.315	29,5 1.161	18,0 0.709	87,03 3.426	7,0 0.276	8.00X6.20	3	DIN2184-1	3B	C
MTH-3/8-24UNJF3B-BC-S142	10001156	UNJF3/8-24	–	24.0	10,0 0.394	33,5 1.319	20,0 0.787	97,03 3.820	8,6 0.339	10.00X8.00	3	DIN2184-1	3B	C

Thread turning

MDT

Mini-Shaft™

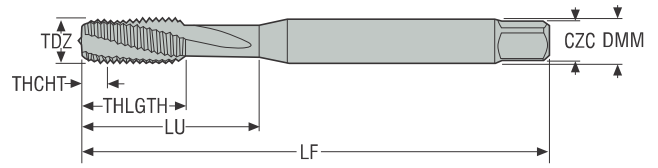
Thread milling

Thread tapping

Annex

MTH-V011

Blind holes



- For cutting data see page(s) 282
- Coating: TiN
- Substrate: HSS-E

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M8X0.75ISO6HX-BC-V011	03000162	MF8X0.75	0,75	–	6,0 0.236	57,0 2.244	13,0 0.512	87,9375 3.462	7,3 0.287	6.00X4.90	3	DIN374	6HX	C
MTH-M18X1.00ISO6HX-BC-V011	03000174	MF18X1.0	1,0	–	14,0 0.551	66,0 2.598	17,0 0.669	106,51 4.193	17,1 0.673	14.00X11.00	3	DIN374	6HX	C
MTH-M20X1.00ISO6HX-BC-V011	03000176	MF20X1.0	1,0	–	16,0 0.630	80,0 3.150	17,0 0.669	121,53 4.785	19,1 0.752	16.00X12.00	3	DIN374	6HX	C

Thread turning

MDT

Mini-Shaft™

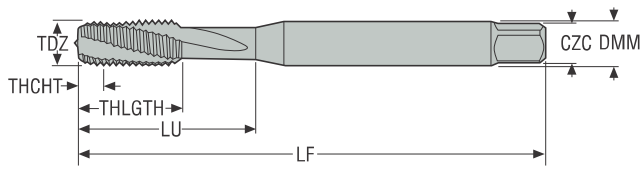
Thread milling

Thread tapping

Annex

MTH-V015

Blind holes

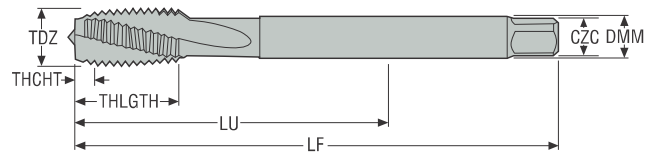


- For cutting data see page(s) 282
- Coating: TiN
- Substrate: HSS-E

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M3X0.50ISO6H-BC-V015	03019188	M3	0,5	–	3,5 0.138	18,0 0.709	9,0 0.354	54,625 2.151	2,5 0.098	3.50X2.70	3	DIN371	6H	C
MTH-M4X0.70ISO6H-BC-V015	03019189	M4	0,7	–	4,5 0.177	21,0 0.827	11,0 0.433	61,075 2.405	3,4 0.134	4.50X3.40	3	DIN371	6H	C
MTH-M5X0.80ISO6H-BC-V015	03019190	M5	0,8	–	6,0 0.236	25,0 0.984	13,0 0.512	67,8 2.669	4,3 0.169	6.00X4.90	3	DIN371	6H	C
MTH-M6X1.00ISO6H-BC-V015	03019191	M6	1,0	–	6,0 0.236	30,0 1.181	15,0 0.591	77,25 3.041	5,1 0.201	6.00X4.90	3	DIN371	6H	C
MTH-M8X1.25ISO6H-BC-V015	03019193	M8	1,25	–	8,0 0.315	35,0 1.378	18,0 0.709	86,5625 3.408	6,8 0.268	8.00X6.20	3	DIN371	6H	C
MTH-M10X1.50ISO6H-BC-V015	03019194	M10	1,5	–	10,0 0.394	39,0 1.535	20,0 0.787	95,875 3.775	8,6 0.339	10.00X8.00	3	DIN371	6H	C

MTH-V016

Blind holes



- For cutting data see page(s) 282
- Coating: TiN
- Substrate: HSS-E

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M12X1.75ISO6H-BC-V016	03019195	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	105,1875 4.141	10,4 0.409	9.00X7.00	3	DIN376	6H	C
MTH-M14X2.00ISO6H-BC-V016	03019196	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	104,5 4.114	12,1 0.476	11.00X9.00	3	DIN376	6H	C
MTH-M16X2.00ISO6H-BC-V016	03019197	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	104,5 4.114	14,1 0.555	12.00X9.00	3	DIN376	6H	C
MTH-M18X2.50ISO6H-BC-V016	03019198	M18	2,5 -	14,0 0.551	81,0 3.189	30,0 1.181	118,125 4.651	15,7 0.618	14.00X11.00	3	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-V016	03019199	M20	2,5 -	16,0 0.630	95,0 3.740	30,0 1.181	133,125 5.241	17,7 0.697	16.00X12.00	3	DIN376	6H	C
MTH-M22X2.50ISO6H-BC-V016	03019200	M22	2,5 -	18,0 0.709	93,0 3.661	34,0 1.339	133,125 5.241	19,7 0.776	18.00X14.50	4	DIN376	6H	C
MTH-M24X3.00ISO6H-BC-V016	03019201	M24	3,0 -	18,0 0.709	113,0 4.449	38,0 1.496	151,75 5.974	21,0 0.827	18.00X14.50	4	DIN376	6H	C
MTH-M27X3.00ISO6H-BC-V016	03019202	M27	3,0 -	20,0 0.787	97,0 3.819	38,0 1.496	151,75 5.974	24,0 0.945	20.00X16.00	4	DIN376	6H	C
MTH-M30X3.50ISO6H-BC-V016	03019203	M30	3,5 -	22,0 0.866	115,0 4.528	45,0 1.772	171,79 6.763	26,5 1.043	22.00X18.00	4	DIN376	6H	C
MTH-M33X3.50ISO6H-BC-V016	03019204	M33	3,5 -	25,0 0.984	113,0 4.449	50,0 1.969	171,79 6.763	29,5 1.161	25.00X20.00	4	DIN376	6H	C
MTH-M36X4.00ISO6H-BC-V016	03019205	M36	4,0 -	28,0 1.102	131,0 5.157	55,0 2.165	190,7 7.508	32,0 1.260	28.00X22.00	4	DIN376	6H	C

Thread turning

MDT

Mini-Shaft™

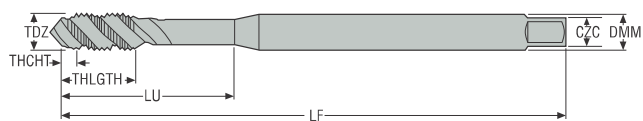
Thread milling

Thread tapping

Annex

MTH-V025

Blind holes



- For cutting data see page(s) 282
- Coating: TiN
- Substrate: HSS-E
- Long version

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M6X1.00ISO6H-BC-V025	02880644	M6	1,0 -	6,0 0.236	30,0 1.181	10,0 0.394	122,25 4.813	5,1 0.201	6.00X4.90	3	DIN371	6H	C

Thread turning

MDT

Mini-Shaft™

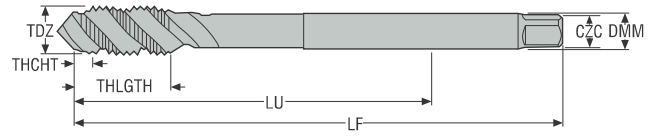
Thread milling

Thread tapping

Annex

MTH-V026

Blind holes



- For cutting data see page(s) 282
- Coating: TiN
- Substrate: HSS-E
- Long version

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M14X2.00ISO6H-BC-V026	02880648	M14	2,0	11,0 0.433	151,0 5.945	20,0 0.787	174,5 6.870	12,1 0.476	11.00X9.00	3	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-V026	02880651	M20	2,5	16,0 0.630	179,0 7.047	25,0 0.984	217,125 8.548	17,7 0.697	16.00X12.00	4	DIN376	6H	C

Thread turning

MDT

Mini-Shaft™

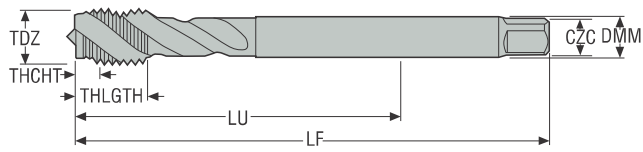
Thread milling

Thread tapping

Annex

MTH-V029

Blind holes



- For cutting data see page(s) 282
- Coating: TiN
- Substrate: HSS-PM ≤ M16, HSS-E > M16

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M12X1.75ISO6G-BC-V029	02880658	M12	1,75	–	9,0 0.354	83,0 3.268	16,0 0.630	110,0 4.331	10,4 0.409	9.00X7.00	3	DIN376	6G	C
MTH-M14X2.00ISO6G-BC-V029	02880659	M14	2,0	–	11,0 0.433	81,0 3.189	20,0 0.787	104,5 4.114	12,1 0.476	11.00X9.00	3	DIN376	6G	C
MTH-M16X2.00ISO6G-BC-V029	02880660	M16	2,0	–	12,0 0.472	68,0 2.677	20,0 0.787	110,0 4.331	14,1 0.555	12.00X9.00	4	DIN376	6G	C
MTH-M20X2.50ISO6G-BC-V029	02880661	M20	2,5	–	16,0 0.630	95,0 3.740	25,0 0.984	140,0 5.512	17,7 0.697	16.00X12.00	4	DIN376	6G	C

Thread turning

MDT

Mini-Shaft™

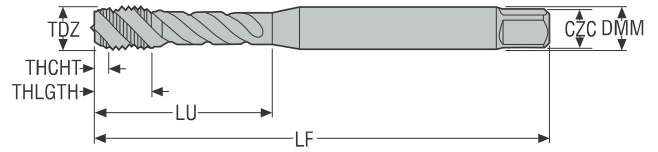
Thread milling

Thread tapping

Annex

MTH-V030

Blind holes



- For cutting data see page(s) 282
- Coating: TiN
- Substrate: HSS-E ≤ M2,5; HSS-PM > M2,5

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M7X1.00ISO6H-BC-V030	02880669	M7	1,0 -	7,0 0.276	31,0 1.220	10,0 0.394	77,25 3.041	6,1 0.240	7.00X5.50	3	DIN371	6H	C

Thread turning

MDT

Mini-Shaft™

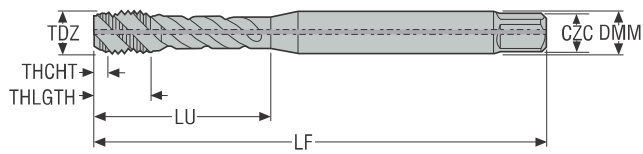
Thread milling

Thread tapping

Annex

MTH-V030-A

Blind holes



- For cutting data see page(s) 282
- Coating: TiN
- Substrate: HSS-PM
- Internal coolant

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
MTH-M4X0.70ISO6H-BC-V030-A	03000228	M4	0,7	-	4,5 <i>0.177</i>	21,0 <i>0.827</i>	6,7 <i>0.264</i>	61,39 <i>2.417</i>	3,4 <i>0.134</i>	4.50X3.40	3	DIN371	6H	C

Thread turning

MDT

Mini-Shaft™

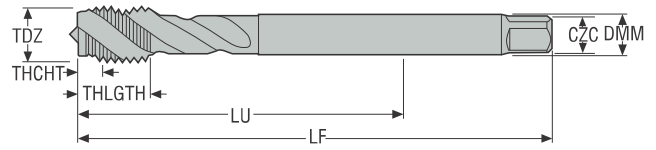
Thread milling

Thread tapping

Annex

MTH-V033

Blind holes



- For cutting data see page(s) 284
- Coating: TiN
- Substrate: HSS-PM ≤ M16, HSS-E > M16

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-M6X1.00ISO6H-BC-V033	02880683	M6	1,0 -	4,5 0.177	59,0 2.323	10,0 0.394	77,25 3.041	5,1 0.201	4.50X3.40	3	DIN376	6H	C
MTH-M8X1.25ISO6H-BC-V033	02880684	M8	1,25 -	6,0 0.236	67,0 2.638	13,0 0.512	86,5625 3.408	6,8 0.268	6.00X4.90	3	DIN376	6H	C
MTH-M10X1.50ISO6H-BC-V033	02880686	M10	1,5 -	7,0 0.276	77,0 3.031	15,0 0.591	95,875 3.775	8,6 0.339	7.00X5.50	3	DIN376	6H	C
MTH-M39X4.00ISO6H-BC-V033	03000221	M39	4,0 -	32,0 1.260	102,0 4.016	40,0 1.575	189,9 7.476	35,0 1.378	32.00X24.00	4	DIN376	6H	C
MTH-M42X4.50ISO6H-BC-V033	03000223	M42	4,5 -	32,0 1.260	102,0 4.016	45,0 1.772	188,77 7.432	37,5 1.476	32.00X24.00	4	DIN376	6H	C
MTH-M48X5.00ISO6H-BC-V033	03000224	M48	5,0 -	36,0 1.417	147,0 5.787	50,0 1.969	237,65 9.356	43,0 1.693	36.00X29.00	4	DIN376	6H	C
MTH-M52X5.00ISO6H-BC-V033	03000225	M52	5,0 -	40,0 1.575	120,0 4.724	50,0 1.969	237,65 9.356	47,0 1.850	40.00X32.00	5	DIN376	6H	C
MTH-M56X5.50ISO6H-BC-V033	03000226	M56	5,5 -	40,0 1.575	120,0 4.724	55,0 2.165	236,52 9.312	50,5 1.988	40.00X32.00	5	DIN376	6H	C
MTH-M64X6.00ISO6H-BC-V033	03000227	M64	6,0 -	50,0 1.969	178,0 7.008	60,0 2.362	300,4 11.827	58,0 2.283	50.00X39.00	6	DIN376	6H	C

Thread turning

MDT

Mini-Shaft™

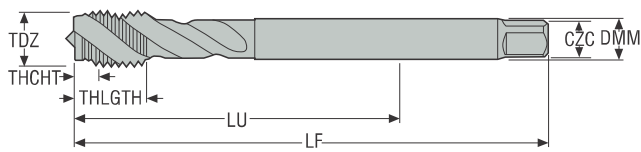
Thread milling

Thread tapping

Annex

MTH-V033-A

Blind holes



- For cutting data see page(s) 284
- Coating: TiN
- Substrate: HSS-PM ≤ M16, HSS-E > M16
- Internal coolant

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M18X2.50ISO6H-BC-V033-A	03000236	M18	2,5	–	14,0 0.551	81,0 3.189	25,0 0.984	118,27 4.656	15,7 0.618	14.00X11.00	4	DIN376	6H	C
MTH-M20X2.50ISO6H-BC-V033-A	03000237	M20	2,5	–	16,0 0.630	95,0 3.740	25,0 0.984	133,125 5.241	17,7 0.697	16.00X12.00	4	DIN376	6H	C
MTH-M22X2.50ISO6H-BC-V033-A	03000238	M22	2,5	–	18,0 0.709	93,0 3.661	25,0 0.984	133,125 5.241	19,7 0.776	18.00X14.50	4	DIN376	6H	C
MTH-M24X3.00ISO6H-BC-V033-A	03000239	M24	3,0	–	18,0 0.709	113,0 4.449	30,0 1.181	151,75 5.974	21,0 0.827	18.00X14.50	4	DIN376	6H	C
MTH-M27X3.00ISO6H-BC-V033-A	03000240	M27	3,0	–	20,0 0.787	97,0 3.819	30,0 1.181	152,15 5.990	24,0 0.945	20.00X16.00	4	DIN376	6H	C
MTH-M30X3.50ISO6H-BC-V033-A	03000241	M30	3,5	–	22,0 0.866	115,0 4.528	36,0 1.417	171,02 6.733	26,5 1.043	22.00X18.00	4	DIN376	6H	C
MTH-M33X3.50ISO6H-BC-V033-A	03000242	M33	3,5	–	25,0 0.984	113,0 4.449	50,0 1.969	171,02 6.733	29,5 1.161	25.00X20.00	4	DIN376	6H	C
MTH-M36X4.00ISO6H-BC-V033-A	03000243	M36	4,0	–	28,0 1.102	131,0 5.157	55,0 2.165	189,9 7.476	32,0 1.260	28.00X22.00	4	DIN376	6H	C
MTH-M39X4.00ISO6H-BC-V033-A	03000244	M39	4,0	–	32,0 1.260	102,0 4.016	40,0 1.575	189,9 7.476	35,0 1.378	32.00X24.00	4	DIN376	6H	C
MTH-M42X4.50ISO6H-BC-V033-A	03000245	M42	4,5	–	32,0 1.260	102,0 4.016	45,0 1.772	188,77 7.432	37,5 1.476	32.00X24.00	4	DIN376	6H	C
MTH-M48X5.00ISO6H-BC-V033-A	03000246	M48	5,0	–	36,0 1.417	147,0 5.787	50,0 1.969	237,65 9.356	43,0 1.693	36.00X29.00	4	DIN376	6H	C
MTH-M52X5.00ISO6H-BC-V033-A	03000247	M52	5,0	–	40,0 1.575	120,0 4.724	50,0 1.969	237,65 9.356	47,0 1.850	40.00X32.00	5	DIN376	6H	C
MTH-M56X5.50ISO6H-BC-V033-A	03000248	M56	5,5	–	40,0 1.575	120,0 4.724	55,0 2.165	236,52 9.312	50,5 1.988	40.00X32.00	5	DIN376	6H	C
MTH-M64X6.00ISO6H-BC-V033-A	03000249	M64	6,0	–	50,0 1.969	178,0 7.008	60,0 2.362	300,4 11.827	58,0 2.283	50.00X39.00	6	DIN376	6H	C

Thread turning

MDT

Mini-Shaft™

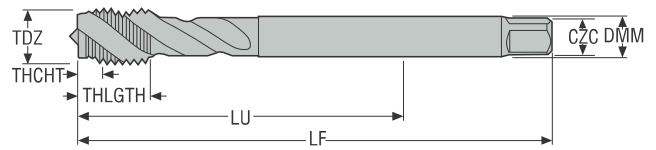
Thread milling

Thread tapping

Annex

MTH-V038

Blind holes

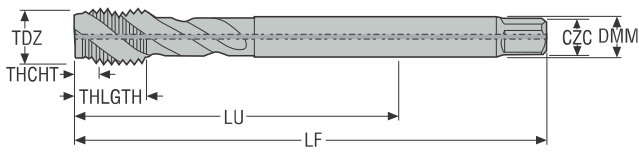


- For cutting data see page(s) 284
- Coating: TiN
- Substrate: HSS-PM ≤ M16, HSS-E > M16

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm inch	mm inch	mm inch	mm inch	mm inch					
MTH-M9X1.00ISO6H-BC-V038 MTH-M9X1.00ISO6H-BC-V038	03000361	MF9X1.0	1,0 -	7,0 0.276	67 2.638	17,0 0.669	87,3 3.435	8,1 0.319	7.00X5.50	3	DIN374	6H	C
MTH-M11X1.00ISO6H-BC-V038 MTH-M11X1.00ISO6H-BC-V038	03000362	MF11X1.0	1,0 -	8,0 0.315	63 2.480	18,0 0.709	87,3 3.435	10,1 0.398	8.00X6.20	3	DIN374	6H	C
MTH-M11X1.25ISO6H-BC-V038 MTH-M11X1.25ISO6H-BC-V038	03000363	MF11X1.25	1,25 -	8,0 0.315	63 2.480	22,0 0.866	86,6 3.408	9,8 0.386	8.00X6.20	3	DIN374	6H	C
MTH-M14X1.00ISO6H-BC-V038 MTH-M14X1.00ISO6H-BC-V038	02880698	MF14X1.0	1,0 -	11,0 0.433	71 2.795	15,0 0.591	107,3 4.222	13,1 0.516	11.00X9.00	3	DIN374	6H	C
MTH-M14X1.25ISO6H-BC-V038 MTH-M14X1.25ISO6H-BC-V038	02880699	MF14X1.25	1,25 -	11,0 0.433	71 2.795	15,0 0.591	106,6 4.195	12,8 0.504	11.00X9.00	3	DIN374	6H	C
MTH-M16X1.00ISO6H-BC-V038 MTH-M16X1.00ISO6H-V038	02880702	MF16X1.0	1,0 -	12,0 0.472	58 2.283	15,0 0.591	97,3 3.829	15,1 0.594	12.00X9.00	4	DIN374	6H	C
MTH-M18X1.00ISO6H-BC-V038 MTH-M18X1.00ISO6H-BC-V038	02880704	MF18X1.0	1,0 -	14,0 0.551	66 2.598	17,0 0.669	107,3 4.222	17,1 0.673	14.00X11.00	4	DIN374	6H	C
MTH-M20X1.00ISO6H-BC-V038 MTH-M20X1.00ISO6H-BC-V038	02880706	MF20X1.0	1,0 -	16,0 0.630	80 3.150	17,0 0.669	122,3 4.813	19,1 0.752	16.00X12.00	4	DIN374	6H	C
MTH-M24X2.00ISO6H-BC-V038 MTH-M24X2.00ISO6H-BC-V038	02880710	MF24X2.0	2,0 -	18,0 0.709	93 3.661	20,0 0.787	120,9 4.759	22,0 0.866	18.00X14.50	4	DIN374	6H	C
MTH-M25X1.50ISO6H-BC-V038 MTH-M25X1.50ISO6H-BC-V038	02880711	MF25X1.5	1,5 -	18,0 0.709	93 3.661	20,0 0.787	135,9 5.349	23,5 0.925	18.00X14.50	4	DIN374	6H	C
MTH-M26X1.50ISO6H-BC-V038 MTH-M26X1.50ISO6H-BC-V038	02880712	MF26X1.5	1,5 -	18,0 0.709	93 3.661	20,0 0.787	135,5 5.335	24,5 0.965	18.00X14.50	4	DIN374	6H	C
MTH-M27X1.50ISO6H-BC-V038 MTH-M27X1.50ISO6H-BC-V038	02880713	MF27X1.5	1,5 -	20,0 0.787	77 3.031	20,0 0.787	135,9 5.349	25,5 1.004	20.00X16.00	4	DIN374	6H	C
MTH-M27X2.00ISO6H-BC-V038 MTH-M27X2.00ISO6H-BC-V038	02880714	MF27X2.0	2,0 -	20,0 0.787	77 3.031	20,0 0.787	134,5 5.295	25,0 0.984	20.00X16.00	4	DIN374	6H	C
MTH-M28X1.50ISO6H-BC-V038 MTH-M28X1.50ISO6H-BC-V038	02880715	MF28X1.5	1,5 -	20,0 0.787	77 3.031	20,0 0.787	135,5 5.335	26,5 1.043	20.00X16.00	4	DIN374	6H	C
MTH-M30X1.50ISO6H-BC-V038 MTH-M30X1.50ISO6H-BC-V038	02880717	MF30X1.5	1,5 -	22,0 0.866	85 3.346	20,0 0.787	145,5 5.729	28,5 1.122	22.00X18.00	4	DIN374	6H	C
MTH-M30X2.00ISO6H-BC-V038 MTH-M30X2.00ISO6H-BC-V038	02880718	MF30X2.0	2,0 -	22,0 0.866	85 3.346	20,0 0.787	144,4 5.685	28,0 1.102	22.00X18.00	4	DIN374	6H	C

MTH-V038-A

Blind holes



- For cutting data see page(s) 284
- Coating: TiN
- Substrate: HSS-PM ≤ M16, HSS-E > M16
- Internal coolant

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M6X0.75ISO6H-BC-V038-A	03000250	MF6X0.75	0,75	-	4,5 0.177	59,0 2.323	10,0 0.394	77,74 3.061	5,3 0.209	4.50X3.40	3	DIN374	6H	C
MTH-M8X0.75ISO6H-BC-V038-A	03000251	MF8X0.75	0,75	-	6,0 0.236	57,0 2.244	13,0 0.512	77,7 3.059	7,3 0.287	6.00X4.90	3	DIN374	6H	C
MTH-M10X0.75ISO6H-BC-V038-A	03000253	MF10X0.75	0,75	-	7,0 0.276	67,0 2.638	13,0 0.512	87,71 3.453	9,3 0.366	7.00X5.50	3	DIN374	6H	C
MTH-M10X1.25ISO6H-BC-V038-A	03000255	MF10X1.25	1,25	-	7,0 0.276	77,0 3.031	15,0 0.591	96,59 3.803	8,8 0.346	7.00X5.50	3	DIN374	6H	C
MTH-M12X1.00ISO6H-BC-V038-A	03000256	MF12X1.0	1,0	-	9,0 0.354	73,0 2.874	15,0 0.591	97,05 3.821	11,1 0.437	9.00X7.00	3	DIN374	6H	C
MTH-M12X1.25ISO6H-BC-V038-A	03000257	MF12X1.25	1,25	-	9,0 0.354	73,0 2.874	15,0 0.591	96,49 3.799	10,8 0.425	9.00X7.00	3	DIN374	6H	C
MTH-M14X1.00ISO6H-BC-V038-A	03000259	MF14X1.0	1,0	-	11,0 0.433	71,0 2.795	15,0 0.591	97,05 3.821	13,1 0.516	11.00X9.00	3	DIN374	6H	C
MTH-M14X1.25ISO6H-BC-V038-A	03000260	MF14X1.25	1,25	-	11,0 0.433	71,0 2.795	15,0 0.591	96,49 3.799	12,8 0.504	11.00X9.00	3	DIN374	6H	C
MTH-M16X1.00ISO6H-BC-V038-A	03000262	MF16X1.0	1,0	-	12,0 0.472	58,0 2.283	15,0 0.591	97,05 3.821	15,1 0.594	12.00X9.00	4	DIN374	6H	C
MTH-M18X1.00ISO6H-BC-V038-A	03000264	MF18X1.0	1,0	-	14,0 0.551	66,0 2.598	17,0 0.669	106,65 4.199	17,1 0.673	14.00X11.00	4	DIN374	6H	C
MTH-M18X1.50ISO6H-BC-V038-A	03000265	MF18X1.5	1,5	-	14,0 0.551	66,0 2.598	17,0 0.669	105,52 4.154	16,6 0.654	14.00X11.00	4	DIN374	6H	C
MTH-M20X1.00ISO6H-BC-V038-A	03000266	MF20X1.0	1,0	-	16,0 0.630	80,0 3.150	17,0 0.669	121,65 4.789	19,1 0.752	16.00X12.00	4	DIN374	6H	C
MTH-M20X1.50ISO6H-BC-V038-A	03000267	MF20X1.5	1,5	-	16,0 0.630	80,0 3.150	17,0 0.669	120,875 4.759	18,6 0.732	16.00X12.00	4	DIN374	6H	C
MTH-M22X1.50ISO6H-BC-V038-A	03000268	MF22X1.5	1,5	-	18,0 0.709	78,0 3.071	17,0 0.669	120,875 4.759	20,5 0.807	18.00X14.50	4	DIN374	6H	C
MTH-M24X1.50ISO6H-BC-V038-A	03000269	MF24X1.5	1,5	-	18,0 0.709	93,0 3.661	20,0 0.787	135,52 5.335	22,5 0.886	18.00X14.50	4	DIN374	6H	C
MTH-M24X2.00ISO6H-BC-V038-A	03000270	MF24X2.0	2,0	-	18,0 0.709	93,0 3.661	20,0 0.787	134,4 5.291	22,0 0.866	18.00X14.50	4	DIN374	6H	C
MTH-M25X1.50ISO6H-BC-V038-A	03000271	MF25X1.5	1,5	-	18,0 0.709	93,0 3.661	20,0 0.787	135,52 5.335	23,5 0.925	18.00X14.50	4	DIN374	6H	C
MTH-M26X1.50ISO6H-BC-V038-A	03000272	MF26X1.5	1,5	-	18,0 0.709	93,0 3.661	20,0 0.787	135,52 5.335	24,5 0.965	18.00X14.50	4	DIN374	6H	C
MTH-M27X1.50ISO6H-BC-V038-A	03000273	MF27X1.5	1,5	-	20,0 0.787	77,0 3.031	20,0 0.787	135,52 5.335	25,5 1.004	20.00X16.00	4	DIN374	6H	C
MTH-M27X2.00ISO6H-BC-V038-A	03000274	MF27X2.0	2,0	-	20,0 0.787	77,0 3.031	20,0 0.787	134,4 5.291	25,0 0.984	20.00X16.00	4	DIN374	6H	C
MTH-M28X1.50ISO6H-BC-V038-A	03000275	MF28X1.5	1,5	-	20,0 0.787	77,0 3.031	20,0 0.787	135,52 5.335	26,5 1.043	20.00X16.00	4	DIN374	6H	C

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-M30X1.50ISO6H-BC-V038-A	03000276	MF30X1.5	1,5	–	22,0 0.866	85,0 3.346	20,0 0.787	145,52 5.729	28,5 1.122	22.00X18.00	4	DIN374	6H	C
MTH-M30X2.00ISO6H-BC-V038-A	03000277	MF30X2.0	2,0	–	22,0 0.866	85,0 3.346	20,0 0.787	144,4 5.685	28,0 1.102	22.00X18.00	4	DIN374	6H	C

Thread turning

MDT

Mini-Shaft™

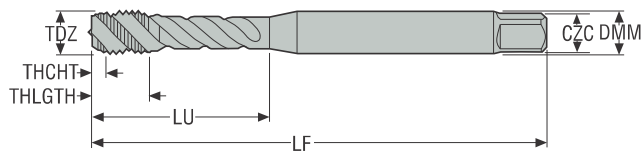
Thread milling

Thread tapping

Annex

MTH-V043

Blind holes



- For cutting data see page(s) 284
- Coating: TiN
- Substrate: HSS-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>				
MTH-3/4-16UNF-BC-V043	03000279	UNF3/4-16	-	16.0	14,0 <i>0.551</i>	77,5 <i>3.051</i>	25,0 <i>0.984</i>	120,63 <i>4.749</i>	17,6 <i>0.693</i>	14.00X11.00	4	DIN2184-1	2B	C
MTH-7/8-14UNF-BC-V043	03000280	UNF7/8-14	-	14.0	18,0 <i>0.709</i>	93,0 <i>3.661</i>	25,0 <i>0.984</i>	135,0 <i>5.315</i>	20,6 <i>0.811</i>	18.00X14.50	4	DIN2184-1	2B	C
MTH-1-12UNF-BC-V043	03000281	UNF1-12	-	12.0	18,0 <i>0.709</i>	113,0 <i>4.449</i>	30,0 <i>1.181</i>	154,17 <i>6.070</i>	23,5 <i>0.925</i>	18.00X14.50	4	DIN2184-1	2B	C

Thread turning

MDT

Mini-Shaft™

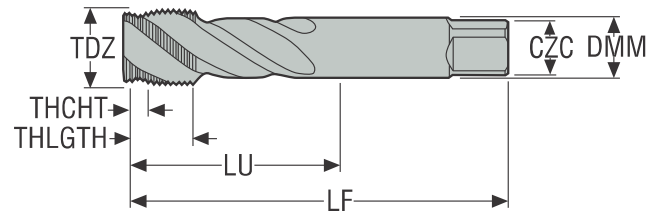
Thread milling

Thread tapping

Annex

MTH-V045

Blind holes



- For cutting data see page(s) 284
- Coating: TiN
- Substrate: HSS-PM ≤ G3/8, HSS-E > G3/8

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-1.1/8-11G-BC-V045	02880747	G1.1/8-11	– 11.0	28,0 1.102	101,0 3.976	22,0 0.866	163,7 6.445	35,5 1.398	28.00X22.00	4	DIN5156	NORMAL	C
MTH-1.1/4-11G-BC-V045	02880748	G1.1/4-11	– 11.0	32,0 1.260	72,0 2.835	22,0 0.866	163,7 6.445	39,5 1.555	32.00X24.00	4	DIN5156	NORMAL	C
MTH-1.1/2-11G-BC-V045	02880749	G1.1/2-11	– 11.0	36,0 1.417	87,0 3.425	23,0 0.906	183,7 7.232	45,4 1.787	36.00X29.00	4	DIN5156	NORMAL	C

Thread turning

MDT

Mini-Shaft™

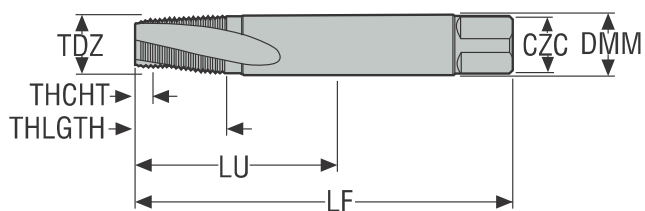
Thread milling

Thread tapping

Annex

MTH-V048

Blind holes



- For cutting data see page(s) 290
- Vaporised
- Substrate: HSS-E

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTH-1/16-27NPT-XC-V048	02880750	NPT1/16-27	–	27.0	7,95 0.313	56,0 2.205	14,0 0.551	80,0 3.150	6,15 0.242	7.95X5.94	3	DIN/ANSI	NORMAL	C
MTH-1/8-27NPT-XC-V048	02880751	NPT1/8-27	–	27.0	11,1 0.437	64,0 2.520	14,0 0.551	90,0 3.543	8,4 0.331	11.10X8.33	4	DIN/ANSI	NORMAL	C
MTH-1/4-18NPT-XC-V048	02880752	NPT1/4-18	–	18.0	14,27 0.562	59,0 2.323	20,0 0.787	100,0 3.937	11,1 0.437	14.27X10.69	4	DIN/ANSI	NORMAL	C
MTH-3/8-18NPT-XC-V048	02880753	NPT3/8-18	–	18.0	17,78 0.700	67,0 2.638	20,0 0.787	110,0 4.331	14,3 0.563	17.78X13.49	5	DIN/ANSI	NORMAL	C
MTH-1/2-14NPT-XC-V048	02880754	NPT1/2-14	–	14.0	17,45 0.687	79,0 3.110	26,0 1.024	125,0 4.921	17,9 0.705	17.45X13.08	5	DIN/ANSI	NORMAL	C
MTH-3/4-14NPT-XC-V048	02880755	NPT3/4-14	–	14.0	23,01 0.906	78,0 3.071	26,0 1.024	140,0 5.512	23,2 0.913	23.01X17.25	5	DIN/ANSI	NORMAL	C
MTH-1-11.5NPT-XC-V048	02880756	NPT1-11.5	–	11.5	28,58 1.125	58,0 2.283	31,0 1.220	150,0 5.906	29,0 1.142	28.58X21.41	5	DIN/ANSI	NORMAL	C

