

Catalog & technical guide

Threading 2025.1





At Seco, we make tools, tech, and solutions for the most advanced manufacturing challenges on Earth. From our founding in Fagersta Sweden, to today's global company, our business has always been made to measure, and built on trust.

Combining cutting-edge, precision tools with lasting, personal partnerships, we're a true people company helping our partners discover the future of the manufacturing industry.

We're proud to make for makers, invent for inventors, and partner with pioneers. Driving the future forward with our focus on innovation. In short - if the right tool for the job exists, we'll deliver it. If it doesn't, we'll create it.

We're proud to put sustainability at the heart of everything we do, challenging perceptions of our industry, changing the process of manufacturing, and playing our own small part in shaping a brighter looking future.

Introduction

Alphanumeric index.....	2
Technical information	6

Thread turning

Jetstream Tooling® toolholders.....	53
External toolholders	59
Internal toolholders.....	69
Seco-Capto™ toolholders	78
Steadyline® GL-heads toolholders.....	94
Quick Change toolholders.....	97
Peeling toolholders.....	98
Pipe-facing toolholders.....	100
Seco-Capto™ Multi insert pocket toolholders.....	102
Chasers toolholders	104
Precision Grooves toolholders	112
Inserts.....	122
Chasers	168
Chipformers.....	169

Thread MDT

Toolholders.....	171
Inserts.....	181

Thread Mini-Shaft™

Toolholders.....	182
Inserts.....	186

Thread milling

Technical information	191
Threadmaster™	199
Cutting data	205
Code keys.....	209
Thread milling indexable	211
Thread milling shanks	223

Thread tapping

Threadmaster™ Taps technical information and overview	231
Threadmaster™ Taps.....	276

Annex

Declaration of conformity	469
SMG Workpiece materials	473

Thread turning	2	
	22NR/L / ..RD	154
	3	
	335.14	224-225
	335.14-ER	226
MDT	A	
	A...CGGR/L	178
	A...CGIR/L	177,179
	A...SGXN	183,185
	A...SGXN...R	183
Mini-Shaft™	C	
	C..CER/L..X	106
	C..CNR/L..X	106-108
	C..CNR/L..C-X	109-110
	C.-CER/L	93
	C.-CER/L...CHD	80-81
	C.-CER/L...HD	78-79,82,92-93
	C.-CNR/L...CHD	89-91
	C.-CNR/L...HD	83-88
	C.-DSKNR/L-PCLNR/L	102
	C.-MSKNR/L-PCLNR/L	103
	C.-SNR	83
	CEAR/L	113
	CEAR/L...D	112
	CEAR/L...HD	112
	CEAR/L...QHD	112
	CEAR/L...QHD	112
	CER/L	59
	CER/L...D	121
	CER/L...QHD	68,121
	CER/L...CQHD	66
	CER/L...Q	60,118
	CER/L...QHD	60,63-64,120
	CER/L...Q-S	67
	CER/L...HD	59
	CER/L...Q	61-62
	CER/L...QHD	59,61-62,68
	CER...X	104-105
Thread milling	CER...16HD	60
	CER...CQHD	65
	CFIR/L	172
	CFIR/L...JET	176
	CFMR/L	174
	CFMR/L...JET	176
	CFOR/L	175
	CFSR/L	173
	CFTR/L	175
	CNR/L	117
	CNR/L...A	116
	CNR/L...DA	116
	CNR/L...AHD	72-75,119
	CNR/L...APIHD	74-75
	CNR/L...H	117
	CNR/L...AHD	70-71,77
	CNR/L...APIHD	70
	CSXCR/L	98-99
Thread tapping	D	
	DTM	204
	E	
	E...SGXN	184-185
	E...SGXN...R	184
Annex	G	
	GL...CNR/L	96
	GL...CNR/L..X	111
	GL...PNR/L	94-95
	M	
	MSGNR/L	100-101
	MTH	436-445,459-460
	MTH-S001	446
	MTH-S002	446
	MTH-S003	447
	MTH-S004	447
	MTH-S011	448
	MTH-S012	449
	MTH-S031	450
	MTH-S032	451
	MTH-S041	452
	MTH-S042	453
	MTH-S043	454
	MTH-S044	454
	MTH-S101	455
	MTH-S102	455
	MTH-S111	456
	MTH-S112	457
	MTH-S142	458
	MTP	420-429
	MTP-S001	430
	MTP-S002	430
	MTP-S011	431
	MTP-S012	432
	MTP-S013	433
	MTP-S042	434
	MTP-S043	435
	MTS	462
	MTS-K101	461
	MTS-K101-A	461
	MTS-K102	463
	MTS-K102-A	464
	MTS-K111	465
	MTS-K121	466
	MTS-K131	467
	MTS-K141	468
	P	
	PER...QHDJETI	54-55
	PNR/L...AHDJET	56-58
	Q	
	QC...PER/L...HDJET	97
	R	
	R396.18	212-213,218
	R396.19	212-216,218
	R396.20	217-218
	S	
	SNR/L	69,76,114-115
	SNR...A	69
	T	
	T30-PUB	276-286
	T30-PXB	298-300
	T30-R40UC	287-297
	T30-R40XC	301-303
	T30-SUC	304-306
	T32-PHB	330
	T32-PNB	318,325,328
	T32-PNB, G	329
	T32-PNB, M	315-317
	T32-PNB, M 6G	319
	T32-PNB, MF	321-322
	T32-PNB, M LH	320
	T32-PNB, UNC	323-324
	T32-PNB, UNF	326-327
	T32-PNB-micro, M	314
	T32-R40HC	347
	T32-R40NC	335,342,345
	T32-R40NC, G	346
	T32-R40NC, M	332-334
	T32-R40NC, M 6G	336
	T32-R40NC, MF	338-339
	T32-R40NC, M LH	336-337
	T32-R40NC, UNC	340-341
	T32-R40NC, UNF	343-344
	T32-R40NC-micro, M	331
	T32-SNC, G	313

T32-SNC, M	308-309
T32-SNC, MF	311-312
T32-SNC, M LH	310
T32-SNC-micro M	307
T32-SNC-micro – M	307
T33A-FSCE, M	416
T33B-FSCC	417,419
T33B-FSCE, M	416
T33-FNC, M	408
T33-FSCC, M	415
T33-FSCC, MF	418-419
T33-FSCE, M	415
T33-FSNC, G	414
T33-FSNC, M	409
T33-FSNC, M 6G	410
T33-FSNC, MF	411
T33-FSNC, UNC	412
T33-FSNC, UNF	413
T34A-R45HC, M	369
T34A-R45HC, MF	372
T34A-R45HE, MF	380
T34B-PHB, M	352
T34B-PHB, MF	355
T34-PCB	364
T34-PHB	351,357,359
T34-PHB, EGM	360
T34-PHB, EGUNC	361
T34-PHB, EGUNF	362
T34-PHB, G	363
T34-PHB, M	349-350
T34-PHB, MF	353-354

T34-PHB, UNC	356
T34-PHB, UNF	358
T34-PHB-micro, M	348
T34-R45CC	384
T34-R45HC	368,374,376
T34-R45HC, G	377
T34-R45HC, M	366-367
T34-R45HC, MF	370-371
T34-R45HC, UNC	373
T34-R45HC, UNF	375
T34-R45HC-micro, M	365
T34-R45HE, EGM	381
T34-R45HE, EGUNC	382
T34-R45HE, EGUNF	383
T34-R45HE, M	378
T34-R45HE, MF	379
T35A-R15SC-H	405,407
T35A-SSC-K	392
T35A-SSE-K	396,399
T35B-SSE-K	397,400
T35-PSB-H	403
T35-PSB-P	385-387
T35-R15SC-H	404,406
T35-R40SC-P	388-390
T35-R45UC-N	401
T35-SSC-H	402
T35-SSC-K	391,393-394
T35-SSE-K	395,398
TM	200-203
V	
V21-CMR/L	180

Thread turning	0		
	09NR / ..A55	124	22ER/L / ..BUT
	09NR / ..A60	126	22ER/L / ..HEF
	09NR / ..BSPT	148	22ER/L / ..ISO
	09NR / ..ISO	130	22ER/L / ..N55
	09NR / ..NPT	150	22ER/L / ..N60
	09NR / ..UN	136-137	22ER/L / ..NPT
	09NR / ..W	145-146	22ER/L / ..PAC
			22ER/L / ..RD
			22ER/L / ..STACME
MDT	1		22ER/L / ..TR
	10-11	168	22ER/L / ..UN
	11NR/L / ..A55	124	22ER/L / ..W
	11NR/L / ..A60	126	22NR/L / ..ACME
	11NR/L / ..ISO	130-132	22NR/L / ..API
	11NR/L / ..NPT	150	22NR/L / ..BUT
	11NR/L / ..UN	136-138	22NR/L / ..HEF
	11NR/L / ..W	145-146	22NR/L / ..ISO
	11NR / ..NPTF	152	22NR/L / ..N55
	13NMS	219	22NR/L / ..N60
Mini-Shaft™	13XMS	219	22NR/L / ..NPT
	16ER/L / ..A55	123	22NR/L / ..PAC
	16ER/L / ..A60	125	22NR/L / ..RD
	16ER/L / ..ACME	157	22NR/L / ..STACME
	16ER/L / ..AG55	123	22NR/L / ..TR
	16ER/L / ..AG60	125	22NR/L / ..UN
	16ER/L / ..APIRD	165	22NR/L / ..W
	16ER/L / ..BSPT	147	26ER / ..ACME
	16ER/L / ..BUT	161	26ER / ..K55
	16ER/L / ..G55	123	26ER / ..K60
Thread milling	16ER/L / ..G60	125	26ER / ..STACME
	16ER/L / ..ISO	127-129	26ER / ..TR
	16ER/L / ..MJ	141	26NR / ..ACME
	16ER/L / ..NPT	149	26NR / ..K55
	16ER/L / ..NPTF	151	26NR / ..K60
	16ER/L / ..RD	153	26NR / ..TR
	16ER/L / ..STACME	159	27ER/L / ..ACME
	16ER/L / ..TR	155	27ER/L / ..API
	16ER/L / ..UN	133-137	27ER/L / ..H
	16ER/L / ..UNJ	139	27ER/L / ..ISO
Thread tapping	16ER/L / ..W	143-144	27ER/L / ..PAC
	16ER / ..STACME	159	27ER/L / ..RD
	16NR/L / ..A55	124	27ER/L / ..TR
	16NR/L / ..A60	126	27ER/L / ..UN
	16NR/L / ..ACME	158	27ER / ..API
	16NR/L / ..AG55	124	27ER / ..ISO
	16NR/L / ..AG60	126	27ER / ..NPT
	16NR/L / ..API RD	165	27ER / ..STACME
	16NR/L / ..BSPT	148	27NR/L / ..API
	16NR/L / ..BUT	161	27NR / ..ACME
Annex	16NR/L / ..G55	124	27NR / ..API
	16NR/L / ..G60	126	27NR / ..H
	16NR/L / ..ISO	130-132	27NR / ..ISO
	16NR/L / ..MJ	142	27NR / ..PAC
	16NR/L / ..NPT	150	27NR / ..RD
	16NR/L / ..NPTF	152	27NR / ..STACME
	16NR/L / ..RD	154	27NR / ..TR
	16NR/L / ..STACME	160	27NR / ..UN
	16NR/L / ..TR	156	
	16NR/L / ..UN	136-138	5
	16NR/L / ..UNJ	140	5-11
	16NR/L / ..W	145-146	5-31
	16NR/L / ..NPTF	152	5-31
	16V55 /	123	5-51
	16V60 /	125	
	2		8
	20ER / ..ACME	157	8-11
	20ER / ..STACME	159	8-21
	20ER / ..TR	155	8-41
	20NR / ..ACME	158	8-51
	20NR / ..STACME	160	C
	20NR / ..TR	156	C-
	22ER/L / ..ACME	157	
	22ER/L / ..API	162	L
	22ER/L / ..API RD	165	LCEX
			LCGN

R

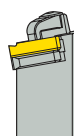
R335.14...MNF	229
R335.14...MNP	228
R335.14...UNNF	230
R335.14...W XF	227

S

S-41..	168
SCNN	122

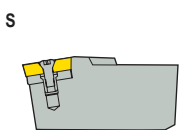
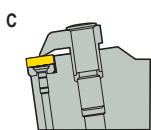
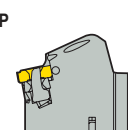
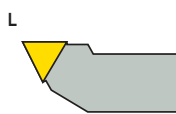
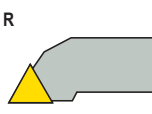
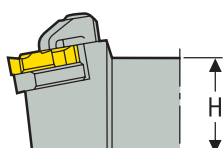
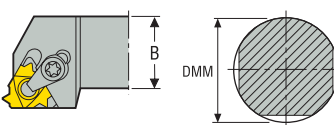
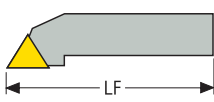
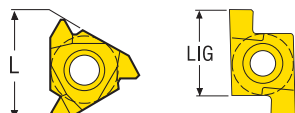
Code keys

Toolholders



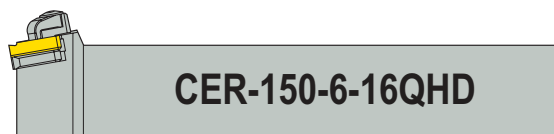
CER2525M16QH

C	E	R	25	25	M	16	Q	HD
1	2	3	4	5	6	7	8	9

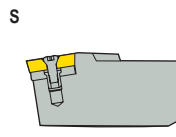
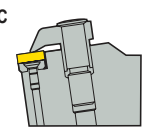
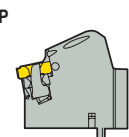
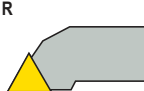
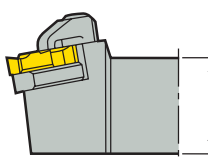
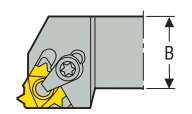
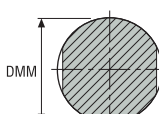
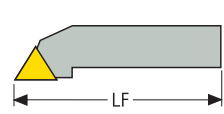
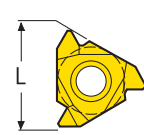
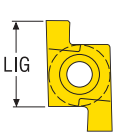
1. Insert clamping		2. External/Internal	
 Screw  Clamp  Pin		E = External N = Internal	
3. Cutting direction		4. Shank height	
 L  R X = Special		 H 00 = Round toolholders S & C 25 = 25 mm (0.984") 32 = 32 mm (1.260") etc.	
5. Shank width/diameter		6. Tool length	
 B DMM 20 = 20 mm (0.787") 25 = 25 mm (0.984") etc.		 LF H = 100 mm (3.937") K = 125 mm (4.921") L = 140 mm (5.512") M = 150 mm (5.906") P = 170 mm (6.693") Q = 180 mm (7.087") R = 200 mm (7.874") S = 250 mm (9.843") T = 300 mm (11.811") U = 350 mm (13.780") V = 400 mm (15.748")	
7. Cutting edge length		8. Other information	
 L LIG If the cutting edge length consists of only one digit, the designation should start with a 0. Example: Cutting edge length = 16,5 mm (0.650") Symbol = 16 Cutting edge length = 9,525 mm (0.375") Symbol = 09		A = Steel with coolant passage Q = Toolholder/cranked CQ = For mounting upside down	
		9. Other information	
		H = High density bar HD = Heavy duty JET = Jetstream Tooling® JETI = Jetstream Tooling® Jeti	

Code keys

Toolholders

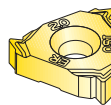
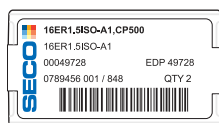


C	E	R		150	6	16	Q	HD
1	2	3	4	5	6	7	8	9

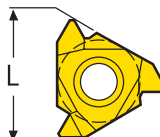
1. Insert clamping		2. External/Internal	
 S  C  P Screw Clamp Pin		E = External N = Internal	
3. Cutting direction		4. Shank definition	
 L  R X = Special		 00 = Boring bars = Square shanks	
5. Square shank height/width and bar diameter		6. Tool length	
 B  DMM For square shank tools height and width in inches. For boring bars bar diameter in inches. 075 = 0.75 100 = 1.00 125 = 1.25 etc.		 LF 3 = 3 inches 4 = 4 inches 5 = 5 inches 6 = 6 inches	
7. Cutting edge length		8. Other information	
 L  LIG If the cutting edge length consists of only one digit, the designation should start with a 0. Example: Cutting edge length = 16,5 mm (0.650") Symbol = 16 Cutting edge length = 9,525 mm (0.375") Symbol = 09		A = Steel with coolant passage Q = Qualified CQ = For mounting upside down	
		9. Other information	
		H = High density bar HD = Heavy duty JET = Jetstream Tooling® JETI = Jetstream Tooling® Jeti	

Code keys

Inserts



16	E	R	1.5	ISO	-	A1
1	2	3	4	5		6

1. Cutting edge length		2. External/Internal																																																																										
	Example: Cutting edge length = 16,5 mm (0.650") Symbol = 16 Cutting edge length = 9,525 mm (0.375") Symbol = 09 If the cutting edge length consists of only one digit, the designation should start with a 0.	E = External N = Internal																																																																										
3. Cutting direction		4. Pitch																																																																										
																																																																												
X = Special																																																																												
		<table><tr><td rowspan="5">Full profile: (mm)</td><td>0,50</td><td>1,25</td><td>3,00</td><td>6,00</td></tr><tr><td>0,70</td><td>1,50</td><td>4,00</td><td>8,00</td></tr><tr><td>0,75</td><td>1,75</td><td>4,50</td><td>10,0</td></tr><tr><td>0,80</td><td>2,00</td><td>5,00</td><td>12,0</td></tr><tr><td>1,00</td><td>2,50</td><td>5,50</td><td>14,0</td></tr><tr><td rowspan="5">Full profile: (TPI)</td><td>48</td><td>18</td><td>11</td><td>6.0</td><td>2.5</td></tr><tr><td>40</td><td>16</td><td>10</td><td>5.0</td><td>2.0</td></tr><tr><td>32</td><td>14</td><td>9</td><td>4.5</td><td></td></tr><tr><td>24</td><td>13</td><td>8</td><td>4.0</td><td></td></tr><tr><td>20</td><td>12</td><td>7</td><td>3.0</td><td></td></tr><tr><td rowspan="5">Partial profile:</td><td>A</td><td colspan="2">= 0,50-1,50 mm</td><td colspan="2">48-16 TPI</td></tr><tr><td>AG</td><td colspan="2">= 0,50-3,00 mm</td><td colspan="2">48-8 TPI</td></tr><tr><td>G</td><td colspan="2">= 1,75-3,00 mm</td><td colspan="2">14-8 TPI</td></tr><tr><td>N</td><td colspan="2">= 3,50-5,00 mm</td><td colspan="2">7-5 TPI</td></tr><tr><td>K</td><td colspan="2">= 5,50-10,00 mm</td><td colspan="2">4.5-2.5 TPI</td></tr></table>		Full profile: (mm)	0,50	1,25	3,00	6,00	0,70	1,50	4,00	8,00	0,75	1,75	4,50	10,0	0,80	2,00	5,00	12,0	1,00	2,50	5,50	14,0	Full profile: (TPI)	48	18	11	6.0	2.5	40	16	10	5.0	2.0	32	14	9	4.5		24	13	8	4.0		20	12	7	3.0		Partial profile:	A	= 0,50-1,50 mm		48-16 TPI		AG	= 0,50-3,00 mm		48-8 TPI		G	= 1,75-3,00 mm		14-8 TPI		N	= 3,50-5,00 mm		7-5 TPI		K	= 5,50-10,00 mm		4.5-2.5 TPI	
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5. Thread		6. Number of teeth per cutting edge/ Type of chipbreaker																																																																										
<table><tr><td>Thread =</td><td></td></tr><tr><td>60</td><td>= V profile, 60°</td></tr><tr><td>55</td><td>= V profile, 55°</td></tr><tr><td>ISO</td><td>= ISO, Metric</td></tr><tr><td>UN</td><td>= Am. UN</td></tr><tr><td>UNJ</td><td>= Am. Aerospace</td></tr><tr><td>MJ</td><td>= Metr. Aerospace</td></tr><tr><td>W</td><td>= Whitworth, BSW</td></tr><tr><td>BSPT</td><td>= Whitworth, Taper</td></tr><tr><td>NPT</td><td>= Am. NPT</td></tr><tr><td>NPTF</td><td>= Am. NPTF (Dryseal)</td></tr><tr><td>RD</td><td>= Round, DIN405</td></tr><tr><td>TR</td><td>= Trapezoidal, DIN103</td></tr><tr><td>ACME</td><td>= Am. ACME-G</td></tr><tr><td>STACME</td><td>= Am. Stub-ACME</td></tr><tr><td>API 384</td><td>= API V 038R 1:4</td></tr><tr><td>API 386</td><td>= API V 038R 1:6</td></tr><tr><td>API 404</td><td>= API V 040 1:4</td></tr><tr><td>API 504</td><td>= API V 050 1:4</td></tr><tr><td>API 506</td><td>= API V 050 1:6</td></tr><tr><td>API RD</td><td>= API Round Casing</td></tr><tr><td>BUT 2.5</td><td>= Buttress, 1°47'</td></tr><tr><td>BUT 2.6</td><td>= Buttress, 2°23'</td></tr></table>		Thread =		60	= V profile, 60°	55	= V profile, 55°	ISO	= ISO, Metric	UN	= Am. UN	UNJ	= Am. Aerospace	MJ	= Metr. Aerospace	W	= Whitworth, BSW	BSPT	= Whitworth, Taper	NPT	= Am. NPT	NPTF	= Am. NPTF (Dryseal)	RD	= Round, DIN405	TR	= Trapezoidal, DIN103	ACME	= Am. ACME-G	STACME	= Am. Stub-ACME	API 384	= API V 038R 1:4	API 386	= API V 038R 1:6	API 404	= API V 040 1:4	API 504	= API V 050 1:4	API 506	= API V 050 1:6	API RD	= API Round Casing	BUT 2.5	= Buttress, 1°47'	BUT 2.6	= Buttress, 2°23'	<table><tr><td>2M = 2 teeth</td></tr><tr><td>3M = 3 teeth</td></tr><tr><td>TT = TWIN THREADER</td></tr><tr><td>A = Universal</td></tr><tr><td>A1 = Chipbreaker designation</td></tr><tr><td>A2 = Chipbreaker designation</td></tr></table>		2M = 2 teeth	3M = 3 teeth	TT = TWIN THREADER	A = Universal	A1 = Chipbreaker designation	A2 = Chipbreaker designation																					
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Selection process

Seco Suggest

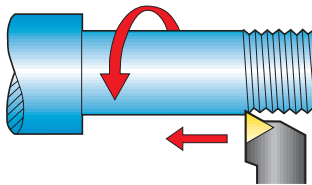
In order to simplify the selection of tools and cutting parameters Seco Tools introduce Suggest which eliminates complicated searching, programming and calculation. Suggest gives you the best suggestion of holder, insert and optimized parameters for your application and the possibility to download information to the CNC machine.

The application can be found at <https://www.secotools.com/dashboard/Suggest/Suggest>.

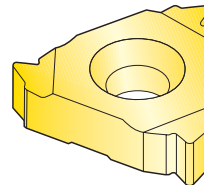
Use the selection process below to choose a suitable tool, insert, cutting data and production method.



1. Selection of production method, page 10.



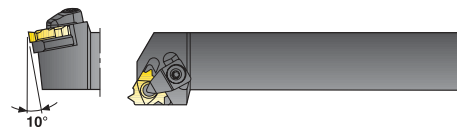
2. Selection of insert type, page 11.



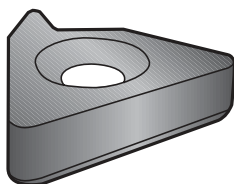
3. Selection of grade, page 12.

		ISO														
		P					M				K					
		P01	P10	P20	P30	P40	P50	M10	M20	M30	M40	K01	K10	K20	K30	K40
	CP200															
	CP300															
	CP500															
	H15															
		***					***				***					

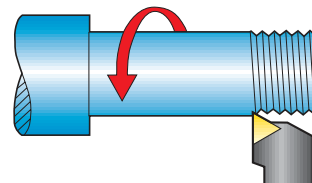
4. Selection of toolholder, page 14.



5. Selection of insert shim, pages 15-16.



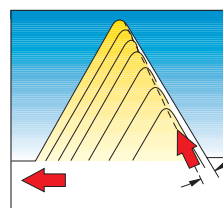
6. Selection of cutting speed, pages 17-21.



7. Selection of number of passes and infeed depths, pages 22-32.

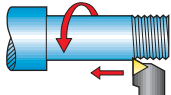
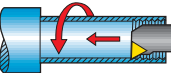
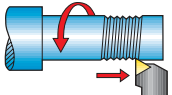
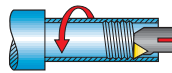
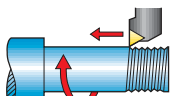
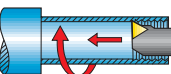
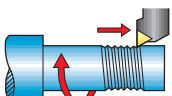
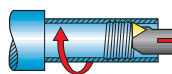
P _h	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0
a _p	3,82 (0.150)	3,52 (0.139)	3,19 (0.126)	2,87 (0.113)	2,53 (0.100)	2,23 (0.088)	1,92 (0.076)	1,60 (0.063)	1,25 (0.049)
1	0,46 (0.018)	0,43 (0.017)	0,41 (0.016)	0,37 (0.015)	0,34 (0.013)	0,34 (0.013)	0,28 (0.011)	0,27 (0.011)	0,24 (0.009)
2	0,43 (0.017)	0,40 (0.016)	0,39 (0.015)	0,34 (0.013)	0,32 (0.013)	0,31 (0.012)	0,26 (0.010)	0,24 (0.009)	0,22 (0.009)
3	0,35 (0.014)	0,32 (0.013)	0,32 (0.013)	0,28 (0.011)	0,25 (0.010)	0,25 (0.010)	0,21 (0.008)	0,20 (0.008)	0,18 (0.007)

8. Selection of infeed method, page 33.

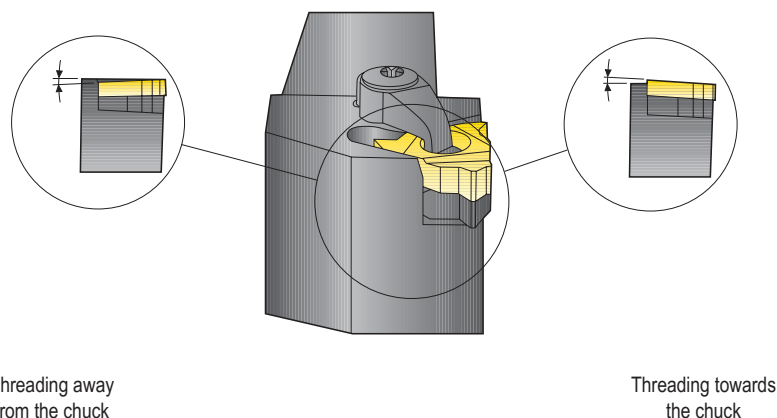


Production methods

Workpiece
- External or internal thread
- Right or left hand thread
Machine
- Right or left hand tool

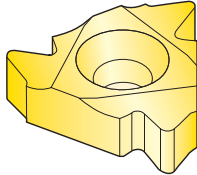
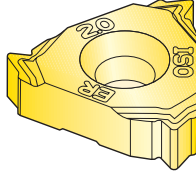
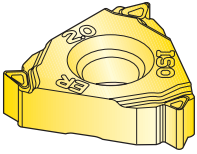
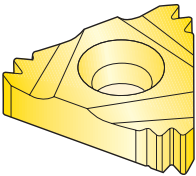
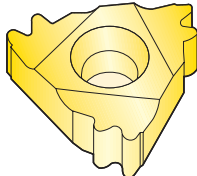
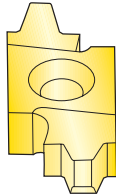
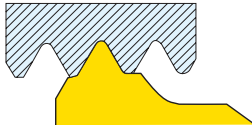
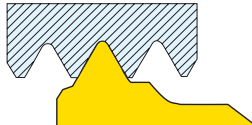
Threading towards the chuck	Threading away from the chuck*
Benefit: – Best stability – Originally fitted insert shims can be used for most operations Note: – Chip build-up may occur during internal threading, particularly if there is little space between the threading bar and bore of the hole	Benefit: – Chip flow is correctly directed during internal threading Note: – Secure clamping of the insert and mounting of the toolholder are necessary Internal threading: – Use only CNR/L toolholders
Right-hand thread – Right-hand tool	Left-hand thread – Right-hand tool
 ER  NR	 ER  NR
Left-hand thread – Left-hand tool	Right-hand thread – Left-hand tool
 EL  NL	 EL  NL

*Notice that the insert shim must be changed when threading away from the chuck.



Insert types

For single tooth inserts choose a full profile or partial profile design

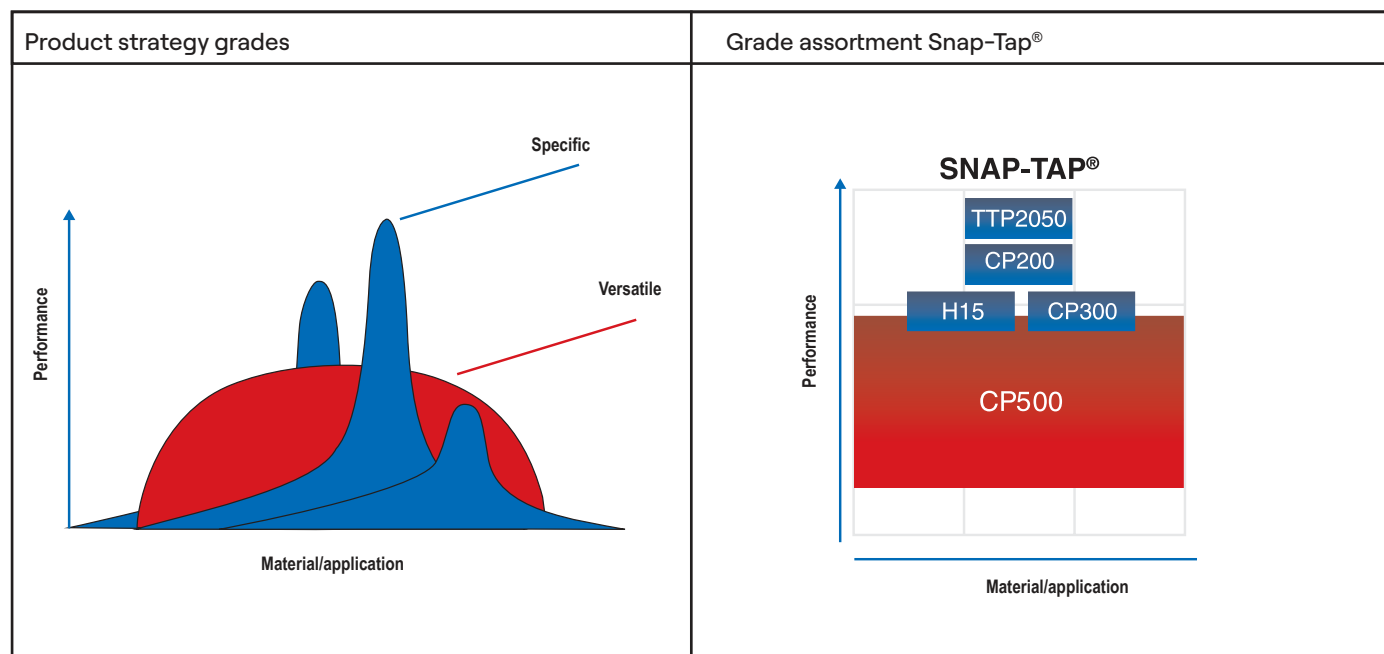
Single-tooth insert (Type S) A or Original First choice, can be used for applications in a variety of materials. Low cutting forces. 	Single-tooth insert (Type S) A1 chipbreaker First choice for general applications in steel. 
Single-tooth insert (Type S) A2 chipbreaker First choice for general applications in stainless steel. 	Multi-tooth insert (Type M) First choice for mass production, since fewer passes are necessary. Only for radial infeed. 2M = 2 teeth version 3M = 3 teeth version 
Multi-tooth insert (TWIN THREADER, TT) Lower cutting forces than M type. Shorter undercut length than M type. Only for radial infeed. Use insert shim for 2M. 	K insert (Type K) First choice for large/coarse threads. 
Full profile By topping the thread, the workpiece need not be pre-machined to the exact diameter and may be a little oversized for external threads and undersize for internal threads. The threading operation is simplified since only one tool is needed for the entire thread (no subsequent deburring is needed). 	Partial profile Covers a wide range of thread pitches, which simplifies stock-keeping. Requires a correct workpiece diameter prior to threading. The nose radius of the insert is sized to suit the smallest profile within the pitch range of the insert. 

Insert grades

Thread turning – Insert grades

Continuous research and development of better materials, coatings and optimal geometries help fulfil customers requirements.

Our product strategy is to provide the market with versatile first choice tools and specific optimized solutions for threading.



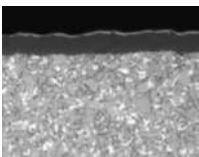
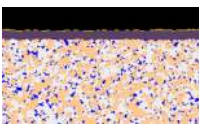
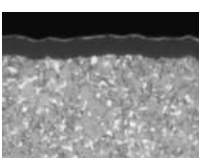
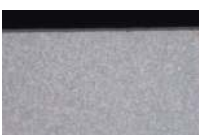
Insert grades

Grades

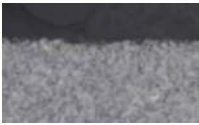
The black areas in the chart indicate a grade's main ISO application groups and the white areas indicate other supplementary application groups.

	P						M					K					N				S				H			
	P01	P10	P20	P30	P40	P50	M01	M10	M20	M30	M40	K01	K10	K20	K30	K40	N01	N10	N20	N30	S01	S10	S20	S30	H01	H10	H20	H30
CP200																												
CP300																												
CP500																												
TTP2050																												
H15																												

PVD coated grades

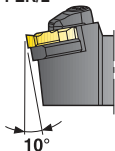
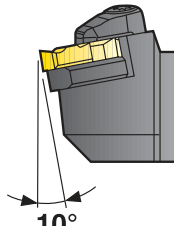
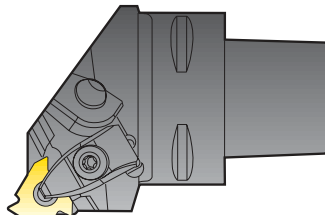
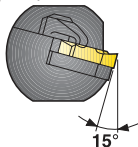
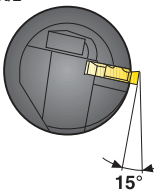
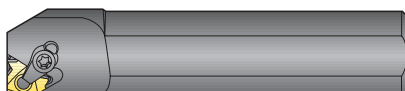
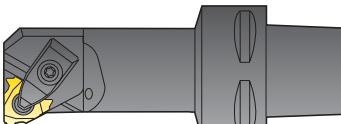
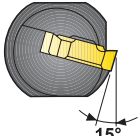
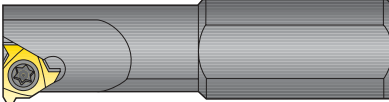
CP200		First choice for high-strength steel, martensitic stainless steel, cast iron with low hardness, superalloys and titanium alloys. First choice for high cutting speeds. Hard micrograin with sharp edge, highly resistant to plastic deformation. (Ti,Al)N + TiN
CP300		Wear-resistant grade which is principally intended for high cutting speeds. Optimizing grade in steel and stainless steel. (Ti,Al)N + TiN
CP500		Universal very tough micrograin grade for all types of threading in most materials. Excellent for stainless steel and difficult operations. (Ti,Al)N + TiN
TTP2050		Peak performance, wear resistant micrograin grade to be used in steel, stainless steel and cast iron. The nano-laminated coating increases the wear resistance of the grade. (TiAl)N/(TiSi)N
TTP1550		Fine grain wear resistant grade for optimized performance in carbon steels. (TiAl)N

Uncoated grades

H15		First choice for machining normal to hard cast iron. Also suitable for hard steel with a hardness in excess of 350 HB. Micrograin with excellent wear-resistance and sharp edge.
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Toolholders

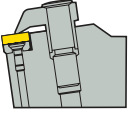
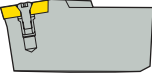
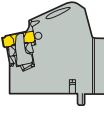
Use the guidelines below to choose a suitable toolholder type.

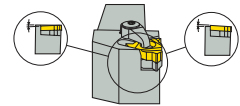
External threading			
Basic choice Type C (clamp) Type P (Pin)	CER/L, PER/L		Insert size 16, 20, 22, 26, 27 With insert shim
	Cx-CER/L		
			
			
Internal threading			
Basic choice Type C (clamp) Type P (Pin)	CNR/L, PNR/L		Insert size 16, 20, 22, 26, 27 With insert shim
	Cx-CNR/L		
			
			
N.B. On 27 mm inserts this angle is 10°			
For small holes Type-S (screw)	SNR/L		Insert sizes 09, 11, 16, 22 (No insert shim. To be used only when threading towards the chuck)
			

Insert shim

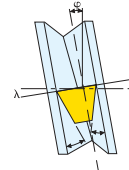
Originally fitted insert shims

The table below shows the originally fitted insert shims. These insert shims are suitable for most operations when threading towards the chuck.

	Clamp	Screw	Jetstream Tooling®
Toolholders			
	External and internal threading	Internal threading	External and internal threading
Insert type	Single-tooth insert (Type S)	Single-tooth insert (Type K)	Single-tooth insert (Type S)
Insert shim			No insert shim ($\lambda=2^\circ$) 
Insert size	16	GX 16-1	GXA16-1
	20	KX 20-2	
	22	NX22-1	NXA22-1
	26	KX26-2	
	27	VX27-1	VXA27-1



The helix angle can be selected from +5 to -2 by changing the insert shim. The same insert shims are used for both right and left hand holders. The centre height remains constant.

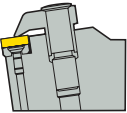
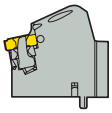


To receive the correct shape on the thread and uniform wear on the insert the cutting edge helix angle (λ) should be equal to the thread lead angle (ϕ).

The helix angle (λ) can also be calculated. See page 34 for formula.

SNR/L toolholders have no exchangeable insert shim and can therefore only be used for threading towards the chuck. The table below shows the available insert shim range.

Insert shim range

	Clamp	Jetstream Tooling® Thread turning					
Toolholders							
	External and internal threading	External and internal threading					
Insert type	Multi-tooth insert (Type M)	Single-tooth insert (Type S)		Single-tooth insert (Type K)		Multi-tooth insert (Type M)	Single-tooth insert (Type S)
Insert shim							
	Threading towards the chuck	Threading towards the chuck	Threading away from the chuck	Threading towards the chuck	Threading away from the chuck	Threading towards the chuck	Threading away from the chuck
Insert size	16	MX16-1	GX16-0, -1, -2, -3, -4	GX16-0 -99 -98		MXA16-1	GXA16-0, -1, -2, -3, -4
	20			KX20-0, -1, -2, -3, -4, -5	KX20-0, -99		
	22	MX22-1	NX22-0, -1, -2, -3, -4	NX22-0 -99 -98		MXA22-1	NXA22-0, -1, -2, -3, -4
	26			KX26-0, -1, -2, -3, -4, -5	KX26-0, -99		
	27	MX27-1	VX27-0, -1, -2, -3, -4	VX27-0 -99 -98		MXA27-1	VXA27-0, -1, -2, -3, -4

Insert shim

Choice of insert shim

Use the graph below to choose the correct insert shim. The graph gives the last digit in the insert shim code.

Example: GX16-1

Production method

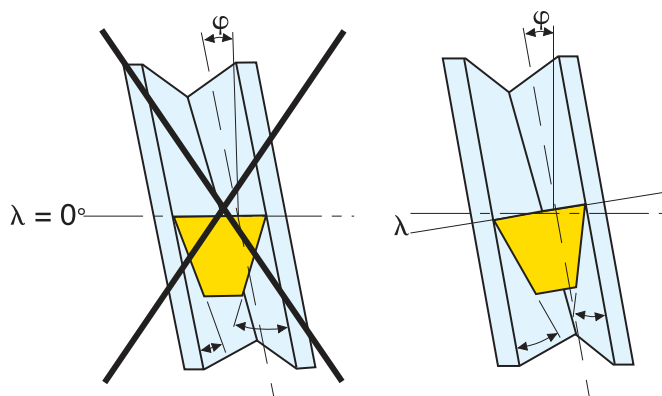
Threading towards the chuck, use right side of the graph.
Threading away from the chuck, use left side of the graph.

Vertical column - lead

Thread with one start, Lead (Ph) = pitch (P).
Thread with several starts, Lead (Ph) = pitch (P) x number of starts.

Horizontal column = pitch diameter (D_2)

Pitch diameter D_2 – threading away from the chuck

[illegible]

Pitch diameter D_2 – threading towards the chuck

SMG – Cutting data

In SMG classification of workpiece materials involves a specific material standard in a specific condition assigned as reference for easy and unambiguous adjustment of cutting data for any actual material compared to any Seco reference material. As examples the reference materials EN C45E for SMG P4 and EN 42 CrMo 4 for both SMG P5 and SMG H5 shown below in table 1 where the reference level material property is indicated. A more complete extract can be found on page(s) 473-484.

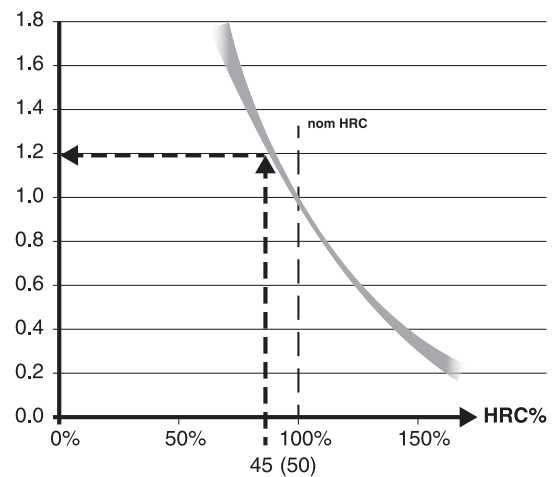
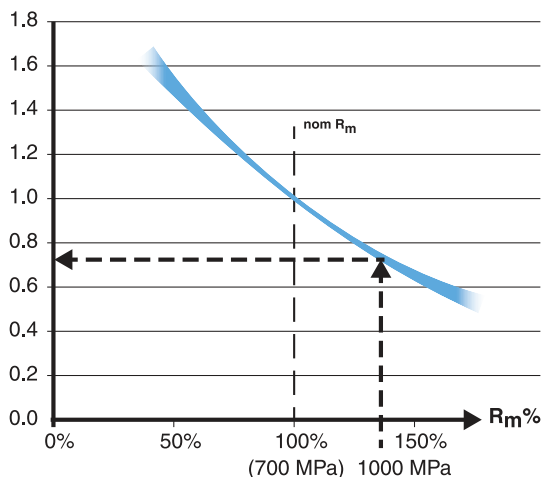
SMG	Description	Properties	Reference	SMG	Description	Properties	Reference
P4	Low-alloy general structural steels, 0.25% < C < 0.67%wt Low-alloy Quench & Temper steels	520 < R _m < 1200	C 45E R _m = 660 N/mm ²	H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC
P5	Structural steels, 0.25% < C < 0.67%wt Quench & Temper steels	550 < R _m < 1200	42 CrMo 4 R _m = 700 N/mm ²				

Focusing specifically on EN 42 CrMo 4 in annealed condition, the ultimate tensile strength R_m may typically vary between R_m = 630 N/mm² and R_m = 780 N/mm², which provide a reference level for SMG P5. In Quenched & Tempered condition, the ultimate tensile strength R_m may typically be between R_m = 900 N/mm² and R_m = 1100 N/mm² thus still belongs to SMG P5. However, if hardened above R_m = 1200 N/mm² it instead belongs to SMG H5.

SMG	EN	W.-Nr	AFNOR	BS	UNI	JIS	AISI / ASTM	GOST	Condition	R _{m, nom}	HRC _{nom}
P5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Annealed	700	
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered	1000	
H5	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		45
	42 CrMo 4	1.1201	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	4142, 4140	38HM	Quenched & Tempered		50

The EN 42CrMo4 quench & tempered steel could be used to illustrate the machinability dependence of materials' condition.

The graphs below indicate how speed recommendations for a nominal material conditions may be adjusted for relative R_m (left diagram valid for ISO-P) and for relative HRC (valid for ISO-H).



To further illustrate how the SMG P5 nominal v_c can be adjusted to a more accurate recommended v_c we need ultimate tensile strength R_m data and in this case we use the EN 42 CrMo 4 quenched & tempered to R_m = 1000 N/mm² according to above table (bold blue arrows).

Assume that we find that the SMG P5 nominal v_c = 280 m/min for a certain product and machining.

Then, actual recommended v_c = 280 m/min × 0,75 = 210 m/min.

Consequently in the SMG H5 the nominal v_c can be adjusted using the hardened EN 42 CrMo 4 at HRC 45 (smaller grey arrows).

Assume that the SMG H5 nominal v_c = 50 m/min for a certain product and machining using a coated cemented carbide tools then, actual recommended v_c = 50 m/min × 1,2 = 60 m/min.

For further workpiece material details please see page(s) 473-484 and suggested cutting data at applicable pages.

For more convenient cutting data handling we recommend applicable tools in My Pages – Suggest on www.secotools.com

Cutting speed metric (Inch)

SMG	v _c m/min sf/min				
	CP200	CP300	CP500	H15	TTP2050
Thread turning	P1	275	205	—	205
	—	900	670	—	670
	P2	270	200	—	200
	—	890	660	—	660
	P3	230	170	—	170
	—	750	560	—	560
	P4	205	150	—	150
	—	670	490	—	490
	P5	195	145	—	145
	—	640	475	—	475
	P6	220	165	—	165
	—	720	540	—	540
MDT	P7	205	155	—	155
	—	670	510	—	510
	P8	195	145	—	145
	—	640	475	—	475
	P11	200	150	—	150
	—	660	490	—	490
	P12	120	90	—	90
	—	395	295	—	295
	M1	150	135	100	135
	—	490	445	330	445
	M2	120	110	80	110
	—	395	360	260	360
Mini-Shaft™	M3	90	85	60	85
	—	295	280	195	280
	M4	70	65	—	65
	—	230	215	—	215
	M5	55	50	—	50
	—	180	165	—	165
	K1	130	120	105	120
	—	425	395	345	395
	K2	110	105	95	105
	—	360	345	310	345
	K3	95	90	80	90
	—	310	295	260	295
Thread milling	K4	90	85	75	85
	—	295	280	245	280
	K5	55	50	—	50
	—	180	165	—	165
	K6	80	75	—	75
	—	260	245	—	245
	K7	70	65	—	65
	—	230	215	—	215
	N1	—	—	255	—
	—	—	—	840	—
	N2	—	—	165	—
	—	—	—	540	—
Thread tapping	N3	—	—	110	—
	—	—	—	360	—
	N11	—	100	150	100
	—	—	330	490	330
	S1	20	20	—	20
	—	65	65	—	65
	S2	15	15	—	15
	—	49	49	—	49
	S3	15	15	—	15
	—	49	49	—	49
	S11	45	39	—	39
	—	150	130	—	130
	S12	35	30	—	30
	—	115	100	—	100
	S13	27	23	—	23
	—	90	75	—	75

Use the SMG tables to classify the workpiece material. Use the table to choose cutting speed. Cutting speeds (v_c) in the table are recommendations for a start value. Due to machine, material and setup condition it is advisable to optimize cutting data. Recommended ranges to use for each grade is CP200, CP300, CP500, TTP2050 and H15 +/-15%

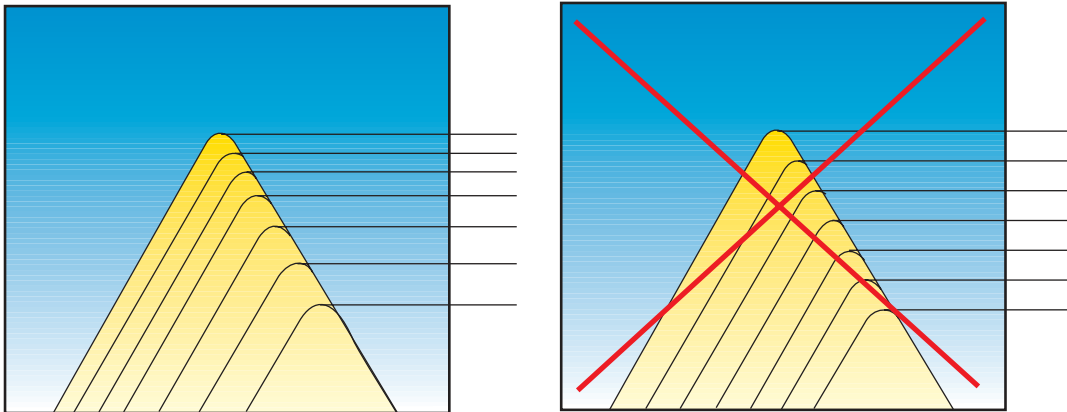
SMG=Seco Material Group
v_c = Cutting speed (m/min)

Note that there is a fixed relationship between rotational speed and feed rate in threading. Check that the chosen cutting speed does not result in a too high feed speed.

Number of passes and infeed depths

A thread cannot be made in one cut because of the relatively brittle cutting edge. The total cutting depth must be divided into several passes. Those passes should all have similar cutting forces (equal chip areas), see figures.

Use the tables on page 22-32 to find recommendations for number of passes and infeed depths. The tables give basic recommendations and are applicable on all geometries - Original, A, A1 and A2.



- The infeed series given is based on a good control of the OD/ID tolerances for the selected profile.
- If insert fracture should occur, the number of passes should be increased.
- The infeed depth should not be less than 0,05 mm (0.0020") /pass.
- On stainless steel, the infeed depth per pass should be greater than 0,08 mm (0.0031").
- The recommendations can also be used for part-profile inserts. The number of passes should then, in most cases, be increased.
- The threading insert nose radius is relatively small and can easily be damaged if it is overloaded.

Cutting speed – MDT metric (Inch)

Thread turning	SMG	v_c m/min sf/min
		CP500
MDT	P1	155 510 150
	P2	490 130
	P3	425 115
	P4	375 110
	P5	360 125
	P6	410 115
	P7	375 110
	P8	360 115
	P11	375 65
	P12	215 135
	M1	445 110
	M2	360 85
Mini-Shaft™	M3	280 65
	M4	215 50
	M5	165 130
	K1	425 110
	K2	360 95
	K3	310 90
	K4	295 55
	K5	180 80
	K6	260 70
	K7	230
Thread milling	N1	—
	N2	—
	N3	—
	N11	85 280 21
	S1	70 17
	S2	55 15
	S3	49
	S11	—
	S12	—
	S13	—

Use the SMG tables to classify the workpiece material. Use the table to choose cutting speed.

SMG = Seco Material Group

v_c = m/min

Cutting speeds (v_c) in the table are recommendations for a start value.

Due to machine, material and setup condition it is advisable to optimize cutting data. Recommended ranges to use for CP500 +/-15%

Cutting speed – Mini Shaft metric (Inch)

SMG	v_c m/min sf/min
	CP500
P1	155
P2	510
P3	150
P4	490
P5	130
P6	425
P7	115
P8	375
P11	110
P12	360
M1	125
M2	410
M3	115
M4	375
M5	110
K1	360
K2	115
K3	375
K4	110
K5	360
K6	115
K7	65
N1	215
N2	80
N3	260
N11	65
S1	215
S2	50
S3	165
S11	37
S12	120
S13	31
	100
	150
	490
	130
	425
	110
	360
	105
	345
	65
	215
	95
	310
	80
	260
	—
	—
	—
	95
	310
	19
	60
	15
	49
	13
	43
	—
	—
	—
	—

Use the SMG tables to classify the workpiece material. Use the table to choose cutting speed.

SMG = Seco Material Group

v_c = m/min

Cutting speeds (v_c) in the table are recommendations for a start value.

Due to machine, material and setup condition it is advisable to optimize cutting data. Recommended ranges to use for CP500 +/-15%

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Number of passes and infeed depths

External ISO-metric threads, metric (Inch)

P _h	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.75	1.5	1.25	1.0	0.80	0.75	0.50
a _p	3,82 (0.150)	3,52 (0.139)	3,19 (0.126)	2,87 (0.113)	2,53 (0.100)	2,23 (0.088)	1,92 (0.076)	1,60 (0.063)	1,25 (0.049)	1,13 (0.044)	0,93 (0.037)	0,81 (0.032)	0,65 (0.026)	0,52 (0.020)	0,48 (0.019)	0,33 (0.013)
1	0,46 (0.018)	0,43 (0.017)	0,41 (0.016)	0,37 (0.015)	0,34 (0.013)	0,34 (0.013)	0,28 (0.011)	0,27 (0.011)	0,24 (0.009)	0,22 (0.009)	0,22 (0.009)	0,21 (0.008)	0,18 (0.007)	0,17 (0.007)	0,16 (0.006)	0,11 (0.004)
2	0,43 (0.017)	0,40 (0.016)	0,39 (0.015)	0,34 (0.013)	0,32 (0.013)	0,31 (0.012)	0,26 (0.010)	0,24 (0.009)	0,22 (0.009)	0,20 (0.008)	0,20 (0.008)	0,17 (0.007)	0,16 (0.006)	0,15 (0.006)	0,14 (0.006)	0,09 (0.004)
3	0,35 (0.014)	0,32 (0.013)	0,32 (0.013)	0,28 (0.011)	0,25 (0.010)	0,25 (0.010)	0,21 (0.008)	0,20 (0.008)	0,18 (0.007)	0,17 (0.007)	0,17 (0.007)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,11 (0.004)	0,07 (0.003)
4	0,30 (0.012)	0,28 (0.011)	0,27 (0.011)	0,24 (0.009)	0,22 (0.009)	0,21 (0.008)	0,18 (0.007)	0,17 (0.007)	0,16 (0.006)	0,14 (0.006)	0,14 (0.006)	0,11 (0.004)	0,11 (0.004)	0,08 (0.003)	0,07 (0.003)	0,06 (0.002)
5	0,29 (0.011)	0,26 (0.010)	0,24 (0.009)	0,22 (0.009)	0,20 (0.008)	0,18 (0.007)	0,16 (0.006)	0,15 (0.006)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,10 (0.004)	0,08 (0.003)	-	-	-
6	0,26 (0.010)	0,24 (0.009)	0,24 (0.009)	0,22 (0.009)	0,18 (0.007)	0,18 (0.007)	0,15 (0.006)	0,15 (0.006)	0,12 (0.005)	0,10 (0.004)	0,08 (0.003)	0,08 (0.003)	-	-	-	-
7	0,24 (0.009)	0,21 (0.008)	0,22 (0.009)	0,20 (0.008)	0,17 (0.007)	0,16 (0.006)	0,14 (0.006)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	-	-	-	-	-	-
8	0,23 (0.009)	0,20 (0.008)	0,20 (0.008)	0,18 (0.007)	0,15 (0.006)	0,15 (0.006)	0,13 (0.005)	0,11 (0.004)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-
9	0,22 (0.009)	0,19 (0.007)	0,19 (0.007)	0,17 (0.007)	0,14 (0.006)	0,14 (0.006)	0,12 (0.005)	0,11 (0.004)	-	-	-	-	-	-	-	-
10	0,19 (0.007)	0,18 (0.007)	0,18 (0.007)	0,16 (0.006)	0,13 (0.005)	0,12 (0.005)	0,11 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-
11	0,18 (0.007)	0,17 (0.007)	0,16 (0.006)	0,14 (0.006)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-
12	0,16 (0.006)	0,15 (0.006)	0,15 (0.006)	0,13 (0.005)	0,12 (0.005)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-	-	-	-
13	0,15 (0.006)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,11 (0.004)	-	-	-	-	-	-	-	-	-	-	-
14	0,13 (0.005)	0,13 (0.005)	0,10 (0.004)	0,10 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-	-
15	0,13 (0.005)	0,12 (0.005)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0,10 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ph = Lead

a_p = Total infeed depth

TPI = Threads per inch

Recommendations are for steel with a hardness < 300 HB

Internal ISO-metric threads, metric (Inch)

P _h	6.0	5.5	5.0	4.5	4.0	3.5	3.0	2.5	2.0	1.75	1.5	1.25	1.0	0.80	0.75	0.50
a _p	3,54 (0.139)	3,25 (0.128)	2,96 (0.117)	2,65 (0.104)	2,33 (0.092)	2,05 (0.081)	1,78 (0.070)	1,48 (0.058)	1,17 (0.046)	1,05 (0.041)	0,85 (0.033)	0,75 (0.030)	0,60 (0.024)	0,49 (0.019)	0,46 (0.018)	0,31 (0.012)
1	0,46 (0.018)	0,43 (0.017)	0,42 (0.017)	0,37 (0.015)	0,34 (0.013)	0,32 (0.013)	0,28 (0.011)	0,26 (0.010)	0,23 (0.009)	0,22 (0.009)	0,20 (0.008)	0,17 (0.007)	0,17 (0.007)	0,17 (0.007)	0,16 (0.006)	0,10 (0.004)
2	0,43 (0.017)	0,40 (0.016)	0,40 (0.016)	0,34 (0.013)	0,31 (0.012)	0,30 (0.012)	0,26 (0.010)	0,25 (0.010)	0,21 (0.008)	0,20 (0.008)	0,18 (0.007)	0,17 (0.007)	0,15 (0.006)	0,14 (0.006)	0,13 (0.005)	0,08 (0.003)
3	0,35 (0.014)	0,33 (0.013)	0,32 (0.013)	0,28 (0.011)	0,24 (0.009)	0,24 (0.009)	0,21 (0.008)	0,18 (0.007)	0,17 (0.007)	0,15 (0.006)	0,15 (0.006)	0,14 (0.006)	0,11 (0.004)	0,11 (0.004)	0,10 (0.004)	0,07 (0.003)
4	0,30 (0.012)	0,26 (0.010)	0,26 (0.010)	0,23 (0.009)	0,21 (0.008)	0,19 (0.007)	0,16 (0.006)	0,15 (0.006)	0,15 (0.006)	0,13 (0.005)	0,13 (0.005)	0,10 (0.004)	0,09 (0.004)	0,07 (0.003)	0,07 (0.003)	0,06 (0.002)
5	0,26 (0.010)	0,22 (0.009)	0,22 (0.009)	0,21 (0.008)	0,18 (0.007)	0,17 (0.007)	0,14 (0.006)	0,13 (0.005)	0,12 (0.005)	0,10 (0.004)	0,11 (0.004)	0,09 (0.004)	0,08 (0.003)	-	-	-
6	0,22 (0.009)	0,20 (0.008)	0,20 (0.008)	0,19 (0.007)	0,15 (0.006)	0,15 (0.006)	0,13 (0.005)	0,12 (0.005)	0,11 (0.004)	0,09 (0.004)	0,08 (0.003)	0,08 (0.003)	-	-	-	-
7	0,20 (0.008)	0,18 (0.007)	0,17 (0.007)	0,16 (0.006)	0,14 (0.006)	0,14 (0.006)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	0,08 (0.003)	-	-	-	-	-	-
8	0,19 (0.007)	0,17 (0.007)	0,16 (0.006)	0,15 (0.006)	0,13 (0.005)	0,13 (0.005)	0,11 (0.004)	0,10 (0.004)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-
9	0,18 (0.007)	0,16 (0.006)	0,16 (0.006)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,10 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-
10	0,16 (0.006)	0,15 (0.006)	0,15 (0.006)	0,13 (0.005)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-
11	0,15 (0.006)	0,14 (0.006)	0,14 (0.006)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	0,09 (0.004)	-	-	-	-	-	-	-	-	-
12	0,15 (0.006)	0,14 (0.006)	0,14 (0.006)	0,12 (0.005)	0,10 (0.004)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-	-	-	-
13	0,14 (0.006)	0,13 (0.005)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-	-	-
14	0,13 (0.005)	0,12 (0.005)	0,10 (0.004)	0,10 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-	-
15	0,12 (0.005)	0,12 (0.005)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0,10 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ph = Lead

a_p = Total infeed depth

TPI = Threads per inch

Recommendations are for steel with a hardness < 300 HB

External/Internal Whitworth threads, metric (Inch)

TPI	4.0	4.5	5	6	7	8	9	10	11	12	14	16	18	19	20	26	28
a_p	4,29 (0.169)	3,82 (0.150)	3,44 (0.135)	2,90 (0.114)	2,50 (0.098)	2,17 (0.085)	1,93 (0.076)	1,76 (0.069)	1,58 (0.062)	1,45 (0.057)	1,20 (0.047)	1,13 (0.044)	1,01 (0.040)	0,96 (0.038)	0,92 (0.036)	0,72 (0.028)	0,69 (0.027)
1	0,49 (0.019)	0,46 (0.018)	0,45 (0.018)	0,38 (0.015)	0,37 (0.015)	0,32 (0.013)	0,30 (0.012)	0,29 (0.009)	0,28 (0.011)	0,28 (0.011)	0,24 (0.009)	0,24 (0.009)	0,23 (0.009)	0,22 (0.009)	0,21 (0.008)	0,19 (0.007)	0,18 (0.007)
2	0,46 (0.018)	0,43 (0.017)	0,43 (0.017)	0,36 (0.014)	0,35 (0.014)	0,30 (0.012)	0,28 (0.011)	0,27 (0.011)	0,26 (0.010)	0,26 (0.010)	0,22 (0.009)	0,22 (0.009)	0,22 (0.009)	0,22 (0.009)	0,21 (0.008)	0,18 (0.007)	0,17 (0.007)
3	0,38 (0.015)	0,38 (0.015)	0,38 (0.015)	0,30 (0.012)	0,29 (0.011)	0,24 (0.009)	0,23 (0.009)	0,22 (0.009)	0,22 (0.009)	0,22 (0.009)	0,18 (0.007)	0,19 (0.007)	0,19 (0.007)	0,18 (0.007)	0,17 (0.007)	0,15 (0.006)	0,14 (0.006)
4	0,36 (0.014)	0,33 (0.013)	0,32 (0.013)	0,26 (0.010)	0,25 (0.010)	0,21 (0.008)	0,20 (0.008)	0,19 (0.007)	0,19 (0.007)	0,18 (0.007)	0,15 (0.006)	0,16 (0.006)	0,16 (0.006)	0,14 (0.006)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)
5	0,34 (0.013)	0,29 (0.011)	0,28 (0.011)	0,22 (0.009)	0,22 (0.009)	0,19 (0.007)	0,18 (0.007)	0,17 (0.007)	0,16 (0.006)	0,16 (0.006)	0,13 (0.005)	0,13 (0.005)	0,13 (0.005)	0,12 (0.005)	0,11 (0.004)	0,08 (0.003)	0,08 (0.003)
6	0,31 (0.012)	0,25 (0.010)	0,25 (0.010)	0,21 (0.008)	0,19 (0.007)	0,17 (0.007)	0,15 (0.006)	0,15 (0.006)	0,14 (0.006)	0,14 (0.006)	0,11 (0.004)	0,11 (0.004)	0,08 (0.003)	0,08 (0.003)	0,08 (0.003)	-	-
7	0,29 (0.011)	0,24 (0.009)	0,22 (0.009)	0,19 (0.007)	0,18 (0.007)	0,15 (0.006)	0,14 (0.006)	0,14 (0.006)	0,13 (0.005)	0,13 (0.005)	0,09 (0.004)	0,08 (0.003)	-	-	-	-	-
8	0,27 (0.011)	0,22 (0.009)	0,20 (0.008)	0,17 (0.007)	0,16 (0.006)	0,14 (0.006)	0,13 (0.005)	0,13 (0.005)	0,12 (0.005)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-
9	0,24 (0.009)	0,20 (0.008)	0,19 (0.007)	0,16 (0.006)	0,15 (0.006)	0,13 (0.005)	0,12 (0.005)	0,12 (0.005)	0,08 (0.003)	-	-	-	-	-	-	-	-
10	0,22 (0.009)	0,18 (0.007)	0,18 (0.007)	0,15 (0.006)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,08 (0.003)	-	-	-	-	-	-	-	-	-
11	0,20 (0.008)	0,17 (0.007)	0,17 (0.007)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-
12	0,19 (0.007)	0,16 (0.006)	0,15 (0.006)	0,14 (0.006)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-	-
13	0,17 (0.007)	0,15 (0.006)	0,12 (0.005)	0,12 (0.005)	-	-	-	-	-	-	-	-	-	-	-	-	-
14	0,15 (0.006)	0,14 (0.006)	0,10 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-
15	0,12 (0.005)	0,12 (0.005)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0,10 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ph = Lead
 a_p = Total infeed depth
 TPI = Threads per inch
 Recommendations are for steel with a hardness < 300 HB

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

External UN threads, metric (Inch)

TPI	4.0	4.5	5	6	7	8	9	10	11	12	13	14	16	18	20	24	28	32
a_p	4,07 (0.160)	3,62 (0.143)	3,29 (0.130)	2,71 (0.107)	2,33 (0.092)	2,08 (0.082)	1,84 (0.072)	1,66 (0.065)	1,52 (0.060)	1,39 (0.055)	1,29 (0.051)	1,19 (0.047)	1,05 (0.041)	0,94 (0.037)	0,84 (0.033)	0,70 (0.028)	0,60 (0.024)	0,53 (0.021)
1	0,47 (0.019)	0,45 (0.018)	0,43 (0.017)	0,36 (0.014)	0,35 (0.014)	0,30 (0.012)	0,28 (0.011)	0,27 (0.011)	0,27 (0.011)	0,27 (0.011)	0,25 (0.010)	0,23 (0.009)	0,22 (0.009)	0,23 (0.009)	0,20 (0.008)	0,19 (0.007)	0,17 (0.007)	0,17 (0.007)
2	0,44 (0.017)	0,41 (0.016)	0,40 (0.016)	0,34 (0.013)	0,33 (0.013)	0,28 (0.011)	0,26 (0.010)	0,26 (0.010)	0,25 (0.010)	0,26 (0.010)	0,24 (0.009)	0,22 (0.009)	0,21 (0.008)	0,21 (0.008)	0,19 (0.007)	0,17 (0.007)	0,15 (0.006)	0,15 (0.006)
3	0,40 (0.016)	0,39 (0.015)	0,36 (0.014)	0,27 (0.011)	0,26 (0.010)	0,25 (0.010)	0,21 (0.008)	0,20 (0.008)	0,20 (0.008)	0,20 (0.008)	0,18 (0.007)	0,17 (0.007)	0,16 (0.006)	0,16 (0.006)	0,15 (0.006)	0,14 (0.006)	0,11 (0.004)	0,13 (0.005)
4	0,36 (0.014)	0,31 (0.012)	0,31 (0.012)	0,23 (0.009)	0,22 (0.009)	0,21 (0.008)	0,20 (0.008)	0,17 (0.007)	0,19 (0.007)	0,18 (0.007)	0,17 (0.007)	0,15 (0.006)	0,14 (0.006)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,09 (0.004)	0,08 (0.003)
5	0,32 (0.013)	0,26 (0.010)	0,26 (0.010)	0,22 (0.009)	0,21 (0.008)	0,18 (0.007)	0,17 (0.007)	0,16 (0.006)	0,16 (0.006)	0,15 (0.006)	0,14 (0.006)	0,13 (0.005)	0,13 (0.005)	0,12 (0.005)	0,10 (0.004)	0,08 (0.003)	0,08 (0.003)	-
6	0,27 (0.011)	0,23 (0.009)	0,23 (0.009)	0,20 (0.008)	0,19 (0.007)	0,16 (0.006)	0,15 (0.006)	0,15 (0.006)	0,14 (0.006)	0,13 (0.005)	0,12 (0.005)	0,11 (0.004)	0,11 (0.004)	0,08 (0.003)	0,08 (0.003)	-	-	-
7	0,25 (0.010)	0,21 (0.008)	0,20 (0.008)	0,18 (0.007)	0,17 (0.007)	0,14 (0.006)	0,14 (0.006)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	0,08 (0.003)	-	-	-	-	-
8	0,23 (0.009)	0,20 (0.008)	0,19 (0.007)	0,16 (0.006)	0,15 (0.006)	0,13 (0.005)	0,12 (0.005)	0,12 (0.005)	0,11 (0.004)	0,08 (0.003)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-
9	0,22 (0.009)	0,18 (0.007)	0,19 (0.007)	0,15 (0.006)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,11 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-	-
10	0,21 (0.008)	0,17 (0.007)	0,18 (0.007)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,11 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-
11	0,19 (0.007)	0,16 (0.006)	0,17 (0.007)	0,13 (0.005)	0,11 (0.004)	0,11 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-	-
12	0,18 (0.007)	0,15 (0.006)	0,15 (0.006)	0,12 (0.005)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-	-	-
13	0,16 (0.006)	0,14 (0.006)	0,12 (0.005)	0,11 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	0,15 (0.006)	0,14 (0.006)	0,10 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	0,12 (0.005)	0,12 (0.005)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0,10 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Ph = Lead

a_p = Total infeed depth

TPI = Threads per inch

Recommendations are for steel with a hardness < 300 HB

Internal UN threads, metric (Inch)

TPI	4	4.5	5	6	7	8	9	10	11	12	13	14	16	18	20	24	28	32
a_p	3,74 (0.147)	3,32 (0.131)	2,99 (0.118)	2,46 (0.097)	2,13 (0.084)	1,88 (0.074)	1,66 (0.065)	1,49 (0.059)	1,36 (0.054)	1,25 (0.049)	1,14 (0.045)	1,06 (0.042)	0,93 (0.037)	0,84 (0.033)	0,76 (0.030)	0,64 (0.025)	0,56 (0.022)	0,49 (0.019)
1	0,44 (0.017)	0,41 (0.016)	0,42 (0.017)	0,35 (0.014)	0,34 (0.013)	0,30 (0.012)	0,28 (0.011)	0,27 (0.011)	0,27 (0.011)	0,27 (0.011)	0,25 (0.010)	0,23 (0.009)	0,22 (0.009)	0,22 (0.009)	0,20 (0.008)	0,18 (0.007)	0,17 (0.007)	0,17 (0.007)
2	0,41 (0.016)	0,38 (0.015)	0,38 (0.015)	0,33 (0.013)	0,32 (0.013)	0,28 (0.011)	0,26 (0.010)	0,25 (0.010)	0,23 (0.009)	0,23 (0.009)	0,20 (0.008)	0,18 (0.007)	0,18 (0.007)	0,17 (0.007)	0,16 (0.006)	0,15 (0.006)	0,14 (0.006)	0,14 (0.006)
3	0,39 (0.015)	0,34 (0.013)	0,33 (0.013)	0,25 (0.010)	0,24 (0.009)	0,22 (0.009)	0,19 (0.007)	0,18 (0.007)	0,18 (0.007)	0,18 (0.007)	0,15 (0.006)	0,14 (0.006)	0,14 (0.006)	0,14 (0.006)	0,13 (0.005)	0,13 (0.005)	0,09 (0.004)	0,10 (0.004)
4	0,33 (0.013)	0,28 (0.011)	0,27 (0.011)	0,21 (0.008)	0,21 (0.008)	0,18 (0.007)	0,16 (0.006)	0,15 (0.006)	0,15 (0.006)	0,15 (0.006)	0,13 (0.005)	0,13 (0.005)	0,12 (0.005)	0,12 (0.005)	0,10 (0.004)	0,10 (0.004)	0,08 (0.003)	0,08 (0.003)
5	0,28 (0.011)	0,23 (0.009)	0,23 (0.009)	0,18 (0.007)	0,17 (0.007)	0,15 (0.006)	0,14 (0.006)	0,13 (0.005)	0,13 (0.005)	0,13 (0.005)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	0,10 (0.004)	0,09 (0.004)	0,08 (0.003)	0,08 (0.003)	-
6	0,24 (0.009)	0,20 (0.008)	0,20 (0.008)	0,16 (0.006)	0,15 (0.006)	0,13 (0.005)	0,13 (0.005)	0,12 (0.005)	0,11 (0.004)	0,11 (0.004)	0,11 (0.004)	0,10 (0.004)	0,09 (0.004)	0,08 (0.003)	0,08 (0.003)	-	-	-
7	0,22 (0.009)	0,19 (0.007)	0,18 (0.007)	0,15 (0.006)	0,14 (0.006)	0,12 (0.005)	0,12 (0.005)	0,11 (0.004)	0,11 (0.004)	0,10 (0.004)	0,10 (0.004)	0,09 (0.004)	0,08 (0.003)	-	-	-	-	-
8	0,21 (0.008)	0,18 (0.007)	0,17 (0.007)	0,14 (0.006)	0,13 (0.005)	0,11 (0.004)	0,11 (0.004)	0,10 (0.004)	0,10 (0.004)	0,08 (0.003)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-
9	0,20 (0.008)	0,17 (0.007)	0,16 (0.006)	0,13 (0.005)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	0,10 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-	-
10	0,18 (0.007)	0,16 (0.006)	0,15 (0.006)	0,12 (0.005)	0,12 (0.005)	0,10 (0.004)	0,09 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-
11	0,17 (0.007)	0,15 (0.006)	0,14 (0.006)	0,12 (0.005)	0,11 (0.004)	0,10 (0.004)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-	-
12	0,16 (0.006)	0,14 (0.006)	0,14 (0.006)	0,11 (0.004)	0,08 (0.003)	0,08 (0.003)	-	-	-	-	-	-	-	-	-	-	-	-
13	0,15 (0.006)	0,14 (0.006)	0,12 (0.005)	0,11 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	0,14 (0.006)	0,13 (0.005)	0,10 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
15	0,12 (0.005)	0,12 (0.005)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	0,10 (0.004)	0,10 (0.004)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

External multi-tooth inserts, metric (Inch)

	ISO Metric						UN						Whitworth	NPT		
Type	3M	2M	3M	2M	3M	2M	2M	3M	2M	3M	2M	2M	2M	2M	3M	2M
P_h mm	1,0	1,5	1,5	2,0	2,0	3,0	-	-	-	-	-	-	-	-	-	-
TPI	-	-	-	-	-	-	16	16	12	12	8	11	11,5	11,5	8	8
a_p mm (inch)	0,65 (0.026)	0,93 (0.037)	0,93 (0.037)	1,25 (0.049)	1,25 (0.049)	1,92 (0.076)	1,05 (0.041)	1,05 (0.041)	1,39 (0.055)	1,39 (0.055)	2,08 (0.082)	1,58 (0.062)	1,76 (0.069)	1,76 (0.069)	2,54 (0.100)	2,54 (0.100)
Pass 1 mm (inch)	0,36 (0.026)	0,43 (0.017)	0,56 (0.022)	0,57 (0.022)	0,75 (0.030)	0,65 (0.026)	0,49 (0.019)	0,64 (0.025)	0,64 (0.025)	0,84 (0.033)	0,70 (0.028)	0,73 (0.029)	0,59 (0.023)	0,81 (0.032)	0,88 (0.035)	0,88 (0.035)
2	0,29 (0.011)	0,30 (0.012)	0,37 (0.015)	0,40 (0.016)	0,50 (0.020)	0,53 (0.021)	0,33 (0.013)	0,41 (0.016)	0,44 (0.017)	0,55 (0.022)	0,57 (0.022)	0,50 (0.020)	0,50 (0.020)	0,57 (0.022)	0,64 (0.025)	0,64 (0.025)
3	-	0,20 (0.008)	-	0,28 (0.011)	-	0,42 (0.017)	0,23 (0.009)	-	0,31 (0.012)	-	0,46 (0.018)	0,35 (0.014)	0,37 (0.015)	0,38 (0.015)	0,57 (0.022)	0,57 (0.022)
4	-	-	-	-	-	0,32 (0.013)	-	-	-	-	0,35 (0.014)	-	0,30 (0.012)	-	0,45 (0.018)	0,45 (0.018)

P_h = Lead
 a_p = Total infeed depth
TPI = Threads per inch
Recommendations are for steel with a hardness < 300 HB

Internal multi-tooth inserts, metric (Inch)

	ISO Metric						UN					Whitworth	NPT		
Type	3M	2M	3M	2M	3M	2M	2M	3M	2M	3M	2M	2M	2M	3M	2M
P _h mm	1,0	1,5	1,5	2,0	2,0	3,0	–	–	–	–	–	–	–	–	–
TPI	–	–	–	–	–	–	16	16	12	12	8	11	11,5	11,5	8
a _p mm (inch)	0,60 (0.024)	0,85 (0.033)	0,85 (0.033)	1,17 (0.046)	1,17 (0.046)	1,78 (0.070)	0,93 (0.037)	0,93 (0.037)	1,25 (0.049)	1,25 (0.049)	1,88 (0.074)	1,58 (0.062)	1,76 (0.069)	1,76 (0.069)	2,54 (0.100)
Pass 1 mm (inch)	0,33 (0.013)	0,38 (0.015)	0,51 (0.020)	0,51 (0.020)	0,70 (0.028)	0,55 (0.022)	0,42 (0.017)	0,56 (0.022)	0,56 (0.022)	0,75 (0.030)	0,58 (0.023)	0,73 (0.029)	0,59 (0.023)	0,81 (0.032)	0,88 (0.035)
2	0,27 (0.011)	0,27 (0.011)	0,34 (0.013)	0,38 (0.015)	0,47 (0.019)	0,49 (0.019)	0,30 (0.017)	0,37 (0.015)	0,40 (0.016)	0,50 (0.020)	0,51 (0.020)	0,50 (0.020)	0,50 (0.020)	0,57 (0.022)	0,64 (0.025)
3	–	0,20 (0.008)	–	0,28 (0.011)	–	0,42 (0.017)	0,21 (0.008)	–	0,29 (0.011)	–	0,44 (0.017)	0,35 (0.014)	0,37 (0.015)	0,38 (0.015)	0,57 (0.022)
4	–	–	–	–	–	0,32 (0.013)	–	–	–	–	0,35 (0.014)	–	0,30 (0.012)	–	0,45 (0.018)

External/Internal NPT threads, metric (Inch)

TPI	8	11,5	14	18	27
a _p	2,54 (0.100)	1,76 (0.069)	1,45 (0.057)	1,12 (0.044)	0,75 (0.030)
1	0,28 (0.011)	0,25 (0.010)	0,24 (0.009)	0,22 (0.009)	0,19 (0.007)
2	0,25 (0.010)	0,22 (0.009)	0,22 (0.009)	0,18 (0.007)	0,15 (0.006)
3	0,22 (0.009)	0,18 (0.007)	0,17 (0.007)	0,15 (0.006)	0,13 (0.005)
4	0,19 (0.007)	0,16 (0.006)	0,15 (0.006)	0,14 (0.006)	0,11 (0.004)
5	0,18 (0.007)	0,16 (0.006)	0,14 (0.006)	0,13 (0.005)	0,09 (0.004)
6	0,18 (0.007)	0,14 (0.006)	0,13 (0.005)	0,12 (0.005)	0,08 (0.003)
7	0,17 (0.007)	0,14 (0.006)	0,12 (0.005)	0,10 (0.004)	–
8	0,17 (0.007)	0,12 (0.005)	0,10 (0.004)	0,08 (0.003)	–
9	0,16 (0.006)	0,12 (0.005)	0,10 (0.004)	–	–
10	0,16 (0.006)	0,10 (0.004)	0,08 (0.003)	–	–
11	0,14 (0.006)	0,09 (0.004)	–	–	–
12	0,13 (0.005)	0,08 (0.003)	–	–	–
13	0,12 (0.005)	–	–	–	–
14	0,11 (0.004)	–	–	–	–
15	0,08 (0.003)	–	–	–	–

Ph = Lead

a_p = Total infeed depth

TPI = Threads per inch

Recommendations are for steel with a hardness < 300 HB

External Round DIN 405, metric (Inch)

TPI	4	6	8	10
a _p	3,43 (0.135)	2,23 (0.088)	1,73 (0.068)	1,40 (0.055)
1	0,44 (0.017)	0,33 (0.013)	0,29 (0.011)	0,26 (0.010)
2	0,40 (0.016)	0,29 (0.011)	0,26 (0.010)	0,25 (0.010)
3	0,34 (0.013)	0,25 (0.010)	0,21 (0.008)	0,23 (0.009)
4	0,32 (0.013)	0,23 (0.009)	0,19 (0.007)	0,20 (0.008)
5	0,28 (0.011)	0,20 (0.008)	0,18 (0.007)	0,16 (0.006)
6	0,26 (0.010)	0,18 (0.007)	0,16 (0.006)	0,12 (0.005)
7	0,24 (0.009)	0,16 (0.006)	0,14 (0.006)	0,10 (0.004)
8	0,22 (0.009)	0,15 (0.006)	0,12 (0.005)	0,08 (0.003)
9	0,20 (0.008)	0,14 (0.006)	0,10 (0.004)	–
10	0,19 (0.007)	0,12 (0.005)	0,08 (0.003)	–
11	0,17 (0.007)	0,10 (0.004)	–	–
12	0,15 (0.006)	0,08 (0.003)	–	–
13	0,12 (0.005)	–	–	–
14	0,10 (0.004)	–	–	–

Internal Round DIN 405, metric (Inch)

TPI	4	6	8	10
a _p	3,59 (0.141)	2,44 (0.096)	1,66 (0.065)	1,49 (0.059)
1	0,46 (0.018)	0,38 (0.015)	0,26 (0.010)	0,27 (0.011)
2	0,43 (0.017)	0,34 (0.013)	0,22 (0.009)	0,26 (0.010)
3	0,40 (0.016)	0,30 (0.012)	0,21 (0.009)	0,25 (0.010)
4	0,35 (0.014)	0,25 (0.010)	0,19 (0.007)	0,22 (0.009)
5	0,30 (0.012)	0,21 (0.008)	0,18 (0.007)	0,18 (0.007)
6	0,26 (0.010)	0,19 (0.007)	0,16 (0.006)	0,13 (0.005)
7	0,24 (0.009)	0,17 (0.007)	0,14 (0.006)	0,10 (0.004)
8	0,22 (0.009)	0,16 (0.006)	0,12 (0.005)	0,08 (0.003)
9	0,20 (0.008)	0,14 (0.006)	0,10 (0.004)	–
10	0,19 (0.007)	0,12 (0.005)	0,08 (0.003)	–
11	0,17 (0.007)	0,10 (0.004)	–	–
12	0,15 (0.006)	0,08 (0.003)	–	–
13	0,12 (0.005)	–	–	–
14	0,10 (0.004)	–	–	–

Ph = Lead

a_p = Total infeed depth

TPI = Threads per inch

Recommendations are for steel with a hardness < 300 HB

External TR thread, metric

P _h	14.0	12.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.5
a _p	8,2	6,72	5,7	5,16	4,68	4,17	3,66	2,89	2,38	1,83	1,33	0,97
1	0,40	0,38	0,38	0,38	0,37	0,37	0,37	0,34	0,31	0,27	0,25	0,23
2	0,37	0,36	0,36	0,35	0,35	0,34	0,35	0,33	0,28	0,25	0,24	0,22
3	0,36	0,34	0,34	0,34	0,34	0,33	0,32	0,27	0,24	0,21	0,20	0,18
4	0,36	0,34	0,34	0,33	0,33	0,31	0,29	0,25	0,20	0,17	0,17	0,14
5	0,35	0,32	0,32	0,31	0,31	0,29	0,27	0,23	0,19	0,15	0,14	0,12
6	0,35	0,32	0,32	0,30	0,29	0,26	0,25	0,21	0,18	0,13	0,13	0,08
7	0,34	0,30	0,31	0,29	0,28	0,26	0,23	0,20	0,16	0,13	0,11	–
8	0,34	0,30	0,29	0,28	0,27	0,26	0,22	0,20	0,15	0,12	0,09	–
9	0,34	0,30	0,28	0,26	0,25	0,24	0,22	0,18	0,15	0,12	–	–
10	0,33	0,29	0,27	0,25	0,24	0,23	0,20	0,16	0,15	0,10	–	–
11	0,33	0,29	0,25	0,24	0,23	0,22	0,18	0,15	0,14	0,10	–	–
12	0,32	0,29	0,24	0,23	0,21	0,22	0,17	0,14	0,13	0,08	–	–
13	0,32	0,28	0,23	0,22	0,20	0,20	0,17	0,13	0,10	–	–	–
14	0,31	0,27	0,22	0,21	0,19	0,19	0,16	0,10	–	–	–	–
15	0,31	0,25	0,22	0,21	0,19	0,17	0,14	–	–	–	–	–
16	0,30	0,25	0,20	0,19	0,18	0,16	0,12	–	–	–	–	–
17	0,30	0,24	0,19	0,18	0,17	0,12	–	–	–	–	–	–
18	0,29	0,22	0,18	0,16	0,15	–	–	–	–	–	–	–
19	0,28	0,20	0,17	0,15	0,13	–	–	–	–	–	–	–
20	0,27	0,20	0,16	0,15	–	–	–	–	–	–	–	–
21	0,23	0,19	0,15	0,13	–	–	–	–	–	–	–	–
22	0,23	0,18	0,15	–	–	–	–	–	–	–	–	–
23	0,21	0,17	0,13	–	–	–	–	–	–	–	–	–
24	0,19	0,16	–	–	–	–	–	–	–	–	–	–
25	0,17	0,15	–	–	–	–	–	–	–	–	–	–
26	0,16	0,13	–	–	–	–	–	–	–	–	–	–
27	0,16	–	–	–	–	–	–	–	–	–	–	–
28	0,15	–	–	–	–	–	–	–	–	–	–	–
29	0,13	–	–	–	–	–	–	–	–	–	–	–

Ph = Lead

a_p = Total infeed depth

TPI = Threads per inch

Recommendations are for steel with a hardness < 300 HB

Internal TR threads, metric

P _h	14.0	12.0	10.0	9.0	8.0	7.0	6.0	5.0	4.0	3.0	2.0	1.5
a _p	8,47	6,71	5,7	5,19	4,68	4,17	3,65	2,89	2,38	1,85	1,34	0,98
1	0,40	0,38	0,38	0,38	0,37	0,37	0,37	0,34	0,31	0,27	0,25	0,23
2	0,37	0,36	0,36	0,35	0,35	0,34	0,34	0,33	0,28	0,25	0,24	0,22
3	0,36	0,34	0,34	0,34	0,34	0,33	0,32	0,27	0,24	0,22	0,21	0,19
4	0,36	0,34	0,34	0,33	0,33	0,31	0,29	0,25	0,20	0,17	0,17	0,14
5	0,35	0,32	0,32	0,31	0,31	0,29	0,27	0,23	0,19	0,15	0,14	0,12
6	0,35	0,32	0,32	0,31	0,29	0,26	0,25	0,21	0,18	0,14	0,13	0,08
7	0,34	0,30	0,31	0,29	0,28	0,26	0,23	0,20	0,16	0,13	0,11	–
8	0,34	0,30	0,29	0,29	0,27	0,26	0,22	0,20	0,15	0,12	0,09	–
9	0,34	0,30	0,28	0,26	0,25	0,24	0,22	0,18	0,15	0,12	–	–
10	0,33	0,29	0,27	0,25	0,24	0,23	0,20	0,16	0,15	0,10	–	–
11	0,33	0,29	0,25	0,24	0,23	0,22	0,18	0,15	0,14	0,10	–	–
12	0,32	0,28	0,24	0,23	0,21	0,22	0,17	0,14	0,13	0,08	–	–
13	0,32	0,28	0,23	0,22	0,20	0,20	0,17	0,13	0,10	–	–	–
14	0,31	0,27	0,22	0,21	0,19	0,19	0,16	0,10	–	–	–	–
15	0,31	0,25	0,22	0,21	0,19	0,17	0,14	–	–	–	–	–
16	0,30	0,25	0,20	0,19	0,18	0,16	0,12	–	–	–	–	–
17	0,30	0,24	0,19	0,18	0,17	0,12	–	–	–	–	–	–
18	0,29	0,22	0,18	0,16	0,15	–	–	–	–	–	–	–
19	0,28	0,20	0,17	0,15	0,13	–	–	–	–	–	–	–
20	0,27	0,20	0,16	0,15	–	–	–	–	–	–	–	–
21	0,23	0,19	0,15	0,13	–	–	–	–	–	–	–	–
22	0,23	0,18	0,15	–	–	–	–	–	–	–	–	–
23	0,21	0,17	0,13	–	–	–	–	–	–	–	–	–
24	0,19	0,16	–	–	–	–	–	–	–	–	–	–
25	0,17	0,15	–	–	–	–	–	–	–	–	–	–
26	0,16	0,13	–	–	–	–	–	–	–	–	–	–
27	0,16	–	–	–	–	–	–	–	–	–	–	–
28	0,15	–	–	–	–	–	–	–	–	–	–	–
29	0,13	–	–	–	–	–	–	–	–	–	–	–
30	0,13	–	–	–	–	–	–	–	–	–	–	–

Ph = Lead

a_p = Total infeed depth

TPI = Threads per inch

Recommendations are for steel with a hardness < 300 HB

External ACME, *Inch*

TPI	2	3	4	5	6	8	10	12	14	16
a_p	0.265	0.18	0.138	0.112	0.095	0.074	0.063	0.050	0.041	0.039
1	0.028	0.019	0.013	0.012	0.011	0.010	0.010	0.009	0.008	0.009
2	0.026	0.018	0.012	0.011	0.011	0.010	0.009	0.009	0.008	0.009
3	0.023	0.016	0.011	0.010	0.010	0.009	0.009	0.007	0.007	0.007
4	0.022	0.015	0.011	0.01	0.009	0.007	0.007	0.007	0.006	0.006
5	0.019	0.013	0.010	0.009	0.008	0.006	0.006	0.005	0.005	0.005
6	0.017	0.011	0.010	0.008	0.007	0.005	0.005	0.005	0.004	0.003
7	0.015	0.011	0.009	0.007	0.006	0.005	0.005	0.004	0.003	–
8	0.013	0.009	0.008	0.007	0.006	0.005	0.004	0.004	–	–
9	0.013	0.009	0.008	0.007	0.006	0.005	0.004	–	–	–
10	0.011	0.009	0.007	0.006	0.006	0.004	0.004	–	–	–
11	0.011	0.008	0.007	0.006	0.006	0.004	–	–	–	–
12	0.01	0.007	0.006	0.006	0.005	0.004	–	–	–	–
13	0.009	0.007	0.006	0.005	0.004	–	–	–	–	–
14	0.009	0.007	0.006	0.004	–	–	–	–	–	–
15	0.008	0.006	0.006	0.004	–	–	–	–	–	–
16	0.007	0.005	0.004	–	–	–	–	–	–	–
17	0.007	0.005	0.004	–	–	–	–	–	–	–
18	0.006	0.005	–	–	–	–	–	–	–	–
19	0.006	–	–	–	–	–	–	–	–	–
20	0.005	–	–	–	–	–	–	–	–	–

Internal ACME, *Inch*

TPI	2	3	4	5	6	8	10	12	14	16
a_p	0.265	0.182	0.142	0.114	0.098	0.078	0.065	0.049	0.042	0.040
1	0.028	0.020	0.013	0.012	0.012	0.011	0.010	0.009	0.009	0.009
2	0.026	0.018	0.012	0.012	0.011	0.011	0.010	0.009	0.008	0.009
3	0.023	0.016	0.012	0.011	0.011	0.009	0.009	0.007	0.007	0.008
4	0.022	0.015	0.011	0.010	0.009	0.007	0.007	0.006	0.006	0.006
5	0.019	0.013	0.011	0.009	0.008	0.006	0.006	0.005	0.005	0.005
6	0.017	0.011	0.010	0.008	0.007	0.006	0.006	0.005	0.004	0.003
7	0.015	0.011	0.009	0.007	0.007	0.005	0.005	0.004	0.003	–
8	0.013	0.009	0.008	0.007	0.006	0.005	0.004	0.004	–	–
9	0.013	0.009	0.008	0.007	0.006	0.005	0.004	–	–	–
10	0.011	0.009	0.007	0.006	0.006	0.005	0.004	–	–	–
11	0.011	0.008	0.007	0.006	0.006	0.004	–	–	–	–
12	0.010	0.007	0.006	0.006	0.005	0.004	–	–	–	–
13	0.009	0.007	0.006	0.005	0.004	–	–	–	–	–
14	0.009	0.007	0.006	0.004	–	–	–	–	–	–
15	0.008	0.006	0.006	0.004	–	–	–	–	–	–
16	0.007	0.005	0.005	–	–	–	–	–	–	–
17	0.007	0.005	0.005	–	–	–	–	–	–	–
18	0.006	0.005	–	–	–	–	–	–	–	–
19	0.006	–	–	–	–	–	–	–	–	–
20	0.005	–	–	–	–	–	–	–	–	–

Ph = Lead

a_p = Total infeed depth

TPI = Threads per inch

Recommendations are for steel with a hardness < 300 HB

Multi-tooth insert TWIN THREADER, TT

External 60° threads, metric (Inch)

P _h mm	2.0	1.5	1.0
a _p mm (inch)	1,25 (0.049)	0,93 (0.037)	0,65 (0.026)
Pass 1 mm (inch)	0,25 (0.010)	0,22 (0.009)	0,22 (0.009)
2	0,36 (0.014)	0,31 (0.012)	0,25 (0.010)
3	0,25 (0.010)	0,22 (0.009)	0,18 (0.007)
4	0,21 (0.008)	0,18 (0.007)	–
5	0,18 (0.007)	–	–

Internal 60° threads, metric (Inch)

P _h mm	2.0	1.5	1.0
a _p mm (inch)	1,17 (0.046)	0,85 (0.033)	0,60 (0.024)
Pass 1 mm (inch)	0,23 (0.009)	0,20 (0.008)	0,19 (0.007)
2	0,34 (0.013)	0,27 (0.011)	0,23 (0.009)
3	0,23 (0.009)	0,20 (0.008)	0,18 (0.007)
4	0,19 (0.007)	0,18 (0.007)	–
5	0,18 (0.007)	–	–

External and internal Whitworth and BSPT threads, metric (Inch)

TPI	11	14
a _p mm (inch)	1,58 (0.062)	1,20 (0.047)
Pass 1 mm (inch)	0,26 (0.010)	0,22 (0.009)
2	0,38 (0.015)	0,35 (0.014)
3	0,27 (0.011)	0,24 (0.009)
4	0,25 (0.010)	0,21 (0.008)
5	0,22 (0.009)	0,18 (0.007)
6	0,20 (0.008)	–

External UN threads, metric (Inch)

TPI	12	16
a _p mm (inch)	1,39 (0.055)	1,05 (0.041)
Pass 1 mm (inch)	0,28 (0.011)	0,25 (0.010)
2	0,38 (0.015)	0,36 (0.014)
3	0,28 (0.011)	0,26 (0.010)
4	0,25 (0.010)	0,18 (0.007)
5	0,20 (0.008)	–

Internal UN threads, metric (Inch)

P _h mm	2.0	1.5	1.0
a _p mm (inch)	1,25 (0.049)	0,93 (0.037)	0,65 (0.026)
Pass 1 mm (inch)	0,25 (0.010)	0,22 (0.009)	0,22 (0.009)
2	0,36 (0.014)	0,31 (0.012)	0,25 (0.010)
3	0,25 (0.010)	0,22 (0.009)	0,18 (0.007)
4	0,21 (0.008)	0,18 (0.007)	–
5	0,18 (0.007)	–	–

Ph = Lead

a_p = Total infeed depth

TPI = Threads per inch

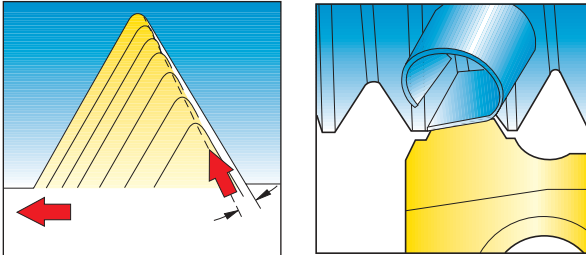
Recommendations are for steel with a hardness < 300 HB

Infeed method

The choice of infeed method is most important for long chipping materials to ensure good chip control.

Modified flank infeed

For CNC machines and conventional machines



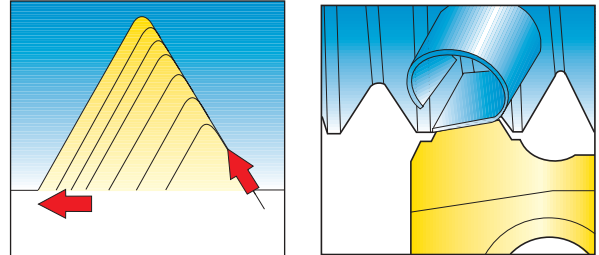
First choice for CNC machines

The infeed angle should be 2,5–5% less than the flank angle

- Good chip control (important for internal threading)
- Good surface finish on thread
- Long tool life

Flank infeed

For CNC machines and conventional machines

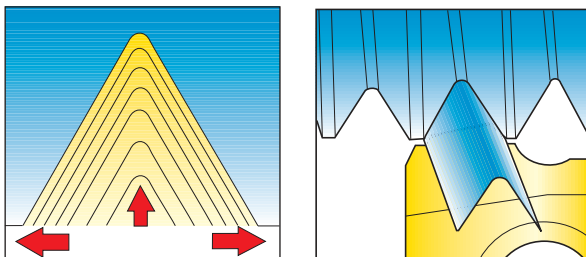


Choose flank infeed when modified flank infeed cannot be used

- Good chip control
- Can result in bad surface on thread
- Not suitable for work hardening materials

Radial infeed

For conventional machines and multi-tooth inserts

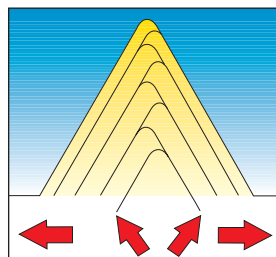


Multitooth inserts demand radial infeed
First choice for work hardening materials

- Difficult to control the chip
- High cutting forces

Alternate flank infeed

For CNC machines



First choice for large coarse threads

- Long tool life
- Chipbreaking problems can arise

Nomenclature and formula

Thread turning	RPM		RPM	
	$n = \frac{v_c \cdot 1000}{\pi \cdot D_c} \quad (\text{rev/min})$		$n = \frac{v_c \cdot 3.82}{D} \quad (\text{rev/min})$	
	Cutting speed		Cutting speed	
	$v_c = \frac{n \cdot \pi \cdot D_c}{1000} \quad (\text{m/min})$		$v_c = \frac{0.262 \cdot D \cdot n}{1000} \quad (\text{sf/min})$	
	Slide velocity/feed rate		Slide velocity/feed rate	
	$v_f = \frac{n \cdot P_h}{1000} \quad (\text{mm/min})$		$Sv = \frac{n \cdot P_h}{1000} \quad (\text{in/min})$	
MDT	Lead		Lead	
	$P_h = P \cdot \text{numbers of starts} \quad (\text{mm})$		$P_h = P \cdot \text{numbers of starts} \quad (\text{inch})$	
	Helix angle		Helix angle	
	$\lambda = \arctan \frac{P_h}{D_2 \cdot \pi} \quad (^{\circ})$		$\lambda = \arctan \frac{P_h}{D_2 \cdot \pi} \quad (^{\circ})$	
	Conversion of P to TPI		Conversion Pitch – TPI	
	$TPI = \frac{25,4}{P}$		$P = \frac{1}{TPI}$	
Mini-Shaft™	D_c = Workpiece diameter (mm) D_2 = Pitch diameter (mean diameter) (mm) n = RPM (rev/min) P = Pitch (mm) P_h = Lead (mm) v_f = Slide velocity (feed rate) (m/min) TPI = Number of threads per inch v_c = Cutting speed (mm/min) λ = Helix angle ($^{\circ}$)		D = Workpiece diameter (inch) D_2 = Pitch diameter (effective diameter) (inch) n = RPM (r/min) P = Pitch (inch) P_h = Lead (inch) Sv = Slide velocity (in/min) TPI = Thread per inch v_c = Cutting speed (sf/min) λ = Helix angle ($^{\circ}$)	
Thread milling				
Thread tapping				
Annex				

Toolholder modification to thread small ID

It is often necessary to cut internal threads which are too small to be made with a standard toolholder.

Several standard internal toolholders can be modified by a simple reworking so that threads can be cut in approximately 30% smaller bores.

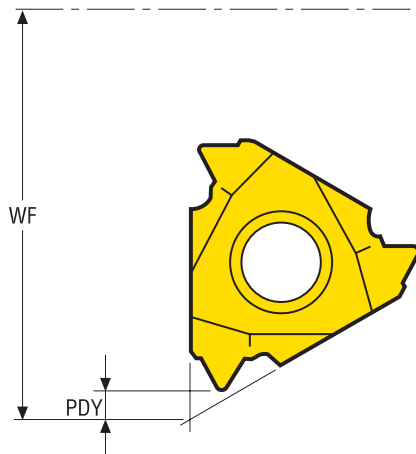
This modification work can be made on an lathe with a four-jaw chuck.

In the dimension table DCINN at pages 'Toolholders Internal' you will find the dimensions required for the alteration.

On demand, these internal toolholders can also be supplied as special design.

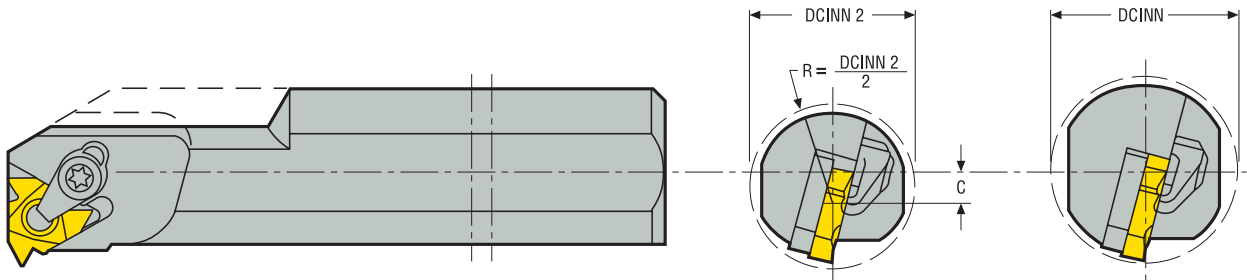
For some holders it is possible to work inside smaller bores than indicated by the DCINN2 dimension, here it is necessary "to back off" the bottom corner of the insert (possibly also the insert shim).

Reference dimensions on insert



WF and PDY dimensions can be found on the pages for internal toolholders and threading inserts.

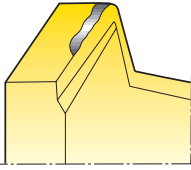
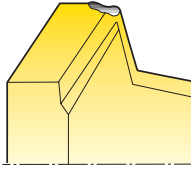
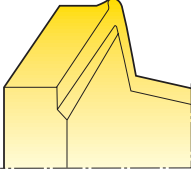
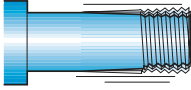
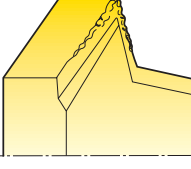
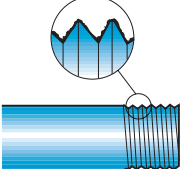
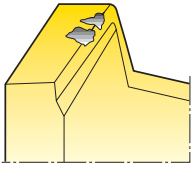
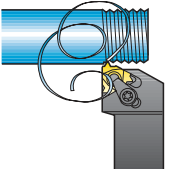
Reference dimensions on bar



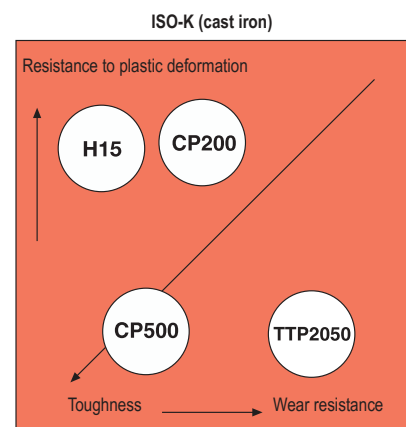
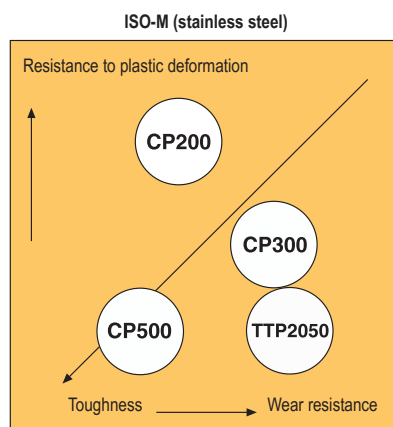
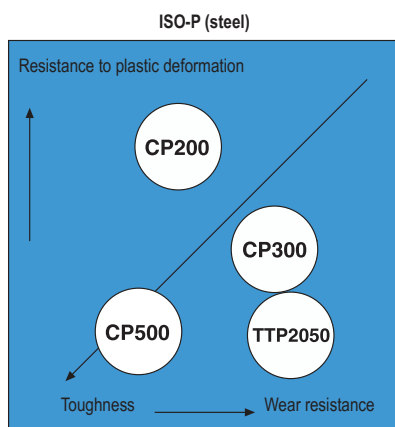
$$C = WF - PDY + R - DCINN2$$

C = Centre-point displacement when modifying the tool.
 DCINN = Minimum bore diameter of standard tool.
 DCINN2 = Minimum bore diameter with a modified tool.

Troubleshooting

Thread turning	Rapid flank wear – Reduce the cutting speed – Increase the infeed per pass – Use modified flank infeed – Check that the correct insert shim has been selected – Select a more wear-resistant grade 	Insert fracture – Increase the number of passes – Check the workpiece mounting – Check the centre height of the cutting edge – Check for built-up edge – Select a tougher grade 
	Plastic deformation – Select a grade with better resistance to plastic deformation – Reduce the cutting speed – Increase the number of passes – Increase the coolant supply – Check that the workpiece diameter is correct prior to cutting the thread 	Vibrations – Change the cutting speed – Reduce the overhang and use the most stable toolholder – Check the centre height of the cutting edge – Check that the workpiece diameter is correct 
MDT	Build-up edge – Increase the cutting speed – Do not use coolant 	Poor finish – Increase the cutting speed – Check that the correct insert shim has been selected – Use modified flank infeed or radial infeed 
	Edge chipping – Check the workpiece mounting – Check the cutting speed – Use modified flank infeed – Select a tougher grade 	Poor chip control – Reduce the number of passes – Increase the cutting speed – Use modified flank infeed – Increase the coolant supply 
Mini-Shaft™		
Thread milling		

Optimisation



Torque values for clamping screws

Maximum Torque value for each screw is shown below

Screw designation	Torque Nm	Torque key	Screw designation	Torque Nm	Torque key
110.26-655	10,0	H00T-60100	L84017-T09P	2,0	T00-09P20
117.26-655	5,0	H00T-3050	L85011-T15P	5,0	T00-15P50
117.26-657	3,0	H00-2530	L85012-T15P	5,0	T00-15P50
170.26-655	6,0	H00T-4060	L85017-T09P	2,0	T00-09P20
C02205-T07P	0,9	T00-07P09	L85020-T15P	3,5	T00-15P35
C02505-T07P	0,9	T00-07P09	L85021-T15P	3,5	T00-15P35
C02506-T07P	0,9	T00-07P09	L86015-T20P	6,0	T00T-20P60
C03007-T09P	2,0	T00-09P20	L86025-T20P	6,0	T00T-20P60
C03508-T15P	3,0	T00-15P30	LD1035-T25P	6,0	T00T-25P60
C03509-T15P	3,0	T00-15P30	LD5020-T09P	2,0	T00-09P20
C03510-T15P	3,0	T00-15P30	LD6020-T15P	3,0	T00-15P30
C03511-T09P	2,0	T00-09P20	LD6021-T09P	2,0	T00-09P20
C03512-T15P	3,0	T00-15P30	LD6024-T20P	3,0	T00-15P30
C04008-T15P	3,5	T00-15P35	LD6025-T15P	3,0	T00-15P30
C04010-T15P	3,5	T00-15P35	LD6026-T09P	2,0	T00-09P20
C04011-T15P	3,5	T00-15P35	LD8025-T25P	6,0	T00T-25P60
C04014-T15P	3,5	T00-15P35	LD8030-T25P	6,0	T00T-25P60
C04512-T15P	5,0	T00-15P50	LS0512	2,5	-
C04518-T15P	5,0	T00-15P50	LS0613	3,0	H00-2530
C05010-T20P	5,0	T00-20P50	LS0616	3,0	H00-2530
C05012-T15P	5,0	T00-15P50	LS0818	4,0	-
C05013-T20P	5,0	T00-20P50	LS0822	4,0	-
C05018-T20P	5,0	T00-20P50	MC6S4X14	3,5	-
C11804-T06P	0,5	T00-06P05	MC6S4X18	3,5	-
C46017-T20P	6,0	T00T-20P60	MC6S5X14	5,0	H00T-4050
C82204-T06P	0,5	T00-06P05	MC6S5X18	5,0	H00T-4050
CC05	0,9	H00-1509	MN0909L-T09P	2,0	T00-09P20
CC08P-V13	2,0	T00-09P20	MN1215L-T15P	3,0	T00-15P30
CC09P-D11	2,0	T00-09P20	MN1215R-T15P	3,0	T00-15P30
CC12P-S12	3,5	T00-15P35	MN1215S-T15P	3,0	T00-15P30
CC14	6,0	H00T-4060	MN1215T-T15P	3,0	T00-15P30
CC16	10,0	-	MN1515-T15P	3,0	T00-15P30
CC17P	10,0	-	MN1515SL-T15P	3,0	T00-15P30
CC17P-06	10,0	-	MN1520-T20P	6,0	T00T-20P60
CC17P-09	10,0	-	MN1920-T20P	6,0	T00T-20P60
CC20P	10,0	-	MN1925-T25P	5,0	T00T-25P50
CC20P-V13	10,0	-	MN2525-T25P	6,0	T00T-25P60
CD09-S09	2,0	T00-09P20	PL1403-T09P	2,5	T00-09P20
CD12-S12	3,5	T00-15P35	TCEI0409	3,5	-
CD16-S16	5,0	T00-20P50	TCEI0509	6,0	H00T-4060
CD19-S19	5,0	T00-20P50	TCEI0513	6,0	H00T-4060
CD19-V16	5,0	T00-20P50	TCEI0609	8,0	H00T-5080
CSC8015-T20P	5,0	T00-20P50	TCEI0613	8,0	H00T-5080
CSC1015-T20P	5,0	T00-20P50	TCEI0614	8,0	H00T-5080
CSP16-T15P	2,0	T00-15P20	TCEI0620	8,0	H00T-5080
CSP22-T15P	3,0	T00-15P30	TCEI0815	10,0	H00T-60100
CSP27-T25P	6,0	T00T-25P60	TCEI0825	10,0	H00T-60100
			TCEI1020	15,0	-
			WS1620-T20P	3,5	T00-20P35
			WS1920-T20P	3,5	T00-20P35
			WS2325-T25P	5,0	T00T-25P50

For the Seco range of torque keys, please see next page

Torque keys

The range of torque keys with fixed torque values are available, in combinations key grip/torque value for insert locking, for most of the Seco turning products. By using a torque key you always ensure the correct tightening force when mounting the insert. The torque value is given on page(s) 37 for each screw. Torque keys are calibrated according to ISO 6789.

Code key: T00-15P35

T00 = Torque screwdriver type for Torx Plus blade
T00T = Torque T-handle type for Torx Plus blade
H00 = Torque screwdriver for hexagonal blade
H00T = Torque T-handle type for hexagonal blade

15P = Torx Plus size
35 = Torque value 3,5 Nm

Torque key*	Replaceable blade	Torx Plus size	Torque value
			
T00-06P05	T00-06P	T06P	0,5 Nm
T00-07P05	T00-07P	T07P	0,5 Nm
T00-07P09	T00-07P	T07P	0,9 Nm
T00-08P12	T00-08P	T08P	1,2 Nm
T00-08P20	T00-08P	T08P	2,0 Nm
T00-09P09	T00-09P	T09P	0,9 Nm
T00-09P12	T00-09P	T09P	1,2 Nm
T00-09P20	T00-09P	T09P	2,0 Nm
T00-10P20	T00-10P	T10P	2,0 Nm
T00-10P30	T00-10P	T10P	3,0 Nm
T00-10P35	T00-10P	T10P	3,5 Nm
T00-15P20	T00-15P	T15P	2,0 Nm
T00-15P30	T00-15P	T15P	3,0 Nm
T00-15P35	T00-15P	T15P	3,5 Nm
T00-15P40	T00-15P	T15P	4,0 Nm
T00-15P50	T00-15P	T15P	5,0 Nm
T00-20P35	T00-20P	T20P	3,5 Nm
T00-20P50	T00-20P	T20P	5,0 Nm

*Including blade

Torque key*	Replaceable blade	Torx Plus size	Torque value
			
T00T-15P50	T00T-15P	T15P	5,0 Nm
T00T-20P50	T00T-20P	T20P	5,0 Nm
T00T-20P60	T00T-20P	T20P	6,0 Nm
T00T-20P80	T00T-20P	T20P	8,0 Nm
T00T-25P50	T00T-25P	T25P	5,0 Nm
T00T-25P60	T00T-25P	T25P	6,0 Nm
T00T-25P80	T00T-25P	T25P	8,0 Nm
T00T-30P80	T00T-30P	T30P	8,0 Nm

*Including blade

Torque key*	Replaceable blade	Hexagonal size	Torque value
			
H00-1305	H00-1.3	1,3 mm	0,5 Nm
H00-1505	H00-1.5	1,5 mm	0,5 Nm
H00-1509	H00-1.5	1,5 mm	0,9 Nm
H00-2009	H00-2.0	2,0 mm	0,9 Nm
H00-2016	H00-2.0	2,0 mm	1,6 Nm
H00-2020	H00-2.0	2,0 mm	2,0 Nm
H00-2512	H00-2.5	2,5 mm	1,2 Nm
H00-2530	H00-2.5	2,5 mm	3,0 Nm
H00-2535	H00-2.5	2,5 mm	3,5 Nm
H00-3020	H00-3.0	3,0 mm	2,0 Nm
H00-3030	H00-3.0	3,0 mm	3,0 Nm
H00-4030	H00-4.0	4,0 mm	3,0 Nm

*Including blade

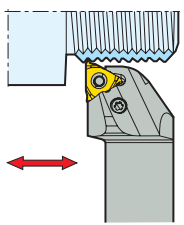
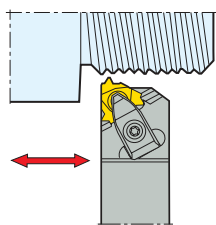
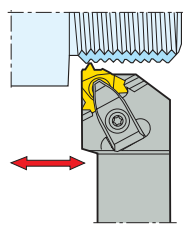
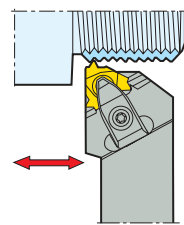
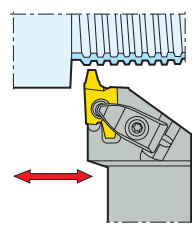
Torque key*	Replaceable blade	Hexagonal size	Torque value
			
H00T-3050	H00T-3.0	3 mm	5,0 Nm
H00T-4050	H00T-4.0	4 mm	5,0 Nm
H00T-4060	H00T-4.0	4 mm	6,0 Nm
H00T-5050	H00T-5.0	5 mm	5,0 Nm
H00T-5080	H00T-5.0	5 mm	8,0 Nm
H00T-50100	H00T-5.0	5 mm	10,0 Nm
H00T-60100	H00T-6.0	6 mm	10,0 Nm

*Including blade

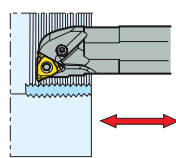
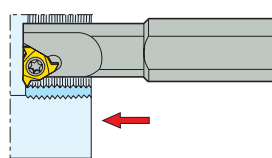
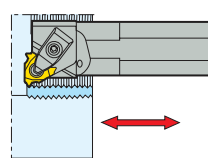
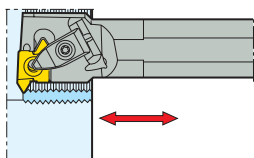
Please note that the blades are not interchangeable between screwdriver type and T-handle type. Torx Plus® is a registered trade mark belonging to Camcar-Textron (USA)

Application overview, toolholders

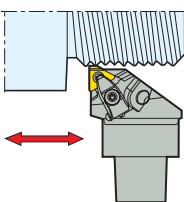
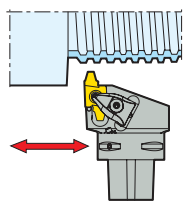
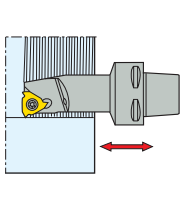
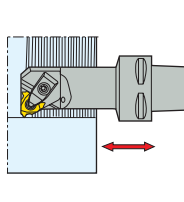
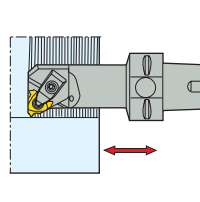
External toolholders

PER/L...QHDJET PER/L...QHDJET	CER/L CER/L...HD	CER/L...Q CER/L...QHD	CER...CQHD	CER...HD CER/L...QHD
				
Page(s) 54-55	Page(s) 59	Page(s) 61, 62	Page(s) 65	Page(s) 68

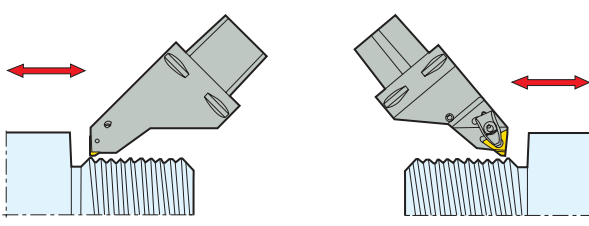
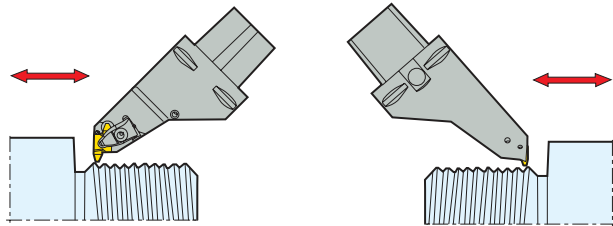
Internal toolholders

PNR/L...AHDJET	SNR/L	CNR/L...AHD CNR/L...APIHD	CNR/L...AHD
			
Page(s) 56, 57-58	Page(s) 69	Page(s) 70, 71	Page(s) 77

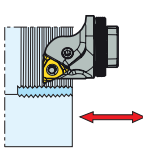
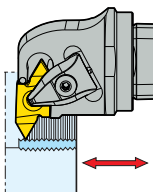
Seco-Capto™

CER/L...HD...CHD Ext.	CER...HD Ext.	SNR Int.	CNR/L...HD Int.	CNR/L...CHD Int.
				
Page(s) 78, 79	Page(s) 82	Page(s) 83	Page(s) 84, 85-88	Page(s) 89-91

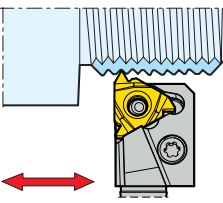
Seco-Capto™ for MTM

CER...HD	CEL...HD
	
Page(s) 92	Page(s) 93

Steadyline® with GL connection

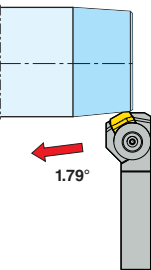
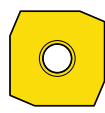
GL...-PNR/L...AHDJET 	GL50-CNR...26AHD 
Page(s) 94, 95	Page(s) 96

Quick Change, Jetstream Tooling®, QC-heads, external

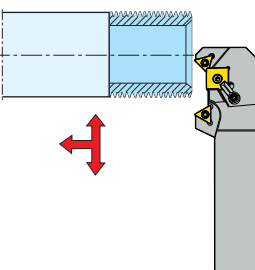
QC...-PER/L-HDJET 	Page(s) 97
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Toolholders for peeling

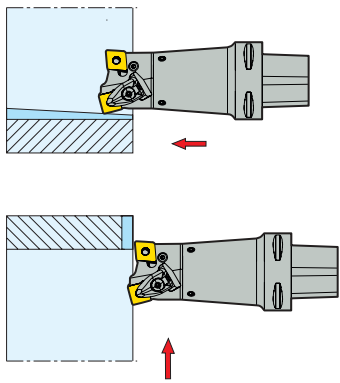
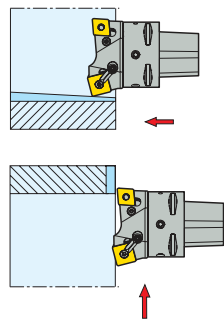
Inserts for peeling

CSXCR... 	SCNN 
Page(s) 98-99	Page(s) 122

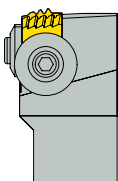
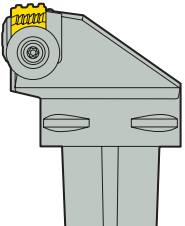
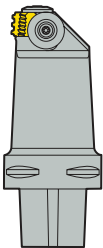
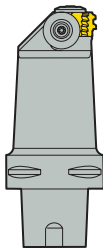
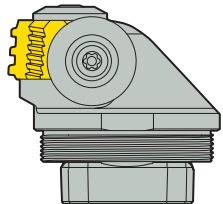
Toolholders for pipe-facing

MSGNR... 	Page(s) 100-101
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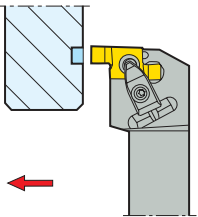
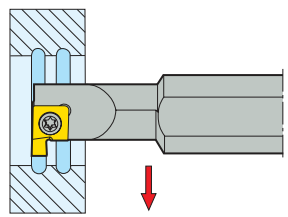
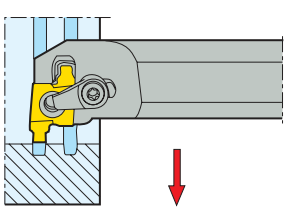
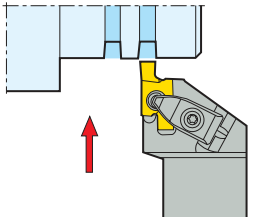
Toolholders for inserts SNMA, SNMG, SNMM / CNMA, CNMG, CNMM

C.-DSKNR/L - CLNR/L 75°  Page(s) 102	C.-MSKNR/L - PCLNR/L 75°  Page(s) 103
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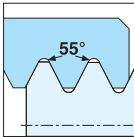
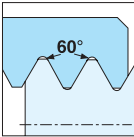
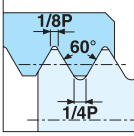
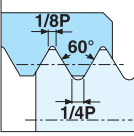
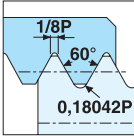
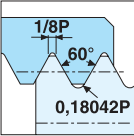
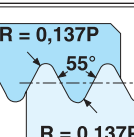
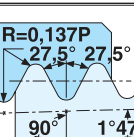
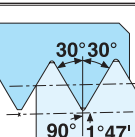
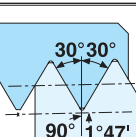
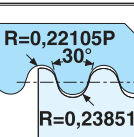
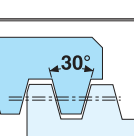
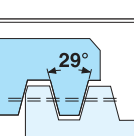
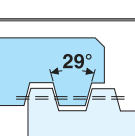
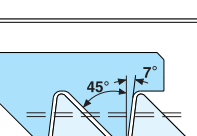
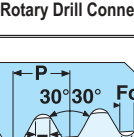
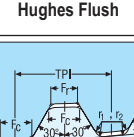
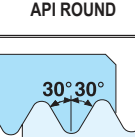
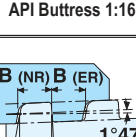
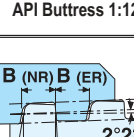
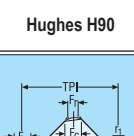
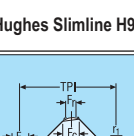
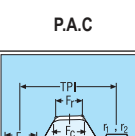
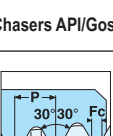
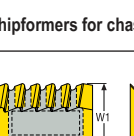
Toolholders for chasers

External toolholders for chasers CER...X	Seco-Capto™ CER...X	Seco-Capto™ CNR/L...X	Seco-Capto™ CNL...C-X	Steadyline® GL... -CNR/L...-I/X
				
Page(s) 104-105	Page(s) 106	Page(s) 107-108	Page(s) 109-110	Page(s) 111

Toolholders for Precision Grooves

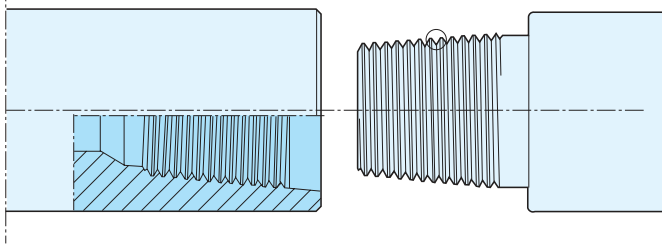
CEAR/L...	SNR/L...	CNR/L...	CER/L...
			
Page(s) 112	Page(s) 114	Page(s) 116	Page(s) 121

Application overview, inserts

Thread turning	Partial profile inserts		55° V profile	60° V profile			
							
			Page(s) 123-124	Page(s) 125-126			
MDT	Full profile inserts		ISO metric	UN			
	Reusable threaded joints						
			Page(s) 127, 128-130, 131, 132	Page(s) 133, 134-136, 137			
Mini-Shaft™	Full profile inserts		UNJ	MJ			
	Reusable threaded joints for the aerospace industry						
			Page(s) 139-140	Page(s) 141-142			
Thread milling	Full profile inserts		Whitworth, BSW	BSPT	NPT	NPTF	Round-DIN405
	Permanent threaded joints for pipe mountings and couplings						
			Page(s) 143, 144-145, 146	Page(s) 147-148	Page(s) 149-150	Page(s) 151-152	Page(s) 153-154
Thread tapping	Partial profile inserts		TR-DIN103	ACME	Stub-ACME	American Buttress	
	Motion-transmitting threads						
			Page(s) 155-156	Page(s) 157-158	Page(s) 159-160	Page(s) 161-161	
Annex	Full profile inserts		API Rotary Drill Connection	Hughes Flush	API ROUND	API Buttress 1:16	API Buttress 1:12
	Threads for the oil industry						
			Page(s) 162-163	Page(s) 164-164	Page(s) 165-165	Page(s) 166-166	Page(s) 167-167
	Full profile inserts		Hughes H90	Hughes Slimline H90	P.A.C	Chasers API/Gost	Chipformers for chasers
	Threads for the oil industry						
			Page(s) 164-164	Page(s) 164-164	Page(s) 164-164	Page(s) 168	Page(s) 169, 170

Rotary drilling connections

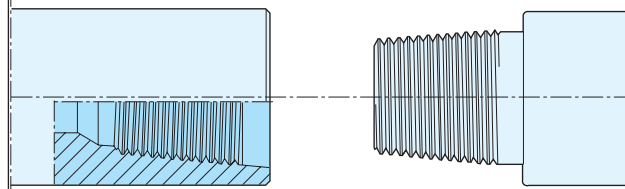
OCTG pipe and coupling illustration



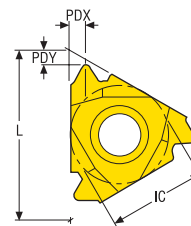
Connections	Pitch TPI	TGTPF	API code	Snap-Tap® code
API Number				
NC10 - NC16	6.0	1.5	V055	6API558
NC23 - NC50	4.0	2.0	V038R	4API386
NC56 - NC77	4.0	3.0	V038R	4API384
API Regular				
1 - 1 1/2 REG	6.0	1.5	V055	6API558
2 3/8 REG - 4 1/2 REG	5.0	3.0	V040	5API404
5 1/2 REG, 7 5/8 REG, 8 5/8 REG	4.0	3.0	V050	4API504
6 5/8 REG	4.0	2.0	V050	4API506
Internal Flush				
2 3/8 IF - 6 5/8 IF	4.0	2.0	V038R	4API386
Full Hole				
3 1/2 FH, 4 1/2 FH	5.0	3.0	V040	5API404
4 FH	4.0	2.0	V038R	4API386
5 1/2 FH, 6 5/8 FH	4.0	2.0	V050	4API506
Hughes External Flush				
2 3/8, 2 7/8	6.0	2.0	–	6HEF
3 1/2, 4 1/2	4.0	2.0	V038R	4API386
Hughes Xtra Hole				
2 7/8 - 5	4.0	2.0	V038R	4API386
Hughes Slim Hole				
2 3/8 - 4 1/2	4.0	2.0	V038R	4API386
Hughes Double Streamline				
3 1/2 - 5 1/2	4.0	2.0	V038R	4API386
Hughes H90				
3 1/2 - 6 5/8	3.5	2.0	90V050	3.5H906
7 - 8 5/8	3.5	3.0	90V050	3.5H904
Hughes Slimline H90				
2 3/8 - 3 1/2	3.0	1.25	90V050	3H90
Hughes ACME Regular				
2 3/8 - 6 5/8	4.0	3.373	–	4HACME
Hughes ACME Streamline				
2 3/8 - 5 1/2	4.0	3.373	–	4HACME
P.A.C.				
2 3/8 PAC - 3 1/2 PAC	4.0	1.5	V076	4PAC
Macaroni				
MT, AMT, AMMT	6.0	1.5	V055	6API558

Rotary drilling connections

Connections

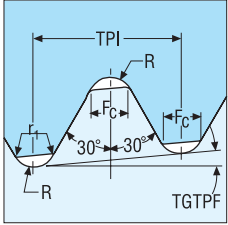
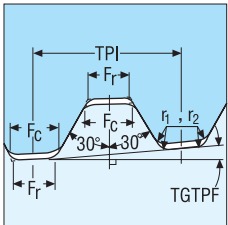
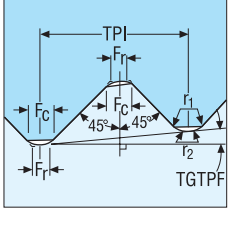
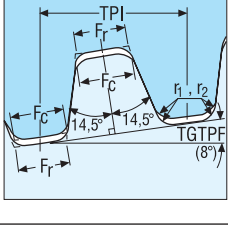


Insert dimensions



Connections							
Snap-Tap® code	API code	Pitch TPI	TGTPF inch	L mm	IC mm	PDX mm	PDY mm
6API558	V055	6.0	1.5	22,0	12,700	2,5	2,0
5API404	V040	5.0	3.0	22,0	12,700	2,5	2,0
5API404	V040	5.0	3.0	27,5	15,875	3,2	2,2
4API386	V038R	4.0	2.0	22,0	12,700	2,5	1,9
4API386	V038R	4.0	2.0	27,5	15,875	3,2	2,2
4API384	V038R	4.0	3.0	27,5	15,875	3,2	2,2
4API506	V050	4.0	2.0	27,5	15,875	3,2	2,2
4API504	V050	4.0	3.0	27,5	15,875	3,2	2,2
6HEF	–	6.0	2.0	22,0	12,700	2,5	2,0
4PAC	V076	4.0	1.5	27,5	15,875	3,2	2,2
3,5H906	90V050	3.5	2.0	27,5	15,875	3,2	2,2
3,5H904	90V050	3.5	3.0	27,5	15,875	3,2	2,2
3H90	90V050	3.0	1.25	27,5	15,875	3,2	2,2
4HACME	–	4.0	3.373	27,5	15,875	3,2	2,2

Thread profile

Profile	TPI	TGTPF	R/F _r mm (inch)	F _c mm (inch)	r ₁ mm (inch)	r ₂ mm (inch)	API code	Snap-Tap® code
	5.0	3.0	0,508 (0.200)	1,016 (0.0400)	0,381 (0.0150)	–	V040	5API404
	4.0	2.0	0,965 (0.0380)	1,651 (0.0650)	0,381 (0.0150)	–	V038R	4API386
	4.0	3.0	0,965 (0.0380)	1,651 (0.0650)	0,381 (0.0150)	–	V038R	4API384
	4.0	2.0	0,635 (0.0250)	1,270 (0.0500)	0,381 (0.0150)	–	V050	4API506
	4.0	3.0	0,635 (0.0250)	1,270 (0.0500)	0,381 (0.0150)	–	V050	4API504
	6.0	1.5	1,194 (0.0470)	1,397 (0.0550)	0,381 (0.0150)	0,381 (0.0150)	V055	6API558
	6.0	2.0	0,559 (0.0220)	0,813 (0.0320)	0,381 (0.0150)	0,381 (0.0150)	–	6HEF
	4.0	1.5	1,702 (0.0670)	1,930 (0.0760)	0,381 (0.0150)	0,381 (0.0150)	V076	4PAC
	3.5	2.0	0,864 (0.0340)	1,270 (0.0500)	0,381 (0.0150)	0,762	90V050	3,5H906
	3.5	3.0	0,864 (0.0340)	1,270 (0.0500)	0,381 (0.0150)	0,762	90V050	3,5H904
	3.0	1.25	1,727 (0.0680)	2,134 (0.0840)	0,381 (0.0150)	0,762	90V050	3H90
	4.0	3.373	2,253 (0.0887)	2,388 (0.0940)	0,787 (0.0310)	0,787 (0.0310)	–	4HACME

Oil and gas threading

Seco Snap-Tap® Quality Assurance



1. Metallurgical control of substrate

Check of substrate regarding Hc, MM and porosity.
Measured according to SPM.
Values stored in a database.

2. Dimension check after sintering

Measuring of IC and thickness.
Measured according to SPM.
Values stored in a database.

3. Dimension control after bottom grinding

Thickness and cutting edge height.
Flatness.
Measured according to SPM.

4. Dimension control after grinding

Profile and radius.
Measured according to SPM.

5. Edge measuring

Edge radius checked during honing.
Measured according to SPM.
Values stored in a database.

6. Measuring of coating

Coating, check of thickness and adhesion.
Measured according to SPM.
Values stored in a database.

7. Final inspection

Visual Inspection.
Sampling in accordance to AQL.

8. Production management System

SGS (SPM1) - Control specifications.
LS - Production instructions.
Seco Act - System for preventive and corrective actions.
Approved to ISO 9001 and 14001 standard.

9. Abbreviations

LS - Local management Systems - contains local process descriptions, routines, procedures and instructions.
SGS - Seco Global Standards - consists of instructions common for all Seco companies.
SPM - Seco Production Manual - Part of SGS is a collection of instructions and documents with the purpose to guide and maintain the quality level of Seco products.
AQL - Accepted Quality Level (Mil-std).
MM - Content of Tungsten in binder.
Hc - Coercivity, describing grain size.

Oil and gas threading

Seco Chasers Quality Assurance



1. Metallurgical control of substrate

Check of substrate regarding Hc, MM and porosity.
Measured according to SPM.
Values stored in a database.

4. Dimension control after grinding

Profile and radius.
Measured according to SPM.

7. Height classification

Optical measuring of height.
Graphic presentation of values.
Sorted and labelled with height classification.

10. Overlay drawings

Printer for overlays is calibrated with glass scale monthly.
Scaled master printout is saved according to SPM.

2. Dimension control after top and bottom grinding

Thickness.
Roughness Ra.
Flatness.
Measured according to SPM.

5. Edge measuring

Edge radius checked during honing.
Measured according to SPM.
Values stored in a database.

8. Final inspection

Edge inspection 100%.
Profile check with tolerance drawing, sampling in accordance to AQL.

11. Production management System

SGS (SPM1) - Control specifications.
LS - Production instructions.
Seco Act - System for preventive and corrective actions.
Approved to ISO 9001 and 14001 standard.

3. Measuring after periphery Grinding

Optical measuring.
Data stored in a database.

6. Measuring of coating

Coating (PVD), check of thickness and adhesion.
Measured according to SPM.
Values stored in a database.

9. Traceability

Finished products from each order saved for future reference.
Saved 5 years from production date.
Finished product has full traceability.

12. Abbreviations

LS - Local management Systems - contains local process descriptions, routines, procedures and instructions.
SGS - Seco Global Standards - consists of instructions common for all Seco companies.
SPM - Seco Production Manual - Part of SGS is a collection of instructions and documents with the purpose to guide and maintain the quality level of Seco products.
AQL - Accepted Quality Level (Mil-std).
MM - Content of Tungsten in binder.
Hc - Coercivity, describing grain size.

ISO attributes

ISO attribute	Explanation
AN	clearance angle major
B	shank width
BAWS	workpiece side body angle
BD	body diameter
BLQ	balance quality code
CDRX	cutting depth radial maximum
CDX	cutting depth maximum
CDXI	cutting depth maximum insert
CDXSH	cutting depth maximum shank
CF	spot chamfer
CNT	coolant entry thread size
CP	coolant pressure
CTMS	connection text machine side
CTWS	connection text workpiece side
CUTDIA	work piece parting diameter maximum
CW	cutting width
D1	fixing hole diameter
DCB	connection bore diameter
DCB1	connection bore diameter 1
DCB2	connection bore diameter 2
DCINN	cutting diameter internal minimum
DCINN2	cutting diameter internal minimum 2
DCINN3	cutting diameter internal minimum 3
DCP	data chip provision
DCSFMS	contact surface diameter machine side
DF	flange diameter
DIX	tool changer interference diameter maximum
DMM	shank diameter
EPSR	insert included angle
GAMO	rake angle orthogonal
H	shank height
HF	functional height
HRY	measure, Measure from ref. plane of mounting to bottom plane of unit in direction Y m
IC	inscribed circle diameter
INPLM	minimum initial plunge diameter
INPLX	initial plunge maximum
INSD	insert diameter
INSL	insert length
KCHL	corner chamfer angle left hand
KCHR	corner chamfer angle right hand
L	cutting edge length
LAMS	inclination angle
LB1	body length 1
LB2	body length 2
LCOG	length to center of gravity
LF	functional length
LF2	functional length_2
LFS	functional length secondary
LH	head length
LH2	head length 2
LIG	insert gauge length
LPR	protruding length

ISO attributes

ISO attribute	Explanation
LS	shank length
LSC	clamping length
LU	usable length
OA	overall height
OAL	overall length
OA	overall width
PDX	profile distance ex
PSIRL	cutting edge angle major left hand
PHDR	recommended premachined hole diameter
PSIRR	cutting edge angle major right hand
RADH	radial body height
RADW	radial body width
RE	corner radius
RETL	flank radius left hand
RETR	flank radius right hand
RPMX	rotational speed maximum
S	insert thickness
TDZ	thread diameter size
TPI	threads per inch
W1	insert width
WF	functional width
WF2	functional width 2
WFS	functional width secondary

Jetstream Tooling® Introduction

Seco Jetstream Tooling® is a revolutionary solution to the problem of delivering coolant precisely to the cutting zone.

It works by delivering a concentrated high pressure jet of coolant at high velocity straight to the optimum position precisely to the cutting edge.

The jet lifts the chips away from the rake face, improving chip control and tool life, enabling increased cutting data.

It has been proven to show improvements in nearly all material groups with a wide choice of coolant pressures.

Seco Jetstream Tooling® Duo holders, yet another innovation introduced to the market, features both a rake face and a flank face jet, that may provide even better chip control and significantly longer tool life.

For many years, Seco has been supporting the market with Jetstream Tooling® solutions for ISO-turning and grooving applications. Now the Jetstream Tooling® technique will also be available on holders for thread turning (Snap-Tap®).

Coolant can either be supplied to the toolholder externally through a coolant hose, which is attached to one of the inlet positions of the toolholder, or by the new JETI connection.

When it comes to boring bars, the coolant is supplied internally from the back end.

For internal applications, holders for Steadyline® bars are also available, designated GL-. Please see more information regarding Steadyline® in catalog Turning.

Square shank holders for external applications are designed with the Duo technique. They also have the option for coolant supply through JETI connection.

The JETI is developed with a compact assembly in mind, the tooling eliminates the need for any external piping and connections that would otherwise obstruct machine movements in tight workspaces. Coolant hole underneath the square shank holder make it possible for coolant to reach the cutting edge directly from the tool block.



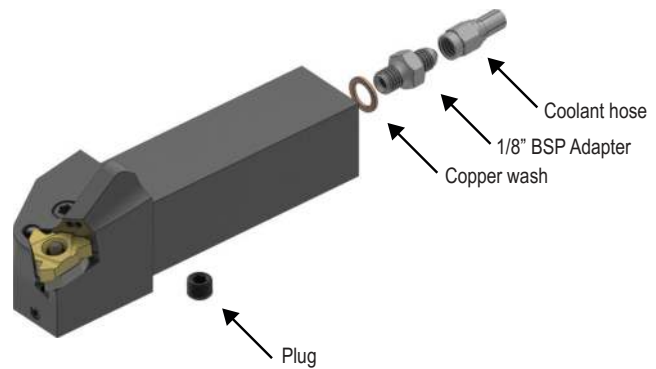
Jetstream Tooling® Assembly instructions

Description of parts

For personal safety, Jetstream Tooling® should only be used with the machine door in a fully closed position in accordance with general machine safety procedures.

Please ensure that the coolant hose is located correctly and fully tightened with all seals in position. The unused coolant hole should have a blanking plug fitted. Please note the maximum safe working pressures shown below.

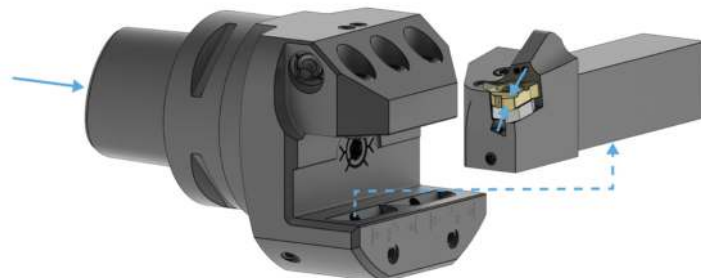
For accessories, see next page.



JETI Assembly instructions

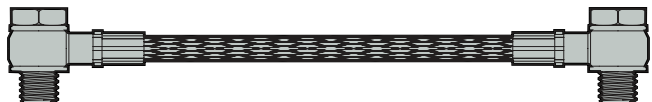
To use the benefits of a JETI-holder there is a need to use a basic holder designed for JETI-connections. Maximum coolant pressure when using this feature is 150 bar.

Note: The unused coolant hole (from the back) should have a blanking plug fitted.



Accessories and spare parts

Hoses, Part No. ordering code includes spare parts

Connection type	Part No.	Length mm (inch)
Straight fitting 	JET-HOSE150SS	150 (5.906)
	JET-HOSE200SS	200 (7.874)
	JET-HOSE250SS	250 (9.843)
	JET-HOSE300SS	300 (11.811)
Banjo fitting 	JET-HOSE150BS	150 (5.906)
	JET-HOSE200BS	200 (7.874)
	JET-HOSE250BS	250 (9.843)
	JET-HOSE300BS	300 (11.811)
Banjo-to-Banjo fitting 	JET-HOSE150BB	150 (5.906)
	JET-HOSE200BB	200 (7.874)
	JET-HOSE250BB	250 (9.843)
	JET-HOSE300BB	300 (11.811)

All hoses are pressure rated to a maximum of 275 bar (3990 psi).

Spare Parts, included in delivery

Part No.		...SS	...BS	...BB
JET-CFP1/8BSP		■	■	■
JET-CBP15		■	■	■
JET-AD1/8BSP		■	■	
JET-ADM10		■		
JET-BBM10			■	■
JET-BB1/8BSP			■	■
JET-C1/4-1/8BSP			■	■
JET-P1/8-5mm		■	■	■
JET-WM10*		■	■	■
JET-ORING10X1*/**		■	■	■

Pack of 2, except *Pack of 20

** Not suitable for use in inducer

For assembly instructions, see page(s) 51



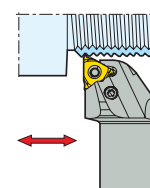
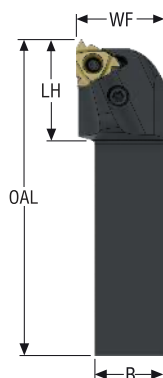
Thread turning Toolholders

The innovative toolholders made for use with Snap-Tap® inserts offer the best possible holding power available for long tool life and high accuracy. They employ an Anti-Twist insert locking system that features a carbide pin in the back of the insert pocket that resists wear and prevents the insert from turning or twisting under pressure during machining.

- Anti-Twist Toolholders.
- D-style clamp for securely pulls insert down and into the pocket.

Jetstream Tooling® – Toolholders, external

For S-inserts, Snap-Tap®



—Right-hand version shown

—CP* Max coolant pressure (bar) using hose connection otherwise according machine side adapter

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 162, 164, 165, 166, 167

Designation	Item number	H	B	LF	OAL	WF	LH	Weight	CP	CTWS
		mm	mm	mm	mm	mm	mm	kg	bar	
PER2020X16QHDJETI	03007228	20,0	20,0	27,0	91,0	25,0	30,0	0,3	275,0	16
PEL2020X16QHDJETI	03007229	20,0	20,0	27,0	91,0	25,0	30,0	0,3	275,0	16
PER2525X16QHDJETI	03007230	25,0	25,0	27,0	111,0	32,0	30,0	0,6	275,0	16
PEL2525X16QHDJETI	03007231	25,0	25,0	27,0	111,0	32,0	30,0	0,6	275,0	16
PER2525X22QHDJETI	03007241	25,0	25,0	41,0	125,0	32,0	44,0	0,7	275,0	22
PER2525X27QHDJETI	03007246	25,0	25,0	41,0	125,0	32,0	44,0	0,7	275,0	27

Spare Parts, included in delivery

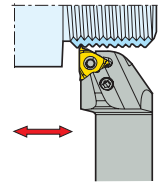
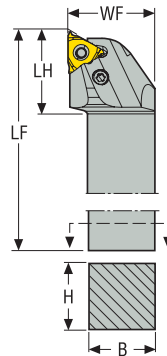
For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
...16QHD...	PP3712	GXA16-1	LS0612-T15P	T15P-7	AC4625
...22QHD...	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
...27QHD...	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Plug
													
...16QHD...	MXA16-1	GXA16-0	—	—	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	—	—	—	P6SS4X8
...22QHD...	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5	P6SS4X8
...27QHD...	MXA27-1	VXA27-0	VXA27-98	—	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5	P6SS4X8

Jetstream Tooling® – Toolholders, external

For S-inserts, Snap-Tap®



—Right-hand version shown

—CP* Max coolant pressure (bar) using hose connection otherwise according machine side adapter

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 162, 164, 165, 166, 167

Designation	Item number	H	B	LF	WF	LH	Weight	CP	CTWS
		Inch	Inch	Inch	Inch	Inch	lbs	psi	
PER075516QHDJET	03007234	0.750	0.750	5.000	0.970	1.181	0.9	10.827	16
PEL075516QHDJET	03007235	0.750	0.750	5.000	0.970	1.181	0.9	10.827	16
PER100616QHDJET	03007236	1.000	1.000	6.000	1.250	1.181	1.8	10.827	16
PEL100616QHDJET	03007237	1.000	1.000	6.000	1.250	1.181	1.8	10.827	16
PER125616QHDJET	03007238	1.250	1.250	6.000	1.500	1.181	2.7	10.827	16
PEL125616QHDJET	03007240	1.250	1.250	6.000	1.500	1.181	2.7	10.827	16
PER100622QHDJET	03007244	0.984	0.984	6.000	1.250	1.732	1.8	10.827	22
PER125622QHDJET	03007245	1.250	1.250	6.000	1.500	1.732	2.7	10.827	22
PER100627QHDJET	03007249	0.984	0.984	6.000	1.250	1.732	1.8	10.827	27
PER125627QHDJET	03007250	1.250	1.250	6.000	1.500	1.732	2.7	10.827	27

Spare Parts, included in delivery

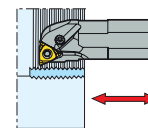
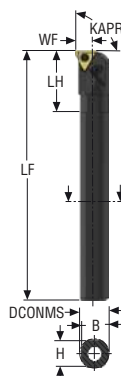
For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
..16QHJET	PP3712	GXA16-1	LS0612-T15P	T15P-7	AC4625
..22QHJET	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
..27QHJET	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Plug
													
..16QHJET	MXA16-1	GXA16-0	—	—	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	—	—	—	P6SS4X8
..22QHJET	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5	P6SS4X8
..27QHJET	MXA27-1	VXA27-0	VXA27-98	—	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5	P6SS4X8

Jetstream Tooling® – Toolholders, internal

For S-inserts, Snap-Tap®



—Right-hand version shown

—CP* Max coolant pressure (bar) using hose connection otherwise according machine side adapter

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 165

Designation	Item number	H	B	LF	WF	LH	DMM	DCINN	Weight	CP	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	bar	
PNR0020P16AHDJET	03006930	19,0	18,0	171,0	13,8	42,0	20,0	24,0	0,4	275,0	16
PNL0020P16AHDJET	03006931	19,0	18,0	171,0	13,8	42,0	20,0	24,0	0,4	275,0	16
PNR0025R16AHDJET	03006932	24,0	23,0	200,0	16,3	42,0	25,0	29,0	0,7	275,0	16
PNL0025R16AHDJET	03006933	24,0	23,0	200,0	16,3	42,0	25,0	29,0	0,6	275,0	16
PNR0032S16AHDJET	03006934	30,0	31,0	250,0	19,8	42,0	32,0	36,0	1,4	275,0	16
PNL0032S16AHDJET	03006935	30,0	31,0	250,0	19,8	42,0	32,0	36,0	1,5	275,0	16
PNR0040T16AHDJET	03006936	38,5	37,0	300,0	23,8	45,0	40,0	44,0	2,2	275,0	16
PNR0050U16AHDJET	03006937	47,0	48,5	350,0	28,8	52,0	50,0	54,0	4,5	275,0	16
PNR0025R22AHDJET	03006945	23,0	24,0	200,0	17,8	42,0	25,0	30,0	0,7	275,0	22
PNL0025R22AHDJET	03006946	23,0	24,0	200,0	17,8	42,0	25,0	30,0	0,7	275,0	22
PNR0032S22AHDJET	03006947	30,0	31,0	250,0	21,3	42,0	32,0	38,0	1,5	275,0	22
PNL0032S22AHDJET	03006948	30,0	31,0	250,0	21,3	42,0	32,0	38,0	1,5	275,0	22
PNR0040T22AHDJET	03006949	37,0	38,5	300,0	25,3	42,0	40,0	46,0	2,9	275,0	22
PNL0040T22AHDJET	03006950	37,0	38,5	300,0	25,3	42,0	40,0	46,0	2,6	275,0	22
PNR0050U22AHDJET	03006951	47,0	48,5	350,0	30,3	48,0	50,0	56,0	4,9	275,0	22
PNR0040T27AHDJET	03006955	37,0	38,5	300,0	26,8	62,0	40,0	48,0	2,6	275,0	27
PNR0050U27AHDJET	03006956	47,0	48,5	350,0	31,8	62,0	50,0	58,0	4,3	275,0	27
PNR0063V27AHDJET	03006957	60,0	61,5	400,0	38,3	62,0	63,0	70,0	8,9	275,0	27

Spare Parts, included in delivery

For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
...20...	PP3712	GXA16-1	LS0610-T15P	T15P-7	AC4625
...22...	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
...25/32/40/50...	PP3712	GXA16-1	LS0612-T15P	T15P-7	AC4625
...27...	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)
												
...20...	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–
...22...	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5
...25/32/40/50...	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–
...27...	MXA27-1	VXA27-0	VXA27-98	–	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5

Thread turning

MDT

Mini-Shaft™

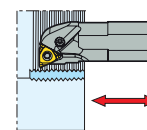
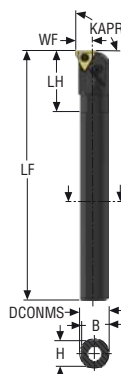
Thread milling

Thread tapping

Annex

Jetstream Tooling® – Toolholders, internal

For S-inserts, Snap-Tap®



—Right-hand version shown

—CP* Max coolant pressure (bar) using hose connection otherwise according machine side adapter

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 165

Designation	Item number	H	B	LF	WF	LH	DMM	DCINN	Weight	CP	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	lbs	psi	
PNR00075716AHDJET	03006939	0.700	0.650	7.000	0.520	1.654	0.750	0.950	0.7	10,827	16
PNL00075716AHDJET	03006940	0.700	0.650	7.000	0.520	1.654	0.750	0.950	1.1	10,827	16
PNR00100816AHDJET	03006941	0.951	0.902	8.000	0.650	1.654	1.000	1.150	1.5	10,827	16
PNL00100816AHDJET	03006942	0.951	0.902	8.000	0.650	1.654	1.000	1.150	1.3	10,827	16
PNR001251016AHDJET	03006943	1.200	1.150	10.000	0.780	1.654	1.250	1.404	3.1	10,827	16
PNR001501216AHDJET	03006944	1.339	1.419	12.000	0.900	1.654	1.500	1.700	5.1	10,827	16
PNR00100822AHDJET	03006952	0.902	0.951	8.000	0.710	1.654	1.000	1.181	2.0	10,827	22
PNR001251022AHDJET	03006953	1.200	1.150	10.000	0.840	1.654	1.250	1.500	3.1	10,827	22
PNR001501222AHDJET	03006954	1.339	1.419	12.000	0.970	1.654	1.500	1.800	5.3	10,827	22
PNR001501227AHDJET	03006958	1.339	1.419	12.000	1.020	2.441	1.500	1.890	5.1	10,827	27

Spare Parts, included in delivery

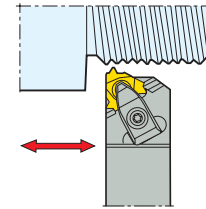
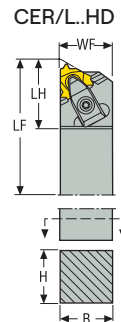
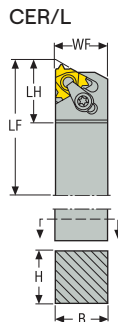
For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
..16AHDJET	PP3712	GXA16-1	LS0612-T15P	T15P-7	AC4625
..22AHDJET	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
..27AHDJET	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050
PNR/L000757..	PP3712	GXA16-1	LS0610-T15P	T15P-7	AC4625

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)
												
..16AHDJET	MXA16-1	GXA16-0	—	—	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	—	—	—
..22AHDJET	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5
..27AHDJET	MXA27-1	VXA27-0	VXA27-98	—	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5
PNR/L000757..	MXA16-1	GXA16-0	—	—	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	—	—	—

Toolholders, external

For S-inserts, Snap-Tap®

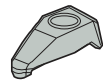
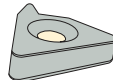


—Right-hand version shown

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 164

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	kg	
CER1616H16	02454783	16,0	16,0	100,0	16,0	22,0	0,2	16
CER2020K16HD	02475454	20,0	20,0	125,0	20,0	32,0	0,5	16
CER2525M16HD	02457882	25,0	25,0	150,0	25,0	32,0	0,8	16
CER4040R16HD	02853574	40,0	40,0	200,0	40,0	37,0	2,5	16
CEL1616H16	02454781	16,0	16,0	100,0	16,0	22,0	0,2	16
CEL2020K16HD	02475482	20,0	20,0	125,0	20,0	32,0	0,4	16
CEL2525M16HD	02457885	25,0	25,0	150,0	25,0	32,0	0,8	16
CER2525M22HD	02457888	25,0	25,0	150,0	25,0	38,0	0,8	22
CER4040R22HD	02853575	40,0	40,0	200,0	40,0	42,0	2,5	22
CEL2525M22HD	02457890	25,0	25,0	150,0	25,0	38,0	0,8	22
CER4040R27HD	02853576	40,0	40,0	200,0	40,0	48,0	2,5	27

Spare Parts, included in delivery

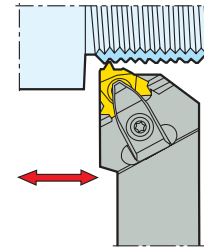
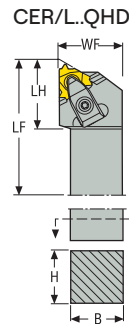
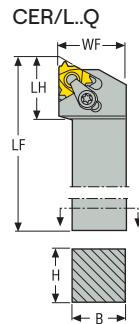
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...16	—	T15P-2	CSP16-T15P	—	GX16-1	CS3507-T09P	—
...16HD	CHD16	T15P-7	—	L85020-T15P	GX16-1	CS3507-T09P	S6912
...22HD	CHD22	T20P-7L	—	L86025-T20P	NX22-1	CS4009-T15P	S7616
...27HD	CHD27	T20P-7L	—	L86025-T20P	VX27-1	C05012-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16	MX16-1	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2
...16HD	MX16-1	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2
...22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27HD	MX27-1	VX27-98.5	VX27-2	—	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Toolholders, external

For S-inserts, Snap-Tap®

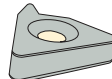


—Right-hand version shown

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 164

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	lbs	
CER03753-16Q	00072538	0.375	0.375	3.000	0.375	0.900	0.2	16ER...
CER06254-16Q	00072498	0.625	0.625	4.000	0.750	0.900	0.7	16ER...
CEL06254-16Q	00072544	0.625	0.625	4.000	0.750	0.900	0.7	16EL...
CER0504-16Q	00072524	0.500	0.500	4.000	0.625	0.900	0.4	16ER...
CEL0504-16Q	00072466	0.500	0.500	4.000	0.625	0.900	0.4	16ER...
CEL0755-16HD	02483997	0.750	0.750	5.000	1.000	0.900	0.9	16EL...
CER0755-16HD	02483996	0.750	0.750	5.000	1.000	0.900	0.9	16ER...
CER1006-16QHD	02462821	1.000	1.000	6.000	1.250	1.100	1.8	16ER...
CEL1006-16QHD	02462852	1.000	1.000	6.000	1.250	1.100	1.8	16EL...
CER1256-16QHD	02462823	1.250	1.250	6.000	1.500	1.181	2.9	16ER...
CEL1256-16QHD	02462853	1.250	1.250	6.000	1.500	1.100	2.9	16EL...
CER1506-16QHD	02462825	1.500	1.500	6.000	1.750	1.100	3.8	16ER...