Thread turning

MDT

Mini-Shaft™

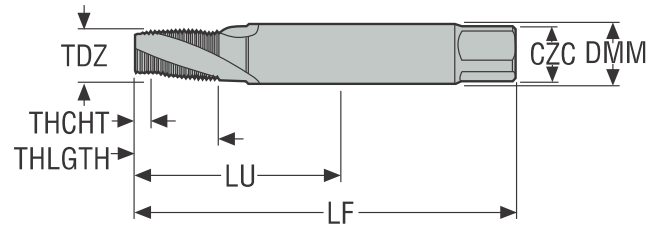
Thread milling

Thread tapping

Annex

MTH-V050

Blind holes



- For cutting data see page(s) 290
- Vaporised
- Substrate: HSS-E

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTH-1/16-27NPTF-XC-V050	02880757	NPTF1/16-27	- 27.0	7,95 0.313	56,0 2.205	14,0 0.551	80,0 3.150	6,1 0.240	7.95X5.94	3	DIN/ANSI	NORMAL	C
MTH-1/8-27NPTF-XC-V050	02880758	NPTF1/8-27	- 27.0	11,1 0.437	64,0 2.520	14,0 0.551	90,0 3.543	8,4 0.331	11.10X8.33	4	DIN/ANSI	NORMAL	C
MTH-1/4-18NPTF-XC-V050	02880759	NPTF1/4-18	- 18.0	14,27 0.562	59,0 2.323	20,0 0.787	100,0 3.937	11,0 0.433	14.27X10.69	4	DIN/ANSI	NORMAL	C
MTH-3/8-18NPTF-XC-V050	02880760	NPTF3/8-18	- 18.0	17,78 0.700	67,0 2.638	20,0 0.787	110,0 4.331	14,3 0.563	17.78X13.49	5	DIN/ANSI	NORMAL	C
MTH-1/2-14NPTF-XC-V050	02880761	NPTF1/2-14	- 14.0	17,45 0.687	79,0 3.110	26,0 1.024	125,0 4.921	17,6 0.693	17.45X13.08	5	DIN/ANSI	NORMAL	C
MTH-3/4-14NPTF-XC-V050	02880762	NPTF3/4-14	- 14.0	23,01 0.906	78,0 3.071	26,0 1.024	140,0 5.512	23,0 0.906	23X17.25	5	DIN/ANSI	NORMAL	C

Thread turning

MDT

Mini-Shaft™

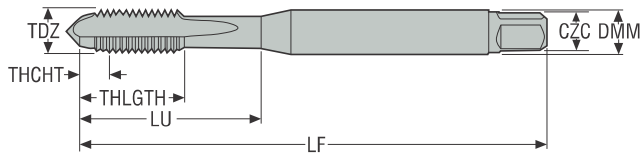
Thread milling

Thread tapping

Annex

MTS-K101

Blind and through holes

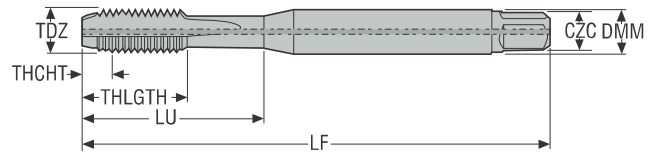


- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTS-M3X0.50ISO6HX-XC-K101	03305497	M3	0,5	–	3,5 0.138	18,0 0.709	9,0 0.354	54,63 2.151	2,5 0.098	3.50X2.70	4	DIN371	6HX	C
MTS-M4X0.70ISO6HX-XC-K101	03305498	M4	0,7	–	4,5 0.177	21,0 0.827	12,0 0.472	61,08 2.405	3,4 0.134	4.50X3.40	4	DIN371	6HX	C
MTS-M5X0.80ISO6HX-XC-K101	03305499	M5	0,8	–	6,0 0.236	25,0 0.984	13,0 0.512	67,80 2.669	4,3 0.169	6.00X4.90	5	DIN371	6HX	C
MTS-M6X1.00ISO6HX-XC-K101	03305500	M6	1,0	–	6,0 0.236	30,0 1.181	15,0 0.591	77,25 3.041	5,1 0.201	6.00X4.90	5	DIN371	6HX	C
MTS-M8X1.25ISO6HX-XC-K101	03305501	M8	1,25	–	8,0 0.315	35,0 1.378	18,0 0.709	86,56 3.408	6,8 0.268	8.00X6.20	5	DIN371	6HX	C
MTS-M10X1.50ISO6HX-XC-K101	03305502	M10	1,5	–	10,0 0.394	39,0 1.535	20,0 0.787	95,88 3.775	8,6 0.339	10.00X8.00	5	DIN371	6HX	C

MTS-K101-A

Blind and through holes

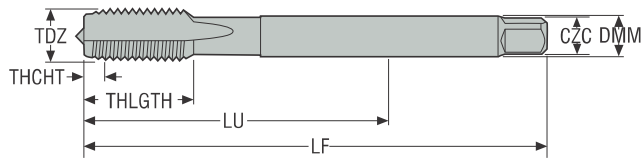


- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
MTS-M4X0.70ISO6HX-XC-K101-A	03305448	M4	0,7 -	4,5 <i>0.177</i>	21,0 <i>0.827</i>	12,0 <i>0.472</i>	61,07 <i>2.404</i>	3,4 <i>0.134</i>	4.50X3.40	4	DIN371	6HX	C
MTS-M5X0.80ISO6HX-XC-K101-A	03305450	M5	0,8 -	6,0 <i>0.236</i>	25,0 <i>0.984</i>	13,0 <i>0.512</i>	67,80 <i>2.669</i>	4,3 <i>0.169</i>	6.00X4.90	5	DIN371	6HX	C
MTS-M5X0.80ISO6HX-XE-K101-A	03305460	M5	0,8 -	6,0 <i>0.236</i>	25,0 <i>0.984</i>	13,0 <i>0.512</i>	67,80 <i>2.669</i>	4,3 <i>0.169</i>	6.00X4.90	5	DIN371	6HX	E
MTS-M6X1.00ISO6HX-XC-K101-A	03305451	M6	1,0 -	6,0 <i>0.236</i>	30,0 <i>1.181</i>	15,0 <i>0.591</i>	77,25 <i>3.041</i>	5,1 <i>0.201</i>	6.00X4.90	5	DIN371	6HX	C
MTS-M6X1.00ISO6HX-XE-K101-A	03305461	M6	1,0 -	6,0 <i>0.236</i>	30,0 <i>1.181</i>	15,0 <i>0.591</i>	78,25 <i>3.081</i>	5,1 <i>0.201</i>	6.00X4.90	5	DIN371	6HX	E
MTS-M8X1.25ISO6HX-XC-K101-A	03305452	M8	1,25 -	8,0 <i>0.315</i>	35,0 <i>1.378</i>	18,0 <i>0.709</i>	86,56 <i>3.408</i>	6,8 <i>0.268</i>	8.00X6.20	5	DIN371	6HX	C
MTS-M8X1.25ISO6HX-XE-K101-A	03305462	M8	1,25 -	8,0 <i>0.315</i>	35,0 <i>1.378</i>	18,0 <i>0.709</i>	87,81 <i>3.457</i>	6,8 <i>0.268</i>	8.00X6.20	5	DIN371	6HX	E
MTS-M10X1.50ISO6HX-XC-K101-A	03305453	M10	1,5 -	10,0 <i>0.394</i>	39,0 <i>1.535</i>	20,0 <i>0.787</i>	95,88 <i>3.775</i>	8,6 <i>0.339</i>	10.00X8.00	5	DIN371	6HX	C
MTS-M10X1.50ISO6HX-XE-K101-A	03305463	M10	1,5 -	10,0 <i>0.394</i>	39,0 <i>1.535</i>	20,0 <i>0.787</i>	97,38 <i>3.834</i>	8,6 <i>0.339</i>	10.00X8.00	5	DIN371	6HX	E

MTS-K002

Blind and through holes

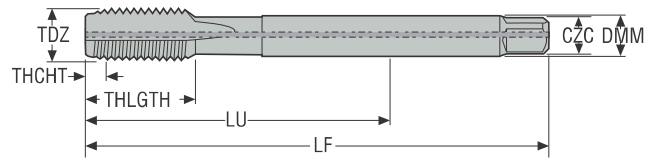


- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTS-M27X3.00ISO6HX-XC-K002	02999880	M27	3,0	–	20,0 0.787	97,0 3.819	38,0 1.496	151,6 5.969	24,0 0.945	20.00X16.00	4	DIN376	6HX	C
MTS-M30X3.50ISO6HX-XC-K002	02999881	M30	3,5	–	22,0 0.866	115,0 4.528	45,0 1.772	170,2 6.701	26,5 1.043	22.00X18.00	4	DIN376	6HX	C
MTS-M33X3.50ISO6HX-XC-K002	02999882	M33	3,5	–	25,0 0.984	113,0 4.449	50,0 1.969	170,2 6.701	29,5 1.161	25.00X20.00	4	DIN376	6HX	C
MTS-M36X4.00ISO6HX-XC-K002	02999883	M36	4,0	–	28,0 1.102	131,0 5.157	55,0 2.165	188,8 7.433	32,0 1.260	28.00X22.00	4	DIN376	6HX	C
MTS-M39X4.00ISO6HX-XC-K002	02999884	M39	4,0	–	32,0 1.260	102,0 4.016	60,0 2.362	188,8 7.433	35,0 1.378	32.00X24.00	4	DIN376	6HX	C
MTS-M42X4.50ISO6HX-XC-K002	02999885	M42	4,5	–	32,0 1.260	102,0 4.016	60,0 2.362	187,4 7.378	37,5 1.476	32.00X24.00	4	DIN376	6HX	C

MTS-K002-A

Blind and through holes

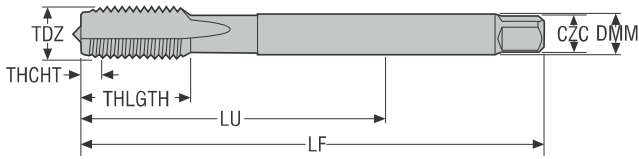


- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTS-M27X3.00ISO6HX-XC-K002-A	02999838	M27	3,0 -	20,0 0.787	97,0 3.819	38,0 1.496	152,5 6.004	24,0 0.945	20.00X16.00	4	DIN376	6HX	C
MTS-M30X3.50ISO6HX-XC-K002-A	02999839	M30	3,5 -	22,0 0.866	115,0 4.528	45,0 1.772	171,25 6.742	26,5 1.043	22.00X18.00	4	DIN376	6HX	C
MTS-M33X3.50ISO6HX-XC-K002-A	02999840	M33	3,5 -	25,0 0.984	113,0 4.449	50,0 1.969	170,2 6.701	29,5 1.161	25.00X20.00	4	DIN376	6HX	C
MTS-M36X4.00ISO6HX-XC-K002-A	02999841	M36	4,0 -	28,0 1.102	131,0 5.157	55,0 2.165	188,8 7.433	32,0 1.260	28.00X22.00	4	DIN376	6HX	C
MTS-M39X4.00ISO6HX-XC-K002-A	02999842	M39	4,0 -	32,0 1.260	102,0 4.016	60,0 2.362	188,8 7.433	35,0 1.378	32.00X24.00	4	DIN376	6HX	C
MTS-M42X4.50ISO6HX-XC-K002-A	02999843	M42	4,5 -	32,0 1.260	102,0 4.016	60,0 2.362	187,4 7.378	37,5 1.476	32.00X24.00	4	DIN376	6HX	C

MTS-K102

Blind and through holes



- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CXC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTS-M8X1.25ISO6HX-XC-K102	03305503	M8	1,25	–	6,0 0.236	67,0 2.638	20,0 0.787	86,56 3.408	6,8 0.268	6.00X4.90	5	DIN376	6HX	C
MTS-M10X1.50ISO6HX-XC-K102	03305504	M10	1,5	–	7,0 0.276	77,0 3.031	23,5 0.925	95,88 3.775	8,6 0.339	7.00X5.50	5	DIN376	6HX	C
MTS-M12X1.75ISO6HX-XC-K102	03305505	M12	1,75	–	9,0 0.354	83,0 3.268	23,0 0.906	105,19 4.141	10,4 0.409	9.00X7.00	5	DIN376	6HX	C
MTS-M14X2.00ISO6HX-XC-K102	03305506	M14	2,0	–	11,0 0.433	81,0 3.189	25,0 0.984	104,50 4.114	12,1 0.476	11.00X9.00	5	DIN376	6HX	C
MTS-M16X2.00ISO6HX-XC-K102	03305507	M16	2,0	–	12,0 0.472	68,0 2.677	25,0 0.984	104,50 4.114	14,1 0.555	12.00X9.00	5	DIN376	6HX	C
MTS-M18X2.50ISO6HX-XC-K102	03305508	M18	2,5	–	14,0 0.551	81,0 3.189	30,0 1.181	118,13 4.651	15,7 0.618	14.00X11.00	5	DIN376	6HX	C
MTS-M20X2.50ISO6HX-XC-K102	03305509	M20	2,5	–	16,0 0.630	95,0 3.740	30,0 1.181	133,13 5.241	17,7 0.697	16.00X12.00	5	DIN376	6HX	C
MTS-M22X2.50ISO6HX-XC-K102	03305510	M22	2,5	–	18,0 0.709	93,0 3.661	34,0 1.339	133,13 5.241	19,7 0.776	18.00X14.50	5	DIN376	6HX	C
MTS-M24X3.00ISO6HX-XC-K102	03305511	M24	3,0	–	18,0 0.709	113,0 4.449	38,0 1.496	151,75 5.974	21,0 0.827	18.00X14.50	5	DIN376	6HX	C

Thread turning

MDT

Mini-Shaft™

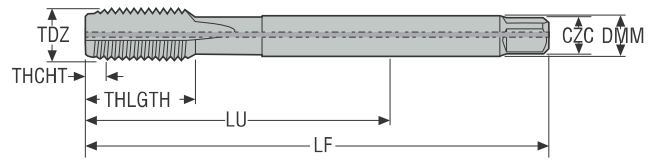
Thread milling

Thread tapping

Annex

MTS-K102-A

Blind and through holes



- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTS-M12X1.75ISO6HX-XC-K102-A	03305454	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	105,19 4.141	10,4 0.409	9.00X7.00	5	DIN376	6HX	C
MTS-M12X1.75ISO6HX-XE-K102-A	03305464	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	106,94 4.210	10,4 0.409	9.00X7.00	5	DIN376	6HX	E
MTS-M14X2.00ISO6HX-XC-K102-A	03305455	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	104,50 4.114	12,1 0.476	11.00X9.00	5	DIN376	6HX	C
MTS-M16X2.00ISO6HX-XC-K102-A	03305456	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	104,50 4.114	14,1 0.555	12.00X9.00	5	DIN376	6HX	C
MTS-M16X2.00ISO6HX-XE-K102-A	03305465	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	106,50 4.193	14,1 0.555	12.00X9.00	5	DIN376	6HX	E
MTS-M20X2.50ISO6HX-XC-K102-A	03305457	M20	2,5 -	16,0 0.630	95,0 3.740	30,0 1.181	133,13 5.241	17,7 0.697	16.00X12.00	5	DIN376	6HX	C
MTS-M22X2.50ISO6HX-XC-K102-A	03305458	M22	2,5 -	18,0 0.709	93,0 3.661	34,0 1.339	133,13 5.241	19,7 0.776	18.00X14.50	5	DIN376	6HX	C
MTS-M24X3.00ISO6HX-XC-K102-A	03305459	M24	3,0 -	18,0 0.709	113,0 4.449	38,0 1.496	151,75 5.974	21,0 0.827	18.00X14.50	5	DIN376	6HX	C

Thread turning

MDT

Mini-Shaft™

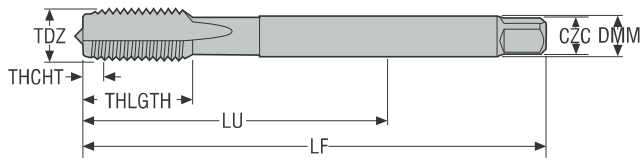
Thread milling

Thread tapping

Annex

MTS-K111

Blind and through holes



- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCR	THCHT
			mm	TPI										
MTS-M10X1.00ISO6HX-XC-K111	03305466	MF10X1.0	1,0	–	7,0 0.276	67,0 2.638	18,0 0.709	87,25 3.435	9,0 0.354	7.00X5.50	5	DIN374	6HX	C
MTS-M10X1.25ISO6HX-XC-K111	03305467	MF10X1.25	1,25	–	7,0 0.276	77,0 3.031	20,0 0.787	96,56 3.802	8,8 0.346	7.00X5.50	5	DIN374	6HX	C
MTS-M12X1.25ISO6HX-XC-K111	03305468	MF12X1.25	1,25	–	9,0 0.354	73,0 2.874	21,0 0.827	96,56 3.802	10,75 0.423	9.00X7.00	5	DIN374	6HX	C
MTS-M12X1.50ISO6HX-XC-K111	03305469	MF12X1.5	1,5	–	9,0 0.354	73,0 2.874	21,0 0.827	95,88 3.775	10,5 0.413	9.00X7.00	5	DIN374	6HX	C
MTS-M14X1.50ISO6HX-XC-K111	03305470	MF14X1.5	1,5	–	11,0 0.433	71,0 2.795	21,0 0.827	95,88 3.775	12,5 0.492	11.00X9.00	5	DIN374	6HX	C
MTS-M16X1.50ISO6HX-XC-K111	03305471	MF16X1.5	1,5	–	12,0 0.472	58,0 2.283	21,0 0.827	95,88 3.775	14,5 0.571	12.00X9.00	5	DIN374	6HX	C
MTS-M18X1.50ISO6HX-XC-K111	03305472	MF18X1.5	1,5	–	14,0 0.551	66,0 2.598	24,0 0.945	105,88 4.168	16,5 0.650	14.00X11.00	5	DIN374	6HX	C
MTS-M20X1.50ISO6HX-XC-K111	03305473	MF20X1.5	1,5	–	16,0 0.630	80,0 3.150	24,0 0.945	120,88 4.759	18,5 0.728	16.00X12.00	5	DIN374	6HX	C

Thread turning

MDT

Mini-Shaft™

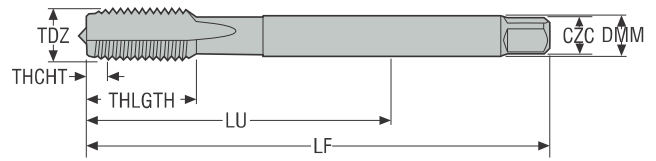
Thread milling

Thread tapping

Annex

MTS-K121

Blind and through holes



- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MTS-1/8-28G-XC-K121	03305474	G1/8-28	–	28,0	7,0 0.276	67,0 2.638	13,0 0.512	87,51 3.445	8,8 0.346	7.00X5.50	4	DIN5156	NORMAL-X	C
MTS-1/4-19G-XC-K121	03305475	G1/4-19	–	19,0	11,0 0.433	71,0 2.795	15,0 0.591	96,32 3.792	11,8 0.465	11.00X9.00	4	DIN5156	NORMAL-X	C
MTS-3/8-19G-XC-K121	03305476	G3/8-19	–	19,0	12,0 0.472	58,0 2.283	21,0 0.827	96,32 3.792	15,25 0.600	12.00X9.00	5	DIN5156	NORMAL-X	C
MTS-1/2-14G-XC-K121	03305477	G1/2-14	–	14,0	16,0 0.630	80,0 3.150	21,0 0.827	120,01 4.725	19,0 0.748	16.00X12.00	5	DIN5156	NORMAL-X	C
MTS-3/4-14G-XC-K121	03305478	G3/4-14	–	14,0	20,0 0.787	77,0 3.031	21,0 0.827	135,01 5.315	24,5 0.965	20.00X16.00	6	DIN5156	NORMAL-X	C
MTS-1-11G-XC-K121	03305479	G1-11	–	11,0	25,0 0.984	93,0 3.661	27,0 1.063	153,65 6.049	30,75 1.211	25.00X20.00	6	DIN5156	NORMAL-X	C

Thread turning

MDT

Mini-Shaft™

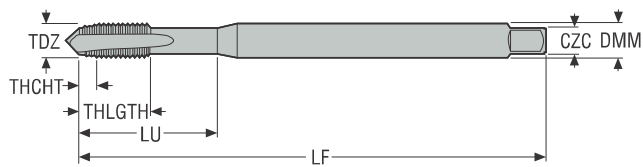
Thread milling

Thread tapping

Annex

MTS-K131

Blind and through holes



- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTS-1/4-20UNC-XC-K131	03305480	UNC1/4-20	– 20.0	7,0 0.276	25,0 0.984	15,6 0.614	76,50 3.012	5,1 0.201	8.25X5.5	5	DIN2184-1	2BX	C
MTS-5/16-18UNC-XC-K131	03305481	UNC5/16-18	– 18.0	8,0 0.315	33,5 1.319	18,7 0.736	86,12 3.391	6,6 0.260	9.25X6.20	5	DIN2184-1	2BX	C
MTS-3/8-16UNC-XC-K131	03305482	UNC3/8-16	– 16.0	10,0 0.394	38,0 1.496	20,6 0.811	95,63 3.765	8,0 0.315	11.25X8.00	5	DIN2184-1	2BX	C
MTS-7/16-14UNC-XC-K131	03305483	UNC7/16-14	– 14.0	8,0 0.315	72,7 2.862	20,0 0.787	95,01 3.741	9,4 0.370	9.25X6.20	5	DIN2184-1	2BX	C
MTS-1/2-13UNC-XC-K131	03305484	UNC1/2-13	– 13.0	9,0 0.354	81,9 3.224	23,0 0.906	104,63 4.119	10,8 0.425	10.25X7.00	5	DIN2184-1	2BX	C
MTS-5/8-11UNC-XC-K131	03305485	UNC5/8-11	– 11.0	12,0 0.472	65,7 2.587	23,0 0.906	103,65 4.081	13,5 0.531	12.25X9.00	5	DIN2184-1	2BX	C
MTS-3/4-10UNC-XC-K131	03305486	UNC3/4-10	– 10.0	14,0 0.551	77,5 3.051	30,0 1.181	118,02 4.646	16,5 0.650	14.25X11.00	5	DIN2184-1	2BX	C
MTS-7/8-9UNC-XC-K131	03305487	UNC7/8-9	– 9.0	18,0 0.709	90,95 3.581	34,0 1.339	132,24 5.206	19,5 0.768	17.25X14.5	5	DIN2184-1	2BX	C

Thread turning

MDT

Mini-Shaft™

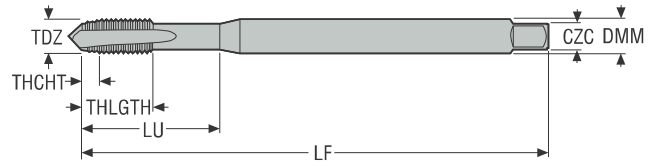
Thread milling

Thread tapping

Annex

MTS-K141

Blind and through holes



- For cutting data see page(s) 280
- Coating: TiAlN
- Substrate: HSS-E-PM

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTS-1/4-28UNF-XC-K141	03305488	UNF1/4-28	- 28.0	7,0 0.276	25,0 0.984	15,6 0.614	77,50 3.051	5,5 0.217	8.25X5.5	5	DIN2184-1	2BX	C
MTS-5/16-24UNF-XC-K141	03305489	UNF5/16-24	- 24.0	8,0 0.315	33,5 1.319	18,7 0.736	87,09 3.429	6,9 0.272	9.25X6.20	5	DIN2184-1	2BX	C
MTS-3/8-24UNF-XC-K141	03305491	UNF3/8-24	- 24.0	10,0 0.394	38,0 1.496	20,6 0.811	97,09 3.822	8,5 0.335	11.25X8.00	5	DIN2184-1	2BX	C
MTS-7/16-20UNF-XC-K141	03305492	UNF7/16-20	- 20.0	8,0 0.315	72,7 2.862	20,0 0.787	96,51 3.800	9,9 0.390	9.25X6.20	5	DIN2184-1	2BX	C
MTS-1/2-20UNF-XC-K141	03305493	UNF1/2-20	- 20.0	9,0 0.354	71,9 2.831	23,0 0.906	106,51 4.193	11,5 0.453	10.25X7.00	5	DIN2184-1	2BX	C
MTS-5/8-18UNF-XC-K141	03305494	UNF5/8-18	- 18.0	12,0 0.472	55,7 2.193	23,0 0.906	106,12 4.178	14,5 0.571	12.25X9.00	5	DIN2184-1	2BX	C
MTS-3/4-16UNF-XC-K141	03305495	UNF3/4-16	- 16.0	14,0 0.551	62,5 2.461	25,0 0.984	120,63 4.749	17,5 0.689	14.25X11.00	5	DIN2184-1	2BX	C
MTS-7/8-14UNF-XC-K141	03305496	UNF7/8-14	- 14.0	18,0 0.709	75,95 2.990	25,0 0.984	135,01 5.315	20,4 0.803	17.25X14.5	5	DIN2184-1	2BX	C

Thread turning

MDT

Mini-Shaft™

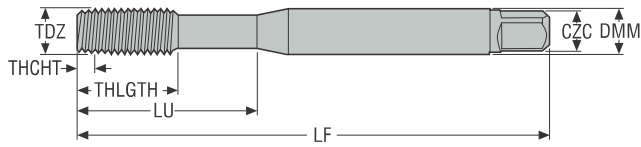
Thread milling

Thread tapping

Annex

MF-V054

Forming holes

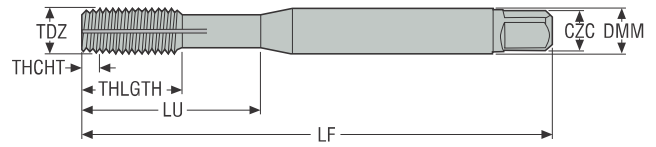


- For cutting data see page(s) 292
- Coating: TiN
- Substrate: HSS-E
- * With tip shape. More information: Suggest at secotools.com

Designation	Item number	*	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
				mm	TPI										
MF-M1X0.25ISO5HX-XC-V054	03000282	*	M1	0,25	–	2,5 <i>0.098</i>	20,0 <i>0.787</i>	5,5 <i>0.217</i>	39,25 <i>1.545</i>	0,89 <i>0.035</i>	2.50X2.10	3	DIN2174	5HX	C
MF-M1.1X0.25ISO5HX-XC-V054	03000283	*	M1.1	0,25	–	2,5 <i>0.098</i>	20,0 <i>0.787</i>	5,5 <i>0.217</i>	39,25 <i>1.545</i>	0,99 <i>0.039</i>	2.50X2.10	3	DIN2174	5HX	C
MF-M1.2X0.25ISO5HX-XC-V054	03000284	*	M1.2	0,25	–	2,5 <i>0.098</i>	20,0 <i>0.787</i>	5,5 <i>0.217</i>	39,25 <i>1.545</i>	1,09 <i>0.043</i>	2.50X2.10	3	DIN2174	5HX	C
MF-M1.4X0.30ISO5HX-XC-V054	03000285	*	M1.4	0,3	–	2,5 <i>0.098</i>	20,0 <i>0.787</i>	7,0 <i>0.276</i>	39,1 <i>1.539</i>	1,27 <i>0.050</i>	2.50X2.10	3	DIN2174	5HX	C
MF-M1.6X0.35ISO6HX-XC-V054	03000286	*	M1.6	0,35	–	2,5 <i>0.098</i>	20,0 <i>0.787</i>	8,0 <i>0.315</i>	38,95 <i>1.533</i>	1,45 <i>0.057</i>	2.50X2.10	3	DIN2174	6HX	C
MF-M1.7X0.35ISO6HX-XC-V054	03000287	*	M1.7	0,35	–	2,5 <i>0.098</i>	20,0 <i>0.787</i>	8,0 <i>0.315</i>	38,95 <i>1.533</i>	1,55 <i>0.061</i>	2.50X2.10	3	DIN2174	6HX	C
MF-M1.8X0.35ISO6HX-XC-V054	03000288	*	M1.8	0,35	–	2,5 <i>0.098</i>	20,0 <i>0.787</i>	8,0 <i>0.315</i>	38,95 <i>1.533</i>	1,65 <i>0.065</i>	2.50X2.10	3	DIN2174	6HX	C
MF-M2.2X0.45ISO6HX-XC-V054	03000290	*	M2.2	0,45	–	2,8 <i>0.110</i>	12,0 <i>0.472</i>	7,0 <i>0.276</i>	43,65 <i>1.719</i>	2,0 <i>0.079</i>	2.80X2.10	3	DIN2174	6HX	C
MF-M2.3X0.40ISO6HX-XC-V054	03000291	*	M2.3	0,4	–	2,8 <i>0.110</i>	12,0 <i>0.472</i>	7,0 <i>0.276</i>	43,8 <i>1.724</i>	2,12 <i>0.083</i>	2.80X2.10	3	DIN2174	6HX	C
MF-M2.6X0.45ISO6HX-XC-V054	03000293	*	M2.6	0,45	–	2,8 <i>0.110</i>	14,0 <i>0.551</i>	8,0 <i>0.315</i>	48,65 <i>1.915</i>	2,4 <i>0.094</i>	2.80X2.10	3	DIN2174	6HX	C

MF-V055

Forming holes

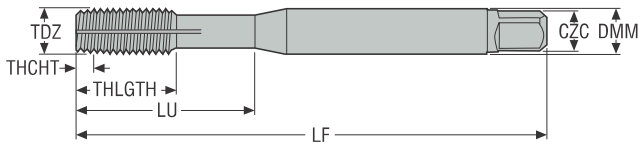


- With channels for lubrication
- For cutting data see page(s) 292
- Coating: TiN
- Substrate: HSS-E
- * With tip shape. More information: Suggest at secotools.com

Designation	Item number	*	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
				mm	TPI										
MF-M7X1.00ISO6HX-XC-V055	02880467	*	M7	1,0	–	7,0 0.276	30,0 1.181	15,0 0.591	77,0 3.031	6,55 0.258	7.00X5.50	5	DIN2174	6HX	C
MF-M24X3.00ISO6HX-XC-V055	02880474	–	M24	3,0	–	18,0 0.709	113,0 4.449	36,0 1.417	151,0 5.945	22,65 0.892	18.00X14.50	8	DIN2174	6HX	C
MF-M27X3.00ISO6HX-XC-V055	03000294	–	M27	3,0	–	20,0 0.787	97,0 3.819	36,0 1.417	149,5 5.886	25,65 1.010	20.00X16.00	8	DIN2174	6HX	C
MF-M30X3.50ISO6HX-XC-V055	03000295	–	M30	3,5	–	22,0 0.866	115,0 4.528	40,0 1.575	167,75 6.604	28,45 1.120	22.00X18.00	10	DIN2174	6HX	C
MF-M33X3.50ISO6HX-XC-V055	03000296	–	M33	3,5	–	25,0 0.984	113,0 4.449	40,0 1.575	167,75 6.604	31,45 1.238	25.00X20.00	10	DIN2174	6HX	C
MF-M36X4.00ISO6HX-XC-V055	03000297	–	M36	4,0	–	28,0 1.102	131,0 5.157	50,0 1.969	186,0 7.323	34,23 1.348	28.00X22.00	10	DIN2174	6HX	C
MF-M39X4.00ISO6HX-XC-V055	03000298	–	M39	4,0	–	32,0 1.260	102,0 4.016	50,0 1.969	186,0 7.323	37,23 1.466	32.00X24.00	10	DIN2174	6HX	C
MF-M42X4.50ISO6HX-XC-V055	03000299	–	M42	4,5	–	32,0 1.260	102,0 4.016	50,0 1.969	184,25 7.254	40,0 1.575	32.00X24.00	10	DIN2174	6HX	C
MF-M48X5.00ISO6HX-XC-V055	03000300	–	M48	5,0	–	36,0 1.417	147,0 5.787	60,0 2.362	232,5 9.154	45,8 1.803	36.00X29.00	12	DIN2174	6HX	C

MF-V056

Forming holes



- With channels for lubrication
- For cutting data see page(s) 292
- Coating: TiN
- Substrate: HSS-E
- * With tip shape. More information: Suggest at secotools.com

Designation	Item number	*	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
				mm	TPI										
MF-4-40UNC-XC-V056	03000306	*	UNC4-40	-	40.0	3,5 0.138	18,0 0.709	9,0 0.354	53,78 2.117	2,6 0.102	3.50X2.70	4	DIN2184-1	2BX	C
MF-3/4-10UNC-XC-V056	03000317	-	UNC3/4-10	-	10.0	14,0 0.551	81,0 3.189	30,0 1.181	116,11 4.571	17,93 0.706	14.00X11.00	7	DIN2184-1	2BX	C
MF-7/8-9UNC-XC-V056	03000318	-	UNC7/8-9	-	9.0	18,0 0.709	93,0 3.661	34,0 1.339	131,53 5.178	20,98 0.826	18.00X14.50	7	DIN2184-1	2BX	C
MF-1-8UNC-XC-V056	03000319	-	UNC1-8	-	8.0	18,0 0.709	113,0 4.449	38,0 1.496	150,47 5.924	24,0 0.945	18.00X14.50	8	DIN2184-1	2BX	C

Thread turning

MDT

Mini-Shaft™

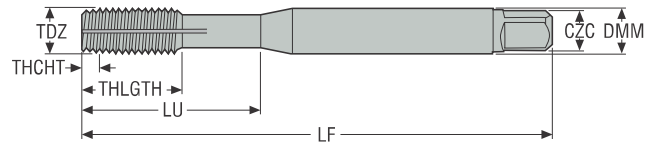
Thread milling

Thread tapping

Annex

MF-V057

Forming holes



- With channels for lubrication
- For cutting data see page(s) 292
- Coating: TiN
- * With tip shape. More information: Suggest at secotools.com

Designation	Item number	*	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
				mm	TPI										
MF-3/4-16UNF-XC-V057	03000327	-	UNF3/4-16	-	16.0	14,0 <i>0.551</i>	81,0 <i>3.189</i>	30,0 <i>1.181</i>	119,44 <i>4.702</i>	18,35 <i>0.722</i>	14.00X11.00	7	DIN2184-1	2BX	C
MF-1-12UNF-XC-V057	03000328	-	UNF1-12	-	12.0	18,0 <i>0.709</i>	113,0 <i>4.449</i>	38,0 <i>1.496</i>	152,59 <i>6.007</i>	24,46 <i>0.963</i>	18.00X14.50	8	DIN2184-1	2BX	C

Thread turning

MDT

Mini-Shaft™

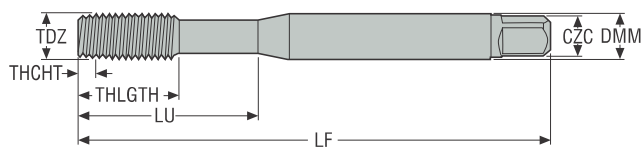
Thread milling

Thread tapping

Annex

MF-V058

Forming holes



- For cutting data see page(s) 292
- Coating: TiN
- Substrate: HSS-E
- * With tip shape. More information: Suggest at secotools.com

Designation	Item number	*	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
				mm	TPI										
MF-M3.5X0.60ISO6GX-XC-V058	02880476	*	M3.5	0,6	–	4,0 <i>0.157</i>	20,0 <i>0.787</i>	11,0 <i>0.433</i>	54,2 <i>2.134</i>	3,2 <i>0.126</i>	4.00X3.00	4	DIN2174	6GX	C
MF-M12X1.75ISO6GX-XC-V058	02880482	*	M12	1,75	–	9,0 <i>0.354</i>	83,0 <i>3.268</i>	23,0 <i>0.906</i>	104,75 <i>4.124</i>	11,2 <i>0.441</i>	9.00X7.00	5	DIN2174	6GX	C

Thread turning

MDT

Mini-Shaft™

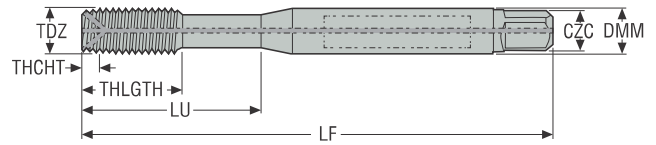
Thread milling

Thread tapping

Annex

MF-V060-A

Forming holes



- For cutting data see page(s) 292
- Coating: TiN
- Substrate: HSS-E
- Internal coolant

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MF-M12X1.75ISO6HX-XC-V060-A	02880487	M12	1,75 -	9,0 0.354	83,0 3.268	23,0 0.906	104,75 4.124	11,2 0.441	9.00X7.00	5	DIN2174	6HX	C
MF-M14X2.00ISO6HX-XC-V060-A	03000329	M14	2,0 -	11,0 0.433	81,0 3.189	25,0 0.984	103,0 4.055	13,1 0.516	11.00X9.00	6	DIN2174	6HX	C
MF-M16X2.00ISO6HX-XC-V060-A	03000330	M16	2,0 -	12,0 0.472	68,0 2.677	25,0 0.984	104,0 4.094	15,1 0.594	12.00X9.00	6	DIN2174	6HX	C
MF-M18X2.50ISO6HX-XC-V060-A	03000331	M18	2,5 -	14,0 0.551	81,0 3.189	30,0 1.181	116,25 4.577	16,9 0.665	14.00X11.00	7	DIN2174	6HX	C
MF-M20X2.50ISO6HX-XC-V060-A	03000332	M20	2,5 -	16,0 0.630	95,0 3.740	30,0 1.181	132,5 5.217	18,9 0.744	16.00X12.00	7	DIN2174	6HX	C
MF-M22X2.50ISO6HX-XC-V060-A	03000333	M22	2,5 -	18,0 0.709	93,0 3.661	34,0 1.339	131,25 5.167	20,9 0.823	18.00X14.50	7	DIN2174	6HX	C
MF-M24X3.00ISO6HX-XC-V060-A	03000334	M24	3,0 -	18,0 0.709	113,0 4.449	38,0 1.496	149,5 5.886	22,65 0.892	18.00X14.50	8	DIN2174	6HX	C
MF-M27X3.00ISO6HX-XC-V060-A	03000335	M27	3,0 -	20,0 0.787	97,0 3.819	38,0 1.496	149,5 5.886	25,65 1.010	20.00X16.00	8	DIN2174	6HX	C
MF-M30X3.50ISO6HX-XC-V060-A	03000336	M30	3,5 -	22,0 0.866	115,0 4.528	45,0 1.772	169,5 6.673	28,45 1.120	22.00X18.00	10	DIN2174	6HX	C
MF-M33X3.50ISO6HX-XC-V060-A	03000337	M33	3,5 -	25,0 0.984	113,0 4.449	50,0 1.969	167,75 6.604	31,45 1.238	25.00X20.00	10	DIN2174	6HX	C
MF-M36X4.00ISO6HX-XC-V060-A	03000338	M36	4,0 -	28,0 1.102	131,0 5.157	55,0 2.165	186,0 7.323	34,23 1.348	28.00X22.00	10	DIN2174	6HX	C
MF-M39X4.00ISO6HX-XC-V060-A	03000339	M39	4,0 -	32,0 1.260	102,0 4.016	60,0 2.362	186,0 7.323	37,23 1.466	32.00X24.00	10	DIN2174	6HX	C
MF-M42X4.50ISO6HX-XC-V060-A	03000340	M42	4,5 -	32,0 1.260	102,0 4.016	60,0 2.362	184,25 7.254	40,0 1.575	32.00X24.00	10	DIN2174	6HX	C
MF-M48X5.00ISO6HX-XC-V060-A	03000341	M48	5,0 -	36,0 1.417	147,0 5.787	60,0 2.362	232,5 9.154	45,8 1.803	36.00X29.00	12	DIN2174	6HX	C

Thread turning

MDT

Mini-Shaft™

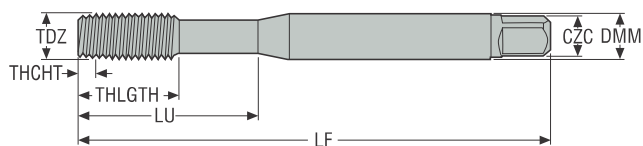
Thread milling

Thread tapping

Annex

MF-V063

Forming holes



- For cutting data see page(s) 292
- Coating: TiN
- Substrate: HSS-E
- * With tip shape. More information: Suggest at secotools.com

Designation	Item number	*	TDZ	Pitch		DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
				mm	TPI										
MF-M7X0.75ISO6HX-XC-V063	02880490	*	MF7X0.75	0,75	-	7,0 0.276	30,0 1.181	15,0 0.591	77,75 3.061	6,65 0.262	7.00X5.50	5	DIN2174	6HX	C
MF-M8X0.75ISO6HX-XC-V063	02880491	-	MF8X0.75	0,75	-	6,0 0.236	57,0 2.244	18,0 0.709	77,37 3.046	7,65 0.301	6.00X4.90	5	DIN2174	6HX	C
MF-M8X1.00ISO6HX-XC-V063	02880492	-	MF8X1.0	1,0	-	6,0 0.236	67,0 2.638	18,0 0.709	86,5 3.406	7,55 0.297	6.00X4.90	5	DIN2174	6HX	C
MF-M10X1.00ISO6HX-XC-V063	02880493	-	MF10X1.0	1,0	-	7,0 0.276	75,0 2.953	20,0 0.787	87,0 3.425	9,55 0.376	7.00X5.50	5	DIN2174	6HX	C
MF-M10X1.25ISO6HX-XC-V063	02880494	-	MF10X1.25	1,25	-	7,0 0.276	75,0 2.953	20,0 0.787	96,25 3.789	9,45 0.372	7.00X5.50	5	DIN2174	6HX	C
MF-M14X1.00ISO6HX-XC-V063	02880498	-	MF14X1.0	1,0	-	11,0 0.433	71,0 2.795	21,0 0.827	97,0 3.819	13,55 0.533	11.00X9.00	6	DIN2174	6HX	C
MF-M14X1.25ISO6HX-XC-V063	02880499	-	MF14X1.25	1,25	-	11,0 0.433	71,0 2.795	21,0 0.827	95,62 3.765	13,45 0.530	11.00X9.00	6	DIN2174	6HX	C
MF-M14X1.50ISO6HX-XC-V063	02880500	-	MF14X1.5	1,5	-	11,0 0.433	71,0 2.795	21,0 0.827	95,5 3.760	13,35 0.526	11.00X9.00	6	DIN2174	6HX	C

Thread turning

MDT

Mini-Shaft™

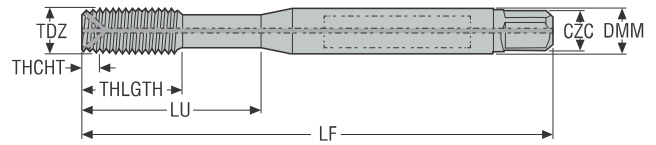
Thread milling

Thread tapping

Annex

MF-V063-A

Forming holes



- For cutting data see page(s) 292
- Coating: TiN
- Substrate: HSS-E
- Internal coolant

Designation	Item number	TDZ	Pitch		DMM	LU	THLGH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	TPI										
MF-M5X0.50ISO6HX-XC-V063-A	03000342	MF5X0.5	0,5	–	6,0 <i>0.236</i>	25,0 <i>0.984</i>	13,0 <i>0.512</i>	68,25 <i>2.687</i>	4,8 <i>0.189</i>	6.00X4.90	5	DIN2174	6HX	C
MF-M6X0.75ISO6HX-XC-V063-A	03000343	MF6X0.75	0,75	–	6,0 <i>0.236</i>	30,0 <i>1.181</i>	15,0 <i>0.591</i>	77,37 <i>3.046</i>	5,65 <i>0.222</i>	6.00X4.90	5	DIN2174	6HX	C
MF-M8X0.75ISO6HX-XC-V063-A	03000344	MF8X0.75	0,75	–	6,0 <i>0.236</i>	57,0 <i>2.244</i>	15,0 <i>0.591</i>	77,37 <i>3.046</i>	7,65 <i>0.301</i>	6.00X4.90	5	DIN2174	6HX	C
MF-M8X1.00ISO6HX-XC-V063-A	03000345	MF8X1.0	1,0	–	6,0 <i>0.236</i>	67,0 <i>2.638</i>	18,0 <i>0.709</i>	86,5 <i>3.406</i>	7,55 <i>0.297</i>	6.00X4.90	5	DIN2174	6HX	C
MF-M10X0.75ISO6HX-XC-V063-A	03000346	MF10X0.75	0,75	–	7,0 <i>0.276</i>	67,0 <i>2.638</i>	18,0 <i>0.709</i>	87,37 <i>3.440</i>	9,65 <i>0.380</i>	7.00X5.50	5	DIN2174	6HX	C
MF-M10X1.00ISO6HX-XC-V063-A	03000347	MF10X1.0	1,0	–	7,0 <i>0.276</i>	67,0 <i>2.638</i>	18,0 <i>0.709</i>	86,5 <i>3.406</i>	9,55 <i>0.376</i>	7.00X5.50	5	DIN2174	6HX	C
MF-M10X1.25ISO6HX-XC-V063-A	03000349	MF10X1.25	1,25	–	7,0 <i>0.276</i>	77,0 <i>3.031</i>	20,0 <i>0.787</i>	95,62 <i>3.765</i>	9,45 <i>0.372</i>	7.00X5.50	5	DIN2174	6HX	C
MF-M12X1.00ISO6HX-XC-V063-A	03000350	MF12X1.0	1,0	–	9,0 <i>0.354</i>	73,0 <i>2.874</i>	21,0 <i>0.827</i>	97,0 <i>3.819</i>	11,55 <i>0.455</i>	9.00X7.00	5	DIN2174	6HX	C
MF-M12X1.25ISO6HX-XC-V063-A	03000351	MF12X1.25	1,25	–	9,0 <i>0.354</i>	73,0 <i>2.874</i>	21,0 <i>0.827</i>	95,62 <i>3.765</i>	11,45 <i>0.451</i>	9.00X7.00	5	DIN2174	6HX	C
MF-M12X1.50ISO6HX-XC-V063-A	03000352	MF12X1.5	1,5	–	9,0 <i>0.354</i>	73,0 <i>2.874</i>	21,0 <i>0.827</i>	94,75 <i>3.730</i>	11,35 <i>0.447</i>	9.00X7.00	5	DIN2174	6HX	C
MF-M14X1.00ISO6HX-XC-V063-A	03000353	MF14X1.0	1,0	–	11,0 <i>0.433</i>	71,0 <i>2.795</i>	21,0 <i>0.827</i>	96,5 <i>3.799</i>	13,55 <i>0.533</i>	11.00X9.00	6	DIN2174	6HX	C
MF-M14X1.25ISO6HX-XC-V063-A	03000354	MF14X1.25	1,25	–	11,0 <i>0.433</i>	71,0 <i>2.795</i>	21,0 <i>0.827</i>	95,62 <i>3.765</i>	13,45 <i>0.530</i>	11.00X9.00	6	DIN2174	6HX	C
MF-M14X1.50ISO6HX-XC-V063-A	03000355	MF14X1.5	1,5	–	11,0 <i>0.433</i>	71,0 <i>2.795</i>	21,0 <i>0.827</i>	95,5 <i>3.760</i>	13,35 <i>0.526</i>	11.00X9.00	6	DIN2174	6HX	C
MF-M16X1.00ISO6HX-XC-V063-A	03000356	MF16X1.0	1,0	–	12,0 <i>0.472</i>	58,0 <i>2.283</i>	21,0 <i>0.827</i>	96,5 <i>3.799</i>	15,55 <i>0.612</i>	12.00X9.00	6	DIN2174	6HX	C
MF-M16X1.50ISO6HX-XC-V063-A	03000357	MF16X1.5	1,5	–	12,0 <i>0.472</i>	58,0 <i>2.283</i>	21,0 <i>0.827</i>	95,5 <i>3.760</i>	15,35 <i>0.604</i>	12.00X9.00	6	DIN2174	6HX	C

MILL TO THE MAX WITH SECO HIGH FEED SP

SECO
HIGH FEED SP

YOUR CHALLENGE

Milling challenging materials like tough steels, stainless steels, superalloys and titanium cause built-up or notched edges and broken inserts that increase tooling costs and cause unexpected downtime.

OUR SOLUTION

The High Feed SP easily cuts ISO P, M and S materials to increase material removal rates and extend tool life.

YOUR CHALLENGE

Inexperienced operators index inserts incorrectly, which leads to unexpected machine downtime and scrapped parts.

OUR SOLUTION

The High Feed SP is robust and easy to index.

YOUR CHALLENGE

Optimized milling performance requires switching among numerous tools to implement various machining strategies and part materials.

OUR SOLUTION

One High Feed SP tool handles a complete range of high feed milling operations and materials.



CUSTOMER BENEFITS

- Lower cost per part
- Increased production
- Maximum machine usage
- Less unexpected downtime
- Tooling versatility reduces production costs and saves time
- High Feed strategy provides maximized machine performance

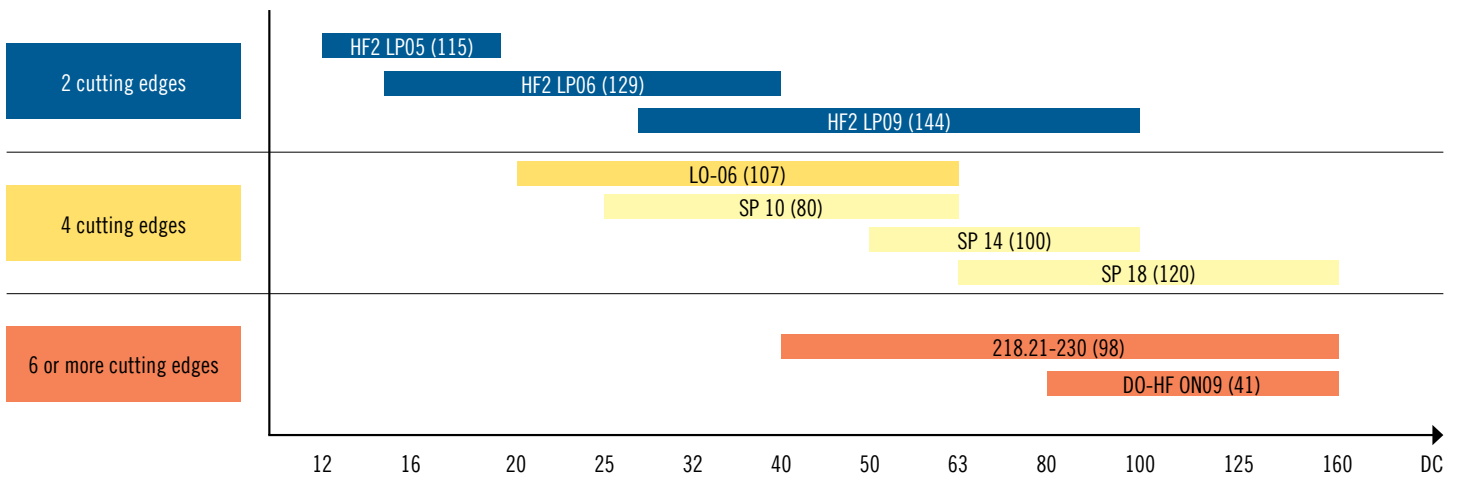


SECO HIGH FEED SP

GET THE TOOL THAT MILLS IT ALL

For challenging ISO P, M and S materials, the Seco High Feed SP features a combination of dedicated cutting geometries and insert grades, as well as optimized lead angles, that combine to boost material removal rates, maximize chip evacuation and extend tool life. Packed with versatility, one High Feed SP tool optimizes copy milling, ramping, pocketing, face milling and plunging operations to reduce tooling inventory further. Designed for ease of use, the milling tools provide simple foolproof insert indexing that prevents operator mistakes, unexpected machine downtime and scrapped parts.

POSITIONING HIGH FEED CUTTERS



Cost per edge index (xx) based on SP14, F40M Price list 2022

INSERT RANGE OVERVIEW

DESIGNATION	IC IN MM	AN IN MM	RE IN MM	S IN MM	CUTTING RAKE IN °	GRADES															
						COATED													UNCOATED		
						MP1501	MP2050	MP2501	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F25M	F30M	F40M
SPKT10T317TN-M10	10,0	11,0	1,7	3,97	13,0 °	■	■	■			■	■	■	■		■					■
SPKT10T317TN-MD12	10,0	11,0	1,7	3,97	5,0 °	■		■	■						■						■
SPKT140523TN-M14	14,0	11,0	2,3	5,56	13,0 °		■	■			■	■	■		■						■
SPKT140523TN-MD16	14,0	11,0	2,3	5,56	5,0 °	■	■	■	■						■						■
SPKT180630TN-M14	18,0	11,0	3,0	6,35	12,0 °	■	■	■							■						■
SPKT180630TN-MD16	18,0	11,0	3,0	6,35	5,0 °	■		■	■						■						■

Please note, that the shown data are just an extract. More products available.
For more information please visit www.secotools.com.





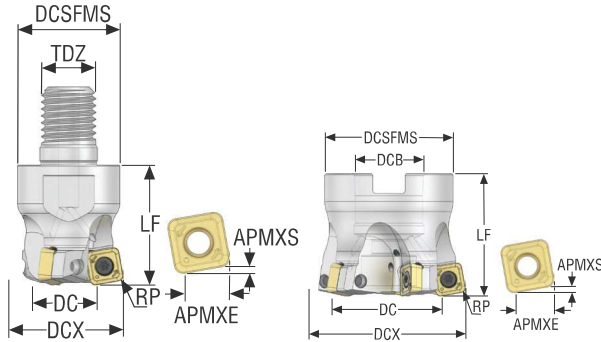
HIGH FEED SP

For challenging ISO P, M and S materials, the Seco High Feed SP features a combination of dedicated cutting geometries and insert grades, as well as optimized lead angles, that combine to boost material removal rates, maximize chip evacuation and extend tool life. Packed with versatility, one High Feed SP tool optimizes copy milling, ramping, pocketing, face milling and plunging operations to reduce tooling inventory further. Designed for ease of use, the milling tools provide simple foolproof insert indexing that prevents operator mistakes, unexpected machine downtime and scrapped parts.

- 3 insert sizes, with IC = 10, 14 & 18mm
- 30 items in metric version, Ø32 to Ø160mm
- 19 items in inch version, Ø01.25 to Ø06.00
- Standard and close pitch
- Well proven SPKT inserts with a range of premium Seco grades optimized for tough materials.

Square shoulder and slot milling cutters
Helical milling cutters
Face milling cutters
Disc milling cutters
High feed milling cutters
Copy milling cutters
Plunge milling cutters
Chamfer milling cutters
Spot facing cutters
Inserts

R217/220.21-SP10 – Metric



- For insert selection and cutting data recommendations, see page(s) 497-499
- For complete insert programme, see page(s) 826
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg		
R217.21-1632.RE-SP10.3A	10097555	Combimaster	15,7	32,0	3	1,1	7,0	–	30,0	35,0	2,83	4,3	47,7	62,0	0,3	21600	SPKT10T317
R217.21-1635.RE-SP10.3A	10097557	Combimaster	18,7	35,0	3	1,1	7,0	–	30,0	35,0	2,8	3,5	53,7	68,0	0,2	20700	SPKT10T317
R217.21-1635.RE-SP10.4A	10097558	Combimaster	18,7	35,0	4	1,1	7,0	–	30,0	35,0	2,8	3,5	53,7	68,0	0,3	20700	SPKT10T317
R217.21-2040.RE-SP10.4A	10097559	Combimaster	23,7	40,0	4	1,1	7,0	–	36,5	40,0	2,79	2,7	63,7	78,0	0,4	19300	SPKT10T317
R217.21-2040.RE-SP10.5A	10097560	Combimaster	23,7	40,0	5	1,1	7,0	–	36,5	40,0	2,79	2,7	63,7	78,0	0,3	19300	SPKT10T317
R217.21-2042.RE-SP10.4A	10097561	Combimaster	25,7	42,0	4	1,1	7,0	–	36,5	40,0	2,8	2,5	67,7	82,0	0,6	18800	SPKT10T317
R217.21-2042.RE-SP10.5A	10097562	Combimaster	25,7	42,0	5	1,1	7,0	–	36,5	40,0	2,8	2,5	67,7	82,0	0,4	18800	SPKT10T317
R220.21-0050-SP10.5A	10097563	Arbor	33,7	50,0	5	1,1	7,0	22,0	41,0	40,0	2,8	1,9	83,7	98,0	0,4	17300	SPKT10T317
R220.21-0050-SP10.6A	10097564	Arbor	33,7	50,0	6	1,1	7,0	22,0	41,0	40,0	2,8	1,9	83,7	98,0	0,4	17300	SPKT10T317
R220.21-0052-SP10.5A	10097565	Arbor	35,7	52,0	5	1,1	7,0	22,0	49,0	40,0	2,8	1,8	87,7	102,0	0,4	17000	SPKT10T317
R220.21-0052-SP10.6A	10097566	Arbor	35,7	52,0	6	1,1	7,0	22,0	49,0	40,0	2,8	1,8	87,7	102,0	0,6	17000	SPKT10T317
R220.21-0063-SP10.6A	10097567	Arbor	46,7	63,0	6	1,1	7,0	22,0	49,0	40,0	2,8	1,3	109,7	124,0	1,0	15800	SPKT10T317
R220.21-0063-SP10.7A	10097568	Arbor	46,7	63,0	7	1,1	7,0	22,0	49,0	40,0	2,8	1,3	109,7	124,0	1,0	15800	SPKT10T317

For Combimaster Shanks, see Machining Navigator Tooling System

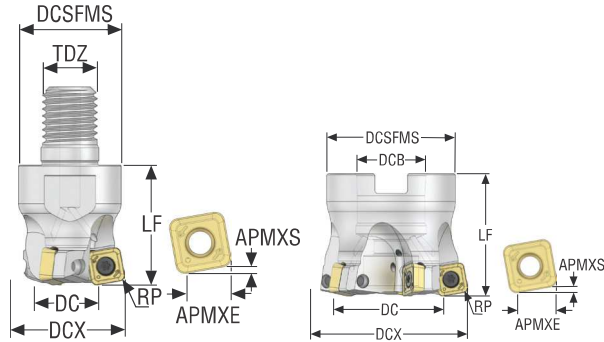
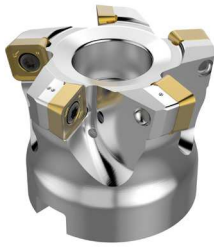
Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Insert clamping torque	Torque key
R217.21-..				
R217.21-2040-2042-4A	–	C03508-T10P	3.0NM	T00-10P30
R217.21-2040-2042-4A	–	C03509-T10P	3.0NM	T00-10P30
R220.21-0050-0063	220.17-692	C03509-T10P	3.0NM	T00-10P30
R220.21-0050-0052-6A	220.17-692	C03508-T10P	3.0NM	T00-10P30

Torque and fixed keys, see page 869

R217/220.21-SP10 – Inch



- For insert selection and cutting data recommendations, see page(s) 497-499
- For complete insert programme, see page(s) 826
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch	lbs		
R217.21-01.25.16RE-SP10.3A	10097569	Combimaster	0.606	1.250	3	0.043	0.276	–	1.181	1.378	0.111	5,6	1.856	2.421	1.100	21600	SPKT10T317
R217.21-01.50.20RE-SP10.4A	10097571	Combimaster	0.858	1.500	4	0.043	0.276	–	1.437	1.575	0.110	3,0	2.358	2.921	1.100	19300	SPKT10T317
R220.21-02.00-SP10.5A	10128666	Arbor	1.358	2.000	5	0.043	0.276	0.750	1.789	1.500	0.110	1,9	3.358	3.921	0.880	17300	SPKT10T317
R220.21-02.00-SP10.6A	10097573	Arbor	1.358	2.000	6	0.043	0.276	0.750	1.789	1.500	0.110	1,9	3.358	3.921	1.320	17300	SPKT10T317
R220.21-02.50-SP10.6A	10128667	Arbor	1.858	2.500	6	0.043	0.276	0.750	1.789	1.500	0.110	1,3	4.358	4.921	1.100	15800	SPKT10T317
R220.21-02.50-SP10.7A	10097574	Arbor	1.858	2.500	7	0.043	0.276	0.750	1.789	1.500	0.110	1,3	4.358	4.921	1.320	15800	SPKT10T317

For Combimaster Shanks, see Machining Navigator Tooling System

Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Insert clamping torque	Torque key
R217.21-..	–	C03508-T10P	26.6IN.LBS	T00-10P30
R220.21-02.00	UC6S3/8UNFX1-1/4	C03508-T10P	26.6IN.LBS	T00-10P30
R220.21-02.50	UC6S3/8UNFX1-1/4	C03509-T10P	26.6IN.LBS	T00-10P30

Torque and fixed keys, see page 869

R220.21-SP10 – Insert selection – mm/Inch

SMG		a _p	f _z		
			100%	70%	30%
P1	SPKT10T317TN-M10 MP2501	1,1	0,80	0,80	0,95
		0,044	0,032	0,032	0,038
P2	SPKT10T317TN-M10 MP2501	1,1	0,80	0,80	0,95
		0,044	0,032	0,032	0,038
P3	SPKT10T317TN-M10 MP2501	1,1	0,80	0,80	0,90
		0,044	0,032	0,032	0,036
P4	SPKT10T317TN-M10 MP2501	1,1	0,75	0,75	0,90
		0,044	0,030	0,030	0,036
P5	SPKT10T317TN-M10 MP2501	1,1	0,75	0,75	0,90
		0,044	0,030	0,030	0,036
P6	SPKT10T317TN-M10 MP2501	1,1	0,75	0,75	0,90
		0,044	0,030	0,030	0,036
P7	SPKT10T317TN-MD12 MP2501	1,1	0,90	0,90	1,1
		0,044	0,036	0,036	0,044
P8	SPKT10T317TN-MD12 MP2501	1,1	0,95	0,95	1,1
		0,044	0,038	0,038	0,044
P11	SPKT10T317TN-MD12 MP2501	1,1	0,90	0,90	1,1
		0,044	0,036	0,036	0,044
P12	SPKT10T317TN-M10 MS2500	0,85	0,50	0,50	0,60
		0,034	0,020	0,020	0,024
M1	SPKT10T317TN-M10 MS2050	1,1	0,80	0,80	0,95
		0,044	0,032	0,032	0,038
M2	SPKT10T317TN-M10 MS2050	1,1	0,75	0,75	0,90
		0,044	0,030	0,030	0,036
M3	SPKT10T317TN-M10 MS2050	0,85	0,60	0,60	0,70
		0,034	0,024	0,024	0,028
M4	SPKT10T317TN-M10 F40M	0,85	0,50	0,50	0,60
		0,034	0,020	0,020	0,024
M5	SPKT10T317TN-M10 F40M	0,85	0,50	0,50	0,60
		0,034	0,020	0,020	0,024
K1	SPKT10T317TN-MD12 MK2050	1,1	1,0	1,0	1,2
		0,044	0,040	0,040	0,048
K2	SPKT10T317TN-MD12 MK2050	1,1	0,90	0,90	1,1
		0,044	0,036	0,036	0,044
K3	SPKT10T317TN-MD12 MK2050	1,1	0,90	0,90	1,1
		0,044	0,036	0,036	0,044
K4	SPKT10T317TN-MD12 MK2050	1,1	0,90	0,90	1,1
		0,044	0,036	0,036	0,044
K5	SPKT10T317TN-MD12 MK2050	1,1	0,80	0,80	0,95
		0,044	0,032	0,032	0,038
K6	SPKT10T317TN-MD12 MK2050	1,1	0,90	0,90	1,1
		0,044	0,036	0,036	0,044
K7	SPKT10T317TN-MD12 MK2050	1,1	0,80	0,80	0,95
		0,044	0,032	0,032	0,038
S1	SPKT10T317TN-M10 MS2500	0,85	0,50	0,50	0,60
		0,034	0,020	0,020	0,024
S2	SPKT10T317TN-M10 MS2500	0,85	0,50	0,50	0,60
		0,034	0,020	0,020	0,024
S3	SPKT10T317TN-M10 MS2500	0,85	0,48	0,48	0,55
		0,034	0,019	0,019	0,022
S11	SPKT10T317TN-M10 MS2050	0,85	0,60	0,60	0,70
		0,034	0,024	0,024	0,028
S12	SPKT10T317TN-M10 MS2050	0,85	0,60	0,60	0,70
		0,034	0,024	0,024	0,028
S13	SPKT10T317TN-M10 MS2050	0,85	0,50	0,50	0,60
		0,034	0,020	0,020	0,024
H5	SPKT10T317TN-MD12 MP1501	0,85	0,60	0,60	0,70
		0,034	0,024	0,024	0,028
H8	SPKT10T317TN-MD12 MP1501	0,85	0,46	0,46	0,55
		0,034	0,018	0,018	0,022
H11	SPKT10T317TN-MD12 MP1501	0,85	0,60	0,60	0,70
		0,034	0,024	0,024	0,028
H12	SPKT10T317TN-M10 MS2500	0,85	0,38	0,38	0,46
		0,034	0,015	0,015	0,018

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_p/DC = %
All cutting data are start values

Square shoulder and slot milling cutters
Helical milling cutters
Face milling cutters
Disc milling cutters
High feed milling cutters
Copy milling cutters
Plunge milling cutters
Chamfer milling cutters
Spot facing cutters
Inserts

R220.21-SP10 – Cutting data $v_c = (m/min)/(sf/min)$

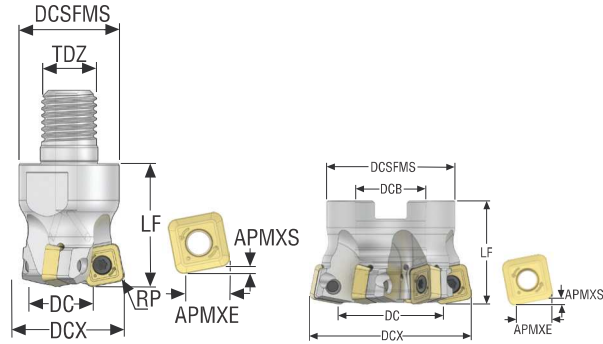
SMG	MP1501			MP2501			MP3000			T350M			F40M		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	325	375	455	320	370	445	275	315	380	280	325	385	245	280	335
	1075	1225	1500	1050	1225	1450	900	1025	1250	920	1075	1275	800	920	1100
P2	310	360	430	315	360	430	260	305	360	270	315	375	235	275	325
	1025	1175	1400	1025	1175	1400	850	1000	1175	890	1025	1225	770	900	1075
P3	275	315	380	270	310	375	230	265	320	235	270	330	205	235	285
	900	1025	1250	890	1025	1225	750	870	1050	770	890	1075	670	770	940
P4	245	285	335	240	280	330	205	235	280	210	245	290	185	210	250
	800	940	1100	790	920	1075	670	770	920	690	800	950	610	690	820
P5	235	270	320	230	265	315	195	225	270	200	230	275	175	200	240
	770	890	1050	750	870	1025	640	740	890	660	750	900	570	660	790
P6	260	305	360	260	300	355	220	255	300	225	260	310	195	225	270
	850	1000	1175	850	980	1175	720	840	980	740	850	1025	640	740	890
P7	245	285	340	245	285	335	205	240	285	210	245	290	185	215	255
	800	940	1125	800	940	1100	670	790	940	690	800	950	610	710	840
P8	230	265	320	225	260	315	190	225	270	195	230	275	170	200	240
	750	870	1050	740	850	1025	620	740	890	640	750	900	560	660	790
P11	240	280	330	235	275	325	200	235	275	205	240	285	180	210	245
	790	920	1075	770	900	1075	660	770	900	670	790	940	590	690	800
P12	155	180	215	155	175	205	130	150	180	135	155	180	115	135	155
	510	590	710	510	570	670	425	490	590	445	510	590	375	445	510
M1	—	—	—	225	260	310	195	225	270	210	245	290	190	220	265
	—	—	—	740	850	1025	640	740	890	690	800	950	620	720	870
M2	—	—	—	185	215	255	165	190	225	175	200	235	155	180	215
	—	—	—	610	710	840	540	620	740	570	660	770	510	590	710
M3	—	—	—	150	170	200	130	150	180	140	160	190	125	145	170
	—	—	—	490	560	660	425	490	590	460	520	620	410	475	560
M4	—	—	—	115	135	155	100	115	140	190	215	255	100	115	135
	—	—	—	375	445	510	330	375	460	620	710	840	330	375	445
M5	—	—	—	95	110	130	85	95	115	190	215	255	80	95	110
	—	—	—	310	360	425	280	310	375	620	710	840	260	310	360
K1	245	285	340	250	285	340	205	240	285	215	250	295	190	215	260
	800	940	1125	820	940	1125	670	790	940	710	820	970	620	710	850
K2	220	255	305	220	255	300	185	215	255	190	220	260	165	190	225
	720	840	1000	720	840	980	610	710	840	620	720	850	540	620	740
K3	185	215	255	185	215	255	150	180	215	160	185	220	140	160	190
	610	710	840	610	710	840	510	590	710	520	610	720	460	520	620
K4	180	205	245	175	205	245	150	175	205	155	180	210	135	155	185
	590	670	800	570	670	800	490	570	670	510	590	690	445	510	610
K5	110	125	150	110	125	150	90	105	125	95	110	130	85	95	115
	360	410	490	360	410	490	295	345	410	310	360	425	280	310	375
K6	155	180	215	155	180	215	130	155	180	135	155	185	120	135	160
	510	590	710	510	590	710	425	510	590	445	510	610	395	445	520
K7	140	165	195	140	160	190	120	135	165	120	140	165	105	125	145
	460	540	640	460	520	620	395	445	540	395	460	540	345	410	475
S1	—	—	—	55	65	75	47	55	65	50	60	70	46	55	60
	—	—	—	180	215	245	155	180	215	165	195	230	150	180	195
S2	—	—	—	45	50	60	38	43	50	41	47	55	37	42	50
	—	—	—	150	165	195	125	140	165	135	155	180	120	140	165
S3	—	—	—	40	45	55	33	38	45	35	41	48	32	37	44
	—	—	—	130	150	180	110	125	150	115	135	155	105	120	145
S11	—	—	—	80	90	105	65	75	90	70	80	95	65	75	85
	—	—	—	260	295	345	215	245	295	230	260	310	215	245	280
S12	—	—	—	55	60	75	46	55	60	48	55	65	44	50	60
	—	—	—	180	195	245	150	180	195	155	180	215	145	165	195
S13	—	—	—	32	36	43	26	30	36	28	33	38	26	30	35
	—	—	—	105	120	140	85	100	120	90	110	125	85	100	115
H5	50	60	70	46	55	65	41	47	55	44	50	60	39	44	50
	165	195	230	150	180	215	135	155	180	145	165	195	130	145	165
H8	55	65	75	49	55	65	43	50	60	47	55	65	41	47	55
	180	215	245	160	180	215	140	165	195	155	180	215	135	155	180
H11	65	75	90	60	70	80	50	60	70	55	65	75	49	55	65
	215	245	295	195	230	260	165	195	230	180	215	245	160	180	215
H12	100	115	135	95	110	130	85	95	115	85	95	115	75	85	100
	330	375	445	310	360	425	280	310	375	280	310	375	245	280	330
H21	55	65	75	49	55	65	43	50	60	47	55	65	41	47	55
	180	215	245	160	180	215	140	165	195	155	180	215	135	155	180