Spare Parts, included in delivery

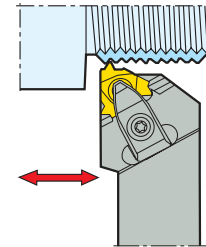
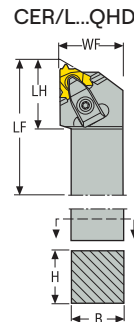
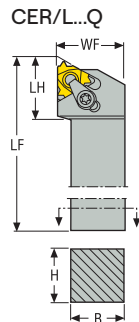
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
CEL 06254..	—	T15P-2	CSP16-T15P	—	GX16-1	CS3507-T09P	—
CER/L 0755..1006..	CHD16	T15P-7	—	L85020-T15P	GX16-1	CS3507-T09P	S6912
CER/L 1256..1506..	CHD16	T15P-7	—	L85020-T15P	GX16-1	CS3507-T09P	S6912
CER/L 3753..0504..	—	T15P-2	CSP16-T15P	—	GX16-1	CS3507-T09P	—
CER 06254..	—	T15P-2	CSP16-T15P	—	GX16-1	CS3507-T09P	—

Accessories

For holders	Insert shim (K)	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
									
CEL 06254..	—	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CER/L 0755..1006..	—	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CER/L 1256..1506..	—	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CER/L 3753..0504..	—	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CER 06254..	GX16-2	MX16-1	GX16-0	—	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2

Toolholders, external

For S-inserts, Snap-Tap®

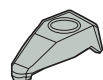
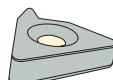


—Right-hand version shown

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 164

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	kg	
CER1212H16Q	75025274	12,0	12,0	100,0	16,0	22,0	0,2	16
CER1616H16Q	75025276	16,0	16,0	100,0	20,0	22,0	0,3	16
CER2020K16QHD	02475493	20,0	20,0	125,0	25,0	32,0	0,5	16
CER2525M16QHD	00016769	25,0	25,0	150,0	32,0	32,0	0,8	16
CER3225P16QHD	00016771	32,0	25,0	170,0	32,0	32,0	1,1	16
CER3232P16QHD	00016776	32,0	32,0	170,0	40,0	32,0	1,4	16
CEL1212H16Q	75025275	12,0	12,0	100,0	16,0	22,0	0,2	16
CEL1616H16Q	75025277	16,0	16,0	100,0	20,0	22,0	0,3	16
CEL2020K16QHD	02475514	20,0	20,0	125,0	25,0	32,0	0,5	16
CEL2525M16QHD	00016766	25,0	25,0	150,0	32,0	32,0	0,8	16
CEL3225P16QHD	00016770	32,0	25,0	170,0	32,0	32,0	1,1	16
CEL3232P16QHD	00016774	32,0	32,0	170,0	40,0	32,0	1,4	16
CER2525M22QHD	00016781	25,0	25,0	150,0	32,0	38,0	0,8	22
CER3225P22QHD	00016783	32,0	25,0	170,0	32,0	38,0	1,1	22
CER3232P22QHD	00016788	32,0	32,0	170,0	40,0	38,0	1,4	22
CEL2525M22QHD	00016777	25,0	25,0	150,0	32,0	38,0	0,8	22
CEL3225P22QHD	00016782	32,0	25,0	170,0	32,0	38,0	1,1	22
CEL3232P22QHD	00016785	32,0	32,0	170,0	40,0	38,0	1,4	22
CER2525M27QHD	00016800	25,0	25,0	150,0	32,0	46,0	0,9	27
CER3225P27QHD	00016857	32,0	25,0	170,0	32,0	46,0	1,1	27
CER3232P27QHD	00016878	32,0	32,0	170,0	40,0	46,0	1,5	27
CEL2525M27QHD	00016791	25,0	25,0	150,0	32,0	46,0	0,9	27
CEL3225P27QHD	00016830	32,0	25,0	170,0	32,0	46,0	1,2	27
CEL3232P27QHD	00016864	32,0	32,0	170,0	40,0	46,0	1,5	27

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...16Q	—	T15P-2	CSP16-T15P	—	GX16-1	CS3507-T09P	—
...16QHD	CHD16	T15P-7	—	L85020-T15P	GX16-1	CS3507-T09P	S6912
...22QHD	CHD22	T20P-7L	—	L86025-T20P	NX22-1	CS4009-T15P	S7616
...27QHD	CHD27	T20P-7L	—	L86025-T20P	VX27-1	C05012-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16Q	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...16QHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22QHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27QHD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Thread turning

MDT

Mini-Shaft™

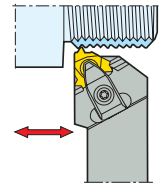
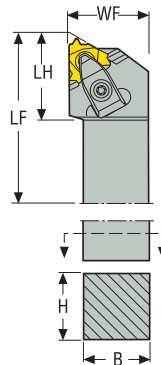
Thread milling

Thread tapping

Annex

Toolholders, external

For S-inserts, Snap-Tap®

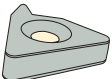


—Right-hand version shown

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 164

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	lbs	
CER1005-22QHD	02462826	1.000	1.000	5.000	1.250	1.300	1.5	22ER...
CEL1005-22QHD	02462854	1.000	1.000	5.000	1.250	1.300	1.8	22EL...
CER1006-22QHD	02462827	1.000	1.000	6.000	1.250	1.300	2.0	22ER...
CEL1006-22QHD	02462856	1.000	1.000	6.000	1.250	1.300	2.0	22EL...
CER1256-22QHD	02462829	1.250	1.250	6.000	1.500	1.417	2.9	22ER...
CEL1256-22QHD	02462857	1.250	1.250	6.000	1.500	1.300	3.1	22EL...
CER1506-22QHD	02462831	1.500	1.500	6.000	1.750	1.300	4.0	22ER...

Spare Parts, included in delivery

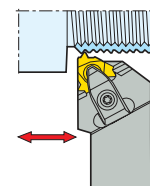
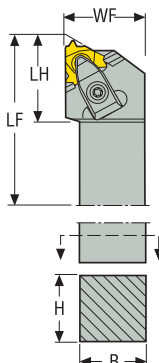
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim screw	Spring
						
CER/L...22...	CHD22	T20P-7L	L86025-T20P	NX22-1	CS4009-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
CER/L...22...	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2

Toolholders, external

For S-inserts, Snap-Tap®

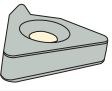


—Right-hand version shown

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 164

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	lbs	
CER1006-27QHD	02462835	1.000	1.000	6.000	1.250	1.600	2.0	27ER...
CEL1006-27QHD	02462859	1.000	1.000	6.000	1.250	2.000	2.2	27EL...
CER1256-27QHD	02462837	1.250	1.250	6.000	1.500	1.732	2.9	27ER...
CEL1256-27QHD	02462861	1.250	1.250	6.000	1.500	1.600	2.9	27EL...
CER1506-27QHD	02462839	1.500	1.500	6.000	1.750	1.600	4.0	27ER...
CEL1506-27QHD	02462863	1.500	1.500	6.000	1.750	1.600	4.2	27EL...

Spare Parts, included in delivery

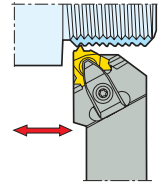
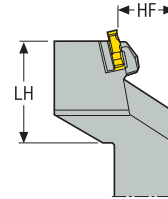
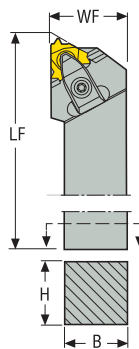
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim screw	Spring
						
CEL 1006-27..	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616
CEL 1506-27	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616
CER/L 1256-27	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616
CER 1006-27	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616
CER 1506-27..	CHD27	T20P-7L	L86025-T20P	VX27-1	C05012-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
												
CEL 1006-27..	MX27-1	VX27-98.5	—	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	VX27-2	T15P-2
CEL 1506-27	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
CER/L 1256-27	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
CER 1006-27	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
CER 1506-27..	MX27-1	VX27-99.5	VX27-2	—	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Toolholders, external

For S-inserts, Snap-Tap®

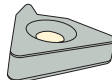


—Right-hand version shown

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 143, 144, 149, 151, 153, 155, 157, 159, 161, 162, 164, 165, 166, 167

Designation	Item number	H	B	LF	HF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	mm	kg	
CER2525M16CQHD	02457892	25,0	25,0	150,0	25,0	32,0	45,0	0,9	16
CER3232P16CQHD	02457893	32,0	32,0	170,0	32,0	40,0	45,0	1,6	16
CER2525M22CQHD	02457895	25,0	25,0	150,0	25,0	32,0	50,0	0,9	22
CER3232P22CQHD	02457897	32,0	32,0	170,0	32,0	40,0	50,0	1,6	22

Spare Parts, included in delivery

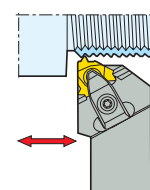
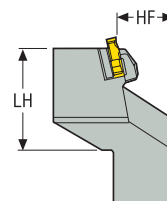
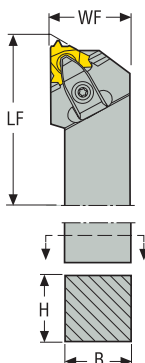
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim screw	Spring
						
..16CQHD	CHD16	T15P-7	L85020-T15P	GX16-1	CS3507-T09P	S6912
..22CQHD	CHD22	T20P-7L	L86025-T20P	NX22-1	CS4009-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
								
..16CQHD	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
..22CQHD	MX22-1	NX22-0	NX22-2	NX22-3	NX22-4	NX22-98	NX22-99	T15P-2

Toolholders, external

For S-inserts, Snap-Tap®

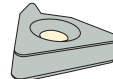


—Right-hand version shown

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 143, 144, 149, 151, 153, 155, 157, 159, 161, 162, 164, 165, 166, 167

Designation	Item number	H	B	LF	HF	WF	LH	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	lbs	
CER1006-16CQHD	02467118	1.000	1.000	6.000	1.000	1.250	2.000	2.0	16ER
CEL1006-16CQHD	02462864	1.000	1.000	6.000	1.000	1.250	2.000	2.0	16EL
CER1256-16CQHD	02462840	1.250	1.250	6.000	1.250	1.250	2.500	2.7	16ER
CER1006-22CQHD	02462842	1.000	1.000	6.000	1.000	1.250	2.000	2.2	22ER
CER1006-27CQHD	02462847	1.000	1.000	6.000	1.000	1.250	2.000	2.0	27ER

Spare Parts, included in delivery

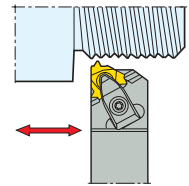
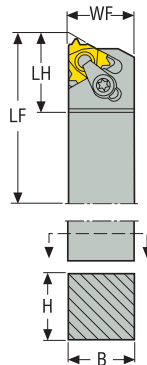
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Screw	Shim screw	Spring
							
..22CQHD	CHD22	T20P-7L	L86025-T20P	NX22-1	S7616	CS4009-T15P	—
..27CQHD	CHD27	T20P-7L	L86025-T20P	VX27-1	—	C05012-T15P	S7616
CEL 1006-16..	CHD16	T15P-7	L85020-T15P	GX16-1	—	CS3507-T09P	S6912
CER 1006-16..	CHD16	T15P-7	L85020-T15P	GX16-1	—	CS3507-T09P	S6912
CER 1256-16..	CHD16	T15P-7	L85020-T15P	GX16-1	—	CS3507-T09P	S6912

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
														
..22CQHD	MX22-1	—	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
..27CQHD	MX27-1	—	VX27-98.5	VX27-2	—	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
CEL 1006-16..	MX16-1	—	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2
CER 1006-16..	MX16-1	GX16-99	—	—	—	—	—	—	—	—	—	—	—	T09P-2
CER 1256-16..	MX16-1	—	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2

Toolholders, external

For S-inserts, Snap-Tap®

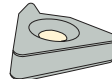


—Right-hand version shown

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 164

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	lbs	
CER0505-16Q-S	02508066	0.500	0.500	5.000	0.630	0.840	0.4	16ER..
CER06255-16Q-S	02508068	0.625	0.625	5.000	0.750	0.840	0.9	16ER..

Spare Parts, included in delivery

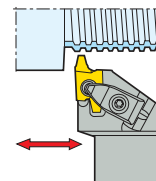
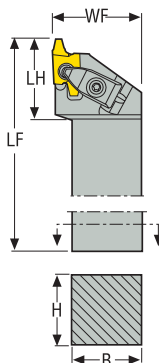
For holders	Clamp key	Clamp kit	Insert shim (S)	Shim screw
				
..16Q-S	T15P-2	CSP16-T15P	GX16-1	CS3507-T09P

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
								
..16Q-S	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2

Toolholders, external

For K-inserts, Snap-Tap®

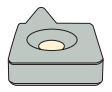


—Right-hand version shown

—For inserts program, see page(s) 155, 157, 159

Designation	Item number	H	B	CDX	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	mm	kg	
CER2525M20QHD	02528502	25,0	25,0	9999,0	150,0	32,0	34,0	0,8	20
CER3225P20QHD	02528504	32,0	25,0	9999,0	170,0	32,0	34,0	1,1	20
CER3232P20QHD	02528507	32,0	32,0	9999,0	170,0	40,0	34,0	1,4	20
CER4040R20HD	02853577	40,0	40,0	9999,0	200,0	42,0	35,0	2,6	20
CEL2525M20QHD	02528503	25,0	25,0	9999,0	150,0	32,0	34,0	0,8	20
CEL3225P20QHD	02528505	32,0	25,0	9999,0	170,0	32,0	34,0	1,1	20
CEL3232P20QHD	02528508	32,0	32,0	9999,0	170,0	40,0	34,0	1,4	20
CER2525M26QHD	02528509	25,0	25,0	9999,0	150,0	40,0	44,0	0,9	26
CER3225P26QHD	02528512	32,0	25,0	9999,0	170,0	40,0	44,0	1,2	26
CER3232P26QHD	02528516	32,0	32,0	9999,0	170,0	40,0	44,0	1,4	26
CER4040R26HD	02853578	40,0	40,0	9999,0	200,0	42,0	45,0	2,5	26
CEL2525M26QHD	02528511	25,0	25,0	9999,0	150,0	40,0	44,0	0,9	26
CEL3225P26QHD	02528513	32,0	25,0	9999,0	170,0	40,0	44,0	1,2	26
CEL3232P26QHD	02528517	32,0	32,0	9999,0	170,0	40,0	44,0	1,4	26

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Shim screw	Spring
						
...20	CHD22	T20P-7	L86025-T20P	KX20-2	CS4009-T15P	S7616
...26	CHD27	T20P-7	L86025-T20P	KX26-2	C05012-T15P	S7616
..20	CHD22	T20P-7	L86025-T20P	KX20-2	CS4009-T15P	S7616
..26	CHD27	T20P-7	L86025-T20P	KX26-2	C05012-T15P	S7616

Accessories

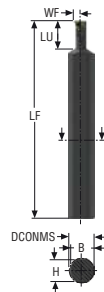
For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
...20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
...26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2
..20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

Toolholders, internal

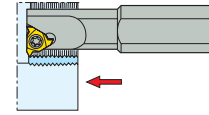
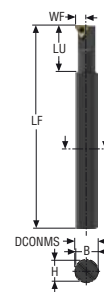
For S-inserts, Snap-Tap®



SNR...09A



SNR/L



—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

Designation	Item number	H	B	LF	LU	WF	DMM	DCINN	DCINN2	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
SNR0020L09A	75069222	18,0	19,0	140,0	20,0	5,1	20,0	10,2	—	0,3	09
SNR0010H11	75029184	—	9,5	100,0	—	7,5	10,0	13,0	11,0	0,1	11
SNR0010K11	75025251	14,0	15,5	125,0	30,0	6,5	16,0	12,0	11,0	0,2	11
SNR0013L11	75025249	14,0	15,5	140,0	32,0	8,0	16,0	15,0	13,0	0,2	11
SNL0010H11	75025415	—	9,5	100,0	—	7,5	10,0	13,0	11,0	0,1	11
SNL0010K11	75025250	14,0	15,5	125,0	30,0	6,5	16,0	12,0	11,0	0,2	11
SNL0013L11	75025248	14,0	15,5	140,0	32,0	8,0	16,0	15,0	13,0	0,2	11
SNR0016M16	75025244	14,0	15,5	150,0	40,0	10,3	16,0	19,0	16,0	0,3	16
SNL0016M16	75025243	14,0	15,5	150,0	40,0	10,3	16,0	19,0	16,0	0,3	16
SNR0020Q22	75025414	18,0	19,0	180,0	45,0	13,0	20,0	24,0	22,0	0,4	22
SNL0020Q22	75025416	18,0	19,0	180,0	45,0	13,0	20,0	24,0	22,0	0,4	22

Spare Parts, included in delivery

For holders	Insert key	Insert screw
		
...09A	T07P-2	C02205-T07P
...11	T07P-2	C02506-T07P
...16	T15P-2	C03508-T15P
...22	T15P-2	C04011-T15P

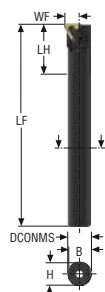
DCINN2, modified. Please see page 35

Toolholders, internal

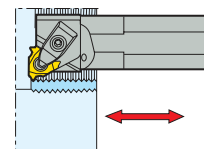
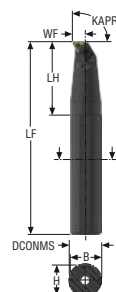
For S-inserts, Snap-Tap®



CNR/L...AHD



CNR/L...APIHD

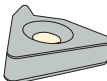


—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

Designation	Item number	H	B	LF	WF	LH	DMM	DCINN	DCINN2	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CNR0020P16AHD	02555888	18,0	19,0	170,0	13,8	41,0	20,0	24,0	—	0,4	16..
CNR0025R16AHD	02555891	23,0	24,0	200,0	16,3	40,0	25,0	29,0	26,0	0,6	16..
CNR0032S16AHD	02555895	30,0	31,0	250,0	19,8	47,0	32,0	36,0	32,0	1,4	16..
CNR0040T16AHD	02555900	37,0	38,5	300,0	23,8	47,0	40,0	44,0	40,0	2,6	16..
CNR0050U16AHD	02555906	47,0	48,5	350,0	28,8	45,0	50,0	54,0	50,0	4,9	16..
CNL0020P16AHD	02555907	18,0	19,0	171,0	11,78	41,0	20,0	24,0	—	0,4	16..
CNL0025R16AHD	02555908	23,0	24,0	171,0	11,78	40,0	25,0	29,0	26,0	0,6	16..
CNL0032S16AHD	02555909	30,0	31,0	250,0	19,8	47,0	32,0	36,0	32,0	1,4	16..
CNL0040T16AHD	02555910	37,0	38,5	300,0	23,8	47,0	40,0	44,0	40,0	2,6	16..
CNR0025R22AHD	02555913	23,0	24,0	200,0	17,8	45,0	25,0	30,0	—	0,6	22..
CNR0032S22AHD	02555919	30,0	31,0	250,0	21,3	46,0	32,0	38,0	32,0	1,4	22..
CNR0040T22AHD	02556097	37,0	38,5	300,0	25,3	53,0	40,0	46,0	40,0	2,6	22..
CNR0050U22AHD	02556101	47,0	48,5	350,0	30,3	51,0	50,0	56,0	50,0	4,8	22..
CNR0063V22AHD	02556102	60,0	61,5	400,0	36,8	56,0	63,0	69,0	63,0	9,1	22..
CNL0025R22AHD	02556104	23,0	24,0	200,0	17,8	45,0	25,0	30,0	—	0,6	22..
CNL0032S22AHD	02556106	30,0	31,0	250,0	21,3	46,0	32,0	38,0	32,0	1,4	22..
CNL0040T22AHD	02556107	37,0	38,5	300,0	25,3	53,0	40,0	46,0	40,0	2,6	22..
CNL0050U22AHD	02556108	47,0	48,5	350,0	30,3	51,0	50,0	56,0	50,0	4,8	22..
CNR0050T22APIHD	02556244	47,0	48,5	300,0	20,5	114,0	50,0	49,0	—	3,7	22..
CNR0063T22APIHD	02817098	60,0	61,5	300,0	22,6	119,0	63,0	50,5	—	5,4	22..
CNL0063T22APIHD	02817100	60,0	61,5	300,0	22,6	119,0	63,0	50,5	—	5,4	22..
CNR0040T27AHD	02556109	37,0	38,5	300,0	26,8	62,0	40,0	48,0	44,0	2,5	27..
CNR0050U27AHD	02556110	47,0	48,5	350,0	31,8	61,0	50,0	58,0	50,0	4,8	27..
CNR0063V27AHD	02556120	60,0	61,5	400,0	38,3	70,0	63,0	70,0	63,0	9,0	27..
CNL0040T27AHD	02556122	37,0	38,5	300,0	26,8	62,0	40,0	48,0	44,0	2,5	27..
CNL0050U27AHD	02556130	47,0	48,5	350,0	31,8	61,0	50,0	58,0	50,0	4,8	27..
CNR0063T27APIHD	02817102	60,0	61,5	300,0	23,1	119,0	63,0	50,5	—	5,6	27..
CNL0063T27APIHD	02817105	60,0	61,5	300,0	23,1	119,0	63,0	50,5	—	5,4	27..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Plug screw	Shim screw	Spring
								
...R22, ...S22	–	T15P-2	CSP22HD-T15P	–	NX22-1	P6SS4X4G	CS4009-T15P	–
...T22, ...U22, ...V22	CHD22	T20P-7L	–	L86025-T20P	NX22-1	P6SS4X4G	CS4009-T15P	S7616
...27..	CHD27	T20P-7L	–	L86025-T20P	VX27-1	P6SS4X4G	C05012-T15P	S7616
..P, ..R16AHD	–	T15P-2	CSP16HD-T15P	–	GX16-1	P6SS4X4G	CS3507-T09P	–
..S, ..T, ..U16AHD	CHD16	T15P-2	–	L85020-T15P	GX16-1	P6SS4X4G	CS3507-T09P	S6912

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...R22, ...S22	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	–
...T22, ...U22, ...V22	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27..	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
..P, ..R16AHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
..S, ..T, ..U16AHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2

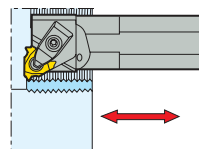
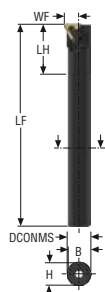
DCINN2, modified. Please see page 35

Toolholders, internal

For S-inserts, Snap-Tap®



CNR/L...AHD



—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

Designation	Item number	H	B	LF	WF	LH	DMM	DCINN	DCINN2	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	lbs	
CNR000757-16AHD	02562574	0.650	0.707	6.693	0.520	1.181	0.750	0.950	0.800	0.7	16..
CNL000757-16AHD	02562790	0.650	0.707	6.693	0.520	1.181	0.750	0.950	0.800	0.9	16..
CNR001008-16AHD	02562785	0.902	0.957	7.874	0.650	2.126	1.000	1.150	1.000	1.5	16..
CNL001008-16AHD	02562791	0.902	0.957	7.874	0.650	2.126	1.000	1.150	1.000	1.5	16..
CNR0012510-16AHD	02562786	1.150	1.209	9.843	0.780	1.811	1.250	1.400	1.200	2.9	16..
CNL0012510-16AHD	02562792	1.150	1.209	9.843	0.780	1.811	1.250	1.400	1.200	2.9	16..
CNR0015012-16AHD	02562787	1.339	1.427	11.811	0.898	1.811	1.500	1.700	1.500	5.1	16..
CNL0015012-16AHD	02562793	1.339	1.427	11.811	0.898	1.811	1.500	1.700	1.500	5.1	16..
CNR0017514-16AHD	02562788	1.591	1.677	13.780	1.028	2.165	1.750	2.000	1.800	8.2	16..
CNL0017514-16AHD	02562794	1.591	1.677	13.780	1.028	2.165	1.750	2.000	1.800	7.9	16..
CNR0020014-16AHD	02562789	1.843	1.929	13.780	1.150	2.244	2.000	2.200	2.000	10.8	16..
CNL0020014-16AHD	02562795	1.843	1.929	13.780	1.150	2.244	2.000	2.200	2.000	10.8	16..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Plug screw	Shim screw	Spring
								
CNR/L...0757...1008	—	T15P-2	CSP16HD-T15P	—	GX16-1	P6SS4X4G	CS3507-T09P	—
CNR...12510	CHD16	T15P-7	—	L85020-T15P	GX16-1	P6SS4X4G	CS3507-T09P	S6912
CNR/L...12510...15012	CHD16	T15P-2	—	L85020-T15P	GX16-1	P6SS4X4G	CS3507-T09P	S6912
CNR/L...12510...15012	CHD16	T15P-2	—	L85020-T15P	GX16-1	P6SS4X4G	CS3507-T09P	S6912
CNR...17514	CHD16	—	—	L85020-T15P	GX16-1	P6SS4X4G	CS3507-T09P	S6912
CNL...17514	CHD16	T15P-2	—	L85020-T15P	GX16-1	P6SS4X4G	CS3507-T09P	S6912
CNR/L...20014	CHD16	T15P-2	—	L85020-T15P	GX16-1	P6SS4X4G	CS3507-T09P	S6912

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
								
CNR/L...0757..1008	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNR...12510	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNR/L...12510..15012	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNR/L...12510..15012	MX16-1	GX16-0	GX16-2	GX16-4	GX16-98	GX16-99	–	T09P-2
CNR...17514	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNL...17514	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
CNR/L...20014	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2

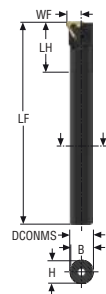
DCINN2, modified. Please see page 35

Toolholders, internal

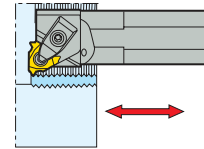
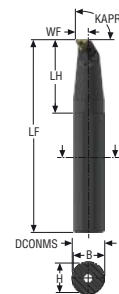
For S-inserts, Snap-Tap®



CNR/L...AHD



CNR/L...APIHD

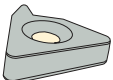


—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

Designation	Item number	H	B	LF	WF	LH	DMM	DCINN	DCINN2	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	lbs	
CNR001008-22AHD	02562797	0.902	0.957	7.917	0.709	1.736	1.000	1.200	1.000	1.5	22..
CNL001008-22AHD	02562803	0.902	0.957	7.917	0.709	1.736	1.000	1.200	1.000	1.5	22..
CNR0012510-22AHD	02562798	1.150	1.209	9.843	0.839	2.126	1.250	1.500	1.200	2.9	22..
CNL0012510-22AHD	02562804	1.150	1.209	9.843	0.839	2.126	1.250	1.500	1.200	2.9	22..
CNR0015012-22AHD	02562799	1.339	1.427	11.811	0.969	2.126	1.500	1.800	1.800	5.1	22..
CNL0015012-22AHD	02562805	1.339	1.427	11.811	1.183	2.126	1.500	1.800	1.800	5.3	22..
CNR0017514-22AHD	02562800	1.591	1.677	13.780	1.091	2.126	1.750	2.100	1.800	8.2	22..
CNL0017514-22AHD	02562806	1.591	1.677	13.780	1.091	2.126	1.750	2.100	1.800	8.6	22..
CNR0020014-22AHD	02562801	1.843	1.929	13.780	1.209	2.323	2.000	2.300	2.000	11.0	22..
CNL0020014-22AHD	02562807	1.843	1.929	13.780	1.209	2.323	2.000	2.300	2.000	10.6	22..
CNR0025016-22AHD	02562802	2.343	2.429	15.748	1.457	2.402	2.500	2.800	2.500	20.3	22..
CNL0025016-22AHD	02562808	2.343	2.429	15.748	1.457	2.402	2.500	2.800	2.500	19.8	22..
CNR00200T22APIHD	02562815	1.843	1.929	12.000	0.880	5.000	2.000	1.600	—	8.4	22..
CNR00250T22APIHD	02562816	2.343	2.429	12.000	0.880	5.000	2.500	1.600	—	11.9	22..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Plug screw	Shim/clamp key	Shim screw	Spring
									
CNR...1008...2510..	—	—	CSP22HD-T15P	—	NX22-1	P6SS4X4G	T15P-2	CS4009-T15P	—
CNL...1008...2510..	—	T15P-2	CSP22HD-T15P	—	NX22-1	P6SS4X4G	—	CS4009-T15P	—
CNR/L...5012...5016..	CHD22	T20P-7L	—	L86025-T20P	NX22-1	P6SS4X4G	—	CS4009-T15P	S7616
CNR...200...250T..	CHD22	T20P-7L	—	L86025-T20P	NX22-1	P6SS4X4G	—	CS4009-T15P	S7616

Accessories

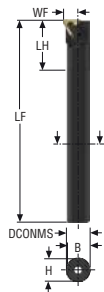
For holders	Insert shim	Insert shim	Insert shim	Insert shim	Insert shim	Insert shim	Insert shim	Insert shim	Insert shim	Insert shim	Insert shim	Insert shim	Shim key
	(M)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)		
													
CNR...1008...2510...	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	–
CNL...1008...2510...	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	–
CNR/L...5012...5016...	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
CNR...200...250T...	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2

Toolholders, internal

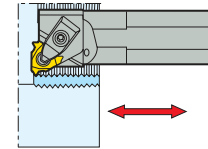
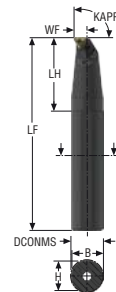
For S-inserts, Snap-Tap®



CNR/L...AHD



CNR/L...APIHD

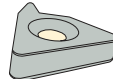


—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

Designation	Item number	H	B	LF	WF	LH	DMM	DCINN	DCINN2	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	lbs	
CNR0015012-27AHD	02562809	1.339	1.427	11.811	1.020	2.441	1.500	1.900	1.500	4.9	27..
CNL0015012-27AHD	02562812	1.339	1.427	11.811	1.020	2.441	1.500	1.900	1.500	4.9	27..
CNR0017514-27AHD	02562810	1.591	1.677	13.780	1.150	2.402	1.750	2.200	1.800	8.2	27..
CNL0017514-27AHD	02562813	1.591	1.677	13.780	1.150	2.402	1.750	2.200	1.800	8.4	27..
CNR0020014-27HD	02790281	1.843	1.929	13.780	1.346	2.283	2.000	2.362	2.000	11.5	27..
CNR0025016-27AHD	02562811	2.343	2.429	15.748	1.520	2.756	2.500	2.900	2.500	19.6	27..
CNL0025016-27AHD	02562814	2.343	2.429	15.748	1.520	2.756	2.500	2.900	2.500	20.3	27..
CNR00200T27APIHD	02562819	1.843	1.929	12.000	0.900	5.000	2.000	1.600	1.600	8.4	27...
CNR00250T27APIHD	02562820	2.343	2.429	12.000	0.900	5.000	2.500	1.600	1.600	11.9	27...

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Plug screw	Shim screw	Spring
							
CNR/L...15012-25016..	CHD27	T20P-7L	L86025-T20P	VX27-1	P6SS4X4G	C05012-T15P	S7616
CNR...200...250T..	CHD27	T20P-7	L86025-T20P	VX27-1	P6SS4X4G	C05012-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
												
CNR/L...15012-25016..	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
CNR...200...250T..	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

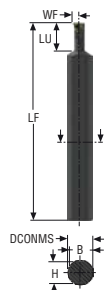
DCINN2, modified. Please see page 35

Toolholders, internal

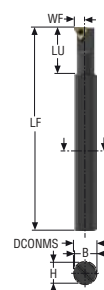
For S-inserts, Snap-Tap®



SNR...09A



SNR/L



—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

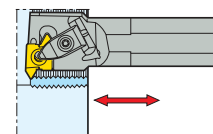
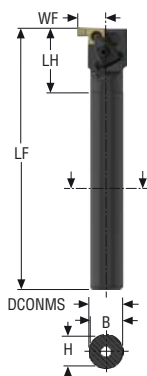
Designation	Item number	H	B	LF	LU	WF	DMM	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	lbs	
SNR000750-55-09A	00086856	0.691	0.707	5.500	—	0.201	0.750	0.7	09NR..
SNR000375-40-11	00072380	0.336	0.350	4.000	—	0.285	0.375	0.2	11NR..
SNL00037540-11	00072403	0.336	0.350	4.000	—	0.285	0.375	0.2	11NL..
SNR00062555-11	00072332	0.441	0.470	5.500	1.250	0.315	0.625	0.4	11NR..
SNL00062555-11	00072405	0.441	0.470	5.500	—	0.315	0.625	0.4	11NL..
SNR000375-60-11H	00072376	0.336	0.350	6.000	—	0.285	0.375	0.4	11NR..
SNR000625-60-16	00072374	0.566	0.587	6.000	—	0.406	0.625	0.7	16NR..
SNL00062560-16	00072407	0.566	0.587	6.000	—	0.406	0.625	0.7	16NL..
SNR000625-80-16H	00072330	0.566	0.587	8.000	—	0.406	0.625	1.5	16NR..
SNR00075-70-22	00072314	0.691	0.707	7.000	—	0.492	0.750	0.7	22NR..
SNL0007570-22	00072411	0.691	0.707	7.000	—	0.492	0.750	0.9	22NL..
SNR000750-10-22H	00072370	0.691	0.707	10.000	—	0.492	0.750	2.7	22NR..

Spare Parts, included in delivery

For holders	Insert key	Insert screw
		
..09	T07P-2	C02205-T07P
..11	T07P-2	C02506-T07P
..16	T15P-2	C03508-T15P
..22	T15P-2	C04011-T15P

Toolholders, internal

For K-inserts, Snap-Tap®

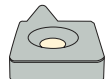


—Right-hand version shown

—For inserts program, see page(s) 124, 126, 156, 158, 160

Designation	Item number	H	B	CDX	LF	WF	LH	DMM	DCINN	DCINN2	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
CNR0025R20AHD	02556131	23,0	24,0	9999,0	200,0	20,5	50,0	25,0	38,0	—	0,7	20
CNR0032S20AHD	02556132	30,0	31,0	9999,0	250,0	24,0	50,0	32,0	44,0	38,0	1,4	20
CNR0040T20AHD	02556133	37,0	38,5	9999,0	300,0	28,0	50,0	40,0	51,0	40,0	2,6	20
CNL0025R20AHD	02556134	23,0	24,0	9999,0	200,0	20,5	50,0	25,0	38,0	—	0,7	20
CNL0032S20AHD	02556135	30,0	31,0	9999,0	250,0	24,0	50,0	32,0	44,0	38,0	1,4	20
CNR0032S26AHD	02556136	30,0	31,0	9999,0	250,0	27,0	61,0	32,0	50,0	50,0	1,5	26
CNR0040T26AHD	02556137	37,0	38,5	9999,0	300,0	31,0	60,0	40,0	55,0	50,0	2,6	26
CNR0050U26AHD	02556138	47,0	48,5	9999,0	350,0	36,0	62,0	50,0	65,0	—	4,9	26
CNR0063V26AHD	02556139	60,0	61,5	9999,0	400,0	42,5	64,0	63,0	80,0	63,0	8,9	26
CNL0040T26AHD	02556140	37,0	38,5	—	300,0	31,0	60,0	40,0	55,0	50,0	2,5	26

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Plug screw	Shim screw	Spring
							
.20	CHD22	T20P-7L	L86025-T20P	KX20-2	P6SS4X4G	CS4009-T15P	S7616
.26	CHD27	T20P-7L	L86025-T20P	KX26-2	P6SS4X4G	C05012-T15P	S7616

Accessories

For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
.20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
.26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

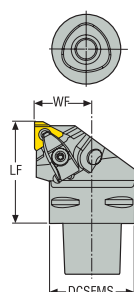
DCINN2, modified. Please see page 35

Seco-Capto™ – Toolholders, external

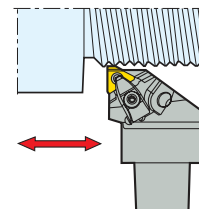
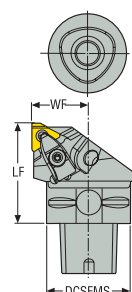
For S-inserts, Snap-Tap®



CER/L-..HD



CER/L-..CHD

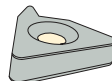


–Right-hand version shown

–For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 162, 164, 165, 166, 167

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	kg lbs	
C4-CER-27050-16HD	02484547	40,0 1.575	50,0 1.969	27,0 1.063	0,5 1.100	16..
C4-CEL-27050-16HD	02484655	40,0 1.575	50,0 1.969	27,0 1.063	0,5 1.100	16..
C4-CER-27050-22HD	02484649	40,0 1.575	50,0 1.969	27,0 1.063	0,5 1.100	22..
C4-CEL-27050-22HD	02484656	40,0 1.575	50,0 1.969	27,0 1.063	0,5 1.100	22..
C5-CER-35060-16HD	02484650	50,0 1.969	60,0 2.362	35,0 1.378	0,8 1.760	16..
C5-CEL-35060-16HD	02484657	50,0 1.969	60,0 2.362	35,0 1.378	0,8 1.760	16..
C5-CER-35060-22HD	02484652	50,0 1.969	60,0 2.362	35,0 1.378	0,9 1.980	22..
C5-CEL-35060-22HD	02484658	50,0 1.969	60,0 2.362	35,0 1.378	0,9 1.980	22..
C5-CER-35060-27HD	02844418	50,0 1.969	60,0 2.362	35,0 1.378	0,8 1.760	27..
C5-CEL-35060-27HD	02844420	50,0 1.969	60,0 2.362	35,0 1.378	0,8 1.760	27..
C6-CER-45065-16HD	02484653	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	16..
C6-CEL-45065-16HD	02484661	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	16..
C6-CER-45065-22HD	02484654	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	22..
C6-CEL-45065-22HD	02484663	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	22..
C6-CER-45065-27HD	02484848	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	27..
C6-CEL-45065-27HD	02484860	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	27..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (S)	Shim screw	Spring
							
...16HD	CHD16	T15P-7	L85020-T15P	CN16	GX16-1	CS3507-T09P	S6912
...22HD	CHD22	T20P-7L	L86025-T20P	CN16	NX22-1	CS4009-T15P	S7616
...27HD	CHD27	T20P-7L	L86025-T20P	CN16	VX27-1	C05012-T15P	S7616
...45065-27HD	CHD27	T20P-7L	L86025-T20P	CN16	VX27-1	C05012-T15P	S7616

Accessories

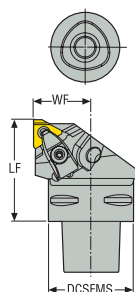
For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27HD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-7
...45065-27HD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders, external

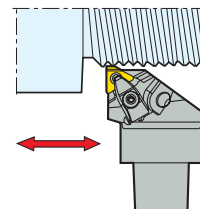
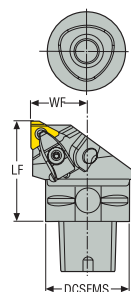
For S-inserts, Snap-Tap®



CER/L-..HD



CER/L-..CHD

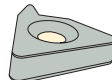


–Right-hand version shown

–For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	kg lbs	
C4-CER-27050-16CHD	02484668	40,0 1.575	50,0 1.969	27,0 1.063	0,5 1.100	16
C4-CEL-27050-16CHD	02484795	40,0 1.575	50,0 1.969	27,0 1.063	0,5 1.100	16
C5-CER-35060-16CHD	02484784	50,0 1.969	60,0 2.362	35,0 1.378	0,8 1.760	16
C5-CEL-35060-16CHD	02484802	50,0 1.969	60,0 2.362	35,0 1.378	0,9 1.980	16
C6-CER-45065-16CHD	02484786	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	16
C6-CEL-45065-16CHD	02484843	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	16
C4-CER-27050-22CHD	02484775	40,0 1.575	50,0 1.969	27,0 1.063	0,5 1.100	22
C4-CEL-27050-22CHD	02484800	40,0 1.575	50,0 1.969	27,0 1.063	0,5 1.100	22
C5-CER-35060-22CHD	02484785	50,0 1.969	60,0 2.362	35,0 1.378	0,9 1.980	22
C5-CEL-35060-22CHD	02484804	50,0 1.969	60,0 2.362	35,0 1.378	0,8 1.760	22
C6-CER-45065-22CHD	02484790	63,0 2.480	65,0 2.559	45,0 1.772	1,4 3.090	22
C6-CEL-45065-22CHD	02484845	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	22
C6-CER-45065-27CHD	02484854	63,0 2.480	65,0 2.559	45,0 1.772	1,4 3.090	27
C6-CEL-45065-27CHD	02484862	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	27

Spare Parts, included in delivery

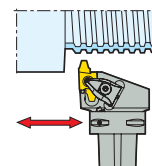
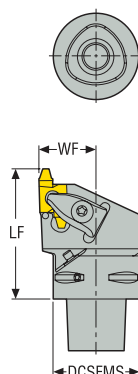
For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (S)	Shim screw	Spring
							
...16CHD	CHD16	T15P-7	L85020-T15P	CN16	GX16-1	CS3507-T09P	S6912
...22CHD	CHD22	T20P-7L	L86025-T20P	CN16	NX22-1	CS4009-T15P	S7616
...27CHD	CHD27	T20P-7L	L86025-T20P	CN16	VX27-1	C05012-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16CHD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22CHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27CHD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders, external

For K-inserts, Snap-Tap®



—Right-hand version shown

—For inserts program, see page(s) 123, 125, 155, 157, 159

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	kg lbs	
C4-CER-27060-20HD	02853589	40,0 1.575	60,0 2.362	27,0 1.063	0,6 1.320	20..
C4-CER-27065-26HD	02853590	40,0 1.575	65,0 2.559	27,0 1.063	0,6 1.320	26..
C5-CER-35060-20HD	02853591	50,0 1.969	60,0 2.362	35,0 1.378	0,8 1.760	20..
C5-CER-35065-26HD	02790776	50,0 1.969	65,0 2.559	35,0 1.378	0,8 1.760	26..
C6-CER-45065-20HD	02853587	63,0 2.480	65,0 2.559	45,0 1.772	1,3 2.870	20..
C6-CER-45070-26HD	02853595	63,0 2.480	70,0 2.756	45,0 1.772	1,5 3.310	26..

Spare Parts, included in delivery

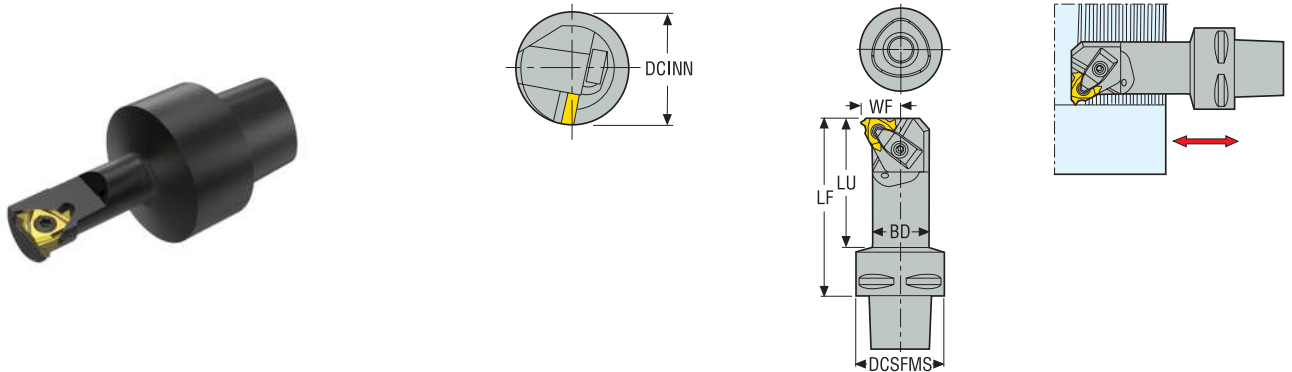
For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (K)	Shim screw	Spring
							
...20HD	CHD22	T20P-7	L86025-T20P	CN6	KX20-2	CS4009-T15P	S7616
...26HD	CHD27	T20P-7	L86025-T20P	CN6	KX26-2	C05012-T15P	S7616

Accessories

For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
...20HD	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
...26HD	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®



—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

Designation	Item number	BD	DCSFMS	DCINN	LF	LU	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	kg lbs	
C4-SNR-10060-16	00008610	16,0 0.630	40,0 1.575	19,0 0.748	60,0 2.362	37,0 1.457	10,0 0.394	0,3 0.660	16..
C4-CNR-14060-16HD	02555280	20,0 0.787	40,0 1.575	24,0 0.945	60,0 2.362	36,0 1.417	13,8 0.543	0,4 0.880	16..
C4-CNR-17070-16HD	02555284	25,0 0.984	40,0 1.575	29,0 1.142	70,0 2.756	48,0 1.890	16,3 0.642	0,4 0.880	16..
C4-CNR-20090-16HD	02555320	32,0 1.260	40,0 1.575	36,0 1.417	90,0 3.543	69,0 2.717	19,8 0.780	0,6 1.320	16..
C4-CNL-14060-16HD	02555337	20,0 0.787	40,0 1.575	24,0 0.945	60,0 2.362	36,0 1.417	13,8 0.543	0,4 0.880	16..
C4-CNL-17070-16HD	02555331	25,0 0.984	40,0 1.575	29,0 1.142	70,0 2.756	48,0 1.890	16,3 0.642	0,5 1.100	16..
C4-CNL-20090-16HD	02555371	32,0 1.260	40,0 1.575	36,0 1.417	90,0 3.543	69,0 2.717	19,8 0.780	0,7 1.540	16..
C4-CNR-22090-22HD	02555375	32,0 1.260	40,0 1.575	38,0 1.496	90,0 3.543	69,0 2.717	21,3 0.839	0,6 1.320	22..
C4-CNL-22090-22HD	02555384	32,0 1.260	40,0 1.575	38,0 1.496	90,0 3.543	69,0 2.717	21,3 0.839	0,6 1.320	22..

Spare Parts, included in delivery

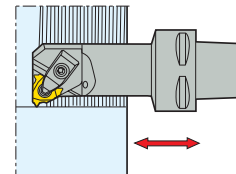
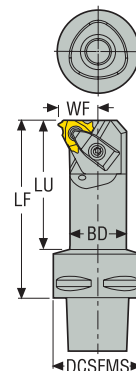
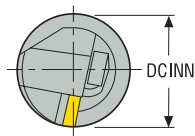
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert key	Insert screw	Insert shim (S)	Shim screw	Spring
									
...10060-16	—	—	—	—	T15P-2	C03508-T15P	—	—	—
...14060, 17070-16HD	—	T15P-2	CSP16HD-T15P	—	—	—	GX16-1	CS3507-T09P	—
...20090-16HD	CHD16	T15P-2	—	L85020-T15P	—	—	GX16-1	CS3507-T09P	S6912
...22090-22HD	—	T15P-2	CSP22HD-T15P	—	—	—	NX22-1	CS4009-T15P	—

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...10060-16	—	—	—	—	—	—	—	—	—	—	—	—	—
...14060, 17070-16HD	MX16-1	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2
...20090-16HD	MX16-1	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2
...22090-22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	—

Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®

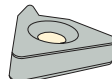


—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

Designation	Item number	BD	DCSFMS	DCINN	LF	LU	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	kg lbs	
C5-CNR-14060-16HD	02555383	20,0 0.787	50,0 1.969	24,0 0.945	60,0 2.362	36,0 1.417	13,8 0.543	0,6 1.320	16..
C5-CNR-17070-16HD	02555388	25,0 0.984	50,0 1.969	29,0 1.142	70,0 2.756	47,0 1.850	16,3 0.642	0,6 1.320	16..
C5-CNR-20090-16HD	02555391	32,0 1.260	50,0 1.969	36,0 1.417	90,0 3.543	68,0 2.677	19,8 0.780	0,9 1.980	16..
C5-CNL-14060-16HD	02555739	20,0 0.787	50,0 1.969	24,0 0.945	60,0 2.362	36,0 1.417	13,8 0.543	0,6 1.320	16..
C5-CNL-17070-16HD	02555740	25,0 0.984	50,0 1.969	29,0 1.142	70,0 2.756	47,0 1.850	16,3 0.642	0,6 1.320	16..
C5-CNL-20090-16HD	02555741	32,0 1.260	50,0 1.969	36,0 1.417	90,0 3.543	68,0 2.677	19,8 0.780	0,8 1.760	16..
C5-CNR-18070-22HD	02555742	25,0 0.984	50,0 1.969	30,0 1.181	70,0 2.756	47,0 1.850	17,8 0.701	0,6 1.320	22..
C5-CNR-22090-22HD	02555743	32,0 1.260	50,0 1.969	38,0 1.496	90,0 3.543	68,0 2.677	21,3 0.839	0,8 1.760	22..
C5-CNL-18070-22HD	02555745	25,0 0.984	50,0 1.969	30,0 1.181	70,0 2.756	47,0 1.850	17,8 0.701	0,6 1.320	22..
C5-CNL-22090-22HD	02555747	32,0 1.260	50,0 1.969	38,0 1.496	90,0 3.543	68,0 2.677	21,3 0.839	0,8 1.760	22..
C5-CNR-26105-27HD	02823806	40,0 1.575	50,0 1.969	46,0 1.811	105,0 4.134	83,7 3.295	24,78 0.976	1,2 2.650	27..
C5-CNL-26105-27HD	02823807	40,0 1.575	50,0 1.969	46,0 1.811	105,0 4.134	83,7 3.295	24,78 0.976	1,2 2.650	27..

Spare Parts, included in delivery

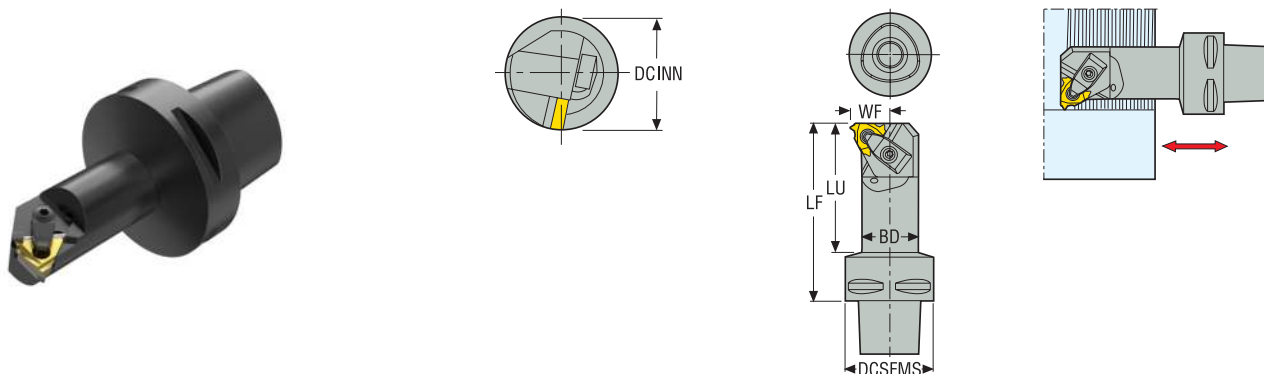
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...14060, 17070-16HD	—	T15P-2	CSP16HD-T15P	—	GX16-1	CS3507-T09P	—
...20090-16HD	CHD16	T15P-2	—	L85020-T15P	GX16-1	CS3507-T09P	S6912
...22HD	—	T15P-2	CSP22HD-T15P	—	NX22-1	CS4009-T15P	—
...27HD	CHD27	T20P-7	—	L86025-T20P	VX27-1	C05012-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...14060, 17070-16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...20090-16HD	MX16-1	GX16-0	–	–	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	–	–	–	T09P-2
...22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27HD	MX27-1	VX27-98.5	VX27-2	–	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®



—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 165

Designation	Item number	BD	DCSFMS	DCINN	LF	LU	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	kg lbs	
C6-CNR-17075-16HD	02555750	25,0 0.984	63,0 2.480	29,0 1.142	75,0 2.953	53,0 2.087	16,3 0.642	0,9 1.980	16
C6-CNR-20090-16HD	02555762	32,0 1.260	63,0 2.480	36,0 1.417	90,0 3.543	68,0 2.677	19,8 0.780	1,1 2.430	16
C6-CNR-24105-16HD	02555766	40,0 1.575	63,0 2.480	44,0 1.732	105,0 4.134	80,0 3.150	23,8 0.937	1,5 3.310	16
C6-CNL-17075-16HD	02555768	25,0 0.984	63,0 2.480	29,0 1.142	75,0 2.953	53,0 2.087	16,3 0.642	0,9 1.980	16
C6-CNL-20090-16HD	02555769	32,0 1.260	63,0 2.480	36,0 1.417	90,0 3.543	68,0 2.677	19,8 0.780	1,1 2.430	16
C6-CNL-24105-16HD	02555771	40,0 1.575	63,0 2.480	44,0 1.732	105,0 4.134	80,0 3.150	23,8 0.937	1,5 3.310	16

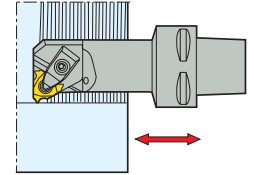
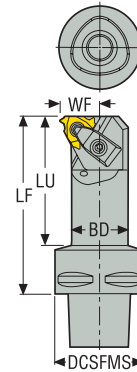
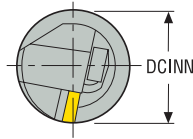
Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
...17075-16HD	—	T15P-2	CSP16HD-T15P	—	GX16-1	CS3507-T09P	—
...20090, 24105-16HD	CHD16	T15P-2	—	L85020-T15P	GX16-1	CS3507-T09P	S6912

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
...17075-16HD	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2
...20090, 24105-16HD	MX16-1	GX16-0	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	T09P-2

Seco-Capto™ – Toolholders, internal For S-inserts, Snap-Tap®

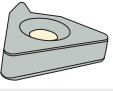


— Right-hand version shown

— For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 150, 154, 156, 158, 160, 161, 163, 164, 166, 167

Designation	Item number	BD	DCSFMS	DCINN	LF	LU	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	kg lbs	
C6-CNR-18075-22HD	02555772	25,0 0.984	63,0 2.480	30,0 1.181	75,0 2.953	53,0 2.087	17,8 0.701	0,9 1.980	22
C6-CNR-22090-22HD	02555773	32,0 1.260	63,0 2.480	38,0 1.496	90,0 3.543	68,0 2.677	21,3 0.839	1,1 2.430	22
C6-CNR-26105-22HD	02555776	40,0 1.575	63,0 2.480	46,0 1.811	105,0 4.134	80,0 3.150	25,3 0.996	1,5 3.310	22
C6-CNL-18075-22HD	02555777	25,0 0.984	63,0 2.480	30,0 1.181	75,0 2.953	53,0 2.087	17,8 0.701	0,9 1.980	22
C6-CNL-22090-22HD	02555832	32,0 1.260	63,0 2.480	38,0 1.496	90,0 3.543	68,0 2.677	21,3 0.839	1,1 2.430	22
C6-CNL-26105-22HD	02555833	40,0 1.575	63,0 2.480	46,0 1.811	105,0 4.134	80,0 3.150	25,3 0.996	1,5 3.310	22

Spare Parts, included in delivery

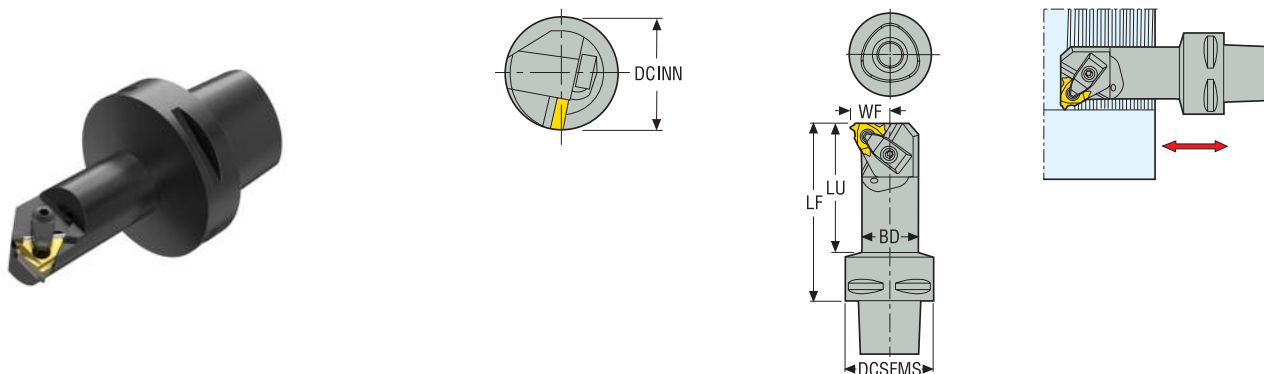
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
..18075, 22090..	—	T15P-2	CSP22HD-T15P	—	NX22-1	CS4009-T15P	—
..26105..	CHD22	T20P-7L	—	L86025-T20P	NX22-1	CS4009-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
..18075, 22090..	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
..26105..	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2

Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®

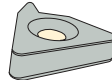


—Right-hand version shown

—For inserts program, see page(s) 130, 131, 132 136, 137, 154, 156, 158, 160, 161, 163, 164, 165

Designation	Item number	BD	DCSFMS	DCINN	LF	LU	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	kg lbs	
C6-CNR-26105-27HD	02644670	40,0 1.575	63,0 2.480	46,0 1.811	105,0 4.134	77,0 3.031	25,3 0.996	1,5 3.310	27
C6-CNR-36182-27HD	02485584	63,0 2.480	63,0 2.480	70,0 2.756	182,0 7.165	—	36,0 1.417	3,3 7.280	27
C6-CNL-26105-27HD	02644672	40,0 1.575	63,0 2.480	46,0 1.811	105,0 4.134	77,0 3.031	25,3 0.996	1,4 3.090	27
C6-CNL-36182-27HD	02644681	63,0 2.480	63,0 2.480	70,0 2.756	182,0 7.165	—	36,0 1.417	3,3 7.280	27
C8-CNR-36190-27HD	02644684	54,0 2.126	80,0 3.150	70,0 2.756	190,0 7.480	160,0 6.299	36,0 1.417	4,2 9.260	27
C8-CNL-36190-27HD	02644685	54,0 2.126	80,0 3.150	70,0 2.756	190,0 7.480	160,0 6.299	36,0 1.417	4,2 9.260	27

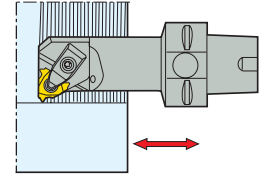
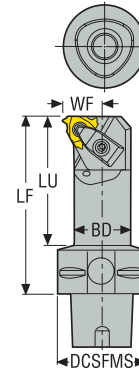
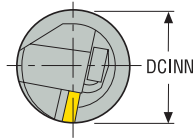
Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (S)	Shim screw	Spring
							
C6...	CHD27	T20P-7	L86025-T20P	—	VX27-1	C05012-T15P	S7616
C8...	CHD27	T20P-7	L86025-T20P	CN8	VX27-1	C05012-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
												
C6...	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2
C8...	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders, internal For S-inserts, Snap-Tap®

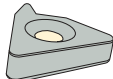


—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

Designation	Item number	BD	DCSFMS	DCINN	LF	LU	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	kg lbs	
C4-CNR-14060-16CHD	02555834	20,0 0.787	40,0 1.575	24,0 0.945	60,0 2.362	36,0 1.417	13,8 0.543	0,4 0.880	16
C4-CNL-14060-16CHD	02555835	20,0 0.787	40,0 1.575	24,0 0.945	60,0 2.362	36,0 1.417	13,8 0.543	0,4 0.880	16
C5-CNR-17070-16CHD	02555836	25,0 0.984	50,0 1.969	29,0 1.142	70,0 2.756	47,0 1.850	16,3 0.642	0,6 1.320	16
C5-CNR-20090-16CHD	02555837	32,0 1.260	50,0 1.969	36,0 1.417	90,0 3.543	68,0 2.677	19,8 0.780	0,8 1.760	16
C5-CNL-17070-16CHD	02555839	25,0 0.984	50,0 1.969	29,0 1.142	70,0 2.756	47,0 1.850	16,3 0.642	0,6 1.320	16
C5-CNL-20090-16CHD	02555840	32,0 1.260	50,0 1.969	36,0 1.417	90,0 3.543	68,0 2.677	19,8 0.780	0,8 1.760	16
C5-CNR-18070-22CHD	02555841	25,0 0.984	50,0 1.969	30,0 1.181	70,0 2.756	47,0 1.850	17,8 0.701	0,6 1.320	22
C5-CNL-18070-22CHD	02555842	25,0 0.984	50,0 1.969	30,0 1.181	70,0 2.756	47,0 1.850	17,8 0.701	0,6 1.320	22

Spare Parts, included in delivery

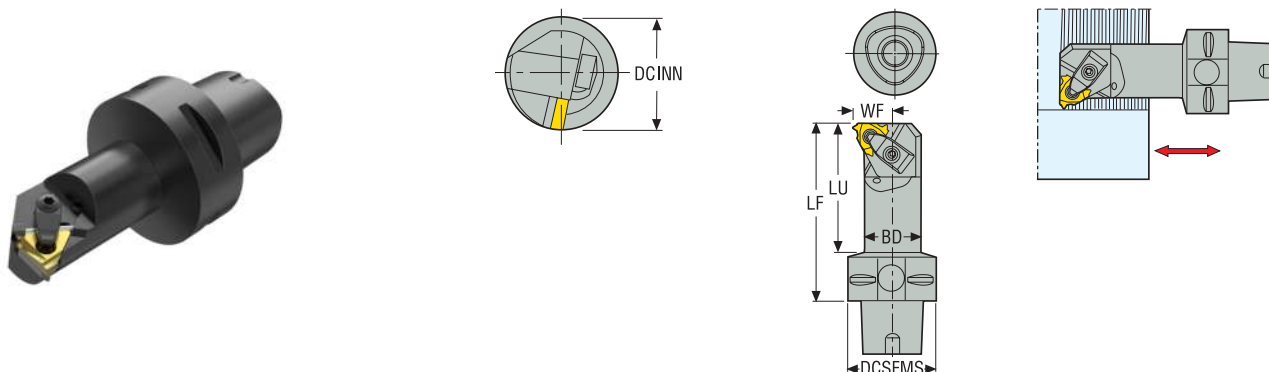
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
..14060/..17070-16CHD	—	T15P-2	CSP16HD-T15P	—	GX16-1	CS3507-T09P	—
..18070-22CHD	—	T15P-2	CSP22HD-T15P	—	NX22-1	CS4009-T15P	—
..20090-16CHD	CHD16	T15P-2	—	L85020-T15P	GX16-1	CS3507-T09P	S6912

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
..14060/..17070-16CHD	MX16-1	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2
..18070-22CHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	—
..20090-16CHD	MX16-1	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2

Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®

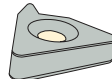


—Right-hand version shown

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 161, 163, 164, 165, 166, 167

Designation	Item number	BD	DCSFMS	DCINN	LF	LU	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	kg lbs	
C6-CNR-20090-16CHD	02555843	32,0 1.260	63,0 2.480	36,0 1.417	90,0 3.543	68,0 2.677	19,8 0.780	1,1 2.430	16
C6-CNR-24105-16CHD	02555844	40,0 1.575	63,0 2.480	44,0 1.732	105,0 4.134	80,0 3.150	23,8 0.937	1,5 3.310	16
C6-CNL-20090-16CHD	02555845	32,0 1.260	63,0 2.480	36,0 1.417	90,0 3.543	68,0 2.677	19,8 0.780	1,1 2.430	16
C6-CNL-24105-16CHD	02555847	40,0 1.575	63,0 2.480	44,0 1.732	105,0 4.134	80,0 3.150	23,8 0.937	1,5 3.310	16
C6-CNR-22090-22CHD	02555848	32,0 1.260	63,0 2.480	38,0 1.496	90,0 3.543	68,0 2.677	21,3 0.839	1,1 2.430	22
C6-CNR-26105-22CHD	02555849	40,0 1.575	63,0 2.480	46,0 1.811	105,0 4.134	80,0 3.150	25,3 0.996	1,5 3.310	22
C6-CNL-22090-22CHD	02555850	32,0 1.260	63,0 2.480	38,0 1.496	90,0 3.543	68,0 2.677	21,3 0.839	1,1 2.430	22
C6-CNL-26105-22CHD	02555852	40,0 1.575	63,0 2.480	46,0 1.811	105,0 4.134	80,0 3.150	25,3 0.996	1,5 3.310	22

Spare Parts, included in delivery

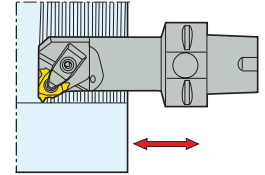
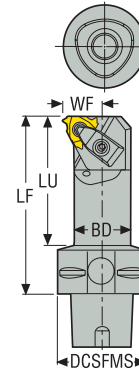
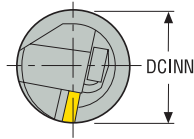
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (S)	Shim screw	Spring
							
...16CHD	CHD16	T15P-2	—	L85020-T15P	GX16-1	CS3507-T09P	S6912
...22090-22CHD	—	T15P-2	CSP22HD-T15P	—	NX22-1	CS4009-T15P	—
...26105-22CHD	CHD22	T20P-7L	—	L86025-T20P	NX22-1	CS4009-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16CHD	MX16-1	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2
...22090-22CHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...26105-22CHD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2

Seco-Capto™ – Toolholders, internal

For S-inserts, Snap-Tap®

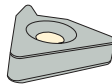


—Right-hand version shown

—For inserts program, see page(s) 130, 131, 132, 136, 137, 154, 156, 158, 160, 161, 163, 164, 165

Designation	Item number	BD	DCSFMS	DCINN	LF	LU	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	kg lbs	
C6-CNR-26105-27CHD	02644674	40,0 1.575	63,0 2.480	46,0 1.811	105,0 4.134	80,0 3.150	25,3 0.996	1,5 3.310	27
C6-CNR-36182-27CHD	02644686	63,0 2.480	63,0 2.480	70,0 2.756	182,0 7.165	—	36,0 1.417	3,1 6.830	27
C6-CNL-26105-27CHD	02644677	40,0 1.575	63,0 2.480	46,0 1.811	105,0 4.134	80,0 3.150	25,3 0.996	1,5 3.310	27
C6-CNL-36182-27CHD	02644687	63,0 2.480	63,0 2.480	70,0 2.756	182,0 7.165	—	36,0 1.417	4,1 9.040	27

Spare Parts, included in delivery

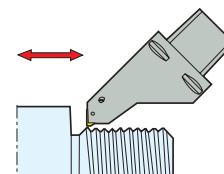
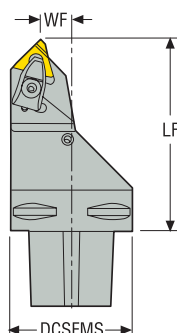
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (S)	Shim screw	Spring
						
C6...	CHD27	T20P-7	L86025-T20P	VX27-1	C05012-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
												
C6...	MX27-1	VX27-98.5	VX27-2	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders for MTM

For S-inserts, Snap-Tap®

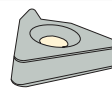


—Right-hand version shown

—For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 162, 164, 165, 166, 167

Designation	Item number	DCSFMS	LF	WF	Weight	CTWS
		mm Inch	mm Inch	mm Inch	kg lbs	
C6-CER-18100-16HD	02509302	63,0 2.480	100,0 3.937	18,0 0.709	1,6 3.530	16
C6-CER-16100-22HD	02509303	63,0 2.480	100,0 3.937	16,0 0.630	1,6 3.530	22
C6-CER-12100-27HD	02509304	63,0 2.480	100,0 3.937	12,0 0.472	1,6 3.530	27

Spare Parts, included in delivery

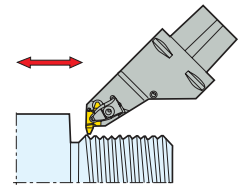
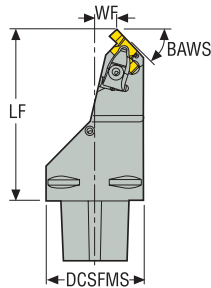
For holders	Cantilever clamp	Clamp key	Clamp screw	Coolant nozzle	Insert shim (S)	Shim screw	Spring
							
...16HD	CHD16	T15P-7	L85020-T15P	CN8	GX16-1	CS3507-T09P	S6912
...22HD	CHD22	T20P-7L	L86025-T20P	CN8	NX22-1	CS4009-T15P	S7616
...27HD	CHD27	T20P-7L	L86025-T20P	CN3	VX27-1	C05012-T15P	S7616

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Shim key
													
...16HD	MX16-1	GX16-0	—	—	GX16-2	GX16-3	GX16-4	GX16-98	GX16-99	—	—	—	T09P-2
...22HD	MX22-1	NX22-97.5	NX22-98	NX22-99	NX22-98.5	NX22-99.5	NX22-0.5	NX22-1.5	NX22-0	NX22-2	NX22-3	NX22-4	T15P-2
...27HD	MX27-1	VX27-98.5	VX27-2	—	VX27-99.5	VX27-0.5	VX27-1.5	VX27-98	VX27-99	VX27-3	VX27-4	VX27-0	T15P-2

Seco-Capto™ – Toolholders for MTM

For K-inserts, Snap-Tap®



—Left-hand version shown

—For inserts program, see page(s) 123, 125, 155, 157, 159

Designation	Item number	DCSFMS	LF	WF	Weight	BAWS°	CTWS
		mm Inch	mm Inch	mm Inch	kg lbs		
C6-CEL-14110-20HD	02509308	63,0 2.480	110,0 4.331	14,0 0.551	1,7 3.750	45	20..
C6-CEL-07110-26HD	02509309	63,0 2.480	110,0 4.331	7,0 0.276	1,7 3.750	45	26..
C6-CEL-18110-14	02509306	63,0 2.480	110,0 4.331	18,0 0.709	1,7 3.750	45	14..

Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Coolant nozzle	Insert shim (K)	Shim screw	Spring
								
-14	—	T15P-2	CSP16-T15P	—	CN8	KX14-2	CS3507-T09P	—
-20	CHD22	T20P-7	—	L86025-T20P	CN8	KX20-2	CS4009-T15P	S7616
-26	CHD27	T20P-7	—	L86025-T20P	CN8	KX26-2	C05012-T15P	S7616

Accessories

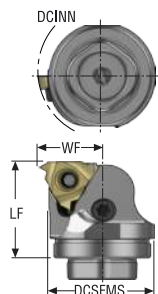
For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
-14	KX14-0	KX14-1	KX14-3	KX14-4	KX14-5	—	T09P-2
-20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
-26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

Steadyline®, GL-heads, Jetstream Tooling®

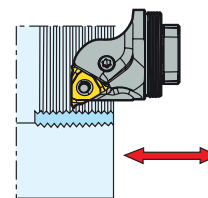
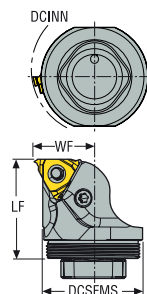
For S-inserts, Snap-Tap®



..16AHDJET



..22/32AHDJET



—Right-hand version shown

—CP * Max coolant pressure

—For inserts program, see page(s) 124, 126, 130, 131, 132, 136, 137, 140, 142, 145, 146, 148, 150, 152, 154, 156, 158, 160, 165

Designation	Item number	DCSFMS	DCINN	LF	WF	CP	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	bar psi	kg lbs	
GL25-PNR-17025-16AHDJET	03212499	25,0 0.984	29,0 1.142	25,0 0.984	16,3 0.642	200,0 7.874	0,1 0.220	16
GL25-PNL-17025-16AHDJET	03212502	25,0 0.984	29,0 1.142	25,0 0.984	16,3 0.642	200,0 7.874	0,1 0.220	16
GL32-PNR-20032-16AHDJET	03007255	32,0 1.260	36,0 1.417	32,0 1.260	19,8 0.780	200,0 7.874	0,2 0.440	16
GL32-PNL-20032-16AHDJET	03007256	32,0 1.260	36,0 1.417	32,0 1.260	19,8 0.780	200,0 7.874	0,2 0.440	16
GL40-PNR-24032-16AHDJET	03007261	40,0 1.575	44,0 1.732	32,0 1.260	23,8 0.937	200,0 7.874	0,3 0.660	16
GL40-PNL-24032-16AHDJET	03007262	40,0 1.575	44,0 1.732	32,0 1.260	23,8 0.937	200,0 7.874	0,3 0.660	16
GL50-PNR-29032-16AHDJET	03007264	50,0 1.969	54,0 2.126	32,0 1.260	28,8 1.134	200,0 7.874	0,4 0.880	16
GL50-PNL-29032-16AHDJET	03007265	50,0 1.969	54,0 2.126	32,0 1.260	28,8 1.134	200,0 7.874	0,5 1.100	16
GL32-PNR-22032-22AHDJET	03007257	32,0 1.260	38,0 1.496	32,0 1.260	21,3 0.839	200,0 7.874	0,2 0.440	22
GL32-PNL-22032-22AHDJET	03007258	32,0 1.260	38,0 1.496	32,0 1.260	21,3 0.839	200,0 7.874	0,2 0.440	22
GL40-PNR-26032-22AHDJET	03007263	40,0 1.575	46,0 1.811	32,0 1.260	25,3 0.996	200,0 7.874	0,2 0.440	22
GL40-PNL-26032-22AHDJET	03007468	40,0 1.575	46,0 1.811	32,0 1.260	25,3 0.996	200,0 7.874	0,3 0.660	22
GL50-PNR-31032-22AHDJET	03007266	50,0 1.969	56,0 2.205	32,0 1.260	30,3 1.193	200,0 7.874	0,4 0.880	22
GL50-PNL-31032-22AHDJET	03007267	50,0 1.969	56,0 2.205	32,0 1.260	30,3 1.193	200,0 7.874	0,5 1.100	22
GL40-PNR-27037-27AHDJET	03007260	40,0 1.575	48,0 1.890	37,0 1.457	26,8 1.055	200,0 7.874	0,3 0.660	27
GL50-PNR-32037-27AHDJET	03007259	50,0 1.969	58,0 2.283	37,0 1.457	31,8 1.252	200,0 7.874	0,4 0.880	27

Spare Parts, included in delivery

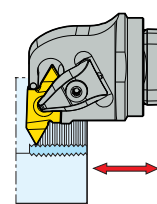
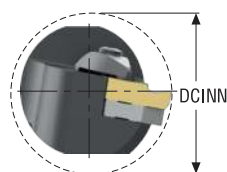
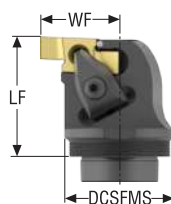
For holders	Insert lever	Insert shim (S)	Lever screw	Locking key	Shim pin
					
..16..	PP3712	GXA16-1	LS0612-T15P	T15P-2	AC4625
..22A..	PP4816	NXA22-1	LS0815-T25P	T25P-7	AC5035
..27A..	PP6019	VXA27-1	LS0820-T25P	T25P-7	AC6050

Accessories

For holders	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)
												
..16..	MXA16-1	GXA16-0	–	–	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98	–	–	–
..22A..	MXA22-1	NXA22-0	NXA22-98	NXA22-97.5	NXA22-0.5	NXA22-1.5	NXA22-2	NXA22-3	NXA22-4	NXA22-99.5	NXA22-99	NXA22-98.5
..27A..	MXA27-1	VXA27-0	VXA27-98	–	VXA27-0.5	VXA27-1.5	VXA27-2	VXA27-3	VXA27-4	VXA27-99.5	VXA27-99	VXA27-98.5

Steadyline®, GL-heads

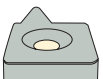
For K-inserts, Snap-Tap®



- Right-hand version shown
- For inserts program, see page(s)123, 124, 125, 126, 156, 158, 160
- CP * Max coolant pressure

Designation	Item number	DCSFMS	DCINN	LF	WF	CP	Weight	CTWS
		mm Inch	mm Inch	mm Inch	mm Inch	bar psi	kg lbs	
GL50-CNR-36055-26AHD	03051391	50,0 1.969	65,0 2.559	55,0 2.165	36,0 1.417	200,0 7.874	0,6 1.320	26 NR..

Spare Parts, included in delivery

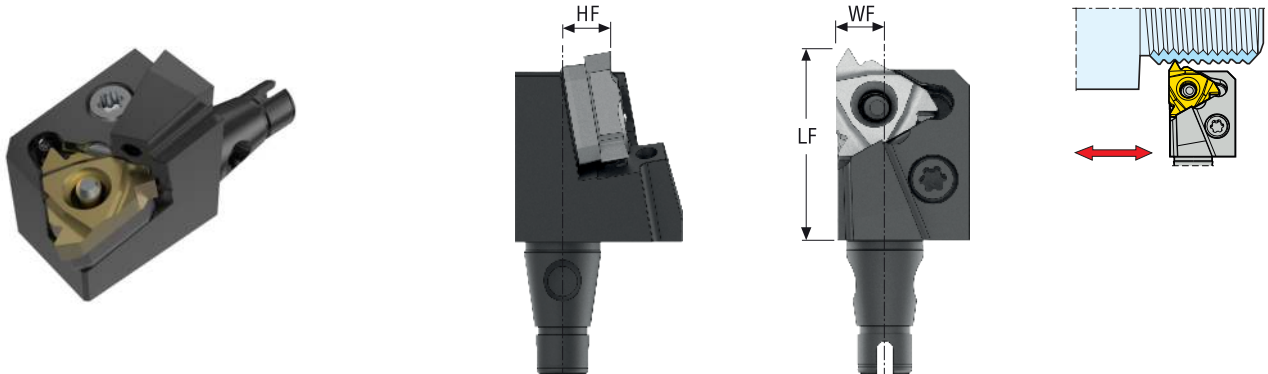
For holders	Cantilever clamp	Clamp screw	Insert shim (K)	Key, clamp	Shim screw	Spring
						
GL50...	CHD27	L86025-T20P	KX26-2	T20P-2D	C05012-T15P	S7616

Accessories

For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
								
GL50...	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	KX26-2	T15P-2

Quick Change, Jetstream Tooling® QC-heads – External

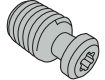
For S-inserts, Snap-Tap®



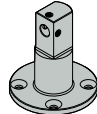
- Right-hand version shown
- CP * Max coolant pressure
- For Technical Guide, see catalog Turning
- For inserts program, see page(s) 123, 125, 127, 128, 133, 134, 139, 141, 143, 144, 147, 149, 151, 153, 155, 157, 159, 161, 167

Designation	Item number	HF	LF	WF	CP	Weight	CTWS
		mm Inch	mm Inch	mm Inch	bar psi	kg lbs	
QC12-PER-16HDJET	03280772	5,975 0.235	25,0 0.984	6,0 0.236	200,0 7.874	0,1 0.220	16
QC12-PEL-16HDJET	03280773	5,975 0.235	25,0 0.984	6,0 0.236	200,0 7.874	0,1 0.220	16
QC16-PER-16HDJET	03280774	7,9 0.311	25,0 0.984	8,0 0.315	200,0 7.874	0,1 0.220	16
QC16-PEL-16HDJET	03280775	7,9 0.311	25,0 0.984	8,0 0.315	200,0 7.874	0,1 0.220	16

Spare Parts, included in delivery

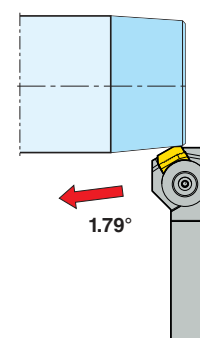
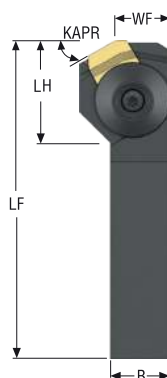
For holders	Insert lever	Insert shim (S)	Lever key	Lever screw	Shim pin
					
...16	PP3712	GXA16-1	T15P-2	LS0612-T15P	AC4625

Accessories

For holders	Insert clamping torque	Insert shim (M)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Insert shim (S)	Mounting fixture	Torque key
											
...16	3.0NM	MXA16-1	GXA16-0	GXA16-2	GXA16-3	GXA16-4	GXA16-99	GXA16-98		SECO-MF7075-QC	T00-15P30

Toolholder for peeling

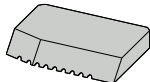
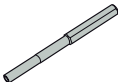
Metric



—Right-hand version shown
—For inserts program, see page(s) 122

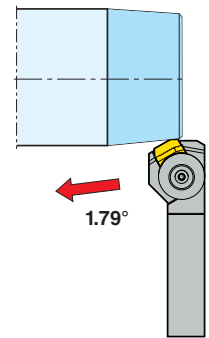
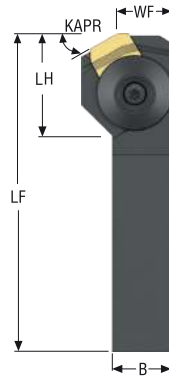
Designation	Item number	KAPR°	H	B	LF	HF	WF	LH	Weight	CTWS
			mm	mm	mm	mm	mm	mm	kg	
CSXCR3232P25-R30	03120990	30	32,0	32,0	170,0	32,0	29,53	64,61	0,5	SCNN-R30

Spare Parts, included in delivery

For holders	Anvil screw	Chipbreaker	Insert screw	Key	Key (T-handle)	Plug	Shim
							
CSXCR...	CA4012	PS2518	W400820-T30P	H6B-T30PL	DOUBLE-T	JET-P1/8-5MM	SSN250630

Toolholder for peeling

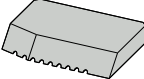
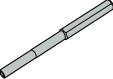
Inch



—Right-hand version shown
—For inserts program, see page(s) 122

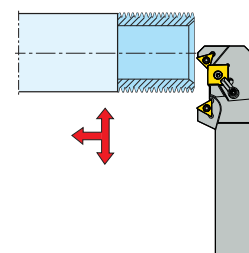
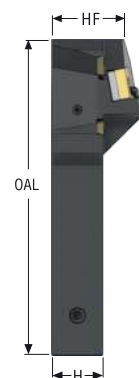
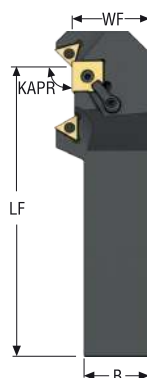
Designation	Item number	KAPR°	H	B	LF	HF	WF	LH	Weight	CTWS
			Inch	Inch	Inch	Inch	Inch	Inch	lbs	
CSXCR20-8D-R30	03120991	30	1.250	1.250	6.693	1.250	1.163	2.545	3.3	SCNN-R30

Spare Parts, included in delivery

For holders	Anvil screw	Chipbreaker	Insert screw	Key	Key (T-handle)	Plug	Shim
							
CSXCR...	CA4012	PS2518	W400820-T30P	H6B-T30PL	DOUBLE-T	JET-P1/8-5MM	SSN250630

Toolholder for pipe-facing

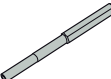
Metric



—Right-hand version shown
—For inserts program, see catalog Turning

Designation	Item number	KAPR°	H	B	LF	OAL	HF	WF	Weight	CTWS	
			mm	mm	mm	mm	mm	mm	kg		
MSGNR3240R19-TC-45-60	03120992	90	32,0	40,0	174,0	195,6	32,0	47,0	0,7	SN...1906... TCMT16T3...	SN...1906... TCMT16T3...

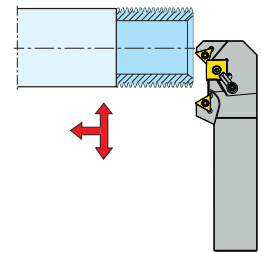
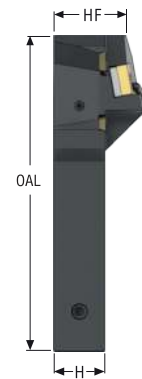
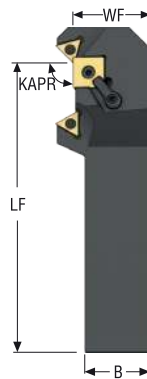
Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp screw	Insert key	Insert screw	Insert shim	Key	Key (T-handle)	Plug	Shim pin
									
MSGNR...	MC22	LD6024-T20P	H4B-T15P	C03508-T15P	SSN190412	H6B-T20P	DOUBLE-T	JET-P1/8-5MM	MN1920-T20P

Accessories

For holders	Insert clamping torque
	
MSGNR...	3.0NM

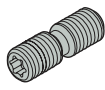
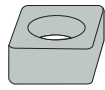
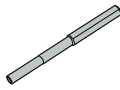
Toolholder for pipe-facing Inch



—Right-hand version shown
—For inserts program, see catalog Turning

Designation	Item number	KAPR°	H	B	LF	OAL	HF	WF	Weight	CTWS	
			Inch	Inch	Inch	Inch	Inch	Inch	lbs		
MSGNR-125-6-TC-45-60	03120993	90	1.250	1.500	6.850	7.701	1.260	1.850	5.1	SN...1906... TCMT16T3...	SN...1906... TCMT16T3...

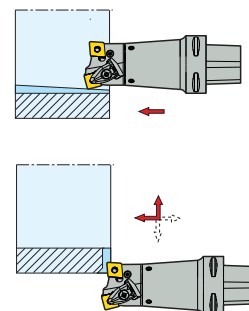
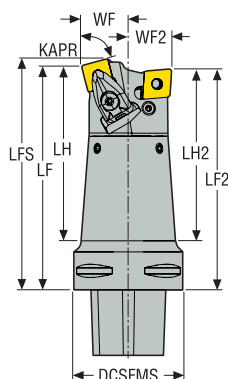
Spare Parts, included in delivery

For holders	Cantilever clamp	Clamp screw	Insert key	Insert screw	Insert shim	Key	Key (T-handle)	Plug	Shim pin
									
MSGNR...	MC22	LD6024-T20P	H4B-T15P	C03508-T15P	SSN190412	H6B-T20P	DOUBLE-T	JET-P1/8-5MM	MN1920-T20P

Accessories

For holders	Insert clamping torque
	
MSGNR...	3.0NM

Seco-Capto™, Multi insert pocket tools, internal Toolholders for inserts SNMA, SNMG, SNMM / CNMA, CNMG, CNMM



- Right-hand version shown
- GAMO -5° = Rake angle
- LAMS -10° = Inclination angle
- KAPR = 75°
- C-DSKNR/L - CLNR/L 75°
- For inserts program, see catalog Turning

Designation	Item number	Seco-Capto size	DCSFMS	LF	LF2	LFS	LH	LH2	WF	WF2	Weight	CTWS	
			mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	kg lbs		
C6-DSKNR2713015-PCLNL2512816	03031406	C6	63,0 2.480	130,0 5.118	128,0 5.039	134,0 5.276	101,5 3.996	99,5 3.917	27,0 1.063	25,0 0.984	0,9 1.980		
C6-DSKNL2713015-PCLNR2512816C	03032390	C6	63,0 2.480	130,0 5.118	128,0 5.039	134,0 5.276	101,5 3.996	99,5 3.917	27,0 1.063	25,0 0.984	2,3 5.070		

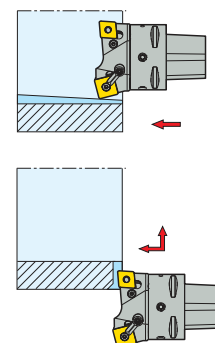
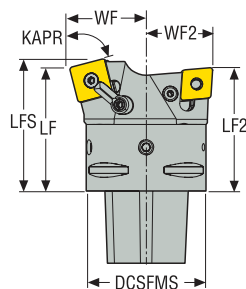
Spare Parts, included in delivery

For holders	Clamp	Clamp pin	Clamp screw	Insert shim	Lever pin	Lever screw	Plug	Shim pin	Shim screw	Spring
										
C6	CD16-S	FP2012	L86026-T20P	PCN160412	PP6017	LS0820	P6SS6X5G	RP8286	C05010-T20P	S7010

Accessories

For holders	Clamp kit	Key	Lever key
			
C6	CD16-S16	T20P-7L	3SMS795

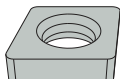
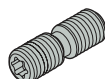
Seco-Capto™, Multi insert pocket tools, internal



- Right-hand version shown
- GAMO -5° = Rake angle
- LAMS -10° = Inclination angle
- KAPR = 75°
- C-DSKNR/L - CLNR/L 75°
- For inserts program, see catalog Turning

Designation	Item number	Seco-Capto size	DCSFMS	LF	LF2	LFS	WF	WF2	Weight	CTWS	
			mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			
C6-MSKNR4006519-PCLNL3506516	03032391	C6	63,0 2.480	65,0 2.559	65,0 2.559	69,8 2.748	40,0 1.575	35,0 1.378	0,7 1.540	SN1906-CN1606/ SN..64-CN..54	
C6-MSKNL4006519-PCLNR3506516C	03032405	C6	63,0 2.480	65,0 2.559	65,0 2.559	69,8 2.748	40,0 1.575	35,0 1.378	1,5 3.310	SN1906-CN1606/ SN..64-CN..54	
C8-MSKNR4508019-PCLNL4508016	03032403	C8	80,0 3.150	80,0 3.150	80,0 3.150	85,0 3.346	45,0 1.772	45,0 1.772	3,3 7.280	SN1906-CN1606/ SN..64-CN..54	
C8-MSKNL4508019-PCLNR4508016C	03031407	C8	80,0 3.150	80,0 3.150	80,0 3.150	85,0 3.346	45,0 1.772	45,0 1.772	3,1 6.830	SN1906-CN1606/ SN..64-CN..54	

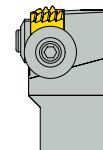
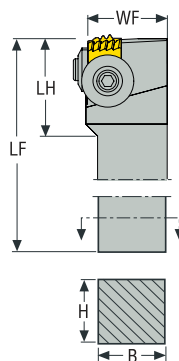
Spare Parts, included in delivery

For holders	Clamp	Coolant nozzle	Insert shim	Lever pin	Lever screw	Pin	Plug	Screw	Shim pin
									
C6/C8	MC22	CN6	SSN190412	PP6017	LS0820	MN1920-T20P	P6SS6X5G	LD6024-T20P	RP8286

Accessories

For holders	Key	Lever key
		
C6/C8	T20P-7L	3SMS795

Toolholders for chasers, External Snap-Tap®



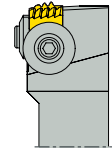
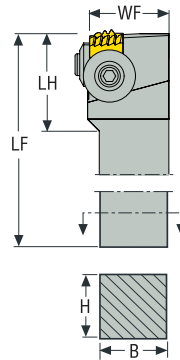
—Right-hand version shown
—For inserts program, see page(s) 168

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	kg	
CER3232P1-X	03048363	32,0	32,0	170,24	37,25	47,54	1,4	15.875
CER3232P5-X	03048364	32,0	32,0	170,24	37,25	47,54	1,4	25.000

Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Key, side clamp	Key, top clamp
				
CER	W200613-T20P	W240618-T25P	T20P-7	T25P-7

Toolholders for chasers, External Snap-Tap®



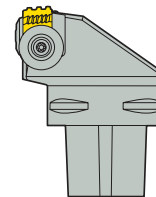
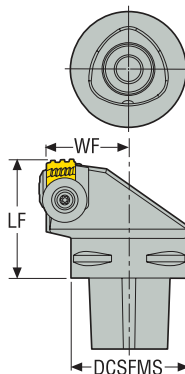
—Right-hand version shown
—For inserts program, see page(s) 168

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	lbs	
CER1256-1-X	03048365	1.250	1.250	6.702	1.467	1.872	3.3	15.875
CER1256-5-X	03048366	1.250	1.250	6.702	1.467	1.872	3.3	25.000

Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Key, side clamp	Key, top clamp
				
CER	W200613-T20P	W240618-T25P	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, external Snap-Tap®



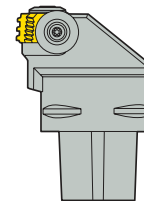
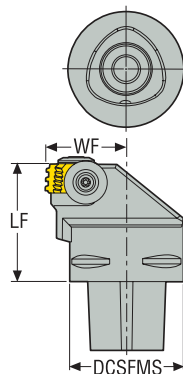
—Right-hand version shown
—For inserts program, see page(s) 168

Designation	Item number	LF	WF	DCSFMS	Weight	CTWS
		mm	mm	mm	kg	
C6-CER-45065-1-X	02995827	65,0	45,0	63,0	1,4	15.875
C6-CER-45065-5-X	02995828	65,0	45,0	63,0	1,4	25.000
C8-CER-55080-1-X	02995821	80,0	55,0	80,0	2,7	15.875
C8-CER-55080-5-X	02995822	80,0	55,0	80,0	2,8	25.000

Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Key, side clamp	Key, top clamp
				
C6/C8-X	W200613-T20P	W240618-T25P	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, internal Snap-Tap®



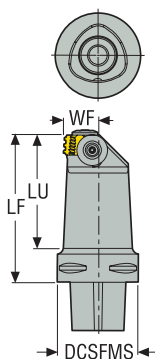
—Right-hand version shown
—For inserts program, see page(s) 168

Designation	Item number	LF	WF	DCSFMS	Weight	CTWS
		mm	mm	mm	kg	
C6-CNR-45065-1-X	02995829	65,0	45,0	63,0	1,5	15.875
C6-CNR-45065-5-X	02995831	65,0	45,0	63,0	1,5	25.000
C8-CNR-55080-1-X	02995823	80,0	55,0	80,0	2,9	15.875
C8-CNR-55080-5-X	02995825	80,0	55,0	80,0	3,0	25.000
C8-CNL-55080-1-X	03118011	80,0	55,0	80,0	1,9	15.875
C8-CNL-55080-5-X	03118015	80,0	55,0	80,0	1,7	25.000

Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Coolant nozzle	Key, side clamp	Key, top clamp
					
...CNL...	W200613-T20P	W240618-T25P	—	T20P-7	T25P-7
...CNR...	W200613-T20P	W240618-T25P	CN6	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, internal Snap-Tap®



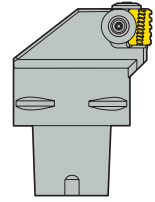
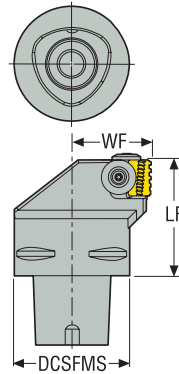
—Right-hand version shown
—For inserts program, see page(s) 168

Designation	Item number	LF	LU	WF	DCSFMS	Weight	CTWS
		mm	mm	mm	mm	kg	
C6-CNR-27115-1-X	03003765	115,0	88,0	27,0	63,0	1,9	15.875
C6-CNR-27115-5-X	03010914	115,0	88,0	27,0	63,0	1,9	25.000

Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Coolant nozzle	Key, side clamp	Key, top clamp
					
C6...	W200613-T20P	W240618-T25P	CN6	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, internal Snap-Tap®



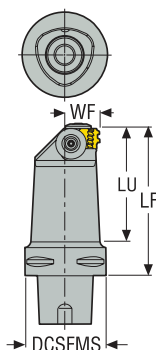
—Left-hand version shown
—For inserts program, see page(s) 168

Designation	Item number	LF	WF	DCSFMS	Weight	CTWS
		mm	mm	mm	kg	
C6-CNL-45065-1C-X	02995830	65,0	45,0	63,0	1,4	15.875
C6-CNL-45065-5C-X	02995832	65,0	45,0	63,0	1,3	25.000
C8-CNL-55080-1C-X	02995824	80,0	55,0	80,0	2,9	15.875
C8-CNL-55080-5C-X	02995826	80,0	55,0	80,0	0,7	25.000

Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Coolant nozzle	Key, side clamp	Key, top clamp
					
C6/C8...	W200613-T20P	W240618-T25P	CN6	T20P-7	T25P-7

Seco-Capto™ – Toolholders for chasers, internal Snap-Tap®



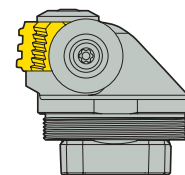
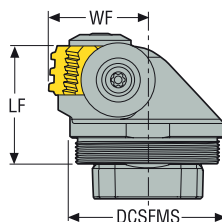
—Left-hand version shown
—For inserts program, see page(s) 168

Designation	Item number	LF	LU	WF	DCSFMS	Weight	CTWS
		mm	mm	mm	mm	kg	
C6-CNL-27115-1C-X	03003766	115,0	88,0	27,0	63,0	2,0	15.875
C6-CNL-27115-5C-X	03010915	115,0	88,0	27,0	63,0	1,9	25.000

Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Coolant nozzle	Key, side clamp	Key, top clamp
					
C6...	W200613-T20P	W240618-T25P	CN6	T20P-7	T25P-7

Steadyline®, GL-heads – Toolholders for chasers, internal Snap-Tap®



—Right-hand version shown
—For inserts program, see page(s) 168

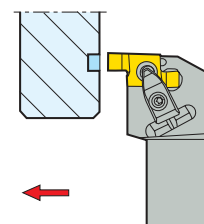
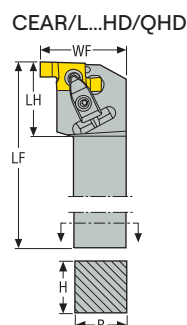
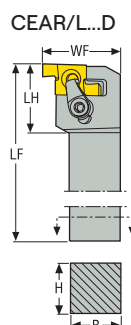
Designation	Item number	LF	WF	DCSFMS	Weight	CP	CTWS
		mm	mm	mm	kg	bar	
GL50-CNR-32035-9-I	03011855	35,0	32,0	50,0	0,4	200,0	12.700
GL50-CNR-32038-1-X	03008525	38,0	32,0	50,0	0,5	200,0	15.875
GL50-CNR-32044-5-X	03008552	44,0	32,0	50,0	0,5	200,0	25.000
GL50-CNL-32035-9-I	03011856	35,0	32,0	50,0	0,5	200,0	12.700
GL50-CNL-32038-1-X	03008526	38,0	32,0	50,0	0,5	200,0	15.875
GL50-CNL-32044-5-X	03008553	44,0	32,0	50,0	0,4	200,0	25.000

Spare Parts, included in delivery

For holders	Clamp kit side	Clamp kit top	Key, clamp	Key, side clamp	Key, top clamp
					
...1-X, ...5-X	W200613-T20P	W240618-T25P	—	T20P-2D	T25P-7
...9-1	—	W200613-T20P	T20P-2D	—	—

Toolholders for Precision Axial Grooves

Snap-Tap®



—Right-hand version shown

—For inserts program and INPLM, see catalog Turning

Designation	Item number	H	B	LF	WF 10../14../20..	WF2 12	LH 10../14..	INPLM 10../14../20..	INPLM2 12..	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CEAR2525M10D	02411447	25,0	25,0	150,0	35,35	38,35	22,0	16,0	18,0	0,8	10../12..
CEAL2525M10D	02411448	25,0	25,0	150,0	35,35	38,35	22,0	16,0	18,0	0,8	10../12..
CEAR2525M14HD	02627517	25,0	25,0	150,0	36,85	—	31,0	22,0	—	0,8	14..
CEAL2525M14HD	02627516	25,0	25,0	150,0	36,85	—	31,0	22,0	—	0,9	14..
CEAR2525M20QHD	02528518	25,0	25,0	150,0	39,35	—	35,0	28,0	—	0,9	20..
CEAL2525M20QHD	02528519	25,0	25,0	150,0	39,35	—	35,0	28,0	—	0,9	20..

Spare Parts, included in delivery

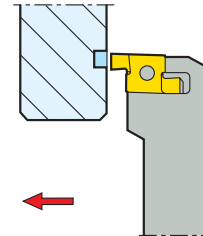
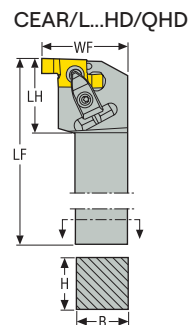
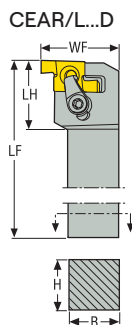
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (KL)	Insert shim (KR)	Shim screw	Spring
								
CEAR..10	—	T15P-2	CSP16-T15P	—	—	AKR10	CS2507-T07P	—
CEAL..10	—	T15P-2	CSP16-T15P	—	AKL10	—	CS2507-T07P	—
CEAR..14	CHD16	T15P-2	—	L85020-T15P	—	AKR14	CS3507-T09P	S6912
CEAL..14	CHD16	T15P-2	—	L85020-T15P	AKL14	—	CS3507-T09P	S6912
CEAR..20	CHD22	T20P-7	—	L86025-T20P	—	AKR20	CS4009-T15P	S7616
CEAL..20	CHD22	T20P-7	—	L86025-T20P	AKL20	—	CS4009-T15P	S7616

Accessories

For holders	Insert shim (K)	Shim key
		
CEAR..10	KX12-2	T07P-2
CEAL..10	KX12-2	T07P-2
CEAR..14	—	T09P-2
CEAL..14	—	T09P-2
CEAR..20	—	T15P-2
CEAL..20	—	T15P-2

Shim KX12-2 for insert 12..

Toolholders for Precision Axial Grooves Snap-Tap®



—For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	lbs	
CEAR1006-10	00072625	1.000	1.000	6.000	1.392	1.110	2.0	10/12EAR
CEAL1006-10	00072613	1.000	1.000	6.000	1.392	1.110	2.0	10/12EAL
CEAR1006-14	00072623	1.000	1.000	6.000	1.451	1.110	2.2	14EAR

Spare Parts, included in delivery

For size	Clamp key	Clamp kit	Insert shim	Insert shim (KL)	Insert shim (KR)	Shim key	Shim screw
							
CEAL...-10	T15P-2	CSP16-T15P	—	AKL10	—	—	CS2507-T07P
CEAR...-10	T15P-2	CSP16-T15P	—	—	AKR10	—	CS2507-T07P
CEAR...-14	T15P-2	CSP16-T15P	AKR14	—	—	T09P-2	CS3507-T09P

Accessories

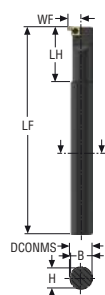
For size	Insert shim (K)	Shim key
		
CEAL...-10	KX12-2	T07P-2
CEAR...-10	—	T07P-2
CEAR...-14	—	—

Toolholders for Precision Grooves

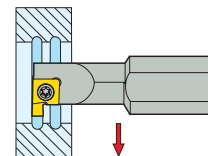
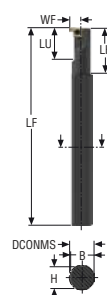
Snap-Tap®



SNR/L..H09



SNR/L



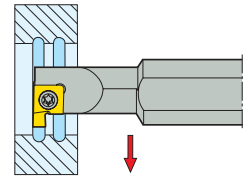
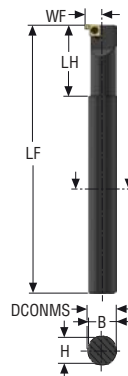
- Right-hand version shown
- DCINN – minimum bore diameter
- For inserts program, see catalog Turning

Designation	Item number	H	B	LF	LU	WF	LH	DMM	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
SNR0010H9	75025330	9,5	9,5	100,0	–	7,5	20,0	10,0	14,0	0,1	9..
SNR0010K9	75025332	15,5	15,5	125,0	23,0	6,5	25,0	16,0	14,0	0,2	9..
SNR0013L9	75025334	15,5	15,5	140,0	30,0	8,0	32,0	16,0	17,0	0,2	9..
SNR0016M9	75025336	15,5	15,5	150,0	38,0	9,5	40,0	16,0	20,0	0,3	9..
SNL0010H9	75025331	9,5	9,5	100,0	–	7,5	20,0	10,0	14,0	0,1	9..
SNL0010K9	75025333	15,5	15,5	125,0	23,0	6,5	25,0	16,0	14,0	0,2	9..
SNL0013L9	75025335	15,5	15,5	140,0	30,0	8,0	32,0	16,0	17,0	0,2	9..
SNL0016M9	75025337	15,5	15,5	150,0	38,0	9,5	40,0	16,0	20,0	0,3	9..

Spare Parts, included in delivery

For holders	Insert key	Insert screw
		
..9	T07P-2	C02506-T07P

Toolholders for Precision Grooves Snap-Tap®



—Right-hand version shown
—For inserts program, see catalog Turning

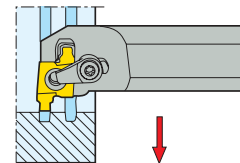
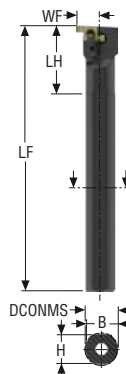
Designation	Item number	H	B	LF	WF	LH	DMM	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	lbs	
SNR000375-50-9	00072560	0.625	0.654	5.000	0.266	1.000	0.375	0.4	9..
SNR00050-55-9	00072586	0.441	0.470	5.500	0.319	1.250	0.500	0.4	9..
SNR000625-60-9	00072588	0.566	0.587	6.000	0.378	1.500	0.625	0.7	9..
SNL00037540-9	00072552	0.336	0.350	4.000	0.299	—	0.375	0.2	9..
SNL00037550-9	00072595	0.336	0.350	5.000	0.259	1.000	0.375	0.4	9..
SNR000375-60-9H	00072562	0.441	0.350	6.000	0.299	—	0.375	0.4	9..

Spare Parts, included in delivery

For size	Insert key	Insert screw
		
...9	T07P-2	C02506-T07P

Toolholders for Precision Grooves

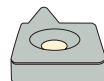
Snap-Tap®



- Right-hand version shown
- DCINN - minimum bore diameter
- WF (10../14../20../26..) = WF2 (12..)
- For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	WF2	LH	DMM	DCINN	DCINN2	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
CNR0020P10DA	02411454	18,0	19,0	170,0	13,5	16,5	26,0	20,0	26,0	29,0	0,4	10../12..
CNR0025R10DA	02411459	23,0	24,0	200,0	16,0	19,0	28,0	25,0	31,0	34,0	0,6	10../12..
CNR0032S10DA	02411467	30,0	31,0	250,0	19,5	22,5	31,0	32,0	38,0	41,0	1,4	10../12..
CNL0020P10DA	02411456	18,0	19,0	170,0	13,5	16,5	26,0	20,0	26,0	29,0	0,4	10../12..
CNL0025R10DA	02411464	23,0	24,0	200,0	16,0	19,0	28,0	25,0	31,0	34,0	0,6	10../12..
CNL0032S10DA	02411468	30,0	31,0	250,0	19,5	22,5	31,0	32,0	38,0	41,0	1,4	10../12..
CNR0020P14A	00040041	18,0	19,0	170,0	15,0	—	32,0	20,0	30,0	—	0,4	14..
CNR0025R14A	00040042	23,0	24,0	200,0	17,5	—	45,0	25,0	34,0	—	0,7	14..
CNR0032S14A	00040043	30,0	31,0	250,0	21,0	—	48,0	32,0	40,0	—	1,4	14..
CNR0040T14A	00040044	37,0	38,5	300,0	25,0	—	50,0	40,0	48,0	—	2,6	14..
CNL0020P14A	00040045	18,0	19,0	170,0	15,0	—	32,0	20,0	30,0	—	0,4	14..
CNL0025R14A	00040046	23,0	24,0	200,0	17,5	—	45,0	25,0	34,0	—	0,7	14..
CNL0032S14A	00040047	30,0	31,0	250,0	21,0	—	48,0	32,0	40,0	—	1,4	14..

Spare Parts, included in delivery

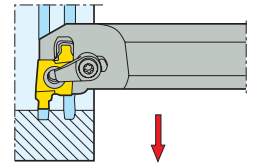
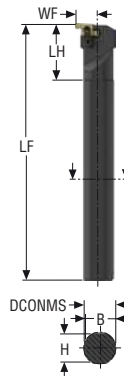
For holders	Clamp key	Clamp kit	Insert shim (K)	Shim screw
				
..10	T15P-2	CSP16-T15P	KX10-2	CS2507-T07P
..14	T15P-2	CSP16-T15P	KX14-2	CS3507-T09P

Accessories

For holders	Insert shim (K)	Shim key
		
..10	KX12-2	T07P-2
..14	—	T09P-2

Shim KX12-2 for insert 12..

Toolholders for Precision Grooves Snap-Tap®



—Right-hand version shown
—For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	LH	DMM	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	lbs	
CNR000757-10	00072573	0.691	0.707	7.000	0.490	1.480	0.750	0.9	10../12..
CNL000757-10	00072624	0.650	0.707	7.000	0.490	1.480	0.750	0.9	10../12..
CNR001008-10	00072569	0.921	0.957	8.000	0.618	2.500	1.000	1.8	10../12..
CNL001008-10	00072610	0.902	0.957	8.000	0.620	1.559	1.000	1.8	10../12..
CNR0012510-10	00072563	1.150	1.209	10.000	0.750	1.772	1.250	3.3	10../12..
CNR0015012-10	00072592	1.339	1.427	12.008	0.858	1.772	1.500	0.4	10../12..
CNR00075010-10-H	00072583	0.691	0.730	10.000	0.490	1.480	0.750	2.2	10../12..
CNR000757-14	00072571	0.691	0.707	7.000	0.570	1.693	0.750	0.9	14..
CNR001008-14	00072567	0.921	0.957	8.000	0.700	1.732	1.000	1.8	14..
CNL001008-14	00072582	1.000	0.961	8.000	0.704	—	1.000	1.8	14..
CNR0012510-14	00072561	1.150	1.209	10.000	0.831	1.969	1.250	3.3	—

Spare Parts, included in delivery

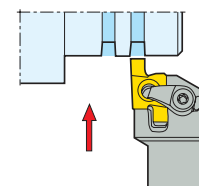
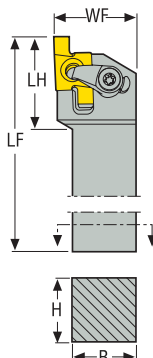
For size	Clamp key	Clamp kit	Insert shim (K)	Shim screw
				
...-10	T15P-2	CSP16-T15P	KX10-2	CS2507-T07P
...-10-10-H	T15P-2	CSP16-T15P	KX10-2	CS2507-T07P
...-14	T15P-2	CSP16-T15P	KX14-2	CS3507-T09P

Accessories

For size	Insert shim (K)	Shim key
		
...-10	KX12-2	T07P-2
...-10-10-H	—	T07P-2
...-14	—	—

Toolholders for Precision Grooves

Snap-Tap



—Right-hand version shown
—For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	lbs	
CER0504-10Q	00072566	0.500	0.500	4.000	0.625	0.900	0.4	10../12..
CER0755-10Q	00072564	0.750	0.750	5.000	1.000	0.900	0.9	10../12..
CEL0755-10Q	00072559	0.750	0.750	5.000	1.000	0.900	1.1	10../12..
CER1006-10Q	00072600	1.000	1.000	6.000	1.250	0.900	1.8	10../12..
CEL1006-10Q	00072596	1.000	1.000	6.000	1.250	0.900	1.8	10../12..
CER1006-14Q	00072634	1.000	1.000	6.000	1.250	1.100	1.8	14..
CEL1006-14Q	00072628	1.000	1.000	6.000	1.250	1.100	2.0	14..

Spare Parts, included in delivery

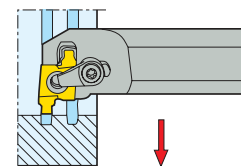
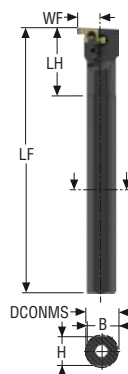
For size	Clamp key	Clamp kit	Insert shim (K)	Shim screw
				
..-10	T15P-2	CSP16-T15P	KX10-2	CS2507-T07P
..-14	T15P-2	CSP16-T15P	KX14-2	CS3507-T09P

Accessories

For size	Insert shim (K)	Shim key
		
..-10	KX12-2	T07P-2
..-14	-	T09P-2

Toolholders for Precision Grooves

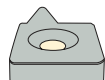
Snap-Tap®



- Right-hand version shown
- DCINN - minimum bore diameter
- WF (10../14../20../26..) = WF2 (12..)
- For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	LH	DMM	DCINN	DCINN2	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	lbs	
CNR001008-20AHD	02562823	0.902	0.957	7.992	0.705	1.969	1.000	1.400	—	1.8	20..
CNL001008-20AHD	02562826	1.268	1.268	7.992	0.705	1.969	1.250	1.400	—	1.5	20..
CNR0012510-20AHD	02562824	1.150	1.209	10.000	0.945	2.165	1.250	1.700	1.400	3.3	20..
CNL0012510-20AHD	02562827	1.268	1.268	10.000	0.945	2.165	1.250	1.700	1.400	2.9	20..
CNR0015012-20AHD	02562825	1.268	1.268	12.008	1.063	2.165	1.250	2.000	1.600	5.5	20..
CNL0015012-20AHD	02562828	1.339	1.427	12.008	1.063	2.165	1.500	2.000	1.600	5.1	20..
CNR0012510-26AHD	02562830	1.150	1.209	10.000	1.063	2.323	1.250	2.000	1.600	2.9	26..
CNL0012510-26AHD	02564043	1.268	1.268	10.000	1.063	2.323	1.250	2.000	1.600	3.1	26..
CNR0015012-26AHD	02562831	1.339	1.427	12.008	1.183	2.323	1.500	2.100	2.100	5.1	26..
CNL0015012-26AHD	02563555	1.268	1.268	12.008	1.177	2.323	1.250	2.100	2.100	4.9	26..
CNR0017514-26AHD	02562832	1.591	1.677	13.976	1.307	2.283	1.750	2.300	1.800	8.2	26..
CNL0017514-26AHD	02563563	1.268	1.268	13.976	1.307	2.283	1.250	2.300	1.800	8.4	26..
CNR0020014-26AHD	02562833	1.268	1.268	13.976	1.433	2.283	1.250	2.500	2.000	11.5	26..
CNR0025016-26AHD	02562834	2.343	2.429	15.984	1.683	2.283	2.500	3.000	2.500	20.7	26..
CNL0025016-26AHD	02563564	1.268	1.268	15.984	1.683	2.283	1.250	3.000	2.500	20.7	26..

Spare Parts, included in delivery

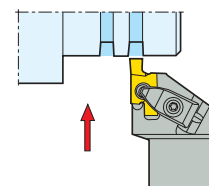
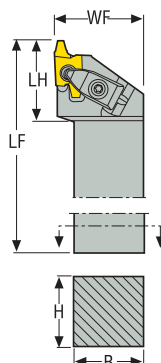
For holders	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Plug screw	Shim screw	Spring
							
..-20	CHD22	T20P-7	L86025-T20P	KX20-2	P6SS4X4G	CS4009-T15P	S7616
..-26	CHD27	T20P-7	L86025-T20P	KX26-2	P6SS4X4G	C05012-T15P	S7616

Accessories

For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
..-20	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..-26	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

Toolholders for Precision Grooves

Snap-Tap



—Right-hand version shown
—For inserts program, see catalog Turning

Designation	Item number	H	B	LF	WF	LH	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	lbs	
CER1006-20QHD	02529045	1.000	1.000	6.000	1.250	1.300	1.8	20..
CEL1006-20QHD	02529053	1.000	1.000	6.000	1.250	1.300	1.8	20..
CER1256-20QHD	02529057	1.250	1.250	6.000	1.500	1.417	2.7	20..
CEL1256-20QHD	02529061	1.250	1.250	6.000	1.500	1.300	2.9	20..
CER1006-26QHD	02529063	1.000	1.000	6.000	1.250	1.800	2.0	26..
CEL1006-26QHD	02529064	1.000	1.000	6.000	1.250	1.800	2.2	26..
CER1256-26QHD	02529066	1.250	1.250	6.000	1.500	1.800	2.9	26..
CER1506-26QHD	02529069	1.500	1.500	6.000	1.750	1.800	4.0	26..

Spare Parts, included in delivery

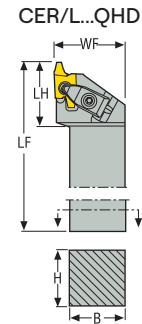
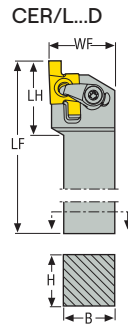
For size	Cantilever clamp	Clamp key	Clamp screw	Insert shim (K)	Shim screw	Spring
						
..-20Q	CHD22	T20P-7	L86025-T20P	KX20-2	CS4009-T15P	S7616
..-26Q	CHD27	T20P-7	L86025-T20P	KX26-2	C05012-T15P	S7616

Accessories

For size	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
..-20Q	KX20-99	KX20-0	KX20-1	KX20-3	KX20-4	KX20-5	T15P-2
..-26Q	KX26-99	KX26-0	KX26-1	KX26-3	KX26-4	KX26-5	T15P-2

Toolholders for Precision Grooves

Snap-Tap®

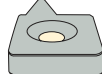


—Right-hand version shown

—For inserts program, see catalog Turning

Designation	Item number	H	B	LF 10../14..	LF2 12	WF	LH 10../14..	LH2 12	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
CER1212M10D	02435850	12,0	12,0	150,0	153,0	16,0	21,5	24,5	0,2	10../12..
CER1616H10D	02411427	16,0	16,0	100,0	103,0	16,0	21,5	24,5	0,3	10../12..
CER2020K10D	02411428	20,0	20,0	125,0	128,0	25,0	21,5	24,5	0,4	10../12..
CER2525M10D	02411430	25,0	25,0	150,0	153,0	32,0	21,5	24,5	0,8	10../12..
CER3225P10D	02411432	32,0	25,0	170,0	173,0	32,0	22,5	25,5	1,1	10../12..
CEL1212M10D	02435852	12,0	12,0	150,0	153,0	16,0	21,5	24,5	0,2	10../12..
CEL1616H10D	02411436	16,0	16,0	100,0	103,0	16,0	21,5	24,5	0,3	10../12..
CEL2020K10D	02411437	20,0	20,0	125,0	128,0	25,0	21,5	24,5	0,4	10../12..
CEL2525M10D	02411438	25,0	25,0	150,0	153,0	32,0	21,5	24,5	0,8	10../12..
CEL3225P10D	02411440	32,0	25,0	170,0	173,0	32,0	22,5	25,5	1,1	10../12..
CER2525M14QHD	02538606	25,0	25,0	150,0	—	32,0	26,0	—	0,8	14..
CER3225P14QHD	02627519	32,0	25,0	170,0	—	32,0	26,0	—	1,1	14..
CER3232P14QHD	02627520	32,0	32,0	170,0	—	32,0	26,0	—	1,4	14..
CEL2525M14QHD	02627518	25,0	25,0	150,0	—	32,0	26,0	—	0,8	14..

Spare Parts, included in delivery

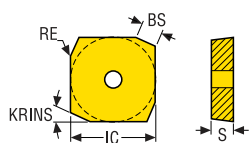
For holders	Cantilever clamp	Clamp key	Clamp kit	Clamp screw	Insert shim (K)	Shim screw	Spring
							
..10	—	T15P-2	CSP16-T15P	—	KX10-2	CS2507-T07P	—
..14	CHD16	T15P-2	—	L85020-T15P	KX14-2	CS3507-T09P	S6912

Accessories

For holders	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Insert shim (K)	Shim key
							
..10	KX12-2	—	—	—	—	—	T07P-2
..14	—	KX14-0	KX14-1	KX14-3	KX14-4	KX14-5	T09P-2

Shim KX12-2 for insert 12..

SCNN for peeling



							Grades
Designation	Note	RE	BS	IC	S	KRINS°	Coated
		mm Inch	mm Inch	mm Inch	mm Inch		TP250T
SCNN250640-R25	*	4,0 0.157	6,2 0.244	25,0 0.984	6,35 0.250	23	■
SCNN250640-R30		4,0 0.157	6,6 0.260	25,0 0.984	6,35 0.250	28	■

* R25 for use in 25 degree pockets only - not the 30 degree - R30

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

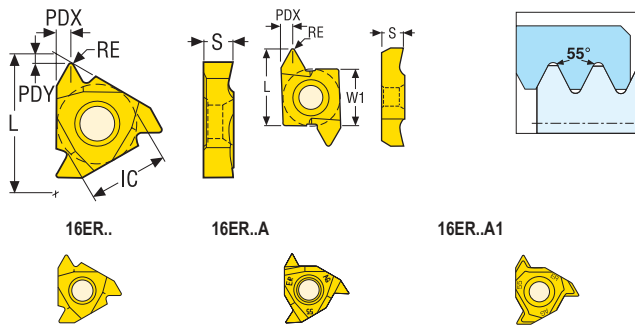
Thread milling

Thread tapping

Annex

Partial Profile 55° – External Threading

Snap-Tap®



										Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI								CP200	CP300	CP500	TTP2050	H15
16ERA55	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERAG55	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137	■		■		■
16ERAG55-A	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERAG55-A1	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERAG55-A2	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERG55	1,75-3	14-8	0,2 0.008	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137	■		■		
16ERG55-A	1,75-3	14-8	0,2 0.008	1,2 0.047	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERG55-A1	1,75-3	14-8	0,2 0.008	1,2 0.047	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERG55-A2	1,75-3	14-8	0,2 0.008	1,2 0.047	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
22ERN55	3,5-5	7-5	0,4 0.016	1,8 0.071	2,5 0.098	12,7 0.500	– –	22,0 0.866	4,71 0.185			■		■
26ERK55	5,5-10	4.5-2.5	0,7 0.028	– –	5,0 0.197	– –	15,875 0.625	26,0 1.024	7,88 0.310		■	■		
26NRK55	5,5-10	4.5-2.5	0,7 0.028	– –	5,0 0.197	– –	15,875 0.625	26,0 1.024	7,88 0.310			■		
16V55	–	–	–	–	–	–	–	–	–			■		

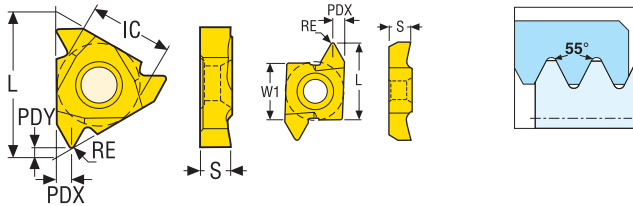
										Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI								CP200	CP300	CP500	TTP2050	H15
16ELA55	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ELAG55	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ELG55	1,75-3	14-8	0,2 0.008	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
22ELN55	3,5-5	7-5	0,4 0.016	1,8 0.071	2,5 0.098	12,7 0.500	– –	22,0 0.866	4,71 0.185			■		

■ Stock standard.

* Toolset contents: 3 pcs 16ERG55, CP500, 3 pcs 16NRG55, CP500, 2 pcs 16ERA55, CP500 and 2 pcs 16NRA55, CP500

Partial Profile 55° – Internal Threading

Snap-Tap®



09NR/11Nx/16Nx/22Nx..

16NR..A

16NR..A1

16NR..A2

26ER/26NR..



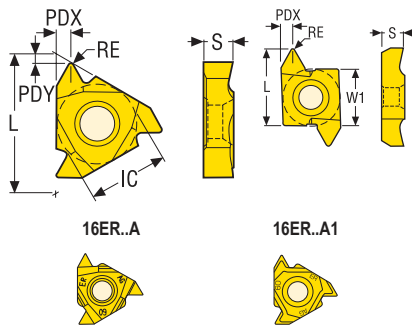
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	Coated				Uncoated
										CP200	CP300	CP500	TTP2050	H15
09NRA55	0,5-1,5	48-16	0,08 0.003	0,7 0.028	0,8 0.031	5,56 0.219	–	9,6 0.378	2,4 0.094			■		
11NRA55	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	6,35 0.250	–	11,0 0.433	3,0 0.118			■		■
16NRA55	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	9,525 0.375	–	16,5 0.650	3,47 0.137			■		■
16NRAG55	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137	■		■		
16NRAG55-A	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NRAG55-A1	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NRAG55-A2	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NRG55	1,75-3	14-8	0,2 0.008	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137	■		■		
16NRG55-A	1,75-3	14-8	0,2 0.008	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NRG55-A1	1,75-3	14-8	0,2 0.008	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NRG55-A2	1,75-3	14-8	0,2 0.008	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
22NRN55	3,5-5	7-5	0,4 0.016	1,8 0.071	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
26ERK55	5,5-10	4.5-2.5	0,7 0.028	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310		■	■		

Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Grades				
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	Coated				Uncoated
										CP200	CP300	CP500	TTP2050	H15
11NLA55	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	6,35 0.250	–	11,0 0.433	3,0 0.118			■		
16NLA55	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NLAG55	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NLG55	1,75-3	14-8	0,2 0.008	1,1 0.043	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
22NLN55	3,5-5	7-5	0,4 0.016	1,8 0.071	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		

■ Stock standard.

Partial Profile 60° – External Threading

Snap-Tap®



										Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI								CP200	CP300	CP500	TTP2050	H15
16ERA60	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	9,525 0.375	– –	16,5 0.650	3,47 0.137	■		■	■	■
16ERA60-A	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	9,525 0.375	– –	16,5 0.650	3,47 0.137			■	■	
16ERA60-A1	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERA60-A2	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERAG60-A	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■	■	
16ERAG60-A1	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERAG60-A2	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERAG60	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137	■		■	■	■
16ERG60	1,75-3	14-8	0,18 0.007	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137	■		■	■	■
16ERG60-A	1,75-3	14-8	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■	■	
16ERG60-A1	1,75-3	14-8	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ERG60-A2	1,75-3	14-8	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
22ERN60	3,5-5	7-5	0,4 0.016	1,8 0.071	2,5 0.098	12,7 0.500	– –	22,0 0.866	4,71 0.185	■	■	■		■
26ERK60	5,5-10	4.5-2.5	0,4 0.016	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310		■	■		
26NRK60	5,5-10	4.5-2.5	0,4 0.016	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310		■	■		
16V60	–	–	–	–	–	–	–	–	–			■		

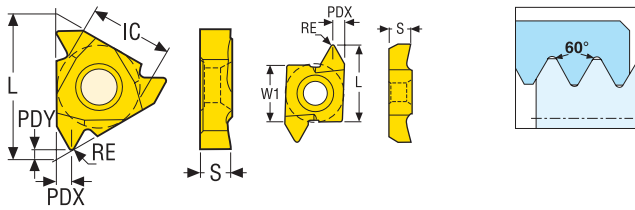
■ Stock standard.

* Toolset contents: 3 pcs 16ERG60, CP500, 3 pcs 16NRG60, CP500, 2 pcs 16ERA60, CP500 and 2 pcs 16NRA60, CP500

										Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI								CP200	CP300	CP500	TTP2050	H15
16ELA60	0,5-1,5	48-16	0,08 0.003	0,6 0.024	0,8 0.031	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ELAG60	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16ELG60	1,75-3	8-14	0,18 0.007	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
22ELN60	3,5-5	5-7	0,4 0.016	1,8 0.071	2,5 0.098	12,7 0.500	– –	22,0 0.866	4,71 0.185			■		

Partial Profile 60° – Internal Threading

Snap-Tap®



11NR/16NR..A

11NR/16NR..A1

11NR/16NR..A2

26ER/26NR

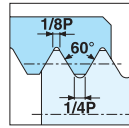
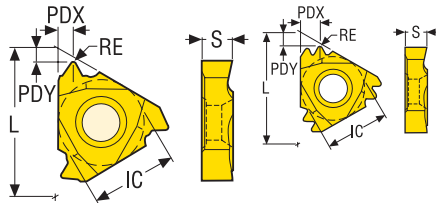


										Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
09NRA60	0,5-1,5	48-16	0,08 0.003	0,7 0.028	0,8 0.031	5,56 0.219	– –	9,6 0.378	2,4 0.094			■		
11NRA60	0,5-1,5	48-16	0,08 0.003	0,7 0.028	0,8 0.031	6,35 0.250	– –	11,0 0.433	3,0 0.118	■		■	■	■
16NRA60	0,5-1,5	48-16	0,08 0.003	0,7 0.028	0,8 0.031	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		■
11NRA60-A	0,5-1,5	48-16	0,08 0.003	0,7 0.028	0,8 0.031	6,35 0.250	– –	11,0 0.433	3,0 0.118			■	■	
11NRA60-A1	0,5-1,5	48-16	0,08 0.003	0,7 0.028	0,8 0.031	6,35 0.250	– –	11,0 0.433	3,0 0.118			■		
11NRA60-A2	0,5-1,5	48-16	0,08 0.003	0,7 0.028	0,8 0.031	6,35 0.250	– –	11,0 0.433	3,0 0.118			■		
16NRAG60	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137	■		■	■	■
16NRAG60-A	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■	■	
16NRAG60-A1	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16NRAG60-A2	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16NRG60	1,75-3	14-8	0,12 0.005	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137	■		■	■	■
16NRG60-A	1,75-3	14-8	0,12 0.005	1,2 0.047	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■	■	
16NRG60-A1	1,75-3	14-8	0,12 0.005	1,2 0.047	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16NRG60-A2	1,75-3	14-8	0,12 0.005	1,2 0.047	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
22NRN60	3,5-5	7-5	0,25 0.010	1,8 0.071	2,5 0.098	12,7 0.500	– –	22,0 0.866	4,71 0.185	■	■	■		■
26NRK60	5,5-10	4.5-2.5	0,4 0.016	– –	5,0 0.197	– –	15,875 0.625	26,0 1.024	7,88 0.310		■	■		
26ERK60	5,5-10	4.5-2.5	0,4 0.016	– –	5,0 0.197	– –	15,875 0.625	26,0 1.024	7,88 0.310		■	■		

										Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
11NLA60	0,5-1,5	48-16	0,08 0.003	0,7 0.028	0,8 0.031	6,35 0.250	– –	11,0 0.433	3,0 0.118			■		
16NLA60	0,5-1,5	48-16	0,08 0.003	0,7 0.028	0,8 0.031	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16NLAG60	0,5-3	48-8	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16NLG60	1,75-3	14-8	0,12 0.005	1,1 0.043	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
22NLN60	3,5-5	7-5	0,25 0.010	1,8 0.071	2,5 0.098	12,7 0.500	– –	22,0 0.866	4,71 0.185			■		

ISO Metric – External Threading

Full profile – Snap-Tap®


ISO965/1 – 1980
3h/4h

16ER/22ER/27ER..M



16ER..A



16ER..A1



16ER..A2



16ER..TT



16Ex/22Ex/27ER



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
16ER0.5ISO	0,5	–	0,06 0.002	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER0.75ISO	0,75	–	0,11 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER0.8ISO	0,8	–	0,11 0.004	0,8 0.031	0,6 0.024	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER1.0ISO	1	–	0,14 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16ER1.25ISO	1,25	–	0,17 0.007	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16ER1.5ISO	1,5	–	0,22 0.009	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16ER1.75ISO	1,75	–	0,25 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16ER2.0ISO	2	–	0,29 0.011	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16ER2.5ISO	2,5	–	0,34 0.013	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16ER3.0ISO	3	–	0,42 0.017	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
22ER3.5ISO	3,5	–	0,47 0.019	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185	■	■	■		■
22ER4.0ISO	4	–	0,53 0.021	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185	■	■	■		■
22ER4.5ISO	4,5	–	0,59 0.023	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		■
22ER5.0ISO	5	–	0,66 0.026	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185	■		■		■
27ER5.5ISO	5,5	–	0,72 0.028	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242			■		
27ER6.0ISO	6	–	0,79 0.031	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242		■	■		
16ER1.0ISO-A	1	–	0,14 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER1.25ISO-A	1,25	–	0,17 0.007	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER1.5ISO-A	1,5	–	0,22 0.009	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER1.75ISO-A	1,75	–	0,25 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER2.0ISO-A	2	–	0,29 0.011	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER2.5ISO-A	2,5	–	0,34 0.013	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER3.0ISO-A	3	–	0,42 0.017	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER1.0ISO-A1	1	–	0,14 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER1.25ISO-A1	1,25	–	0,17 0.007	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		

Thread turning										Grades				
	Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
		mm	TPI							CP200	CP300	CP500	TTP2050	
MDT	16ER1.5ISO-A1	1,5	–	0,22 0.009	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER1.75ISO-A1	1,75	–	0,25 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER2.0ISO-A1	2	–	0,29 0.011	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER2.5ISO-A1	2,5	–	0,34 0.013	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER3.0ISO-A1	3	–	0,42 0.017	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER1.0ISO-A2	1	–	0,14 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER1.25ISO-A2	1,25	–	0,17 0.007	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER1.5ISO-A2	1,5	–	0,22 0.009	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER1.75ISO-A2	1,75	–	0,25 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER2.0ISO-A2	2	–	0,29 0.011	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
Mini-Shaft™	16ER2.5ISO-A2	2,5	–	0,34 0.013	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER3.0ISO-A2	3	–	0,42 0.017	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER1.0ISO-TT	1	–	0,14 0.006	1,3 0.051	1,3 0.051	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER1.5ISO-TT	1,5	–	0,22 0.009	1,3 0.051	1,8 0.071	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER2.0ISO-TT	2	–	0,29 0.011	1,6 0.063	2,4 0.094	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER1.0ISO3M	1	–	0,14 0.006	1,5 0.059	2,4 0.094	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER1.5ISO2M	1,5	–	0,22 0.009	1,5 0.059	2,2 0.087	9,525 0.375	16,5 0.650	3,47 0.137			■		
	22ER1.5ISO3M	1,5	–	0,22 0.009	2,3 0.091	3,6 0.142	12,7 0.500	22,0 0.866	4,71 0.185			■		
	22ER2.0ISO2M	2	–	0,29 0.011	2,0 0.079	2,9 0.114	12,7 0.500	22,0 0.866	4,71 0.185			■		
	22ER2.0ISO3M	2	–	0,29 0.011	3,0 0.118	4,8 0.189	12,7 0.500	22,0 0.866	4,71 0.185			■		
Thread milling	27ER3.0ISO2M	3	–	0,42 0.017	2,8 0.110	4,3 0.169	15,875 0.625	27,0 1.063	6,15 0.242			■		
										Grades				
	Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
		mm	TPI							CP200	CP300	CP500	TTP2050	
	16EL0.5ISO	0,5	–	0,06 0.002	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
Thread tapping	16EL0.75ISO	0,75	–	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL0.8ISO	0,8	–	0,11 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL1.0ISO	1	–	0,12 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL1.25ISO	1,25	–	0,15 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL1.5ISO	1,5	–	0,22 0.009	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137		■	■		
	16EL1.75ISO	1,75	–	0,22 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL2.0ISO	2	–	0,29 0.011	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL2.5ISO	2,5	–	0,31 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
										Grades				
										Coated				Uncoated

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
16EL3.0ISO	3	–	0,42 <i>0.017</i>	1,2 <i>0.047</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
22EL3.5ISO	3,5	–	0,47 <i>0.019</i>	1,8 <i>0.071</i>	2,5 <i>0.098</i>	12,7 <i>0.500</i>	22,0 <i>0.866</i>	4,71 <i>0.185</i>			■		
22EL4.0ISO	4	–	0,53 <i>0.021</i>	1,8 <i>0.071</i>	2,5 <i>0.098</i>	12,7 <i>0.500</i>	22,0 <i>0.866</i>	4,71 <i>0.185</i>			■		
22EL4.5ISO	4,5	–	0,59 <i>0.023</i>	1,8 <i>0.071</i>	2,5 <i>0.098</i>	12,7 <i>0.500</i>	22,0 <i>0.866</i>	4,71 <i>0.185</i>			■		
22EL5.0ISO	5	–	0,66 <i>0.026</i>	1,8 <i>0.071</i>	2,5 <i>0.098</i>	12,7 <i>0.500</i>	22,0 <i>0.866</i>	4,71 <i>0.185</i>			■		

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

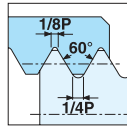
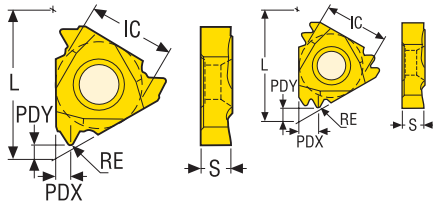
Thread milling

Thread tapping

Annex

ISO Metric – Internal Threading

Full profile – Snap-Tap®


ISO965/1 - 1980
3h/4h

09NR/11Nx/16Nx/22Nx/27NR



11NR/16NR..A



11NR/16NR..A1



11NR/16NR..A2



16NR/22NR..M



16NR..TT



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	Coated				Uncoated
									CP200	CP300	CP500	TTP2050	H15
09NR0.5ISO	0,5	–	0,04 0.002	0,7 0.028	0,6 0.024	5,56 0.219	9,6 0.378	2,4 0.094			■		
09NR0.8ISO	0,8	–	0,07 0.003	0,7 0.028	0,6 0.024	5,56 0.219	9,6 0.378	2,4 0.094			■		
09NR1.0ISO	1	–	0,07 0.003	0,7 0.028	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		
09NR1.25ISO	1,25	–	0,11 0.004	0,7 0.028	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		
09NR1.5ISO	1,5	–	0,12 0.005	0,7 0.028	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		
09NR1.75ISO	1,75	–	0,12 0.005	0,7 0.028	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		
09NR2.0ISO	2	–	0,17 0.007	0,7 0.028	0,9 0.035	5,56 0.219	9,6 0.378	2,4 0.094			■		
11NR0.5ISO	0,5	–	0,03 0.001	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		■
11NR0.75ISO	0,75	–	0,04 0.002	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		■
11NR1.0ISO	1	–	0,08 0.003	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118	■		■	■	■
11NR1.25ISO	1,25	–	0,09 0.004	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		■
11NR1.5ISO	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118	■		■	■	■
11NR1.75ISO	1,75	–	0,12 0.005	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		■
11NR2.0ISO	2	–	0,17 0.007	0,8 0.031	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118	■		■	■	■
16NR0.5ISO	0,5	–	0,03 0.001	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR0.75ISO	0,75	–	0,04 0.002	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR1.0ISO	1	–	0,08 0.003	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16NR1.25ISO	1,25	–	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16NR1.5ISO	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16NR1.75ISO	1,75	–	0,12 0.005	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR2.0ISO	2	–	0,17 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16NR2.5ISO	2,5	–	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16NR3.0ISO	3	–	0,21 0.008	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
22NR3.5ISO	3,5	–	0,25 0.010	1,9 0.075	2,3 0.091	12,7 0.500	22,0 0.866	4,71 0.185	■		■		■
22NR4.0ISO	4	–	0,28 0.011	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185	■	■	■		■

									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
22NR4.5ISO	4,5	–	0,32 0.013	2,1 0.083	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		■
22NR5.0ISO	5	–	0,35 0.014	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185	■		■		■
27NR5.5ISO	5,5	–	0,38 0.015	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242			■		
27NR6.0ISO	6	–	0,42 0.017	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242		■	■		
11NR1.0ISO-A	1	–	0,08 0.003	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■	■	
11NR1.5ISO-A	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■	■	
11NR2.0ISO-A	2	–	0,17 0.007	0,8 0.031	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118			■	■	
16NR1.0ISO-A	1	–	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR1.5ISO-A	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR2.0ISO-A	2	–	0,16 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR2.5ISO-A	2,5	–	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR3.0ISO-A	3	–	0,21 0.008	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
11NR1.0ISO-A1	1	–	0,08 0.003	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
11NR1.5ISO-A1	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
11NR2.0ISO-A1	2	–	0,17 0.007	0,8 0.031	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NR1.0ISO-A1	1	–	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR1.5ISO-A1	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR2.0ISO-A1	2	–	0,16 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR2.5ISO-A1	2,5	–	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR3.0ISO-A1	3	–	0,21 0.008	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
11NR1.0ISO-A2	1	–	0,08 0.003	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
11NR1.5ISO-A2	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
11NR2.0ISO-A2	2	–	0,17 0.007	0,8 0.031	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NR1.0ISO-A2	1	–	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR1.5ISO-A2	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR2.0ISO-A2	2	–	0,16 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR2.5ISO-A2	2,5	–	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR3.0ISO-A2	3	–	0,21 0.008	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR1.0ISO-TT	1	–	0,09 0.004	1,3 0.051	1,2 0.047	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR1.5ISO-TT	1,5	–	0,12 0.005	1,3 0.051	1,8 0.071	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR2.0ISO-TT	2	–	0,18 0.007	1,6 0.063	2,4 0.094	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR1.0ISO3M	1	–	0,08 0.003	1,5 0.059	2,4 0.094	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR1.5ISO2M	1,5	–	0,12 0.005	1,4 0.055	2,1 0.083	9,525 0.375	16,5 0.650	3,47 0.137			■		
22NR1.5ISO3M	1,5	–	0,12 0.005	2,3 0.091	3,6 0.142	12,7 0.500	22,0 0.866	4,71 0.185			■		

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Thread turning

									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
22NR2.0ISO2M	2	–	0,17 0.007	2,0 0.079	2,9 0.114	12,7 0.500	22,0 0.866	4,71 0.185			■		
22NR2.0ISO3M	2	–	0,17 0.007	3,0 0.118	4,8 0.189	12,7 0.500	22,0 0.866	4,71 0.185			■		
27NR3.0ISO2M	3	–	0,21 0.008	2,8 0.110	4,3 0.169	15,875 0.625	27,0 1.063	6,15 0.242			■		

MDT

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
11NL0.5ISO	0,5	–	0,03 0.001	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
11NL0.75ISO	0,75	–	0,04 0.002	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
11NL1.0ISO	1	–	0,07 0.003	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		

Mini-Shaft™

11NL1.25ISO	1,25	–	0,09 0.004	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
11NL1.5ISO	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NL0.5ISO	0,5	–	0,03 0.001	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL0.75ISO	0,75	–	0,04 0.002	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL1.0ISO	1	–	0,07 0.003	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
16NL1.25ISO	1,25	–	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		

Thread milling

16NL1.5ISO	1,5	–	0,12 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
16NL1.75ISO	1,75	–	0,12 0.005	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL2.0ISO	2	–	0,17 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL2.5ISO	2,5	–	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL3.0ISO	3	–	0,21 0.008	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
22NL3.5ISO	3,5	–	0,25 0.010	1,9 0.075	2,3 0.091	12,7 0.500	22,0 0.866	4,71 0.185			■		

Thread tapping

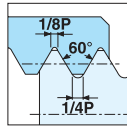
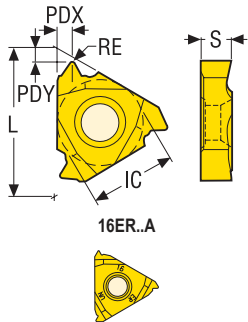
22NL4.0ISO	4	–	0,28 0.011	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
22NL4.5ISO	4,5	–	0,32 0.013	2,1 0.083	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
22NL5.0ISO	5	–	0,35 0.014	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		

■ Stock standard.

Annex

UN – External Threading

Full profile – Snap-Tap®


ANSI B1.1 – 1983
3A

16ER..A



16ER..A1



16ER..A2



16ER..TT



16Ex/22Ex/27ER



22ER..M



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
27ER4UN	–	4	0.79 0.031	2.2 0.087	3.2 0.126	15.875 0.625	27.0 1.063	6.15 0.242			■		
22ER5UN	–	5	0.6 0.024	1.8 0.071	2.5 0.098	12.7 0.500	22.0 0.866	4.71 0.185			■		
22ER6UN	–	6	0.52 0.020	2.0 0.079	2.5 0.098	12.7 0.500	22.0 0.866	4.71 0.185			■		■
22ER7UN	–	7	0.47 0.019	1.8 0.071	2.5 0.098	12.7 0.500	22.0 0.866	4.71 0.185			■		■
16ER8UN	–	8	0.38 0.015	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137	■		■	■	■
16ER8UN-A	–	8	0.43 0.017	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■	■	
16ER8UN-A1	–	8	0.43 0.017	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		
16ER8UN-A2	–	8	0.43 0.017	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		
16ER9UN	–	9	0.34 0.013	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		■
16ER10UN	–	10	0.34 0.013	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		
16ER11UN	–	11	0.28 0.011	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		■
16ER12UN	–	12	0.26 0.010	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137	■		■	■	■
16ER12UN-A	–	12	0.29 0.011	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■	■	
16ER12UN-A1	–	12	0.29 0.011	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		
16ER12UN-A2	–	12	0.29 0.011	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		
16ER12UN-TT	–	12	0.29 0.011	1.7 0.067	2.6 0.102	9.525 0.375	16.5 0.650	3.47 0.137			■		
22ER12UN2M	–	12	0.26 0.010	2.0 0.079	3.1 0.122	12.7 0.500	22.0 0.866	4.71 0.185			■		
16ER13UN	–	13	0.24 0.009	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		
16ER14UN	–	14	0.22 0.009	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137	■		■	■	■
16ER14UN-A	–	14	0.22 0.009	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■	■	
16ER14UN-A1	–	14	0.22 0.009	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		
16ER14UN-A2	–	14	0.22 0.009	1.2 0.047	1.5 0.059	9.525 0.375	16.5 0.650	3.47 0.137			■		
16ER16UN	–	16	0.22 0.009	1.2 0.047	0.8 0.031	9.525 0.375	16.5 0.650	3.47 0.137	■		■	■	■
16ER16UN-A	–	16	0.22 0.009	0.8 0.031	0.8 0.031	9.525 0.375	16.5 0.650	3.47 0.137			■	■	
16ER16UN-A1	–	16	0.22 0.009	0.8 0.031	0.8 0.031	9.525 0.375	16.5 0.650	3.47 0.137			■		

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

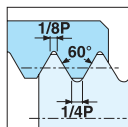
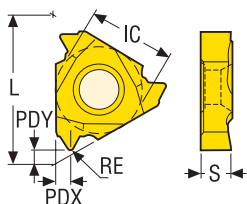
Thread turning										Grades				
	Insert Part No. Right		Pitch	RE	PDY	PDX	IC	L	S	Coated				Uncoated
		mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
	16ER16UN-A2	–	16	0,22 0.009	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER16UN-TT	–	16	0,21 0.008	1,4 0.055	1,9 0.075	9,525 0.375	16,5 0.650	3,47 0.137			■		
	22ER16UN3M	–	16	0,21 0.008	2,5 0.098	4,0 0.157	12,7 0.500	22,0 0.866	4,71 0.185			■		
	16ER18UN	–	18	0,18 0.007	1,2 0.047	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	■
	16ER18UN-A	–	18	0,18 0.007	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
	16ER18UN-A1	–	18	0,18 0.007	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER18UN-A2	–	18	0,18 0.007	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER20UN	–	20	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	■
	16ER20UN-A	–	20	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
	16ER20UN-A1	–	20	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER20UN-A2	–	20	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER20UN-TT	–	20	0,16 0.006	1,2 0.047	1,6 0.063	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16ER24UN	–	24	0,13 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137		■	■		■
	16ER28UN	–	28	0,11 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137		■	■		■
	16ER32UN	–	32	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■
	16ER40UN	–	40	0,08 0.003	1,2 0.047	0,5 0.020	9,525 0.375	16,5 0.650	3,47 0.137			■		
Thread milling										Grades				
	Insert Part No. Left		Pitch	RE	PDY	PDX	IC	L	S	Coated				Uncoated
		mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
	22EL5UN	–	5	0,6 0.024	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
	22EL6UN	–	6	0,52 0.020	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
	22EL7UN	–	7	0,47 0.019	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
	16EL8UN	–	8	0,38 0.015	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL9UN	–	9	0,34 0.013	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL10UN	–	10	0,31 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL11UN	–	11	0,28 0.011	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL12UN	–	12	0,26 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL14UN	–	14	0,22 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL16UN	–	16	0,22 0.009	1,2 0.047	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL18UN	–	18	0,18 0.007	1,2 0.047	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL20UN	–	20	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL24UN	–	24	0,13 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16EL28UN	–	28	0,11 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
Annex														

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16EL32UN	–	32	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		H15

■ Stock standard.

UN – Internal Threading

Full profile – Snap-Tap®


ANSI B1.1 – 1983
3B

09NR/11Nx/16Nx/22Nx/27NR

16NR/22NR..M

16NR..A

16NR..A1

16NR..A2

16NR..TT



									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
27NR4UN	–	4	0,45 0.018	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242			■		
22NR5UN	–	5	0,36 0.014	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
22NR6UN	–	6	0,3 0.012	2,2 0.087	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		■
22NR7UN	–	7	0,25 0.010	2,0 0.079	2,4 0.094	12,7 0.500	22,0 0.866	4,71 0.185			■		
16NR8UN	–	8	0,25 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16NR8UN-A	–	8	0,25 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR8UN-A1	–	8	0,25 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR8UN-A2	–	8	0,25 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR9UN	–	9	0,19 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR10UN	–	10	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16NR11UN	–	11	0,16 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR12UN	–	12	0,15 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16NR12UN-A	–	12	0,15 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR12UN-A1	–	12	0,15 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR12UN-A2	–	12	0,15 0.006	1,5 0.059	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR12UN-TT	–	12	0,16 0.006	1,65 0.065	2,45 0.096	9,525 0.375	16,5 0.650	3,47 0.137			■		
22NR12UN2M	–	12	0,15 0.006	2,0 0.079	3,0 0.118	12,7 0.500	22,0 0.866	4,71 0.185			■		
22NR12UN3M	–	12	0,15 0.006	3,0 0.118	5,0 0.197	12,7 0.500	22,0 0.866	4,71 0.185			■		
09NR13UN	–	13	0,15 0.006	0,7 0.028	0,9 0.035	5,56 0.219	9,6 0.378	2,4 0.094			■		
16NR13UN	–	13	0,15 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
11NR14UN	–	14	0,14 0.006	0,8 0.031	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NR14UN	–	14	0,14 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16NR14UN-A	–	14	0,14 0.006	1,2 0.047	1,3 0.051	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR14UN-A1	–	14	0,14 0.006	1,2 0.047	1,3 0.051	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR14UN-A2	–	14	0,14 0.006	1,2 0.047	1,3 0.051	9,525 0.375	16,5 0.650	3,47 0.137			■		

									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
11NR16UN	–	16	0,13 0.005	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		■
16NR16UN	–	16	0,13 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16NR16UN-A	–	16	0,12 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR16UN-A1	–	16	0,12 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR16UN-A2	–	16	0,12 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR16UN-TT	–	16	0,13 0.005	1,4 0.055	1,9 0.075	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR16UN2M	–	16	0,13 0.005	1,5 0.059	2,3 0.091	9,525 0.375	16,5 0.650	3,47 0.137			■		
22NR16UN3M	–	16	0,13 0.005	2,4 0.094	3,8 0.150	12,7 0.500	22,0 0.866	4,71 0.185			■		
09NR18UN	–	18	0,1 0.004	0,7 0.028	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		
11NR18UN	–	18	0,1 0.004	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		■
16NR18UN	–	18	0,1 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR18UN-A	–	18	0,1 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR18UN-A1	–	18	0,1 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR18UN-A2	–	18	0,1 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
09NR20UN	–	20	0,09 0.004	0,7 0.028	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		
11NR20UN	–	20	0,09 0.004	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NR20UN	–	20	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16NR20UN-A	–	20	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR20UN-A1	–	20	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR20UN-A2	–	20	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
11NR24UN	–	24	0,07 0.003	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		■
16NR24UN	–	24	0,07 0.003	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
11NR28UN	–	28	0,05 0.002	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		■
16NR28UN	–	28	0,05 0.002	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
11NR32UN	–	32	0,04 0.002	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		■
16NR32UN	–	32	0,04 0.002	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16NR40UN	–	40	0,04 0.002	1,2 0.047	0,5 0.020	9,525 0.375	16,5 0.650	3,47 0.137			■		

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
22NL6UN	–	6	0,3 0.012	2,2 0.087	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
22NL7UN	–	7	0,25 0.010	2,0 0.079	2,4 0.094	12,7 0.500	22,0 0.866	4,71 0.185			■		
16NL8UN	–	8	0,25 0.010	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Thread turning										Grades				
	Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
		mm	TPI							CP200	CP300	CP500	TTP2050	
MDT	16NL10UN	–	10	0,18 0.007	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16NL12UN	–	12	0,15 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
	11NL14UN	–	14	0,14 0.006	0,8 0.031	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118			■		
	16NL14UN	–	14	0,14 0.006	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
	11NL16UN	–	16	0,13 0.005	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
	16NL16UN	–	16	0,13 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
	11NL18UN	–	18	0,1 0.004	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
	16NL18UN	–	18	0,1 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	11NL20UN	–	20	0,09 0.004	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
	16NL20UN	–	20	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
Mini-Shaft™	11NL24UN	–	24	0,07 0.003	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
	16NL24UN	–	24	0,07 0.003	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16NL28UN	–	28	0,05 0.002	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
	16NL32UN	–	32	0,04 0.002	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		

■ Stock standard.

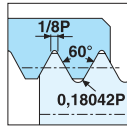
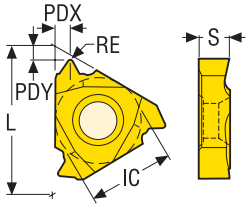
Thread milling

Thread tapping

Annex

UNJ – External Threading

Full profile – Snap-Tap®


BS4084 - 1996
MIL-SPECS - 8879A
3A

16Ex



									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16ER8UNJ	–	8	0,5 0.020	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
16ER10UNJ	–	10	0,405 0.016	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
16ER12UNJ	–	12	0,34 0.013	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16ER14UNJ	–	14	0,295 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
16ER16UNJ	–	16	0,255 0.010	1,2 0.047	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16ER18UNJ	–	18	0,23 0.009	1,2 0.047	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
16ER20UNJ	–	20	0,208 0.008	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16ER24UNJ	–	24	0,175 0.007	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
16ER28UNJ	–	28	0,148 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		
16ER32UNJ	–	32	0,13 0.005	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16EL12UNJ	–	12	0,34 0.013	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■				

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

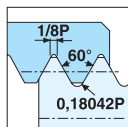
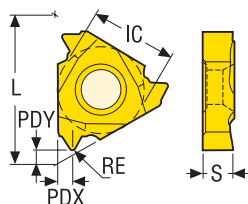
Thread milling

Thread tapping

Annex

UNJ – Internal Threading

Full profile – Snap-Tap®


BS4084 - 1996
MIL-SPECS - 8879A
3B

16Ex



									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
16NR8UNJ	–	8	0,22 <i>0.009</i>	1,2 <i>0.047</i>	1,2 <i>0.047</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				
16NR10UNJ	–	10	0,17 <i>0.007</i>	1,2 <i>0.047</i>	1,0 <i>0.039</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				
16NR12UNJ	–	12	0,12 <i>0.005</i>	1,2 <i>0.047</i>	0,8 <i>0.031</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				
16NR14UNJ	–	14	0,11 <i>0.004</i>	1,2 <i>0.047</i>	0,7 <i>0.028</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				
16NR16UNJ	–	16	0,1 <i>0.004</i>	1,2 <i>0.047</i>	0,6 <i>0.024</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				
16NR18UNJ	–	18	0,09 <i>0.004</i>	1,2 <i>0.047</i>	0,6 <i>0.024</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				
16NR20UNJ	–	20	0,08 <i>0.003</i>	1,2 <i>0.047</i>	0,5 <i>0.020</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				
16NR24UNJ	–	24	0,06 <i>0.002</i>	1,2 <i>0.047</i>	0,5 <i>0.020</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				
16NR28UNJ	–	28	0,04 <i>0.002</i>	1,2 <i>0.047</i>	0,4 <i>0.016</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				
16NR32UNJ	–	32	0,03 <i>0.001</i>	1,2 <i>0.047</i>	0,4 <i>0.016</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>	■				

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

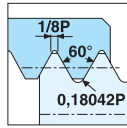
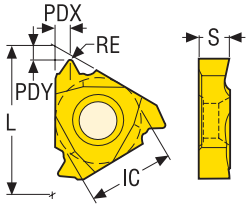
Thread milling

Thread tapping

Annex

MJ – External Threading

Full profile – Snap-Tap®


ISO5855 – 1983
4h/6h

16Ex



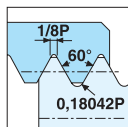
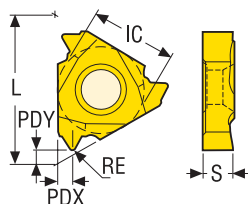
									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16ER1.0MJ	1	–	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16ER1.25MJ	1,25	–	0,21 0.008	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■				
16ER1.5MJ	1,5	–	0,25 0.010	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
16ER2.0MJ	2	–	0,32 0.013	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■				

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16EL1.0MJ	1	–	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■				
16EL1.5MJ	1,5	–	0,25 0.010	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■				

■ Stock standard.

MJ – Internal Threading

Full profile – Snap-Tap®


ISO5855 - 1983
4H/5H

16Ex

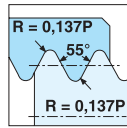
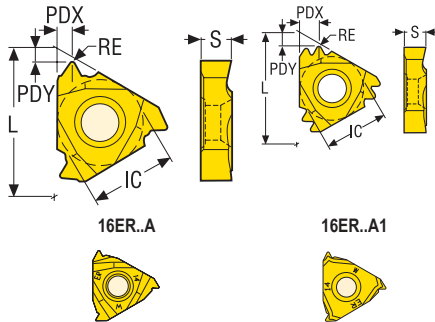


Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
16NR1.0MJ	1	–	0,06 0.002	1,2 0.047	0,4 0.016	9,525 0.375	16,5 0.650	3,47 0.137	■				
16NR1.25MJ	1,25	–	0,08 0.003	1,2 0.047	0,5 0.020	9,525 0.375	16,5 0.650	3,47 0.137	■				
16NR1.5MJ	1,5	–	0,09 0.004	1,2 0.047	0,6 0.024	9,525 0.375	16,5 0.650	3,47 0.137	■				
16NR2.0MJ	2	–	0,12 0.005	1,2 0.047	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■				

■ Stock standard.

Whitworth, BSW – External Threading

Full profile – Snap-Tap®


BS84 –1956
ISO228 – 1982
BS2779 – 1973

16ER..A

16ER..A1

16ER..A2

16ER..TT

16Ex/22Ex

22ER..M

									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
22ER5W	–	5	0,63 0.025	1,7 0.067	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		■
22ER6W	–	6	0,5 0.020	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
22ER7W	–	7	0,43 0.017	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
16ER8W	–	8	0,42 0.017	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER9W	–	9	0,31 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER10W	–	10	0,27 0.011	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER11W	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16ER11W-A	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER11W-A1	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER11W-A2	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER11W-TT	–	11	0,3 0.012	1,8 0.071	2,8 0.110	9,525 0.375	16,5 0.650	3,47 0.137			■		
22ER11W2M	–	11	0,3 0.012	2,3 0.091	3,5 0.138	12,7 0.500	22,0 0.866	4,71 0.185			■		
16ER12W	–	12	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER14W	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16ER14W-A	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER14W-A1	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER14W-A2	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER14W-TT	–	14	0,24 0.009	1,5 0.059	2,2 0.087	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER16W	–	16	0,2 0.008	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER18W	–	18	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER19W	–	19	0,15 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16ER19W-A	–	19	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16ER19W-A1	–	19	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER19W-A2	–	19	0,16 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER20W	–	20	0,14 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■

Thread turning

									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
16ER28W	–	28	0,09 <i>0.004</i>	0,8 <i>0.031</i>	0,8 <i>0.031</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		■

MDT

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
22EL5W	–	5	0,63 <i>0.025</i>	1,7 <i>0.067</i>	2,5 <i>0.098</i>	12,7 <i>0.500</i>	22,0 <i>0.866</i>	4,71 <i>0.185</i>			■		
22EL6W	–	6	0,5 <i>0.020</i>	1,8 <i>0.071</i>	2,5 <i>0.098</i>	12,7 <i>0.500</i>	22,0 <i>0.866</i>	4,71 <i>0.185</i>			■		
22EL7W	–	7	0,43 <i>0.017</i>	1,8 <i>0.071</i>	2,5 <i>0.098</i>	12,7 <i>0.500</i>	22,0 <i>0.866</i>	4,71 <i>0.185</i>			■		
16EL8W	–	8	0,42 <i>0.017</i>	1,2 <i>0.047</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16EL9W	–	9	0,31 <i>0.012</i>	1,2 <i>0.047</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16EL10W	–	10	0,27 <i>0.011</i>	1,2 <i>0.047</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16EL11W	–	11	0,3 <i>0.012</i>	1,2 <i>0.047</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16EL12W	–	12	0,24 <i>0.009</i>	1,2 <i>0.047</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16EL14W	–	14	0,24 <i>0.009</i>	1,2 <i>0.047</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16EL16W	–	16	0,2 <i>0.008</i>	0,8 <i>0.031</i>	0,8 <i>0.031</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16EL19W	–	19	0,15 <i>0.006</i>	0,8 <i>0.031</i>	0,8 <i>0.031</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16EL20W	–	20	0,14 <i>0.006</i>	0,8 <i>0.031</i>	0,8 <i>0.031</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16EL28W	–	28	0,09 <i>0.004</i>	0,8 <i>0.031</i>	0,8 <i>0.031</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		

■ Stock standard.

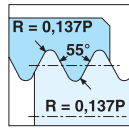
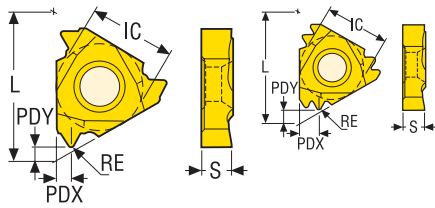
Thread milling

Thread tapping

Annex

Whitworth, BSW – Internal Threading

Full profile – Snap-Tap®


BS84 –1956
ISO228 – 1982
BS2779 – 1973

09NR/11Nx/16Nx/22Nx



11NR/16NR..A



11NR/16NR..A1



11NR/16NR..A2



16NR..TT



22NR..M



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
22NR5W	–	5	0,63 0.025	1,7 0.067	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		■
22NR6W	–	6	0,5 0.020	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		■
22NR7W	–	7	0,43 0.017	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
16NR8W	–	8	0,42 0.017	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR9W	–	9	0,31 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR10W	–	10	0,27 0.011	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR11W	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
16NR11W-A	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
16NR11W-A1	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR11W-A2	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR11W-TT	–	11	0,31 0.012	1,8 0.071	2,8 0.110	9,525 0.375	16,5 0.650	3,47 0.137			■		
22NR11W2M	–	11	0,3 0.012	2,3 0.091	3,5 0.138	12,7 0.500	22,0 0.866	4,71 0.185			■		
16NR12W	–	12	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR12W-TT	–	12	0,24 0.009	1,7 0.067	2,7 0.106	9,525 0.375	16,5 0.650	3,47 0.137			■		
09NR14W	–	14	0,24 0.009	0,7 0.028	0,9 0.035	5,56 0.219	9,6 0.378	2,4 0.094			■		
11NR14W	–	14	0,24 0.009	0,7 0.028	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118	■		■	■	■
16NR14W	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137	■		■	■	■
11NR14W-A	–	14	0,24 0.009	0,7 0.028	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118			■	■	
16NR14W-A	–	14	0,23 0.009	1,2 0.047	1,1 0.043	9,525 0.375	16,5 0.650	3,47 0.137			■	■	
11NR14W-A1	–	14	0,24 0.009	0,7 0.028	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NR14W-A1	–	14	0,23 0.009	1,2 0.047	1,1 0.043	9,525 0.375	16,5 0.650	3,47 0.137			■		
11NR14W-A2	–	14	0,24 0.009	0,7 0.028	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NR14W-A2	–	14	0,23 0.009	1,2 0.047	1,1 0.043	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR14W-TT	–	14	0,23 0.009	1,5 0.059	2,2 0.087	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR16W	–	16	0,2 0.008	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■

Thread turning

Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
09NR19W	–	19	0,15 0.006	0,7 0.028	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		
11NR19W	–	19	0,15 0.006	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118	■		■	■	■
16NR19W	–	19	0,15 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137	■		■		■
11NR19W-A	–	19	0,15 0.006	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■	■	
11NR19W-A1	–	19	0,15 0.006	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
11NR19W-A2	–	19	0,15 0.006	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NR20W	–	20	0,14 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR28W	–	28	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		

MDT

Mini-Shaft™

Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
22NL6W	–	6	0,5 0.020	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
22NL7W	–	7	0,43 0.017	1,8 0.071	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
16NL8W	–	8	0,42 0.017	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL9W	–	9	0,31 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL10W	–	10	0,27 0.011	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL11W	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL12W	–	12	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
11NL14W	–	14	0,24 0.009	1,2 0.047	0,9 0.035	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NL14W	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL16W	–	16	0,2 0.008	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
11NL19W	–	19	0,15 0.006	0,8 0.031	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NL19W	–	19	0,15 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL20W	–	20	0,14 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL28W	–	28	0,09 0.004	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		

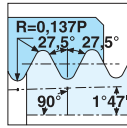
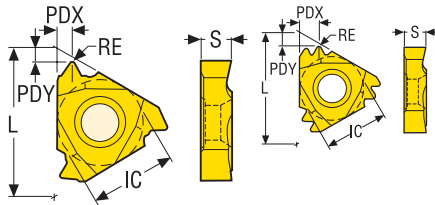
■ Stock standard.

Thread tapping

Annex

BSPT – External Threading

Full profile – Snap-Tap®



ISO228/1 35 21 1959 ISO7/1

16ER..TT



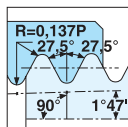
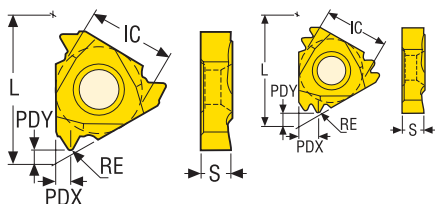
									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16ER11BSPT	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER11BSPT-TT	–	11	0,3 0.012	1,8 0.071	2,8 0.110	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER14BSPT	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER14BSPT-TT	–	14	0,24 0.009	1,5 0.059	2,2 0.087	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER19BSPT	–	19	0,15 0.006	0,8 0.031	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER28BSPT	–	28	0,08 0.003	0,7 0.028	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16EL11BSPT	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16EL14BSPT	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		

■ Stock standard.

BSPT – Internal Threading

Full profile – Snap-Tap®



ISO228/1 35 21 1959 ISO7/1

09NR/16Nx..



16NR..TT



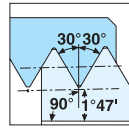
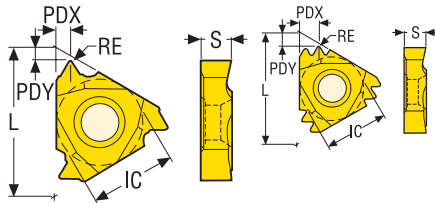
									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
16NR11BSPT	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR11BSPT-TT	–	11	0,3 0.012	1,8 0.071	2,8 0.110	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR14BSPT	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR14BSPT-TT	–	14	0,24 0.009	1,5 0.059	2,2 0.087	9,525 0.375	16,5 0.650	3,47 0.137			■		
09NR19BSPT	–	19	0,15 0.006	0,8 0.031	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
16NL11BSPT	–	11	0,3 0.012	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL14BSPT	–	14	0,24 0.009	1,2 0.047	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		

■ Stock standard.

NPT- External Threading

Full profile – Snap-Tap®



ANSI B1.20.1 - 1983

16ER..A1



16ER..A2



16Ex..



22ER/27ER..M



									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16ER8NPT	–	8	0,07 0.003	1,1 0.043	1,6 0.063	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER11.5NPT	–	11.5	0,07 0.003	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER11.5NPT-A1	–	11.5	0,09 0.004	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER11.5NPT-A2	–	11.5	0,09 0.004	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
22ER11.5NPT2M	–	11.5	0,07 0.003	2,1 0.083	3,3 0.130	12,7 0.500	22,0 0.866	4,71 0.185			■		
16ER14NPT	–	14	0,07 0.003	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER18NPT	–	18	0,06 0.002	0,7 0.028	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16ER27NPT	–	27	0,04 0.002	0,7 0.028	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16EL8NPT	–	8	0,09 0.004	1,1 0.043	1,6 0.063	9,525 0.375	16,5 0.650	3,47 0.137			■		
16EL11.5NPT	–	11.5	0,07 0.003	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16EL14NPT	–	14	0,07 0.003	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16EL18NPT	–	18	0,06 0.002	0,7 0.028	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

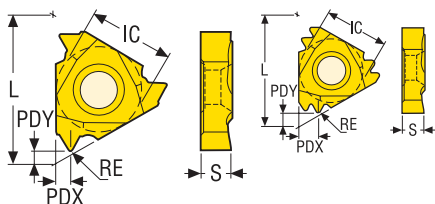
Thread milling

Thread tapping

Annex

NPT – Internal Threading

Full profile – Snap-Tap®



ANSI B1.20.1 – 1983

16NR..A1



16NR..A2



22NR..M



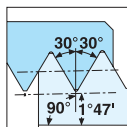
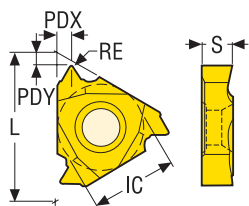
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	Coated				Uncoated
									CP200	CP300	CP500	TTP2050	H15
16NR8NPT	–	8	0,1 0.004	1,1 0.043	1,6 0.063	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR8NPT-A2	–	8	0,12 0.005	1,1 0.043	1,6 0.063	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR11.5NPT	–	11.5	0,09 0.004	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR11.5NPT-A1	–	11.5	0,1 0.004	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR11.5NPT-A2	–	11.5	0,1 0.004	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
22NR11.5NPT2M	–	11.5	0,05 0.002	2,1 0.083	3,3 0.130	12,7 0.500	22,0 0.866	4,71 0.185			■		
11NR14NPT	–	14	0,07 0.003	0,7 0.028	1,0 0.039	6,35 0.250	11,0 0.433	3,0 0.118			■		
16NR14NPT	–	14	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		■
16NR14NPT-A2	–	14	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
09NR18NPT	–	18	0,06 0.002	0,7 0.028	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		
11NR18NPT	–	18	0,06 0.002	0,7 0.028	0,8 0.031	6,35 0.250	11,0 0.433	3,0 0.118			■		
09NR27NPT	–	27	0,04 0.002	0,7 0.028	0,8 0.031	5,56 0.219	9,6 0.378	2,4 0.094			■		

Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	Coated				Uncoated
									CP200	CP300	CP500	TTP2050	H15
16NL8NPT	–	8	0,1 0.004	1,2 0.047	1,6 0.063	9,525 0.375	16,5 0.650	3,47 0.137			■		
27ER8NPT2M	–	8	0,07 0.003	3,0 0.118	4,8 0.189	15,875 0.625	27,0 1.063	6,15 0.242			■		
16NL11.5NPT	–	11.5	0,09 0.004	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NL14NPT	–	14	0,08 0.003	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		

■ Stock standard.

NPTF– External Threading

Full profile – Snap-Tap®


ANSI B1.4 - 1976
ANSI B1.20.3 - 1976

16ER..

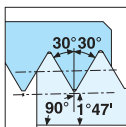
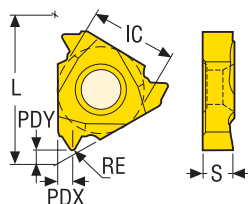


Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	
16ER11.5NPTF	–	11.5	0,06 0.002	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER14NPTF	–	14	0,05 0.002	1,1 0.043	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER18NPTF	–	18	0,04 0.002	0,7 0.028	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER27NPTF	–	27	0,04 0.002	0,7 0.028	0,8 0.031	9,525 0.375	16,5 0.650	3,47 0.137			■		

■ Stock standard.

NPTF – Internal Threading

Full profile – Snap-Tap®


ANSI B1.4 – 1976
ANSI B1.20.3 – 1976

11NR/16Nx



									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
16NR11.5NPTF	–	11.5	0,06 <i>0.002</i>	1,1 <i>0.043</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
16NR14NPTF	–	14	0,05 <i>0.002</i>	1,1 <i>0.043</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		
11NR18NPTF	–	18	0,04 <i>0.002</i>	0,7 <i>0.028</i>	0,8 <i>0.031</i>	6,35 <i>0.250</i>	11,0 <i>0.433</i>	3,0 <i>0.118</i>			■		

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
16NL11.5NPTF	–	11.5	0,06 <i>0.002</i>	1,1 <i>0.043</i>	1,5 <i>0.059</i>	9,525 <i>0.375</i>	16,5 <i>0.650</i>	3,47 <i>0.137</i>			■		

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

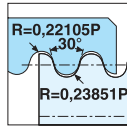
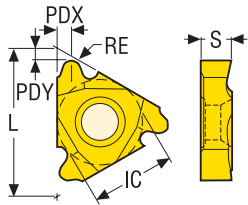
Thread milling

Thread tapping

Annex

Round-DIN405 – External Threading

Full profile – Snap-Tap®


DIN405 – 1981
7h/6h

16ER/22Ex/27ER



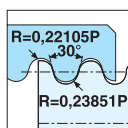
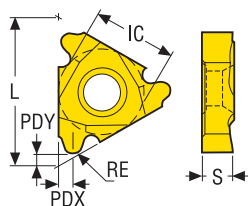
									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
27ER4RD	–	4	1,46 0.057	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242			■		
16ER6RD	–	6	0,97 0.038	1,3 0.051	1,8 0.071	9,525 0.375	16,5 0.650	3,47 0.137			■		
22ER6RD	–	6	0,97 0.038	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
16ER8RD	–	8	0,73 0.029	1,3 0.051	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16ER10RD	–	10	0,58 0.023	1,3 0.051	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		

									Grades				
Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
22EL6RD	–	6	0,97 0.038	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		

■ Stock standard.

Round-DIN405 – Internal Threading

Full profile – Snap-Tap®


DIN405 – 1981
7h/6h

16NR/22Nx/27NR



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
27NR4RD	–	4	1,31 0.052	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242			■		
16NR6RD	–	6	0,87 0.034	1,3 0.051	1,8 0.071	9,525 0.375	16,5 0.650	3,47 0.137			■		
22NR6RD	–	6	0,87 0.034	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		
16NR8RD	–	8	0,69 0.027	1,3 0.051	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
16NR10RD	–	10	0,51 0.020	1,3 0.051	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		

Insert Part No. Left	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
22NL6RD	–	6	0,87 0.034	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

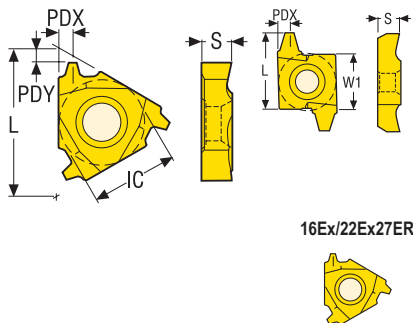
Thread milling

Thread tapping

Annex

TR-DIN103 – External Threading

Partial profile – Snap-Tap®


DIN103 – 1977
ISO2901/3 – 1977
7e

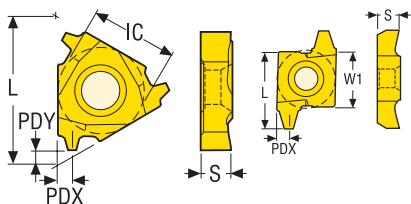
									Grades				
Insert Part No. Right	Pitch		PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16ER1.5TR	1,5	–	0,9 0.035	0,8 0.031	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16ER2.0TR	2	–	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16ER3.0TR	3	–	1,3 0.051	1,6 0.063	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
22ER4.0TR	4	–	2,0 0.079	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
22ER5.0TR	5	–	2,0 0.079	2,3 0.091	12,7 0.500	–	22,0 0.866	4,71 0.185		■	■		
27ER6.0TR	6	–	2,5 0.098	3,2 0.126	15,875 0.625	–	27,0 1.063	6,15 0.242			■		
20ER7.0TR	7	–	–	3,2 0.126	–	12,7 0.500	20,0 0.787	6,3 0.248		■	■		
20ER8.0TR	8	–	–	3,2 0.126	–	12,7 0.500	20,0 0.787	6,3 0.248		■	■		
26ER9.0TR	9	–	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310			■		
26ER10.0TR	10	–	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310		■	■		
26ER12.0TR	12	–	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310		■	■		
26ER14.0TR	14	–	–	5,1 0.201	–	15,875 0.625	26,0 1.024	7,88 0.310			■		

									Grades				
Insert Part No. Left	Pitch		PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16EL1.5TR	1,5	–	0,9 0.035	0,8 0.031	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16EL2.0TR	2	–	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16EL3.0TR	3	–	1,3 0.051	1,6 0.063	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
22EL4.0TR	4	–	2,0 0.079	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
22EL5.0TR	5	–	2,0 0.079	2,3 0.091	12,7 0.500	–	22,0 0.866	4,71 0.185			■		

■ Stock standard.

TR-DIN103 – Internal Threading

Partial profile – Snap-Tap®



16Nx/22Nx/27NR


DIN103 - 1977
ISO2901/3 - 1977
7H

20NR/26NR



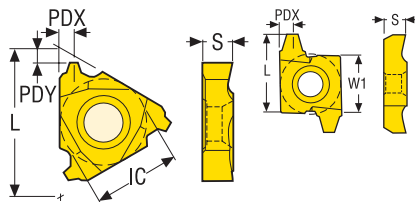
Insert Part No. Right	Pitch		PDY	PDX	IC	W1	L	S	Grades				
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	Coated				Uncoated
									CP200	CP300	CP500	TTP2050	H15
16NR1.5TR	1,5	–	0,9 0.035	0,8 0.031	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NR2.0TR	2	–	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NR3.0TR	3	–	1,3 0.051	1,6 0.063	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
22NR4.0TR	4	–	2,0 0.079	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
22NR5.0TR	5	–	2,0 0.079	2,3 0.091	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
27NR6.0TR	6	–	2,5 0.098	3,2 0.126	15,875 0.625	–	27,0 1.063	6,15 0.242			■		
20NR7.0TR	7	–	–	3,2 0.126	–	12,7 0.500	20,0 0.787	6,3 0.248		■	■		
20NR8.0TR	8	–	–	3,2 0.126	–	12,7 0.500	20,0 0.787	6,3 0.248		■	■		
26NR9.0TR	9	–	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310			■		
26NR10.0TR	10	–	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310		■	■		
26NR12.0TR	12	–	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310		■	■		
26NR14.0TR	14	–	–	5,1 0.201	–	15,875 0.625	26,0 1.024	7,88 0.310			■		

Insert Part No. Left	Pitch		PDY	PDX	IC	W1	L	S	Grades				
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	Coated				Uncoated
									CP200	CP300	CP500	TTP2050	H15
16NL1.5TR	1,5	–	0,9 0.035	0,8 0.031	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NL2.0TR	2	–	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16NL3.0TR	3	–	1,3 0.051	1,6 0.063	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
22NL4.0TR	4	–	2,0 0.079	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
22NL5.0TR	5	–	2,0 0.079	2,3 0.091	12,7 0.500	–	22,0 0.866	4,71 0.185			■		

■ Stock standard.

ACME – External Threading

Partial profile – Snap-Tap®



16Ex/22Ex/27Ex


ANSI B1.5 – 1988
3G

20ER/26ER



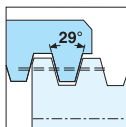
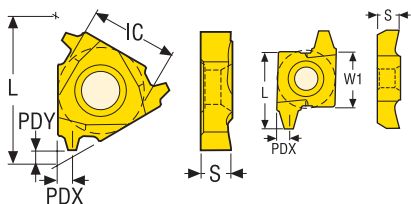
									Grades				
Insert Part No. Right	Pitch		PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
26ER2ACME	–	2	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310		■	■		
20ER3ACME	–	3	–	3,2 0.126	–	12,7 0.500	20,0 0.787	6,3 0.248		■	■		
20ER3.5ACME	–	3.5	–	3,2 0.126	–	12,7 0.500	20,0 0.787	6,3 0.248			■		
27ER4ACME	–	4	2,5 0.098	3,0 0.118	15,875 0.625	–	27,0 1.063	6,15 0.242			■		
22ER5ACME	–	5	2,0 0.079	2,3 0.091	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
22ER6ACME	–	6	2,0 0.079	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
16ER8ACME	–	8	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16ER10ACME	–	10	1,4 0.055	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16ER12ACME	–	12	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16ER14ACME	–	14	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16ER16ACME	–	16	0,9 0.035	0,8 0.031	9,525 0.375	–	16,5 0.650	3,47 0.137			■		

									Grades				
Insert Part No. Left	Pitch		PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
27EL4ACME	–	4	2,5 0.098	3,0 0.118	15,875 0.625	–	27,0 1.063	6,15 0.242			■		
22EL5ACME	–	5	2,0 0.079	2,3 0.091	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
22EL6ACME	–	6	2,0 0.079	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
16EL8ACME	–	8	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16EL10ACME	–	10	1,4 0.055	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		

■ Stock standard.

ACME – Internal Threading

Partial profile – Snap-Tap®


ANSI B1.5 – 1988
3G

16NR/22Nx/27NR



20NR/26NR



Insert Part No. Right	Pitch	PDY	PDX	IC	W1	L	S	Grades				
								Coated				Uncoated
								CP200	CP300	CP500	TTP2050	H15
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
26NR2ACME	–	2	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310		■		
20NR3ACME	–	3	–	3,2 0.126	–	12,7 0.500	20,0 0.787	6,3 0.248		■	■	
20NR3.5ACME	–	3.5	–	3,2 0.126	–	12,7 0.500	20,0 0.787	6,3 0.248		■	■	
27NR4ACME	–	4	2,5 0.098	3,0 0.118	15,875 0.625	–	27,0 1.063	6,15 0.242		■	■	
22NR5ACME	–	5	2,0 0.079	2,3 0.091	12,7 0.500	–	22,0 0.866	4,71 0.185			■	
22NR6ACME	–	6	2,0 0.079	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185		■	■	
16NR8ACME	–	8	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■	
16NR10ACME	–	10	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■	
16NR12ACME	–	12	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■	
16NR16ACME	–	16	0,9 0.035	0,8 0.031	9,525 0.375	–	16,5 0.650	3,47 0.137			■	

Insert Part No. Left	Pitch	PDY	PDX	IC	W1	L	S	Grades				
								Coated				Uncoated
								CP200	CP300	CP500	TTP2050	H15
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
22NL5ACME	–	5	2,0 0.079	2,3 0.091	12,7 0.500	–	22,0 0.866	4,71 0.185			■	

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

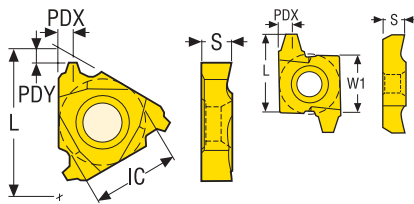
Thread milling

Thread tapping

Annex

Stub-ACME – External Threading

Partial profile – Snap-Tap®


ANSI B1.8 - 1988
2G

16ER



16ER/22Ex/27ER



20ER/26ER



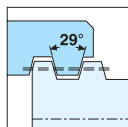
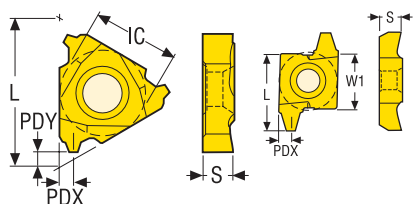
									Grades				
Insert Part No. Right	Pitch		PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
26ER2STACME	–	2	–	5,0 0.197	–	15,875 0.625	26,0 1.024	7,88 0.310			■		
20ER3STACME	–	3	–	3,2 0.126	–	12,7 0.500	20,0 0.787	6,3 0.248			■		
27ER4STACME	–	4	2,6 0.102	2,8 0.110	15,875 0.625	–	27,0 1.063	6,15 0.242		■	■		
22ER5STACME	–	5	2,0 0.079	2,1 0.083	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
22ER6STACME	–	6	2,4 0.094	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		
16ER8STACME	–	8	1,8 0.071	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137		■	■		
16ER10STACME	–	10	1,5 0.059	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16ER12STACME	–	12	1,5 0.059	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		
16ER14STACME	–	14	1,3 0.051	1,5 0.059	9,525 0.375	–	16,5 0.650	3,47 0.137			■		

									Grades				
Insert Part No. Left	Pitch		PDY	PDX	IC	W1	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
22EL6STACME	–	6	2,4 0.094	2,5 0.098	12,7 0.500	–	22,0 0.866	4,71 0.185			■		

■ Stock standard.

Stub-ACME – Internal Threading

Partial profile – Snap-Tap®


ANSI B1.8 – 1988
2G

16NR



16NR/22NR/27NR



20NR



									Grades				
Insert Part No. Right	Pitch		PDY	PDX	IC	W1	L	S	Coated				Uncoated
	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>	CP200	CP300	CP500	TTP2050	H15
20NR3STACME	–	3	– –	3,2 0.126	– –	12,7 0.500	20,0 0.787	6,3 0.248			■		
27NR4STACME	–	4	2,6 0.102	2,8 0.110	15,875 0.625	– –	27,0 1.063	6,15 0.242		■	■		
22NR5STACME	–	5	2,0 0.079	2,1 0.083	12,7 0.500	– –	22,0 0.866	4,71 0.185			■		
22NR6STACME	–	6	2,4 0.094	2,5 0.098	12,7 0.500	– –	22,0 0.866	4,71 0.185			■		
16NR8STACME	–	8	1,8 0.071	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137		■	■		
16NR10STACME	–	10	1,5 0.059	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16NR12STACME	–	12	1,5 0.059	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		
16NR14STACME	–	14	1,3 0.051	1,5 0.059	9,525 0.375	– –	16,5 0.650	3,47 0.137			■		

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

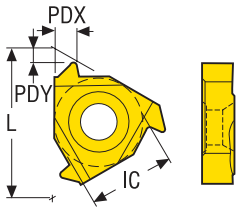
Thread milling

Thread tapping

Annex

AMERICAN BUTTRESS – External Threading

Partial profile – Snap-Tap®



16ER

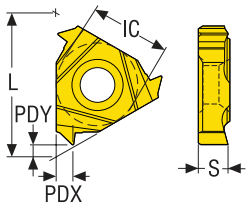


Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	Grades				
								Coated				Uncoated
	mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	CP200	CP300	CP500	TTP2050	H15
16ER12BUT-S31217	–	12	2,0 0.079	1,3 0.051	9,525 0.375	16,5 0.650	3,47 0.137			■		

■ Stock standard.

AMERICAN BUTTRESS – Internal Threading

Partial profile – Snap-Tap®



16NR

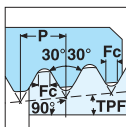
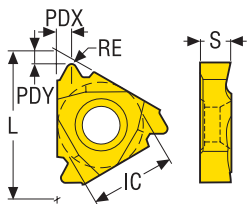


Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	Grades				
								Coated				Uncoated
	mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	CP200	CP300	CP500	TTP2050	H15
16NR12BUT-S31220	–	12	2,0 0.079	1,3 0.051	9,525 0.375	16,5 0.650	3,47 0.137			■		

■ Stock standard.

API Rotary Drilling connection - External threading

Full profile – Snap-Tap®



API Spec 7-2 2017

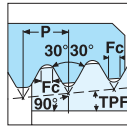
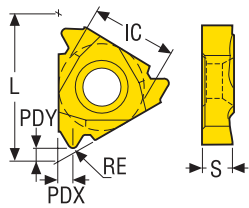
22ER/27ER



MDT										Grades				
	Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
		mm	TPI							CP200	CP300	CP500	TTP2050	H15
Mini-Shaft™	27ER4API384	–	4	0,965 0.038	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242	■		■		
	22ER4API386	–	4	0,965 0.038	1,95 0.077	2,55 0.100	12,7 0.500	22,0 0.866	4,71 0.185		■	■		
	27ER4API386	–	4	0,965 0.038	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242	■	■	■		
	27ER4API504	–	4	0,635 0.025	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242	■	■	■		
	27ER4API506	–	4	0,635 0.025	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242	■	■	■		
	22ER5API404	–	5	0,508 0.020	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185		■	■		
	27ER5API404	–	5	0,508 0.020	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242		■	■		

API Rotary Drilling connection – Internal threading

Full profile – Snap-Tap®



API Spec 7-2 2017

22NR/27NR

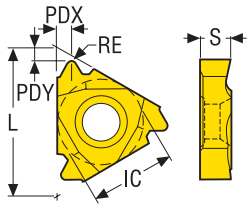


Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
									Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
22NR4API386	–	4	0,965 0.038	1,9 0.075	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185		■	■		■
27NR4API384	–	4	0,965 0.038	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242	■		■		
27NR4API386	–	4	0,965 0.038	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242	■	■	■		
27NR4API504	–	4	0,635 0.025	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242	■	■	■		
27NR4API506	–	4	0,635 0.025	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242	■	■	■		
22NR5API404	–	5	0,508 0.020	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185		■	■		
27NR5API404	–	5	0,508 0.020	2,2 0.087	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242		■			

■ Stock standard.

Rotary drill connection – External threading

Full profile – Snap-Tap®



HEF = Hughes External Flush
904/906 = Hughes H90
H90 = Hughes Slimline H90
PAC = P.A.C.

904/906



HEF



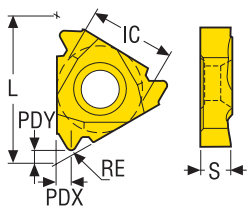
PAC



Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	Coated				Uncoated
									CP200	CP300	CP500	TTP2050	H15
27ER3H90	–	3	–	3,5 0.138	3,6 0.142	15,875 0.625	27,0 1.063	6,15 0.242			■		
27ER3.5H904	–	3.5	–	2,7 0.106	3,5 0.138	15,875 0.625	27,0 1.063	6,15 0.242			■		
27ER3.5H906	–	3.5	–	2,7 0.106	3,5 0.138	15,875 0.625	27,0 1.063	6,15 0.242			■		
22ER4PAC	–	4	–	2,4 0.094	2,63 0.104	12,7 0.500	22,0 0.866	4,71 0.185			■		
27ER4PAC	–	4	–	2,75 0.108	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242			■		
22ER6HEF	–	6	0,382 0.015	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		

Rotary drill connection – Internal threading

Full profile – Snap-Tap®



HEF = Hughes External Flush
904/906 = Hughes H90
H90 = Hughes Slimline H90
PAC = P.A.C.

904/906



HEF



PAC

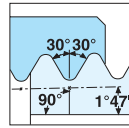
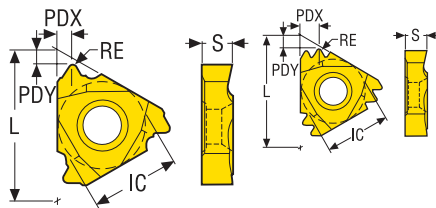


Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Grades				
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	Coated				Uncoated
									CP200	CP300	CP500	TTP2050	H15
27NR3H90	–	3	–	3,5 0.138	3,6 0.142	15,875 0.625	27,0 1.063	6,15 0.242			■		
27NR3.5H904	–	3.5	–	2,7 0.106	3,5 0.138	15,875 0.625	27,0 1.063	6,15 0.242			■		
27NR3.5H906	–	3.5	–	2,7 0.106	3,5 0.138	15,875 0.625	27,0 1.063	6,15 0.242			■		
22NR4PAC	–	4	–	2,4 0.094	2,6 0.102	12,7 0.500	22,0 0.866	4,71 0.185			■		
27NR4PAC	–	4	–	2,75 0.108	3,2 0.126	15,875 0.625	27,0 1.063	6,15 0.242			■		
22NR6HEF	–	6	0,381 0.015	2,0 0.079	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		

■ Stock standard.

API Spec. 5B ROUND – External Threading

Full profile – Snap-Tap®



API spec. 5B – 1988

16ER



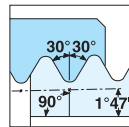
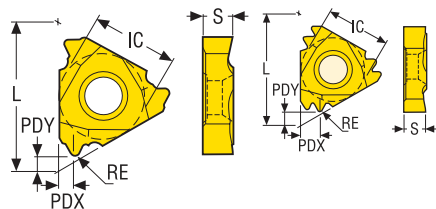
22ER/27ER..M



									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16ER8APIRD	–	8	0,46 0.018	1,5 0.059	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
27ER8APIRD2M	–	8	0,46 0.018	2,9 0.114	4,5 0.177	15,875 0.625	27,0 1.063	6,15 0.242		■			
16ER10APIRD	–	10	0,38 0.015	1,5 0.059	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
22ER10APIRD2M	–	10	0,38 0.015	2,4 0.094	3,7 0.146	12,7 0.500	22,0 0.866	4,71 0.185			■		

API Spec. 5B ROUND – Internal Threading

Full profile – Snap-Tap®



API spec. 5B – 1988

16NR



27NR..M

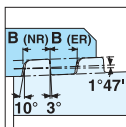
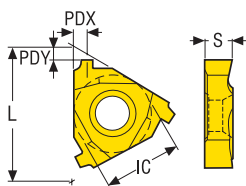


									Grades				
Insert Part No. Right	Pitch		RE	PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI							CP200	CP300	CP500	TTP2050	
16NR8APIRD	–	8	0,46 0.018	1,5 0.059	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		
27NR8APIRD2M	–	8	0,46 0.018	2,9 0.114	4,5 0.177	15,875 0.625	27,0 1.063	6,15 0.242		■			
16NR10APIRD	–	10	0,38 0.015	1,5 0.059	1,5 0.059	9,525 0.375	16,5 0.650	3,47 0.137			■		

■ Stock standard.

API 5B BUTTRESS, 1:16 Taper – External Threading

Full profile – Snap-Tap®


Vallourec ST-D453.02
API spec. 5B – 1988

Crest and root are parallel to taper

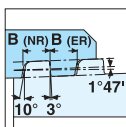
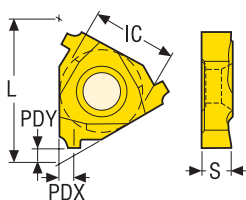
22ER



								Grades				
Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	CP200	CP300	CP500	TTP2050	H15
22ER5BUT2.5	–	5	2,2 <i>0.087</i>	2,5 <i>0.098</i>	12,7 <i>0.500</i>	22,0 <i>0.866</i>	4,71 <i>0.185</i>			■		

API 5B BUTTRESS, 1:16 Taper – Internal Threading

Full profile – Snap-Tap®


Vallourec ST-D453.02
API spec. 5B – 1988

Crest and root are parallel to taper

22NR

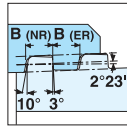
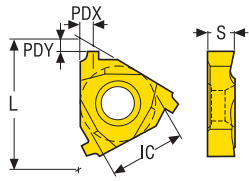


								Grades				
Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	Coated				Uncoated
	mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	CP200	CP300	CP500	TTP2050	H15
22NR5BUT2.5	–	5	2,0 <i>0.079</i>	2,1 <i>0.083</i>	12,7 <i>0.500</i>	22,0 <i>0.866</i>	4,71 <i>0.185</i>		■	■		

■ Stock standard.

API BUTTRESS 1:12 Taper - External Threading

Full profile – Snap-Tap®



API spec. 5B – 1988
Crest and root are parallel to axis

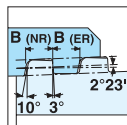
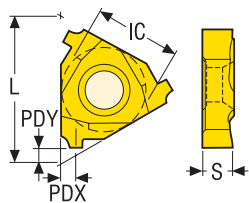
22ER



Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	Grades				
								Coated				Uncoated
	mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	CP200	CP300	CP500	TTP2050	
22ER5BUT2.6	–	5	2,2 0.087	2,5 0.098	12,7 0.500	22,0 0.866	4,71 0.185			■		H15

API BUTTRESS 1:12 Taper - Internal Threading

Full profile – Snap-Tap®



API spec. 5B – 1988
Crest and root are parallel to axis

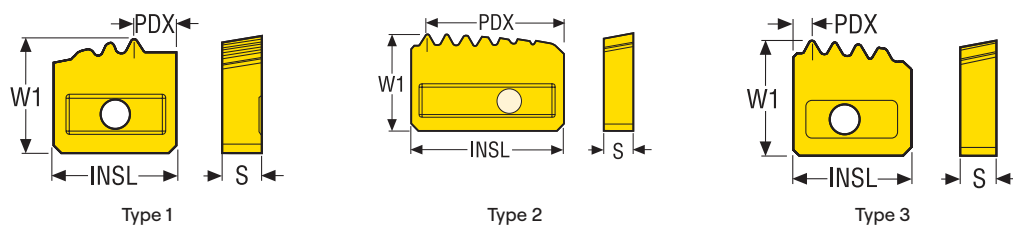
22NR



Insert Part No. Right	Pitch		PDY	PDX	IC	L	S	Grades				
								Coated				Uncoated
	mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	CP200	CP300	CP500	TTP2050	
22NR5BUT2.6	–	5	2,0 0.079	2,1 0.083	12,7 0.500	22,0 0.866	4,71 0.185			■		H15

■ Stock standard.

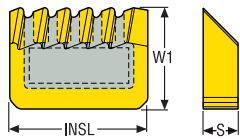
Full profile – Chasers



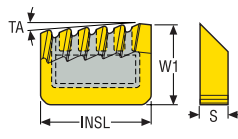
	Designation	Pitch	Thread Form Product	INSL	W1	PDX	S	NT	Int./Ext.	Type	CHF1	Grades			
												Coated			
												CP250T	CP500T	TP150T	TTP1550
MDT		TPI		mm Inch	mm Inch	mm Inch	mm Inch								
	5-1102	5,0	API_BUTTRESS_5TPI_1/16_EXT	15,875 0.625	15,875 0.625	2,1 0.083	4,76 0.187	3	External	1	C-1004-4	■			
	5-5102	5,0	API_BUTTRESS_5TPI_1/16_EXT,	25,0 0.984	15,875 0.625	2,0 0.079	5,0 0.197	5	External	1	C-5003-4	■			■
	5-1113	5,0	API_BUTTRESS_5TPI_1/16_INT,	15,875 0.625	15,875 0.625	2,5 0.098	4,76 0.187	3	Internal	3	C-1018-96	■			
Mini-Shaft™	5-5112-C	5,0	API_BUTTRESS_5TPI_1/16_INT	25,0 0.984	15,875 0.625	1,964 0.077	5,0 0.197	5	Internal	3	C-5003-96	■	■		
	5-5108	5,0	API_BUTTRESS_5TPI_1/16_INT	25,0 0.984	15,875 0.625	2,5 0.098	5,0 0.197	5	Internal	3	C-5003-96	■			
	5-1134	5,0	API_BUTT_5TPI_CAS_1/16_INTPUL	15,875 0.625	15,875 0.625	13,375 0.527	4,76 0.187	3	Internal	2	C-1018-96	■			■
	5-5110	5,0	API_BUTT_5TPI_1/16_INTPULLING	25,0 0.984	15,875 0.625	22,5 0.886	5,0 0.197	5	Internal	2	C-5003-96	■			
Thread milling	5-4131-1	5,0	API_BUTTRESS_1/16_5TPI_EXT_1	20,0 0.787	15,692 0.618	4,84 0.191	4,76 0.187	3	External	1	C-4001-4	■			
	5-4131-2	5,0	API_BUTTRESS_1/16_5TPI_EXT_2	20,0 0.787	15,875 0.625	2,3 0.091	4,76 0.187	4	External	1	C-4001-4	■			
	5-3105-1	5,0	API_BUTTRESS_5TPI_1/16_PMC_1	17,0 0.669	14,57 0.574	5,552 0.219	5,2 0.205	3	External	1	C-3901-1	■			
	5-3105-2	5,0	API_BUTTRESS_5TPI_1/16_PMC_2	17,0 0.669	14,825 0.584	3,858 0.152	5,2 0.205	3	External	1	C-3901-2	■			
Thread tapping	5-3105-3	5,0	API_BUTTRESS_5TPI_1/16_PMC_3	17,0 0.669	14,98 0.590	2,165 0.085	5,2 0.205	3	External	1	C-3901-3	■			
	8-1116	8,0	API_RD_CAS_8TPI_EXT,	15,875 0.625	15,875 0.625	5,6 0.220	4,76 0.187	3	External	1	C-1005-4	■			
	8-1128	8,0	API_RD_8TPI_INT,	15,875 0.625	15,875 0.625	2,5 0.098	4,76 0.187	4	Internal	3	C-1002-96	■			
	8-5111	8,0	API_RD_8TPI_INT	25,0 0.984	15,875 0.625	2,5 0.098	5,0 0.197	7	Internal	3	C-5002-96	■			
Annex	8-4133-1	8,0	API_RD_8TPI_EXT_CASING_1	20,0 0.787	15,875 0.625	10,19 0.401	4,76 0.187	3	External	1	C-4003-4	■			
	8-4133-2	8,0	API_RD_8TPI_EXT_CASING_2	20,0 0.787	15,875 0.625	8,6 0.339	4,76 0.187	3	External	1	C-4003-4	■			
	8-2115-1	8,0	API_RD_8TPI_CAS_3/4_TPF_PMC_1	16,0 0.630	14,62 0.576	7,697 0.303	5,2 0.205	3	External	1	–	■			
	8-2115-2	8,0	API_RD_8TPI_CAS_3/4_TPF_PMC_2	16,0 0.630	14,87 0.585	6,638 0.261	5,2 0.205	3	External	1	–	■			
	8-2115-3	8,0	API_RD_8TPI_CAS_3/4_TPF_PMC_3	16,0 0.630	15,0 0.591	5,58 0.220	5,2 0.205	3	External	1	–	■			
	8-1117	8,0	API_RD_TUBING_8TPI_EXT,	15,875 0.625	15,875 0.625	5,6 0.220	4,76 0.187	3	External	1	C-1005-4	■			
	8-2118-1	8,0	API_RD_8TPI_TUB_3/4_TPF_PMC_1	16,0 0.630	14,62 0.576	7,697 0.303	5,2 0.205	3	External	1	–	■			
	8-2118-2	8,0	API_RD_8TPI_TUB_3/4_TPF_PMC_2	16,0 0.630	14,87 0.585	6,638 0.261	5,2 0.205	3	External	1	–	■			
	8-2118-3	8,0	API_RD_8TPI_TUB_3/4_TPF_PMC_3	16,0 0.630	15,0 0.591	5,58 0.220	5,2 0.205	3	External	1	–	■			
	8-5114	8,0	API_RD_8TPI_INTPULLING	25,0 0.984	15,875 0.625	22,5 0.886	5,0 0.197	7	Internal	2	C-5002-96	■			
	10-1120	10,0	API_RD_10TPI_TUB_INT	15,875 0.625	15,875 0.625	5,0 0.197	4,76 0.187	4	Internal	3	C-1001-96	■			
	10-1133-2	10,0	API_RD_10TPI_TUB_EXT_2	15,875 0.625	15,875 0.625	4,4 0.173	4,76 0.187	3	External	1	C-1001-4	■			

■ Stock standard.

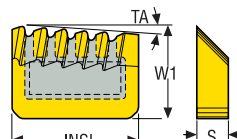
Chipformers



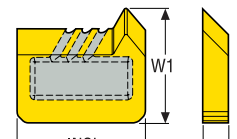
Type 1



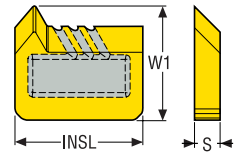
Type 2



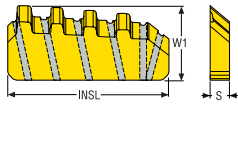
Type 3



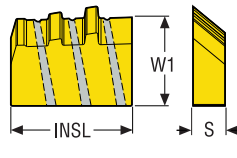
Type 4



Type 5



Type 6



Type 7

Designation	Type	INSL	W1	S
		mm Inch	mm Inch	mm Inch
C-1001	1	15,7 0.618	11,5 0.453	3,97 0.156
C-1001-4	2	15,7 0.618	11,5 0.453	3,97 0.156
C-1001-96	3	15,7 0.618	11,5 0.453	3,97 0.156
C-1002	1	15,7 0.618	11,5 0.453	3,97 0.156
C-1002-4	2	15,7 0.618	11,5 0.453	3,97 0.156
C-1002-96	3	15,7 0.618	11,5 0.453	3,97 0.156
C-1003	1	15,7 0.618	11,5 0.453	3,97 0.156
C-1004	1	15,7 0.618	11,5 0.453	3,97 0.156
C-1004-4	2	15,7 0.618	11,5 0.453	3,97 0.156
C-1004-96	3	15,7 0.618	11,5 0.453	3,97 0.156
C-1005-4	2	15,7 0.618	11,5 0.453	3,97 0.156
C-1005-96	3	15,7 0.618	11,5 0.453	3,97 0.156
C-1006-4	2	15,7 0.618	11,5 0.453	3,97 0.156
C-1009	1	15,7 0.618	11,5 0.453	3,97 0.156
C-1009-4	1	15,7 0.618	11,5 0.453	3,97 0.156
C-1009-96	3	15,7 0.618	11,5 0.453	3,97 0.156
C-1010	1	15,7 0.618	11,5 0.453	3,97 0.156
C-1010-4	2	15,7 0.618	11,5 0.453	3,97 0.156
C-1010-96	3	15,7 0.618	11,5 0.453	3,97 0.156
C-1013-96	3	15,7 0.618	11,5 0.453	3,97 0.156
C-1018	1	15,7 0.618	11,5 0.453	3,97 0.156
C-1018-96	3	15,7 0.618	11,5 0.453	3,97 0.156
C-1021-96	3	15,7 0.618	11,5 0.453	3,97 0.156
C-1022	4	15,7 0.618	11,5 0.453	3,18 0.125
C-1023	5	15,7 0.618	11,5 0.453	3,18 0.125

	Designation	Type	INSL	W1	S
			mm Inch	mm Inch	mm Inch
Thread turning	C-1024	4	15,7 0.618	11,5 0.453	3,97 0.156
	C-1025	5	15,7 0.618	11,5 0.453	3,97 0.156
	C-1032	5	15,7 0.618	11,5 0.453	3,18 0.125
	C-1033	4	15,7 0.618	11,5 0.453	3,18 0.125
MDT	C-1034	5	15,7 0.618	11,5 0.453	3,18 0.125
	C-1035	4	15,7 0.618	11,5 0.453	3,18 0.125
	C-1601-96	3	15,7 0.618	12,5 0.492	3,97 0.156
	C-1604-4	2	15,7 0.618	12,5 0.492	3,97 0.156
	C-1X37-I-145	4	15,7 0.618	14,5 0.571	3,18 0.125
	C-1X38-I-145	5	15,7 0.618	14,5 0.571	3,18 0.125
	C-1X39-I-145	4	15,7 0.618	14,5 0.571	3,18 0.125
	C-1X40-I-145	5	15,7 0.618	14,5 0.571	3,18 0.125
	C-1X41-I-145	4	15,7 0.618	14,5 0.571	3,18 0.125
	C-1X42-I-145	5	15,7 0.618	14,5 0.571	3,18 0.125
Mini-Shaft™	C-3901-1	7	16,9 0.665	13,9 0.547	4,47 0.176
	C-3901-2	7	16,9 0.665	14,0 0.551	4,47 0.176
	C-3901-3	7	16,9 0.665	14,2 0.559	4,47 0.176
	C-4001-4	2	19,8 0.780	11,5 0.453	3,97 0.156
Thread milling	C-4003-4	2	19,8 0.780	11,5 0.453	3,97 0.156
	C-5001-4	2	24,8 0.976	11,5 0.453	3,97 0.156
	C-5001-96	3	24,8 0.976	11,5 0.453	3,97 0.156
	C-5002-4	2	24,8 0.976	11,5 0.453	3,97 0.156
	C-5002-96	3	24,8 0.976	11,5 0.453	3,97 0.156
	C-5003	1	24,8 0.976	11,5 0.453	3,97 0.156
Thread tapping	C-5003-4	2	24,8 0.976	11,5 0.453	3,97 0.156
	C-5003-96	3	24,8 0.976	11,5 0.453	3,97 0.156
	C-5005	1	24,8 0.976	11,5 0.453	3,0 0.118
	C-5006	1	24,8 0.976	11,5 0.453	3,0 0.118
	C-5705-G	6	24,8 0.976	13,0 0.512	3,0 0.118
	C-5803-4	6	24,8 0.976	13,5 0.531	3,97 0.156
Annex	C-5805-G	6	24,8 0.976	13,5 0.531	3,0 0.118
	C-5905-G	6	24,8 0.976	14,0 0.551	3,0 0.118
	C-9001-I	4	12,6 0.496	11,5 0.453	3,18 0.125



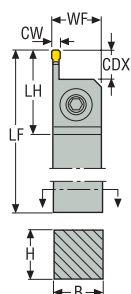
Thread turning MDT

The highly stable and reliable Seco MDT (Multi-Directional Turning) system consists of holders and inserts that offers excellent performance in thread-turning operations. Products are available for both external and internal threads. Its unique clamping method is a combination of V-shaped top clamp and serrated contact surfaces between the underside of the insert and toolholder, resulting in superb stability.

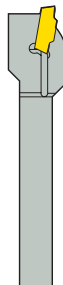
- External and Internal threads.
- Unique clamping method.
- V-shaped top clamp secure stability.

MDT Toolholders, external

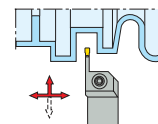
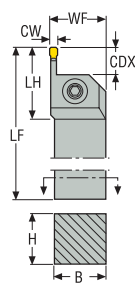
Toolholders for inserts LCGN


CFIR/
L1212../1616


CFIR/L1212..



CFIR/L



—Right-hand version shown

— $a_r = 3 \times a_p$

—CW = indicative Cutting Width, may vary depending on the chosen insert

—For inserts program, see page(s) 181

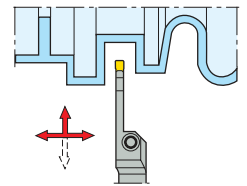
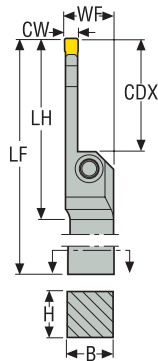
Designation	Item number	H	B	CDX	CW	LF	WF	LH	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
CFIR1212M03	02435854	12,0	12,0	9,0	3,0	150,0	12,0	31,0	0,2	LC..1603..
CFIR1616H03	00091799	16,0	16,0	9,0	3,0	100,0	16,0	28,0	0,2	LC..1603..
CFIR2020K03	00068771	20,0	20,0	9,0	3,0	125,0	21,5	28,0	0,4	LC..1603..
CFIR2525M03	00068773	25,0	25,0	9,0	3,0	150,0	26,5	28,0	0,7	LC..1603..
CFIR3225P03	00013453	32,0	25,0	9,0	3,0	170,0	26,5	28,0	1,0	LC..1603..
CFIL1212M03	02435855	12,0	12,0	9,0	3,0	150,0	12,0	31,0	0,2	LC..1603..
CFIL1616H03	00091798	16,0	16,0	9,0	3,0	100,0	16,0	28,0	0,2	LC..1603..
CFIL2020K03	00068770	20,0	20,0	9,0	3,0	125,0	21,5	28,0	0,4	LC..1603..
CFIL2525M03	00068772	25,0	25,0	9,0	3,0	150,0	26,5	28,0	0,7	LC..1603..
CFIL3225P03	00013452	32,0	25,0	9,0	3,0	170,0	26,5	28,0	1,0	LC..1603..

Spare Parts, included in delivery

For holders	Clamp key	Clamp screw
		
..1212M03	3SMS795	TCEI0409
..1616H03	4SMS795	TCEI0509
..2020K03	4SMS795	TCEI0513
..2525M03	4SMS795	TCEI0513
..3225P03	4SMS795	TCEI0513

MDT Toolholders, external

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- Right-hand version shown
- DCINN3 - minimum bore diameter for internal application, see catalog Turning
- CDX - Max depth of cut for LCGF/LCMF16.. = 14 mm, LCGF/LCMF30.. = 28
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For inserts program, see page(s) 181

$$CDX = 8 \times CW$$

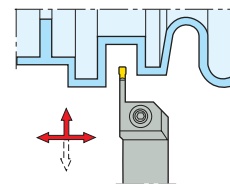
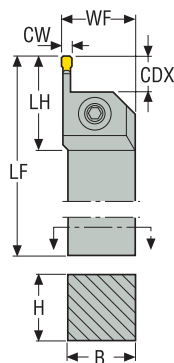
Designation	Item number	H	B	CDX	CW	LF	WF	LH	DCINN3	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CFSR2525M03	02703367	25,0	25,0	24,0	3,0	150,0	26,5	46,0	195,0	0,7	LC..1603..
CFSR3225P03	02703375	32,0	25,0	24,0	3,0	170,0	26,1	46,0	195,0	1,0	LC..1603..
CFSL2525M03	02703363	25,0	25,0	24,0	3,0	150,0	26,5	46,0	195,0	0,7	LC..1603..
CFSL3225P03	02703371	32,0	25,0	24,0	3,0	170,0	26,1	46,0	195,0	1,0	LC..1603..

Spare Parts, included in delivery

For holders	Clamp key	Clamp screw
		
CFSR/L...03	4SMS795	TCEI0513

MDT Toolholders, external

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



$$CDX = 5 \times CW$$

- Right-hand version shown
- DCINN3 – minimum bore diameter for internal application, see catalog Turning
- CDX – Max depth of cut for LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For inserts program, see page(s) 181

Designation	Item number	H	B	CDX	CW	LF	WF	LH	DCINN3	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	
CFMR2020K03	00068777	20,0	20,0	15,0	3,0	125,0	21,5	36,0	–	0,4	LC..1603..
CFMR2525M03	00068779	25,0	25,0	15,0	3,0	150,0	26,5	36,0	195,0	0,7	LC..1603..
CFMR3225P03	00013460	32,0	25,0	15,0	3,0	170,0	26,5	36,0	195,0	1,0	LC..1603..
CFML2020K03	00068776	20,0	20,0	15,0	3,0	125,0	21,5	36,0	–	0,4	LC..1603..
CFML2525M03	00068778	25,0	25,0	15,0	3,0	150,0	26,5	36,0	195,0	0,7	LC..1603..
CFML3225P03	00013459	32,0	25,0	15,0	3,0	170,0	26,5	36,0	195,0	1,0	LC..1603..

Spare Parts, included in delivery

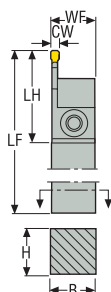
For holders	Clamp key	Clamp screw
		
CFMR/L...03	4SMS795	TCEI0513

MDT Toolholders, external

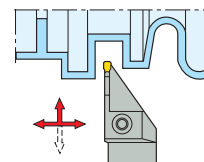
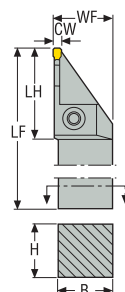
Toolholders for inserts LCGN and LCMR



CF..1212, 1616



CF..2020, 2525



- Right-hand version shown
- CUTDIA – Due to the design, grooving depth is limited, see catalog Turning
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For inserts program, see page(s) 181

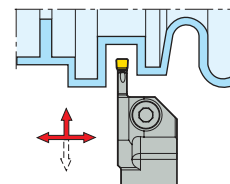
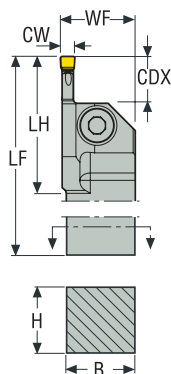
Designation	Item number	H	B	CW	LF	WF	LH	CUTDIA	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
CFOR1212M03	00053367	12,0	12,0	3,0	150,0	12,0	32,1	37,0	0,2	LC..1603..
CFOL1212M03	00053357	12,0	12,0	3,0	150,0	12,0	32,1	37,0	0,2	LC..1603..
CFTR1616M03	00054058	16,0	16,0	3,0	150,0	16,0	42,0	50,0	0,3	LC..1603..
CFTR2020K03	00054060	20,0	20,0	3,0	125,0	21,5	43,0	50,0	0,4	LC..1603..
CFTR2525M03	00054066	25,0	25,0	3,0	150,0	26,5	42,5	50,0	0,7	LC..1603..
CFTL1616M03	00054057	16,0	16,0	3,0	150,0	16,0	42,0	50,0	0,3	LC..1603..
CFTL2020K03	00054059	20,0	20,0	3,0	125,0	21,5	43,0	50,0	0,4	LC..1603..
CFTL2525M03	00054063	25,0	25,0	3,0	150,0	26,5	42,5	50,0	0,7	LC..1603..

Spare Parts, included in delivery

For holders	Clamp key	Clamp screw
		
CFOR/L...03	3SMS795	TCEI0409
CFTR/L...03	4SMS795	TCEI0513

MDT Toolholders, external

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- Right-hand version shown
- CDX – Max depth of cut for LCGF/LCMF16.. = 14 mm,
LCGF/LCMF30.. = 28
- CP – Max coolant pressure (bar) using hose connection
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For inserts program, see page(s) 181

CFIR/L CDX = 3 x CW
CFMR/L CDX = 5 x CW

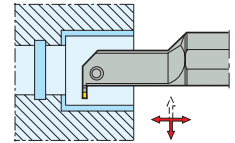
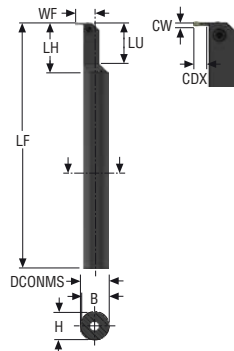
Designation	Item number	H	B	CDX	CW	LF	WF	LH	DCINN3	Weight	CP	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	kg	bar	
CFIR3225P03JET	02599873	32,0	25,0	9,0	3,0	170,0	26,5	33,0	195,0	1,1	275,0	LC..1603..
CFIL3225P03JET	02599874	32,0	25,0	9,0	3,0	170,0	26,5	33,0	195,0	1,0	275,0	LC..1603..
CFMR3225P03JET	02702825	32,0	25,0	15,0	3,0	170,0	26,5	41,0	195,0	1,0	275,0	LC..1603..
CFML3225P03JET	02702829	32,0	25,0	15,0	3,0	170,0	26,5	41,0	195,0	1,0	275,0	LC..1603..

Spare Parts, included in delivery

For holders	Clamp key	Clamp screw	Plug
			
CFIR/L...-03	4SMS795	TCEI0513	JET-P1/8-5MM
CFMR/L...-03	4SMS795	TCEI0513	JET-P1/8-5MM

MDT Toolholders, internal

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- Right-hand version shown
- DCINN - minimum bore diameter
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For inserts program, see page(s) 181

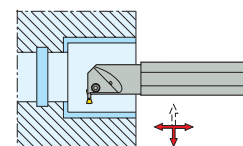
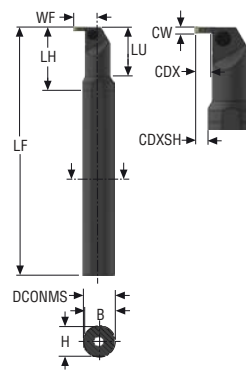
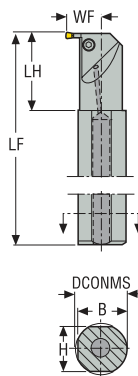
Designation	Item number	H	B	CDX	CW	LF	LU	WF	LH	DMM	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
A32T-CGIR1603	02717661	30,0	31,0	9,0	3,0	300,0	50,0	24,0	60,0	32,0	32,0	1,5	LC..1603..
A32T-CGIL1603	02718385	30,0	31,0	9,0	3,0	300,0	50,0	24,0	60,0	32,0	32,0	1,5	LC..1603..

Spare Parts, included in delivery

For holders	Clamp key	Clamp screw
		
CG.R/L...03	T15P-7	L85011-T15P

MDT Toolholders, internal

Toolholders for inserts LCGF, LCGN, LCMF and LCMR

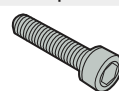


$$CDX = 2 \times CW$$

- Right-hand version shown
- DCINN - minimum bore diameter
- CDXSH - If toolholder enters bore more than LH
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For inserts program, see page(s) 181

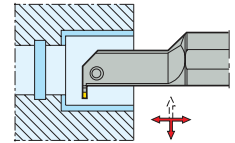
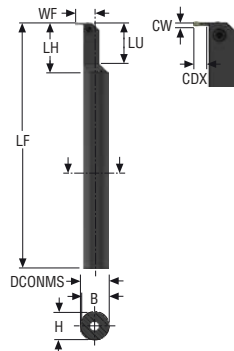
Designation	Item number	H	B	CDX	CDXSH	CW	LF	WF	LH	DMM	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg	
A40T-CGGR03	00093896	37,0	38,5	6,0	5,5	3,0	300,0	26,0	60,0	40,0	45,0	2,5	LC..1603..
A40T-CGGL03	00093897	37,0	38,5	6,0	5,5	3,0	300,0	26,0	60,0	40,0	45,0	2,5	LC..1603..

Spare Parts, included in delivery

For holders	Clamp key	Clamp screw
		
...03	3SMS795	MC6S4X14

MDT Toolholders, internal

Toolholders for inserts LCGF, LCGN, LCMF and LCMR



- Right-hand version shown
- DCINN - minimum bore diameter
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For inserts program, see page(s) 181

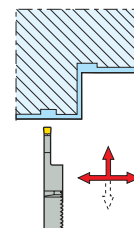
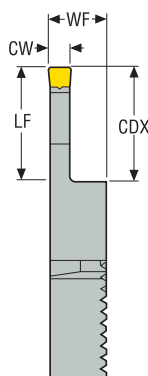
Designation	Item number	H	B	CDX	CW	LF	LU	WF	LH	DMM	DCINN	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	lbs	
A20-CGIR03	02717401	1.171	1.211	0.354	0.118	12.000	1.969	0.929	2.362	1.250	1.260	3.3	LC..1603..
A20-CGIL03	02718392	1.171	1.211	0.354	0.118	12.000	1.969	0.929	2.362	1.250	1.260	3.3	LC..1603..