R220.21-SP10 – Cutting data $v_c = (m/min)/(sf/min)$

SMG	MM4500			MK2050			MS2050			MS2500			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	195	230	270	285	330	395	265	310	370	350	405	485	315	365	435
	640	750	890	940	1075	1300	870	1025	1225	1150	1325	1600	1025	1200	1425
P2	190	220	265	270	315	375	260	300	360	340	395	470	305	355	425
	620	720	870	890	1025	1225	850	980	1175	1125	1300	1550	1000	1175	1400
P3	165	190	230	240	275	330	225	260	315	295	340	410	265	305	370
	540	620	750	790	900	1075	740	850	1025	970	1125	1350	870	1000	1225
P4	150	170	205	215	245	290	200	235	275	265	305	360	235	275	325
	490	560	670	710	800	950	660	770	900	870	1000	1175	770	900	1075
P5	140	165	195	205	235	280	190	220	265	250	290	345	225	260	310
	460	540	640	670	770	920	620	720	870	820	950	1125	740	850	1025
P6	160	185	220	230	265	310	215	250	295	280	325	385	255	295	350
	520	610	720	750	870	1025	710	820	970	920	1075	1275	840	970	1150
P7	150	175	205	215	250	295	205	235	280	265	310	365	240	280	330
	490	570	670	710	820	970	670	770	920	870	1025	1200	790	920	1075
P8	140	160	195	200	230	280	190	220	265	245	285	345	220	255	310
	460	520	640	660	750	920	620	720	870	800	940	1125	720	840	1025
P11	145	170	200	210	240	285	195	230	270	260	300	355	235	270	320
	475	560	660	690	790	940	640	750	890	850	980	1175	770	890	1050
P12	95	110	125	135	155	185	130	145	175	165	190	225	150	175	205
	310	360	410	445	510	610	425	475	570	540	620	740	490	570	670
M1	165	190	225	—	—	—	210	245	290	245	285	335	220	255	305
	540	620	740	—	—	—	690	800	950	800	940	1100	720	840	1000
M2	135	155	185	—	—	—	175	200	235	200	235	275	180	210	250
	445	510	610	—	—	—	570	660	770	660	770	900	590	690	820
M3	110	125	145	—	—	—	140	160	190	160	185	220	145	165	195
	360	410	475	—	—	—	460	520	620	520	610	720	475	540	640
M4	85	95	115	—	—	—	110	125	145	125	145	170	115	130	155
	280	310	375	—	—	—	360	410	475	410	475	560	375	425	510
M5	70	80	95	—	—	—	90	105	120	105	120	140	95	110	130
	230	260	310	—	—	—	295	345	395	345	395	460	310	360	425
K1	—	—	—	295	340	405	—	—	—	—	—	—	—	—	—
	—	—	—	970	1125	1325	—	—	—	—	—	—	—	—	—
K2	—	—	—	265	305	360	—	—	—	—	—	—	—	—	—
	—	—	—	870	1000	1175	—	—	—	—	—	—	—	—	—
K3	—	—	—	220	260	305	—	—	—	—	—	—	—	—	—
	—	—	—	720	850	1000	—	—	—	—	—	—	—	—	—
K4	—	—	—	210	245	290	—	—	—	—	—	—	—	—	—
	—	—	—	690	800	950	—	—	—	—	—	—	—	—	—
K5	—	—	—	130	150	180	—	—	—	—	—	—	—	—	—
	—	—	—	425	490	590	—	—	—	—	—	—	—	—	—
K6	—	—	—	185	215	255	—	—	—	—	—	—	—	—	—
	—	—	—	610	710	840	—	—	—	—	—	—	—	—	—
K7	—	—	—	165	195	230	—	—	—	—	—	—	—	—	—
	—	—	—	540	640	750	—	—	—	—	—	—	—	—	—
S1	26	30	35	—	—	—	50	60	70	60	70	85	55	65	75
	85	100	115	—	—	—	165	195	230	195	230	280	180	215	245
S2	21	24	28	—	—	—	41	47	55	50	55	65	45	50	60
	70	80	90	—	—	—	135	155	180	165	180	215	150	165	195
S3	18	21	25	—	—	—	35	41	48	43	49	60	39	45	55
	60	70	80	—	—	—	115	135	155	140	160	195	130	150	180
S11	36	41	49	—	—	—	70	80	95	85	95	115	75	85	105
	120	135	160	—	—	—	230	260	310	280	310	375	245	280	345
S12	33	38	45	—	—	—	48	55	65	60	65	80	55	60	70
	110	125	150	—	—	—	155	180	215	195	215	260	180	195	230
S13	19	22	26	—	—	—	28	33	38	35	40	47	31	36	42
	60	70	85	—	—	—	90	110	125	115	130	155	100	120	140
H5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—	—	—	—	55	65	80
	—	—	—	—	—	—	—	—	—	—	—	—	180	215	260
H12	—	—	—	—	—	—	—	—	—	105	120	145	95	110	130
	—	—	—	—	—	—	—	—	—	345	395	475	310	360	425
H21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Square shoulder and slot milling cutters
Helical milling cutters
Face milling cutters
Disc milling cutters
High feed milling cutters
Copy milling cutters
Plunge milling cutters
Chamfer milling cutters
Spot facing cutters
Inserts

R217/220.21-SP14 – Metric



- For insert selection and cutting data recommendations, see page(s) 502-504
- For complete insert programme, see page(s) 826
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX*	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	kg		
R217.21-2040.RE-SP14.3A	10135958	Combimaster	17,0	40,0	3	1,8	10,0	–	36,5	45,0	4,06	2,9	57,0	78,0	0,4	11900	SPKT140523
R220.21-0050-SP14.4A	10068147	Arbor	27,1	50,0	4	1,8	10,0	22,0	41,0	40,0	4,02	3,5	77,1	98,0	0,3	10700	SPKT140523
R220.21-0050-SP14.5A	10068148	Arbor	27,1	50,0	5	1,8	10,0	22,0	41,0	40,0	4,04	1,8	77,1	98,0	0,5	10700	SPKT140523
R220.21-0052-SP14.4A	10068149	Arbor	29,1	52,0	4	1,8	10,0	22,0	49,0	40,0	4,02	3,2	81,1	102,0	0,3	10500	SPKT140523
R220.21-0052-SP14.5A	10101535	Arbor	29,1	52,0	5	1,8	10,0	22,0	49,0	40,0	4,02	3,2	81,1	102,0	0,7	10500	SPKT140523
R220.21-0063-SP14.5A	10068150	Arbor	40,1	63,0	5	1,8	10,0	27,0	49,0	50,0	4,01	2,3	103,1	124,0	0,4	9600	SPKT140523
R220.21-0063-SP14.6A	10068151	Arbor	40,1	63,0	6	1,8	10,0	27,0	49,0	50,0	4,01	2,3	103,1	124,0	0,5	9600	SPKT140523
R220.21-0066-SP14.5A	10068152	Arbor	43,0	66,0	5	1,8	10,0	27,0	61,0	50,0	4,02	2,1	109,0	130,0	0,7	9400	SPKT140523
R220.21-0066-SP14.6A	10101540	Arbor	43,0	66,0	6	1,8	10,0	27,0	61,0	50,0	4,02	2,1	109,0	130,0	0,5	9400	SPKT140523
R220.21-0080-SP14.6A	10068154	Arbor	57,0	80,0	6	1,8	10,0	27,0	61,0	50,0	4,01	1,6	137,0	158,0	0,5	8500	SPKT140523
R220.21-0080-SP14.7A	10068155	Arbor	57,0	80,0	7	1,8	10,0	27,0	61,0	50,0	4,01	1,6	137,0	158,0	0,6	8500	SPKT140523
R220.21-0084-SP14.6A	10068156	Arbor	61,0	84,0	6	1,8	10,0	32,0	79,0	50,0	4,01	1,5	145,0	166,0	0,9	8300	SPKT140523
R220.21-0100-SP14.8A	10068157	Arbor	77,0	100,0	8	1,8	10,0	32,0	79,0	50,0	4,01	1,2	177,0	198,0	0,5	7600	SPKT140523
R220.21-0125-SP14.9A	10132522	Arbor	102,0	125,0	9	1,8	10,0	40,0	90,0	63,0	4,0	0,9	227,0	248,0	3,2	6800	SPKT140523

For Combimaster Shanks, see Machining Navigator Tooling System

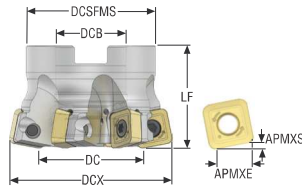
Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Insert clamping torque	Torque key
R217.21-..	–	C45011-T20P	5.0NM	T00-20P50
R220.21-0050-0052	220.17-692M	C45011-T20P	5.0NM	T00-20P50
R220.21-0063	MLC6S12X30	C45011-T20P	5.0NM	T00-20P50
R220.21-0066-0080	MC6S12X40	C45011-T20P	5.0NM	T00-20P50
R220.21-0084-0100	MLC6S16X35	C45011-T20P	5.0NM	T00-20P50
R220.21-0125	MC6S20X50	C45011-T20P	5.0NM	T00-20P50

Torque and fixed keys, see page 869

R220.21-SP14 – inch

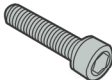




- For insert selection and cutting data recommendations, see page(s) 502-504
- For complete insert programme, see page(s) 826
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch	lbs		
R220.21-02.00-SP14.4A	10068158	Arbor	1.098	2.000	4	0.071	0.394	0.750	1.789	1.500	0.158	3,3	3.098	3.921	1.540	10700	SPKT140523
R220.21-02.00-SP14.5A	10068159	Arbor	1.098	2.000	5	0.071	0.394	0.750	1.789	1.500	0.158	3,3	3.098	3.921	1.100	10700	SPKT140523
R220.21-02.50-SP14.5A	10068160	Arbor	1.594	2.500	5	0.071	0.394	0.750	1.789	1.500	0.158	2,2	4.094	4.921	1.100	9600	SPKT140523
R220.21-02.50-SP14.6A	10068161	Arbor	1.594	2.500	6	0.071	0.394	0.750	1.789	1.500	0.158	2,2	4.094	4.921	1.100	9600	SPKT140523
R220.21-03.00-SP14.6A	10068162	Arbor	2.094	3.000	6	0.071	0.394	1.000	2.289	2.000	0.158	1,7	4.583	5.921	1.320	8500	SPKT140523
R220.21-03.00-SP14.7A	10068163	Arbor	2.094	3.000	7	0.071	0.394	1.000	2.289	2.000	0.158	1,7	4.583	5.921	1.100	8500	SPKT140523
R220.21-04.00-SP14.8A	10068164	Arbor	3.094	4.000	8	0.071	0.394	1.500	3.539	2.000	0.158	1,2	7.094	7.921	1.100	7600	SPKT140523

Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Insert clamping torque	Torque key
R220.21-02.00-02.50	 UC6S3/8UNFX1-1/4	 C45011-T20P	 44.3IN.LBS	 T00-20P50
R220.21-03.00	UC6S1/2UNFX1-1/2	C45011-T20P	44.3IN.LBS	T00-20P50
R220.21-04.00	ULC6S3/4UNFX11/2	C45011-T20P	44.3IN.LBS	T00-20P50

Torque and fixed keys, see page 869

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

Plunge milling cutters

Chamfer milling cutters

Spot facing cutters

Inserts

R220.21-SP14 – Insert selection – mm/Inch

SMG		a_p	f_z		
			100%	70%	30%
P1	SPKT140523TN-M14 MP2501	1,8	1,1	1,1	1,3
		0,070	0,044	0,044	0,050
P2	SPKT140523TN-M14 MP2501	1,8	1,1	1,1	1,3
		0,070	0,044	0,044	0,050
P3	SPKT140523TN-M14 MP2501	1,8	1,0	1,0	1,2
		0,070	0,040	0,040	0,048
P4	SPKT140523TN-M14 MP2501	1,8	1,0	1,0	1,2
		0,070	0,040	0,040	0,048
P5	SPKT140523TN-M14 MP2501	1,8	1,0	1,0	1,2
		0,070	0,040	0,040	0,048
P6	SPKT140523TN-M14 MP2501	1,8	1,0	1,0	1,2
		0,070	0,040	0,040	0,048
P7	SPKT140523TN-MD16 MP2501	1,8	1,1	1,1	1,4
		0,070	0,044	0,044	0,055
P8	SPKT140523TN-MD16 MP2501	1,8	1,2	1,2	1,4
		0,070	0,048	0,048	0,055
P11	SPKT140523TN-MD16 MP2501	1,8	1,1	1,1	1,4
		0,070	0,044	0,044	0,055
P12	SPKT140523TN-M14 MS2500	1,4	0,70	0,70	0,80
		0,055	0,028	0,028	0,032
M1	SPKT140523TN-M14 MS2050	1,8	1,1	1,1	1,3
		0,070	0,044	0,044	0,050
M2	SPKT140523TN-M14 MS2050	1,8	1,0	1,0	1,2
		0,070	0,040	0,040	0,048
M3	SPKT140523TN-M14 MS2050	1,4	0,80	0,80	0,95
		0,055	0,032	0,032	0,038
M4	SPKT140523TN-M14 F40M	1,4	0,70	0,70	0,85
		0,055	0,028	0,028	0,034
M5	SPKT140523TN-M14 F40M	1,4	0,70	0,70	0,85
		0,055	0,028	0,028	0,034
K1	SPKT140523TN-MD16 MK2050	1,8	1,2	1,2	1,5
		0,070	0,048	0,048	0,060
K2	SPKT140523TN-MD16 MK2050	1,8	1,1	1,1	1,4
		0,070	0,044	0,044	0,055
K3	SPKT140523TN-MD16 MK2050	1,8	1,1	1,1	1,4
		0,070	0,044	0,044	0,055
K4	SPKT140523TN-MD16 MK2050	1,8	1,1	1,1	1,4
		0,070	0,044	0,044	0,055
K5	SPKT140523TN-MD16 MK2050	1,8	1,0	1,0	1,2
		0,070	0,040	0,040	0,048
K6	SPKT140523TN-MD16 MK2050	1,8	1,1	1,1	1,4
		0,070	0,044	0,044	0,055
K7	SPKT140523TN-MD16 MK2050	1,8	1,0	1,0	1,2
		0,070	0,040	0,040	0,048
S1	SPKT140523TN-M14 MS2500	1,4	0,70	0,70	0,85
		0,055	0,028	0,028	0,034
S2	SPKT140523TN-M14 MS2500	1,4	0,70	0,70	0,85
		0,055	0,028	0,028	0,034
S3	SPKT140523TN-M14 MS2500	1,4	0,65	0,65	0,75
		0,055	0,026	0,026	0,030
S11	SPKT140523TN-M14 MS2050	1,4	0,80	0,80	0,95
		0,055	0,032	0,032	0,038
S12	SPKT140523TN-M14 MS2050	1,4	0,80	0,80	0,95
		0,055	0,032	0,032	0,038
S13	SPKT140523TN-M14 MS2050	1,4	0,70	0,70	0,85
		0,055	0,028	0,028	0,034
H5	SPKT140523TN-MD16 MP1501	1,4	0,75	0,75	0,90
		0,055	0,030	0,030	0,036
H8	SPKT140523TN-MD16 MP1501	1,4	0,60	0,60	0,70
		0,055	0,024	0,024	0,028
H11	SPKT140523TN-MD16 MP1501	1,4	0,75	0,75	0,90
		0,055	0,030	0,030	0,036
H12	SPKT140523TN-M14 MS2500	1,4	0,50	0,50	0,60
		0,055	0,020	0,020	0,024

SMG = Seco material group
 f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_p/DC = %
 All cutting data are start values

R220.21-SP14 – Cutting data $v_c = (m/min)/(sf/min)$

SMG	MP1501			MP2501			MP3000			T350M			F40M		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	300	350	410	290	335	405	250	295	345	250	295	350	220	255	305
	980	1150	1350	950	1100	1325	820	970	1125	820	970	1150	720	840	1000
P2	290	340	400	280	330	395	245	285	335	245	285	340	210	250	300
	950	1125	1300	920	1075	1300	800	940	1100	800	940	1125	690	820	980
P3	250	290	350	250	290	345	210	245	295	215	255	300	190	220	260
	820	950	1150	820	950	1125	690	800	970	710	840	980	620	720	850
P4	220	255	310	220	255	305	185	215	260	190	225	265	165	195	230
	720	840	1025	720	840	1000	610	710	850	620	740	870	540	640	750
P5	215	255	295	210	245	290	180	210	250	180	215	255	160	185	220
	710	840	970	690	800	950	590	690	820	590	710	840	520	610	720
P6	240	285	335	235	275	325	205	240	280	205	240	285	175	210	250
	790	940	1100	770	900	1075	670	790	920	670	790	940	570	690	820
P7	230	270	315	220	260	310	190	225	265	195	225	270	165	195	235
	750	890	1025	720	850	1025	620	740	870	640	740	890	540	640	770
P8	210	245	295	210	245	290	175	205	250	180	215	255	160	185	220
	690	800	970	690	800	950	570	670	820	590	710	840	520	610	720
P11	220	260	305	215	250	300	185	220	255	185	220	260	165	190	225
	720	850	1000	710	820	980	610	720	840	610	720	850	540	620	740
P12	145	170	200	140	160	200	120	140	165	120	140	175	105	120	150
	475	560	660	460	520	660	395	460	540	395	460	570	345	395	490
M1	—	—	—	200	235	285	180	215	250	190	220	265	170	200	240
	—	—	—	660	770	940	590	710	820	620	720	870	560	660	790
M2	—	—	—	170	195	235	150	175	210	155	185	220	140	165	200
	—	—	—	560	640	770	490	570	690	510	610	720	460	540	660
M3	—	—	—	135	155	190	120	140	165	125	145	180	115	130	160
	—	—	—	445	510	620	395	460	540	410	475	590	375	425	520
M4	—	—	—	105	120	150	95	110	130	170	195	240	90	105	125
	—	—	—	345	395	490	310	360	425	560	640	790	295	345	410
M5	—	—	—	90	100	125	80	90	110	170	195	240	75	85	105
	—	—	—	295	330	410	260	295	360	560	640	790	245	280	345
K1	230	270	315	220	260	310	195	225	265	195	225	270	170	195	235
	750	890	1025	720	850	1025	640	740	870	640	740	890	560	640	770
K2	205	240	280	200	230	275	170	200	235	175	200	240	150	175	210
	670	790	920	660	750	900	560	660	770	570	660	790	490	570	690
K3	175	205	240	170	195	235	145	170	200	145	170	205	125	150	175
	570	670	790	560	640	770	475	560	660	475	560	670	410	490	570
K4	165	195	225	160	185	225	140	165	190	140	165	195	120	140	170
	540	640	740	520	610	740	460	540	620	460	540	640	395	460	560
K5	100	120	140	100	115	135	85	100	120	85	100	120	75	85	105
	330	395	460	330	375	445	280	330	395	280	330	395	245	280	345
K6	145	170	200	140	165	195	120	145	170	125	145	170	105	125	150
	475	560	660	460	540	640	395	475	560	410	475	560	345	410	490
K7	130	150	180	125	145	175	110	130	150	110	130	150	95	110	130
	425	490	590	410	475	570	360	425	490	360	425	490	310	360	425
S1	—	—	—	50	60	70	44	50	60	46	55	65	42	48	60
	—	—	—	165	195	230	145	165	195	150	180	215	140	155	195
S2	—	—	—	41	48	60	35	41	49	37	43	50	33	39	47
	—	—	—	135	155	195	115	135	160	120	140	165	110	130	155
S3	—	—	—	36	42	50	31	36	43	32	37	46	29	34	42
	—	—	—	120	140	165	100	120	140	105	120	150	95	110	140
S11	—	—	—	70	80	100	60	70	85	65	75	90	60	65	80
	—	—	—	230	260	330	195	230	280	215	245	295	195	215	260
S12	—	—	—	49	55	70	42	49	60	44	50	60	40	46	55
	—	—	—	160	180	230	140	160	195	145	165	195	130	150	180
S13	—	—	—	29	33	40	25	28	34	26	30	36	23	27	33
	—	—	—	95	110	130	80	90	110	85	100	120	75	90	110
H5	48	55	65	42	48	60	38	44	50	40	46	55	35	40	50
	155	180	215	140	155	195	125	145	165	130	150	180	115	130	165
H8	50	60	70	46	55	65	40	47	55	44	50	60	38	44	55
	165	195	230	150	180	215	130	155	180	145	165	195	125	145	180
H11	60	70	85	55	60	75	48	55	65	50	60	75	44	50	65
	195	230	280	180	195	245	155	180	215	165	195	245	145	165	215
H12	90	105	125	90	105	125	75	90	105	80	90	110	70	80	95
	295	345	410	295	345	410	245	295	345	260	295	360	230	260	310
H21	50	60	70	46	55	65	40	47	55	44	50	60	38	44	55
	165	195	230	150	180	215	130	155	180	145	165	195	125	145	180

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

Plunge milling cutters

Chamfer milling cutters

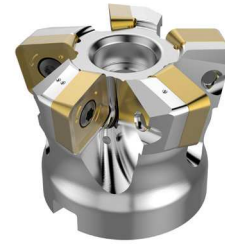
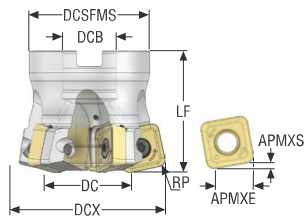
Spot facing cutters

Inserts

R220.21-SP14 – Cutting data $v_c = (m/min)/(sf/min)$

SMG	MM4500			MK2050			MS2050			MS2500			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	175	205	250	285	330	400	240	280	335	315	365	440	280	330	395
	570	670	820	940	1075	1300	790	920	1100	1025	1200	1450	920	1075	1300
P2	170	200	240	275	325	385	235	275	330	305	360	430	275	320	385
	560	660	790	900	1075	1275	770	900	1075	1000	1175	1400	900	1050	1275
P3	150	180	215	245	285	340	205	240	290	270	315	380	245	285	340
	490	590	710	800	940	1125	670	790	950	890	1025	1250	800	940	1125
P4	135	155	185	215	250	300	180	215	255	240	280	335	215	250	300
	445	510	610	710	820	980	590	710	840	790	920	1100	710	820	980
P5	130	150	180	205	240	285	175	205	245	230	265	320	205	240	285
	425	490	590	670	790	940	570	670	800	750	870	1050	670	790	940
P6	145	170	200	230	270	320	195	230	275	255	300	355	230	270	320
	475	560	660	750	890	1050	640	750	900	840	980	1175	750	890	1050
P7	135	160	190	220	255	305	185	215	255	240	280	335	215	255	305
	445	520	620	720	840	1000	610	710	840	790	920	1100	710	840	1000
P8	130	150	180	205	240	285	175	205	245	230	265	320	205	240	285
	425	490	590	670	790	940	570	670	800	750	870	1050	670	790	940
P11	130	155	185	210	250	295	180	210	250	235	275	325	210	245	295
	425	510	610	690	820	970	590	690	820	770	900	1075	690	800	970
P12	85	100	120	135	160	195	115	135	165	150	175	215	135	155	195
	280	330	395	445	520	640	375	445	540	490	570	710	445	510	640
M1	145	175	205	—	—	—	190	220	265	220	255	305	195	230	275
	475	570	670	—	—	—	620	720	870	720	840	1000	640	750	900
M2	125	145	170	—	—	—	155	185	220	180	215	255	165	190	230
	410	475	560	—	—	—	510	610	720	590	710	840	540	620	750
M3	100	115	140	—	—	—	125	145	180	145	170	205	130	150	185
	330	375	460	—	—	—	410	475	590	475	560	670	425	490	610
M4	75	90	110	—	—	—	100	115	140	115	130	160	105	120	145
	245	295	360	—	—	—	330	375	460	375	425	520	345	395	475
M5	65	75	90	—	—	—	80	95	115	95	110	135	85	100	120
	215	245	295	—	—	—	260	310	375	310	360	445	280	330	395
K1	—	—	—	295	350	420	—	—	—	—	—	—	220	255	305
	—	—	—	970	1150	1375	—	—	—	—	—	—	720	840	1000
K2	—	—	—	265	310	370	—	—	—	—	—	—	195	230	270
	—	—	—	870	1025	1225	—	—	—	—	—	—	640	750	890
K3	—	—	—	225	265	315	—	—	—	—	—	—	165	195	230
	—	—	—	740	870	1025	—	—	—	—	—	—	540	640	750
K4	—	—	—	215	250	300	—	—	—	—	—	—	155	185	220
	—	—	—	710	820	980	—	—	—	—	—	—	510	610	720
K5	—	—	—	130	155	185	—	—	—	—	—	—	95	115	135
	—	—	—	425	510	610	—	—	—	—	—	—	310	375	445
K6	—	—	—	190	220	265	—	—	—	—	—	—	140	160	195
	—	—	—	620	720	870	—	—	—	—	—	—	460	520	640
K7	—	—	—	170	200	235	—	—	—	—	—	—	125	145	170
	—	—	—	560	660	770	—	—	—	—	—	—	410	475	560
S1	23	27	33	—	—	—	46	55	65	55	65	80	50	60	70
	75	90	110	—	—	—	150	180	215	180	215	260	165	195	230
S2	19	22	27	—	—	—	37	43	50	45	50	65	40	47	55
	60	70	90	—	—	—	120	140	165	150	165	215	130	155	180
S3	17	19	24	—	—	—	32	37	46	39	46	55	36	41	50
	55	60	80	—	—	—	105	120	150	130	150	180	120	135	165
S11	33	38	46	—	—	—	65	75	90	75	90	110	70	80	100
	110	125	150	—	—	—	215	245	295	245	295	360	230	260	330
S12	30	35	43	—	—	—	44	50	60	55	60	75	48	55	70
	100	115	140	—	—	—	145	165	195	180	195	245	155	180	230
S13	18	20	25	—	—	—	26	30	36	31	36	44	28	33	40
	60	65	80	—	—	—	85	100	120	100	120	145	90	110	130
H5	—	—	—	—	—	—	—	—	—	—	—	—	41	47	60
	—	—	—	—	—	—	—	—	—	—	—	—	135	155	195
H8	—	—	—	—	—	—	—	—	—	—	—	—	45	50	65
	—	—	—	—	—	—	—	—	—	—	—	—	150	165	215
H11	—	—	—	—	—	—	—	—	—	—	—	—	50	60	75
	—	—	—	—	—	—	—	—	—	—	—	—	165	195	245
H12	—	—	—	—	—	—	—	—	—	100	115	140	90	105	125
	—	—	—	—	—	—	—	—	—	330	375	460	295	345	410
H21	—	—	—	—	—	—	—	—	—	—	—	—	45	50	65
	—	—	—	—	—	—	—	—	—	—	—	—	150	165	215

R220.21-SP18 – Metric



- For insert selection and cutting data recommendations, see page(s) 507-509
- For complete insert programme, see page(s) 826
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZEFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	Cmin	Cmax	Weight	RPMX	Insert
			mm	mm		mm	mm	mm	mm	mm	mm		mm	mm	kg		
R220.21-0063-SP18.5A	10097579	Arbor	33,7	63,0	5	2,5	14,0	22,0	49,0	50,0	5,41	2,4	96,7	124,0	1,0	5800	SPKT180630
R220.21-0066-SP18.5A	10097580	Arbor	36,7	66,0	5	2,5	14,0	27,0	61,0	55,0	5,4	3,4	102,7	130,0	0,9	5700	SPKT180630
R220.21-0080-SP18.5A	10097581	Arbor	50,7	80,0	5	2,5	14,0	27,0	61,0	50,0	5,4	2,4	130,7	158,0	0,5	5100	SPKT180630
R220.21-0080-SP18.6A	10097582	Arbor	50,7	80,0	6	2,5	14,0	27,0	61,0	50,0	5,4	2,4	130,7	158,0	1,4	5100	SPKT180630
R220.21-0100-SP18.7A	10097583	Arbor	70,7	100,0	7	2,5	14,0	32,0	79,0	50,0	5,39	1,7	170,7	198,0	0,5	4500	SPKT180630
R220.21-0125-SP18.8A	10097584	Arbor	95,6	125,0	8	2,5	14,0	40,0	90,0	63,0	5,39	1,2	220,6	248,0	2,0	4000	SPKT180630
R220.21-8160-SP18.10A	10097585	Arbor	130,6	160,0	10	2,5	14,0	40,0	90,0	63,0	5,39	0,9	290,6	318,0	1,4	3600	SPKT180630

Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Lid	Lid screw	Arbor screw	Insert clamping torque	Torque key
R220.21-0063	MLC6S10X45	C05013-T20P	–	–	–	5.0NM	T00-20P50
R220.21-0066	MLC6S12X50	C05013-T20P	–	–	–	5.0NM	T00-20P50
R220.21-0080	MC6S12X40	C05013-T20P	–	–	–	5.0NM	T00-20P50
R220.21-0100	MLC6S16X35	C05013-T20P	–	–	–	5.0NM	T00-20P50
R220.21-0125	MC6S20X50	C05013-T20P	–	–	–	5.0NM	T00-20P50
R220.21-8160	–	C05013-T20P	SC160-53	MF6S4X10	MC6S12X40	5.0NM	T00-20P50

Torque and fixed keys, see page 869

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

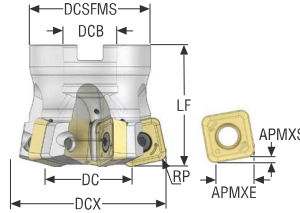
Plunge milling cutters

Chamfer milling cutters

Spot facing cutters

Inserts

R220.21-SP18 – inch



- For insert selection and cutting data recommendations, see page(s) 507-509
- For complete insert programme, see page(s) 826
- For ISO attribute explanation, see page 16

Designation	Item number	Type of mounting	DC	DCX	ZFP	APMXS	APMXE	DCB	DCSFMS	LF	RP	RMPX°	C min	C max	Weight	RPMX	Insert
			inch	inch		inch	inch	inch	inch	inch	inch		inch	inch	lbs		
R220.21-02.50-SP18.5A	10097586	Arbor	1.346	2.500	5	0.098	0.551	0.750	1.789	2.000	0.213	3,7	3.846	4.921	1.320	5800	SPKT180630
R220.21-03.00-SP18.5A	10128670	Arbor	1.846	3.000	5	0.098	0.551	1.000	2.289	2.000	0.213	2,6	4.846	5.921	1.980	5100	SPKT180630
R220.21-03.00-SP18.6A	10097587	Arbor	1.846	3.000	6	0.098	0.551	1.000	2.289	2.000	0.213	2,6	4.846	5.921	1.980	5100	SPKT180630
R220.21-04.00-SP18.7A	10097588	Arbor	2.846	4.000	7	0.098	0.551	1.500	3.539	2.000	0.212	1,7	6.846	7.921	1.320	4500	SPKT180630
R220.21-05.00-SP18.8A	10097589	Arbor	3.843	5.000	8	0.098	0.551	1.500	3.539	2.500	0.212	1,2	8.843	9.921	6.610	4000	SPKT180630
R220.21-06.00-SP18.10A	10097590	Arbor	4.843	6.000	10	0.098	0.551	2.000	4.909	2.500	0.212	1,0	10.843	11.921	8.160	3700	SPKT180630

Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Insert clamping torque	Lid	Lid Screw	Torque key
R220.21-02.50	 UC6S3/8UNFX11/2	 C05013-T20P	 44.3IN.LBS	 –	 –	 T00-20P50
R220.21-03.00	 UC6S1/2UNFX1-1/2	 C05013-T20P	 44.3IN.LBS	 –	 –	 T00-20P50
R220.21-04.00	 ULC6S3/4UNFX11/2	 C05013-T20P	 44.3IN.LBS	 –	 –	 T00-20P50
R220.21-05.00	 UC6S3/4UNFX2	 C05013-T20P	 44.3IN.LBS	 –	 –	 T00-20P50
R220.21-06.00	 –	 C05013-T20P	 44.3IN.LBS	 SC-160-90	 MF6S4X10	 T00-20P50

Torque and fixed keys, see page 869

R220.21-SP18 – Insert selection – mm/Inch

SMG		a _p	f _z		
			100%	70%	30%
P1	SPKT180630TN-M14 MP2501	2,5	1,0	1,0	1,2
		0,10	0,040	0,040	0,048
P2	SPKT180630TN-M14 MP2501	2,5	1,0	1,0	1,2
		0,10	0,040	0,040	0,048
P3	SPKT180630TN-M14 MP2501	2,5	0,95	0,95	1,1
		0,10	0,038	0,038	0,044
P4	SPKT180630TN-M14 MP2501	2,5	0,95	0,95	1,1
		0,10	0,038	0,038	0,044
P5	SPKT180630TN-M14 MP2501	2,5	0,90	0,90	1,1
		0,10	0,036	0,036	0,044
P6	SPKT180630TN-M14 MP2501	2,5	0,90	0,90	1,1
		0,10	0,036	0,036	0,044
P7	SPKT180630TN-MD16 MP2501	2,5	1,0	1,0	1,2
		0,10	0,040	0,040	0,048
P8	SPKT180630TN-MD16 MP2501	2,5	1,1	1,1	1,3
		0,10	0,044	0,044	0,050
P11	SPKT180630TN-MD16 MP2501	2,5	1,0	1,0	1,2
		0,10	0,040	0,040	0,048
P12	SPKT180630TN-M14 MS2500	2,0	0,65	0,65	0,70
		0,075	0,026	0,026	0,028
M1	SPKT180630TN-M14 MS2050	2,5	1,0	1,0	1,2
		0,10	0,040	0,040	0,048
M2	SPKT180630TN-M14 MS2050	2,5	0,90	0,90	1,1
		0,10	0,036	0,036	0,044
M3	SPKT180630TN-M14 MS2050	2,0	0,75	0,75	0,85
		0,075	0,030	0,030	0,034
M4	SPKT180630TN-M14 F40M	2,0	0,65	0,65	0,75
		0,075	0,026	0,026	0,030
M5	SPKT180630TN-M14 F40M	2,0	0,65	0,65	0,75
		0,075	0,026	0,026	0,030
K1	SPKT180630TN-MD16 MK2050	2,5	1,2	1,2	1,3
		0,10	0,048	0,048	0,050
K2	SPKT180630TN-MD16 MK2050	2,5	1,0	1,0	1,2
		0,10	0,040	0,040	0,048
K3	SPKT180630TN-MD16 MK2050	2,5	1,0	1,0	1,2
		0,10	0,040	0,040	0,048
K4	SPKT180630TN-MD16 MK2050	2,5	1,0	1,0	1,2
		0,10	0,040	0,040	0,048
K5	SPKT180630TN-MD16 MK2050	2,5	0,95	0,95	1,1
		0,10	0,038	0,038	0,044
K6	SPKT180630TN-MD16 MK2050	2,5	1,0	1,0	1,2
		0,10	0,040	0,040	0,048
K7	SPKT180630TN-MD16 MK2050	2,5	0,95	0,95	1,1
		0,10	0,038	0,038	0,044
S1	SPKT180630TN-M14 MS2500	2,0	0,65	0,65	0,75
		0,075	0,026	0,026	0,030
S2	SPKT180630TN-M14 MS2500	2,0	0,65	0,65	0,75
		0,075	0,026	0,026	0,030
S3	SPKT180630TN-M14 MS2500	2,0	0,60	0,60	0,70
		0,075	0,024	0,024	0,028
S11	SPKT180630TN-M14 MS2050	2,0	0,75	0,75	0,85
		0,075	0,030	0,030	0,034
S12	SPKT180630TN-M14 MS2050	2,0	0,75	0,75	0,85
		0,075	0,030	0,030	0,034
S13	SPKT180630TN-M14 MS2050	2,0	0,65	0,65	0,75
		0,075	0,026	0,026	0,030
H5	SPKT180630TN-MD16 MP1501	2,0	0,70	0,70	0,85
		0,075	0,028	0,028	0,034
H8	SPKT180630TN-MD16 MP1501	2,0	0,55	0,55	0,65
		0,075	0,022	0,022	0,026
H11	SPKT180630TN-MD16 MP1501	2,0	0,70	0,70	0,85
		0,075	0,028	0,028	0,034
H12	SPKT180630TN-M14 MS2500	2,0	0,48	0,48	0,55
		0,075	0,019	0,019	0,022

SMG = Seco material group
f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_p/DC = %
All cutting data are start values

Square shoulder and slot milling cutters
Helical milling cutters
Face milling cutters
Disc milling cutters
High feed milling cutters
Copy milling cutters
Plunge milling cutters
Chamfer milling cutters
Spot facing cutters
Inserts

R220.21-SP18 – Cutting data $v_c = (m/min)/(sf/min)$

SMG	MP1501			MP2501			MP3000			T350M			F40M		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	285	325	395	275	315	375	240	275	330	240	275	325	205	240	285
	940	1075	1300	900	1025	1225	790	900	1075	790	900	1075	670	790	940
P2	270	310	380	265	305	365	225	260	320	230	265	320	200	230	275
	890	1025	1250	870	1000	1200	740	850	1050	750	870	1050	660	750	900
P3	240	275	330	235	270	325	200	230	275	205	235	280	175	205	245
	790	900	1075	770	890	1075	660	750	900	670	770	920	570	670	800
P4	210	240	290	205	235	285	175	200	245	180	205	250	155	180	215
	690	790	950	670	770	940	570	660	800	590	670	820	510	590	710
P5	205	235	285	200	230	270	175	200	240	175	200	235	150	175	205
	670	770	940	660	750	890	570	660	790	570	660	770	490	570	670
P6	230	265	320	225	255	305	195	225	265	195	225	265	170	195	230
	750	870	1050	740	840	1000	640	740	870	640	740	870	560	640	750
P7	220	250	300	210	240	285	185	210	250	185	210	250	160	185	220
	720	820	980	690	790	940	610	690	820	610	690	820	520	610	720
P8	200	230	275	195	225	270	170	195	230	170	195	235	150	170	205
	660	750	900	640	740	890	560	640	750	560	640	770	490	560	670
P11	215	245	290	205	235	280	180	205	245	180	205	245	155	180	210
	710	800	950	670	770	920	590	670	800	590	670	800	510	590	690
P12	140	155	185	130	150	185	115	130	155	115	130	160	100	115	140
	460	510	610	425	490	610	375	425	510	375	425	520	330	375	460
M1	—	—	—	190	220	265	170	195	240	180	205	245	165	185	225
	—	—	—	620	720	870	560	640	790	590	670	800	540	610	740
M2	—	—	—	160	185	220	145	165	200	150	170	205	135	155	185
	—	—	—	520	610	720	475	540	660	490	560	670	445	510	610
M3	—	—	—	130	145	175	115	130	160	120	135	165	110	125	150
	—	—	—	425	475	570	375	425	520	395	445	540	360	410	490
M4	—	—	—	100	115	135	90	100	125	160	185	220	85	95	115
	—	—	—	330	375	445	295	330	410	520	610	720	280	310	375
M5	—	—	—	85	95	115	75	85	100	160	185	220	70	80	95
	—	—	—	280	310	375	245	280	330	520	610	720	230	260	310
K1	215	245	305	210	240	290	180	205	255	185	210	250	160	185	220
	710	800	1000	690	790	950	590	670	840	610	690	820	520	610	720
K2	195	225	270	190	215	260	165	190	225	165	190	225	145	165	195
	640	740	890	620	710	850	540	620	740	540	620	740	475	540	640
K3	165	190	230	160	185	220	140	160	190	140	160	190	120	140	165
	540	620	750	520	610	720	460	520	620	460	520	620	395	460	540
K4	160	180	215	155	175	210	135	155	180	135	155	180	115	135	160
	520	590	710	510	570	690	445	510	590	445	510	590	375	445	520
K5	95	110	135	95	110	130	80	90	110	80	95	115	70	80	100
	310	360	445	310	360	425	260	295	360	260	310	375	230	260	330
K6	140	160	190	135	155	185	115	135	160	115	135	160	100	115	140
	460	520	620	445	510	610	375	445	520	375	445	520	330	375	460
K7	125	140	170	120	140	165	105	120	145	105	120	145	90	105	125
	410	460	560	395	460	540	345	395	475	345	395	475	295	345	410
S1	—	—	—	48	55	65	42	47	55	43	49	60	39	45	55
	—	—	—	155	180	215	140	155	180	140	160	195	130	150	180
S2	—	—	—	39	44	55	34	38	46	35	40	48	32	36	43
	—	—	—	130	145	180	110	125	150	115	130	155	105	120	140
S3	—	—	—	34	39	47	30	34	41	31	35	42	28	32	38
	—	—	—	110	130	155	100	110	135	100	115	140	90	105	125
S11	—	—	—	65	75	90	60	65	80	60	70	85	55	60	75
	—	—	—	215	245	295	195	215	260	195	230	280	180	195	245
S12	—	—	—	47	55	65	40	46	55	42	47	55	38	43	50
	—	—	—	155	180	215	130	150	180	140	155	180	125	140	165
S13	—	—	—	27	31	37	23	27	32	24	28	33	22	25	30
	—	—	—	90	100	120	75	90	105	80	90	110	70	80	100
H5	46	50	60	40	45	55	36	41	49	38	43	55	33	38	46
	150	165	195	130	150	180	120	135	160	125	140	180	110	125	150
H8	49	55	65	43	49	60	39	44	50	41	47	55	36	41	49
	160	180	215	140	160	195	130	145	165	135	155	180	120	135	160
H11	60	65	80	50	60	70	46	50	60	49	55	70	42	48	60
	195	215	260	165	195	230	150	165	195	160	180	230	140	155	195
H12	90	100	120	85	95	115	75	85	100	75	85	100	65	75	90
	295	330	395	280	310	375	245	280	330	245	280	330	215	245	295
H21	49	55	65	43	49	60	39	44	50	41	47	55	36	41	49
	160	180	215	140	160	195	130	145	165	135	155	180	120	135	160

R220.21-SP18 – Cutting data $v_c = (m/min)/(sf/min)$

SMG	MK2050			MS2050			MS2500			MP2050		
	100%	70%	30%	100%	70%	30%	100%	70%	30%	100%	70%	30%
P1	270	310	370	230	260	315	300	345	410	270	310	370
	890	1025	1225	750	850	1025	980	1125	1350	890	1025	1225
P2	260	300	360	220	255	305	290	335	400	260	300	360
	850	980	1175	720	840	1000	950	1100	1300	850	980	1175
P3	230	265	320	195	225	270	255	290	350	230	265	315
	750	870	1050	640	740	890	840	950	1150	750	870	1025
P4	200	230	280	170	195	235	225	255	310	200	230	280
	660	750	920	560	640	770	740	840	1025	660	750	920
P5	195	225	265	165	190	225	215	250	295	195	225	265
	640	740	870	540	620	740	710	820	970	640	740	870
P6	220	255	300	185	215	255	245	280	330	220	250	300
	720	840	980	610	710	840	800	920	1075	720	820	980
P7	210	240	285	175	200	240	230	265	315	205	240	280
	690	790	940	570	660	790	750	870	1025	670	790	920
P8	195	220	265	165	185	225	215	245	295	190	220	265
	640	720	870	540	610	740	710	800	970	620	720	870
P11	200	230	275	170	195	235	225	255	305	200	230	275
	660	750	900	560	640	770	740	840	1000	660	750	900
P12	130	150	180	110	125	155	145	165	200	130	145	180
	425	490	590	360	410	510	475	540	660	425	475	590
M1	—	—	—	180	205	245	210	240	285	185	215	255
	—	—	—	590	670	800	690	790	940	610	710	840
M2	—	—	—	150	170	205	175	200	235	155	180	215
	—	—	—	490	560	670	570	660	770	510	590	710
M3	—	—	—	120	135	165	140	155	190	125	140	170
	—	—	—	395	445	540	460	510	620	410	460	560
M4	—	—	—	95	105	125	110	125	150	95	110	135
	—	—	—	310	345	410	360	410	490	310	360	445
M5	—	—	—	75	90	105	90	105	125	80	90	110
	—	—	—	245	295	345	295	345	410	260	295	360
K1	285	325	390	—	—	—	—	—	—	—	—	—
	940	1075	1275	—	—	—	—	—	—	—	—	—
K2	255	290	345	—	—	—	—	—	—	—	—	—
	840	950	1125	—	—	—	—	—	—	—	—	—
K3	215	245	290	—	—	—	—	—	—	—	—	—
	710	800	950	—	—	—	—	—	—	—	—	—
K4	205	235	280	—	—	—	—	—	—	—	—	—
	670	770	920	—	—	—	—	—	—	—	—	—
K5	125	145	175	—	—	—	—	—	—	—	—	—
	410	475	570	—	—	—	—	—	—	—	—	—
K6	180	205	245	—	—	—	—	—	—	—	—	—
	590	670	800	—	—	—	—	—	—	—	—	—
K7	160	185	220	—	—	—	—	—	—	—	—	—
	520	610	720	—	—	—	—	—	—	—	—	—
S1	—	—	—	43	49	60	55	60	70	48	55	65
	—	—	—	140	160	195	180	195	230	155	180	215
S2	—	—	—	35	40	48	43	48	60	38	44	50
	—	—	—	115	130	155	140	155	195	125	145	165
S3	—	—	—	31	35	42	38	43	50	34	38	46
	—	—	—	100	115	140	125	140	165	110	125	150
S11	—	—	—	60	70	85	75	85	100	65	75	90
	—	—	—	195	230	280	245	280	330	215	245	295
S12	—	—	—	42	47	55	50	60	70	46	50	65
	—	—	—	140	155	180	165	195	230	150	165	215
S13	—	—	—	24	28	33	30	34	41	27	30	37
	—	—	—	80	90	110	100	110	135	90	100	120
H5	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
H8	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—
H11	—	—	—	—	—	—	—	—	—	49	55	70
	—	—	—	—	—	—	—	—	—	160	180	230
H12	—	—	—	—	—	—	95	105	125	85	95	115
	—	—	—	—	—	—	310	345	410	280	310	375
H21	—	—	—	—	—	—	—	—	—	—	—	—
	—	—	—	—	—	—	—	—	—	—	—	—

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

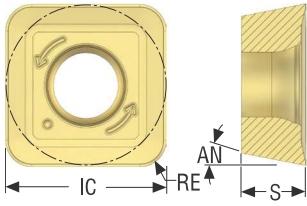
Plunge milling cutters

Chamfer milling cutters

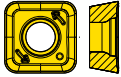
Spot facing cutters

Inserts

SPKT10/14/18



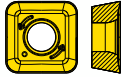
SP10-M10



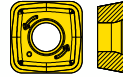
SP10-MD12



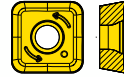
SP14-M14



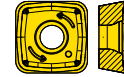
SP14-MD16



SP18-M14



SP18-MD16



Designation	IC	RE	S	AN°	GAN	Grades																	
						Coated												Uncoated					
	mm Inch	mm Inch	mm Inch			MP1501	MP2050	MP2501	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25	
SPKT10T317TN-M10	10,0 0.394	1,7 0.067	3,97 0.156	11,0	13,0 °	■	■	■			■		■	■	■		■				■		
SPKT10T317TN-MD12	10,0 0.394	1,7 0.067	3,97 0.156	11,0	5,0 °	■		■	■				■								■		
SPKT140523TN-M14	14,0 0.551	2,3 0.091	5,56 0.219	11,0	13,0 °		■	■			■		■	■	■		■				■		
SPKT140523TN-MD16	14,0 0.551	2,3 0.091	5,56 0.219	11,0	5,0 °	■	■	■	■				■		■		■				■		
SPKT180630TN-M14	18,0 0.709	3,0 0.118	6,35 0.250	11,0	12,0 °	■	■	■					■	■	■		■				■		
SPKT180630TN-MD16	18,0 0.709	3,0 0.118	6,35 0.250	11,0	5,0 °	■		■	■				■								■		

- Square shoulder and slot milling cutters
- Helical milling cutters
- Face milling cutters
- Disc milling cutters
- High feed milling cutters
- Copy milling cutters
- Plunge milling cutters
- Chamfer milling cutters
- Spot facing cutters
- Inserts

UNCOMPROMISED PERFORMANCE AND LOWER COST PER EDGE

SECO HELICAL
SN8-13

YOUR CHALLENGE

Economize production operations to meet customer demand for continuous job price improvements.

OUR SOLUTION

Reduce production costs with 8-edged helix inserts that lower cost per edge.

YOUR CHALLENGE

Overcome helical roughing issues in situations with high productivity, weak fixtures, long reach, difficult materials and low machine power.

OUR SOLUTION

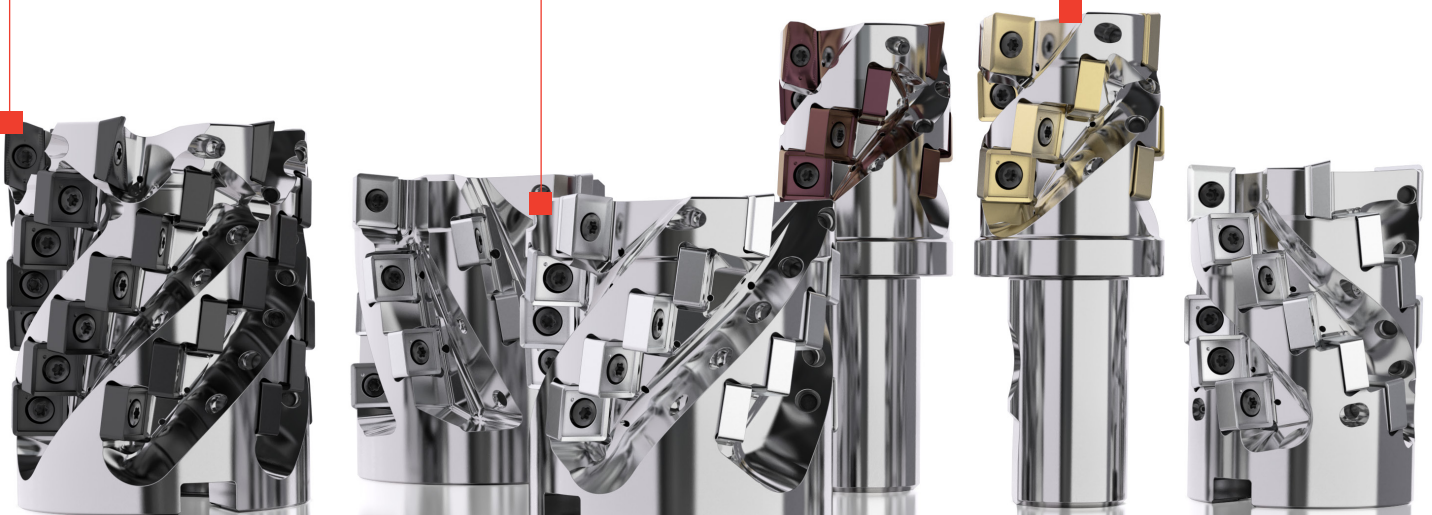
Sub-families of tools optimized for various applications within one range of cutters that offers various helix hands, front insert design and radii options.

YOUR CHALLENGE

Lack of skilled workforce leads to machine downtime, quality issues and scrap, putting a stop to unattended production to reduce costs.

OUR SOLUTION

Robust and easy-to-index cutter ensures correct mounting of front and helix inserts.



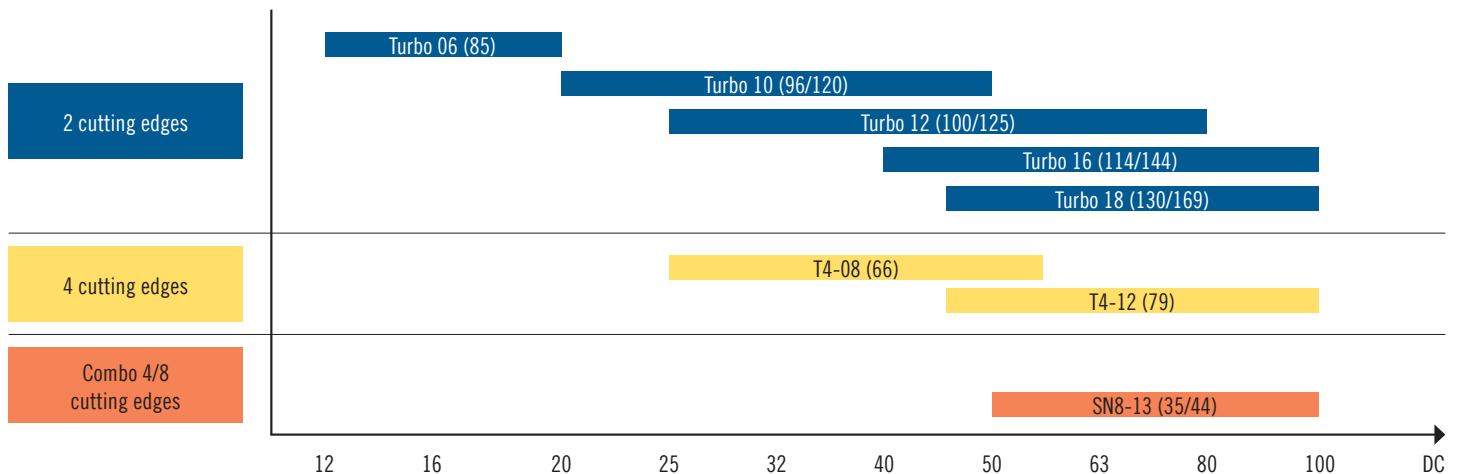
SECO HELICAL SN8-13



UNCOMPROMISED PERFORMANCE AND LOWER COST PER EDGE

Keep up with customer demand for lower part prices. The Seco Helical SN8-13 features double-sided helix inserts with eight cutting edges that significantly lower cost per edge to boost slotting, side milling and circular rough milling efficiency. Built for difficult applications involving ISO P, M, K and S materials, the cutters offer application-specific sub-family designs featuring left or right-hand helixes, half or full effective teeth options, two front insert and many radii choices for long tool life and maximum chip evacuation. Reliable and user-friendly, the Helical SN8-13 also eliminates incorrect indexing of front and helix inserts, reducing operator error.

POSITIONING HELICAL MILLING

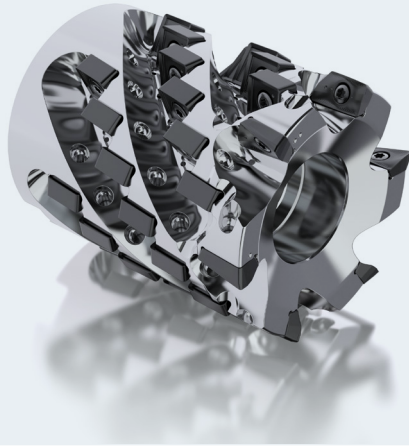


Cost per edge index (direct pressed/ground) based on XOMX12 2022 F40 M list price

Please note that the data shown is just an extract and more products are available.
For more information please visit www.secotools.com.

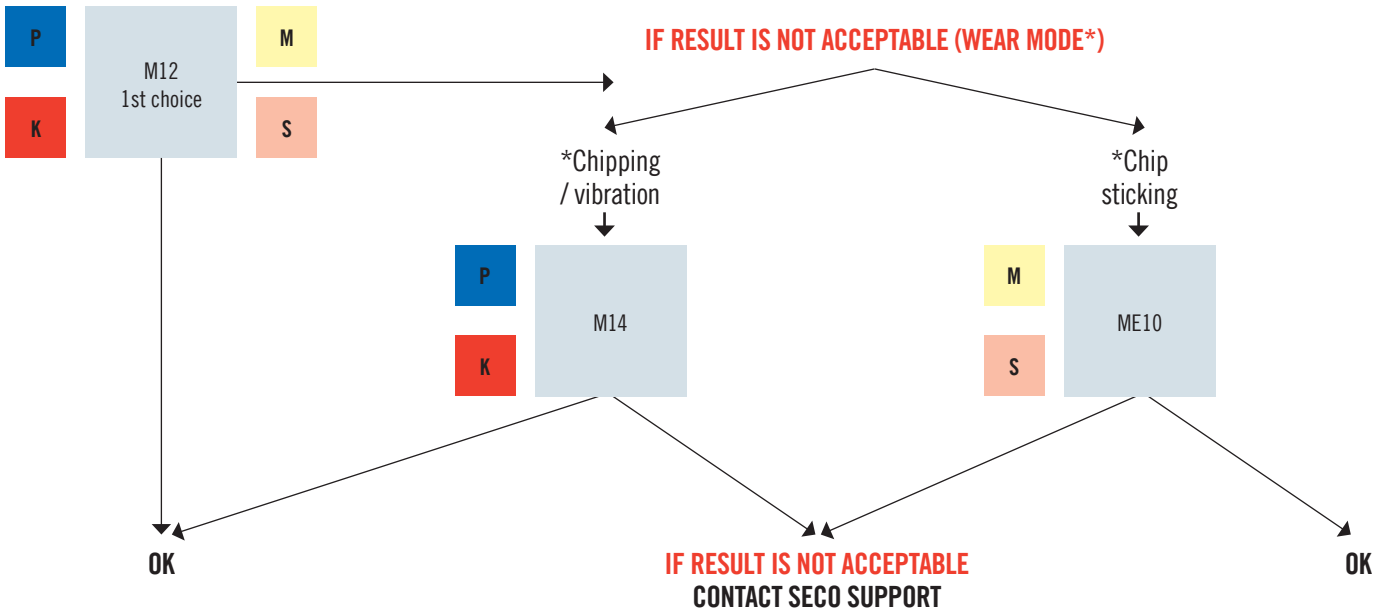
CUSTOMER BENEFITS

- High MRR for increased productivity
- Exceptionally low cost per edge
- Long tool life in P, M, K and S materials
- Tackle difficult applications easily

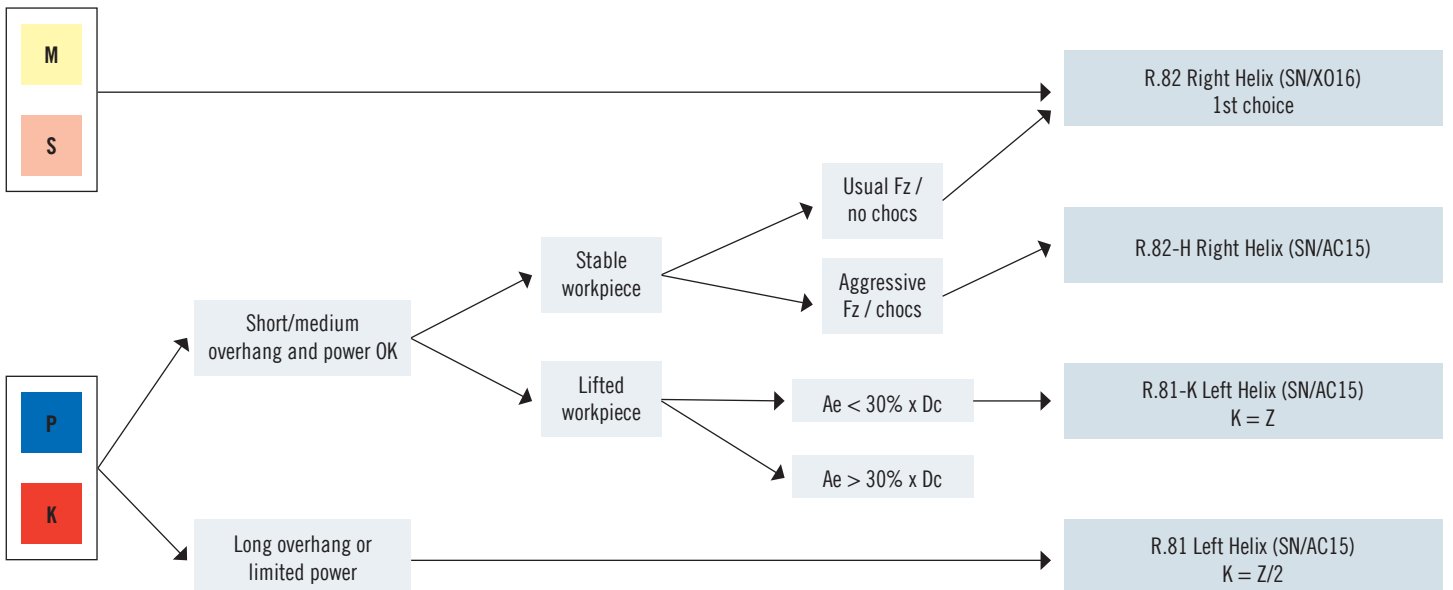


SECO HELICAL SN8-13

HELICAL SN8-13 – INSERT GEOMETRY CHOICE FLOW



HELICAL SN8-13 – SUB FAMILY CHOICE FLOW



Please note that the data shown is just an extract and more products are available.
For more information please visit www.secotools.com.

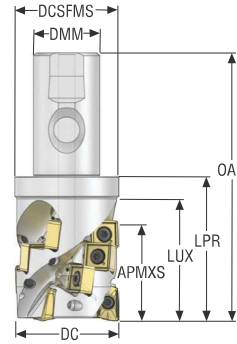


HELICAL SN8-13

Keep up with customer demand for lower part prices. The Seco Helical SN8-13 features double-sided helix inserts with eight cutting edges that significantly lower cost per edge to boost slotting, side milling and circular rough milling efficiency. Built for difficult applications involving ISO P, M, K and S materials, the cutters offer application-specific sub-family designs featuring left or right-hand helixes, half or full effective teeth options, two front insert and many radii choices for long tool life and maximum chip evacuation. Reliable and user-friendly, the Helical SN8-13 also eliminates incorrect indexing of front and helix inserts, reducing operator error.

- Range is built with 4 sub families built with SN13 helix insert:
- SN.U13 insert offering 8 cutting edges in 3 geometries and several grades
- R217/220.82: XO16 lead insert = First choice
- R217/220.82-H: AC15 lead insert = Heavy Duty, R220.69-15H replacement
- R217/220.81: AC15 lead insert = Low Power, R215/220.59 replacement
- R217/220.81-K: AC15 lead insert = Long reach, R215/220.59 replacement

R217.82-SNX016 – Metric



- For insert selection and cutting data recommendations, see page(s) 162-163
- For complete insert programme, see page(s) 813, 837, 838
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	DCSFMS	LUX	LPR	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm	mm		kg	
R217.82-3250.3S-047-SNX016.3A	10127480	Seco-Weldon	50,0	3	12	47,0	32,0	50,0	60,0	70,0	130,0	11800	1,0	XO.X1605 / SN.U1306

Spare Parts

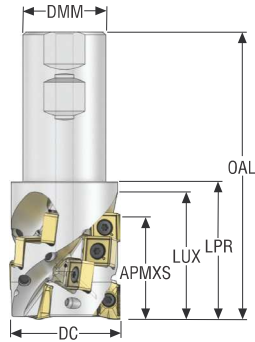
Accessories

For cutter	Insert screw	Insert screw 2	Insert clamping torque	Insert clamping torque 2	Torque key	Torque key 2
	C55011-T15P	C04011-T15P	5.0NM	3.5NM	T00-15P50	T00-15P35

Torque and fixed keys, see page 869

Square shoulder and slot milling cutters
Helical milling cutters
Face milling cutters
Disc milling cutters
High feed milling cutters
Copy milling cutters
Plunge milling cutters
Chamfer milling cutters
Spot facing cutters
Inserts

R217.82-SNX016 – inch



- For insert selection and cutting data recommendations, see page(s) 162-163
- For complete insert programme, see page(s) 813, 837, 838
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	LUX	LPR	OAL	RPMX	Weight	Insert
			inch			inch	inch	inch	inch	inch		lbs	
R217.82-02.00-3-1.85-SNX016.3A	10127485	Weldon	2.000	3	12	1.850	1.500	2.362	2.441	5.169	11800	2.650	XO.X1605 / SN.U1306

Spare Parts

Accessories

For cutter	Insert screw	Insert screw 2	Insert clamping torque	Insert clamping torque 2	Torque key	Torque key 2
	C55011-T15P	C04011-T15P	5.0NM	3.5NM	T00-15P50	T00-15P35

Torque and fixed keys, see page 869

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

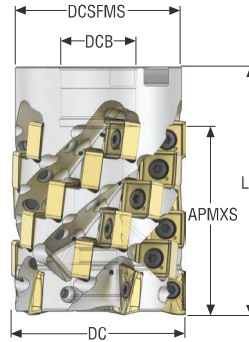
Plunge milling cutters

Chamfer milling cutters

Spot facing cutters

Inserts

R220.82-SNXO16 – Metric



- For insert selection and cutting data recommendations, see page(s) 162-163
- For complete insert programme, see page(s) 813, 837, 838
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm			mm	mm	mm	mm		kg	
R220.82-0063-047-SNXO16.4A	10127481	Arbor	63,0	4	16	47,0	27,0	59,0	70,0	10500	0,9	XO.X1605 / SN.U1306
R220.82-0063-069-SNXO16.5A	10127482	Arbor	63,0	5	30	69,0	27,0	59,0	90,0	10500	1,2	XO.X1605 / SN.U1306
R220.82-0080-068-SNXO16.5A	10127483	Arbor	80,0	5	30	68,0	32,0	75,0	90,0	6500	2,0	XO.X1605 / SN.U1306
R220.82-0080-079-SNXO16.6A	10127484	Arbor	80,0	6	42	79,0	32,0	75,0	100,0	6500	2,2	XO.X1605 / SN.U1306

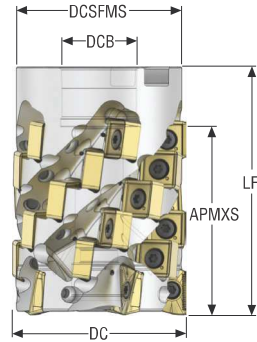
Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Insert screw 2	Insert clamping torque	Insert clamping torque 2	Torque key	Torque key 2
R220.82-0063-047	MC6S12X60	C55011-T15P	C04011-T15P	5.0NM	3.5NM	T00-15P50	T00-15P35
R220.82-0063-069	MC6S12X80	C55011-T15P	C04011-T15P	5.0NM	3.5NM	T00-15P50	T00-15P35
R220.82-0080	MP6S16X80	C55011-T15P	C04011-T15P	5.0NM	3.5NM	T00-15P50	T00-15P35

Torque and fixed keys, see page 869

R220.82-SNXO16 – inch



- For insert selection and cutting data recommendations, see page(s) 162-163
- For complete insert programme, see page(s) 813, 837, 838
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	RPMX	Weight	Insert
			inch			inch	inch	inch	inch		lbs	
R220.82-02.50-1.85-SNXO16.4A	10127486	Arbor	2.500	4	16	1.850	1.000	2.323	2.750	10500	1.980	XO.X1605 / SN.U1306
R220.82-02.50-2.75-SNXO16.5A	10127487	Arbor	2.500	5	30	2.717	1.000	2.323	3.500	10500	2.650	XO.X1605 / SN.U1306
R220.82-03.00-2.68-SNXO16.5A	10127488	Arbor	3.000	5	30	2.677	1.250	2.795	3.500	6500	3.750	XO.X1605 / SN.U1306
R220.82-03.00-3.11-SNXO16.6A	10127489	Arbor	3.000	6	42	3.110	1.250	2.795	3.938	6500	4.190	XO.X1605 / SN.U1306

Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Insert screw 2	Insert clamping torque	Insert clamping torque 2	Torque key	Torque key 2
R220.82-02.50.4A	UC6S1/2UNFX2-1/4	C55011-T15P	C04011-T15P	5.0NM	3.5NM	T00-15P50	T00-15P35
R220.82-02.50.5A	UC6S1/2UNFX3	C55011-T15P	C04011-T15P	5.0NM	3.5NM	T00-15P50	T00-15P35
R220.82-03.00	UP6S5/8UNFX3-1/4	C55011-T15P	C04011-T15P	5.0NM	3.5NM	T00-15P50	T00-15P35

Torque and fixed keys, see page 869

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

Plunge milling cutters

Chamfer milling cutters

Spot facing cutters

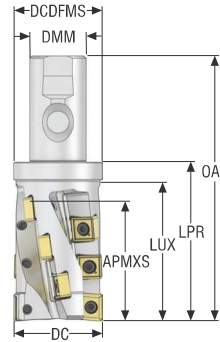
Inserts

R217/220.82-SNXO16 – Insert selection – mm/Inch

SMG			f _z		
			100%	30%	10%
P1	XOMX160508TR-M13 MP2501	SNXU130612TN-M12 MP2501	0,15	0,16	0,24
			0,0060	0,0065	0,0095
P2	XOMX160508TR-M13 MP2501	SNXU130612TN-M12 MP2501	0,15	0,16	0,25
			0,0060	0,0065	0,010
P3	XOMX160508TR-M13 MP2501	SNXU130612TN-M12 MP2501	0,14	0,15	0,24
			0,0055	0,0060	0,0095
P4	XOMX160508TR-M13 MP2501	SNXU130612TN-M12 MP2501	0,14	0,15	0,24
			0,0055	0,0060	0,0095
P5	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,15	0,16	0,24
			0,0060	0,0065	0,0095
P6	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,14	0,16	0,24
			0,0055	0,0065	0,0095
P7	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,14	0,16	0,24
			0,0055	0,0065	0,0095
P8	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,15	0,17	0,25
			0,0060	0,0065	0,010
P11	XOMX160508TR-ME11 T350M	SNXU130612TN-M12 T350M	0,11	0,12	0,19
			0,0044	0,0048	0,0075
P12	XOMX160508TR-ME11 T350M	SNXU130612TN-M12 T350M	0,080	0,085	0,13
			0,0032	0,0034	0,0050
M1	XOMX160508R-M09 MS2050	SNGU130612EN-ME10 MS2050	0,10	0,11	0,17
			0,0040	0,0044	0,0065
M2	XOMX160508R-M09 MS2050	SNGU130612EN-ME10 MS2050	0,095	0,10	0,16
			0,0038	0,0040	0,0065
M3	XOMX160508R-M09 MS2050	SNGU130612EN-ME10 MS2050	0,075	0,080	0,13
			0,0030	0,0032	0,0050
M4	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,080	0,085	0,13
			0,0032	0,0034	0,0050
M5	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,080	0,085	0,13
			0,0032	0,0034	0,0050
K1	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,15	0,16	0,25
			0,0060	0,0065	0,010
K2	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,14	0,15	0,22
			0,0055	0,0060	0,0085
K3	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,14	0,15	0,22
			0,0055	0,0060	0,0085
K4	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,14	0,15	0,22
			0,0055	0,0060	0,0085
K5	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,12	0,13	0,20
			0,0048	0,0050	0,0080
K6	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,14	0,15	0,22
			0,0055	0,0060	0,0085
K7	XOMX160508TR-M13 MK2050	SNGU130612TN-M14 MK2050	0,12	0,13	0,20
			0,0048	0,0050	0,0080
S1	XOMX160508TR-ME11 F40M	SNGU130612EN-ME10 MS2050	0,080	0,085	0,13
			0,0032	0,0034	0,0050
S2	XOMX160508TR-ME11 F40M	SNGU130612EN-ME10 MS2050	0,080	0,085	0,13
			0,0032	0,0034	0,0050
S3	XOMX160508TR-ME11 F40M	SNGU130612EN-ME10 MS2050	0,075	0,080	0,12
			0,0030	0,0032	0,0048
S11	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,090	0,10	0,15
			0,0036	0,0040	0,0060
S12	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,090	0,10	0,15
			0,0036	0,0040	0,0060
S13	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	0,080	0,085	0,13
			0,0032	0,0034	0,0050
H5	XOMX160508TR-ME11 MS2050	SNGU130612EN-ME10 MS2050	—	—	—
H8	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,075	0,085	0,13
			0,0030	0,0034	0,0050
H11	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,10	0,11	0,17
			0,0040	0,0044	0,0065
H12	XOMX160508TR-MD14 MP1501	SNGU130612TN-M14 MP1501	0,075	0,085	0,13
			0,0030	0,0034	0,0050