Spare Parts, included in delivery

For holders	Clamp key	Clamp screw
		
..03	T15P-7	L85011-T15P

MDT Blades modular

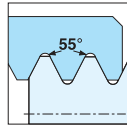
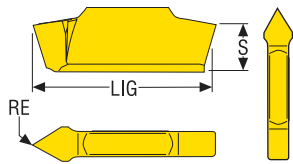
Blades for inserts LCGF, LCGN, LCMF and LCMR



- Right-hand version shown
- CDX – Max depth of cut for LCGF/LCMF13.. = 11 mm
LCGF/LCMF16.. = 14 mm
- CW = indicative Cutting Width, may vary depending on the chosen insert
- For inserts program, see page(s) 181

Designation	Item number	CDX	CW	LF	WF	Weight	CTWS
		mm	mm	mm	mm	kg	
V21-CMR1603	00030310	15,0	3,0	16,2	9,2	0,1	LC..1603..
V21-CML1603	02719038	15,0	3,0	16,2	9,2	0,1	LC..1603..

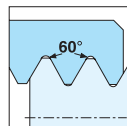
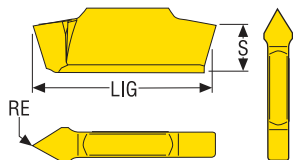
MDT Inserts LCGN – Partial profile 55°



Tolerances:
LIG = $\pm 0,025$
RE = $\pm 0,025$
Helix angle not to exceed $\lambda + 2^\circ$

						Grades				
Designation	Pitch		RE	LIG	S	Coated				Uncoated
	mm	TPI				CP200	CP300	CP500	TTP2050	
LCGN1603-A55	0,5-1,5	48-16	0,08 0.003	16,6 0.654	4,5 0.177			■		
LCGN1603-G55	1,75-3	14-8	0,18 0.007	16,6 0.654	4,5 0.177			■		

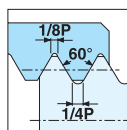
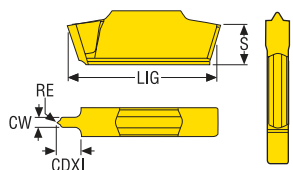
MDT Inserts LCGN – Partial profile 60°



Tolerances:
LIG = $\pm 0,025$
RE = $\pm 0,025$
Helix angle not to exceed $\lambda + 2^\circ$

						Grades				
Designation	Pitch		RE	LIG	S	Coated				Uncoated
	mm	TPI				CP200	CP300	CP500	TTP2050	
LCGN1603-A60	0,5-1,5	48-16	0,08 0.003	16,6 0.654	4,5 0.177			■		
LCGN1603-G60	1,75-3	14-8	0,18 0.007	16,6 0.654	4,5 0.177			■		

MDT Inserts – LCGN – ISO Metric



Tolerances:
LIG = $\pm 0,025$
Helix angle not to exceed $\lambda + 2^\circ$

								Grades					
Designation	Note	Pitch		RE	LIG	S	CW	CDXI	Coated				Uncoated
		mm	TPI						CP200	CP300	CP500	TTP2050	
		mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	CP200	CP300	CP500	TTP2050	H15
LCGN1603-E0.5ISO	*	0,5		0,07 0.003	16,6 0.654	4,5 0.177	0,75 0.030	1,9 0.075			■		
LCGN1603-E0.8ISO	*	0,8		0,11 0.004	16,6 0.654	4,5 0.177	1,2 0.047	3,0 0.118			■		
LCGN1603-E1.0ISO	*	1,0		0,13 0.005	16,6 0.654	4,5 0.177	1,5 0.059	3,75 0.148			■		
LCGN1603-E1.25ISO	*	1,25		0,17 0.007	16,6 0.654	4,5 0.177	1,88 0.074	4,2 0.165			■		
LCGN1603-E1.5ISO		1,5		0,21 0.008	16,6 0.654	4,5 0.177	2,4 0.094	0,92 0.036			■		

*Toolholders have to be modified
■ Stock standard.



Thread turning Mini-Shaft™

The highly versatile Mini-Shaft™ consists of inserts and holders providing stable, high-precision internal threading operations. Mini-Shaft™ features a special double-serrated joint that creates a secure connection point for its exchangeable inserts and toolholders, resulting in a repeatability of ± 0.02 mm (± 0.0008 inch).

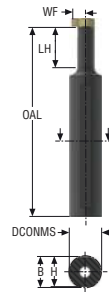
- All toolholders can accommodate R- and L-handed inserts.
- Through coolant possibility.
- Use in holes as small as 8 mm (0.315 inch).

Mini-Shaft™ Holders

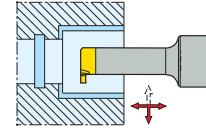
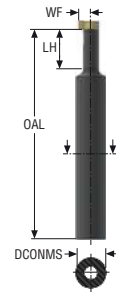
Toolholders for inserts LCEX



A..-SGXN



A..-SGXN-R



- Right-hand version shown
- For inserts program, see page(s) 186-190

Designation	Item number	H	B	OAL	WF	LH	DMM	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	mm	kg	
A12G-SGXN08-20	02411140	11,0	11,5	86,5	4,8	16,5	12,0	8,0	0,1	LCEX08..
A12G-SGXN08-20-R	02511871	—	—	86,5	4,8	16,5	12,0	8,0	0,1	LCEX08..
A16H-SGXN11-25	02411142	15,0	15,5	96,0	6,7	21,0	16,0	11,0	0,2	LCEX11..
A16H-SGXN11-25-R	02511872	—	—	96,0	6,7	21,0	16,0	11,0	0,2	LCEX11..

Spare Parts, included in delivery

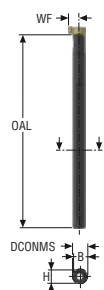
For holders	Insert key	Insert screw
		
A12G-..	T08P-2	C02506-T08P
A16H-..	T10P-2	C03509-T10P

Mini-Shaft™ Holders

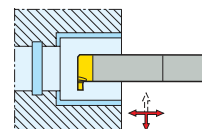
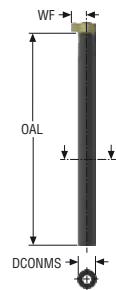
Toolholders for inserts LCEX



E...-SGXN



E...-SGXN-R



—Right-hand version shown

—For inserts program, see page(s) 186-190

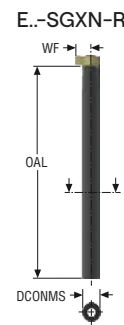
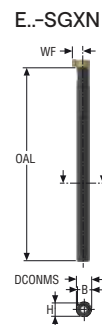
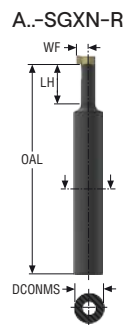
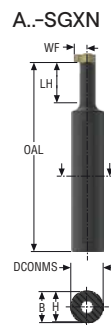
Designation	Item number	H	B	OAL	WF	DMM	DCINN	Weight	CTWS
		mm	mm	mm	mm	mm	mm	kg	
E06G-SGXN08	02411141	5,5	5,75	86,5	4,8	6,0	8,0	0,1	LCEX08..
E06G-SGXN08-R	02513692	—	—	86,5	4,8	6,0	8,0	0,1	LCEX08..
E08H-SGXN11	02411143	7,3	7,65	96,0	6,7	8,0	11,0	0,1	LCEX11..
E08H-SGXN11-R	02513696	—	—	96,0	6,7	8,0	11,0	0,1	LCEX11..

Spare Parts, included in delivery

For holders	Insert key	Insert screw
		
E06G-..	T08P-2	C02506-T08P
E08H-..	T10P-2	C03509-T10P

SGXN Mini-Shaft™ Holders

Toolholders for inserts LCEX



—Right-hand version shown
—For inserts program, see page(s) 186-190

Designation	Item number	H	B	OAL	WF	LH	DMM	DCINN	Weight	CTWS
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	lbs	
A10G-SGXN08-078	02450441	0.586	0.605	3.406	0.188	0.650	0.625	0.315	0.4	LCEX08..
E04G-SGXN08	02450442	0.217	0.233	3.406	0.189	—	0.250	0.315	0.2	LCEX08..
A10H-SGXN11-098	02450443	0.586	0.605	3.780	0.264	0.827	0.625	0.433	0.4	LCEX11..
E05H-SGXN11	02450445	0.287	0.300	3.780	0.264	—	0.312	0.433	0.2	LCEX11..
A10G-SGXN08-078-R	02511873	—	—	3.406	0.188	0.650	0.625	0.315	0.2	LCEX08..
A10H-SGXN11-098-R	02511874	—	—	3.780	0.264	0.827	0.625	0.433	0.4	LCEX11..
E04G-SGXN08-R	02513700	—	—	3.406	0.189	—	0.250	0.315	0.2	LCEX08..
E05H-SGXN11-R	02513704	—	—	3.780	0.264	—	0.312	0.433	0.2	LCEX11..

Spare Parts, included in delivery

For holders	Insert key	Insert screw
		
A10G-../E04G-..	T08P-2	C02506-T08P
A10H-../E05H-..	T10P-2	C03509-T10P

Thread turning

MDT

Mini-Shaft™

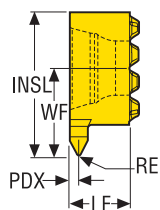
Thread milling

Thread tapping

Annex

Mini-Shaft™ Inserts

Partial profile 60°



..L



..R

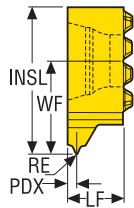


Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
LCEX0804-A60R	0,5-0,75	48,0-36,0	0,03 0.001	0,48 0.019	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-A60L	0,5-0,75	48,0-36,0	0,03 0.001	0,48 0.019	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-AG60R	0,75-1,25	36,0-20,0	0,07 0.003	0,73 0.029	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-AG60L	0,75-1,25	36,0-20,0	0,07 0.003	0,73 0.029	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-G60R	1,25-1,75	20,0-16,0	0,12 0.005	0,98 0.039	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-G60L	1,25-1,75	20,0-16,0	0,12 0.005	0,98 0.039	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX1105-A60R	0,5-0,75	48,0-36,0	0,03 0.001	0,48 0.019	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-A60L	0,5-0,75	48,0-36,0	0,03 0.001	0,48 0.019	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-AG60R	0,75-1,25	36,0-20,0	0,07 0.003	0,73 0.029	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-AG60L	0,75-1,25	36,0-20,0	0,07 0.003	0,73 0.029	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-G60R	1,25-1,75	16,0-20,0	0,12 0.005	0,98 0.039	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-G60L	1,25-1,75	20,0-16,0	0,12 0.005	0,98 0.039	6,7 0.264	10,7 0.421	4,0 0.157			■		

■ Stock standard.

Mini-Shaft™ Inserts

ISO Metric



Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
LCEX1105-1.0ISOR	1,0-1,0		0,07 0.003	0,6 0.024	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-1.0ISOL	1,0-1,0		0,07 0.003	0,6 0.024	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-1.5ISOR	1,5-1,5		0,12 0.005	0,85 0.033	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-1.5ISOL	1,5-1,5		0,12 0.005	0,8 0.031	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-2.0ISOR	2,0-2,0		0,17 0.007	1,1 0.043	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-2.0ISOL	2,0-2,0		0,17 0.007	1,1 0.043	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-2.5ISOR	2,5-2,5		0,18 0.007	1,35 0.053	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-2.5ISOL	2,5-2,5		0,18 0.007	1,35 0.053	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-3.0ISOR	3,0-3,0		0,21 0.008	1,6 0.063	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-3.0ISOL	3,0-3,0		0,21 0.008	1,6 0.063	6,7 0.264	10,7 0.421	4,0 0.157			■		

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

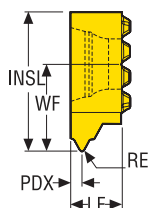
Thread milling

Thread tapping

Annex

Mini-Shaft™ Inserts

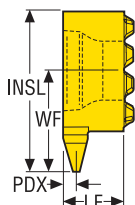
Whitworth, BSW



								Grades				
Designation	Pitch		RE	PDX	WF	INSL	LF	Coated				Uncoated
	mm	TPI						CP200	CP300	CP500	TTP2050	
	mm	TPI	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					H15
LCEX1105-14WR		14,0-14,0	0,24 <i>0.009</i>	1,0 <i>0.039</i>	6,7 <i>0.264</i>	10,7 <i>0.421</i>	4,0 <i>0.157</i>			■		
LCEX1105-14WL		14,0-14,0	0,24 <i>0.009</i>	1,0 <i>0.039</i>	6,7 <i>0.264</i>	10,7 <i>0.421</i>	4,0 <i>0.157</i>			■		
LCEX1105-19WR		19,0-19,0	0,15 <i>0.006</i>	0,77 <i>0.030</i>	6,7 <i>0.264</i>	10,7 <i>0.421</i>	4,0 <i>0.157</i>			■		
LCEX1105-19WL		19,0-19,0	0,15 <i>0.006</i>	0,77 <i>0.030</i>	6,7 <i>0.264</i>	10,7 <i>0.421</i>	4,0 <i>0.157</i>			■		

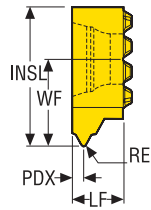
Mini-Shaft™ Inserts

TR-DIN103



								Grades				
Designation	Pitch		RE	PDX	WF	INSL	LF	Coated				Uncoated
	mm	TPI						CP200	CP300	CP500	TTP2050	
LCEX1105-1.5TRR	1,5-1,5		0,1 0.004	0,8 0.031	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-1.5TRL	1,5-1,5		0,1 0.004	0,8 0.031	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-2.0TRR	2,0-2,0		0,15 0.006	1,1 0.043	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-2.0TRL	2,0-2,0		0,15 0.006	1,1 0.043	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-3.0TRR	3,0-3,0		0,15 0.006	1,6 0.063	6,7 0.264	10,7 0.421	4,0 0.157			■		
LCEX1105-3.0TRL	3,0-3,0		0,15 0.006	1,6 0.063	6,7 0.264	10,7 0.421	4,0 0.157			■		

■ Stock standard.

Mini-Shaft™ Inserts
UN


Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
LCEX0804-16UNR	16,0-16,0		0,13 0.005	0,9 0.035	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-16UNL	16,0-16,0		0,13 0.005	0,9 0.035	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-20UNR	20,0-20,0		0,09 0.004	0,7 0.028	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-20UNL	20,0-20,0		0,09 0.004	0,7 0.028	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-24UNR	24,0-24,0		0,07 0.003	0,6 0.024	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-24UNL	24,0-24,0		0,07 0.003	0,6 0.024	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-32UNR	32,0-32,0		0,04 0.002	0,5 0.020	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-32UNL	32,0-32,0		0,04 0.002	0,5 0.020	4,78 0.188	7,78 0.306	3,3 0.130			■		

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

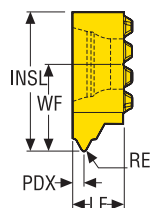
Thread milling

Thread tapping

Annex

Mini-Shaft™ Inserts

NPT



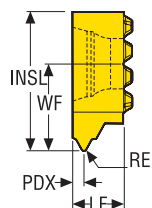
..R



Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
LCEX0804-27NPTR	27,0-27,0		0,03 0.001	0,57 0.022	4,78 0.188	7,78 0.306	3,3 0.130			■		

Mini-Shaft™ Inserts

NPTF



..L



..R



Designation	Pitch		RE	PDX	WF	INSL	LF	Grades				
								Coated				Uncoated
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	CP200	CP300	CP500	TTP2050	H15
LCEX0804-27NPTFR	27,0-27,0		0,04 0.002	0,57 0.022	4,78 0.188	7,78 0.306	3,3 0.130			■		
LCEX0804-27NPTFL	27,0-27,0		0,04 0.002	0,57 0.022	4,78 0.188	7,78 0.306	3,3 0.130			■		

■ Stock standard.

Range overview

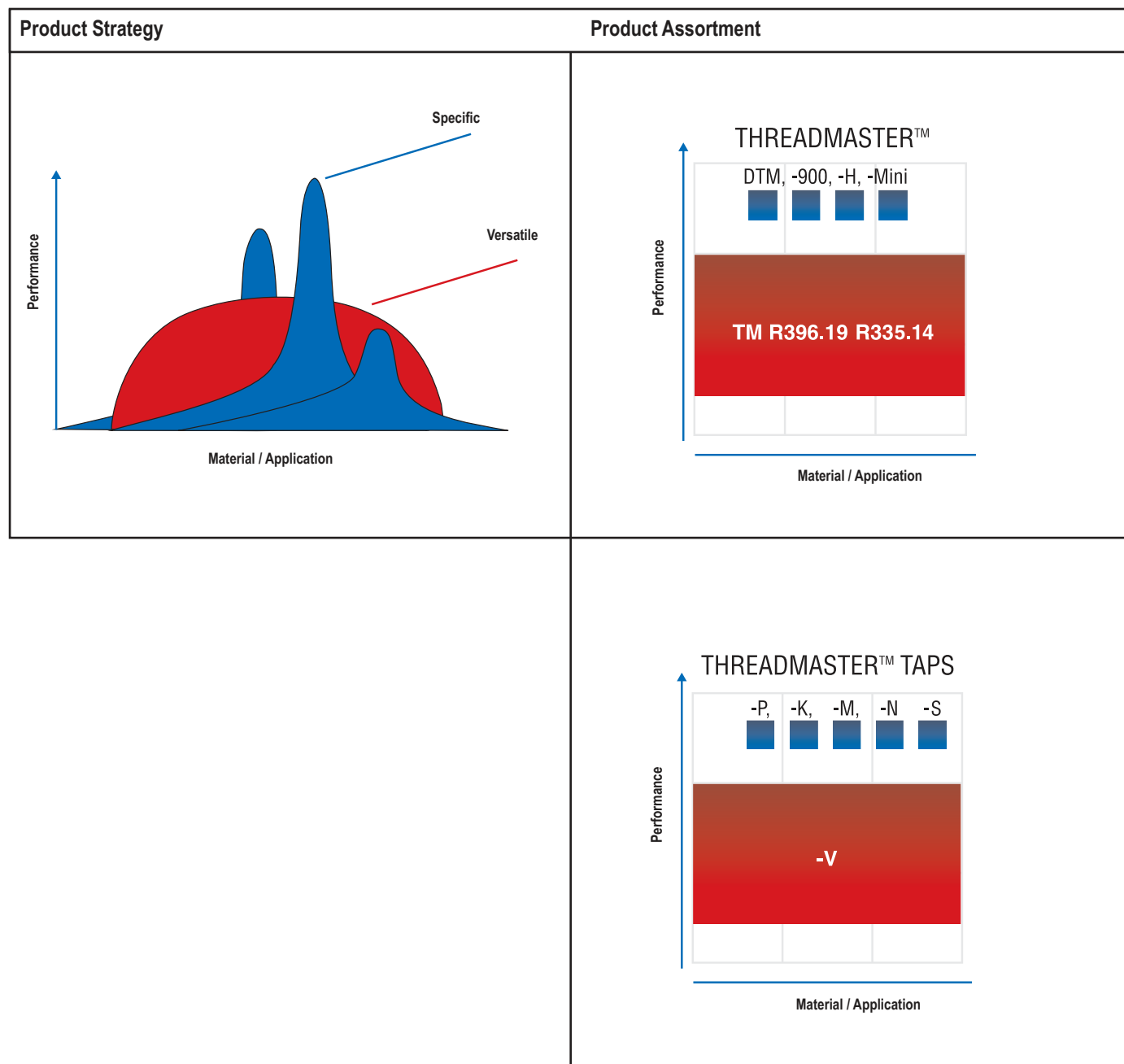
	Range Ø	Length
Threadmaster™  Page(s) 200, 201-204	M1-M20	~ 1,5-2 x D
R396.18/19/20  Page(s) 212-217	14 ≤	~ 2 - 3.5 x D
R335.14  Page(s) 224-226	12<	~1xD<
Threadmaster™ Taps  Page(s) 242-468	M1-M64	~ 1,5–3,5 x D

Versatile & Specific

Thread milling and Tapping – Choice of tool

Continuous research and development of better materials, coatings and optimal geometries help fulfil customer's requirements.

Our product strategy is to provide the market with versatile first choice tools and specific optimized solutions for threading.



Thread milling – Choice of cutter, inserts and cutting data

Solid carbide cutter – Threadmaster™

1. General

The same cutter can be used for machining both right and left hand threads. Metric and UN versions are only for internal threading. The remaining of the range can be used for both external and internal threading.

- The cutters are regrindable

2. Select cutter diameter

- Look up the pages with the Threadmaster programmes
- Look up the column for the required thread type
- Look up the required pitch
- When more alternatives are available note that:
 - Smaller cutter diameter allows smaller threading diameter (minimum thread diameter is found in the designation).
 - Larger cutter diameter allows larger threading depth (maximum threading depth is 2 x cutter diameter, D_c).

3. Selection of cutter

- TM: Basic choice
- TM...900: Choice for steel and stainless steel with tensile strength > 900 N/mm²
- TM...H: Choice for hardened steel with hardness 45-60 HRC
- DTM: Drill, thread and chamfer with same tool. To be used in aluminium and cast iron

4. Select cutting data

- Use the tables beginning on page 473 to classify the workpiece material into a SMG (Seco Material Group)
- Cutting speed recommendations are found on the cutting data page for Threadmaster
- Feed per tooth (= flute) recommendations are found on the cutting data page for Threadmaster
- Formulae for cutting data calculation are on page 195
- For best suggestion and performance use Seco Suggest <https://www.secotools.com/dashboard/Suggest/Suggest>.

5. Machining methods

- Helical interpolation must be used to create the pitch
- Clockwise or counterclockwise feed direction can be used depending on thread type and machining method (right or left hand), external or internal thread
- Climb milling is recommended
- Coolant supply is recommended. Except when threading hardened material
- Special machining recommendations for certain workpiece materials are found on the cutting data page for Threadmaster

Feed recommendations

Threadmaster™

- Feed recommendations for TM-M4X0.7ISO-6R1 except for TM-Mini, that recommendation is for TM-M1.0X0.25ISO-3R1-H and only a start value
- For best suggestion and performance use Seco Suggest <https://www.secotools.com/dashboard/Suggest/Suggest>
- All feed are related to the centre of the cutter and not the periphery
- In the entrance loop reduce feed by 50%. In the exit loop increase feed by 50%
- In the entrance and exit loop feed the cutter 15% of the pitch axially
- For free cutting steel, low alloy and ferritic steel, quench & temper steel, low to medium alloy stainless steels and austenitic cast irons, leave 0,05 mm in a_e for a finishing cut
- For high strength steels, martensitic and high alloy stainless steels, Ni-based superalloys and titanium alloys remove 2/3 of a_e in the first cut and the remaining 1/3 in the second cut
- For hardened steels remove 1/3 of a_e in the first cut, 1/3 of a_e in the second cut and the remaining 1/3 in the third cut
- For NPT and NPTF threads take the whole a_e in one cut
- Coolant is recommended (except when using -H in hardened materials)
- The Metric and UN thread mills are only for internal threads

TM-Mini:

- Left-hand cutting (M4)
- Do the entrance loop before entering into the workpiece

DTM:

- Use peck drilling

Choice of cutter, inserts and cutting data

1. General

- The same cutter can be used for machining external and internal, right-hand and left-hand threads

2. Select cutter diameter

- Look up the pages for thread milling cutters and choose a suitable diameter in the tool data table
- The insert size varies with the cutter diameters. Check the available insert programme for the different sizes before deciding cutter diameter
- For internal thread milling check the 'minimum thread diameter' table before deciding cutter diameter. This table shows the relation between the cutter diameter and the smallest thread diameter to be machined

3. Select insert

- Look up the thread milling inserts pages and choose the required thread type in the correct insert size for the cutter. Choose the grade F30M/CP500 for general machining

4. Select cutting data

Radial cutting depth

- Use the formulae to calculate the radial cutting depth (a_e). (See figures)

Feed rate

- Divide the radial cutting depth with the cutter diameter to get the actual cutter engagement percentage ($a_e/D_c\%$). Use the cutting data table to get a feed per tooth recommendation, see page(s) 205 - 208.

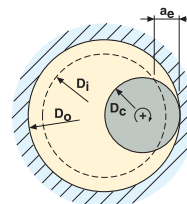
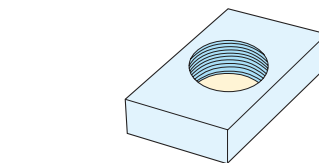
Cutting speed

- Use the tables beginning at page 473 to classify the workpiece material into a Seco Material Group.
- Cutting speed recommendations (for 10% engagement) are in the basic cutting speed table in the catalogue
- For safety reasons, maximum rpm that should never be exceeded
- Formulae for cutting data calculation are found on page 195

5. Machining methods

- Helical interpolation must be used to create the pitch
- Clockwise or counterclockwise feed direction can be used depending on thread type and machining method (right or left hand, external or internal thread)
- Climb milling and coolant is recommended. Coolant supply is recommended except when threading hardened material

Internal



$$D_i = D_o - 2h$$

Thread	
ISO	0,60 x p
UN	0,60 x p
W	0,69 x p
BSPT	0,69 x p
NPT	0,78 x p

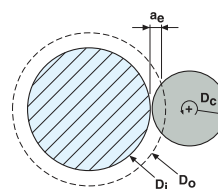
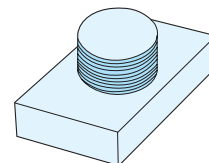
Radial infeed value a_e :

$$a_e = \frac{D_o^2 - D_i^2}{4 (D_o - D_c)}$$

p = pitch (mm)
h = depth of thread

D_c = Cutter dia
 D_o = Major dia
 D_i = Minor dia

External



$$D_i = D_o - 2h$$

Thread	
ISO	0,65 x p
UN	0,65 x p
W	0,69 x p
BSPT	0,69 x p
NPT	0,78 x p

Radial infeed value a_e :

$$a_e = \frac{D_o^2 - D_i^2}{4 (D_i + D_c)}$$

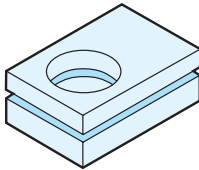
p = pitch (mm)
h = depth of thread

D_c = Cutter dia
 D_o = Major dia
 D_i = Minor dia

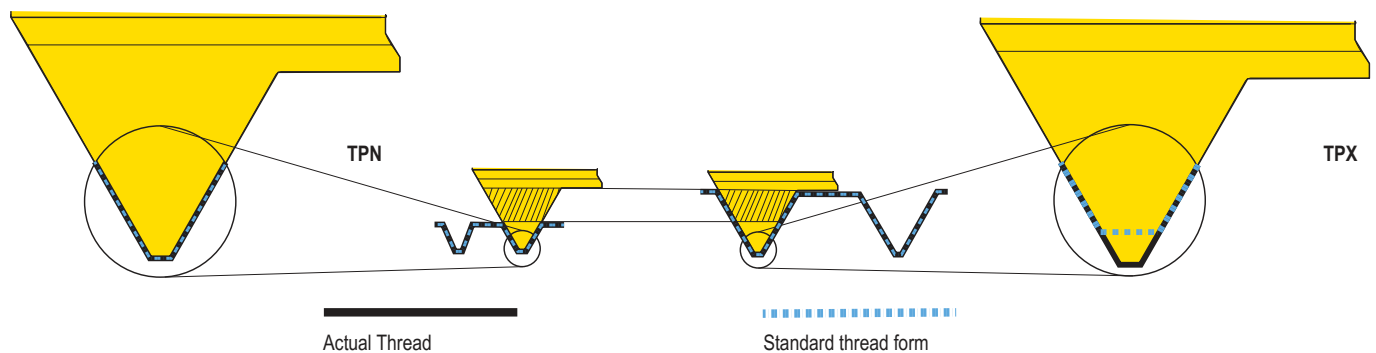
Choice of cutter, inserts and cutting data

RPM		RPM	
$n = \frac{v_c \cdot 1000}{\pi \cdot D_c}$	(rev/min)	$n = \frac{v_c \cdot 3.82}{D_c}$	(rev/min)
Cutting speed		Cutting speed	
$v_c = \frac{n \cdot \pi \cdot D_c}{1000}$	(m/min)	$v_c = \frac{n \cdot D_c}{3.82}$	(sf/min)
Feed speed		Feed speed	
$v_f = n \cdot Z_n \cdot f_z$	(mm/min)	$v_f = n \cdot Z_n \cdot f_z$	(in/min)
$v_f = n \cdot Z_c \cdot f_z$	(mm/min)	$v_f = n \cdot Z_c \cdot f_z$	(in/min)
Feed per revolution		Feed per revolution	
$f = Z_n \cdot f_z$	(mm/rev)	$f = Z_n \cdot f_z$	(in/rev)
$f = Z_c \cdot f_z$	(mm/rev)	$f = Z_c \cdot f_z$	(in/rev)
D_c = Cutter diameter (mm) f = Feed per revolution (mm) f_z = Feed per tooth (mm/tooth) Z_c = Effective No. of teeth for calculation of feed speed or feed per rev n = RPM (rev/min) v_c = Cutting speed (m/min) v_f = Feed speed (mm/min) Z_n = No. of teeth		D_c = Cutter diameter (inch) f = Feed per revolution (inch) f_z = Feed per tooth (in/tooth) Z_c = Effective No. of teeth for calculation of feed speed or feed per rev n = RPM (rev/min) v_c = Cutting speed (sf/min) v_f = Feed speed (sf/min) Z_n = No. of teeth	

Disc Milling cutter 335.14

Thread turning	Disc milling cutter with exchangeable carbide head from diameter 9,7 mm (0.382")
MDT	A broad range of heads and shanks available for all your disc milling operation by circular interpolation or linear slotting. 
Mini-Shaft™	Strong, reliable and precise connection between the head and the cutter body. 
Thread milling	Cover all type of material with universal M geometry and F32M grade. 
Thread tapping	
Annex	Threading: Head from dia 11,7 to 27,7 mm (0.461 to 1.091") for partial metric threads with pitch 1-6 mm (0.039-0.236") and full profile whitworth threads with pitch 19 to 11 tpi and UN threads with pitch 24 to 6 tpi.  

Deviation from standard thread profile



Thread milling by circular interpolation can cause thread profile violation when using insert designed for partial thread. Keep this in mind while selecting a tool. The tool diameter needs to be small enough compared to the hole diameter. The pitch also needs to be considered.

Insert with partial profile for Metric ISO-Threads are multi tools. That means that each insert could machine different pitches. The insert is designed to meet the minimum pitch size (TPN); Machining this pitch will result in a thread form that conforms to the standard.

The recommended maximum pitch size (TPX) can also be machined with this insert at the expense of standard conformity: The result will be a slightly deeper thread than the standard. The deeper thread is normally accepted, but the application and use needs to be evaluated.

Following table is a recommendation over maximum tool diameter in relation to the thread size and pitch:

ISO-Thread, partial profile

Pitch	M12	M16	M20	M24	M27	M30	M36	M42	M48	M56	M60
1	10	14	18	22	25	28	34	40	45	53	57
1,5	8	12	16	20	24	26	32	37	43	51	55
2	7	10	14	18	22	24	30	35	40	48	52
2,5	6	8	12	16	20	22	28	32	37	45	48
3		6	10	14	18	20	26	30	36	43	47
3,5			12	16	18	24	29	35	42	46	
4						22	27	32	39	43	
4,5							24	30	37	40	
5							22	27	34	37	
5,5							20	25	31	35	
6							19	23	29	32	

Code key Threading insert

R	335	14	217	M	N	P	250500	12	Z3
1	2	3	4	5	6	7	8	9	10

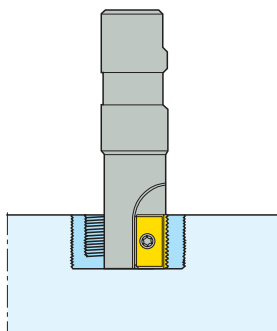
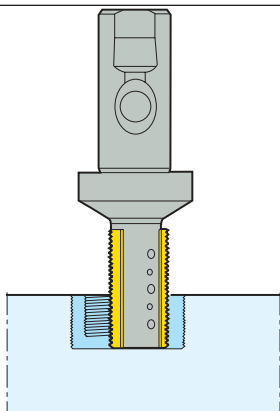
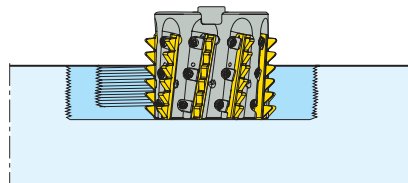
1. Right hand
2. Disc Milling code
3. System
4. Head diameter, ex. 21,7 mm
5. Thread type (W and UN)
6. Internal thread
(E = external, X = internal/external)
7. Partial profile (F = full profile)
8. Pitch size (2,50-5,00 mm or ex. only a fixed pitch 2,5 mm, 16 tpi...)
9. Connection size
10. No. of teeth

Application overview milling cutters

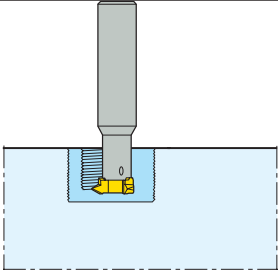
Solid carbide

Threadmaster™	
	
TM - Thread size M1-M20 Solid carbide thread milling cutters	
Page(s) 200, 201-204	

Cutter with inserts

396.18	396.19	396.20
		
Ø 12 mm (0.472") Thread milling cutters with indexable insert	Ø 17-58 mm (0.669-2.283") Thread milling cutters with indexable inserts	Ø 63 mm (2.480") Thread milling cutters with indexable inserts
Page(s) 212-213	Page(s) 212-215	Page(s) 217

Cutter with changeable head

335.14	
	
Ø 11,7-27,7 mm (0.461-1.091") Thread milling cutters with changeable head	
Page(s) 224	



Threadmaster™

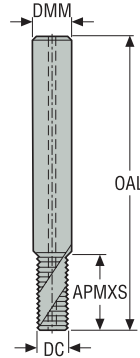
Threadmaster™ thread mills provide high thread quality at low cost per hole. Machining up to 100 percent depth, Threadmasters have high helix angles that reduce cutting forces and eliminate chatter. They feature an excellent carbide substrate and TiCN-coating (TM and TM-900) or TiAlN-coating (TM-H and DTM) for high toughness and wear resistance milling aluminum, steel, stainless steel and cast iron.

Drilling Threadmaster is a multi-tool producing a thread by drilling and chamfering in a single pass for high thread quality at a low cost per hole.

- Some versions with through-coolant holes.
- Threads range from M4 to M20.
- Mini thread mills for thread sizes from M1 - M2.5.

Threadmaster™

Solid carbide thread milling cutters



Thread profile

Metric coarse, for Internal Threading

Metric fine, for Internal Threading

UNC, for Internal Threading

- TM; 2 x D
- Chamfer angle STA = 45°
- For cutting data see page(s) 205

Designation	Item number	TDZ	Pitch	Thread profile	DC	DMM	OAL	APMXS	NOF	Through coolant
			TPX	TPIX	mm Inch	mm Inch	mm Inch	mm Inch		
TM-M12X1.75ISO-12R1-H	02827354	M12	1,75	—	Metric coarse	9,4 0.370	12,0 0.472	76,0 2.992	17,5 0.689	5
TM-M12X1.75ISO-12R1	02827403	M12	1,75	—	Metric coarse	9,4 0.370	12,0 0.472	79,0 3.110	24,5 0.965	3 ✓
TM-M12X1.75ISO-12R1-900	02827363	M12	1,75	—	Metric coarse	9,4 0.370	12,0 0.472	79,0 3.110	24,5 0.965	3 ✓
TM-M10X1.5ISO-10R1-H	02827353	M10	1,5	—	Metric coarse	7,8 0.307	10,0 0.394	66,0 2.598	15,0 0.591	5
TM-M10X1.5ISO-10R1	02827404	M10	1,5	—	Metric coarse	7,8 0.307	10,0 0.394	74,0 2.913	20,3 0.799	3 ✓
TM-M10X1.5ISO-10R1-900	02827362	M10	1,5	—	Metric coarse	7,8 0.307	10,0 0.394	74,0 2.913	20,3 0.799	3 ✓
TM-M8X1.25ISO-8R1-H	02827352	M8	1,25	—	Metric coarse	6,2 0.244	8,0 0.315	57,0 2.244	12,5 0.492	4
TM-M8X1.25ISO-8R1	02827405	M8	1,25	—	Metric coarse	6,2 0.244	8,0 0.315	62,0 2.441	16,9 0.665	3 ✓
TM-M8X1.25ISO-8R1-900	02827361	M8	1,25	—	Metric coarse	6,2 0.244	8,0 0.315	62,0 2.441	16,9 0.665	3 ✓
TM-M6X1.0ISO-6R1-H	02827351	M6	1,0	—	Metric coarse	4,7 0.185	6,0 0.236	52,0 2.047	8,5 0.335	4
TM-M6X1.0ISO-6R1	02827406	M6	1,0	—	Metric coarse	4,7 0.185	6,0 0.236	55,0 2.165	12,5 0.492	3
TM-M6X1.0ISO-6R1-900	02827360	M6	1,0	—	Metric coarse	4,7 0.185	6,0 0.236	55,0 2.165	12,5 0.492	3
TM-M5X0.8ISO-6R1-H	02827350	M5	0,8	—	Metric coarse	3,95 0.156	6,0 0.236	47,0 1.850	7,2 0.283	4
TM-M5X0.8ISO-6R1	02827407	M5	0,8	—	Metric coarse	3,95 0.156	6,0 0.236	49,0 1.929	10,0 0.394	3
TM-M5X0.8ISO-6R1-900	02827359	M5	0,8	—	Metric coarse	3,95 0.156	6,0 0.236	49,0 1.929	10,0 0.394	3
TM-M4X0.7ISO-6R1-H	02827349	M4	0,7	—	Metric coarse	3,15 0.124	6,0 0.236	46,0 1.811	6,3 0.248	4
TM-M4X0.7ISO-6R1	02827408	M4	0,7	—	Metric coarse	3,15 0.124	6,0 0.236	49,0 1.929	8,0 0.315	3
TM-M4X0.7ISO-6R1-900	02827358	M4	0,7	—	Metric coarse	3,15 0.124	6,0 0.236	49,0 1.929	8,0 0.315	3
TM-M20X2.5ISO-20R1	02827348	M20	2,5	—	Metric coarse	15,83 0.623	20,0 0.787	108,0 4.252	40,0 1.575	4 ✓
TM-M14X2.0ISO-14R1	02827402	M14	2,0	—	Metric coarse	10,9 0.429	14,0 0.551	89,0 3.504	29,0 1.142	4 ✓
TM-M14X2.0ISO-14R1-900	02827364	M14	2,0	—	Metric coarse	10,9 0.429	14,0 0.551	89,0 3.504	29,0 1.142	4 ✓
TM-MF12X1.5ISO-12R1-H	02827355	M12	1,5	—	Metric fine	9,4 0.370	12,0 0.472	76,0 2.992	17,9 0.705	5
TM-MF12X1.5ISO-12R1	02827400	M12	1,5	—	Metric fine	9,4 0.370	12,0 0.472	79,0 3.110	24,8 0.976	3 ✓
TM-MF12X1.5ISO-12R1-900	02827365	M12	1,5	—	Metric fine	9,4 0.370	12,0 0.472	79,0 3.110	24,8 0.976	3 ✓

Designation	Item number	TDZ	Pitch		Thread profile	DC	DMM	OAL	APMXS	NOF	Through coolant
			TPX	TPIX		mm Inch	mm Inch	mm Inch	mm Inch		
TM-MF10X1.0ISO-10R1	02827401	M10	1,0	–	Metric fine	7,8 0.307	10,0 0.394	74,0 2.913	20,5 0.807	3	✓
TM-MF6X0.75ISO-6R1	02827429	M6	0,75	–	Metric fine	4,7 0.185	6,0 0.236	55,0 2.165	12,4 0.488	3	
TM-MF5X0.5ISO-6R1	02827430	M5	0,5	–	Metric fine	3,95 0.156	6,0 0.236	49,0 1.929	10,3 0.406	3	
TM-MF4X0.5ISO-6R1	02827392	M4	0,5	–	Metric fine	3,15 0.124	6,0 0.236	49,0 1.929	8,3 0.327	3	
TM-MF16X1.5ISO-16R1-H	02827357	M16	1,5	–	Metric fine	12,82 0.505	16,0 0.630	94,0 3.701	23,9 0.941	5	
TM-MF14X1.5ISO-14R1-H	02827356	M14	1,5	–	Metric fine	10,92 0.430	14,0 0.551	82,0 3.228	21,4 0.843	5	
TM-1/2X13UNC-12R1	02827494	1/2	–	13.0	UNC	9,4 0.370	12,0 0.472	79,0 3.110	26,4 1.039	3	✓
TM-7/16X14UNC-12R1	02827398	7/16	–	14.0	UNC	8,55 0.337	12,0 0.472	79,0 3.110	22,7 0.894	3	✓
TM-3/8X16UNC-10R1	02827399	3/8	–	16.0	UNC	7,35 0.289	10,0 0.394	74,0 2.913	19,8 0.780	3	✓
TM-5/16X18UNC-8R1	02827495	5/16	–	18.0	UNC	6,2 0.244	8,0 0.315	62,0 2.441	16,2 0.638	3	✓
TM-1/4X20UNC-6R1	02827511	1/4	–	20.0	UNC	4,7 0.185	6,0 0.236	55,0 2.165	14,6 0.575	3	
TM-NR.10X24UNC-6R1	02827491	No.10	–	24.0	UNC	3,7 0.146	6,0 0.236	49,0 1.929	10,1 0.398	3	
TM-9/16X12UNC-14R1	02827493	9/16	–	12.0	UNC	10,9 0.429	14,0 0.551	89,0 3.504	30,7 1.209	4	✓

Thread turning

MDT

Mini-Shaft™

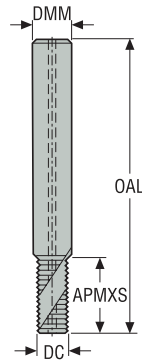
Thread milling

Thread tapping

Annex

Threadmaster™

Solid carbide thread milling cutters



Thread profile

UNF, for Internal Threading

NPT, for Internal and External Threading

NPTF, for Internal and External Threading

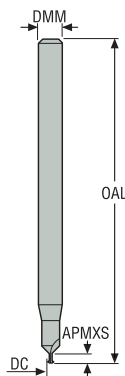
BSP, for Internal and External Threading

- TM; 2 x D
- Chamfer angle = 45°
- For cutting data see page(s) 205

Designation	Item number	TDZ	Pitch		Thread profile	DC	DMM	OAL	APMXS	NOF	Through coolant
			TPX	TPIX		mm Inch	mm Inch	mm Inch	mm Inch		
TM-1/8X28W-10R1	02827431	1/8	—	28.0	BSP	7,8 0.307	10,0 0.394	74,0 2.913	20,4 0.803	3	✓
TM-3/8X19W-18R1	02765294	3/8	—	19.0	BSP	13,9 0.547	18,0 0.709	102,0 4.016	35,4 1.394	4	✓
TM-1/4X19W-14R1	02543519	1/4	—	19.0	BSP	10,9 0.429	14,0 0.551	89,0 3.504	27,4 1.079	4	✓
TM-1/8X27NPT-12R1	02827435	1/8	—	27.0	NPT	7,8 0.307	12,0 0.472	70,0 2.756	8,9 0.350	3	✓
TM-3/8X18NPT-18R1	02827409	3/8	—	18.0	NPT	13,45 0.530	18,0 0.709	81,0 3.189	13,4 0.528	4	✓
TM-1/4X18NPT-16R1	02827434	1/4	—	18.0	NPT	10,05 0.396	16,0 0.630	81,0 3.189	13,4 0.528	4	✓
TM-1/8X27NPTF-12R1	02827433	1/8	—	27.0	NPTF	7,7 0.303	12,0 0.472	70,0 2.756	8,9 0.350	3	✓
TM-3/8X18NPTF-18R1	02827410	3/8	—	18.0	NPTF	13,4 0.528	18,0 0.709	81,0 3.189	13,4 0.528	4	✓
TM-1/4X18NPTF-16R1	02827432	1/4	—	18.0	NPTF	10,0 0.394	16,0 0.630	81,0 3.189	13,4 0.528	4	✓
TM-1/2X20UNF-12R1	02827393	1/2	—	20.0	UNF	9,4 0.370	12,0 0.472	79,0 3.110	26,0 1.024	3	✓
TM-7/16X20UNF-12R1	02827394	7/16	—	20.0	UNF	9,32 0.367	12,0 0.472	79,0 3.110	22,2 0.874	3	✓
TM-3/8X24UNF-10R1	02827395	3/8	—	24.0	UNF	7,8 0.307	10,0 0.394	74,0 2.913	19,6 0.772	3	✓
TM-5/16X24UNF-8R1	02765298	5/16	—	24.0	UNF	6,2 0.244	8,0 0.315	62,0 2.441	16,4 0.646	3	✓
TM-1/4X28UNF-6R1	02827396	1/4	—	28.0	UNF	4,7 0.185	6,0 0.236	55,0 2.165	14,1 0.555	3	
TM-NR.10X32UNF-6R1	02827397	No.10	—	32.0	UNF	3,95 0.156	6,0 0.236	49,0 1.929	9,9 0.390	3	
TM-9/16X18UNF-14R1	02827492	9/16	—	18.0	UNF	10,9 0.429	14,0 0.551	89,0 3.504	28,9 1.138	4	✓

Threadmaster™ – TM-Mini

Solid carbide thread milling cutters



Thread profile

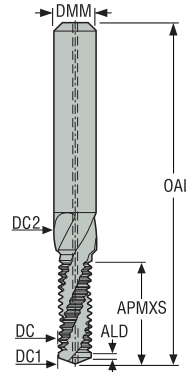
Metric coarse, for Internal Threading

- Left-hand cutter
- TM : 1.5 x D
- Chamfer angle = 90°
- For cutting data see page(s) 205

Designation	Item number	TDZ	Pitch		Thread profile	DC	DMM	OAL	APMXS	NOF
			TPX	TPIX		mm Inch	mm Inch	mm Inch	mm Inch	
TM-M2.5X0.45ISO-3R1-H	02807944	M2.5	0,45	–	Metric coarse	2,01 0.079	3,0 0.118	40,0 1.575	4,45 0.175	3
TM-M2.2X0.45ISO-3R1-H	02807943	M2.2	0,45	–	Metric coarse	1,71 0.067	3,0 0.118	40,0 1.575	3,9 0.154	2
TM-M2.0X0.40ISO-3R1-H	02807942	M2.0	0,4	–	Metric coarse	1,56 0.061	3,0 0.118	40,0 1.575	3,74 0.147	2
TM-M1.6X0.35ISO-3R1-H	02807941	M1.6	0,35	–	Metric coarse	1,15 0.045	3,0 0.118	40,0 1.575	3,07 0.121	2
TM-M1.4X0.30ISO-3R1-H	02807940	M1.4	0,3	–	Metric coarse	0,97 0.038	3,0 0.118	40,0 1.575	2,63 0.104	2

Drilling Threadmaster™

Solid carbide thread milling cutters



Thread profile
 * = Metric coarse
 ** = Metric fine
 *** = UNC
 **** = UNF
 ***** = BSP

- DTM: 2 x D
- Chamfer angle = 90°
- Drill Point = 140°
- For cutting data see page(s) 206

Designation	Item number	TDZ	Pitch		Thread profile	DC	DC1	DC2	DMM	OAL	ALD	APMXS	NOF	Through coolant
			TPX	TPIX		mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
DTM-M12X1.75ISO-14R1	02827371	M12	1,75	—	*	9,74 0.383	10,25 0.404	12,3 0.484	14,0 0.551	89,0 3.504	1,5 0.059	27,06 1.065	2	✓
DTM-M10X1.5ISO-12R1	02827370	M10	1,5	—	*	8,08 0.318	8,5 0.335	10,3 0.406	12,0 0.472	79,0 3.110	1,5 0.059	23,37 0.920	2	✓
DTM-M8X1.25ISO-10R1	02827369	M8	1,25	—	*	6,45 0.254	6,75 0.266	8,3 0.327	10,0 0.394	74,0 2.913	1,2 0.047	18,17 0.715	2	✓
DTM-M6X1.0ISO-8R1	02827368	M6	1,0	—	*	4,85 0.191	5,0 0.197	6,3 0.248	8,0 0.315	62,0 2.441	1,0 0.039	14,49 0.570	2	✓
DTM-M5X0.8ISO-6R1	02827367	M5	0,8	—	*	4,1 0.161	4,2 0.165	5,3 0.209	6,0 0.236	55,0 2.165	0,8 0.031	11,65 0.459	2	✓
DTM-M4X0.7ISO-6R1	02827366	M4	0,7	—	*	3,24 0.128	3,3 0.130	4,3 0.169	6,0 0.236	49,0 1.929	0,7 0.028	9,42 0.371	2	✓
DTM-M16X2.0ISO-18R1	02827373	M16	2,0	—	*	13,28 0.523	14,0 0.551	16,3 0.642	18,0 0.709	102,0 4.016	1,5 0.059	37,12 1.461	2	✓
DTM-M14X2.0ISO-16R1	02827372	M14	2,0	—	*	11,36 0.447	12,0 0.472	14,3 0.563	16,0 0.630	102,0 4.016	1,5 0.059	32,77 1.290	2	✓
DTM-MF10X1.0ISO-12R1	02827375	M10	1,0	—	**	8,75 0.344	9,0 0.354	10,3 0.406	12,0 0.472	79,0 3.110	1,5 0.059	23,18 0.913	2	✓
DTM-MF8X1.0ISO-10R1	02827374	M8	1,0	—	**	6,79 0.267	7,0 0.276	8,3 0.327	10,0 0.394	74,0 2.913	1,0 0.039	18,8 0.740	2	✓
DTM-MF12X1.5ISO-14R1	02827376	M12	1,5	—	**	10,06 0.396	10,5 0.413	12,3 0.484	14,0 0.551	89,0 3.504	1,5 0.059	28,19 1.110	2	✓
DTM-1/2X13UNC-14R1	02827380	1/2	—	13.0	***	9,87 0.389	10,75 0.423	13,0 0.512	14,0 0.551	89,0 3.504	1,5 0.059	30,07 1.184	2	✓
DTM-3/8X16UNC-12R1	02827379	3/8	—	16.0	***	7,36 0.290	7,94 0.313	9,83 0.387	12,0 0.472	79,0 3.110	1,5 0.059	22,97 0.904	2	✓
DTM-5/16X18UNC-10R1	02827378	5/16	—	18.0	***	6,01 0.237	6,53 0.257	8,24 0.324	10,0 0.394	74,0 2.913	1,4 0.055	19,0 0.748	2	✓
DTM-1/4X20UNC-8R1	02827377	1/4	—	20.0	***	4,7 0.185	5,08 0.200	6,65 0.262	8,0 0.315	62,0 2.441	1,2 0.047	15,71 0.619	2	✓
DTM-3/8X24UNF-12R1	02827383	3/8	—	24.0	****	8,07 0.318	8,47 0.333	9,83 0.387	12,0 0.472	79,0 3.110	1,1 0.043	21,2 0.835	2	✓
DTM-5/16X24UNF-10R1	02827382	5/16	—	24.0	****	6,51 0.256	6,88 0.271	8,24 0.324	10,0 0.394	74,0 2.913	1,1 0.043	18,83 0.741	2	✓
DTM-1/4X28UNF-8R1	02827381	1/4	—	28.0	****	5,17 0.204	5,44 0.214	6,65 0.262	8,0 0.315	62,0 2.441	0,9 0.035	15,16 0.597	2	✓
DTM-1/2X20UNF-14R1	02827384	1/2	—	20.0	****	10,88 0.428	11,43 0.450	13,0 0.512	14,0 0.551	89,0 3.504	1,3 0.051	28,19 1.110	2	✓
DTM-1/8X28W-12R1	02827385	1/8	—	28.0	*****	8,4 0.331	8,71 0.343	10,03 0.395	12,0 0.472	79,0 3.110	0,9 0.035	22,03 0.867	2	✓
DTM-1/4X19W-16R1	02827386	1/4	—	19.0	*****	11,44 0.450	11,67 0.459	13,46 0.530	16,0 0.630	102,0 4.016	1,3 0.051	29,45 1.159	2	✓

Threadmaster™ – Cutting data metric *Inch*

SMG	TM		TM-900		TM-H		TM-MINI	
	f_z	v_c	f_z	v_c	f_z	v_c	f_z	v_c
P1	0,010 0,00040	145 475	— —	— —	— —	— —	— —	— —
P2	0,010 0,00040	140 460	— —	— —	— —	— —	— —	— —
P3	0,0095 0,00038	120 395	— —	— —	— —	— —	— —	— —
P4	0,0095 0,00038	105 345	0,0040 0,00016	105 345	— —	— —	— —	— —
P5	0,0090 0,00036	100 330	0,0040 0,00016	100 330	— —	— —	— —	— —
P6	0,0090 0,00036	115 375	0,0040 0,00016	115 375	— —	— —	— —	— —
P7	0,0090 0,00036	110 360	0,0040 0,00016	110 360	— —	— —	— —	— —
P8	0,0095 0,00038	100 330	0,0042 0,00017	100 330	— —	— —	— —	— —
P11	0,0090 0,00036	105 345	0,0040 0,00016	105 345	— —	— —	— —	— —
P12	0,0060 0,00024	60 195	0,0028 0,00011	60 195	— —	— —	— —	— —
M1	0,010 0,00040	100 330	0,0044 0,00017	100 330	— —	— —	— —	— —
M2	0,0090 0,00036	80 260	0,0040 0,00016	80 260	— —	— —	— —	— —
M3	0,0075 0,00030	60 195	0,0032 0,00013	60 195	— —	— —	— —	— —
M4	0,0065 0,00026	47 155	0,0028 0,00011	47 155	— —	— —	— —	— —
M5	0,0065 0,00026	39 130	0,0028 0,00011	39 130	— —	— —	— —	— —
K1	0,010 0,00040	145 475	0,0044 0,00017	100 330	— —	— —	— —	— —
K2	0,0090 0,00036	125 410	0,0040 0,00016	90 295	— —	— —	— —	— —
K3	0,0090 0,00036	105 345	0,0040 0,00016	75 245	— —	— —	— —	— —
K4	0,0090 0,00036	100 330	0,0040 0,00016	70 230	— —	— —	— —	— —
K5	0,0080 0,00032	60 195	0,0036 0,00014	42 140	— —	— —	— —	— —
K6	0,0090 0,00030	90 295	0,0040 0,00016	65 215	— —	— —	— —	— —
K7	0,0080 0,00032	80 260	0,0036 0,00014	55 180	— —	— —	— —	— —
N1	0,013 0,00050	395 1300	0,0055 0,00022	335 1100	— —	— —	— —	— —
N2	0,013 0,00050	255 840	0,0055 0,00022	215 710	— —	— —	— —	— —
N3	0,013 0,00050	170 560	0,0055 0,00022	145 475	— —	— —	— —	— —
N11	0,013 0,00050	225 740	0,0055 0,00022	195 640	— —	— —	— —	— —
S1	0,0065 0,00026	50 165	0,0028 0,00011	20 65	— —	— —	— —	— —
S2	0,0065 0,00026	41 135	0,0028 0,00011	15 49	— —	— —	— —	— —
S3	0,0060 0,00024	20 65	0,0026 0,00010	10 33	— —	— —	— —	— —
S11	0,0075 0,00030	105 345	0,0032 0,00013	40 130	— —	— —	— —	— —
S12	0,0075 0,00030	80 260	0,0032 0,00013	31 100	— —	— —	— —	— —
S13	0,0065 0,00026	65 215	0,0028 0,00011	24 80	— —	— —	— —	— —
H3	— —	— —	— —	— —	0,0016 0,000065	19 60	0,0022 0,000085	11 36
H5	— —	— —	— —	— —	0,0025 0,00010	36 120	0,0032 0,00013	21 70
H7	— —	— —	— —	— —	0,0016 0,000065	19 60	0,0022 0,000085	11 36
H8	— —	— —	— —	— —	0,0019 0,000075	36 120	0,0025 0,00010	21 70
H11	— —	— —	— —	— —	0,0019 0,00010	45 150	0,0032 0,00013	26 85
H12	— —	— —	— —	— —	0,0019 0,00010	41 150	0,0025 0,00013	24 85
H21	— —	— —	— —	— —	0,0019 0,000075	36 135	0,0025 0,00010	21 80
H31	— —	— —	— —	— —	0,0019 0,0019	36 36	0,0025 0,0025	21 21

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Drilling Threadmaster™ – Cutting data, threadmilling metric *inch*

SMG	DTM	
	f_z	v_c
K1	0,0065 0,00026	175 570
K2	0,0060 0,00024	155 510
K3	0,0060 0,00024	130 425
K4	0,0060 0,00024	125 410
K5	0,0055 0,00022	75 245
K6	0,0060 0,00024	110 360
K7	0,0055 0,00022	95 310
N1	0,0085 0,00034	400 1300
N2	0,0085 0,00034	255 840
N3	0,0085 0,00034	170 560
N11	0,0085 0,00034	225 740

Drilling Threadmaster™ – Cutting data, drilling metric *inch*

SMG	f						v_c
	Ø 3.01-5.0 Ø 0.118-0.196	Ø 5.01-7.0 Ø 0.197-0.275	Ø 7.01-9.0 Ø 0.276-0.354	Ø 9.01-11.0 Ø 0.355-0.433	Ø 11.01-13.0 Ø 0.434-0.511	Ø 13.01-15.0 Ø 0.512-0.590	
K1	0,12 0,0048	0,15 0,0060	0,18 0,0070	0,19 0,0075	0,22 0,0085	0,25 0,010	170 560
K2	0,11 0,0044	0,13 0,0050	0,16 0,0065	0,17 0,0065	0,20 0,0080	0,22 0,0085	150 490
K3	0,11 0,0044	0,13 0,0050	0,16 0,0065	0,17 0,0065	0,20 0,0080	0,22 0,0085	125 410
K4	0,11 0,0044	0,13 0,0050	0,16 0,0065	0,17 0,0065	0,20 0,0080	0,22 0,0085	120 395
K5	0,095 0,0038	0,12 0,0048	0,14 0,0055	0,16 0,0065	0,18 0,0070	0,20 0,0080	70 230
K6	0,11 0,0044	0,13 0,0050	0,16 0,0065	0,17 0,0065	0,20 0,0080	0,22 0,0085	105 345
K7	0,095 0,0038	0,12 0,0048	0,14 0,0055	0,16 0,0065	0,18 0,0070	0,20 0,0080	90 295
N1	0,15 0,0060	0,19 0,0075	0,22 0,0085	0,24 0,0095	0,28 0,011	0,32 0,013	250 1275
N2	0,15 0,0060	0,19 0,0075	0,22 0,0085	0,24 0,0095	0,28 0,011	0,32 0,013	250 820
N3	0,15 0,0060	0,19 0,0075	0,22 0,0085	0,24 0,0095	0,28 0,011	0,32 0,013	165 540
N11	0,15 0,0060	0,19 0,0075	0,22 0,0085	0,24 0,0095	0,28 0,011	0,32 0,013	220 720

SMG = Seco Material Group

f_z = mm/tooth (mm/flute)

f = mm/rev

v_c = m/min

All cutting data are start values

Feed are related to the centre of the cutter and not the periphery.

Thread Milling 396.18/19/20 Cutting data metric inch

SMG	CP500		F30M		H15	
	f_z	v_c	f_z	v_c	f_z	v_c
P1	0,050	385	0,050	385	—	—
P2	0,0020	1275	0,0020	1275	—	—
P3	0,055	375	0,055	375	—	—
P4	0,0022	1225	0,0022	1225	—	—
P5	0,050	325	0,050	325	—	—
P6	0,0020	1075	0,0020	1075	—	—
P7	0,050	285	0,050	285	—	—
P8	0,0020	940	0,0020	940	—	—
P9	0,048	275	0,048	275	—	—
P10	0,0019	900	0,0019	900	—	—
P11	0,048	305	0,048	305	—	—
P12	0,0019	1000	0,0019	1000	—	—
P13	0,048	290	0,048	290	—	—
P14	0,0019	950	0,0019	950	—	—
P15	0,050	275	0,050	275	—	—
P16	0,0020	900	0,0020	900	—	—
P17	0,048	280	0,048	280	—	—
P18	0,0019	920	0,0019	920	—	—
P19	0,032	165	0,032	165	—	—
P20	0,0013	540	0,0013	540	—	—
P21	0,055	285	0,055	285	—	—
M1	0,0022	940	0,0022	940	—	—
M2	0,048	230	0,048	230	—	—
M3	0,0019	750	0,0019	750	—	—
M4	0,038	175	0,038	175	—	—
M5	0,0015	570	0,0015	570	—	—
M6	0,034	130	0,034	130	—	—
M7	0,0013	425	0,0013	425	—	—
M8	0,034	110	0,034	110	—	—
M9	0,0013	360	0,0013	360	—	—
M10	0,055	300	0,055	300	—	—
K1	0,0022	980	0,0022	980	0,0016	890
K2	0,048	260	0,048	260	0,038	235
K3	0,0019	850	0,0019	850	0,0015	770
K4	0,048	220	0,048	220	0,038	200
K5	0,0019	720	0,0019	720	0,0015	660
K6	0,048	210	0,048	210	0,038	190
K7	0,0019	690	0,0019	690	0,0015	620
K8	0,044	125	0,044	125	0,034	115
K9	0,0017	410	0,0017	410	0,0013	375
K10	0,048	185	0,048	185	0,038	170
K11	0,0019	610	0,0019	610	0,0015	560
K12	0,044	160	0,044	160	0,034	145
K13	0,0017	520	0,0017	520	0,0013	475
K14	0,070	1375	0,070	1375	0,050	1375
N1	0,0028	4500	0,0028	4500	0,0020	4500
N2	0,070	890	0,070	890	0,050	890
N3	0,0028	2925	0,0028	2925	0,0020	2925
N4	0,070	590	0,070	590	0,050	590
N5	0,0028	1925	0,0028	1925	0,0020	1925
N6	0,070	780	0,070	780	—	—
N7	0,0028	2550	0,0028	2550	—	—

SMG = Seco Material Group

f_z = mm/tooth (mm/flute)

v_c = m/min (for holder types -065AM, -079AM and -080AM use factor 0,75 on v_c).

All cutting data are start values.

All feed are related to the centre of the cutter and not the periphery.

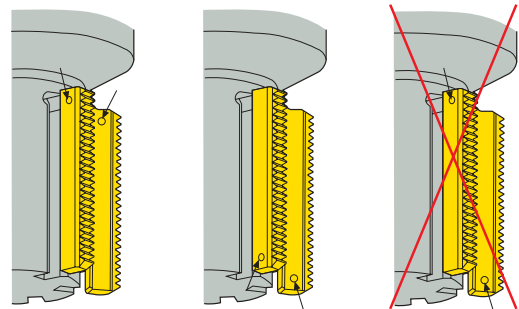
Feed related to the centre of the cutter

When calculating feed and feed/tooth from average chip thickness using circular interpolation or helical interpolation ramping in an operation, the feed and feed/tooth are always related to the centre and not to the periphery of the cutter.

Tolerance on the machined component.

The tolerance on the thread diameter is 6H when using a cutter with more than one tooth. With a single cutting insert the tolerance is 4H. If a multi-tooth milling cutter is used with one cutting insert, the other insert seat(s) must be equipped with non-cutting blank insert(s) to stabilise the milling cutter during the cutting process.

As all 396.19 inserts are double sided, it is important that all inserts are mounted in the same position to achieve best possible tolerance. It must be done by indexing the identification dots in the same position. See figure.



Cutting speed Thread milling 335.14 metric inch

SMG	R335.14		
	f _z	v _c	
P1	0,070	275	
	0,0028	900	
	0,070	270	
	0,0028	890	
	0,070	230	
	0,0028	750	
	0,065	205	
	0,0026	670	
	0,065	195	
	0,0026	640	
	0,065	215	
	0,0026	710	
P2	0,065	205	
	0,0026	670	
	0,070	195	
	0,0028	640	
	0,065	200	
	0,0026	660	
	0,044	120	
	0,0017	395	
	0,070	215	
	M1	0,0028	710
		0,065	175
		0,0026	570
0,050		130	
0,0020		425	
0,046		100	
0,0018		330	
0,046		80	
0,0018		260	
0,070		210	
0,0028		690	
0,065		185	
K1	0,0026	610	
	0,065	180	
	0,0026	590	
	0,065	150	
	0,0026	490	
	0,060	90	
	0,0024	295	
	0,065	130	
	0,0026	425	
	0,060	115	
	0,0024	375	
	0,090	970	
N1	0,0036	3175	
	0,090	620	
	0,0036	2025	
	0,090	415	
	0,0036	1350	
	0,090	475	
	0,0036	1550	
	0,046	50	
	0,0018	165	
	0,046	41	
	0,0018	135	
	0,042	35	
S1	0,0017	115	
	0,050	65	
	0,0020	215	
	0,050	50	
	0,0020	165	
	0,046	39	
	0,0018	130	
	0,044	43	
	0,0017	140	
	0,034	45	
	0,0013	150	
	0,044	60	
H5	0,0017	195	
	0,034	55	
	0,0013	180	
	0,034	45	
	0,0013	150	

Code keys

Threadmaster™

TM	M10	x	1.5	ISO	-	10	R1	-	900
1	2		3	4		5	6		7

1. DTM = Drilling Threadmaster™
TM = Threadmaster™ (2 x D)
2. Thread diameter (tdz) min
3. Pitch
4. Thread form
5. Shank dia
6. Hand/shank style
R1 = Cylindrical
7. Additional info

R396.18/19/20

R396.19	-	25	22	.	3S	-	4003	-	3	-	065	A	M
1		2	3		4		5		6		7	8	9

1. Cutter
2. Shank dia
3. Cutter dia
4. Seco-Weldon
5. Insert size
6. No. of inserts
7. Usable length
8. Through coolant
9. Upgraded design

Insert 396.19/20

R	396.19	-	4003.0	E	-	1.0	ISO
1	2		3	4		5	6

1. Hand of tool used on taper thread
2. Insert type
3. Insert size
4. E = External
N = Internal
X = Ext. and Int.
5. Pitch
6. Thread form

Code keys

Disc Milling cutter 335.14



2 types of shanks available: cylindrical available both in steel and carbide, or ER collet chuck system

Mini disc

R	335	.	14	-	217	M	N	P	250500	-	12	Z3
1	2		3		4	5	6	7	8		9	10

- | | | | | |
|---|---|---|---|-------------------------------------|
| 1.
Right hand | 2.
Disc milling code | 3.
System | 4.
Head diameter,
e.g. 21,7 mm | 5.
Thread type (W and UN) |
| 6.
Internal thread
(E = external
X = internal/external) | 7.
Partial profile (F = full profile) | 8.
Pitch size (2,50-5,00 mm or ex. only
a fixed pitch 2,5 mm, 16 tpi...) | 9.
Connection size | 10.
No. of teeth |

Cylindrical shank

335	.	14	-	16	9	0	45	110	-	E
1		2		3	4	5	6	7		8

- | | | | | |
|--|--|--|---|--|
| 1.
Disc milling code | 2.
System | 3.
Shank diameter
DMM = 16 mm
Alternative inch, example 0625 for
DMM = 0.625" | 4.
Connection size
(insert/shank)
Example: 9 mm | 5.
.0 cylindrical connection
type |
| 6.
Access length including insert 45 mm
Alternative inch, example 177 for 1.77" | 7.
Overall length including insert 110 mm
Alternative inch, example 433 for 4.33" | 8.
-E for carbide shank otherwise steel
shank | | |

Collet chuck

335	.	14	-	ER25	12	30
1		2		3	4	5

- | | | | | |
|--------------------------------|---------------------|-----------------------------------|--|--|
| 1.
Disc milling code | 2.
System | 3.
ER collet chuck size | 4.
Connection size
(insert / shank)
Example: 12 mm | 5.
Access length including
insert Example 30 mm |
|--------------------------------|---------------------|-----------------------------------|--|--|

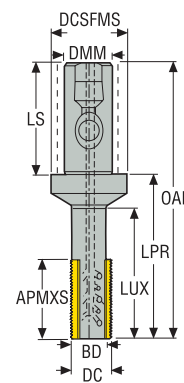
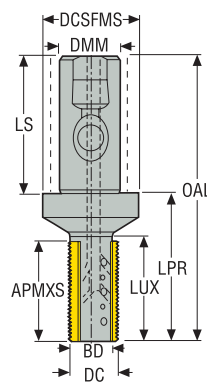
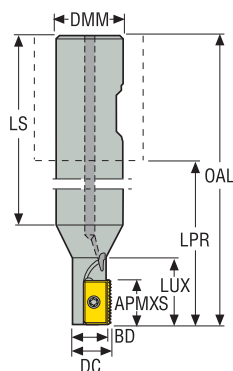


Thread milling Indexable

Seco 396.18/19/20 thread mills are versatile, cost-effective process tools for anyone facing a variety of threads, parts and workpiece materials on the same machine. Multi-tooth indexable insert cutters use a double sided multi-tooth insert usable above Ø 14 mm for both internal and external threads.

- Inserts available with different thread profiles and pitches.
- Multi-tooth cutters for high productivity.
- Arbor, Weldon and SecoWeldon shanktypes.

R396.18/R396.19



- For cutting data see page(s) 207
- For insert information see page(s) 219–221
- Min thread diameter, see page(s) 218
- Note: Type of mounting * = Weldon
- Note: Type of mounting ** = Seco-Weldon
- GAMO -15°
- GAMP 0°
- GAMF -15°

Designation	Item number	DC	APMXS	BD	LPR	LUX	LS	OAL	DCSFMS	DMM	Weight	NOF	RPMX	Note	Insert
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg				
R396.19-3236.3S-4005-6AM	02546917	36,0	40,0	28,2	60,0	42,0	60,0	120,0	50,0	32,0	0,7	6	11200	**	396.19-4005
R396.19-3232.3S-4003-6AM	02546915	32,0	40,0	27,4	60,0	43,0	60,0	120,0	50,0	32,0	0,7	6	16800	**	396.19-4003
R396.19-2530.3S-4005-3AM	02546916	30,0	40,0	23,0	60,0	43,0	56,0	116,0	40,0	25,0	0,5	3	12000	**	396.19-4005
R396.19-2530.3S-4005-3-080AM	02544662	30,0	40,0	22,2	98,0	80,0	56,0	154,0	40,0	25,0	0,6	3	12000	**	396.19-4005
R396.19-2525.3S-4005-2AM	02544660	25,0	40,0	19,0	60,0	43,0	56,0	116,0	40,0	25,0	0,4	2	13600	**	396.19-4005
R396.19-2522.3S-4003-3AM	02514532	22,0	40,0	17,6	60,0	43,0	56,0	116,0	40,0	25,0	0,4	3	20000	**	396.19-4003
R396.19-2522.3S-4003-3-065AM	02546918	22,0	40,0	17,6	84,0	65,0	56,0	140,0	40,0	25,0	0,5	3	20000	**	396.19-4003
R396.19-2517.3S-4003-2AM	02534461	17,0	25,0	13,0	60,0	26,0	56,0	116,0	40,0	25,0	0,5	2	22400	**	396.19-4003
R396.18-2012.3-13A	75036662	12,0	13,0	10,0	38,0	20,0	67,0	105,0	—	20,0	0,3	1	30000	*	13.MS

Spare Parts, included in delivery

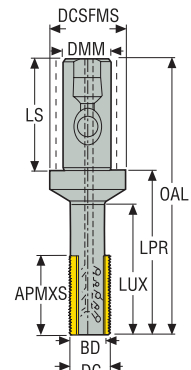
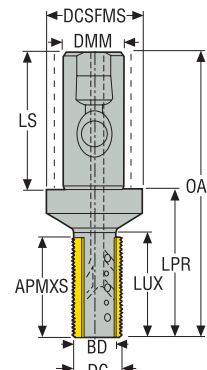
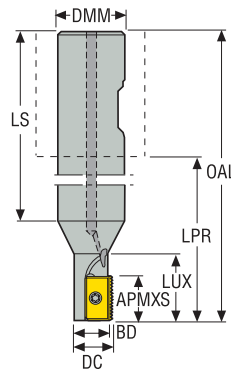
For holders	Fastening screw	Insert key	Insert screw	Key (T-handle)
				
R396.18	—	H4B-T07P	C02506-T07P	DOUBLE-T
R396.19	P6SS4X4-T09P	T09P-2	—	—

Note! When milling threads to smaller diameters than indicated for a certain pitch/cutter combination, an incorrect thread form will result.

Note! R396.19-2525.3S-4005-2AM Max pitch size 4,5 ISO/6 TPI can be used.

*Torque key T00-07P09, T00-09P20.

R396.18/R396.19



- For cutting data see page(s) 207
- For insert information see page(s) 219–221
- Min thread diameter, see page(s) 218
- Note: Type of mounting * = Weldon
- Note: Type of mounting ** = Seco-Weldon
- GAMO -15°
- GAMP 0°
- GAMF -15°

Designation	Item number	DC	APMXS	BD	LPR	LUX	LS	OAL	DCSFMS	DMM	Weight	NOF	RPMX	Note	Insert
		Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	Inch	lbs				
R396.18-00.39-3-13AT	00087568	0.390	0.510	0.310	—	0.530	3.610	4.140	—	0.750	0.4	1	30000	*	13..
R396.19-01.42-3S-4005-6AM	02546947	1.417	1.575	1.142	2.362	1.654	2.343	4.705	1.969	1.250	1.5	6	11200	**	396.19-4005
R396.19-01.25-3S-4003-6AM	02546941	1.260	1.575	1.102	2.362	1.654	2.343	4.547	1.969	1.250	1.5	6	16800	**	396.19-4003
R396.19-01.18-3S-4005-3AM	02546946	1.181	1.575	0.906	2.362	1.693	2.185	4.547	1.575	1.000	1.1	3	12000	**	396.19-4005
R396.19-01.18-3S-4005-LAM	02546954	1.181	1.575	0.906	3.858	3.150	2.185	6.043	1.575	1.000	1.3	3	12000	**	396.19-4005
R396.19-01.00-3S-4005-2AM	02546944	0.984	1.575	0.748	2.362	1.693	2.185	4.547	1.575	1.000	1.1	2	13600	**	396.19-4005
R396.19-00.87-3S-4003-3AM	02546938	0.866	1.575	0.709	2.362	1.693	2.185	4.547	1.575	1.000	0.9	3	20000	**	396.19-4003
R396.19-00.87-3S-4003-LAM	02546950	0.866	1.575	0.709	3.307	2.559	2.185	5.512	1.575	1.000	1.1	3	20000	**	396.19-4003
R396.19-00.67-3S-4003-2AM	02546937	0.669	0.984	0.512	2.362	1.024	2.185	4.547	1.575	1.000	1.1	2	22000	**	396.19-4003
R396.19-00.58-3S-1AM	02546957	0.591	1.102	0.450	2.362	1.024	2.441	4.803	1.575	1.000	1.1	1	22400	**	396.19-4003
R396.18-00.50-3-13AT	00074293	0.509	0.512	0.310	—	0.746	2.997	4.134	—	0.750	0.4	1	30000	*	13..
R396.18-00.50-3-13A	75054862	0.472	0.510	0.390	—	0.780	3.360	4.140	—	0.750	0.4	1	30000	*	13..