SMG = Seco material group
 f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_φ/DC = %
 All cutting data are start values

R217.81-SNAC15 Left Helix Troubleshooter – Metric






- For insert selection and cutting data recommendations, see page(s) 168-169
- For complete insert programme, see page(s) 791, 813
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	DCSFMS	LUX	LPR	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm	mm		kg	
R217.81-3250.3S-068-SNAC15.2	10127496	Seco-Weldon	50,0	2	12	68,0	32,0	50,0	79,0	90,0	150,0	8300	1,1	AC.T1506 / SN.U1306

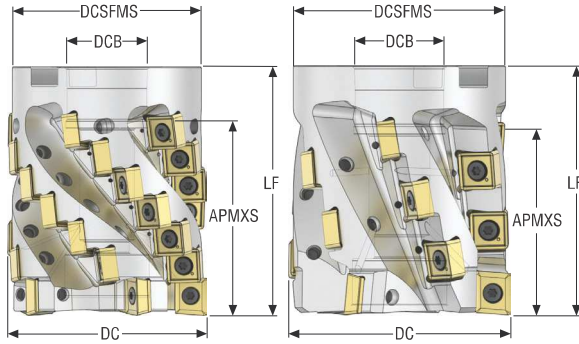
Spare Parts

Accessories

For cutter	Insert screw	Insert clamping torque	Torque key
R217.81-..	 C55011-T15P	 5.0NM	 T00-15P50

Torque and fixed keys, see page 869

R220.81-SNAC15 – Left Helix Troubleshooter - Metric



- For insert selection and cutting data recommendations, see page(s) 168-169
- For complete insert programme, see page(s) 791, 813
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm			mm	mm	mm	mm		kg	
R220.81-0063-068-SNAC15.2A	10127497	Arbor	63,0	2	12	68,0	27,0	59,0	90,0	7400	1,2	AC.T1506 / SN.U1306
R220.81-0063-068-SNAC15.4KA	10127494	Arbor	63,0	4	24	68,0	27,0	59,0	90,0	7400	1,1	AC.T1506 / SN.U1306
R220.81-0080-068-SNAC15.3A	10127498	Arbor	80,0	3	18	68,0	32,0	75,5	90,0	6500	2,2	AC.T1506 / SN.U1306
R220.81-0080-079-SNAC15.5KA	10127495	Arbor	80,0	5	35	79,0	32,0	75,0	100,0	6500	2,2	AC.T1506 / SN.U1306
R220.81-0100-068-SNAC15.4A	10127499	Arbor	100,0	4	24	68,0	40,0	91,0	90,0	5800	3,4	AC.T1506 / SN.U1306

Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Insert clamping torque	Torque key
R220.81-0063	MP6S12X80	C55011-T15P	5.0NM	T00-15P50
R220.81-0080	MP6S16X80	C55011-T15P	5.0NM	T00-15P50
R220.81-0100	MP6S20X80	C55011-T15P	5.0NM	T00-15P50

Torque and fixed keys, see page 869

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

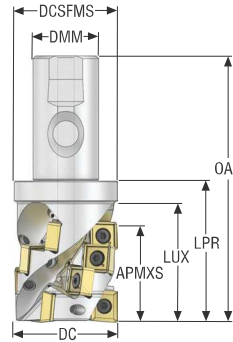
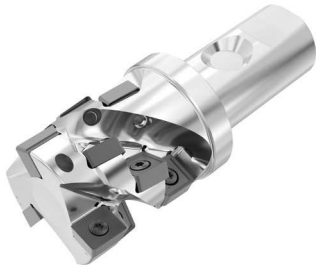
Plunge milling cutters

Chamfer milling cutters

Spot facing cutters

Inserts

R217.82-SNAC15 – Right Helix for Heavy Duty – Metric



- For insert selection and cutting data recommendations, see page(s) 154-156
- For complete insert programme, see page(s) 791, 813
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEFP	ZNP	APMXS	DMM	DCSFMS	LUX	LPR	OAL	RPMX	Weight	Insert
			mm			mm	mm	mm	mm	mm	mm		kg	
R217.82-3250.3S-046-SNAC15.3HA	10127490	Seco-Weldon	50,0	3	12	47,0	32,0	50,0	57,0	68,0	128,0	8300	1,0	AC.T1506 / SN.U1306

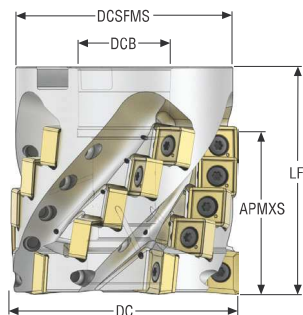
Spare Parts

Accessories

For cutter	Insert screw	Insert clamping torque	Torque key
	C55011-T15P	5.0NM	T00-15P50

Torque and fixed keys, see page 869

R220-82-SNAC15 Right Helix for Heavy Duty – Metric



- For insert selection and cutting data recommendations, see page(s) 168-169
- For complete insert programme, see page(s) 791, 813
- For ISO attribute explanation, see page 16
- KAPRS 90°

Designation	Item number	Type of mounting	DC	ZEPF	ZNP	APMXS	DCB	DCSFMS	LF	RPMX	Weight	Insert
			mm			mm	mm	mm	mm		kg	
R220.82-0063-046-SNAC15.4HA	10127491	Arbor	63,0	4	16	46,0	27,0	59,0	70,0	7400	0,9	AC.T1506 / SN.U1306
R220.82-0080-057-SNAC15.5HA	10127492	Arbor	80,0	5	25	57,0	32,0	75,0	80,0	6500	1,8	AC.T1506 / SN.U1306
R220.82-0100-057-SNAC15.6HA	10127493	Arbor	100,0	6	30	57,0	40,0	90,0	75,0	5800	2,6	AC.T1506 / SN.U1306

Spare Parts

Accessories

For cutter	Arbor screw	Insert screw	Arbor screw	Insert clamping torque	Torque key
R220.82-0063	MC6S12X60	C55011-T15P	–	5.0NM	T00-15P50
R220.82-0080	MC6S16X70	C55011-T15P	–	5.0NM	T00-15P50
R220.82-0100	–	C55011-T15P	MC6S20X50	5.0NM	T00-15P50

Torque and fixed keys, see page 869

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

Plunge milling cutters

Chamfer milling cutters

Spot facing cutters

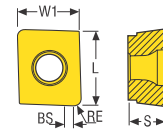
Inserts

R217/220.82-SNAC15 – Insert selection – mm/Inch

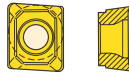
SMG			f _z		
			100%	30%	10%
P1	ACET150612TR-M11 MP2501	SNXU130612TN-M12 MP2501	0,12	0,13	0,20
			0,0048	0,0050	0,0080
P2	ACET150612TR-M11 MP2501	SNXU130612TN-M12 MP2501	0,13	0,14	0,22
			0,0050	0,0055	0,0085
P3	ACET150612TR-M11 MP2501	SNXU130612TN-M12 MP2501	0,12	0,13	0,20
			0,0048	0,0050	0,0080
P4	ACET150612TR-M11 MP2501	SNXU130612TN-M12 MP2501	0,12	0,13	0,20
			0,0048	0,0050	0,0080
P5	ACET150612TR-M11 MP2501	SNGU130612TN-M14 MP2501	0,11	0,12	0,19
			0,0044	0,0048	0,0075
P6	ACET150612TR-M11 MP2501	SNGU130612TN-M14 MP2501	0,11	0,12	0,19
			0,0044	0,0048	0,0075
P7	ACET150612TR-M11 MP2501	SNGU130612TN-M14 MP2501	0,11	0,12	0,19
			0,0044	0,0048	0,0075
P8	ACET150612TR-M11 MP2501	SNGU130612TN-M14 MP2501	0,12	0,13	0,20
			0,0048	0,0050	0,0080
P11	ACET150612TR-M11 T350M	SNXU130612TN-M12 T350M	0,11	0,12	0,19
			0,0044	0,0048	0,0075
P12	ACET150612TR-M11 T350M	SNXU130612TN-M12 T350M	0,080	0,085	0,13
			0,0032	0,0034	0,0050
M1	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,11	0,12	0,19
			0,0044	0,0048	0,0075
M2	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,10	0,11	0,17
			0,0040	0,0044	0,0065
M3	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,085	0,090	0,14
			0,0034	0,0036	0,0055
M4	ACET150612TR-M11 T350M	SNXU130612TN-M12 T350M	0,080	0,090	0,13
			0,0032	0,0036	0,0050
M5	ACET150612TR-M11 T350M	SNXU130612TN-M12 T350M	0,080	0,090	0,13
			0,0032	0,0036	0,0050
K1	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,16	0,17	0,26
			0,0065	0,0065	0,010
K2	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,15	0,16	0,24
			0,0060	0,0065	0,0095
K3	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,15	0,16	0,24
			0,0060	0,0065	0,0095
K4	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,15	0,16	0,24
			0,0060	0,0065	0,0095
K5	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,13	0,14	0,22
			0,0050	0,0055	0,0085
K6	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,15	0,16	0,24
			0,0060	0,0065	0,0095
K7	ACET150612TR-M14 MK1500	SNGU130612TN-M14 MK2050	0,13	0,14	0,22
			0,0050	0,0055	0,0085
S1	ACET150612TR-M11 F40M	SNXU130612TN-M12 F40M	0,080	0,090	0,13
			0,0032	0,0036	0,0050
S2	ACET150612TR-M11 F40M	SNXU130612TN-M12 F40M	0,080	0,090	0,13
			0,0032	0,0036	0,0050
S3	ACET150612TR-M11 F40M	SNXU130612TN-M12 F40M	0,075	0,080	0,12
			0,0030	0,0032	0,0048
S11	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,085	0,090	0,14
			0,0034	0,0036	0,0055
S12	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,085	0,090	0,14
			0,0034	0,0036	0,0055
S13	ACET150612TR-ME10 MS2050	SNGU130612EN-ME10 MS2050	0,075	0,080	0,12
			0,0030	0,0032	0,0048
H5	ACET150612TR-M11 T350M	SNXU130612TN-M12 T350M	0,080	0,085	0,13
			0,0032	0,0034	0,0050
H8	ACET150612TR-M11 T350M	SNXU130612TN-M12 T350M	0,060	0,065	0,10
			0,0024	0,0026	0,0040
H11	ACET150612TR-M11 T350M	SNXU130612TN-M12 T350M	0,080	0,085	0,13
			0,0032	0,0034	0,0050
H12	ACET150612TR-M11 T350M	SNXU130612TN-M12 T350M	0,060	0,065	0,10
			0,0024	0,0026	0,0040

SMG = Seco material group
 f_z = mm/tooth (in/tooth), v_c = m/min (sf/min), a_g/DC = %
 All cutting data are start values

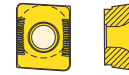
AC..15



M10/M11/M14/MD15



ME10



Designation	RE	BS	L	W1	S	GAN	Grades																
							Coated										Uncoated						
	mm	mm	mm	mm	mm		MP1501	MP2050	MP2501	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
	Inch	Inch	Inch	Inch	Inch																		
ACET150612TR-ME10	1,2 0.047	0,13 0.005	15,0 0.591	12,7 0.500	6,35 0.250	22,0 °									■								
ACET150612TL-M11	1,2 0.047	0,13 0.005	15,0 0.591	12,7 0.500	6,35 0.250	14,0 °																■	
ACET150612TR-M11	1,2 0.047	0,13 0.005	15,0 0.591	12,7 0.500	6,35 0.250	14,0 °	■		■				■				■	■				■	
ACET150631TR-M11	3,1 0.122	0,0 -	15,0 0.591	12,7 0.500	6,35 0.250	14,0 °																■	
ACET150612TL-M14	1,2 0.047	0,13 0.005	15,0 0.591	12,7 0.500	6,35 0.250	15,0 °																■	
ACET150612TR-M14	1,2 0.047	0,13 0.005	15,0 0.591	12,7 0.500	6,35 0.250	15,0 °			■				■					■				■	
ACET150630TR-M14	3,0 0.118	0,0 -	15,0 0.591	12,7 0.500	6,35 0.250	15,0 °												■					
ACET150631TR-M14	3,1 0.122	0,0 -	15,0 0.591	12,7 0.500	6,35 0.250	15,0 °																■	
ACET150660TL-M14	6,0 0.236	0,0 -	15,0 0.591	12,7 0.500	6,35 0.250	15,0 °																■	
ACET150660TR-M14	6,0 0.236	0,0 -	15,0 0.591	12,7 0.500	6,35 0.250	15,0 °												■				■	
ACET150612TR-MD15	1,2 0.047	0,13 0.005	15,0 0.591	12,7 0.500	6,35 0.250	15,0 °	■			■								■					
ACET150630TR-MD15	3,0 0.118	0,0 -	15,0 0.591	12,7 0.500	6,35 0.250	15,0 °	■																
ACMT150612TR-M14	1,2 0.047	0,13 0.005	15,0 0.591	12,7 0.500	6,35 0.250	15,0 °			■									■				■	

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

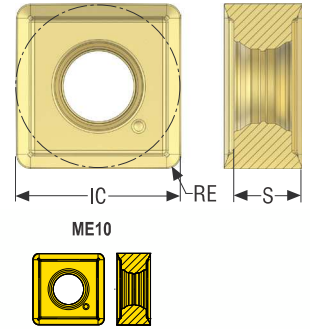
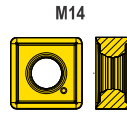
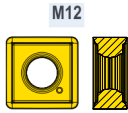
Plunge milling cutters

Chamfer milling cutters

Spot facing cutters

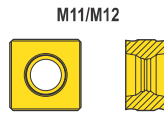
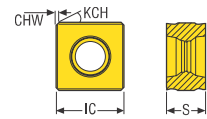
Inserts

SN.U13



Designation	IC	RE	S	GAN	Grades																	
					Coated												Uncoated					
	mm Inch	mm Inch	mm Inch		MP1501	MP2050	MP2501	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25	
SNGU130612EN-ME10	13,587 0.535	1,2 0.047	5,56 0.219	26,0°		■							■	■								
SNGU130612TN-M14	13,6 0.535	1,2 0.047	5,56 0.219	23,0°	■		■					■										
SNXU130612TN-M12	13,587 0.535	1,2 0.047	5,56 0.219	21,0°			■					■	■	■		■				■		

SNHX11/14



Designation	CHW	S	IC	KCH°	GAN	Grades																
						Coated												Uncoated				
	mm Inch	mm Inch	mm Inch	mm		MP1501	MP2050	MP2501	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
SNHX1106TN8-M11	0,5 0.020	6,35 0.250	11,0 0.433	45,0	10,0°			■									■				■	
SNHX1406TN8-M12	0,8 0.031	6,35 0.250	14,5 0.571	45,0	10,0°			■									■				■	

Square shoulder and slot milling cutters

Helical milling cutters

Face milling cutters

Disc milling cutters

High feed milling cutters

Copy milling cutters

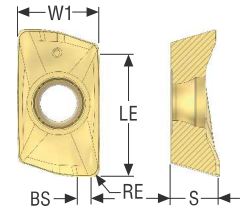
Plunge milling cutters

Chamfer milling cutters

Spot facing cutters

Inserts

XO.X16



Designation	RE	BS	LE	W1	S	GAN	Grades																	
							Coated										Uncoated							
	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		MP1501	MP2050	MP2501	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25	
XOEX160504FR-E07	0,4 <i>0.016</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	23,0°																		■
XOEX160508FR-E07	0,8 <i>0.031</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	23,0°																		■
XOEX160504R-M09	0,4 <i>0.016</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	14,0°			■	■												■		
XOEX160508R-M09	0,8 <i>0.031</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	14,0°		■	■	■					■	■		■				■		
XOEX160516R-M09	1,6 <i>0.063</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	14,0°									■	■						■		
XOEX160520R-M09	2,0 <i>0.079</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	14,0°									■							■		
XOEX160524R-M09	2,4 <i>0.094</i>	1,8 <i>0.071</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	14,0°		■							■							■		
XOEX160531R-M09	3,1 <i>0.122</i>	1,6 <i>0.063</i>	15,3 <i>0.602</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	14,0°		■							■	■						■		
XOEX160540R-M09	4,0 <i>0.157</i>	1,2 <i>0.047</i>	15,2 <i>0.598</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	14,0°									■							■		
XOEX160550R-M09	5,0 <i>0.197</i>	0,3 <i>0.012</i>	15,0 <i>0.591</i>	10,2 <i>0.402</i>	5,59 <i>0.220</i>	14,0°									■							■		
XOEX160563R-M09	6,3 <i>0.248</i>	0,2 <i>0.008</i>	14,7 <i>0.579</i>	10,2 <i>0.402</i>	5,34 <i>0.210</i>	14,0°									■							■		
XOMX160504TR-ME11	0,4 <i>0.016</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,94 <i>0.234</i>	19,0°			■													■		
XOMX160508TR-ME11	0,8 <i>0.031</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,94 <i>0.234</i>	19,0°		■	■					■	■			■				■		
XOMX160512TR-ME11	1,2 <i>0.047</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,94 <i>0.234</i>	19,0°			■													■		
XOMX160516TR-ME11	1,6 <i>0.063</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,94 <i>0.234</i>	18,0°			■													■		
XOMX160520TR-ME11	2,0 <i>0.079</i>	1,9 <i>0.075</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,94 <i>0.234</i>	18,0°			■						■							■		
XOMX160531TR-ME11	3,1 <i>0.122</i>	1,6 <i>0.063</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,93 <i>0.233</i>	19,0°		■							■							■		
XOMX160540TR-ME11	4,0 <i>0.157</i>	1,2 <i>0.047</i>	15,2 <i>0.598</i>	10,2 <i>0.402</i>	5,93 <i>0.233</i>	19,0°									■							■		
XOMX160550TR-ME11	5,0 <i>0.197</i>	0,3 <i>0.012</i>	15,0 <i>0.591</i>	10,2 <i>0.402</i>	5,56 <i>0.219</i>	18,0°									■							■		
XOMX160563TR-ME11	6,3 <i>0.248</i>	0,2 <i>0.008</i>	14,6 <i>0.575</i>	10,2 <i>0.402</i>	5,3 <i>0.209</i>	18,0°									■							■		
XOMX160508R-M09	0,8 <i>0.031</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,9 <i>0.232</i>	14,0°									■							■		
XOMX160508TR-M13	0,8 <i>0.031</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,98 <i>0.235</i>	9,0°	■		■	■			■	■				■				■		
XOMX160516TR-M13	1,6 <i>0.063</i>	2,0 <i>0.079</i>	15,4 <i>0.606</i>	10,2 <i>0.402</i>	5,98 <i>0.235</i>	9,0°																■		

Square shoulder and slot milling cutters
Helical milling cutters
Face milling cutters
Disc milling cutters
High feed milling cutters
Copy milling cutters
Plunge milling cutters
Chamfer milling cutters
Spot facing cutters
Inserts

	Designation	RE mm Inch	BS mm Inch	LE mm Inch	W1 mm Inch	S mm Inch	GAN	Grades																
								Coated						Uncoated										
								MP1501	MP2050	MP2501	MP3000	MH1000	MM4500	MK1500	MK2050	MS2050	MS2500	T25M	T350M	F15M	F30M	F40M	H15	H25
Square shoulder and slot milling cutters	XOMX160531TR-M13	3,1 0.122	1,6 0.063	15,4 0.606	10,2 0.402	5,98 0.235	9,0 °																■	
Helical milling cutters	XOMX160504TR-MD14	0,4 0.016	2,0 0.079	15,4 0.606	10,2 0.402	6,01 0.237	4,0 °								■									
	XOMX160508TR-MD14	0,8 0.031	2,0 0.079	15,4 0.606	10,2 0.402	6,01 0.237	4,0 °	■			■				■				■					
Face milling cutters																								
Disc milling cutters																								
High feed milling cutters																								
Copy milling cutters																								
Plunge milling cutters																								
Chamfer milling cutters																								
Spot facing cutters																								
Inserts																								

EXPAND YOUR TOOL HOLDING VERSATILITY

SECO HYDRAULIC CHUCKS

YOUR CHALLENGE

Machines sit idle because complicated, time-consuming costly holders require special systems and operator training.

OUR SOLUTION

Tool changes are fast, easy and simple to perform with Seco Hydraulic Chucks and Reduction Sleeves, in drilling, reaming, tapping and light milling.

YOUR CHALLENGE

Inability to reach narrow and deep part areas during light milling and drilling operations.

OUR SOLUTION

The HCS Slim version Seco Hydraulic Chuck provides extended tooling reach for effective workpiece accessibility.

YOUR CHALLENGE

Varied, challenging materials and machining conditions require multiple tool holders.

OUR SOLUTION

With its compact and robust design, the Seco reinforced HCR Hydraulic Chuck ensure strong clamping and withstand high radial cutting forces when to provide full tool engagement while machining a variety of tough materials.



CUSTOMER BENEFITS

- Comprehensive range of hydraulic chucks
- Compatible with all common machine tool spindle interfaces
- Range includes conventional (HC), reinforced power (HCR) and slim (HCS) designs
- Available slotted reduction sleeves in sealed and peripheral coolant versions
- Chucks support Seco round tools for the utmost performance



SECO HYDRAULIC CHUCKS

ELIMINATE COMPLICATED TOOL HOLDING





Seco Hydraulic Chucks and Reduction Sleeves provide simple, easy-to-use, versatile tool holding. To overcome specific machining challenges cost effectively, these chucks are available in three versions, each able to accommodate several tool shank size variations for reduced tooling inventory. The HC Conventional version delivers precision holding for drilling, reaming and light milling. As a universal solution, the HCR Reinforced version provides effective holding for all applications from HSM to HPM, and for all kind of tool shank types like Cylindrical, Weldon and Whistle Notch. The HCS Slim holder is ideal to access deep, narrow part cavities during 5-axis machining at high speeds

PRODUCT NUMBER	DESIGNATION	HC: CONVENTIONAL	HCR: REINFORCED	HCS: SLIM
10137125	HSKA63-HCR12-080		■	
10137126	HSKA63-HCR20-080		■	
10137127	HSKA100-HCR20-090		■	
10137128	HSKA100-HCR32-100		■	
10137129	DIN40ADB-HCR12-050		■	
10137130	DIN40ADB-HCR20-064		■	
10137131	DIN50ADB-HCR20-064		■	
10137132	DIN50ADB-HCR32-081		■	
10137133	CAT40ADB-HCR20-064		■	
10137134	CAT40TFADB-HCR20-064		■	
10137135	CAT50ADB-HCR32-081		■	
10137136	BT30ADB-HCR12-069		■	
10137137	BT30ADB-HCR20-090		■	
10137138	BT30TFADB-HCR12-069		■	
10137139	BT30TFADB-HCR20-090		■	
10137140	BT40ADB-HCR12-058		■	
10137141	BT40ADB-HCR20-072		■	
10137142	BT40TFADB-HCR12-058		■	
10137143	BT40TFADB-HCR20-072		■	
10137144	BT50ADB-HCR20-083		■	
10137145	BT50ADB-HCR32-090		■	
10137146	C6-HCR12-065		■	
10137147	C6-HCR20-080		■	
10137148	HSKA50-HCR20-094		■	
10137261	HSKA63-HC06-070	■		
10137262	HSKA63-HC08-070	■		
10137263	HSKA63-HC10-080	■		
10137264	HSKA63-HC12-085	■		
10137265	HSKA63-HC14-085	■		
10137266	HSKA63-HC16-090	■		
10137267	HSKA63-HC20-090	■		
10137268	HSKA63-HC25-120	■		
10137269	HSKA63-HC32-125	■		
10137270	HSKA100-HC12-095	■		
10137271	HSKA100-HC16-100	■		
10137272	HSKA100-HC20-105	■		
10137273	HSKA100-HC25-110	■		
10137274	HSKA100-HC32-110	■		
10137275	DIN40ADB-HC06-080	■		
10137276	DIN40ADB-HC08-080	■		

PRODUCT NUMBER	DESIGNATION	HC: CONVENTIONAL	HCR: REINFORCED	HCS: SLIM
10137277	DIN40ADB-HC10-080	■		
10137278	DIN40ADB-HC12-080	■		
10137279	DIN40ADB-HC16-080	■		
10137280	DIN50ADB-HC12-080	■		
10138581	DIN40ADB-HC20-080	■		
10138582	DIN50ADB-HC20-080	■		
10138583	DIN50ADB-HC32-103	■		
10137281	CAT40ADB-HC06-063	■		
10137282	CAT40ADB-HC08-063	■		
10137283	CAT40ADB-HC10-063	■		
10137284	CAT40ADB-HC12-063	■		
10137285	CAT40ADB-HC16-063	■		
10137286	CAT40ADB-HC20-063	■		
10137287	CAT40TFADB-HC06-080	■		
10137288	CAT40TFADB-HC08-080	■		
10137289	CAT40TFADB-HC10-080	■		
10137290	CAT40TFADB-HC12-080	■		
10137291	CAT40TFADB-HC16-080	■		
10137292	CAT40TFADB-HC20-080	■		
10137293	CAT50ADB-HC12-081	■		
10137294	CAT50ADB-HC20-081	■		
10137295	CAT50ADB-HC25-081	■		
10137296	CAT50ADB-HC32-081	■		
10137297	BT40ADB-HC06-090	■		
10137298	BT40ADB-HC08-090	■		
10137299	BT40ADB-HC10-090	■		
10137300	BT40ADB-HC12-090	■		
10137301	BT40ADB-HC16-090	■		
10137302	BT40ADB-HC20-090	■		
10137303	BT50ADB-HC20-090	■		
10137304	BT50ADB-HC32-120	■		
10137328	HSKA63-HCS06-145			■
10137329	HSKA63-HCS08-145			■
10137330	HSKA63-HCS10-145			■
10137331	HSKA63-HCS12-145			■
10137332	HSKA63-HCS16-145			■
10137333	HSKA63-HCS20-145			■
10137334	HSKA100-HCS06-150			■
10137335	HSKA100-HCS08-150			■
10137336	HSKA100-HCS10-150			■

PRODUCT NUMBER	DESIGNATION	HC: CONVENTIONAL	HCR: REINFORCED	HCS: SLIM
10137337	HSKA100-HCS12-150			■
10137338	HSKA100-HCS16-150			■
10137339	HSKA100-HCS20-150			■
10137340	BT40ADB-HCS06-150			■
10137341	BT40ADB-HCS08-150			■
10137342	BT40ADB-HCS10-150			■
10137343	BT40ADB-HCS12-150			■
10137344	BT40ADB-HCS16-150			■
10137345	BT40ADB-HCS20-150			■
10137346	BT40TFADB-HCS06-150			■
10137347	BT40TFADB-HCS08-150			■
10137348	BT40TFADB-HCS10-150			■
10137349	BT40TFADB-HCS12-150			■
10137350	BT40TFADB-HCS16-150			■
10137351	BT40TFADB-HCS20-150			■
10137352	ST20-HC12-100	■		
10137353	ST20-HC20-100	■		
10137354	ST32-HC20-140	■		
10137305	C5-HC06-065	■		
10137306	C5-HC08-065	■		
10137307	C5-HC10-075	■		
10137308	C5-HC12-080	■		
10137309	C5-HC16-085	■		
10137310	C5-HC20-085	■		
10137311	C5-HC25-095	■		
10137312	C6-HC06-065	■		
10137313	C6-HC08-065	■		
10137314	C6-HC10-075	■		
10137315	C6-HC12-080	■		
10137316	C6-HC16-085	■		
10137317	C6-HC20-085	■		
10137318	C6-HC25-095	■		
10137319	C6-HC32-100	■		
10137320	C8-HC20-095	■		
10137321	C8-HC32-105	■		
10137322	G5-HC20-090	■		
10137323	G6-HC25-100	■		
10137324	G6-HC32-100	■		

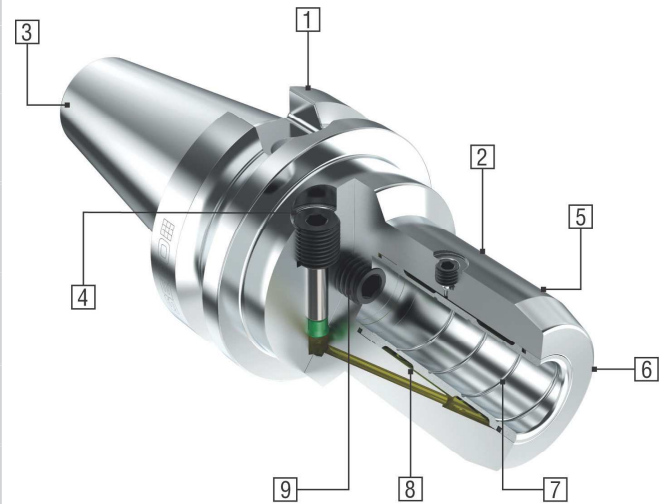
Tool holders for round tools clamping

	Power milling chuck	Hydraulic chuck HC	Hydraulic chuck HCR	Hydraulic chuck HCS
	 PMC	 HC 5834		
Operations	Finishing milling ■■■□□ Medium milling ■■■■□ Rough milling ■■■■□ High speed milling ■□□□□ Drilling ■■■■□ Reaming ■□□□□ Tapping ■□□□□ NA	■■■■■ ■■■■□ NA ■■■■□ ■■■■□ ■■■■□ ■■■■□ NA	■■■■■ ■■■■■ ■■■■■ ■■■■□ ■■■■□ ■■■■□ ■■■■□ NA	■■■■■ ■■■■□ NA ■■■■□ ■■■■□ ■■■■□ ■■■■□ NA
Characteristics	Clamping range (mm) Ø6 – Ø32 Clamping range (inch) Ø0.75 – Ø1.25 Run-out >10 µm/.0004" (3x Ø) Max RPM* 15 000 rpm Transmittable torque 1500 Nm/1106 ft/lb (Ø32 mm/1.25") Tool change Spanner Axial adjustment Screw Max coolant pressure* 30 bar/435 psi Type of cooling Central Balancing quality Pre-balanced Option Stop screws for through coolant Sleeves	Clamping range (mm) Ø3 – Ø32 Clamping range (inch) Ø0.118 – Ø1.25 Run-out ≤3 µm/.0001" Max RPM* 40 000 rpm Transmittable torque 650 Nm/480 ft/lb (Ø32 mm/1.25") (250 Nm for Seco-Capto/Graflex) Tool change Locking hex key Axial adjustment Screw Max coolant pressure* 80 bar/1160 psi (70 bar/1015 psi for Seco-Capto/Graflex) Type of cooling Central Balancing quality G2.5 - 25 000 or U≤1g.mm (except Seco-Capto) Option Sleeves (sealed or peripheral coolant)	Clamping range (mm) Ø12 – Ø20 – Ø32 in direct Ø3 – Ø32 through sleeves Clamping range (inch) Ø0.472 – Ø0.787 – Ø1.25 in direct Ø0.118 – Ø1.25 through sleeves Run-out ≤3 µm/.0001" Max RPM* 50 000 rpm (Ø32/1.25" max 25 000 rpm) Transmittable torque 900 Nm/664 ft/lb (Ø32 mm/1.25") Tool change Locking hex key Axial adjustment Screw Max coolant pressure* 80 bar/1160 psi Type of cooling Central Balancing quality G2.5 - 25 000 or U≤1g.mm Option Sleeves (sealed or peripheral coolant)	Clamping range (mm) Ø6 – Ø20 Clamping range (inch) Ø0.236 – Ø0.787 Run-out ≤3 µm/.0001" Max RPM* 40 000 rpm Transmittable torque 231 Nm/170 ft/lb (Ø20 mm/0.787") Tool change Locking hex key Axial adjustment Screw Max coolant pressure* 80 bar/1160 psi Type of cooling Central Balancing quality G2.5 - 25 000 or U≤1g.mm Option Sleeves (sealed or peripheral coolant)
Recommendations	<ul style="list-style-type: none"> ▪ Ideal for heavy duty operations, high chips removal rates ▪ Alternative to shrinkfit or Weldon ▪ Easy to implement ▪ Versatile through use of reduction sleeves 	<ul style="list-style-type: none"> ▪ Semi-finishing and finishing operations in High Speed Cutting (HSC) ▪ Not recommended for heavy milling with big radial loads ▪ Simple to use, but needs maintenance ▪ Flexibility thru red. sleeves ▪ Dampening effect 	<ul style="list-style-type: none"> ▪ Universal chuck, for heavy roughing applications (HPM) or High Speed Cutting (HSC) in all kind of applications ▪ High rigidity, high torques ▪ Very easy to use ▪ Flexibility thru red. Sleeves ▪ Damping effect 	<ul style="list-style-type: none"> ▪ For semi-finishing and finishing applications in deep cavities, like M&D ▪ Very easy to use ▪ Flexibility thru red. Sleeves
Tool shank quality	Recommended: h6 (max h7)	Needs to be: h6		
* Depending on the holder's machine side taper type and size				

Hydraulic expansion chucks – HC (former 5834), HCR and HCS

Hydraulic chucks, that use oil pressure to compress an internal membrane within the holder body, feature repeatable low runout, quick and easy tool change, and are effective for reaming, drilling, threading and light milling with end mills at high spindle speeds. The HCR Power version can perform High Machining Performance thanks to a high radial rigidity, as well as High-Speed Machining.

Most important features	
1	Fine balanced in standard at G2,5-25,000 rpm or ≤1 g.mm (Seco-Capto: G6,3-20.000 rpm)
2	HC version with body shape according to DIN69882-7
3	Made from Premium material, high mechanical strength and good resistance to thermal shocks
4	Very easy to use, just turn one screw until stop. Not additional equipment needed
5	Good gripping forces (shank tolerance h6 maximum), especially Power version offering high clamping forces
6	Repeatable runout ≤ 3 μm HC Straight shanks: runout ≤ 6 μm
7	Helical groove to ensure oil-free or debris-free tool shank surface
8	Oil reservoir acts as a damping agent
9	Axial stop screw for tool length adjustment



- Guide
- HSK-A
- HSK-E
- DIN
- BT JIS
- CAT
- Combimaster
- Graflex
- Seco-Capto™
- Others
- Operating & setting accessories
- Shrinkfit

Our standard designs

HC Conventional version

The HC conventional hydro-chucks are an easy and efficient solution for high precision works like for drilling, reaming, threading, and light milling in all kind of components. Can be used along with slotted reduction sleeves offering a great flexibility.

Very easy tool changes, reducing set-up times, without need of peripheral equipment's.



HCR Reinforced version

The HCR reinforced version is a universal solution for round tools, dedicated for all kind of machining applications from high performance machining (HPM) to high-speed cutting (HSC)

Its short and compact design offers a high radial rigidity, and high gripping forces (up to 900 Nm for diam 32 !)

Fine balanced, it is suitable for high-speed applications up to 50.000 rpm (diam. 12 and 20 mm).

The range features a direct clamping for diam. 12, 20 and 32, but various other diameters can be clamped through slotted reduction sleeves. All kind of tool shank types can be clamped even in direct mount.



HCS Slim 3° version

The HCS Slim 3° designs are ideal for excellent workpiece accessibility, machining of narrow and deep areas in light milling and drilling operations.

This range is completed with cylindrical extensions enabling to build long and slim assemblies once mounted into the HCR Power chucks for example.



Reduction sleeves for hydraulic chucks

Slotted reduction sleeves from diam. 12, 20 and 32 mm allow the clamping of several different tool shank sizes with just one toolholder, offering a great flexibility and reducing inventory costs.

They are available in two versions:

- coolant-proof for tools with coolant facilities,
- with peripheral coolant channels for tools without internal cooling holes.

Both versions are equipped with a length pre-adjustment ring.

Runout and transmissible torque will remain unchanged.

All kind of tool shank types can be mounted into the sleeves



Sealed reduction sleeves 05FHC for tools with coolant holes

Reduction sleeves 05FHC...L1 with peripheral coolant channels for tools without coolant holes



Guide
HSK-A
HSK-E
DIN
BT JIS
CAT
Combimaster
Graflex
Seco-Capto™
Others
Operating & setting accessories
Shrinkfit

Acceptable tool shanks

	Designs	Cylindrical Form A	Weldon 1 flat Form B	Weldon 2 flats Form B	Whistle Notch Form E	Guide
						HSK-A
Direct clamping	HC (Conventional)	∅ 6 - 32 mm ∅ 0.236 - 1.260"	∅ 6 - 20 mm ∅ 0.236 - 0.787"	∅ 25 - 32 mm ∅ 1 - 1.260"	∅ 6 - 32 mm ∅ 0.236 - 1.260"	HSK-E
	HCR (Reinforced)	∅ 6 - 32 mm ∅ 0.236 - 1.260"	∅ 6 - 20 mm ∅ 0.236 - 0.787"	∅ 25 - 32 mm ∅ 1 - 1.260"	∅ 6 - 32 mm ∅ 0.236 - 1.260"	
	HC (Capto/Graflex)	∅ 6 - 32 mm ∅ 0.236 - 1.260"	∅ 6 - 20 mm ∅ 0.236 - 0.787"	cannot be clamped in direct	cannot be clamped in direct	DIN
	HCS (Slim)	∅ 6 - 32 mm ∅ 0.236 - 1.260"	∅ 6 - 20 mm ∅ 0.236 - 0.787"	cannot be clamped in direct	cannot be clamped in direct	
Through reduction sleeves	HC (Conventional)	∅ 3 - 25 mm ∅ 0.118 - 1"	∅ 6 - 20 mm ∅ 0.236 - 0.787"	∅ 25 mm ∅ 1"	∅ 6 - 25 mm ∅ 0.236 - 1"	BT JIS
	HCR (Reinforced)	∅ 3 - 25 mm ∅ 0.118 - 1"	∅ 6 - 20 mm ∅ 0.236 - 0.787"	∅ 25 mm ∅ 1"	∅ 6 - 25 mm ∅ 0.236 - 1"	
	HCS (Slim)	∅ 3 - 25 mm ∅ 0.118 - 1"	∅ 6 - 20 mm ∅ 0.236 - 0.787"	∅ 25 mm ∅ 1"	∅ 6 - 25 mm ∅ 0.236 - 1"	CAT

Guide

HSK-A

HSK-E

DIN

BT JIS

CAT

Combimaster

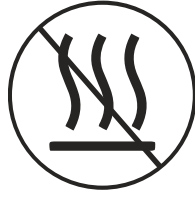
Graflex

Seco-Capto™

Others

Operating & setting accessories

Shrinkfit



Hydraulic chucks are not Shrinkfit chucks: don't heat them!

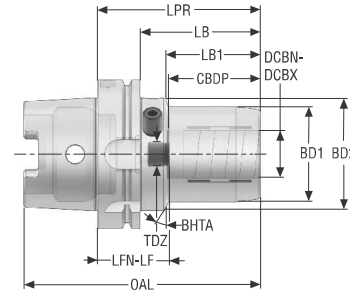
Hydraulic expansion chucks (HC-5834)

Clamping Ø	Max rpm (min ⁻¹)				Minimum clamping depth	
	Standard design HC		Reinforced design HCR	Slim design 3° HCS		
	HSK-A, DIN, BT, BT T/F, CAT	Seco-Capto, Graflex, CAT T/F	All	All	Standard HC and Reinforced HCR in HSK-A, DIN, BT, BT T/F, CAT, Seco-Capto, Graflex	Standard HC in CAT-T/F, and all slim HCS 3°
6 mm 0.236"	50.000	40.000		40.000	27 mm 1.063"	27 mm 1.063"
8 mm 0.315"	50.000	40.000		40.000	27 mm 1.063"	27 mm 1.063"
10 mm 0.394"	50.000	40.000		40.000	31 mm 1.220"	32 mm 1.260"
12 mm 0.472"	50.000	40.000	50.000	40.000	36 mm 1.417"	37 mm 1.457"
14 mm 0.551"	50.000	40.000		40.000	36 mm 1.417"	37 mm 1.457"
16 mm 0.630"	50.000	40.000		40.000	39 mm 1.535"	42 mm 1.654"
20 mm 0.787"	50.000	40.000	50.000	40.000	41 mm 1.614"	42 mm 1.654"
25 mm 0.984"	25.000	25.000		25.000	47 mm 1.850"	48 mm 1.890"
32 mm 1.260"	25.000	25.000	25.000	25.000	51 mm 2.000"	55 mm 2.165"

- Operating temperature: 20-50°C
- Max. coolant pressure: 80 bar/1160 psi, Seco-Capto and Graflex: 70 bar/1015 psi
- Adjustment range of the length: 10 mm. Tool must be inserted at recommended minimum clamping length (see chart)
- Tool shank quality: h6 or better
- Adapt your parameters in case of long tools, heavy tools, and when using extensions
- HC Straight shanks limited to maxi 10.000 rpm

HC – Hydraulic chucks – DIN69882-7
– Metric / Inch

HSK-A/ ISO12164-1-HSK-A



- Run-out $\leq 3 \mu\text{m}$
- For reduction sleeves, see page(s) 405, 406
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 394
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CDBP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight	
																	kg	lbs
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch						
HSKA63-HC06-070	10137261	HSK-A63	6,0 0.236	70,0 2.756	44,05 1.734	24,0 0.945	38,5 1.516	50,0 1.969	26,0 1.024	101,9 4.012	33,0 1.299	43,0 1.693	M5	20,0	1	G2.5	1,0 2.200	
HSKA63-HC08-070	10137262	HSK-A63	8,0 0.315	70,0 2.756	44,05 1.734	25,0 0.984	38,5 1.516	50,0 1.969	28,0 1.102	101,9 4.012	33,0 1.299	43,0 1.693	M6	20,0	1	G2.5	1,0 2.200	
HSKA63-HC10-080	10137263	HSK-A63	10,0 0.394	80,0 3.150	54,05 2.128	35,0 1.378	42,5 1.673	50,0 1.969	30,0 1.181	111,9 4.406	39,0 1.535	49,0 1.929	M8x1	20,0	1	G2.5	1,0 2.200	
HSKA63-HC12-085	10137264	HSK-A63	12,0 0.472	85,0 3.346	59,05 2.325	40,0 1.575	47,5 1.870	50,0 1.969	32,0 1.260	116,9 4.602	39,0 1.535	49,0 1.929	M10x1	20,0	1	G2.5	1,1 2.430	
HSKA63-HC14-085	10137265	HSK-A63	14,0 0.551	85,0 3.346	59,05 2.325	40,0 1.575	47,5 1.870	50,0 1.969	34,0 1.339	116,9 4.602	39,0 1.535	49,0 1.929	M10x1	20,0	1	G2.5	1,1 2.430	
HSKA63-HC16-090	10137266	HSK-A63	16,0 0.630	90,0 3.543	64,05 2.522	46,0 1.811	50,5 1.988	50,0 1.969	38,0 1.496	121,9 4.799	41,0 1.614	51,0 2.008	M12x1	20,0	1	G2.5	1,2 2.650	
HSKA63-HC20-090	10137267	HSK-A63	20,0 0.787	90,0 3.543	64,05 2.522	48,0 1.890	52,5 2.067	50,0 1.969	42,0 1.654	121,9 4.799	39,0 1.535	49,0 1.929	M16x1	20,0	1	G2.5	1,2 2.650	
HSKA63-HC25-120	10137268	HSK-A63	25,0 0.984	120,0 4.724	94,05 3.703	–	58,5 2.303	–	57,0 2.244	151,9 5.980	63,0 2.480	73,0 2.874	M16x1	–	1	G2.5	2,1 4.630	
HSKA63-HC32-125	10137269	HSK-A63	32,0 1.260	125,0 4.921	99,05 3.900	82,8 3.260	62,5 2.461	50,0 1.969	62,0 2.441	156,9 6.177	64,0 2.520	74,0 2.913	M16x1	–	1	G2.5	2,3 5.070	
HSKA100-HC12-095	10137270	HSK-A100	12,0 0.472	95,0 3.740	66,05 2.600	47,0 1.850	47,5 1.870	50,3 1.978	32,0 1.260	144,9 5.705	49,0 1.929	59,0 2.323	M10x1	20,0	1	G2.5	2,5 5.510	
HSKA100-HC16-100	10137271	HSK-A100	16,0 0.630	100,0 3.937	71,05 2.797	53,0 2.087	50,5 1.988	50,3 1.978	38,0 1.496	149,9 5.902	51,0 2.008	61,0 2.402	M12x1	20,0	1	G2.5	2,6 5.730	
HSKA100-HC20-105	10137272	HSK-A100	20,0 0.787	105,0 4.134	76,05 2.994	59,0 2.323	52,5 2.067	50,3 1.978	42,0 1.654	154,9 6.098	54,0 2.126	64,0 2.520	M16x1	20,0	1	G2.5	2,7 5.950	
HSKA100-HC25-110	10137273	HSK-A100	25,0 0.984	110,0 4.331	81,05 3.191	62,0 2.441	58,5 2.303	63,3 2.490	57,0 2.244	159,9 6.295	53,0 2.087	63,0 2.480	M16x1	20,0	1	G2.5	3,4 7.500	
HSKA100-HC32-110	10137274	HSK-A100	32,0 1.260	110,0 4.331	81,05 3.191	62,0 2.441	62,5 2.461	75,3 2.963	64,0 2.520	159,9 6.295	49,0 1.929	59,0 2.323	M16x1	20,0	1	G2.5	3,7 8.160	

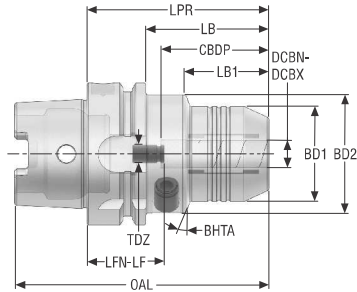
Accessories

For size	Key
HSKA63, DCBN = 6-20	H05-4
HSKA63, DCBN = 25-32	H06-4
HSKA100, DCBN = 12-20	H05-4
HSKA100, DCBN = 25-32	H06-4



HSK-A/ ISO12164-1-HSK-A

HCR – Hydraulic chucks, reinforced
– Metric / Inch



- Run-out ≤3 µm
- For reduction sleeves, see page(s) 405, 406
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 394
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CDBP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch					kg lbs
HSKA50-HCR20-094	10137148	HSK-A50	20,0 0.787	94,0 3.701	68,05 2.679	51,8 2.039	52,5 2.067	40,3 1.585	42,0 1.654	118,9 4.681	41,5 1.634	41,5 1.634	-	-	1	G2.5	1,0 2.200
HSKA63-HCR12-080	10137125	HSK-A63	12,0 0.472	80,0 3.150	54,05 2.128	36,5 1.437	47,5 1.870	52,5 2.067	42,0 1.654	111,9 4.406	34,0 1.339	44,0 1.732	M8x1	20,0	1	G2.5	1,3 2.870
HSKA63-HCR20-080	10137126	HSK-A63	20,0 0.787	80,0 3.150	54,05 2.128	-	52,5 2.067	-	52,5 2.067	111,9 4.406	29,0 1.142	39,0 1.535	M8x1	-	1	G2.5	1,3 2.870
HSKA100-HCR20-090	10137127	HSK-A100	20,0 0.787	90,0 3.543	61,05 2.404	-	52,5 2.067	-	52,5 2.067	139,9 5.508	39,0 1.535	49,0 1.929	M8x1	-	1	G2.5	2,8 6.170
HSKA100-HCR32-100	10137128	HSK-A100	32,0 1.260	100,0 3.937	71,05 2.797	-	62,5 2.461	-	72,0 2.835	149,9 5.902	39,0 1.535	49,0 1.929	M8x1	-	1	G2.5	3,7 8.160

Accessories

For

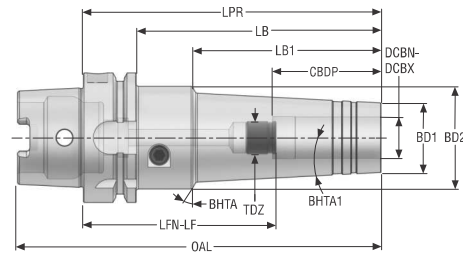
Key



HSKA50	H05-4
HSKA63	H05-4
HSKA100-HCR20	H05-4
HSKA100-HCR32	H06-4

HCS – Hydraulic chucks, slim
– Metric / Inch

HSK-A/ ISO12164-1-HSK-A



- Run-out ≤3 μm
- For reduction sleeves, see page(s) 405, 406
- For HSK sealing plugs, coolant tubes and tube spanners, see page(s) 394
- For ISO attribute explanation, see page 14

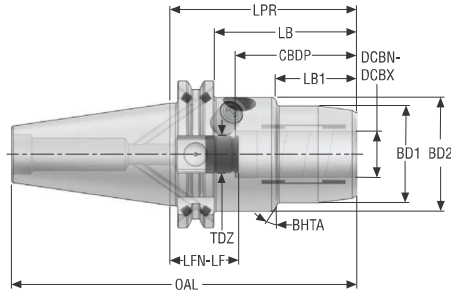
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	BHTA1°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch						kg lbs
HSKA63-HCS06-145	10137328	HSK-A63	6,0 0.236	145,0 5.709	119,0 4.685	90,0 3.543	37,0 1.457	50,0 1.969	20,0 0.787	177,0 6.969	108,0 4.252	118,0 4.646	M5x0.8	30,0	3,0	1	G2.5	1,5 3.310
HSKA63-HCS08-145	10137329	HSK-A63	8,0 0.315	145,0 5.709	119,0 4.685	90,0 3.543	37,0 1.457	50,0 1.969	22,0 0.866	177,0 6.969	108,0 4.252	118,0 4.646	M6x1	30,0	3,0	1	G2.5	1,5 3.310
HSKA63-HCS10-145	10137330	HSK-A63	10,0 0.394	145,0 5.709	119,0 4.685	90,0 3.543	42,0 1.654	50,0 1.969	24,0 0.945	177,0 6.969	103,0 4.055	113,0 4.449	M8x1	30,0	3,0	1	G2.5	1,5 3.310
HSKA63-HCS12-145	10137331	HSK-A63	12,0 0.472	145,0 5.709	119,0 4.685	90,0 3.543	49,0 1.929	50,0 1.969	25,0 0.984	177,0 6.969	98,0 3.858	108,0 4.252	M10x1	30,0	3,0	1	G2.5	1,6 3.530
HSKA63-HCS16-145	10137332	HSK-A63	16,0 0.630	145,0 5.709	119,0 4.685	90,0 3.543	51,0 2.008	50,0 1.969	32,0 1.260	177,0 6.969	93,0 3.661	103,0 4.055	M12x1	30,0	3,0	1	G2.5	1,8 3.970
HSKA63-HCS20-145	10137333	HSK-A63	20,0 0.787	145,0 5.709	119,0 4.685	90,0 3.543	53,0 2.087	50,0 1.969	34,0 1.339	177,0 6.969	93,0 3.661	103,0 4.055	M16x1	30,0	3,0	1	G2.5	1,9 4.190
HSKA100-HCS06-150	10137334	HSK-A100	6,0 0.236	150,0 5.906	121,0 4.764	90,0 3.543	37,0 1.457	50,0 1.969	20,0 0.787	200,0 7.874	113,0 4.449	123,0 4.843	M5x0.8	30,0	3,0	1	G2.5	3,0 6.610
HSKA100-HCS08-150	10137335	HSK-A100	8,0 0.315	150,0 5.906	121,0 4.764	90,0 3.543	37,0 1.457	50,0 1.969	22,0 0.866	200,0 7.874	113,0 4.449	123,0 4.843	M6x1	30,0	3,0	1	G2.5	3,1 6.830
HSKA100-HCS10-150	10137336	HSK-A100	10,0 0.394	150,0 5.906	121,0 4.764	90,0 3.543	42,5 1.673	50,0 1.969	24,0 0.945	200,0 7.874	108,0 4.252	118,0 4.646	M8x1	30,0	3,0	1	G2.5	3,1 6.830
HSKA100-HCS12-150	10137337	HSK-A100	12,0 0.472	150,0 5.906	121,0 4.764	90,0 3.543	48,0 1.890	50,0 1.969	25,0 0.984	200,0 7.874	103,0 4.055	113,0 4.449	M10x1	30,0	3,0	1	G2.5	3,1 6.830
HSKA100-HCS16-150	10137338	HSK-A100	16,0 0.630	150,0 5.906	121,0 4.764	90,0 3.543	52,0 2.047	50,0 1.969	32,0 1.260	200,0 7.874	98,0 3.858	108,0 4.252	M12x1	30,0	3,0	1	G2.5	3,4 7.500
HSKA100-HCS20-150	10137339	HSK-A100	20,0 0.787	150,0 5.906	121,0 4.764	90,0 3.543	52,0 2.047	50,0 1.969	34,0 1.339	200,0 7.874	100,0 3.937	110,0 4.331	M16x1	30,0	3,0	1	G2.5	3,4 7.500

Accessories

For	Key
All	H05-4

HC – Hydraulic chucks, standard
– Metric / Inch

DIN 69871-ADB



- Run-out ≤3 μm
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch					kg lbs
DIN40ADB-HC06-080	10137275	DIN40 ADB	6,0 0.236	80,5 3.169	61,45 2.419	29,5 1.161	38,5 1.516	49,3 1.939	26,0 1.024	148,75 5.856	43,5 1.713	53,5 2.106	M5	20,0	1	G2.5	1,3 2.870
DIN40ADB-HC08-080	10137276	DIN40 ADB	8,0 0.315	80,5 3.169	61,45 2.419	30,0 1.181	38,5 1.516	49,3 1.939	28,0 1.102	148,75 5.856	43,5 1.713	53,5 2.106	M6	20,0	1	G2.5	1,3 2.870
DIN40ADB-HC10-080	10137277	DIN40 ADB	10,0 0.394	80,5 3.169	61,45 2.419	31,0 1.220	42,5 1.673	49,3 1.939	30,0 1.181	148,75 5.856	39,5 1.555	49,5 1.949	M8x1	20,0	1	G2.5	1,3 2.870
DIN40ADB-HC12-080	10137278	DIN40 ADB	12,0 0.472	80,5 3.169	61,45 2.419	31,5 1.240	47,5 1.870	49,3 1.939	32,0 1.260	148,75 5.856	34,5 1.358	44,5 1.752	M10x1	20,0	1	G2.5	1,3 2.870
DIN40ADB-HC16-080	10137279	DIN40 ADB	16,0 0.630	80,5 3.169	61,45 2.419	33,0 1.299	50,5 1.988	49,3 1.939	38,0 1.496	148,75 5.856	31,5 1.240	41,5 1.634	M12x1	20,0	1	G2.5	1,4 3.090
DIN40ADB-HC20-080	10138581	DIN40 ADB	20,0 0.787	80,5 3.169	61,45 2.419	34,0 1.339	52,5 2.067	49,3 1.939	42,0 1.654	148,75 5.856	29,5 1.161	39,5 1.555	M16x1	20,0	1	G2.5	1,4 3.090
DIN50ADB-HC12-080	10137280	DIN50 ADB	12,0 0.472	80,5 3.169	61,45 2.419	31,5 1.240	47,5 1.870	49,3 1.939	32,0 1.260	182,1 7.169	34,5 1.358	44,5 1.752	M10x1	20,0	1	G2.5	3,0 6.610
DIN50ADB-HC20-080	10138582	DIN50 ADB	20,0 0.787	80,5 3.169	61,45 2.419	34,0 1.339	52,5 2.067	49,3 1.939	42,0 1.654	182,1 7.169	29,5 1.161	39,5 1.555	M16x1	20,0	1	G2.5	3,2 7.050
DIN50ADB-HC32-103	10138583	DIN50 ADB	32,0 1.260	103,2 4.063	84,15 3.313	62,5 2.461	62,5 2.461	70,3 2.766	64,0 2.520	204,8 8.063	42,2 1.661	52,2 2.055	M16x1	20,0	1	G2.5	4,3 9.480

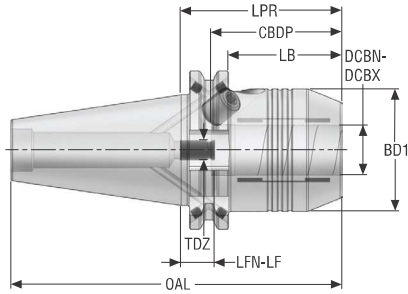
Accessories

For	Key
DIN40	H05-4
DIN50, DCBN = 12-20	H05-4
DIN50, DCBN = 32	H06-4



DIN 69871-ADB

HCR – Hydraulic chucks, reinforced
– Metric / Inch



- Run-out $\leq 3 \mu\text{m}$
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX		LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch														
DIN40ADB-HCR12-050	10137129	DIN40 ADB	12,0 0.472	50,0 1.969	31,0 1.220	-	47,5 1.870	-	42,0 1.654	118,25 4.656	4,0 0.157	14,0 0.551	M8x1	-	0	G2.5	1,1 2.430	
DIN40ADB-HCR20-064	10137130	DIN40 ADB	20,0 0.787	64,5 2.539	45,45 1.789	-	52,5 2.067	-	49,25 1.939	132,75 5.226	13,5 0.531	23,5 0.925	M8x1	-	0	G2.5	1,1 2.430	
DIN50ADB-HCR20-064	10137131	DIN50 ADB	20,0 0.787	64,5 2.539	45,5 1.791	-	52,5 2.067	-	49,25 1.939	166,0 6.535	13,5 0.531	23,5 0.925	M8x1	-	0	G2.5	3,1 6.830	
DIN50ADB-HCR32-081	10137132	DIN50 ADB	32,0 1.260	81,0 3.189	61,95 2.439	-	62,5 2.461	-	72,0 2.835	182,6 7.189	20,0 0.787	30,0 1.181	M8x1	-	0	G2.5	4,1 9.040	

Accessories

For size

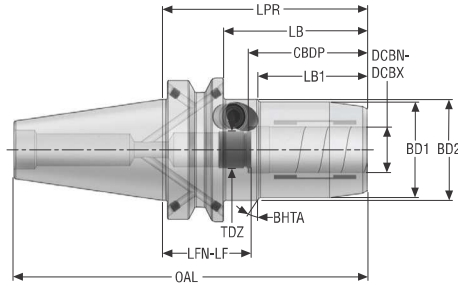
Key



DIN40	H05-4
DIN50, DCBN = 20	H05-4
DIN50, DCBN = 32	H06-4

HC – Hydraulic chucks, standard
– Metric / Inch

BT JIS B 6339-ADB



- Run-out $\leq 3 \mu\text{m}$
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch					kg lbs
BT40ADB-HC06-090	10137297	BT40 ADB	6,0 0.236	90,0 3.543	63,0 2.480	43,0 1.693	38,5 1.516	44,5 1.752	26,05 1.026	155,4 6.118	53,0 2.087	63,0 2.480	M5	20,0	1	G2.5	1,3 2.870
BT40ADB-HC08-090	10137298	BT40 ADB	8,0 0.315	90,0 3.543	63,0 2.480	44,5 1.752	38,5 1.516	44,5 1.752	28,0 1.102	155,4 6.118	53,0 2.087	63,0 2.480	M6x1	20,0	1	G2.5	1,4 3.090
BT40ADB-HC10-090	10137299	BT40 ADB	10,0 0.394	90,0 3.543	63,0 2.480	44,5 1.752	42,5 1.673	44,5 1.752	30,0 1.181	155,4 6.118	49,0 1.929	59,0 2.323	M8x1	20,0	1	G2.5	1,4 3.090
BT40ADB-HC12-090	10137300	BT40 ADB	12,0 0.472	90,0 3.543	63,0 2.480	44,5 1.752	47,5 1.870	44,5 1.752	32,0 1.260	155,4 6.118	44,0 1.732	54,0 2.126	M10x1	20,0	1	G2.5	1,4 3.090
BT40ADB-HC16-090	10137301	BT40 ADB	16,0 0.630	90,0 3.543	63,0 2.480	47,5 1.870	50,5 1.988	44,5 1.752	38,0 1.496	155,4 6.118	41,0 1.614	51,0 2.008	M12x1	20,0	1	G2.5	1,4 3.090
BT40ADB-HC20-090	10137302	BT40 ADB	20,0 0.787	90,0 3.543	63,0 2.480	47,5 1.870	52,5 2.067	44,5 1.752	42,0 1.654	155,4 6.118	39,0 1.535	49,0 1.929	M16x1	20,0	1	G2.5	1,5 3.310
BT50ADB-HC20-090	10137303	BT50 ADB	20,0 0.787	90,0 3.543	52,0 2.047	34,0 1.339	52,5 2.067	49,3 1.939	42,0 1.654	191,8 7.551	39,0 1.535	49,0 1.929	M16x1	20,0	1	G2.5	3,9 8.600
BT50ADB-HC32-120	10137304	BT50 ADB	32,0 1.260	120,0 4.724	82,0 3.228	62,5 2.461	62,5 2.461	70,3 2.766	64,0 2.520	221,8 8.732	59,0 2.323	69,0 2.717	M16x1	20,0	1	G2.5	5,1 11.240

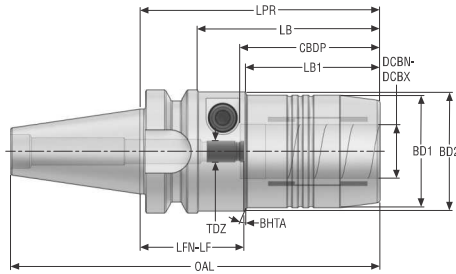
Accessories

For size	Key
BT40, DCBN = 6	H05-4
BT40, DCBN = 8-20	H05-4
BT50, DCBN = 20	H05-4
BT50, DCBN = 32	H06-4



BT JIS B 6339-ADB

HCR – Hydraulic chucks, reinforced
– Metric / Inch



- Run-out ≤3 μm
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch					kg lbs
BT30ADB-HCR12-069	10137136	BT30 ADB	12,0 0.472	69,0 2.717	47,0 1.850	32,0 1.260	47,5 1.870	44,5 1.752	42,0 1.654	117,4 4.622	23,0 0.906	33,0 1.299	M8x1	20,0	0	G2.5	0,9 1.980
BT30ADB-HCR20-090	10137137	BT30 ADB	20,0 0.787	90,0 3.543	68,0 2.677	50,0 1.969	52,5 2.067	44,5 1.752	42,0 1.654	138,4 5.449	39,0 1.535	49,0 1.929	M8x1	20,0	0	G2.5	1,0 2.200
BT40ADB-HCR12-058	10137140	BT40 ADB	12,0 0.472	58,0 2.283	31,0 1.220	–	47,5 1.870	–	42,0 1.654	123,4 4.858	12,0 0.472	22,0 0.866	M8x1	–	0	G2.5	1,2 2.650
BT40ADB-HCR20-072	10137141	BT40 ADB	20,0 0.787	72,5 2.854	45,5 1.791	–	52,5 2.067	–	49,25 1.939	137,9 5.429	21,5 0.846	31,5 1.240	M8x1	–	0	G2.5	1,4 3.090
BT50ADB-HCR20-083	10137144	BT50 ADB	20,0 0.787	83,5 3.287	45,5 1.791	–	52,5 2.067	–	49,25 1.939	185,3 7.295	32,5 1.280	42,5 1.673	M8x1	–	0	G2.5	4,1 9.040
BT50ADB-HCR32-090	10137145	BT50 ADB	32,0 1.260	90,0 3.543	52,0 2.047	–	62,5 2.461	–	72,0 2.835	191,8 7.551	29,0 1.142	39,0 1.535	M8x1	–	0	G2.5	4,7 10.360

Accessories

For size

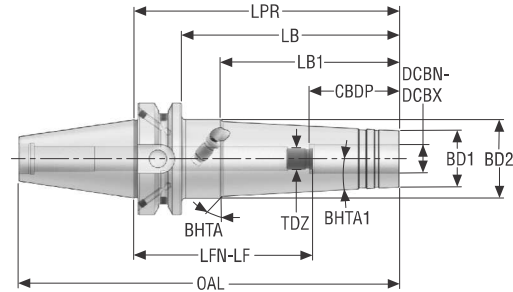
Key



BT30	H05-4
BT40	H05-4
BT50, DCBN = 20	H05-4
BT50, DCBN = 32	H06-4

HCS – Hydraulic chucks, slim
– Metric / Inch

BT JIS B 6339-ADB



- Run-out $\leq 3 \mu\text{m}$
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

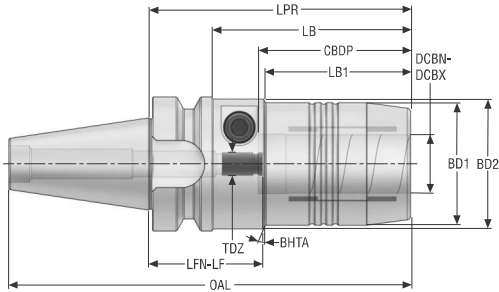
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CDBP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	BHTA1°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch						kg lbs
BT40ADB-HCS06-150	10137340	BT40 ADB	6,0 0.236	150,0 5.906	123,0 4.843	100,0 3.937	37,0 1.457	44,5 1.752	20,0 0.787	215,4 8.480	113,0 4.449	123,0 4.843	M5x0.8	30,0	3,0	1	G2.5	1,7 3.750
BT40ADB-HCS08-150	10137341	BT40 ADB	8,0 0.315	150,0 5.906	123,0 4.843	100,0 3.937	37,0 1.457	44,5 1.752	22,0 0.866	215,4 8.480	113,0 4.449	123,0 4.843	M6x1	30,0	3,0	1	G2.5	1,8 3.970
BT40ADB-HCS10-150	10137342	BT40 ADB	10,0 0.394	150,0 5.906	123,0 4.843	100,0 3.937	42,0 1.654	44,5 1.752	24,0 0.945	215,4 8.480	110,0 4.331	120,0 4.724	M8x1	30,0	3,0	1	G2.5	1,8 3.970
BT40ADB-HCS12-150	10137343	BT40 ADB	12,0 0.472	150,0 5.906	123,0 4.843	100,0 3.937	47,0 1.850	44,5 1.752	25,0 0.984	215,4 8.480	105,0 4.134	115,0 4.528	M10x1	30,0	3,0	1	G2.5	1,8 3.970
BT40ADB-HCS16-150	10137344	BT40 ADB	16,0 0.630	150,0 5.906	123,0 4.843	100,0 3.937	52,0 2.047	44,5 1.752	32,0 1.260	215,4 8.480	100,0 3.937	110,0 4.331	M12x1	30,0	3,0	1	G2.5	2,0 4.410
BT40ADB-HCS20-150	10137345	BT40 ADB	20,0 0.787	150,0 5.906	123,0 4.843	–	52,0 2.047	46,9 1.846	34,0 1.339	215,4 8.480	100,0 3.937	110,0 4.331	M16x1	–	3,0	1	G2.5	2,1 4.630

Accessories

For size	Key
All	H04-4

BT Taper-Face-ADB

HCR – Hydraulic chucks, reinforced
– Metric / Inch



- Run-out ≤3 μm
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CDBP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
				mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch					
BT30TFADB-HCR12-069	10137138	BT30 TF ADB	12,0 0.472	69,0 2.717	47,0 1.850	32,0 1.260	47,5 1.870	44,5 1.752	42,0 1.654	117,4 4.622	23,0 0.906	33,0 1.299	M8x1	20,0	0	G2.5	0,9 1.980
BT30TFADB-HCR20-090	10137139	BT30 TF ADB	20,0 0.787	90,0 3.543	68,0 2.677	50,0 1.969	52,5 2.067	44,5 1.752	42,0 1.654	138,4 5.449	39,0 1.535	49,0 1.929	M8x1	20,0	0	G2.5	1,0 2.200
BT40TFADB-HCR12-058	10137142	BT40 TF ADB	12,0 0.472	58,0 2.283	31,0 1.220	-	47,5 1.870	-	42,0 1.654	123,4 4.858	12,0 0.472	22,0 0.866	M8x1	-	0	G2.5	1,2 2.650
BT40TFADB-HCR20-072	10137143	BT40 TF ADB	20,0 0.787	72,5 2.854	45,5 1.791	-	52,5 2.067	-	49,25 1.939	137,9 5.429	21,5 0.846	31,5 1.240	M8x1	-	0	G2.5	1,4 3.090