Spare Parts, included in delivery

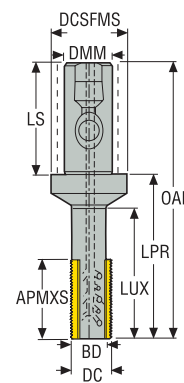
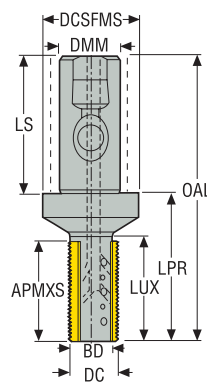
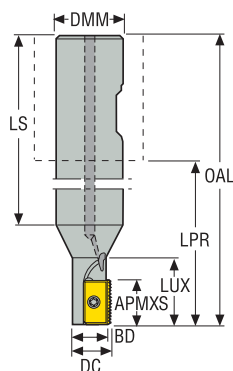
For holders	Fastening screw	Insert key	Insert screw	Key (T-handle)	Screw
					
..18-00.39..	—	H4B-T07P	—	DOUBLE-T	C02505-T07P
..18-00.50..A	—	H4B-T07P	C02506-T07P	DOUBLE-T	—
..18-00.50..AT	—	H4B-T07P	C02505-T07P	DOUBLE-T	—
..19-00.58...-19-01.42..	P6SS4X4-T09P	T09P-2	—	—	—

Note! When milling threads to smaller diameters than indicated for a certain pitch/cutter combination, an incorrect thread form will result.

Note! R396.19-2525.3S-4005-2AM Max pitch size 4,5 ISO/6 TPI can be used.

*Torque key T00-07P09, T00-09P20.

R396.19



- For cutting data see page(s) 207
- For insert information see page(s) 219–221
- Min thread diameter, see page(s) 218
- Note: Type of mounting ** = Seco-Weldon
- GAMO -15°
- GAMP 0°
- GAMF -15°

Designation	Item number	DC	APMXS	BD	LPR	LUX	LS	OAL	DCSFMS	DMM	Weight	NOF	RPMX	Note	Insert
		mm	mm	mm	mm	mm	mm	mm	mm	mm	kg				
R396.19-3232.3S-4003-3-079AM	02963138	32,0	40,0	27,4	96,0	79,57	60,0	156,0	50,0	32,0	0,9	3	20000	**	396.19-4003
R396.19-3232.3S-4005-3-079AM	02963139	32,0	40,0	24,2	96,0	79,0	60,0	156,0	50,0	32,0	0,8	3	11200	**	396.19-4005

Spare Parts, included in delivery

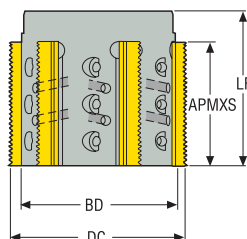
For holders	Fastening screw	Insert key
		
R396.19	P6SS4X4-T09P	T09P-2

Note! When milling threads to smaller diameters than indicated for a certain pitch/cutter combination, an incorrect thread form will result.

Note! R396.19-2525.3S-4005-2AM Max pitch size 4,5 ISO/6 TPI can be used.

*Torque key T00-07P09, T00-09P20.

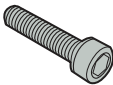
R396.19



- For cutting data see page(s) 207
- For insert information see page(s) 219-221
- Min thread diameter, see page(s) 218
- GAMO -15°
- GAMP 0°
- GAMF -15°

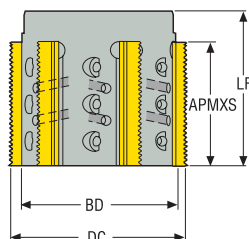
Designation	Item number	DC	APMXS	BD	LF	Weight	NOF	RPMX	Insert
		mm	mm	mm	mm	kg			
R396.19-0058-4003-6AM	02546921	58,0	40,0	53,0	50,0	0,7	6	8600	396.19-4003
R396.19-0058-4005-6AM	02546920	58,0	40,0	50,0	50,0	0,6	6	8600	396.19-4005

Spare Parts, included in delivery

For holders	Arbor screw	Fastening screw	Insert key
			
...6AM	MC6S12X40	P6SS4X4-T09P	T09P-2

*Torque values 2 Nm. Torque key, T00-09P20.

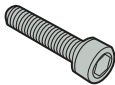
R396.19



- For cutting data see page(s) 207
- For insert information see page(s) 219–221
- Min thread diameter, see page(s) 218
- GAMO -15°
- GAMP 0°
- GAMF -15°

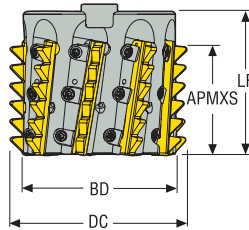
Designation	Item number	DC	APMXS	BD	LF	Weight	NOF	RPMX	Insert
		Inch	Inch	Inch	Inch	lbs			
R396.19-02.28-4003-6AM	02546955	2.283	1.575	2.087	1.969	1.5	6	8600	396.19-4003
R396.19-02.28-4005-6AM	02546956	2.283	1.575	1.969	1.969	1.3	6	8600	396.19-4005

Spare Parts, included in delivery

For holders	Arbor screw	Fastening screw	Insert key
			
R396.19-02.28	UC6S1/2UNFX1-1/4	P6SS4X4-T09P	T09P-2

***Torque values 2 Nm.** Torque key, T00–09P20.

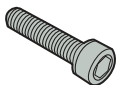
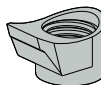
R396.20



- For cutting data see page(s) 207
- For insert information see page(s) 219-221
- Min thread diameter, see page(s) 218
- GAMO -15°
- GAMP -15°
- GAMF -15°

Designation	Item number	DC	APMXS	BD	LF	Weight	NOF	RPMX	Insert
		Inch	Inch	Inch	Inch	lbs			
R396.20-02.478-4005-9AW	03013869	2.478	1.575	2.106	1.992	1.5	9	8600	396.20-4005

Spare Parts, included in delivery

For holders	Arbor screw	Key	Key (T-handle)	Wedge clamp	Wedge screw
					
R396.20	UC6S1/2UNFX1-1/2	H4B-T08P	DOUBLE-T	CW0405M	LD4012-T08P

*Torque values 2 Nm. Torque key, T00-09P20.

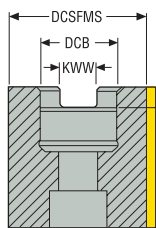
Min thread diameter (major dia), for different pitch and cutter combinations

R396.18/R396.19/R396.20

For cutter	Pitch mm TPI										
	1 24	1,5 16	2 12	2,5 10	3 8	3,5 7	4 6	4,5	5 5	5,5	6 4
R396.18-2012.3-13A	14	15	16	–	–	–	–	–	–	–	–
R396.19-2517.3S-4003-2AM	19	20	21	22	24	–	–	–	–	–	–
R396.19-2522.3S-4003-3AM	24	25	26	27	27	–	–	–	–	–	–
R396.19-2522.3S-4003-3-065AM	24	25	26	27	27	–	–	–	–	–	–
R396.19-3232.3S-4003-6AM	34	35	36	39	40	–	–	–	–	–	–
R396.19-2525.3S-4005-2AM	–	–	–	–	30	33	35	37	–	–	–
R396.19-2530.3S-4005-3AM	–	–	–	–	38	40	42	44	45	47	48
R396.19-2530.3S-4005-3-080AM	–	–	–	–	38	40	42	44	45	47	48
R396.19-3236.3S-4005-6AM	–	–	–	–	43	45	47	47	48	50	53
R396.19-0058-4003-6AM	62	63	65	66	67	–	–	–	–	–	–
R396.19-0058-4005-6AM	–	–	–	–	67	69	70	71	72	73	74
R396.19-3232.3S-4003-3-079AM	34	35	36	39	40	–	–	–	–	–	–
R396.19-3232.3S-4005-3-079AM	–	–	–	–	39	41	43	45	46	48	49
R396.20-02.478-4005-9AW	–	–	–	–	80	–	84	–	–	–	89

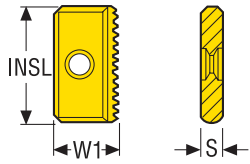
Note! When milling threads to smaller diameters than indicated for a certain pitch/cutter combination, an incorrect thread form will result.

Dimensions of mounting



For cutter	Item number	DCB	DCSFMS	KWW	C	For arbor
		mm	mm	mm	mm	
R396.19-0058-4003-6AM	02546921	27,0	53,0	12,4	7,0	27
R396.19-0058-4005-6AM	02546920	27,0	50,0	12,4	7,0	27
R396.20-02.478-4005-9AW	03013869	25,4	53,5	9,7	5,7	25,4

13NMS/XMS

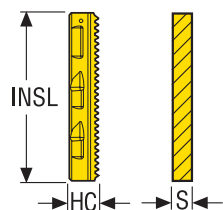


Tolerances:
 INSL = $\pm 0,012$ mm
 HC = $\pm 0,012$ mm
 S = $\pm 0,025$ mm

Designation	Insert	INSL	S	Grades		
		mm Inch	mm Inch	CP500	F30M	H15
13NMS1.0ISO	For internal threading	13,0 0.512	2,5 0.098	■		
13NMS1.5ISO	For internal threading	13,0 0.512	2,5 0.098	■		
13NMS2.0ISO	For internal threading	13,0 0.512	2,5 0.098	■		
13NMS24UN	For internal threading	13,0 0.512	2,5 0.098	■		
13NMS20UN	For internal threading	13,0 0.512	2,5 0.098	■		
13NMS16UN	For internal threading	13,0 0.512	2,5 0.098	■		
13XMS19W	For external and internal threading	13,0 0.512	2,5 0.098	■		
13XMS14W	For external and internal threading	13,0 0.512	2,5 0.098	■		

■ Stock standard.

396.19-4003

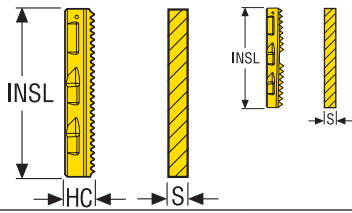


Tolerances:
 INSL = $\pm 0,007$ mm
 HC = $\pm 0,012$ mm
 S = $\pm 0,05$ mm

Designation	Insert	INSL		S		Grades		
		mm	Inch	mm	Inch	CP500	F30M	H15
396.19-4003.0E1.0ISO	For external threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0E1.5ISO	For external threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0E2.0ISO	For external threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0E18UN	For external threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0E16UN	For external threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0E14UN	For external threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0E12UN	For external threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0N1.0ISO	For internal threading	40,0	1.575	3,5	0.138		■	■
396.19-4003.0N1.5ISO	For internal threading	40,0	1.575	3,5	0.138		■	■
396.19-4003.0N2.0ISO	For internal threading	40,0	1.575	3,5	0.138		■	■
396.19-4003.0N2.5ISO	For internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0N3.0ISO	For internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0N20UN	For internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0N18UN	For internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0N16UN	For internal threading	40,0	1.575	3,5	0.138		■	■
396.19-4003.0N14UN	For internal threading	40,0	1.575	3,5	0.138		■	■
396.19-4003.0N12UN	For internal threading	40,0	1.575	3,5	0.138		■	■
396.19-4003.0N10UN	For internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0N9UN	For internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0N8UN	For internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0X16W	For external and internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0X14W	For external and internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0X12W	For external and internal threading	40,0	1.575	3,5	0.138		■	
396.19-4003.0X11W	For external and internal threading	40,0	1.575	3,5	0.138		■	

■ Stock standard.

396.19-4003/4005



Designation	Insert	INSL	S	Grades		
				CP500	F30M	H15
		mm Inch	mm Inch			
396.19-4005.0N3.5ISO	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N4.0ISO	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N4.5ISO	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N5.0ISO	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N5.5ISO	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N6.0ISO	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N7UN	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N6UN	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N5UN	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N4.5UN	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0N4UN	For internal threading	40,0 1.575	4,85 0.191		■	
396.19-4005.0X8W	For external and internal threading	40,0 1.575	4,85 0.191		■	
R396.19-4003.0X14NPT	For external and internal threading	40,0 1.575	3,5 0.138		■	
R396.19-4003.0X11.5NPT	For external and internal threading	40,0 1.575	3,5 0.138		■	
R396.19-4005.0X8NPT	For external and internal threading	40,0 1.575	4,85 0.191		■	
R396.19-4003.0X14NPTF	For external and internal threading	40,0 1.575	3,5 0.138		■	
R396.19-4003.0X11.5NPTF	For external and internal threading	40,0 1.575	3,5 0.138		■	
R396.19-4003.0X14BSPT	For external and internal threading	40,0 1.575	3,5 0.138		■	
R396.19-4003.0X11BSPT	For external and internal threading	40,0 1.575	3,5 0.138		■	
396.19-4003XX	Non cutting blank	40,0 1.575	3,5 0.138			■
396.19-4005XX	Non cutting blank	40,0 1.575	4,85 0.191			■

■ Stock standard.

Thread turning

MDT

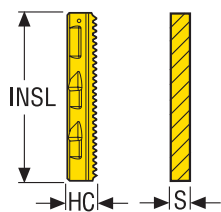
Mini-Shaft™

Thread milling

Thread tapping

Annex

396.20-4005



Designation	Insert	INSL	S	Grades		
		mm Inch	mm Inch	CP500	F30M	H15
396.20-4005.0N3ACME	For internal threading	40,0 1.575	4,9 0.193		■	
396.20-4005.0N4ACME	For internal threading	40,0 1.575	4,9 0.193		■	
396.20-4005.0N8ACME	For internal threading	40,0 1.575	4,9 0.193		■	
396.20-4005.0N4BUT	For internal threading	40,0 1.575	4,85 0.191		■	

■ Stock standard.

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

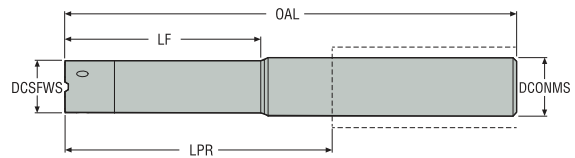


Thread milling Shanks

Generate precision threads in holes as deep as 106 mm with Seco's new single raw Disc Mill 335.14 interchangeable threading heads and matching holder shanks. You will also be able to boost processing speed and versatility, as each head performs both chamfering and threading operations. Additionally, performing two operations with the same tool helps reduce required tooling inventories.

- Both carbide and steel shank types.
- Internal coolant capability.
- Over 31 different carbide-coated heads.

335.14 Shank - Cylindrical version



- For cutting data see page(s) 208
- Technical information, see page 197
- E = Carbide shank with DMM tolerance = h6
- Steel shank: DMM tolerance = g6
- Max RPM = 30 000 rev/min

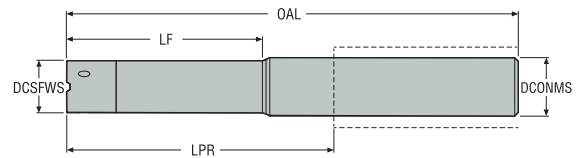
Designation	Item number	LF	OAL	DCSFWS	DCONMS	LPR	Weight	Through coolant	Insert
		mm	mm	mm	mm	mm	kg		
335.14-1006.0-015-060	03042024	11,5	56,5	6,0	10,0	16,5	0,1		R335.14...06Z..
335.14-1206.0-021-080-E	03042025	17,5	76,5	6,0	12,0	31,5	0,2	✓	R335.14...06Z..
335.14-1206.0-030-090-E	03042026	26,5	86,5	6,0	12,0	41,5	0,2	✓	R335.14...06Z..
335.14-1206.0-042-100-E	03042027	38,5	96,5	6,0	12,0	51,5	0,2	✓	R335.14...06Z..
335.14-1008.0-017-060	03042040	12,5	55,5	8,0	10,0	15,5	0,1		R335.14...08Z..
335.14-1208.0-029-095-E	03042041	24,5	90,5	8,0	12,0	45,5	0,2	✓	R335.14...08Z..
335.14-1208.0-042-110-E	03042042	37,5	105,5	8,0	12,0	60,5	0,2	✓	R335.14...08Z..
335.14-1208.0-056-120-E	03042043	51,5	115,5	8,0	12,0	70,5	0,2	✓	R335.14...08Z..
335.14-1609.0-018-080	03042028	12,2	74,2	9,0	16,0	26,2	0,2	✓	R335.14...09Z..
335.14-1609.0-032-100-E	03042029	26,2	94,2	9,0	16,0	46,2	0,3	✓	R335.14...09Z..
335.14-1609.0-045-110-E	03042030	39,2	104,2	9,0	16,0	56,2	0,3	✓	R335.14...09Z..
335.14-1609.0-064-130-E	03042031	58,2	124,2	9,0	16,0	76,2	0,3	✓	R335.14...09Z..
335.14-1612.0-024-080	03042032	18,3	74,3	12,0	16,0	26,3	0,2	✓	R335.14...12Z..
335.14-1612.0-042-100-E	03042033	36,3	94,3	12,0	16,0	46,3	0,2	✓	R335.14...12Z..
335.14-1612.0-060-130-E	03042034	54,3	124,3	12,0	16,0	76,3	0,3	✓	R335.14...12Z..
335.14-1612.0-085-160-E	03042035	76,3	154,3	12,0	16,0	106,3	0,4	✓	R335.14...12Z..
335.14-1614.0-042-100-E	03042036	35,5	93,5	14,3	16,0	45,5	0,3	✓	R335.14...14Z..
335.14-1614.0-060-130-E	03042037	53,5	123,5	14,3	16,0	75,5	0,3	✓	R335.14...14Z..
335.14-1614.0-085-160-E	03042038	78,5	153,5	14,3	16,0	105,5	0,4	✓	R335.14...14Z..
335.14-2014.0-036-100	03042039	29,2	93,5	14,0	20,0	43,5	0,2	✓	R335.14...14Z..

Spare Parts, included in delivery

Accessories

For holders	Insert key	Insert screw	Key (T-handle)	Insert clamping torque	Torque key
					
335.14...06	H4B-T08P	C92608-T08P	DOUBLE-T	2.0NM	T00-08P20
335.14...08	H4B-T10P	C93510-T10P	DOUBLE-T	3.5NM	T00-10P35
335.14...09	H4B-T15P	C94012-T15P	DOUBLE-T	5.0NM	T00-15P50
335.14...14	H6B-T20P	C95012-T20P	DOUBLE-T	7.0NM	—
335.14...1612	H6B-T20P	C95012-T20P	DOUBLE-T	7.0NM	—

335.14 Shank – Cylindrical version



- For cutting data see page(s) 208
- Technical information, see page 197
- E = Carbide shank with DMM tolerance = h6
- Steel shank: DMM tolerance = g6
- Max RPM = 30 000 rev/min

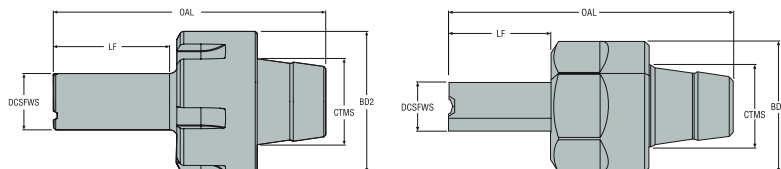
Designation	Item number	LF	OAL	DCSFWS	DCONMS	LPR	Weight	Through coolant	Insert
		Inch	Inch	Inch	Inch	Inch	lbs		
335.14-050006.0-083-315-E	03042121	0.689	3.012	0.236	0.500	1.240	0.2	✓	R334.14...06Z..
335.14-050006.0-118-354-E	03042122	1.043	3.406	0.236	0.500	1.634	0.4	✓	R334.14...06Z..
335.14-050006.0-165-394-E	03042107	1.516	3.799	0.236	0.500	2.028	0.4	✓	R334.14...06Z..
335.14-050008.0-114-374-E	03042123	0.965	3.563	0.315	0.500	1.791	0.4	✓	R334.14...08Z..
335.14-050008.0-165-433-E	03042124	1.476	4.154	0.315	0.500	2.382	0.4	✓	R334.14...08Z..
335.14-050008.0-220-472-E	03042119	2.028	4.547	0.315	0.500	2.776	0.4	✓	R334.14...08Z..
335.14-062509.0-071-315	03042108	0.480	2.921	0.354	0.625	1.031	0.4	✓	R334.14...09Z..
335.14-062509.0-126-394-E	03042109	1.031	3.709	0.354	0.625	1.819	0.4	✓	R334.14...09Z..
335.14-062509.0-177-433-E	03042110	1.543	4.102	0.354	0.625	2.213	0.4	✓	R334.14...09Z..
335.14-062509.0-252-512-E	03042111	2.291	4.890	0.354	0.625	3.000	0.7	✓	R334.14...09Z..
335.14-062512.0-094-315	03042112	0.720	2.925	0.472	0.625	1.035	0.4	✓	R334.14...12Z..
335.14-062512.0-165-394-E	03042113	1.429	3.713	0.472	0.625	1.823	0.4	✓	R334.14...12Z..
335.14-062512.0-236-512-E	03042114	2.138	4.894	0.472	0.625	3.004	0.7	✓	R334.14...12Z..
335.14-062512.0-335-630-E	03042115	3.122	6.075	0.472	0.625	4.185	0.9	✓	R334.14...12Z..
335.14-062514.0-165-394-E	03042116	1.398	3.681	0.551	0.625	1.791	0.7	✓	R334.14...14Z..
335.14-062514.0-236-512-E	03042117	2.106	4.862	0.551	0.625	2.972	0.9	✓	R334.14...14Z..
335.14-062514.0-335-630-E	03042118	3.091	6.043	0.551	0.625	4.154	0.9	✓	R334.14...14Z..

Spare Parts, included in delivery

Accessories

For holders	Insert key	Insert screw	Key (T-handle)	Insert clamping torque	Torque key
					
335.14-..06	H4B-T08P	C92608-T08P	DOUBLE-T	2.0NM	T00-08P20
335.14-..08	H4B-T10P	C93510-T10P	DOUBLE-T	3.5NM	T00-10P35
335.14-..09	H4B-T15P	C94012-T15P	DOUBLE-T	5.0NM	T00-15P50
335.14-..12/14	H6B-T20P	C95012-T20P	DOUBLE-T	7.0NM	-

335.14 Shank with ER collet



—For cutting data see page(s) 208
—Technical information, see page 197

Designation	Item number	LF	OAL	DCSFWS	BD2	DCONMS	CTMS	Weight	Insert
		mm	mm	mm	mm	mm	mm	kg	
335.14-ER11-06-016	03042072	12,5	34,9	6,0	16,0	11,0	ER 11	0,1	R335.14...06Z...
335.14-ER11-08-016	03042085	11,5	33,8	8,0	16,0	11,0	ER 11	0,1	R335.14...08Z...
335.14-ER16-08-022	03042086	17,5	49,6	8,0	32,0	16,0	ER 16	0,2	R335.14...08Z...
335.14-ER11-09-022	03042073	16,2	38,5	9,0	16,0	11,0	ER 11	0,1	R335.14...09Z...
335.14-ER16-09-022	03042074	16,2	48,3	9,0	32,0	16,0	ER 16	0,2	R335.14...09Z...
335.14-ER25-09-022	03042075	16,2	55,3	9,0	35,0	25,0	ER 25	0,2	R335.14...09Z...
335.14-ER16-12-030	03042076	24,3	56,4	12,0	32,0	16,0	ER 16	0,2	R335.14...12Z...
335.14-ER25-12-030	03042078	24,3	63,4	12,0	35,0	25,0	ER 25	0,2	R335.14...12Z...
335.14-ER32-12-030	03042079	24,3	69,4	12,0	50,0	32,0	ER 32	0,4	R335.14...12Z...
335.14-ER25-14-019	03042080	12,5	52,3	14,0	35,0	25,0	ER 25	0,2	R335.14...14Z...
335.14-ER25-14-035	03042081	28,5	67,6	14,0	35,0	25,0	ER 25	0,2	R335.14...14Z...
335.14-ER32-14-019	03042082	12,5	58,3	14,0	50,0	32,0	ER 32	0,5	R335.14...14Z...
335.14-ER32-14-035	03042083	28,5	73,6	14,0	50,0	32,0	ER 32	0,4	R335.14...14Z...

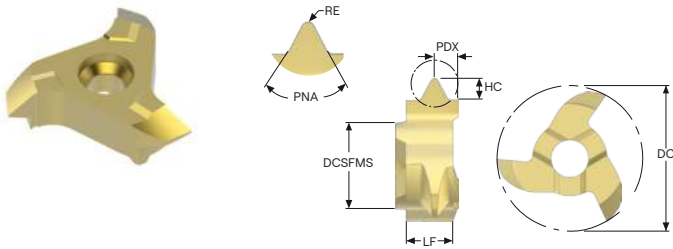
Spare Parts, included in delivery

Accessories

For holders	Insert key	Insert screw	Key (T-handle)	Insert clamping torque	Torque key
					
335.14-ER...06	H4B-T08P	C92608-T08P	DOUBLE-T	2.0NM	T00-08P20
335.14-ER...08	H4B-T10P	C93510-T10P	DOUBLE-T	3.5NM	T00-10P35
335.14-ER...09	H4B-T15P	C94012-T15P	DOUBLE-T	5.0NM	T00-15P50
335.14-ER...12/14	H6B-T20P	C95012-T20P	DOUBLE-T	7.0NM	—

335.14 Inserts

Thread profile Whitworth - Metric



—For cutting data see page(s) 208
—Technical information, see page 197

												Grades
Designation	Pitch		DC	RE	DCSFMS	HC	LF	PDX	PNA	ZEFP	Stock standard	Coated
	mm	TPIX	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			F32M
R335.14-117WXF11.06Z3	—	11	11,7 0.461	0,31 0.012	6,0 0.236	1,48 0.058	3,6 0.142	1,6 0.063	55,0 2.165	3	●	■
R335.14-177WXF11.09Z3	—	11	17,7 0.697	0,31 0.012	9,0 0.354	1,48 0.058	5,85 0.230	1,45 0.057	55,0 2.165	3	●	■
R335.14-117WXF14.06Z3	—	14	11,7 0.461	0,24 0.009	6,0 0.236	1,16 0.046	3,6 0.142	1,3 0.051	55,0 2.165	3	●	■
R335.14-157WXF14.08Z3	—	14	15,7 0.618	0,24 0.009	8,0 0.315	1,17 0.046	4,6 0.181	1,5 0.059	55,0 2.165	3	●	■
R335.14-177WXF14.09Z3	—	14	17,7 0.697	0,24 0.009	9,0 0.354	1,16 0.046	5,85 0.230	1,25 0.049	55,0 2.165	3	●	■
R335.14-117WXF19.06Z3	—	19	11,7 0.461	0,18 0.007	6,0 0.236	0,86 0.034	3,6 0.142	1,1 0.043	55,0 2.165	3	●	■
R335.14-177WXF19.09Z3	—	19	17,7 0.697	0,18 0.007	9,0 0.354	0,856 0.034	5,85 0.230	0,95 0.037	55,0 2.165	3	●	■

●=Stock standard O=Available on demand (within 2 weeks)

Thread turning

MDT

Mini-Shaft™

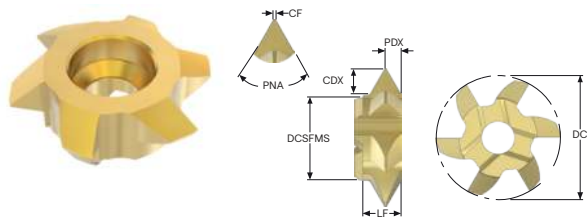
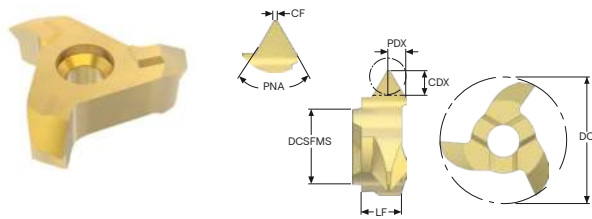
Thread milling

Thread tapping

Annex

335.14 Inserts

Thread profile Partial Metric



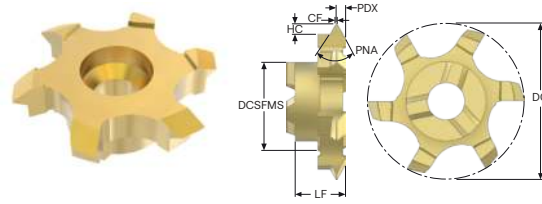
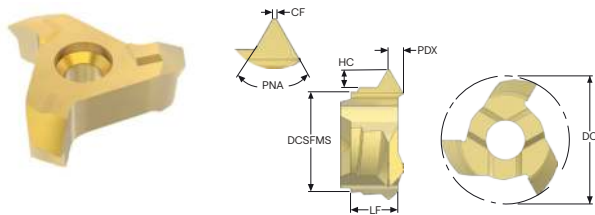
—For cutting data see page(s) 208
—Technical information, see page 197

Designation	Pitch		DC	CF	CDX	DCSFMS	LF	PDX	PNA	ZEFP	Stock standard	Grades
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			Coated
R335.14-111MNP200300.06Z6	2-3	079-0.118	11,1 0.437	0,17 0.007	1,78 0.070	6,0 0.236	3,2 0.126	1,4 0.055	60,0 2.362	6	○	■
R335.14-117MNP100200.06Z3	1-2	039-079	11,7 0.461	0,13 0.005	1,25 0.049	6,0 0.236	3,6 0.142	0,8 0.031	60,0 2.362	3	●	■
R335.14-117MNP100200.06Z6	1-2	039-079	11,7 0.461	0,06 0.002	1,25 0.049	6,0 0.236	3,6 0.142	1,04 0.041	60,0 2.362	6	○	■
R335.14-117MNP200300.06Z3	2-3	079-0.118	11,7 0.461	0,25 0.010	1,78 0.070	6,0 0.236	3,6 0.142	1,2 0.047	60,0 2.362	3	●	■
R335.14-132MNP150275.08Z6	1,5-2,75	059-0.108	13,2 0.520	0,13 0.005	1,67 0.066	8,0 0.315	4,2 0.165	1,3 0.051	60,0 2.362	6	○	■
R335.14-133MNP200300.08Z6	2-3	079-0.118	13,3 0.524	0,17 0.007	1,78 0.070	8,0 0.315	4,2 0.165	2,5 0.098	60,0 2.362	6	○	■
R335.14-157MNP150275.08Z3	1,5-2,75	059-0.108	15,7 0.618	0,19 0.007	1,67 0.066	8,0 0.315	4,6 0.181	1,1 0.043	60,0 2.362	3	●	■
R335.14-157MNP250300.08Z3	2,5-3	098-0.118	15,7 0.618	0,31 0.012	1,78 0.070	8,0 0.315	4,6 0.181	1,2 0.047	60,0 2.362	3	●	■
R335.14-177MNP100200.09Z3	1-2	039-079	17,7 0.697	0,12 0.005	1,19 0.047	9,0 0.354	5,85 0.230	1,15 0.045	60,0 2.362	3	●	■
R335.14-177MNP150275.09Z3	1,5-2,75	059-0.108	17,7 0.697	0,19 0.007	1,62 0.064	9,0 0.354	5,85 0.230	1,25 0.049	60,0 2.362	3	●	■
R335.14-177MNP200375.09Z3	2-3,75	079-0.148	17,7 0.697	0,25 0.010	2,22 0.087	9,0 0.354	5,85 0.230	1,65 0.065	60,0 2.362	3	●	■
R335.14-177MNP300550.09Z3	3-5,5	0.118-0.217	17,7 0.697	0,38 0.015	3,25 0.128	9,0 0.354	5,85 0.230	2,25 0.089	60,0 2.362	3	●	■
R335.14-217MNP100200.12Z3	1-2	039-079	21,7 0.854	0,12 0.005	1,19 0.047	12,0 0.472	5,85 0.230	1,25 0.049	60,0 2.362	3	●	■
R335.14-217MNP200375.12Z3	2-3,75	079-0.148	21,7 0.854	0,25 0.010	2,22 0.087	12,0 0.472	5,85 0.230	1,65 0.065	60,0 2.362	3	●	■
R335.14-217MNP250450.12Z3	2,5-4,5	098-0.177	21,7 0.854	0,25 0.010	2,7 0.106	12,0 0.472	5,85 0.230	2,15 0.085	60,0 2.362	3	●	■
R335.14-217MNP350600.12Z3	3,5-6	0.138-0.236	21,7 0.854	0,44 0.017	3,52 0.139	12,0 0.472	5,85 0.230	2,65 0.104	60,0 2.362	3	●	■
R335.14-277MNP150250.14Z6	1,5-2,5	059-098	27,7 1.091	0,19 0.007	1,6 0.063	14,0 0.551	6,5 0.256	— —	60,0 2.362	6	○	■
R335.14-277MNP150250.14Z3	1,5-2,5	059-098	27,7 1.091	0,18 0.007	1,49 0.059	14,0 0.551	6,6 0.260	2,4 0.094	60,0 2.362	3	○	■
R335.14-277MNP250500.14Z3	2,5-5	098-0.197	27,7 1.091	0,37 0.015	2,93 0.115	14,0 0.551	6,6 0.260	2,6 0.102	60,0 2.362	3	●	■
R335.14-277MNP400600.14Z3	4-6	0.157-0.236	27,7 1.091	0,5 0.020	4,6 0.181	14,0 0.551	6,6 0.260	3,0 0.118	60,0 2.362	3	●	■

●=Stock standard ○=Available on demand (within 2 weeks)

335.14 Inserts

Thread profile Full Metric



—For cutting data see page(s) 208
—Technical information, see page 197

Designation	Pitch		DC	CF	HC	DCSFMS	LF	PDX	PNA	ZEFP	Stock standard	Grades	
	mm	TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			Coated	
R335.14-067MNF050.05Z3	0,5-0,5	02-02	6,7 0.264	0,06 0.002	0,28 0.011	4,8 0.189	3,25 0.128	0,4 0.016	60,0 2.362	3	○	■	F32M
R335.14-077MNF075.05Z3	0,75-0,75	03-03	7,7 0.303	0,1 0.004	0,416 0.016	4,8 0.189	3,25 0.128	0,5 0.020	60,0 2.362	3	○	■	
R335.14-077MNF100.05Z3	1-1	039-039	7,7 0.303	0,12 0.005	0,557 0.022	4,8 0.189	3,55 0.140	0,9 0.035	60,0 2.362	3	○	■	
R335.14-097MNF100.06Z3	1-1	039-039	9,7 0.382	0,09 0.004	0,58 0.023	6,0 0.236	3,6 0.142	0,7 0.028	60,0 2.362	3	○	■	
R335.14-097MNF150.06Z3	1,5-1,5	059-059	9,7 0.382	0,125 0.005	0,86 0.034	6,0 0.236	3,6 0.142	0,9 0.035	60,0 2.362	3	○	■	
R335.14-097MNF175.06Z3	1,75-1,75	069-069	9,7 0.382	0,21 0.008	0,95 0.037	6,0 0.236	3,6 0.142	1,0 0.039	60,0 2.362	3	○	■	
R335.14-097MNF200.06Z3	2-2	079-079	9,7 0.382	0,165 0.006	1,16 0.046	6,0 0.236	3,6 0.142	1,1 0.043	60,0 2.362	3	○	■	
R335.14-097MNF250.06Z3	2,5-2,5	098-098	9,7 0.382	0,2 0.008	1,44 0.057	6,0 0.236	3,49 0.137	1,19 0.047	60,0 2.362	3	○	■	
R335.14-137MNF100.08Z3	1-1	039-039	13,7 0.539	0,1 0.004	0,58 0.023	8,0 0.315	4,6 0.181	0,9 0.035	60,0 2.362	3	○	■	
R335.14-137MNF150.08Z3	1,5-1,5	059-059	13,7 0.539	0,125 0.005	0,86 0.034	8,0 0.315	4,6 0.181	1,2 0.047	60,0 2.362	3	○	■	
R335.14-137MNF200.08Z3	2-2	079-079	13,7 0.539	0,165 0.006	1,16 0.046	8,0 0.315	4,6 0.181	1,4 0.055	60,0 2.362	3	○	■	
R335.14-137MNF250.08Z3	2,5-2,5	098-098	13,7 0.539	0,2 0.008	1,44 0.057	8,0 0.315	4,6 0.181	1,6 0.063	60,0 2.362	3	○	■	
R335.14-177MNF150.09Z3	1,5-1,5	059-059	17,7 0.697	0,12 0.005	0,86 0.034	9,0 0.354	5,85 0.230	1,15 0.045	60,0 2.362	3	○	■	
R335.14-177MNF150.09Z6	1,5-1,5	059-059	17,7 0.697	0,12 0.005	0,86 0.034	9,0 0.354	5,85 0.230	0,85 0.033	60,0 2.362	6	○	■	
R335.14-177MNF200.09Z3	2-2	079-079	17,7 0.697	0,16 0.006	1,16 0.046	9,0 0.354	5,85 0.230	1,35 0.053	60,0 2.362	3	○	■	
R335.14-177MNF200.09Z6	2-2	079-079	17,7 0.697	0,16 0.006	1,16 0.046	9,0 0.354	5,85 0.230	1,15 0.045	60,0 2.362	6	○	■	
R335.14-177MNF300.09Z3	3-3	0.118-0.118	17,7 0.697	0,25 0.010	1,73 0.068	9,0 0.354	5,85 0.230	1,65 0.065	60,0 2.362	3	○	■	
R335.14-177MNF350.09Z3	3,5-3,5	0.138-0.138	17,7 0.697	0,28 0.011	2,02 0.080	9,0 0.354	5,85 0.230	1,95 0.077	60,0 2.362	3	○	■	
R335.14-217MNF400.12Z3	4-4	0.157-0.157	21,7 0.854	0,5 0.020	2,16 0.085	12,0 0.472	5,85 0.230	1,95 0.077	60,0 2.362	3	○	■	
R335.14-217MNF450.12Z3	4,5-4,5	0.177-0.177	21,7 0.854	0,56 0.022	2,43 0.096	12,0 0.472	5,85 0.230	2,25 0.089	60,0 2.362	3	○	■	

●=Stock standard ○=Available on demand (within 2 weeks)

Thread turning

MDT

Mini-Shaft™

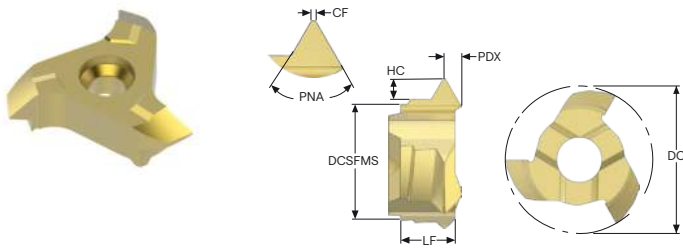
Thread milling

Thread tapping

Annex

335.14 Inserts

Thread profile UN - Metric



–For cutting data see page(s) 208

–Technical information, see page 197

												Grades
Designation	Pitch		DC	CF	DCSFMS	HC	LF	PDX	PNA	ZEFP	Stock standard	Coated
	mm	TPIX	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch			F32M
R335.14-177UNNF6.09Z3	–	6	17,7 0.697	0,53 0.021	9,0 0.354	2,291 0.090	5,85 0.230	1,65 0.065	60,0 2.362	3	•	■
R335.14-177UNNF8.09Z3	–	8	17,7 0.697	0,4 0.016	9,0 0.354	1,718 0.068	5,85 0.230	1,45 0.057	60,0 2.362	3	•	■
R335.14-177UNNF10.09Z3	–	10	17,7 0.697	0,32 0.013	9,0 0.354	1,375 0.054	5,85 0.230	1,25 0.049	60,0 2.362	3	•	■
R335.14-177UNNF11.09Z3	–	11	17,7 0.697	0,29 0.011	9,0 0.354	1,249 0.049	5,85 0.230	1,05 0.041	60,0 2.362	3	•	■
R335.14-177UNNF12.09Z3	–	12	17,7 0.697	0,27 0.011	9,0 0.354	1,146 0.045	5,85 0.230	1,05 0.041	60,0 2.362	3	•	■
R335.14-177UNNF14.09Z3	–	14	17,7 0.697	0,23 0.009	9,0 0.354	0,982 0.039	5,85 0.230	0,85 0.033	60,0 2.362	3	•	■
R335.14-177UNNF16.09Z3	–	16	17,7 0.697	0,2 0.008	9,0 0.354	0,859 0.034	5,85 0.230	0,85 0.033	60,0 2.362	3	•	■
R335.14-177UNNF18.09Z3	–	18	17,7 0.697	0,18 0.007	9,0 0.354	0,763 0.030	5,85 0.230	0,85 0.033	60,0 2.362	3	•	■
R335.14-177UNNF20.09Z3	–	20	17,7 0.697	0,16 0.006	9,0 0.354	0,687 0.027	5,85 0.230	0,65 0.026	60,0 2.362	3	•	■
R335.14-177UNNF24.09Z3	–	24	17,7 0.697	0,13 0.005	9,0 0.354	0,572 0.023	5,85 0.230	0,65 0.026	60,0 2.362	3	•	■

•=Stock standard O=Available on demand (within 2 weeks)



Threadmaster™ Taps

Designed to be universal in application, the high-speed steel Threadmaster Tap effectively threads holes in a wide range of workpiece types and materials. The tool features an advanced coating technology that enables it to achieve higher cutting data and output in steel up to 350 HB, stainless steels and cast irons when compared to the uncoated solutions typically found in this product area.

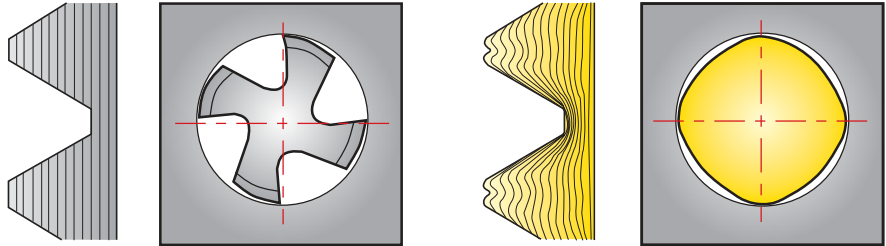
- Features spiral helixes for blind holes and spiral points for through holes.
- Straight flutes accommodate for short chipping materials.
- Advanced coatings for faster tapping.

Introduction to taps

What are you looking for in a thread?

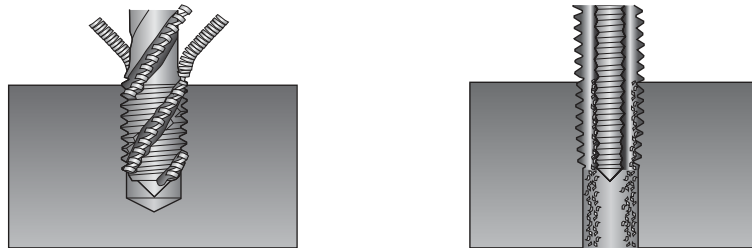
Cutting a thread vs forming a thread

There are two way of making a thread, cutting or forming. Cutting is to be used in most materials, while forming is to be used in steel, stainless steel and aluminium.



Through hole, blind hole

Taps have different designs. Depending on application (through or blind hole).



Hole size

Dimension of the hole differs between cutting and forming the thread.

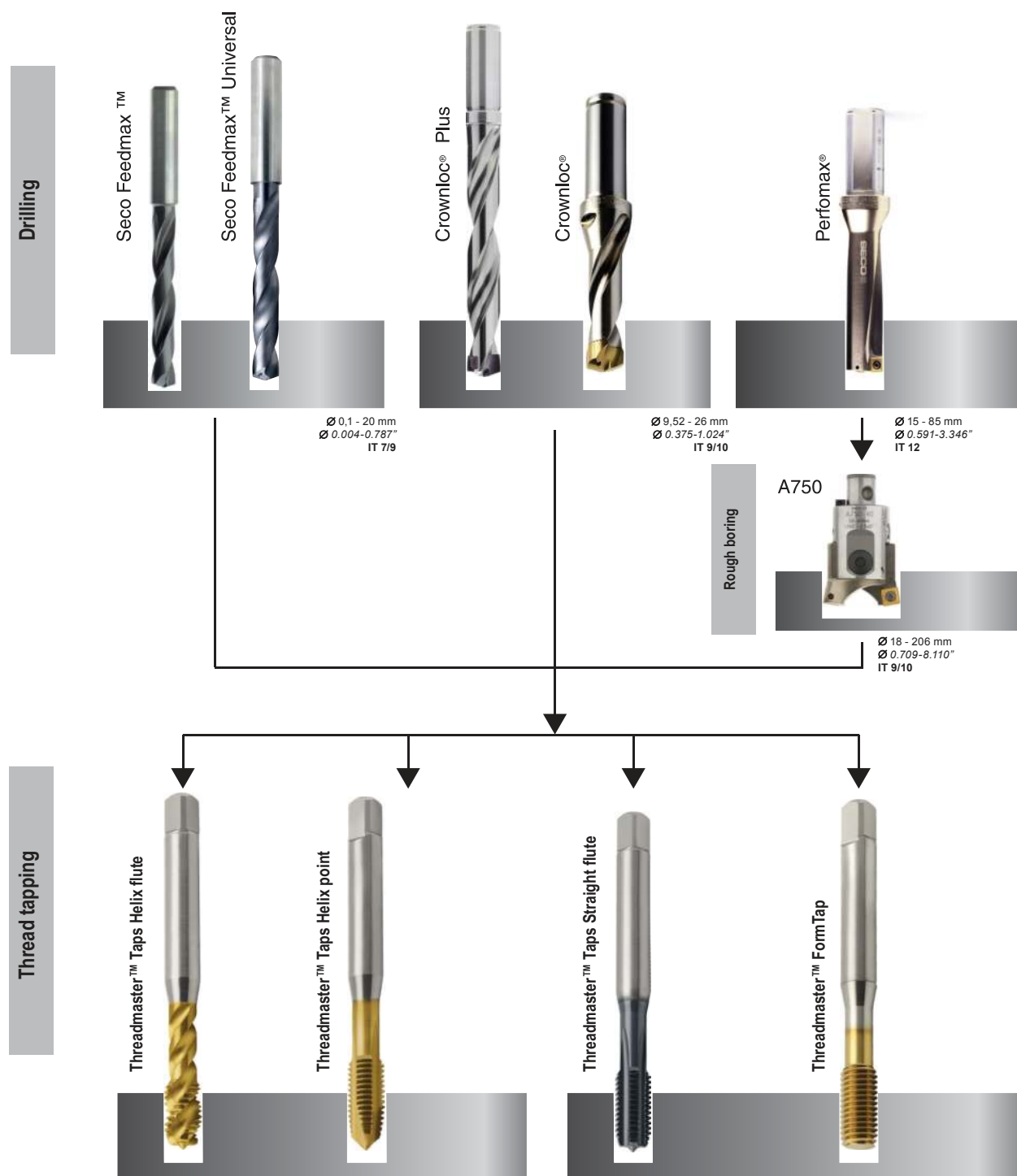
Cutting tap
 $D = TD - PTH$

Forming tap
 $D = TD - PTH/2$
($D = D_{nom} - 0.0068 \times PTH \times 65$)

D = Hole diameter
TD = Major thread diameter
PTH = Thread pitch



Introduction to taps – Tool guide



Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps – Choice of Tap tolerance

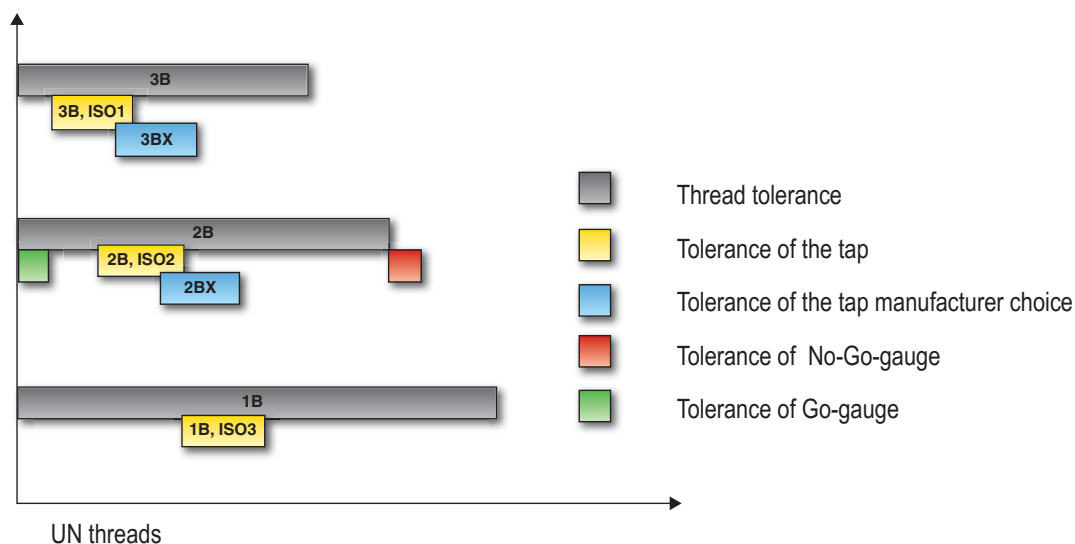
The Threadmaster™ Taps from Seco are available for threads with different tolerances 6H and 6G, as well in 6HX and 6GX.

Normal standard tolerance is H.

Tolerance GX/HX and BX is to be used when risk of oversize is limited, this also increases tool life of the tap.

Taps for UNC/UNF are designed for tolerance 2B.

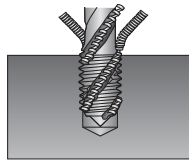
Tolerance class for G and NPT/NPTF is normal.



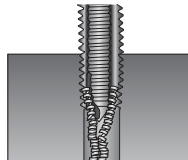
Code key – Taps T30, T32, T33, T34 and T35

T35	A	-	R	15	S	01	C	03	-	6	x	1	-	65	R	-	H
1	2	3	4	5	6	7	8	9	10	11	12	13					

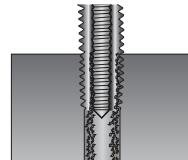
No. 3, 4



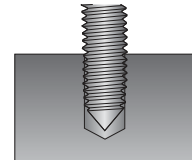
R40/R45
Blind holes
ULDR = 2,5



P
Through holes
ULDR = 3



S
Blind and through holes
ULDR = 1,5



F/FS - forming taps
Blind and through holes
ULDR = 3

ULDR = Usable length diameter ratio

Description			
1. Family	T30 – General purpose HSSE taps T32 – Versatile cutting taps T33 – Forming taps T34 – High performance versatile cutting taps T35 – Taps optimized for specific materials		
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 U – Uncoated X – Vaporized S – TiAlSiN		
6. Thread Type	01 – M 02 – MF 04 – EGM - taps for Helicoil/STI threads 08 – UNC 09 – UNF 16 – EGUNC - taps for Helicoil/STI threads 17 – EGUNF - taps for Helicoil/STI threads 21 – G 32 – Rp 33 – Rc 46 – NPT 47 – NPTF		
7. Type of chamfer	B = Cutting chamfer 3,5-5 threads C = Cutting chamfer 2-3 threads E = Cutting chamfer 1,5-2 threads		
8. Standard	03 – DIN371 - with reinforced shank 04 – DIN371/EL - extra-long with reinforced shank 05 – DIN374 - reduced shank (for fine threads) 06 – DIN376 - reduced shank (for coarse threads) 07 – DIN376/EL - extra-long with reduced shank 09 – DIN5156 - reduced shank (for pipe threads) 93 – ANSI diameters, DIN371 lengths 95 – ANSI diameters, DIN374 lengths 96 – ANSI diameters, DIN376 lengths		
9. Thread size			
10. Pitch			
11. Tolerance	M threads: 41 – 4H 61 – 6G 62 – 6GX M threads: 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		
13. Main application area (SMG)			

Thread turning

MDT

Mini-Shaft™

Thread milling

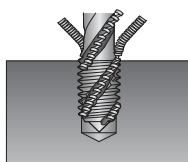
Thread tapping

Annex

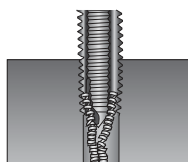
Code key – Taps MTH, MTS, MF and MTP

MTS	-	M10	x	1.5ISO	6H	-	B	C	-	V	0	01	-	A
1		2		3	4		5	6		7	8	9		10

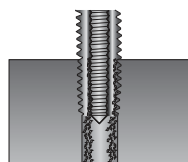
No. 1



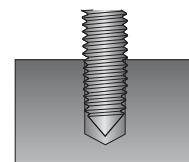
MTH



MTP



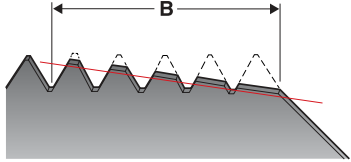
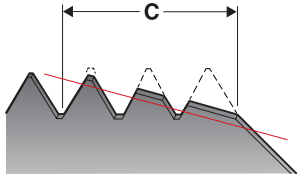
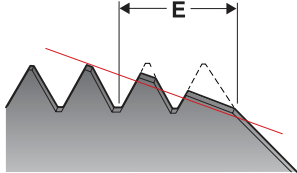
MTS



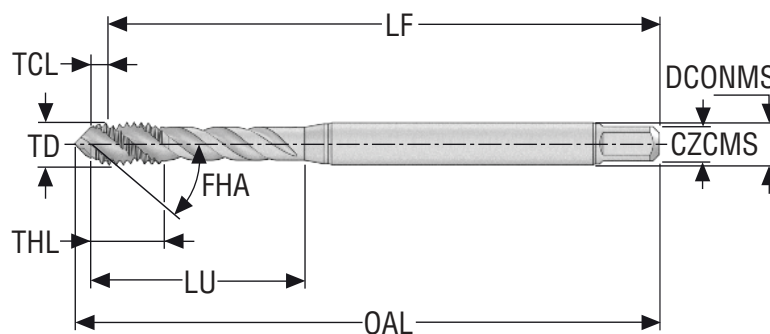
MF

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 (tctr) 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

B-type Length 3.5 – 5 threads Low load Best surface finish Thin chip thickness Low pressure at the chamfer Long tool life Most common for through holes (Helix point)	
C-type Length 2 - 3 threads Medium load 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)	
E-type Length 1.5 – 2 threads High load Good surface finish Thick chip thickness High pressure at the chamfer Shorter tool life When limited space in the bottom of a hole	

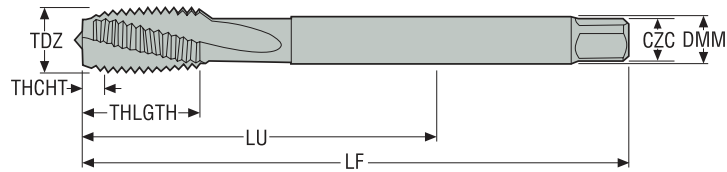
Definitions for T32, T33, T34, T30 and T35



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
DCOMS	= 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

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

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:

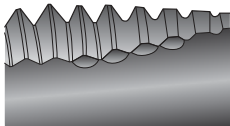
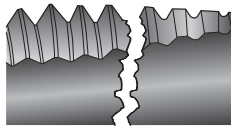
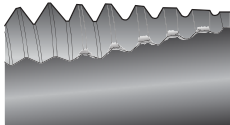
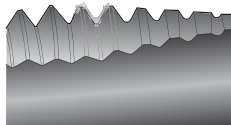
TCER for synchronized tapping has a micro-compensation system to avoid the small discrepancies and axial forces during rigid tapping machining. The taps are mounted in specific ER collets with square drive.

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

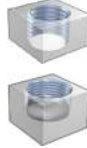


TCER

Troubleshooting

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

Taps Selection T30

Type of tap		T30-PUB	T30-R40UC	T30-PXB	T30-R40XC	T30-SUC
						
Type of hole						
Chamfer form		B	C	B	C	C
Coolant		External	External	External	External	External
Substrate:		HSSE	HSSE	HSSE	HSSE	HSSE
ULDR		3	2,5	3	2,5	1,5
FHA		–	40°	–	40°	–
Page(s)	M	276, 277	287, 288	298, 299	301, 302	
	M 6G	278, 278	289, 289			
	MF	279, 280, 281	290, 291, 292	300	303	
	UNC	282, 283	293, 294			
	UNF	284, 285	295, 296			
	G	286	297			
	NPT					304, 304
	NPTF					305
	Rc					306
	Rp					306

For cutting data, see next page

Cutting data T30

SMG	v _c				
	T30-PUB	T30-R40UC	T30-PXB	T30-R40XC	T30-SUC
P1	10	10	10	10	10
	33	33	33	33	33
P2	10	10	10	10	10
	33	33	33	33	33
P3	8,6	8,6	8,6	8,6	8,6
	28	28	28	28	28
P4	10	10	10	10	10
	33	33	33	33	33
P5	10	10	10	10	10
	33	33	33	33	33
P6	11	11	11	11	11
	36	36	36	36	36
P7	11	11	11	11	11
	36	36	36	36	36
P8	10	10	10	10	10
	33	33	33	33	33
M1	5	7	5	7	5
	16	23	16	23	16
M2	4,0	5,7	4,0	5,7	4,0
	13	19	13	19	13
M3	3,1	4,3	3,1	4,3	3,1
	10	14	10	14	10
M4	2,3	3,2	2,3	3,2	2,3
	7,5	10	7,5	10	7,5
K1	5,0	—	5,0	—	5,0
	16	—	16	—	16
K2	4,3	—	4,3	—	4,3
	14	—	14	—	14
K3	3,7	5,0	3,7	5,0	3,7
	12	16	12	16	12
K4	3,5	4,8	3,5	4,8	3,5
	11	16	11	16	11
N1	24	24	24	24	24
	80	80	80	80	80
N2	15	15	15	15	15
	49	49	49	49	49
N3	10	10	10	10	10
	33	33	33	33	33
N11	13	—	13	—	13
	43	—	43	—	43

SMG = Seco material group

v_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value.

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

Thread turning

MDT

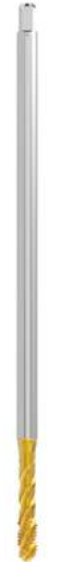
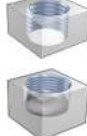
Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection T32 TiAlN+TiN

Type of tap		T32-SNC-micro	T32-SNC	T32-PNB-micro	T32-PNB	T32-PNB	T32-R40NC-micro	T32-R40NC	T32-R40NC
TDZ < M3									
Type of hole									
Chamfer form		C	C	B	B	B	C	C	C
Coolant		External	External	External	External	External	External	External	External
Substrate:		HSS-PM	HSSE	HSSE	HSSE	HSSE-PM HSSE	HSS-PM	HSSE-PM HSSE	HSSE
ULDR		1,5	1,5	3	3	3	2,5	2,5	2,5
FHA		–	–	–	–	–	40°	40°	40°
Page(s)	M	307, 307	308, 309	314, 314	315, 315	316, 317, 318	331, 331	332, 332	333, 334, 335
	M 6G					319, 319			336, 336
	M LH		310, 310			320, 320			337, 337
	MF		311, 312			321, 322			338, 339
	UNC					323, 324, 325			340, 341, 342
	UNF					326, 327, 328			343, 344, 345
	G		313			329			346
	EG M								
	EG UNC								
	EG UNF								

For cutting data, see next page

Cutting data T32 TiAlN+TiN

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

v_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value.

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

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection T32 TiAlN + WC/C

Type of tap		T32-PHB	T32-R40HC
			
Type of hole			
Chamfer form		B	C
Coolant		External	External
Substrate:		HSSE	HSSE
ULDR		3	2,5
FHA		–	40°
Page(s)	M	330, 330	347, 347
	M 6G		
	M LH		
	MF		
	UNC		
	UNF		
	G		
	EG M		
	EG UNC		
	EG UNF		

For cutting data, see next page

Cutting data T32 TiAlN + WC/C

SMG	v_c	
	T32-PHB	T32-R40HC
P1	20	20
P2	65	65
P3	20	20
P4	65	65
P5	17	17
P6	55	55
P7	15	15
P8	49	49
P9	14	14
P10	46	46
P11	16	16
P12	50	50
M1	15	15
M2	49	49
M3	14	14
M4	46	46
M5	15	15
K1	49	49
K2	14	14
K3	46	46
K4	15	15
N1	8,7	7,5
N2	29	25
N3	12	12
N11	39	39
	10	10
	33	33
	7,6	7,6
	25	25
	5,7	5,7
	19	19
	4,8	4,8
	16	16
	17	17
	55	55
	15	15
	49	49
	13	13
	43	43
	12	12
	39	39
	23	23
	75	75
	15	15
	49	49
	10	10
	33	33
	13	13
	43	43

SMG = Seco material group

v_c = m/min (sf/min)

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

Taps Selection T34 TiAlN + WC/C

Type of tap		T34-PHB-micro	T34-PHB	T34B-PHB	T34-R45HC-micro	T34-R45HC	T34A-R45HC	T34-R45HE	T34A-R45HE
		TDZ < M3			TDZ < M3				
									
Type of hole									
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
ULDR		3	3	3	2,5	2,5	2,5	2,5	2,5
FHA		–	–	–	45°	45°	45°	45°	45°
Page(s)	M	348, 348	349, 350, 351	352, 352	365, 365	366, 367, 368	369, 369	378, 378	
	M 6G								
	M LH								
	MF		353, 354	355, 355		370, 371	372, 372	379, 379	380
	UNC		356, 356, 357			373, 373, 374			
	UNF		358, 358, 359			375, 375, 376			
	G		363			377			
	EG M		360, 360					381, 381	
	EG UNC		361, 361					382, 382	
	EG UNF		362, 362					383, 383	

For cutting data, see next page

Cutting data T34 TiAlN + WC/C

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

v_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value.

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

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection T34 TiCN

Type of tap		T34-PCB	T34-R45CC
			
Type of hole			
Chamfer form		B	C
Coolant		External	External
Substrate:		HSSE-PM	HSSE-PM
ULDR		2,5	3
FHA		–	45°
Page(s)	M	364, 364	384, 384
	M 6G		
	M LH		
	MF		
	UNC		
	UNF		
	G		
	EG M		
	EG UNC		
	EG UNF		

For cutting data, see next page

Cutting data T34 TiCN

SMG	v_c	
	T34-PCB	T34-R45CC
P1	28	28
P2	90	90
P3	28	28
P4	90	90
P5	24	24
P6	80	80
P7	21	21
P8	70	70
P9	20	20
P10	65	65
P11	22	22
P12	70	70
P13	21	21
P14	70	70
P15	20	20
P16	65	65
P17	21	21
P18	70	70
P19	12	12
P20	39	39
P21	12	12
M1	39	39
M2	10	10
M3	33	33
M4	7,6	7,6
M5	25	25
M6	5,7	5,7
M7	19	19
M8	4,8	4,8
M9	16	16
M10	24	24
K1	80	80
K2	21	21
K3	70	70
K4	18	18
K5	60	60
K6	17	17
K7	55	55
K8	10	10
K9	33	33
K10	26	26
N1	85	85
N2	17	17
N3	55	55
N4	11	11
N5	36	36
N6	15	15
N7	49	49
N8	4,0	4,0
S1	13	13
S2	4	4
S3	13	13

SMG = Seco material group

v_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value.

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

Taps Selection T35-P, K, N

Type of tap		T35-PSB-P	T35-R40SC-P	T35-SSC-K	T35-SSE-K	T35A-SSC-K	T35A-SSE-K	T35B-SSE-K	T35-R45UC-N
									
Type of hole									
Chamfer form		B	C	C	E	C	E	E	C
Coolant		External	External	External	External	Internal	Internal	Internal	External
Substrate:		HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM HSSE
ULDR		3	2,5	2	2	2,5	2,5	2,5	2,5
FHA		–	40°	–	–	–	–	–	45°
Page(s)	M	385, 386	388, 389	391, 391	395, 395	392, 392	396, 396	397	401, 401
	M 6G								
	M LH								
	MF	387, 387	390, 390	393, 394	398, 398		399	400	
	UNC								
	UNF								
	G								
	EG M								
	EG UNC								
	EG UNF								

For cutting data, see next page

Cutting data T35-P, K, N

SMG	v_c							
	T35-PSB-P	T35-R40SC-P	T35-SSC-K	T35-SSE-K	T35A-SSC-K	T35A-SSE-K	T35B-SSE-K	T35-R45UC-N
P1	25	25	-	-	-	-	-	-
	80	80	-	-	-	-	-	-
P2	25	25	-	-	-	-	-	-
	80	80	-	-	-	-	-	-
P3	25	25	-	-	-	-	-	-
	80	80	-	-	-	-	-	-
P4	25	25	-	-	-	-	-	-
	80	80	-	-	-	-	-	-
P5	25	25	-	-	-	-	-	-
	80	80	-	-	-	-	-	-
P6	25	25	-	-	-	-	-	-
	80	80	-	-	-	-	-	-
P7	25	25	-	-	-	-	-	-
	80	80	-	-	-	-	-	-
P8	25	25	-	-	-	-	-	-
	80	80	-	-	-	-	-	-
P11	10	10	-	-	-	-	-	-
	33	33	-	-	-	-	-	-
P12	10	10	-	-	-	-	-	-
	33	33	-	-	-	-	-	-
M3	10	10	-	-	-	-	-	-
	33	33	-	-	-	-	-	-
M4	10	10	-	-	-	-	-	-
	33	33	-	-	-	-	-	-
K1	10	10	30	30	30	30	30	-
	33	33	100	100	100	100	100	-
K2	10	10	20	20	20	20	20	-
	33	33	65	65	65	65	65	-
K3	15	15	17	17	17	17	17	-
	49	49	55	55	55	55	55	-
K4	49	49	16	16	16	16	16	-
	15	15	50	50	50	50	50	-
K5	-	-	7	7	7	7	7	-
	-	-	23	23	23	23	23	-
K6	-	-	14	14	14	14	14	-
	-	-	46	46	46	46	46	-
K7	-	-	9	9	9	9	9	-
	-	-	30	30	30	30	30	-
N1	20	20	-	-	-	-	-	15
	65	65	-	-	-	-	-	49
N2	20	20	-	-	-	-	-	-
	65	65	-	-	-	-	-	-
N3	20	20	-	-	-	-	-	-
	65	65	-	-	-	-	-	-
N11	20	20	-	-	-	-	-	-
	65	65	-	-	-	-	-	-

SMG = Seco material group

v_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value.

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

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection T35-H

Type of tap		T35-SSC-H	T35-PSB-H	T35-R15SC-H	T35A-R15SC-H
					
Type of hole					
Chamfer form		C	B	C	C
Coolant		External	External	External	Internal
Substrate:		HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
ULDR		1,5xD	2,5xD	1,5xD	1,5xD
FHA		–	–	15°	15°
Page(s)	M	402, 402	403, 403	404, 404	405, 405
	M 6G				
	M LH				
	MF			406	407
	UNC				
	UNF				
	G				
	EG M				
	EG UNC				
	EG UNF				

For cutting data, see next page

Cutting data T35-H

SMG	v_c			
	T35-SSC-H	T35-PSB-H	T35-R15SC-H	T35A-R15SC-H
P4	10	10	10	10
	33	33	33	33
P5	10	10	10	10
	33	33	33	33
P6	11	11	11	11
	36	36	36	36
P7	11	11	11	11
	36	36	36	36
P8	10	10	10	10
	33	33	33	33
M4	7,0	7,0	7,0	7,0
	23	23	23	23
M5	4,0	4,0	4,0	4,0
	13	13	13	13
K1	15	15	15	15
	49	49	49	49
K3	11	11	11	11
	36	36	36	36
K4	15	15	15	15
	49	49	49	49
K5	3,0	5,0	5,0	5,0
	9,8	16	16	16
N1	31	31	31	31
	100	100	100	100
N2	20	20	20	20
	65	65	65	65
N3	13	13	13	13
	43	43	43	43
H5	7,0	15	7,0	7,0
	23	49	23	23
H8	7,0	15	7,0	7,0
	23	49	23	23

SMG = Seco material group

v_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value.

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Taps Selection T33

Type of tap		T33-FNC	T33-FSNC	T33-FSCC	T33-FSCE	T33B-FSCE/FSCC	T33A-FSCE
							
Type of hole							
Chamfer form		C	C	C	E	E/C	E
Coolant		External	External	External	External	Internal	Internal
Substrate:		HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM	HSSE-PM
ULDR		3	3	3	3	3	3
Page(s)	M	408, 408	409, 409	415	415	416, 417	416
	M 6G		410, 410				
	M LH						
	MF		411, 411	418, 419		419	
	UNC		412, 412				
	UNF		413, 413				
	G		414				
	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	T33B-FSCE/FSCC	T33A-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	—	—	—	—	—	—
	—	—	—	—	—	—

SMG = Seco material group

v_c = m/min (sf/min)

Cutting speeds (v_c) in the table are recommendations for a start value.