Accessories

For size

Key

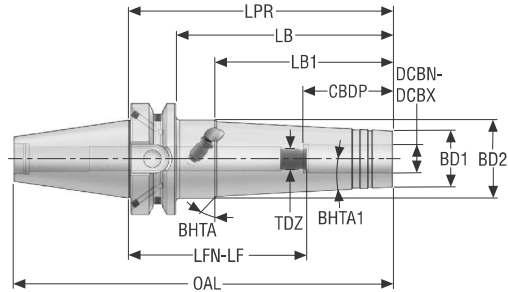


All

H05-4

HCS – Hydraulic chucks, slim
– Metric / Inch

BT Taper-Face-ADB



- Run-out ≤3 μm
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	BHTA1°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch						kg lbs
BT40TFADB-HCS06-150	10137346	BT40 TF ADB	6,0 0.236	150,0 5.906	123,0 4.843	100,0 3.937	37,0 1.457	44,5 1.752	20,0 0.787	215,4 8.480	113,0 4.449	123,0 4.843	M5x0.8	30,0	3,0	1	G2.5	1,6 3.530
BT40TFADB-HCS08-150	10137347	BT40 TF ADB	8,0 0.315	150,0 5.906	123,0 4.843	100,0 3.937	37,0 1.457	44,5 1.752	22,0 0.866	215,4 8.480	113,0 4.449	123,0 4.843	M6x1	30,0	3,0	1	G2.5	1,7 3.750
BT40TFADB-HCS10-150	10137348	BT40 TF ADB	10,0 0.394	150,0 5.906	123,0 4.843	100,0 3.937	42,0 1.654	44,5 1.752	24,0 0.945	215,4 8.480	110,0 4.331	120,0 4.724	M8x1	30,0	3,0	1	G2.5	1,7 3.750
BT40TFADB-HCS12-150	10137349	BT40 TF ADB	12,0 0.472	150,0 5.906	123,0 4.843	100,0 3.937	47,0 1.850	44,5 1.752	25,0 0.984	215,4 8.480	103,0 4.055	113,0 4.449	M10x1	30,0	3,0	1	G2.5	1,8 3.970
BT40TFADB-HCS16-150	10137350	BT40 TF ADB	16,0 0.630	150,0 5.906	123,0 4.843	100,0 3.937	52,0 2.047	44,5 1.752	32,0 1.260	215,4 8.480	100,0 3.937	110,0 4.331	M12x1	30,0	3,0	1	G2.5	2,0 4.410
BT40TFADB-HCS20-150	10137351	BT40 TF ADB	20,0 0.787	150,0 5.906	123,0 4.843	–	52,0 2.047	46,9 1.846	34,0 1.339	215,4 8.480	100,0 3.937	110,0 4.331	M16x1	–	3,0	1	G2.5	2,1 4.630

Accessories

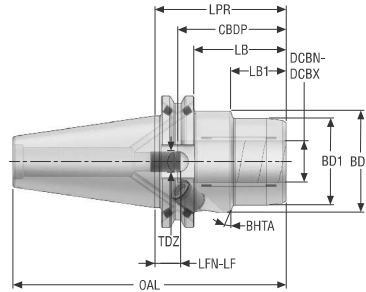
For size	
All	

Key

H04-4

HC – Hydraulic chucks, standard
– Metric / Inch

CAT / ASME B5.50-1994-ADB

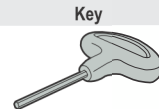


- Run-out ≤3 μm
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch					kg lbs
CAT40ADB-HC06-063	10137281	CAT40 ADB	6,0 0.236	63,5 2.500	44,45 1.750	24,56 0.967	38,5 1.516	44,5 1.750	26,0 1.024	131,75 5.187	26,5 1.043	36,5 1.437	M5	20,0	1	G2.5	1,1 2.430
CAT40ADB-HC08-063	10137282	CAT40 ADB	8,0 0.315	63,5 2.500	44,45 1.750	25,56 1.006	38,5 1.516	49,0 1.929	28,0 1.102	131,75 5.187	26,5 1.043	36,5 1.437	M5	20,0	1	G2.5	1,2 2.650
CAT40ADB-HC10-063	10137283	CAT40 ADB	10,0 0.394	63,5 2.500	44,45 1.750	27,56 1.085	42,5 1.673	49,0 1.929	30,0 1.181	131,75 5.187	22,5 0.886	32,5 1.280	M5	20,0	1	G2.5	1,2 2.650
CAT40ADB-HC12-063	10137284	CAT40 ADB	12,0 0.472	63,5 2.500	44,45 1.750	26,56 1.046	47,5 1.870	49,0 1.929	32,0 1.260	131,75 5.187	17,5 0.689	27,5 1.083	M10x1	20,0	1	G2.5	1,2 2.650
CAT40ADB-HC16-063	10137285	CAT40 ADB	16,0 0.630	63,5 2.500	44,45 1.750	27,56 1.085	51,0 2.008	49,0 1.929	38,0 1.496	131,75 5.187	14,5 0.571	24,5 0.965	M10x1	20,0	1	G2.5	1,2 2.650
CAT40ADB-HC20-063	10137286	CAT40 ADB	20,0 0.787	63,5 2.500	44,45 1.750	25,56 1.006	52,5 2.067	49,0 1.929	42,0 1.654	131,75 5.187	12,5 0.492	22,5 0.886	M10x1	20,0	1	G2.5	1,2 2.650
CAT50ADB-HC12-081	10137293	CAT50 ADB	12,0 0.472	81,0 3.189	61,95 2.439	40,0 1.575	47,5 1.870	49,0 1.929	32,0 1.260	182,6 7.189	35,0 1.378	45,0 1.772	M10x1	20,0	1	G2.5	3,1 6.830
CAT50ADB-HC20-081	10137294	CAT50 ADB	20,0 0.787	81,0 3.189	61,95 2.439	46,0 1.811	52,5 2.067	51,0 2.008	42,0 1.654	182,6 7.189	30,0 1.181	40,0 1.575	M10x1	20,0	1	G2.5	3,1 6.830
CAT50ADB-HC25-081	10137295	CAT50 ADB	25,0 0.984	81,0 3.189	61,95 2.439	36,0 1.417	58,5 2.303	68,0 2.677	48,0 1.890	182,6 7.189	24,0 0.945	34,0 1.339	M10x1	20,0	1	G2.5	3,6 7.940
CAT50ADB-HC32-081	10137296	CAT50 ADB	32,0 1.260	81,0 3.189	61,95 2.439	40,0 1.575	62,5 2.461	75,0 2.953	62,0 2.441	182,6 7.189	20,0 0.787	30,0 1.181	M10x1	20,0	1	G2.5	3,8 8.380

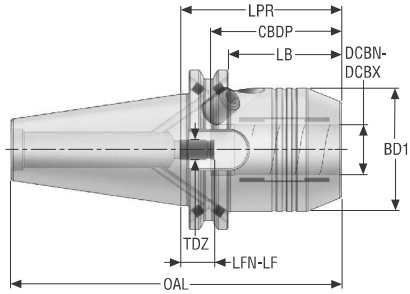
Accessories

For size	Key
CAT40	H05-4
CAT50, DCBN = 12-25	H05-4
CAT50, DCBN = 32	H06-4



CAT / ASME B5.50-1994-ADB

HCR – Hydraulic chucks, reinforced
– Metric / Inch



- Run-out $\leq 3 \mu\text{m}$
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balan- cing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch			kg lbs
CAT40ADB-HCR20-064	10137133	CAT40 ADB	20,0 0.787	64,5 2.539	45,45 1.789	-	52,5 2.067	-	49,25 1.939	132,75 5.226	13,5 0.531	23,5 0.925	M8x1	-	0	G2.5	1,3 2.870
CAT50ADB-HCR32-081	10137135	CAT50 ADB	32,0 1.260	81,0 3.189	61,95 2.439	-	62,5 2.461	-	72,0 2.835	182,6 7.189	20,0 0.787	30,0 1.181	M8x1	-	0	G2.5	4,0 8.820

Accessories

For size

Key



CAT40

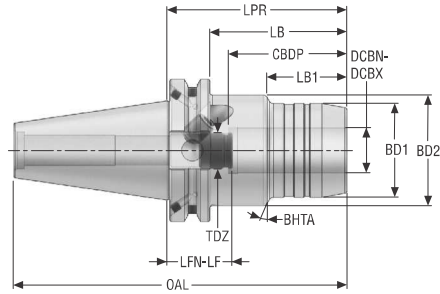
H05-4

CAT50

H06-4

HC – Hydraulic chucks, standard
– Metric / Inch

CAT TF / ASME B5.50-2009-ADB



- Run-out ≤3 μm
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

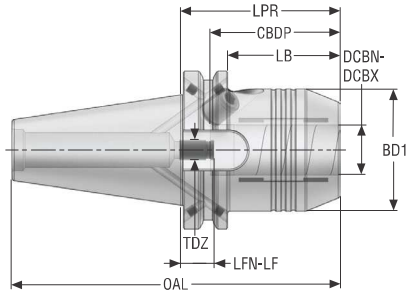
Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch					kg lbs
CAT40TFADB-HC06-080	10137287	CAT40 TF ADB	6,0 0.236	80,0 3.150	60,95 2.400	29,5 1.161	37,0 1.457	49,5 1.949	26,0 1.024	148,25 5.837	43,0 1.693	53,0 2.087	M5x0.8	30,0	1	G2.5	1,5 3.310
CAT40TFADB-HC08-080	10137288	CAT40 TF ADB	8,0 0.315	80,0 3.150	60,95 2.400	30,0 1.181	37,0 1.457	49,5 1.949	28,0 1.102	148,25 5.837	43,0 1.693	53,0 2.087	M6x1	30,0	1	G2.5	1,4 3.090
CAT40TFADB-HC10-080	10137289	CAT40 TF ADB	10,0 0.394	80,0 3.150	60,95 2.400	31,0 1.220	42,0 1.654	49,5 1.949	30,0 1.181	148,25 5.837	40,0 1.575	50,0 1.969	M8x1	30,0	1	G2.5	1,4 3.090
CAT40TFADB-HC12-080	10137290	CAT40 TF ADB	12,0 0.472	80,0 3.150	60,95 2.400	31,5 1.240	47,0 1.850	49,5 1.949	32,0 1.260	148,25 5.837	35,0 1.378	45,0 1.772	M10x1	30,0	1	G2.5	1,5 3.310
CAT40TFADB-HC16-080	10137291	CAT40 TF ADB	16,0 0.630	80,0 3.150	60,95 2.400	33,0 1.299	52,0 2.047	49,5 1.949	38,0 1.496	148,25 5.837	30,0 1.181	40,0 1.575	M12x1	30,0	1	G2.5	1,5 3.310
CAT40TFADB-HC20-080	10137292	CAT40 TF ADB	20,0 0.787	80,0 3.150	60,95 2.400	34,0 1.339	52,0 2.047	49,5 1.949	42,0 1.654	148,25 5.837	30,0 1.181	40,0 1.575	M16x1	30,0	1	G2.5	1,5 3.310

Accessories

For size	Key
All	H05-4

CAT TF / ASME B5.50-2009-ADB

HCR – Hydraulic chucks, reinforced
– Metric / Inch



- Run-out $\leq 3 \mu\text{m}$
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch					kg lbs
CAT40TFADB-HCR20-064	10137134	CAT40 TF ADB	20,0 0.787	64,5 2.539	45,45 1.789	-	52,5 2.067	-	49,25 1.939	132,75 5.226	13,5 0.531	23,5 0.925	M8x1	-	0	G2.5	1,3 2.870

Accessories

For size	Key
All	H05-4

Guide

HSK-A

HSK-E

DIN

BT JIS

CAT

Combimaster

Grafiflex

Seco-Capto™

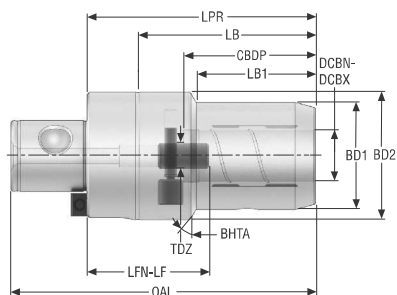
Others

Operating & setting accessories

Shrinkfit

Graflex®

HC – Hydraulic chucks, standard
– Metric / Inch



- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX		LPR	LB	LB1	CDBP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm	inch														
G5-HC20-090	10137322	G5	20,0 0.787	90,0 3.543	70,0 2.756	47,0 1.850	52,0 2.047	50,0 1.969	42,0 1.654	120,0 4.724	38,0 1.496	48,0 1.890	M10x1.5	30,0	0	PB	1,2 2.650	
G6-HC25-100	10137323	G6	25,0 0.984	100,0 3.937	74,0 2.913	50,0 1.969	58,0 2.283	63,0 2.480	58,0 2.283	140,0 5.512	42,0 1.654	52,0 2.047	M10x1.5	45,0	0	PB	2,3 5.070	
G6-HC32-100	10137324	G6	32,0 1.260	100,0 3.937	74,0 2.913	–	63,0 2.480	–	64,0 2.520	140,0 5.512	37,0 1.457	62,0 2.441	–	–	0	PB	2,3 5.070	

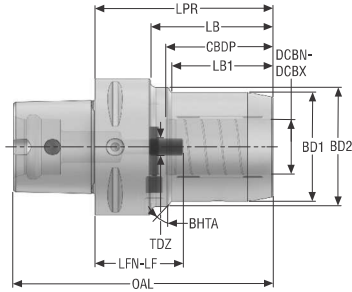
Accessories

For size	Key
All	H04-4

Guide
HSK-A
HSK-E
DIN
BT JIS
CAT
Combimaster
Graflex
Seco-Capto™
Others
Operating & setting accessories
Shrinkfit

Seco-Capto™

HC – Hydraulic chucks, standard
– Metric / Inch



- Run-out ≤3 µm
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CDBP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch			
C5-HC06-065	10137305	C5	6,0 0.236	65,0 2.559	45,0 1.772	23,0 0.906	38,0 1.496	50,0 1.969	26,0 1.024	95,0 3.740	27,0 1.063	37,0 1.457	M5x0.8	30,0	1	-	0,8 1.760
C5-HC08-065	10137306	C5	8,0 0.315	65,0 2.559	45,0 1.772	24,0 0.945	38,0 1.496	50,0 1.969	28,0 1.102	95,0 3.740	27,0 1.063	37,0 1.457	M5x0.8	30,0	1	-	0,8 1.760
C5-HC10-075	10137307	C5	10,0 0.394	75,0 2.953	55,0 2.165	34,0 1.339	42,0 1.654	50,0 1.969	30,0 1.181	105,0 4.134	33,0 1.299	43,0 1.693	M8x1.25	30,0	1	-	0,9 1.980
C5-HC12-080	10137308	C5	12,0 0.472	80,0 3.150	60,0 2.362	40,0 1.575	47,0 1.850	50,0 1.969	32,0 1.260	110,0 4.331	33,0 1.299	43,0 1.693	M10x1.5	30,0	1	-	0,9 1.980
C5-HC16-085	10137309	C5	16,0 0.630	85,0 3.346	65,0 2.559	46,0 1.811	50,0 1.969	50,0 1.969	38,0 1.496	115,0 4.528	35,0 1.378	45,0 1.772	M10x1.5	30,0	1	-	1,0 2.200
C5-HC20-085	10137310	C5	20,0 0.787	85,0 3.346	65,0 2.559	47,0 1.850	52,0 2.047	50,0 1.969	42,0 1.654	115,0 4.528	33,0 1.299	43,0 1.693	M10x1.5	30,0	1	-	1,1 2.430
C5-HC25-095	10137311	C5	25,0 0.984	95,0 3.740	75,0 2.953	-	58,0 2.283	-	58,0 2.283	125,0 4.921	37,0 1.457	47,0 1.850	M10x1.5	-	1	-	1,7 3.750
C6-HC06-065	10137312	C6	6,0 0.236	65,0 2.559	40,0 1.575	23,0 0.906	38,0 1.496	50,0 1.969	26,0 1.024	103,0 4.055	27,0 1.063	37,0 1.457	M5x0.8	30,0	1	-	1,2 2.650
C6-HC08-065	10137313	C6	8,0 0.315	65,0 2.559	40,0 1.575	24,0 0.945	38,0 1.496	50,0 1.969	28,0 1.102	103,0 4.055	27,0 1.063	37,0 1.457	M5x0.8	30,0	1	-	1,2 2.650
C6-HC10-075	10137314	C6	10,0 0.394	75,0 2.953	50,0 1.969	34,0 1.339	42,0 1.654	50,0 1.969	30,0 1.181	113,0 4.449	33,0 1.299	43,0 1.693	M8x1.25	30,0	1	-	1,2 2.650
C6-HC12-080	10137315	C6	12,0 0.472	80,0 3.150	55,0 2.165	40,0 1.575	47,0 1.850	50,0 1.969	32,0 1.260	118,0 4.646	33,0 1.299	43,0 1.693	M10x1.5	30,0	1	-	1,3 2.870
C6-HC16-085	10137316	C6	16,0 0.630	85,0 3.346	60,0 2.362	46,0 1.811	50,0 1.969	50,0 1.969	38,0 1.496	123,0 4.843	35,0 1.378	45,0 1.772	M10x1.5	30,0	1	-	1,4 3.090
C6-HC20-085	10137317	C6	20,0 0.787	85,0 3.346	60,0 2.362	47,0 1.850	52,0 2.047	50,0 1.969	42,0 1.654	123,0 4.843	33,0 1.299	43,0 1.693	M10x1.5	30,0	1	-	1,4 3.090
C6-HC25-095	10137318	C6	25,0 0.984	95,0 3.740	70,0 2.756	-	58,0 2.283	-	58,0 2.283	133,0 5.236	37,0 1.457	47,0 1.850	-	-	1	-	2,0 4.410
C6-HC32-100	10137319	C6	32,0 1.260	100,0 3.937	78,0 3.071	-	63,0 2.480	-	64,0 2.520	138,0 5.433	37,0 1.457	47,0 1.850	M10x1.5	-	1	-	2,3 5.070
C8-HC20-095	10137320	C8	20,0 0.787	95,0 3.740	62,0 2.441	47,0 1.850	52,0 2.047	50,0 1.969	42,0 1.654	143,0 5.630	43,0 1.693	53,0 2.087	M10x1.5	30,0	1	-	2,4 5.290
C8-HC32-105	10137321	C8	32,0 1.260	105,0 4.134	72,0 2.835	60,0 2.362	63,0 2.480	70,0 2.756	64,0 2.520	153,0 6.024	42,0 1.654	52,0 2.047	M10x1.5	30,0	1	G6.3	3,2 7.050

Accessories

For size

Key

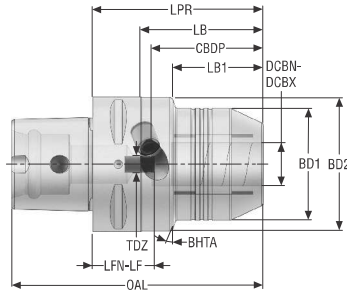


All

H04-4

HCR – Hydraulic chucks, reinforced
– Metric / Inch

Seco-Capto™



- Run-out ≤3 µm
- For reduction sleeves, see page(s) 405, 406
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX	LPR	LB	LB1	CBDP	BD2	BD1	OAL	LFN	LF	TDZ	BHTA°	RFID hole	Balancing	Weight
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch					kg lbs
C6-HCR12-075	10137146	C6	12,0 0.472	75,0 2.953	53,0 2.087	33,0 1.299	47,5 1.870	62,5 2.461	42,0 1.654	113,0 4.449	29,0 1.142	39,0 1.535	M8x1	20,0	0	G2.5	1,5 3.310
C6-HCR20-080	10137147	C6	20,0 0.787	80,0 3.150	57,4 2.260	41,0 1.614	52,5 2.067	62,5 2.461	52,5 2.067	118,0 4.646	29,0 1.142	39,0 1.535	M8x1	20,0	0	G2.5	1,6 3.530

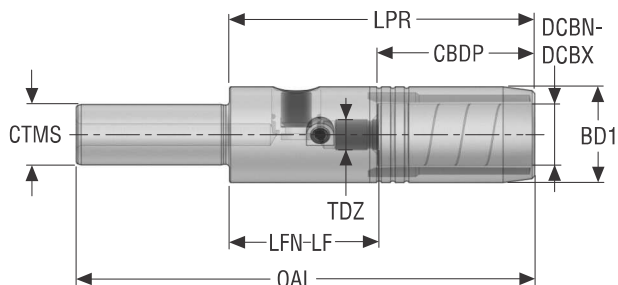
Accessories

For size	Key
All	H05-4

Guide
 HSK-A
 HSK-E
 DIN
 BT JIS
 CAT
 Combimaster
 Graflex
 Seco-Capto™
 Others
 Operating & setting accessories
 Shrinkfit

Cylindrical

HC – Hydraulic chucks, standard
– Metric / Inch



- Run-out ≤6 µm
- For ISO attribute explanation, see page 14

Designation	Item number	CTMS	DCBN-DCBX		LPR	CDBP	BD1	OAL	LFN	LF	TDZ	RFID hole	Balancing	Weight							
			mm	inch											mm	inch					
ST20-HC12-100	10137352	20	12,0	0.472	100,0	3.937	47,5	1.870	25,0	0.984	150,0	5.906	54,0	2.126	64,0	2.520	M6	0	G2.5	0,5	1.100
ST20-HC20-100	10137353	20	20,0	0.787	100,0	3.937	51,5	2.028	31,5	1.240	150,0	5.906	49,0	1.929	59,0	2.323	M10x1	0	G2.5	0,6	1.320
ST32-HC20-090	10137354	32	20,0	0.787	90,0	3.543	51,5	2.028	31,5	1.240	150,0	5.906	39,0	1.535	49,0	1.929	M10x1	0	G2.5	0,8	1.760

Accessories

For size

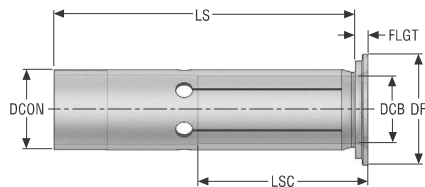
Key



All

H05-4

Reduction sleeves for hydraulic chucks
– Metric / Inch

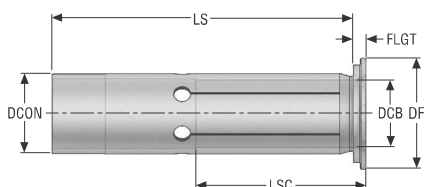


- Nominal clamping diameter only (no clamping range): tool shank tolerance h6 maximum
- ...L1 = with peripheral coolant
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side		Workpiece side		LS	FLGT	DF	LSC	
		DCON		DCB						
		mm	inch	mm	inch	mm	inch	mm	inch	
05FHC1203	10137358	12,0	0.472	3,0	0.118	45,0	0.608	16,5	0.650	15,45
05FHC1204	10137359	12,0	0.472	4,0	0.157	45,0	0.620	16,5	0.650	15,75
05FHC1205	10137360	12,0	0.472	5,0	0.197	45,0	0.634	16,5	0.650	16,1
05FHC1206	10137361	12,0	0.472	6,0	0.236	45,0	0.953	16,5	0.650	24,21
05FHC1208	10137362	12,0	0.472	8,0	0.315	45,0	0.977	16,5	0.650	24,81
05FHC1210	10137363	12,0	0.472	10,0	0.394	45,0	1.000	16,5	0.650	25,41
05FHC2003	10137364	20,0	0.787	3,0	0.118	50,5	0.616	24,0	0.945	15,65
05FHC2004	10137365	20,0	0.787	4,0	0.157	50,5	0.628	24,0	0.945	15,95
05FHC2005	10137366	20,0	0.787	5,0	0.197	50,5	0.640	24,0	0.945	16,25
05FHC2006	10137367	20,0	0.787	6,0	0.236	50,5	1.006	24,0	0.945	25,55
05FHC2008	10137368	20,0	0.787	8,0	0.315	50,5	1.030	24,0	0.945	26,15
05FHC2010	10137369	20,0	0.787	10,0	0.394	50,5	1.211	24,0	0.945	30,75
05FHC2012	10137370	20,0	0.787	12,0	0.472	50,5	1.367	24,0	0.945	34,71
05FHC2014	10137371	20,0	0.787	14,0	0.551	50,5	1.390	24,0	0.945	35,31
05FHC2016	10137372	20,0	0.787	16,0	0.630	50,5	1.414	24,0	0.945	35,91
05FHC3206	10137373	32,0	1.260	6,0	0.236	60,5	0.922	35,5	1.398	23,42
05FHC3208	10137374	32,0	1.260	8,0	0.315	60,5	0.946	35,5	1.398	24,03
05FHC3210	10137375	32,0	1.260	10,0	0.394	60,5	1.107	35,5	1.398	28,13
05FHC3212	10137376	32,0	1.260	12,0	0.472	60,5	1.131	35,5	1.398	28,73
05FHC3214	10137377	32,0	1.260	14,0	0.551	60,5	1.155	35,5	1.398	29,33
05FHC3216	10137378	32,0	1.260	16,0	0.630	60,5	1.583	35,5	1.398	40,2

Guide	Designation	Item number	Machine side		Workpiece side		LS	FLGT	DF	LSC
			DCON	DCB	LS	FLGT				
			mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	mm inch	
	05FHC3218	10137379	32,0 1.260	18,0 0.709	60,5 1.594	2,0 0.079	35,5 1.398	40,5 1.594		
HSK-A	05FHC3220	10137380	32,0 1.260	20,0 0.787	60,5 1.618	2,0 0.079	35,5 1.398	41,1 1.618		
	05FHC3225	10137381	32,0 1.260	25,0 0.984	60,5 1.846	2,0 0.079	35,5 1.398	46,9 1.846		
	05FHC1203L1	10137409	12,0 0.472	3,0 0.118	45,0 0.608	2,0 0.079	16,5 0.650	15,45 0.608		
HSK-E	05FHC1204L1	10137410	12,0 0.472	4,0 0.157	45,0 0.620	2,0 0.079	16,5 0.650	15,75 0.620		
	05FHC1205L1	10137411	12,0 0.472	5,0 0.197	45,0 0.632	2,0 0.079	16,5 0.650	16,05 0.632		
	05FHC1206L1	10137412	12,0 0.472	6,0 0.236	45,0 0.953	2,0 0.079	16,5 0.650	24,21 0.953		
	05FHC1208L1	10137413	12,0 0.472	8,0 0.315	45,0 0.977	2,0 0.079	16,5 0.650	24,81 0.977		
DIN	05FHC2003L1	10137414	20,0 0.787	3,0 0.118	50,5 0.616	2,0 0.079	24,0 0.945	15,65 0.616		
	05FHC2004L1	10137415	20,0 0.787	4,0 0.157	50,5 0.628	2,0 0.079	24,0 0.945	15,95 0.628		
BT JIS	05FHC2005L1	10137416	20,0 0.787	5,0 0.197	50,5 0.640	2,0 0.079	24,0 0.945	16,25 0.640		
	05FHC2006L1	10137417	20,0 0.787	6,0 0.236	50,5 1.007	2,0 0.079	24,0 0.945	25,57 1.007		
	05FHC2008L1	10137418	20,0 0.787	8,0 0.315	50,5 1.030	2,0 0.079	24,0 0.945	26,15 1.030		
CAT	05FHC2010L1	10137419	20,0 0.787	10,0 0.394	50,5 1.211	2,0 0.079	24,0 0.945	30,75 1.211		
	05FHC2012L1	10137420	20,0 0.787	12,0 0.472	50,5 1.367	2,0 0.079	24,0 0.945	34,71 1.367		
	05FHC2014L1	10137421	20,0 0.787	14,0 0.551	50,5 1.390	2,0 0.079	24,0 0.945	35,31 1.390		
Combimaster	05FHC2016L1	10137422	20,0 0.787	16,0 0.630	50,5 1.414	2,0 0.079	24,0 0.945	35,91 1.414		
	05FHC3206L1	10137423	32,0 1.260	6,0 0.236	60,5 0.922	2,0 0.079	35,5 1.398	23,42 0.922		
	05FHC3208L1	10137424	32,0 1.260	8,0 0.315	60,5 0.946	2,0 0.079	35,5 1.398	24,02 0.946		
Graflex	05FHC3210L1	10137425	32,0 1.260	10,0 0.394	60,5 1.107	2,0 0.079	35,5 1.398	28,13 1.107		
	05FHC3212L1	10137426	32,0 1.260	12,0 0.472	60,5 1.131	2,0 0.079	35,5 1.398	28,73 1.131		
	05FHC3214L1	10137427	32,0 1.260	14,0 0.551	60,5 1.155	2,0 0.079	35,5 1.398	29,33 1.155		
Seco-Capto™	05FHC3216L1	10137428	32,0 1.260	16,0 0.630	60,5 1.583	2,0 0.079	35,5 1.398	40,2 1.583		
	05FHC3218L1	10137429	32,0 1.260	18,0 0.709	60,5 1.594	2,0 0.079	35,5 1.398	40,5 1.594		
	05FHC3220L1	10137430	32,0 1.260	20,0 0.787	60,5 1.618	2,0 0.079	35,5 1.398	41,1 1.618		
Others	05FHC3225L1	10137431	32,0 1.260	25,0 0.984	60,5 1.847	2,0 0.079	35,5 1.398	46,91 1.847		

Reduction sleeves for hydraulic chucks
- Metric / Inch



- Nominal clamping diameter only (no clamping range): tool shank tolerance h6 maximum
- ...L1 = with peripheral coolant
- For ISO attribute explanation, see page 14

Designation	Item number	Machine side		Workpiece side		LS	FLGT	DF	LSC
		DCON		DCB					
		mm inch		mm inch		mm inch	mm inch	mm inch	mm inch
05FHC120125	10137382	12,0 0.472		3,175 0.125		45,0 0.610	2,0 0.079	16,5 0.650	15,5 0.610
05FHC120187	10137383	12,0 0.472		4,763 0.188		45,0 0.629	2,0 0.079	16,5 0.650	15,98 0.629
05FHC120250	10137384	12,0 0.472		6,35 0.250		45,0 0.957	2,0 0.079	16,5 0.650	24,31 0.957
05FHC120312	10137385	12,0 0.472		7,938 0.313		45,0 0.976	2,0 0.079	16,5 0.650	24,79 0.976
05FHC120375	10137386	12,0 0.472		9,525 0.375		45,0 0.995	2,0 0.079	16,5 0.650	25,27 0.995
05FHC200125	10137387	20,0 0.787		3,175 0.125		50,5 0.618	2,0 0.079	24,0 0.945	15,7 0.618
05FHC200187	10137388	20,0 0.787		4,763 0.188		50,5 0.637	2,0 0.079	24,0 0.945	16,18 0.637
05FHC200250	10137389	20,0 0.787		6,35 0.250		50,5 1.010	2,0 0.079	24,0 0.945	25,65 1.010
05FHC200312	10137390	20,0 0.787		7,938 0.313		50,5 1.029	2,0 0.079	24,0 0.945	26,13 1.029
05FHC200375	10137391	20,0 0.787		9,525 0.375		50,5 1.048	2,0 0.079	24,0 0.945	26,61 1.048
05FHC200437	10137392	20,0 0.787		11,113 0.438		50,5 1.224	2,0 0.079	24,0 0.945	31,08 1.224
05FHC200500	10137393	20,0 0.787		12,7 0.500		50,5 1.375	2,0 0.079	24,0 0.945	34,92 1.375
05FHC200562	10137394	20,0 0.787		14,288 0.563		50,5 1.394	2,0 0.079	24,0 0.945	35,4 1.394
05FHC200625	10137395	20,0 0.787		15,875 0.625		50,5 1.412	2,0 0.079	24,0 0.945	35,87 1.412
05FHC320250	10137396	32,0 1.260		6,35 0.250		60,5 0.926	2,0 0.079	35,5 1.398	23,53 0.926
05FHC320312	10137397	32,0 1.260		7,938 0.313		60,5 0.945	2,0 0.079	35,5 1.398	24,0 0.945
05FHC320375	10137398	32,0 1.260		9,525 0.375		60,5 1.102	2,0 0.079	35,5 1.398	27,98 1.102
05FHC320437	10137399	32,0 1.260		11,113 0.438		60,5 1.120	2,0 0.079	35,5 1.398	28,46 1.120
05FHC320500	10137400	32,0 1.260		12,7 0.500		60,5 1.139	2,0 0.079	35,5 1.398	28,94 1.139
05FHC320562	10137401	32,0 1.260		14,288 0.563		60,5 1.158	2,0 0.079	35,5 1.398	29,41 1.158
05FHC320625	10137402	32,0 1.260		15,875 0.625		60,5 1.581	2,0 0.079	35,5 1.398	40,16 1.581

Guide	Designation	Item number	Machine side	Workpiece side	LS	FLGT	DF	LSC
			DCON	DCB				
HSK-A			mm	mm	mm	mm	mm	mm
			inch	inch	inch	inch	inch	inch
	05FHC320687	10137403	32,0 1.260	17,462 0.687	60,5 1.588	2,0 0.079	35,5 1.398	40,34 1.588
	05FHC320750	10137404	32,0 1.260	19,05 0.750	60,5 1.607	2,0 0.079	35,5 1.398	40,81 1.607
	05FHC320812	10137405	32,0 1.260	20,637 0.812	60,5 1.600	2,0 0.079	35,5 1.398	40,63 1.600
	05FHC320875	10137406	32,0 1.260	22,225 0.875	60,5 1.619	2,0 0.079	35,5 1.398	41,11 1.619
	05FHC320937	10137407	32,0 1.260	23,812 0.937	60,5 1.833	2,0 0.079	35,5 1.398	46,55 1.833
	05FHC321000	10137408	32,0 1.260	25,4 1.000	60,5 1.850	2,0 0.079	35,5 1.398	47,0 1.850
	05FHC120125L1	10137432	12,0 0.472	3,175 0.125	45,0 0.610	2,0 0.079	16,5 0.650	15,5 0.610
	05FHC120187L1	10137433	12,0 0.472	4,763 0.188	45,0 0.629	2,0 0.079	16,5 0.650	15,98 0.629
	05FHC120250L1	10137434	12,0 0.472	6,35 0.250	45,0 0.957	2,0 0.079	16,5 0.650	24,31 0.957
	05FHC120312L1	10137435	12,0 0.472	7,938 0.313	45,0 0.976	2,0 0.079	16,5 0.650	24,79 0.976
	05FHC120375L1	10137436	12,0 0.472	9,525 0.375	45,0 0.995	2,0 0.079	16,5 0.650	25,27 0.995
	05FHC200187L1	10137438	20,0 0.787	4,763 0.188	50,5 0.637	2,0 0.079	24,0 0.945	16,18 0.637
	05FHC200250L1	10137439	20,0 0.787	6,35 0.250	50,5 1.010	2,0 0.079	24,0 0.945	25,65 1.010
	05FHC200312L1	10137440	20,0 0.787	7,938 0.313	50,5 1.029	2,0 0.079	24,0 0.945	26,13 1.029
	05FHC200375L1	10137441	20,0 0.787	9,525 0.375	50,5 1.048	2,0 0.079	24,0 0.945	26,61 1.048
	05FHC200437L1	10137442	20,0 0.787	11,113 0.438	50,5 1.224	2,0 0.079	24,0 0.945	31,1 1.224
	05FHC200500L1	10137443	20,0 0.787	12,7 0.500	50,5 1.375	2,0 0.079	24,0 0.945	34,92 1.375
	05FHC200562L1	10137444	20,0 0.787	14,288 0.563	50,5 1.394	2,0 0.079	24,0 0.945	35,4 1.394
	05FHC200625L1	10137445	20,0 0.787	15,875 0.625	50,5 1.412	2,0 0.079	24,0 0.945	35,87 1.412
	05FHC201250L1	10137437	20,0 0.787	3,175 0.125	50,5 0.618	2,0 0.079	24,0 0.945	15,7 0.618
	05FHC320500L1	10137446	32,0 1.260	12,7 0.500	60,5 1.139	2,0 0.079	35,5 1.398	28,94 1.139
	05FHC320625L1	10137447	32,0 1.260	15,875 0.625	60,5 1.581	2,0 0.079	35,5 1.398	40,16 1.581
	05FHC320750L1	10137448	32,0 1.260	19,05 0.750	60,5 1.607	2,0 0.079	35,5 1.398	40,82 1.607
	05FHC320875L1	10137449	32,0 1.260	22,225 0.875	60,5 1.619	2,0 0.079	35,5 1.398	41,11 1.619
	05FHC321000L1	10137450	32,0 1.260	25,4 1.000	60,5 1.850	2,0 0.079	35,5 1.398	47,0 1.850

Others								
Operating & setting accessories								
Shrinkfit								