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

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection MTH-P003 – MTH-P011

Tool type	MTH-P003	MTH-P003-A	MTH-P004	MTH-P004-A	MTH-P011
Thread type	M	M	M	M	MF
TCTR	6HX	6HX	6HX	6HX	6HX
ULDR	3	3	3	3	3
THCHT	C	C	C	C	C
BSG	DIN371	DIN371	DIN376	DIN376	DIN374
Thread size	M1.6 - M10	M4 - M10	M5 - M30	M12 - M30	MF 4X0.5 - MF 30X2.0
FHA	48°	48°	48°	48°	48°
					
Coolant	No	Yes	No	Yes	No
Page(s)	436	437	438	439	440, 441

For cutting data, see next page

Cutting data MTH-P003 – P011

SMG					
	MTH- P003	MTH- P003-A	MTH- P004	MTH- P004-A	MTH- P011
P1	55 180 55	55 180 55	55 180 55	55 180 55	55 180 55
P2	180 45	180 45	180 45	180 45	180 45
P3	150 40	150 40	150 40	150 40	150 40
P4	130 38	130 38	130 38	130 38	130 38
P5	125 43	125 43	125 43	125 43	125 43
P6	140 40	140 40	140 40	140 40	140 40
P7	130 38	130 38	130 38	130 38	130 38
P8	125 39	125 39	125 39	125 39	125 39
P11	130 23	130 23	130 23	130 23	130 23
P12	75	75	75	75	75
M1	—	—	—	—	—
M2	—	—	—	—	—
M3	—	—	—	—	—
M4	—	—	—	—	—
M5	—	—	—	—	—
K1	—	—	—	—	—
K2	—	—	—	—	—
K3	—	—	—	—	—
K4	—	—	—	—	—
K5	—	—	—	—	—
K6	—	—	—	—	—
K7	—	—	—	—	—
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%

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection MTP-P003 – MTP-P011

Tool type	MTP-P003	MTP-P003-A	MTP-P004	MTP-P004-A	MTP-P011
Thread type	M	M	M	M	MF
TCTR	5HX/6HX	6HX	6HX	6HX	6HX
ULDR	3	3	3	3	3
THCHT	B	B	B	B	B
BSG	DIN371	DIN371	DIN376	DIN376	DIN374
Thread size	M1 - M10	M4 - M10	M4 - M30	M12 - M30	MF 4X0.5 - MF 30X2.0
					
Coolant	No	Yes	No	Yes	No
Page(s)	420	421	422	423	424, 425

For cutting data, see next page

Cutting data MTP-P003 – P011

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

SMG = Seco material group, $v_c = \text{m/min (sf/min)}$

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%

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection MTH-M003 – MTP-M004

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)	442	443	444	444	426	427	427

For cutting data, see next page

Cutting data MTH-M003 – M004

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	12	12	12	12	12	12
M2	39	39	39	39	39	39	39
M3	10	10	10	10	10	10	10
M4	33	33	33	33	33	33	33
M5	8	8	8	8	8	8	8
K1	26	26	26	26	26	26	26
K2	6	6	6	6	6	6	6
K3	20	20	20	20	20	20	20
K4	5	5	5	5	5	5	5
K5	16	16	16	16	16	16	16
K6	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—
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%

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection MTH-N001 – MTP-N002

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)	445	445	428	428	429	429

For cutting data, see next page

Cutting data MTH-N001 – N002

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 35	55 180 35	55 180 35	55 180 35	55 180 35	55 180 35
N2	115 23	115 23	115 23	115 23	115 23	115 23
N3	75 31	75 31	75 31	75 31	75 31	75 31
N11	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%

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

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)	446	446	447	447	448	449	450	451

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
P1	—	—	—	—	—	—	—	—
P2	—	—	—	—	—	—	—	—
P3	—	—	—	—	—	—	—	—
P4	—	—	—	—	—	—	—	—
P5	—	—	—	—	—	—	—	—
P6	3	3	7	7	3	3	3	3
P7	10 3	10 3	23 7	23 7	10 3	10 3	10 3	10 3
P8	10	10	23	23	10	10	10	10
P11	3	3	6	6	3	3	3	3
P12	10 2	10 2	20 4	20 4	10 2	10 2	10 2	10 2
M1	7	7	13	13	7	7	7	7
M2	—	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—	—
M4	—	—	—	—	—	—	2	—
M5	—	—	—	—	—	—	7	—
K1	—	—	—	—	—	—	2	—
K2	—	—	—	—	—	—	7	—
K3	—	—	—	—	—	—	7	—
K4	—	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—
N3	16	16	25	25	16	16	—	16
N11	50	50	80	80	50	50	—	50
S1	2	2	4	4	2	2	2	2
S2	7	7	13	13	7	7	7	7
S3	2	2	3	3	2	2	2	2
S11	7	7	10	10	7	7	7	7
S12	—	—	—	—	—	—	—	—
S13	—	—	—	—	—	—	—	—
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%

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

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- UNJF3/8-24	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)	452	453	454	454	455	455	456	457	458

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
P1	—	—	—	—	—	—	—	—	—
P2	—	—	—	—	—	—	—	—	—
P3	—	—	—	—	—	—	—	—	—
P4	—	—	—	—	—	—	—	—	—
P5	—	—	—	—	—	—	—	—	—
P6	3	3	7	3	7	7	7	7	7
P7	10 3	10 3	23 7	10 3	23 7	23 7	23 7	23 7	23 7
P8	10	10	23	10	23	23	23	23	23
P11	3	3	6	3	6	6	6	6	6
P12	10 2	10 2	20 4	10 2	20 4	20 4	20 4	20 4	20 4
M1	7	7	13	7	13	13	13	13	13
M2	—	—	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—	—	—
M4	2	—	6	—	6	6	6	6	6
M5	7	—	20	—	20	20	20	20	20
K1	2	—	5	—	5	5	5	5	5
K2	7	—	16	—	16	16	16	16	16
K3	—	—	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—	—	—
N3	—	16 50	25 80	16 50	25 80	25 80	25 80	25 80	25 80
N11	—	—	—	—	—	—	—	—	—
S1	2	2	—	2	—	—	—	—	—
S2	7	7	—	7	—	—	—	—	—
S3	2	2	—	2	—	—	—	—	—
S11	7	7	5	7	5	5	5	5	5
S12	—	—	16 4	—	16 4	16 4	16 4	16 4	16 4
S13	—	—	13 3	—	13 3	13 3	13 3	13 3	13 3
H5	—	—	10	—	10	10	10	10	10
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%

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

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)	430	430	431	432	433	434	435

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
P1	—	—	—	—	—	—	—
P2	—	—	—	—	—	—	—
P3	—	—	—	—	—	—	—
P4	—	—	—	—	—	—	—
P5	—	—	—	—	—	—	—
P6	—	—	—	—	—	—	—
P7	—	—	—	—	—	—	—
P8	—	—	—	—	—	—	—
P11	—	—	—	—	—	—	—
P12	—	—	—	—	—	—	—
M1	—	—	—	—	—	—	—
M2	—	—	—	—	—	—	—
M3	—	—	—	—	—	—	—
M4	6 20 5	6 20 5	6 20 5	6 20 5	2 7 5	6 20 5	2 7 5
M5	16	16	16	16	7	16	7
K1	—	—	—	—	—	—	—
K2	—	—	—	—	—	—	—
K3	—	—	—	—	—	—	—
K4	—	—	—	—	—	—	—
K5	—	—	—	—	—	—	—
K6	—	—	—	—	—	—	—
K7	—	—	—	—	—	—	—
N1	—	—	—	—	—	—	—
N2	—	—	—	—	—	—	—
N3	25 80	25 80	25 80	25 80	16 50	25 80	16 50
N11	—	—	—	—	—	—	—
S1	4 13 3	4 13 3	4 13 3	4 13 3	4 13 3	4 13 3	4 13 3
S2	10 3	10 3	10 3	10 3	10 3	10 3	10 3
S3	10 5	10 5	10 5	10 5	10 4	10 5	10 4
S11	16 4	16 4	16 4	16 4	13 3	16 4	13 3
S12	13 3	13 3	13 3	13 3	10 2	13 3	10 2
S13	10	10	10	10	7	10	7
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%

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Taps Selection MTS-K101 – 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)	461	461	462	462	463	464	465	466	467	468

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	85	85	85	85	85	85	85
K2	280	280	280	280	280	280	280	280
K3	75	75	75	75	75	75	75	75
K4	245	245	245	245	245	245	245	245
K5	65	65	65	65	65	65	65	65
K6	215	215	215	215	215	215	215	215
K7	60	60	60	60	60	60	60	60
N1	195	195	195	195	195	195	195	195
N2	36	36	36	36	36	36	36	36
N3	120	120	120	120	120	120	120	120
N11	55	55	55	55	55	55	55	55
H5	180	180	180	180	180	180	180	180
H8	46	46	46	46	46	46	46	46
	150	150	150	150	150	150	150	150

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%

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

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)	459	460

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%

Thread turning

MDT

Mini-Shaft™

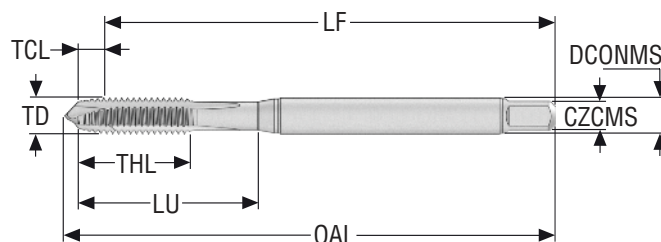
Thread milling

Thread tapping

Annex

T30-PUB

Through holes – Metric coarse threads

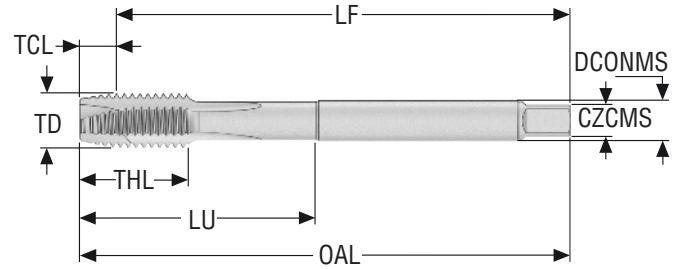


- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PU01B03-3X0.5-63R	10309364	M3	0,5	2,25 0.089	3,0 0.118	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
T30-PU01B03-3.5X0.6-63R	10309365	M3.5	0,6	2,61 0.103	3,5 0.138	12,0 0.472	20 0.787	53,4 2.102	57,4 2.260	4,0 0.157	4.00x3.00	2,9 0.114	3	B
T30-PU01B03-4X0.7-63R	10309366	M4	0,7	3,3 0.130	4,0 0.157	12,0 0.472	21 0.827	59,8 2.354	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	B
T30-PU01B03-4.5X0.75-63R	10309641	M4.5	0,75	3,3 0.130	4,0 0.157	14,0 0.551	25 0.984	66,7 2.626	71,8 2.827	6,0 0.236	6.00x4.90	3,8 0.150	3	B
T30-PU01B03-5X0.8-63R	10309368	M5	0,8	3,65 0.144	5,0 0.197	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
T30-PU01B03-6X1-63R	10309370	M6	1,0	4,37 0.172	6,0 0.236	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
T30-PU01B03-7X1-63R	10309373	M7	1,0	4,37 0.172	7,0 0.276	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
T30-PU01B03-8X1.25-63R	10309374	M8	1,25	5,4 0.213	8,0 0.315	20,0 0.787	35 1.378	84,7 3.335	93,3 3.673	8,0 0.315	8.00x6.20	6,8 0.268	3	B
T30-PU01B03-9X1.25-63R	10309377	M9	1,25	5,7 0.224	9,0 0.354	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
T30-PU01B03-10X1.5-63R	10309378	M10	1,5	6,84 0.269	10,0 0.394	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

T30-PUB

Through holes – Metric coarse threads



- Substrate: HSSE
- Uncoated
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PU01B06-3X0.5-63R	10309461	M3	0,5	2,25 0.089	3,0 0.118	11,0 0.433	37 1.457	53,8 2.118	57,2 2.252	2,2 0.087	2.20x1.80	2,5 0.098	3	B
T30-PU01B06-4X0.7-63R	10309462	M4	0,7	3,3 0.130	4,0 0.157	12,0 0.472	44 1.732	59,7 2.350	64,5 2.539	2,8 0.110	2.80x2.10	3,3 0.130	3	B
T30-PU01B06-5X0.8-63R	10309463	M5	0,8	3,65 0.144	5,0 0.197	14,0 0.551	51 2.008	66,4 2.614	72,0 2.835	3,5 0.138	3.50x2.70	4,2 0.165	3	B
T30-PU01B06-6X1-63R	10309464	M6	1,0	4,39 0.173	6,0 0.236	18,0 0.709	61 2.402	75,6 2.976	82,4 3.244	4,5 0.177	4.50x3.40	5,0 0.197	3	B
T30-PU01B06-8X1.25-63R	10309465	M8	1,25	5,7 0.224	8,0 0.315	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
T30-PU01B06-10X1.5-63R	10309467	M10	1,5	6,84 0.269	10,0 0.394	20,0 0.787	77 3.031	93,2 3.669	100,0 3.937	7,0 0.276	7.00x5.50	8,5 0.335	3	B
T30-PU01B06-11X1.5-63R	10309667	M11	1,5	6,84 0.269	10,0 0.394	20,0 0.787	76 2.992	93,2 3.669	100,0 3.937	8,0 0.315	8.00x6.20	9,5 0.374	3	B
T30-PU01B06-12X1.75-63R	10309470	M12	1,75	8,01 0.315	12,0 0.472	24,0 0.945	83 3.268	102,0 4.016	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	B
T30-PU01B06-14X2-63R	10309474	M14	2,0	9,14 0.360	14,0 0.551	25,0 0.984	81 3.189	100,9 3.972	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	3	B
T30-PU01B06-16X2-63R	10309478	M16	2,0	9,24 0.364	16,0 0.630	32,0 1.260	68 2.677	100,8 3.969	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	3	B
T30-PU01B06-18X2.5-63R	10309481	M18	2,5	11,38 0.448	18,0 0.709	32,0 1.260	81 3.189	113,6 4.472	125,0 4.921	14,0 0.551	14.00x11.00	15,5 0.610	4	B
T30-PU01B06-20X2.5-63R	10309484	M20	2,5	11,58 0.456	20,0 0.787	32,0 1.260	95 3.740	128,4 5.055	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	B
T30-PU01B06-22X2.5-63R	10309487	M22	2,5	11,78 0.464	20,0 0.787	32,0 1.260	93 3.661	128,2 5.047	140,0 5.512	18,0 0.709	18.00x14.50	19,5 0.768	4	B
T30-PU01B06-24X3-63R	10309489	M24	3,0	13,68 0.539	24,0 0.945	38,0 1.496	113 4.449	146,3 5.760	160,0 6.299	18,0 0.709	18.00x14.50	21,0 0.827	4	B
T30-PU01B06-27X3-63R	10309494	M27	3,0	13,88 0.546	24,0 0.945	38,0 1.496	97 3.819	146,1 5.752	160,0 6.299	20,0 0.787	20.00x16.00	24,0 0.945	4	B
T30-PU01B06-30X3.5-63R	10309496	M30	3,5	15,93 0.627	27,0 1.063	45,0 1.772	115 4.528	164,1 6.461	180,0 7.087	22,0 0.866	22.00x18.00	26,5 1.043	4	B
T30-PU01B06-33X3.5-63R	10309679	M33	3,5	15,93 0.627	33,0 1.299	45,0 1.772	113 4.449	164,1 6.461	180,0 7.087	25,0 0.984	25.00x20.00	29,5 1.161	4	B
T30-PU01B06-36X4-63R	10309500	M36	4,0	17,97 0.707	36,0 1.417	50,0 1.969	131 5.157	182,0 7.165	200,0 7.874	28,0 1.102	28.00x22.00	32,0 1.260	4	B
T30-PU01B06-39X4-63R	10309686	M39	4,0	17,97 0.707	39,0 1.535	50,0 1.969	102 4.016	182,0 7.165	200,0 7.874	32,0 1.260	32.00x24.00	35,0 1.378	4	B
T30-PU01B06-42X4.5-63R	10309688	M42	4,5	20,02 0.788	42,0 1.654	60,0 2.362	102 4.016	180,0 7.087	200,0 7.874	32,0 1.260	32.00x24.00	37,5 1.476	5	B
T30-PU01B06-45X4.5-63R	10309691	M45	4,5	20,02 0.788	45,0 1.772	60,0 2.362	117 4.606	200,0 7.874	220,0 8.661	36,0 1.417	36.00x29.00	40,5 1.594	5	B
T30-PU01B06-48X5-63R	10309692	M48	5,0	22,07 0.869	48,0 1.890	65,0 2.559	147 5.787	227,9 8.972	250,0 9.843	36,0 1.417	36.00x29.00	43,0 1.693	5	B
T30-PU01B06-52X5-63R	10309781	M52	5,0	22,07 0.869	52,0 2.047	65,0 2.559	146 5.748	227,9 8.972	250,0 9.843	40,0 1.575	40.00x32.00	47,0 1.850	5	B

Thread turning

MDT

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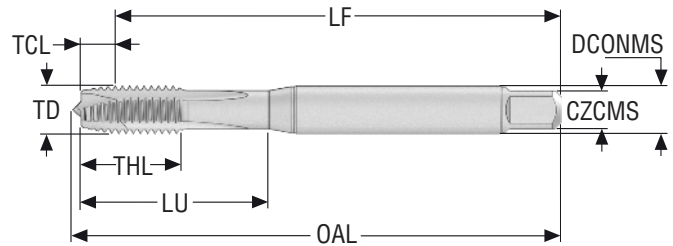
Thread milling

Thread tapping

Annex

T30-PUB

Through holes – Metric coarse threads, 6G

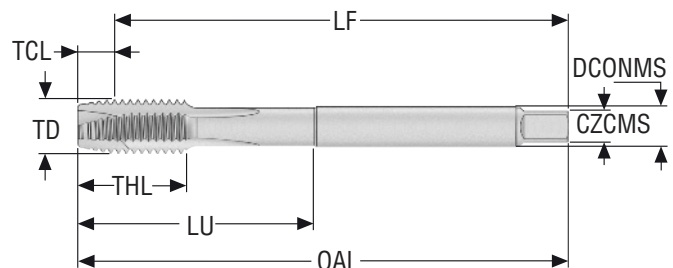


- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 6G
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PU01B03-3X0.5-61R	10309396	M3	0,5	2,3 0.091	3,0 0.118	10,0 0.394	18 0.709	53,7 2.114	57,2 2.252	3,5 0.138	3.50x2.70	2,5 0.098	3	B
T30-PU01B03-4X0.7-61R	10309397	M4	0,7	3,03 0.119	4,0 0.157	12,0 0.472	21 0.827	60,0 2.362	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	B
T30-PU01B03-5X0.8-61R	10309398	M5	0,8	3,71 0.146	5,0 0.197	14,0 0.551	25 0.984	66,3 2.610	72,0 2.835	6,0 0.236	6.00x4.90	4,2 0.165	3	B
T30-PU01B03-6X1-61R	10309399	M6	1,0	4,45 0.175	6,0 0.236	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
T30-PU01B03-8X1.25-61R	10309400	M8	1,25	5,48 0.216	8,0 0.315	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
T30-PU01B03-10X1.5-61R	10309401	M10	1,5	6,94 0.273	10,0 0.394	20,0 0.787	39 1.535	93,1 3.665	101,8 4.008	10,0 0.394	10.00x8.00	8,5 0.335	3	B

T30-PUB

Through holes – Metric coarse threads, 6G

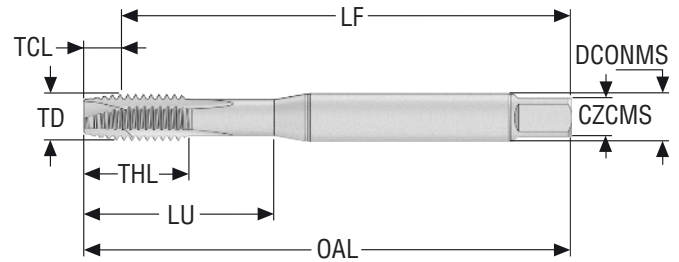


- Substrate: HSSE
- Uncoated
- Standard: DIN376
- Thread tolerance class: 6G
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PU01B06-12X1.75-61R	10309519	M12	1,75	8,11 0.319	12,0 0.472	24,0 0.945	83 3.268	101,9 4.012	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	B
T30-PU01B06-16X2-61R	10309705	M16	2,0	9,36 0.369	16,0 0.630	32,0 1.260	68 2.677	100,6 3.961	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	3	B
T30-PU01B06-20X2.5-61R	10309706	M20	2,5	11,7 0.461	20,0 0.787	32,0 1.260	95 3.740	128,3 5.051	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	B

T30-PUB

Through holes – MF threads



- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PU02B03-3X0.35-63R	10309640	MF3X0.35	0,35	1,55 0.061	3,0 0.118	10,0 0.394	18 0.709	54,3 2.138	57,2 2.252	3,5 0.138	3.50x2.70	2,65 0.104	3	B
T30-PU02B03-4X0.5-63R	10309367	MF4X0.5	0,5	2,25 0.089	4,0 0.157	12,0 0.472	21 0.827	60,7 2.390	64,6 2.543	4,5 0.177	4.50x3.40	3,5 0.138	3	B
T30-PU02B03-5X0.5-63R	10309369	MF5X0.5	0,5	2,25 0.089	5,0 0.197	14,0 0.551	25 0.984	67,6 2.661	72,0 2.835	6,0 0.236	6.00x4.90	4,5 0.177	3	B
T30-PU02B03-6X0.5-63R	10309371	MF6X0.5	0,5	2,28 0.090	6,0 0.236	14,0 0.551	30 1.181	77,4 3.047	82,4 3.244	6,0 0.236	6.00x4.90	5,5 0.217	3	B
T30-PU02B03-6X0.75-63R	10309372	MF6X0.75	0,75	3,33 0.131	6,0 0.236	14,0 0.551	30 1.181	76,5 3.012	82,4 3.244	6,0 0.236	6.00x4.90	5,2 0.205	3	B
T30-PU02B03-8X0.5-63R	10309642	MF8X0.5	0,5	2,28 0.090	8,0 0.315	18,0 0.709	30 1.181	77,6 3.055	83,6 3.291	8,0 0.315	8.00x6.20	7,5 0.295	3	B
T30-PU02B03-8X0.75-63R	10309375	MF8X0.75	0,75	3,33 0.131	8,0 0.315	18,0 0.709	30 1.181	76,7 3.020	83,6 3.291	8,0 0.315	8.00x6.20	7,2 0.283	3	B
T30-PU02B03-8X1-63R	10309376	MF8X1	1,0	4,37 0.172	8,0 0.315	20,0 0.787	35 1.378	85,5 3.366	93,3 3.673	8,0 0.315	8.00x6.20	7,0 0.276	3	B
T30-PU02B03-10X0.5-63R	10309379	MF10X0.5	0,5	2,68 0.106	10,0 0.394	20,0 0.787	39 1.535	87,3 3.437	90,0 3.543	10,0 0.394	10.00x8.00	9,5 0.374	3	B
T30-PU02B03-10X0.75-63R	10309643	MF10X0.75	0,75	3,73 0.147	10,0 0.394	20,0 0.787	35 1.378	86,3 3.398	91,8 3.614	10,0 0.394	10.00x8.00	9,2 0.362	3	B
T30-PU02B03-10X1-63R	10309380	MF10X1	1,0	4,77 0.188	10,0 0.394	20,0 0.787	35 1.378	85,2 3.354	91,8 3.614	10,0 0.394	10.00x8.00	9,0 0.354	3	B
T30-PU02B03-10X1.25-63R	10309381	MF10X1.25	1,25	5,8 0.228	10,0 0.394	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

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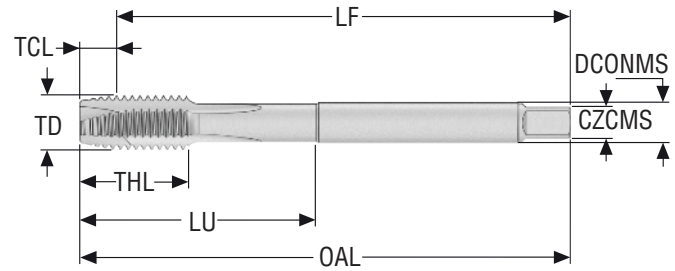
Thread milling

Thread tapping

Annex

T30-PUB

Through holes – MF threads



- Substrate: HSSE
- Uncoated
- Standard: DIN374
- Thread tolerance class: 6H
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PU02B05-4X0.5-63R	10309662	MF4X0.5	0,5	2,25 0.089	4,0 0.157	12,0 0.472	44 1.732	60,6 2.386	64,5 2.539	2,8 0.110	2.80x2.10	3,5 0.138	3	B
T30-PU02B05-4.5X0.5-63R	10309663	MF4.5X0.5	0,5	2,25 0.089	4,0 0.157	14,0 0.551	51 2.008	67,8 2.669	72,0 2.835	3,5 0.138	3.50x2.70	4,0 0.157	3	B
T30-PU02B05-5X0.5-63R	10309664	MF5X0.5	0,5	2,25 0.089	5,0 0.197	14,0 0.551	51 2.008	67,6 2.661	72,0 2.835	3,5 0.138	3.50x2.70	4,5 0.177	3	B
T30-PU02B05-8X1-63R	10309466	MF8X1	1,0	4,67 0.184	8,0 0.315	20,0 0.787	67 2.638	85,3 3.358	90,0 3.543	6,0 0.236	6.00x4.90	7,0 0.276	3	B
T30-PU02B05-9X1-63R	10309665	MF9X1	1,0	4,67 0.184	9,0 0.354	20,0 0.787	63 2.480	85,3 3.358	90,0 3.543	7,0 0.276	9.00x7.00	8,0 0.315	3	B
T30-PU02B05-10X0.75-63R	10309666	MF10X0.75	0,75	3,73 0.147	10,0 0.394	18,0 0.709	67 2.638	86,3 3.398	90,0 3.543	7,0 0.276	7.00x5.50	9,2 0.362	3	B
T30-PU02B05-10X1-63R	10309468	MF10X1	1,0	4,79 0.189	10,0 0.394	20,0 0.787	67 2.638	85,2 3.354	90,0 3.543	7,0 0.276	7.00x5.50	9,0 0.354	3	B
T30-PU02B05-10X1.25-63R	10309469	MF10X1.25	1,25	5,8 0.228	10,0 0.394	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
T30-PU02B05-12X0.75-63R	10309668	MF12X0.75	0,75	3,85 0.152	10,0 0.394	20,0 0.787	73 2.874	96,2 3.787	100,0 3.937	9,0 0.354	9.00x7.00	11,2 0.441	3	B
T30-PU02B05-12X1-63R	10309471	MF12X1	1,0	4,89 0.193	12,0 0.472	20,0 0.787	73 2.874	95,1 3.744	100,0 3.937	9,0 0.354	9.00x7.00	11,0 0.433	3	B
T30-PU02B05-12X1.25-63R	10309472	MF12X1.25	1,25	5,94 0.234	12,0 0.472	20,0 0.787	73 2.874	94,1 3.705	100,0 3.937	9,0 0.354	9.00x7.00	10,8 0.425	3	B
T30-PU02B05-12X1.5-63R	10309473	MF12X1.5	1,5	6,97 0.274	12,0 0.472	20,0 0.787	73 2.874	93,0 3.661	100,0 3.937	9,0 0.354	9.00x7.00	10,5 0.413	3	B
T30-PU02B05-14X1-63R	10309475	MF14X1	1,0	4,99 0.196	14,0 0.551	20,0 0.787	71 2.795	95,0 3.740	100,0 3.937	11,0 0.433	11.00x9.00	13,0 0.512	3	B
T30-PU02B05-14X1.25-63R	10309476	MF14X1.25	1,25	6,04 0.238	14,0 0.551	20,0 0.787	71 2.795	94,0 3.701	100,0 3.937	11,0 0.433	11.00x9.00	12,8 0.504	3	B
T30-PU02B05-14X1.5-63R	10309477	MF14X1.5	1,5	7,07 0.278	14,0 0.551	20,0 0.787	71 2.795	92,9 3.657	100,0 3.937	11,0 0.433	11.00x9.00	12,5 0.492	3	B
T30-PU02B05-15X1-63R	10309669	MF15X1	1,0	4,99 0.196	14,0 0.551	20,0 0.787	58 2.283	94,9 3.736	100,0 3.937	12,0 0.472	12.00x9.00	14,0 0.551	3	B
T30-PU02B05-16X1-63R	10309479	MF16X1	1,0	5,09 0.200	16,0 0.630	20,0 0.787	58 2.283	94,9 3.736	100,0 3.937	12,0 0.472	12.00x9.00	15,0 0.591	3	B
T30-PU02B05-16X1.5-63R	10309480	MF16X1.5	1,5	7,17 0.282	16,0 0.630	20,0 0.787	58 2.283	92,8 3.654	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	3	B
T30-PU02B05-18X1-63R	10309482	MF18X1	1,0	4,89 0.193	18,0 0.709	24,0 0.945	66 2.598	105,1 4.138	110,0 4.331	14,0 0.551	14.00x11.00	17,0 0.669	4	B
T30-PU02B05-18X1.5-63R	10309483	MF18X1.5	1,5	7,27 0.286	18,0 0.709	24,0 0.945	66 2.598	102,7 4.043	110,0 4.331	14,0 0.551	14.00x11.00	16,5 0.650	4	B
T30-PU02B05-18X2-63R	10309670	MF18X2	2,0	9,34 0.368	18,0 0.709	27,0 1.063	81 3.189	115,7 4.555	125,0 4.921	14,0 0.551	14.00x11.00	16,0 0.630	4	B
T30-PU02B05-20X1-63R	10309671	MF20X1	1,0	5,39 0.212	20,0 0.787	24,0 0.945	80 3.150	119,6 4.709	125,0 4.921	16,0 0.630	16.00x12.00	19,0 0.748	4	B
T30-PU02B05-20X1.5-63R	10309485	MF20X1.5	1,5	7,47 0.294	20,0 0.787	24,0 0.945	80 3.150	117,5 4.626	125,0 4.921	16,0 0.630	16.00x12.00	18,5 0.728	4	B
T30-PU02B05-20X2-63R	10309486	MF20X2	2,0	9,54 0.376	20,0 0.787	27,0 1.063	95 3.740	130,5 5.138	140,0 5.512	16,0 0.630	16.00x12.00	18,0 0.709	4	B
T30-PU02B05-22X1-63R	10309672	MF22X1	1,0	5,59 0.220	20,0 0.787	24,0 0.945	78 3.071	119,4 4.701	125,0 4.921	18,0 0.709	18.00x14.50	21,0 0.827	4	B

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PU02B05-22X1.5-63R	10309488	MF22X1.5	1,5	7,67 0.302	22,0 0.866	24,0 0.945	78 3.071	117,3 4.618	125,0 4.921	18,0 0.709	18.00x14.50	20,5 0.807	4	B
T30-PU02B05-22X2-63R	10309673	MF22X2	2,0	9,74 0.383	22,0 0.866	27,0 1.063	93 3.661	130,3 5.130	140,0 5.512	18,0 0.709	18.00x14.50	20,0 0.787	4	B
T30-PU02B05-24X1-63R	10309674	MF24X1	1,0	4,91 0.193	22,0 0.866	27,0 1.063	93 3.661	135,1 5.319	140,0 5.512	18,0 0.709	18.00x14.50	23,0 0.906	4	B
T30-PU02B05-24X1.5-63R	10309490	MF24X1.5	1,5	7,5 0.295	24,0 0.945	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
T30-PU02B05-24X2-63R	10309491	MF24X2	2,0	9,57 0.377	24,0 0.945	27,0 1.063	93 3.661	130,4 5.134	140,0 5.512	18,0 0.709	18.00x14.50	22,0 0.866	4	B
T30-PU02B05-25X1.5-63R	10309492	MF25X1.5	1,5	7,7 0.303	24,0 0.945	27,0 1.063	93 3.661	132,3 5.209	140,0 5.512	18,0 0.709	18.00x14.50	23,5 0.925	4	B
T30-PU02B05-26X1.5-63R	10309493	MF26X1.5	1,5	7,7 0.303	24,0 0.945	27,0 1.063	93 3.661	132,3 5.209	140,0 5.512	18,0 0.709	18.00x14.50	24,5 0.965	4	B
T30-PU02B05-27X1.5-63R	10309675	MF27X1.5	1,5	7,7 0.303	27,0 1.063	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
T30-PU02B05-27X2-63R	10309495	MF27X2	2,0	9,77 0.385	27,0 1.063	27,0 1.063	77 3.031	130,2 5.126	140,0 5.512	20,0 0.787	20.00x16.00	25,0 0.984	4	B
T30-PU02B05-28X1.5-63R	10309676	M28X1.5	1,5	7,2 0.283	27,0 1.063	27,0 1.063	77 3.031	132,8 5.228	140,0 5.512	20,0 0.787	20.00x16.00	25,5 1.004	4	B
T30-PU02B05-30X1.5-63R	10309497	MF30X1.5	1,5	7,7 0.303	30,0 1.181	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
T30-PU02B05-30X2-63R	10309498	MF30X2	2,0	9,77 0.385	30,0 1.181	27,0 1.063	85 3.346	140,2 5.520	150,0 5.906	22,0 0.866	22.00x18.00	28,0 1.102	4	B
T30-PU02B05-30X3-63R	10309677	MF30X3	3,0	13,88 0.546	30,0 1.181	40,0 1.575	115 4.528	166,1 6.539	180,0 7.087	22,0 0.866	22.00x18.00	27,0 1.063	4	B
T30-PU02B05-32X1.5-63R	10309499	MF32X1.5	1,5	7,7 0.303	32,0 1.260	27,0 1.063	85 3.346	142,3 5.602	150,0 5.906	22,0 0.866	22.00x18.00	30,5 1.201	4	B
T30-PU02B05-32X2-63R	10309678	MF32X2	2,0	9,77 0.385	32,0 1.260	27,0 1.063	85 3.346	140,2 5.520	150,0 5.906	22,0 0.866	22.00x18.00	30,0 1.181	4	B
T30-PU02B05-33X1.5-63R	10309680	MF33X1.5	1,5	7,7 0.303	33,0 1.299	30,0 1.181	93 3.661	152,3 5.996	160,0 6.299	25,0 0.984	25.00x20.00	31,5 1.240	4	B
T30-PU02B05-33X2-63R	10309681	MF33X2	2,0	9,77 0.385	33,0 1.299	30,0 1.181	93 3.661	150,2 5.913	160,0 6.299	25,0 0.984	25.00x20.00	31,0 1.220	4	B
T30-PU02B05-35X1.5-63R	10309682	MF35X1.5	1,5	7,7 0.303	35,0 1.378	30,0 1.181	101 3.976	162,3 6.390	170,0 6.693	28,0 1.102	28.00x22.00	33,5 1.319	4	B
T30-PU02B05-36X1.5-63R	10309683	MF36X1.5	1,5	7,7 0.303	36,0 1.417	30,0 1.181	101 3.976	162,3 6.390	170,0 6.693	28,0 1.102	28.00x22.00	34,5 1.358	4	B
T30-PU02B05-36X2-63R	10309684	MF36X2	2,0	9,77 0.385	36,0 1.417	30,0 1.181	101 3.976	160,2 6.307	170,0 6.693	28,0 1.102	28.00x22.00	34,0 1.339	4	B
T30-PU02B05-36X3-63R	10309685	MF36X3	3,0	13,88 0.546	36,0 1.417	50,0 1.969	131 5.157	186,1 7.327	200,0 7.874	28,0 1.102	28.00x22.00	33,0 1.299	4	B
T30-PU02B05-40X1.5-63R	10309687	MF40X1.5	1,5	7,7 0.303	40,0 1.575	30,0 1.181	72 2.835	162,3 6.390	170,0 6.693	32,0 1.260	32.00x24.00	38,5 1.516	4	B
T30-PU02B05-42X2-63R	10309689	MF42X2	2,0	9,77 0.385	42,0 1.654	30,0 1.181	72 2.835	160,2 6.307	170,0 6.693	32,0 1.260	32.00x24.00	40,0 1.575	5	B
T30-PU02B05-42X3-63R	10309690	MF42X3	3,0	13,88 0.546	42,0 1.654	50,0 1.969	102 4.016	186,1 7.327	200,0 7.874	32,0 1.260	32.00x24.00	39,0 1.535	5	B
T30-PU02B05-48X1.5-63R	10309693	MF48X1.5	1,5	7,73 0.304	48,0 1.890	32,0 1.260	87 3.425	182,3 7.177	190,0 7.480	36,0 1.417	36.00x29.00	46,5 1.831	5	B
T30-PU02B05-48X3-63R	10309694	MF48X3	3,0	13,92 0.548	48,0 1.890	50,0 1.969	122 4.803	211,1 8.311	225,0 8.858	36,0 1.417	36.00x29.00	45,0 1.772	5	B

Thread turning

MDT

Mini-Shaft™

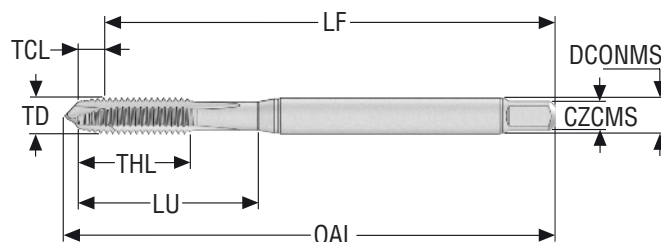
Thread milling

Thread tapping

Annex

T30-PUB

Through holes – UNC threads

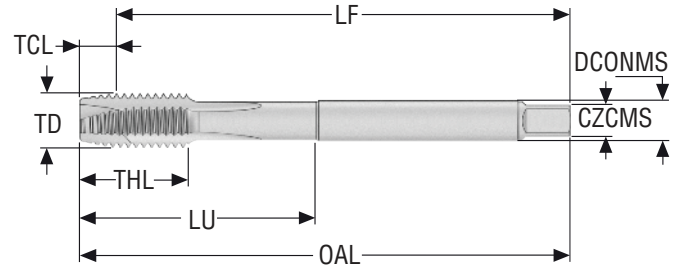


- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-PU08B03-2-56-21R	10309644	UNC2-56	56,0	2,03 0.080	2,184 0.086	8,0 0.315	13 0.512	42,8 1.685	46,3 1.823	2,8 0.110	2.80x2.10	1,85 0.073	2	B
T30-PU08B03-4-40-21R	10309382	UNC4-40	40,0	2,77 0.109	2,845 0.112	10,0 0.394	18 0.709	53,4 2.102	57,2 2.252	3,5 0.138	3.50x2.70	2,35 0.093	3	B
T30-PU08B03-5-40-21R	10309383	UNC5-40	40,0	2,88 0.113	3,175 0.125	10,0 0.394	18 0.709	53,1 2.091	57,2 2.252	3,5 0.138	3.50x2.70	2,65 0.104	3	B
T30-PU08B03-6-32-21R	10309384	UNC6-32	32,0	3,68 0.145	3,505 0.138	12,0 0.472	20 0.787	52,5 2.067	57,4 2.260	4,0 0.157	4.00x3.00	2,85 0.112	3	B
T30-PU08B03-8-32-21R	10309385	UNC8-32	32,0	3,55 0.140	4,166 0.164	12,0 0.472	21 0.827	59,4 2.339	64,6 2.543	4,5 0.177	4.50x3.40	3,5 0.138	3	B
T30-PU08B03-10-24-21R	10309386	UNC10-24	24,0	4,78 0.188	4,826 0.190	14,0 0.551	25 0.984	65,5 2.579	72,0 2.835	6,0 0.236	6.00x4.90	3,9 0.154	3	B
T30-PU08B03-12-24-21R	10309387	UNC12-24	24,0	4,66 0.183	5,486 0.216	18,0 0.709	30 1.181	75,4 2.969	82,2 3.236	6,0 0.236	6.00x4.90	4,5 0.177	3	B
T30-PU08B03-1/4-20-21R	10309388	UNC1/4-20	20,0	5,57 0.219	6,35 0.250	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
T30-PU08B03-5/16-18-21R	10309389	UNC5/16-18	18,0	6,22 0.245	7,937 0.312	20,0 0.787	35 1.378	84,0 3.307	93,3 3.673	8,0 0.315	8.00x6.20	6,6 0.260	3	B
T30-PU08B03-3/8-16-21R	10309390	UNC3/8-16	16,0	7,28 0.287	9,525 0.375	20,0 0.787	39 1.535	92,7 3.650	100,0 3.937	10,0 0.394	10.00x8.00	8,0 0.315	3	B

T30-PUB

Through holes – UNC threads



- Substrate: HSSE
- Uncoated
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-PU08B06-7/16-14-21R	10309509	UNC7/16-14	14,0	8,27 0.326	11,112 0.437	22,0 0.866	76 2.992	91,7 3.610	100,0 3.937	8,0 0.315	8.00x6.20	9,3 0.366	3	B
T30-PU08B06-1/2-13-21R	10309510	UNC1/2-13	13,0	9,01 0.355	12,7 0.500	24,0 0.945	83 3.268	101,0 3.976	110,0 4.331	9,0 0.354	9.00x7.00	10,7 0.421	3	B
T30-PU08B06-9/16-12-21R	10309698	UNC9/16-12	12,0	9,76 0.384	14,287 0.562	25,0 0.984	81 3.189	100,2 3.945	110,0 4.331	11,0 0.433	11.00x9.00	12,3 0.484	3	B
T30-PU08B06-5/8-11-21R	10309511	UNC5/8-11	11,0	10,51 0.414	15,875 0.625	32,0 1.260	68 2.677	99,5 3.917	110,0 4.331	12,0 0.472	12.00x9.00	13,5 0.531	3	B
T30-PU08B06-3/4-10-21R	10309512	UNC3/4-10	10,0	11,55 0.455	19,05 0.750	32,0 1.260	81 3.189	113,4 4.465	125,0 4.921	14,0 0.551	14.00x11.00	16,5 0.650	4	B
T30-PU08B06-7/8-9-21R	10309513	UNC7/8-9	9,0	13,04 0.513	22,225 0.875	32,0 1.260	93 3.661	127,0 5.000	140,0 5.512	18,0 0.709	18.00x14.50	19,5 0.768	4	B
T30-PU08B06-1-8-21R	10309514	UNC1-8	8,0	14,86 0.585	25,4 1.000	38,0 1.496	97 3.819	145,1 5.713	160,0 6.299	20,0 0.787	20.00x16.00	22,25 0.876	4	B
T30-PU08B06-1.1/8-7-21R	10309699	UNC11/8-7	7,0	16,48 0.649	28,575 1.125	45,0 1.772	115 4.528	163,5 6.437	180,0 7.087	22,0 0.866	22.00x18.00	25,0 0.984	4	B
T30-PU08B06-1.1/4-7-21R	10309700	UNC11/4-7	7,0	16,74 0.659	31,75 1.250	45,0 1.772	115 4.528	163,3 6.429	180,0 7.087	22,0 0.866	22.00x18.00	28,0 1.102	4	B
T30-PU08B06-1.3/8-6-21R	10309701	UNC13/8-6	6,0	19,04 0.750	34,925 1.375	50,0 1.969	131 5.157	181,0 7.126	200,0 7.874	28,0 1.102	28.00x22.00	30,75 1.211	4	B
T30-PU08B06-1.1/2-6-21R	10309782	UNC11/2-6	6,0	19,3 0.760	38,1 1.500	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™

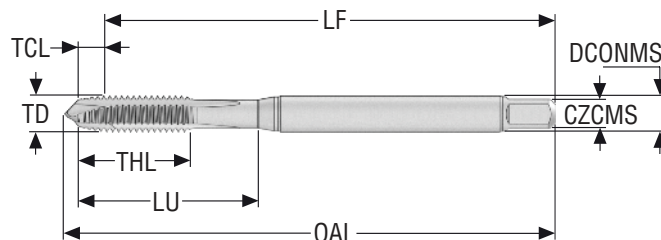
Thread milling

Thread tapping

Annex

T30-PUB

Through holes – UNF threads

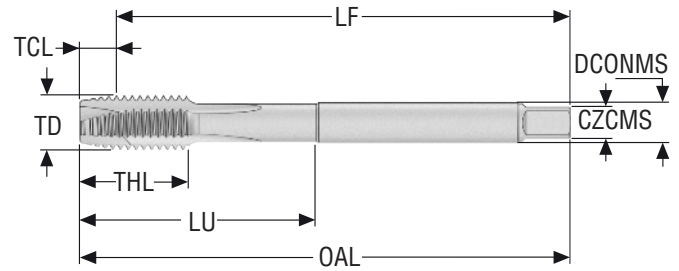


- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-PU09B03-4-48-21R	10309645	UNF4-48	48,0	2,42 0.095	2,845 0.112	10,0 0.394	18 0.709	53,7 2.114	57,2 2.252	3,5 0.138	3.50x2.70	2,4 0.094	3	B
T30-PU09B03-5-44-21R	10309646	UNF5-44	44,0	2,54 0.100	3,175 0.125	10,0 0.394	18 0.709	53,4 2.102	57,2 2.252	3,5 0.138	3.50x2.70	2,7 0.106	3	B
T30-PU09B03-6-40-21R	10309647	UNF6-40	40,0	2,99 0.118	3,505 0.138	12,0 0.472	20 0.787	53,1 2.091	57,4 2.260	4,0 0.157	4.00x3.00	2,95 0.116	3	B
T30-PU09B03-8-36-21R	10309648	UNF8-36	36,0	3,21 0.126	4,166 0.164	12,0 0.472	21 0.827	59,7 2.350	64,6 2.543	4,5 0.177	4.50x3.40	3,5 0.138	3	B
T30-PU09B03-10-32-21R	10309391	UNF10-32	32,0	3,76 0.148	4,826 0.190	14,0 0.551	25 0.984	66,3 2.610	72,0 2.835	6,0 0.236	6.00x4.90	4,1 0.161	3	B
T30-PU09B03-12-28-21R	10309392	UNF12-28	28,0	3,98 0.157	5,486 0.216	18,0 0.709	30 1.181	76,2 3.000	82,4 3.244	6,0 0.236	6.00x4.90	4,6 0.181	3	B
T30-PU09B03-1/4-28-21R	10309393	UNF1/4-28	28,0	4,2 0.165	6,35 0.250	18,0 0.709	29 1.142	75,6 2.976	82,4 3.244	7,0 0.276	7.00x5.50	5,5 0.217	3	B
T30-PU09B03-5/16-24-21R	10309394	UNF5/16-24	24,0	4,85 0.191	7,937 0.312	20,0 0.787	35 1.378	85,1 3.350	93,3 3.673	8,0 0.315	8.00x6.20	6,9 0.272	3	B
T30-PU09B03-3/8-24-21R	10309395	UNF3/8-24	24,0	5,22 0.206	9,525 0.375	20,0 0.787	35 1.378	84,8 3.339	90,0 3.543	10,0 0.394	10.00x8.00	8,5 0.335	3	B

T30-PUB

Through holes – UNF threads

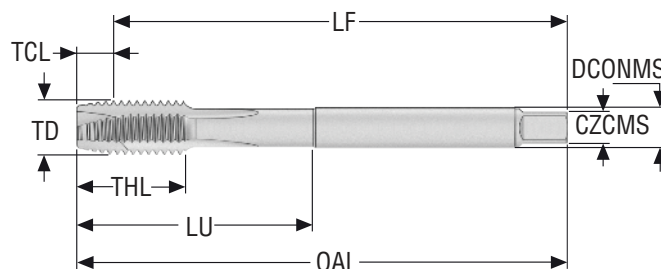


- Substrate: HSSE
- Uncoated
- Standard: DIN374
- Thread tolerance class: 2B
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-PU09B05-7/16-20-21R	10309515	UNF7/16-20	20,0	5,88 0.231	11,112 0.437	20,0 0.787	76 2.992	94,1 3.705	100,0 3.937	8,0 0.315	8.00x6.20	9,9 0.390	3	B
T30-PU09B05-1/2-20-21R	10309516	UNF1/2-20	20,0	6,28 0.247	12,7 0.500	20,0 0.787	73 2.874	93,7 3.689	100,0 3.937	9,0 0.354	9.00x7.00	11,5 0.453	3	B
T30-PU09B05-9/16-18-21R	10309517	UNF9/16-18	18,0	6,69 0.263	14,287 0.562	20,0 0.787	71 2.795	93,3 3.673	100,0 3.937	11,0 0.433	11.00x9.00	13,0 0.512	3	B
T30-PU09B05-5/8-18-21R	10309702	UNF5/8-18	18,0	6,76 0.266	15,875 0.625	20,0 0.787	58 2.283	93,2 3.669	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	3	B
T30-PU09B05-3/4-16-21R	10309518	UNF3/4-16	16,0	7,81 0.307	19,05 0.750	24,0 0.945	66 2.598	102,2 4.024	110,0 4.331	14,0 0.551	14.00x11.00	17,5 0.689	4	B
T30-PU09B05-7/8-14-21R	10309703	UNF7/8-14	14,0	8,96 0.353	22,225 0.875	24,0 0.945	78 3.071	116,0 4.567	125,0 4.921	18,0 0.709	18.00x14.50	20,5 0.807	4	B
T30-PU09B05-1-12-21R	10309704	UNF1-12	12,0	10,44 0.411	25,4 1.000	27,0 1.063	93 3.661	129,6 5.102	140,0 5.512	18,0 0.709	18.00x14.50	23,3 0.917	4	B
T30-PU09B05-1.1/8-12-21R	10309786	UNF11/8-12	12,0	10,37 0.408	28,575 1.125	27,0 1.063	85 3.346	139,6 5.496	150,0 5.906	22,0 0.866	22.00x18.00	26,5 1.043	4	B
T30-PU09B05-1.1/4-12-21R	10309787	UNF11/4-12	12,0	10,29 0.405	31,75 1.250	27,0 1.063	85 3.346	139,7 5.500	150,0 5.906	22,0 0.866	22.00x18.00	29,5 1.161	4	B
T30-PU09B05-1.1/2-12-21R	10309788	UNF11/2-12	12,0	10,48 0.413	38,1 1.500	30,0 1.181	101 3.976	159,5 6.280	170,0 6.693	28,0 1.102	28.00x22.00	36,0 1.417	4	B

T30-PUB

Through holes – G threads

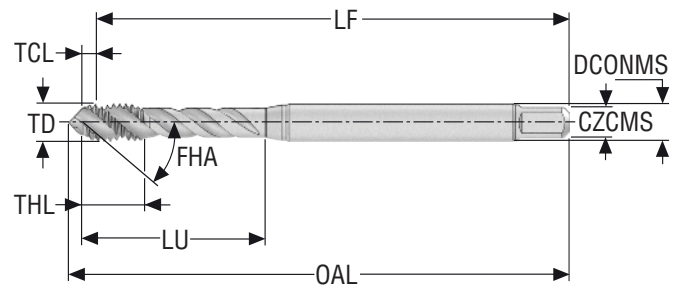


–Substrate: HSSE
 –Uncoated
 –Standard: DIN5156
 –Thread tolerance class: NORMAL
 –For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-PU21B09-1/16-28-11R	10309695	G1/16	28,0	4,64 0.183	7,723 0.304	17,0 0.669	67 2.638	85,4 3.362	90,0 3.543	6,0 0.236	6.00x4.90	6,8 0.268	3	B
T30-PU21B09-1/8-28-11R	10309501	G1/8	28,0	4,76 0.187	9,728 0.383	18,0 0.709	67 2.638	85,2 3.354	90,0 3.543	7,0 0.276	7.00x5.50	8,8 0.346	3	B
T30-PU21B09-1/4-19-11R	10309502	G1/4	19,0	6,77 0.267	13,157 0.518	22,0 0.866	71 2.795	93,2 3.669	100,0 3.937	11,0 0.433	11.00x9.00	11,8 0.465	3	B
T30-PU21B09-3/8-19-11R	10309503	G3/8	19,0	6,89 0.271	16,662 0.656	22,0 0.866	58 2.283	93,1 3.665	100,0 3.937	12,0 0.472	12.00x9.00	15,25 0.600	3	B
T30-PU21B09-1/2-14-11R	10309504	G1/2	14,0	9,22 0.363	20,955 0.825	25,0 0.984	80 3.150	115,8 4.559	125,0 4.921	16,0 0.630	16.00x12.00	19,0 0.748	4	B
T30-PU21B09-3/4-14-11R	10309505	G3/4	14,0	9,36 0.369	26,441 1.041	28,0 1.102	77 3.031	130,6 5.142	140,0 5.512	20,0 0.787	20.00x16.00	24,5 0.965	4	B
T30-PU21B09-7/8-14-11R	10309696	G7/8	14,0	9,03 0.356	30,201 1.189	30,0 1.181	85 3.346	141,0 5.551	150,0 5.906	22,0 0.866	22.00x18.00	28,25 1.112	4	B
T30-PU21B09-1-11-11R	10309506	G1	11,0	11,49 0.452	33,249 1.309	32,0 1.260	93 3.661	148,5 5.846	160,0 6.299	25,0 0.984	25.00x20.00	30,75 1.211	4	B
T30-PU21B09-1.1/4-11-11R	10309507	G1 1/4	11,0	11,69 0.460	41,91 1.650	34,0 1.339	72 2.835	158,3 6.232	170,0 6.693	32,0 1.260	32.00x24.00	39,5 1.555	5	B
T30-PU21B09-1.1/2-11-11R	10309508	G1 1/2	11,0	11,67 0.459	47,803 1.882	36,0 1.417	87 3.425	178,3 7.020	190,0 7.480	36,0 1.417	36.00x29.00	45,25 1.781	5	B
T30-PU21B09-2-11-11R	10309697	G2	11,0	11,71 0.461	59,614 2.347	40,0 1.575	111 4.370	208,3 8.201	220,0 8.661	45,0 1.772	45.00x35.00	57,0 2.244	5	B

T30-R40UC

Blind holes – Metric coarse threads

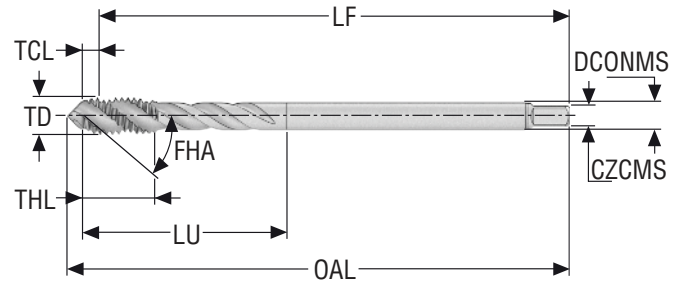


- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-R40U01C03-3X0.5-63R	10309416	M3	0,5	1,17 0.046	3,0 0.118	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
T30-R40U01C03-3.5X0.6-63R	10309417	M3.5	0,6	1,36 0.054	3,5 0.138	6,0 0.236	20 0.787	54,6 2.150	57,4 2.260	4,0 0.157	4.00x3.00	2,9 0.114	3	C
T30-R40U01C03-4X0.7-63R	10309418	M4	0,7	1,72 0.068	4,0 0.157	7,0 0.276	21 0.827	61,3 2.413	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	C
T30-R40U01C03-4.5X0.75-63R	10309651	M4.5	0,75	1,72 0.068	4,0 0.157	8,0 0.315	25 0.984	68,3 2.689	71,8 2.827	6,0 0.236	6.00x4.90	3,8 0.150	3	C
T30-R40U01C03-5X0.8-63R	10309420	M5	0,8	1,9 0.075	5,0 0.197	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
T30-R40U01C03-6X1-63R	10309422	M6	1,0	2,27 0.089	6,0 0.236	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00x4.90	5,0 0.197	3	C
T30-R40U01C03-7X1-63R	10309425	M7	1,0	2,28 0.090	7,0 0.276	10,0 0.394	30 1.181	77,7 3.059	82,9 3.264	7,0 0.276	7.00x5.50	6,0 0.236	3	C
T30-R40U01C03-8X1.25-63R	10309426	M8	1,25	3,11 0.122	8,0 0.315	13,0 0.512	35 1.378	86,9 3.421	91,7 3.610	8,0 0.315	8.00x6.20	6,8 0.268	3	C
T30-R40U01C03-9X1.25-63R	10309653	M9	1,25	3,11 0.122	9,0 0.354	13,0 0.512	35 1.378	86,9 3.421	91,7 3.610	9,0 0.354	9.00x7.00	7,8 0.307	3	C
T30-R40U01C03-10X1.5-63R	10309429	M10	1,5	3,76 0.148	10,0 0.394	15,0 0.591	39 1.535	96,2 3.787	101,8 4.008	10,0 0.394	10.00x8.00	8,5 0.335	3	C

T30-R40UC

Blind holes – Metric coarse threads



- Substrate: HSSE
- Uncoated
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 243

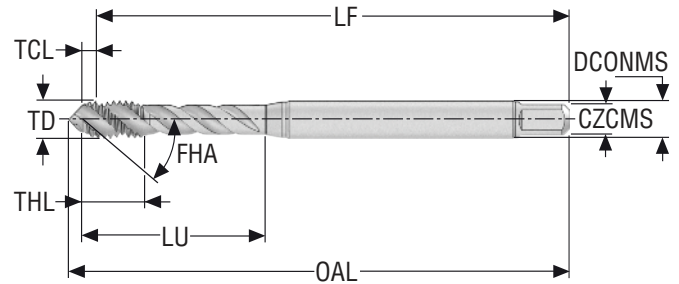
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T30-R40U01C06-3X0.5-63R	10309553	M3	0,5	1,17 0.046	3,0 0.118	5,0 0.197	37 1.457	54,8 2.157	57,2 2.252	2,2 0.087	2.20x1.80	2,5 0.098	3	C
T30-R40U01C06-4X0.7-63R	10309554	M4	0,7	1,72 0.068	4,0 0.157	8,0 0.315	44 1.732	61,2 2.409	64,5 2.539	2,8 0.110	2.80x2.10	3,3 0.130	3	C
T30-R40U01C06-5X0.8-63R	10309555	M5	0,8	1,9 0.075	5,0 0.197	10,0 0.394	51 2.008	68,1 2.681	72,0 2.835	3,5 0.138	3.50x2.70	4,2 0.165	3	C
T30-R40U01C06-6X1-63R	10309556	M6	1,0	2,28 0.090	6,0 0.236	12,0 0.472	61 2.402	77,7 3.059	82,4 3.244	4,5 0.177	4.50x3.40	5,0 0.197	3	C
T30-R40U01C06-8X1.25-63R	10309557	M8	1,25	3,11 0.122	8,0 0.315	15,0 0.591	67 2.638	86,9 3.421	90,0 3.543	6,0 0.236	6.00x4.90	6,8 0.268	3	C
T30-R40U01C06-10X1.5-63R	10309559	M10	1,5	3,76 0.148	10,0 0.394	17,0 0.669	77 3.031	96,2 3.787	100,0 3.937	7,0 0.276	7.00x5.50	8,5 0.335	3	C
T30-R40U01C06-11X1.5-63R	10309731	M11	1,5	3,76 0.148	10,0 0.394	15,0 0.591	76 2.992	96,2 3.787	100,0 3.937	8,0 0.315	8.00x6.20	9,5 0.374	3	C
T30-R40U01C06-12X1.75-63R	10309562	M12	1,75	4,41 0.174	12,0 0.472	18,0 0.709	83 3.268	105,6 4.157	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	C
T30-R40U01C06-14X2-63R	10309570	M14	2,0	5,07 0.200	14,0 0.551	20,0 0.787	81 3.189	104,9 4.130	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	4	C
T30-R40U01C06-16X2-63R	10309575	M16	2,0	3,75 0.148	16,0 0.630	20,0 0.787	68 2.677	106,3 4.185	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	C
T30-R40U01C06-18X2.5-63R	10309578	M18	2,5	6,31 0.248	18,0 0.709	25,0 0.984	81 3.189	118,7 4.673	125,0 4.921	14,0 0.551	14.00x11.00	15,5 0.610	4	C
T30-R40U01C06-20X2.5-63R	10309581	M20	2,5	6,51 0.256	20,0 0.787	25,0 0.984	95 3.740	133,5 5.256	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	C
T30-R40U01C06-22X2.5-63R	10309585	M22	2,5	6,51 0.256	20,0 0.787	25,0 0.984	93 3.661	133,5 5.256	140,0 5.512	18,0 0.709	18.00x14.50	19,5 0.768	4	C
T30-R40U01C06-24X3-63R	10309587	M24	3,0	7,81 0.307	24,0 0.945	30,0 1.181	113 4.449	152,2 5.992	160,0 6.299	18,0 0.709	18.00x14.50	21,0 0.827	4	C
T30-R40U01C06-27X3-63R	10309591	M27	3,0	7,81 0.307	24,0 0.945	30,0 1.181	97 3.819	152,2 5.992	160,0 6.299	20,0 0.787	20.00x16.00	24,0 0.945	4	C
T30-R40U01C06-30X3.5-63R	10309594	M30	3,5	8,87 0.349	27,0 1.063	35,0 1.378	115 4.528	171,1 6.736	180,0 7.087	22,0 0.866	22.00x18.00	26,5 1.043	4	C
T30-R40U01C06-33X3.5-63R	10309742	M33	3,5	8,88 0.350	33,0 1.299	35,0 1.378	113 4.449	171,1 6.736	180,0 7.087	25,0 0.984	25.00x20.00	29,5 1.161	4	C
T30-R40U01C06-36X4-63R	10309597	M36	4,0	9,94 0.391	36,0 1.417	40,0 1.575	131 5.157	190,1 7.484	200,0 7.874	28,0 1.102	28.00x22.00	32,0 1.260	4	C
T30-R40U01C06-39X4-63R	10309749	M39	4,0	9,94 0.391	39,0 1.535	40,0 1.575	102 4.016	190,1 7.484	200,0 7.874	32,0 1.260	32.00x24.00	35,0 1.378	5	C
T30-R40U01C06-42X4.5-63R	10309751	M42	4,5	11,01 0.433	42,0 1.654	45,0 1.772	102 4.016	189,0 7.441	200,0 7.874	32,0 1.260	32.00x24.00	37,5 1.476	5	C
T30-R40U01C06-45X4.5-63R	10309754	M45	4,5	11,01 0.433	45,0 1.772	45,0 1.772	117 4.606	209,0 8.228	220,0 8.661	36,0 1.417	36.00x29.00	40,5 1.594	5	C
T30-R40U01C06-48X5-63R	10309598	M48	5,0	12,08 0.476	48,0 1.890	50,0 1.969	147 5.787	237,9 9.366	250,0 9.843	36,0 1.417	36.00x29.00	43,0 1.693	5	C
T30-R40U01C06-52X5-63R	10309757	M52	5,0	12,08 0.476	52,0 2.047	50,0 1.969	146 5.748	237,9 9.366	250,0 9.843	40,0 1.575	40.00x32.00	47,0 1.850	5	C

T30-R40UC

Blind holes – Metric coarse threads, 6G



- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 6G
- FHA = 40°
- For cutting data see page(s) 243



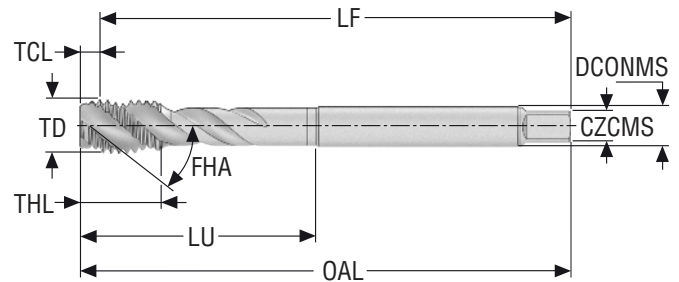
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-R40U01C03-3X0.5-61R	10309658	M3	0,5	1,2 0.047	3,0 0.118	5,0 0.197	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50x2.70	2,5 0.098	3	C
T30-R40U01C03-4X0.7-61R	10309659	M4	0,7	1,75 0.069	4,0 0.157	7,0 0.276	21 0.827	61,3 2.413	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	C
T30-R40U01C03-5X0.8-61R	10309660	M5	0,8	1,93 0.076	5,0 0.197	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
T30-R40U01C03-6X1-61R	10309446	M6	1,0	2,32 0.091	6,0 0.236	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00x4.90	5,0 0.197	3	C
T30-R40U01C03-8X1.25-61R	10309447	M8	1,25	3,16 0.124	8,0 0.315	13,0 0.512	35 1.378	86,8 3.417	91,7 3.610	8,0 0.315	8.00x6.20	6,8 0.268	3	C
T30-R40U01C03-10X1.5-61R	10309448	M10	1,5	3,81 0.150	10,0 0.394	15,0 0.591	39 1.535	96,2 3.787	101,8 4.008	10,0 0.394	10.00x8.00	8,5 0.335	3	C

T30-R40UC

Blind holes – Metric coarse threads, 6G



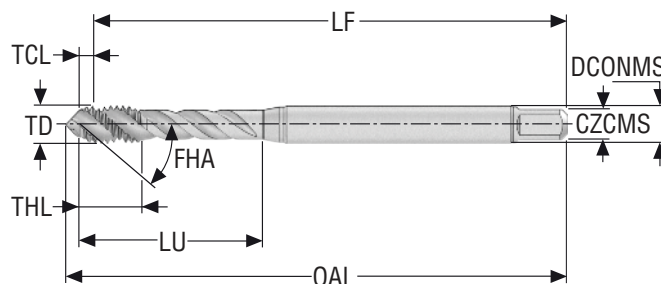
- Substrate: HSSE
- Uncoated
- Standard: DIN376
- Thread tolerance class: 6G
- FHA = 40°
- For cutting data see page(s) 243



Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-R40U01C06-12X1.75-61R	10309618	M12	1,75	4,47 0.176	12,0 0.472	18,0 0.709	83 3.268	105,5 4.154	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	C
T30-R40U01C06-16X2-61R	10309619	M16	2,0	5,21 0.205	16,0 0.630	20,0 0.787	68 2.677	104,8 4.126	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	C
T30-R40U01C06-20X2.5-61R	10309769	M20	2,5	6,58 0.259	20,0 0.787	25,0 0.984	95 3.740	133,4 5.252	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	C

T30-R40UC

Blind holes – MF threads

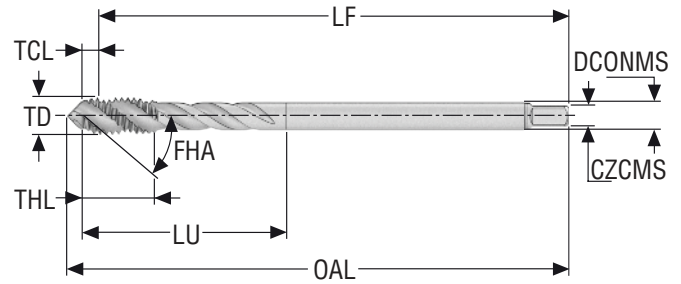


- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-R40U02C03-3X0.35-63R	10309650	MF3X0.35	0,35	0,81 0.032	3,0 0.118	5,0 0.197	18 0.709	55,1 2.169	57,2 2.252	3,5 0.138	3.50x2.70	2,65 0.104	3	C
T30-R40U02C03-4X0.5-63R	10309419	MF4X0.5	0,5	1,17 0.046	4,0 0.157	7,0 0.276	21 0.827	61,7 2.429	64,6 2.543	4,5 0.177	4.50x3.40	3,5 0.138	3	C
T30-R40U02C03-5X0.5-63R	10309421	MF5X0.5	0,5	1,17 0.046	5,0 0.197	8,0 0.315	25 0.984	68,6 2.701	72,0 2.835	6,0 0.236	6.00x4.90	4,5 0.177	3	C
T30-R40U02C03-6X0.5-63R	10309423	MF6X0.5	0,5	1,19 0.047	6,0 0.236	10,0 0.394	30 1.181	78,5 3.091	82,4 3.244	6,0 0.236	6.00x4.90	5,5 0.217	3	C
T30-R40U02C03-6X0.75-63R	10309424	MF6X0.75	0,75	1,73 0.068	6,0 0.236	10,0 0.394	30 1.181	78,1 3.075	82,4 3.244	6,0 0.236	6.00x4.90	5,2 0.205	3	C
T30-R40U02C03-8X0.5-63R	10309652	MF8X0.5	0,5	1,48 0.058	8,0 0.315	10,0 0.394	30 1.181	78,5 3.091	80,0 3.150	8,0 0.315	8.00x6.20	7,5 0.295	3	C
T30-R40U02C03-8X0.75-63R	10309427	MF8X0.75	0,75	2,03 0.080	8,0 0.315	10,0 0.394	30 1.181	78,0 3.071	81,7 3.217	8,0 0.315	8.00x6.20	7,2 0.283	3	C
T30-R40U02C03-8X1-63R	10309428	MF8X1	1,0	2,58 0.102	8,0 0.315	13,0 0.512	35 1.378	87,4 3.441	91,7 3.610	8,0 0.315	8.00x6.20	7,0 0.276	3	C
T30-R40U02C03-10X0.5-63R	10309654	MF10X0.5	0,5	1,59 0.063	10,0 0.394	13,0 0.512	35 1.378	88,4 3.480	90,0 3.543	10,0 0.394	10.00x8.00	9,5 0.374	3	C
T30-R40U02C03-10X0.75-63R	10309655	MF10X0.75	0,75	2,13 0.084	10,0 0.394	13,0 0.512	35 1.378	87,9 3.461	91,8 3.614	10,0 0.394	10.00x8.00	9,2 0.362	3	C
T30-R40U02C03-10X1-63R	10309430	MF10X1	1,0	2,68 0.106	10,0 0.394	13,0 0.512	35 1.378	87,3 3.437	91,8 3.614	10,0 0.394	10.00x8.00	9,0 0.354	3	C
T30-R40U02C03-10X1.25-63R	10309431	MF10X1.25	1,25	3,21 0.126	10,0 0.394	15,0 0.591	39 1.535	96,8 3.811	101,8 4.008	10,0 0.394	10.00x8.00	8,8 0.346	3	C

T30-R40UC

Blind holes – MF threads



- Substrate: HSSE
- Uncoated
- Standard: DIN374
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-R40U02C05-4X0.5-63R	10309727	MF4X0.5	0,5	1,17 0.046	4,0 0.157	7,0 0.276	44 1.732	61,6 2.425	64,5 2.539	2,8 0.110	2.80x2.10	3,5 0.138	3	C
T30-R40U02C05-5X0.5-63R	10309728	MF5X0.5	0,5	1,17 0.046	5,0 0.197	10,0 0.394	51 2.008	68,6 2.701	72,0 2.835	3,5 0.138	3.50x2.70	4,5 0.177	3	C
T30-R40U02C05-8X1-63R	10309558	MF8X1	1,0	2,58 0.102	8,0 0.315	10,0 0.394	67 2.638	87,4 3.441	90,0 3.543	6,0 0.236	6.00x4.90	7,0 0.276	3	C
T30-R40U02C05-9X1-63R	10309729	MF9X1	1,0	2,58 0.102	9,0 0.354	10,0 0.394	63 2.480	87,4 3.441	90,0 3.543	7,0 0.276	9.00x7.00	8,0 0.315	3	C
T30-R40U02C05-10X0.75-63R	10309730	MF10X0.75	0,75	2,13 0.084	10,0 0.394	10,0 0.394	67 2.638	87,9 3.461	90,0 3.543	7,0 0.276	7.00x5.50	9,2 0.362	3	C
T30-R40U02C05-12X0.75-63R	10309732	MF12X0.75	0,75	2,2 0.087	10,0 0.394	10,0 0.394	73 2.874	97,8 3.850	100,0 3.937	9,0 0.354	9.00x7.00	11,2 0.441	3	C
T30-R40U02C05-10X1-63R	10309560	MF10X1	1,0	2,68 0.106	10,0 0.394	13,0 0.512	67 2.638	87,3 3.437	90,0 3.543	7,0 0.276	7.00x5.50	9,0 0.354	3	C
T30-R40U02C05-10X1.25-63R	10309561	MF10X1.25	1,25	3,21 0.126	10,0 0.394	15,0 0.591	77 3.031	96,8 3.811	100,0 3.937	7,0 0.276	7.00x5.50	8,8 0.346	3	C
T30-R40U02C05-12X1-63R	10309567	MF12X1	1,0	2,79 0.110	12,0 0.472	10,0 0.394	73 2.874	97,2 3.827	100,0 3.937	9,0 0.354	9.00x7.00	11,0 0.433	3	C
T30-R40U02C05-12X1.25-63R	10309568	MF12X1.25	1,25	3,34 0.131	12,0 0.472	15,0 0.591	73 2.874	96,7 3.807	100,0 3.937	9,0 0.354	9.00x7.00	10,8 0.425	3	C
T30-R40U02C05-12X1.5-63R	10309569	MF12X1.5	1,5	3,87 0.152	12,0 0.472	15,0 0.591	73 2.874	96,1 3.783	100,0 3.937	9,0 0.354	9.00x7.00	10,5 0.413	3	C
T30-R40U02C05-14X1-63R	10309571	MF14X1	1,0	2,89 0.114	14,0 0.551	10,0 0.394	71 2.795	97,1 3.823	100,0 3.937	11,0 0.433	11.00x9.00	13,0 0.512	4	C
T30-R40U02C05-15X1-63R	10309574	MF15X1	1,0	2,89 0.114	14,0 0.551	10,0 0.394	58 2.283	97,1 3.823	100,0 3.937	12,0 0.472	12.00x9.00	14,0 0.551	4	C
T30-R40U02C05-14X1.25-63R	10309572	MF14X1.25	1,25	3,44 0.135	14,0 0.551	15,0 0.591	71 2.795	96,6 3.803	100,0 3.937	11,0 0.433	11.00x9.00	12,8 0.504	4	C
T30-R40U02C05-14X1.5-63R	10309573	MF14X1.5	1,5	3,97 0.156	14,0 0.551	15,0 0.591	71 2.795	96,0 3.780	100,0 3.937	11,0 0.433	11.00x9.00	12,5 0.492	4	C
T30-R40U02C05-16X1-63R	10309576	MF16X1	1,0	2,79 0.110	16,0 0.630	10,0 0.394	58 2.283	97,2 3.827	100,0 3.937	12,0 0.472	12.00x9.00	15,0 0.591	4	C
T30-R40U02C05-16X1.5-63R	10309577	MF16X1.5	1,5	4,07 0.160	16,0 0.630	15,0 0.591	58 2.283	95,9 3.776	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	4	C
T30-R40U02C05-18X1-63R	10309579	MF18X1	1,0	2,69 0.106	18,0 0.709	13,0 0.512	66 2.598	107,3 4.224	110,0 4.331	14,0 0.551	14.00x11.00	17,0 0.669	4	C
T30-R40U02C05-18X1.5-63R	10309580	MF18X1.5	1,5	4,17 0.164	18,0 0.709	17,0 0.669	66 2.598	105,8 4.165	110,0 4.331	14,0 0.551	14.00x11.00	16,5 0.650	4	C
T30-R40U02C05-18X2-63R	10309733	MF18X2	2,0	5,25 0.207	18,0 0.709	20,0 0.787	81 3.189	119,7 4.713	125,0 4.921	14,0 0.551	14.00x11.00	16,0 0.630	4	C
T30-R40U02C05-20X1-63R	10309582	MF20X1	1,0	2,79 0.110	20,0 0.787	13,0 0.512	80 3.150	122,2 4.811	125,0 4.921	16,0 0.630	16.00x12.00	19,0 0.748	4	C
T30-R40U02C05-22X1-63R	10309734	MF22X1	1,0	2,59 0.102	20,0 0.787	13,0 0.512	78 3.071	122,4 4.819	125,0 4.921	18,0 0.709	18.00x14.50	21,0 0.827	4	C
T30-R40U02C05-20X1.5-63R	10309583	MF20X1.5	1,5	4,37 0.172	20,0 0.787	17,0 0.669	80 3.150	120,6 4.748	125,0 4.921	16,0 0.630	16.00x12.00	18,5 0.728	4	C
T30-R40U02C05-20X2-63R	10309584	MF20X2	2,0	5,45 0.215	20,0 0.787	20,0 0.787	95 3.740	134,5 5.295	140,0 5.512	16,0 0.630	16.00x12.00	18,0 0.709	4	C
T30-R40U02C05-24X1-63R	10309736	MF24X1	1,0	2,8 0.110	22,0 0.866	13,0 0.512	93 3.661	137,2 5.402	140,0 5.512	18,0 0.709	18.00x14.50	23,0 0.906	4	C

Thread turning

MDT

Mini-Shaft™

Thread milling

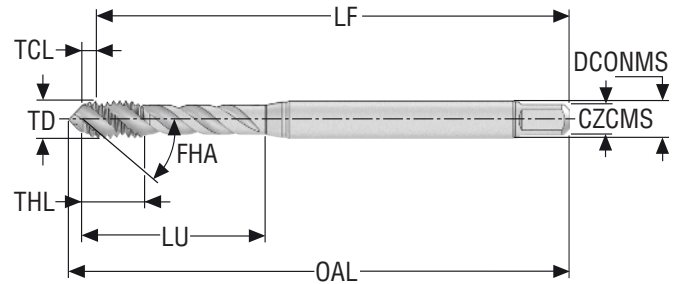
Thread tapping

Annex

	Designation	Item number	TDZ	Pitch	TCL	TD	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	mm Inch
Thread turning	T30-R40U02C05-22X1.5-63R	10309586	MF22X1.5	1,5	4,37 0.172	22,0 0.866	17,0 0.669	78 3.071	120,6 4.748	125,0 4.921	18,0 0.709	18.00x14.50	20,5 0.807	4	C
	T30-R40U02C05-22X2-63R	10309735	MF22X2	2,0	5,45 0.215	22,0 0.866	20,0 0.787	93 3.661	134,5 5.295	140,0 5.512	18,0 0.709	18.00x14.50	20,0 0.787	4	C
	T30-R40U02C05-24X1.5-63R	10309588	MF24X1.5	1,5	4,39 0.173	24,0 0.945	20,0 0.787	93 3.661	135,6 5.339	140,0 5.512	18,0 0.709	18.00x14.50	22,5 0.886	4	C
	T30-R40U02C05-25X1.5-63R	10309590	MF25X1.5	1,5	4,19 0.165	24,0 0.945	20,0 0.787	93 3.661	135,4 5.331	140,0 5.512	18,0 0.709	18.00x14.50	23,5 0.925	4	C
MDT	T30-R40U02C05-26X1.5-63R	10309737	MF26X1.5	1,5	4,19 0.165	24,0 0.945	20,0 0.787	93 3.661	135,4 5.331	140,0 5.512	18,0 0.709	18.00x14.50	24,5 0.965	4	C
	T30-R40U02C05-24X2-63R	10309589	MF24X2	2,0	5,69 0.224	24,0 0.945	20,0 0.787	93 3.661	134,3 5.287	140,0 5.512	18,0 0.709	18.00x14.50	22,0 0.866	4	C
	T30-R40U02C05-27X1.5-63R	10309738	MF27X1.5	1,5	4,19 0.165	27,0 1.063	20,0 0.787	77 3.031	135,4 5.331	140,0 5.512	20,0 0.787	20.00x16.00	25,5 1.004	4	C
	T30-R40U02C05-28X1.5-63R	10309593	M28X1.5	1,5	4,19 0.165	27,0 1.063	20,0 0.787	77 3.031	135,4 5.331	140,0 5.512	20,0 0.787	20.00x16.00	25,5 1.004	4	C
	T30-R40U02C05-27X2-63R	10309592	MF27X2	2,0	5,67 0.223	27,0 1.063	20,0 0.787	77 3.031	134,3 5.287	140,0 5.512	20,0 0.787	20.00x16.00	25,0 0.984	4	C
	T30-R40U02C05-30X1.5-63R	10309595	MF30X1.5	1,5	4,19 0.165	30,0 1.181	22,0 0.866	85 3.346	145,8 5.740	150,0 5.906	22,0 0.866	22.00x18.00	28,5 1.122	4	C
Mini-Shaft™	T30-R40U02C05-30X2-63R	10309596	MF30X2	2,0	5,67 0.223	30,0 1.181	22,0 0.866	85 3.346	144,3 5.681	150,0 5.906	22,0 0.866	22.00x18.00	28,0 1.102	4	C
	T30-R40U02C05-30X3-63R	10309739	MF30X3	3,0	7,81 0.307	30,0 1.181	30,0 1.181	115 4.528	172,2 6.780	180,0 7.087	22,0 0.866	22.00x18.00	27,0 1.063	4	C
	T30-R40U02C05-32X1.5-63R	10309740	MF32X1.5	1,5	4,19 0.165	32,0 1.260	22,0 0.866	85 3.346	145,4 5.724	150,0 5.906	22,0 0.866	22.00x18.00	30,5 1.201	4	C
	T30-R40U02C05-32X2-63R	10309741	MF32X2	2,0	5,47 0.215	32,0 1.260	22,0 0.866	85 3.346	144,5 5.689	150,0 5.906	22,0 0.866	22.00x18.00	30,0 1.181	4	C
	T30-R40U02C05-33X1.5-63R	10309743	MF33X1.5	1,5	3,79 0.149	33,0 1.299	22,0 0.866	93 3.661	156,2 6.150	160,0 6.299	25,0 0.984	25.00x20.00	31,5 1.240	4	C
	T30-R40U02C05-33X2-63R	10309744	MF33X2	2,0	5,67 0.223	33,0 1.299	24,0 0.945	93 3.661	154,3 6.075	160,0 6.299	25,0 0.984	25.00x20.00	31,0 1.220	4	C
Thread milling	T30-R40U02C05-35X1.5-63R	10309745	MF35X1.5	1,5	4,19 0.165	35,0 1.378	22,0 0.866	101 3.976	165,4 6.512	170,0 6.693	28,0 1.102	28.00x22.00	33,5 1.319	4	C
	T30-R40U02C05-36X1.5-63R	10309746	MF36X1.5	1,5	4,19 0.165	36,0 1.417	22,0 0.866	101 3.976	165,4 6.512	170,0 6.693	28,0 1.102	28.00x22.00	34,5 1.358	4	C
	T30-R40U02C05-36X2-63R	10309747	MF36X2	2,0	5,67 0.223	36,0 1.417	24,0 0.945	101 3.976	164,3 6.469	170,0 6.693	28,0 1.102	28.00x22.00	34,0 1.339	4	C
	T30-R40U02C05-36X3-63R	10309748	MF36X3	3,0	7,81 0.307	36,0 1.417	30,0 1.181	131 5.157	192,2 7.567	200,0 7.874	28,0 1.102	28.00x22.00	33,0 1.299	4	C
	T30-R40U02C05-40X1.5-63R	10309750	MF40X1.5	1,5	4,39 0.173	40,0 1.575	25,0 0.984	72 2.835	165,6 6.520	170,0 6.693	32,0 1.260	32.00x24.00	38,5 1.516	5	C
	T30-R40U02C05-42X2-63R	10309752	MF42X2	2,0	5,46 0.215	42,0 1.654	25,0 0.984	72 2.835	164,5 6.476	170,0 6.693	32,0 1.260	32.00x24.00	40,0 1.575	5	C
Thread tapping	T30-R40U02C05-42X3-63R	10309753	MF42X3	3,0	7,61 0.300	42,0 1.654	30,0 1.181	102 4.016	192,4 7.575	200,0 7.874	32,0 1.260	32.00x24.00	39,0 1.535	5	C
	T30-R40U02C05-48X1.5-63R	10309755	MF48X1.5	1,5	4,2 0.165	48,0 1.890	27,0 1.063	87 3.425	185,4 7.299	190,0 7.480	36,0 1.417	36.00x29.00	46,5 1.831	5	C
	T30-R40U02C05-48X3-63R	10309756	MF48X3	3,0	7,83 0.308	48,0 1.890	33,0 1.299	122 4.803	217,2 8.551	225,0 8.858	36,0 1.417	36.00x29.00	45,0 1.772	5	C

T30-R40UC

Blind holes – UNC threads

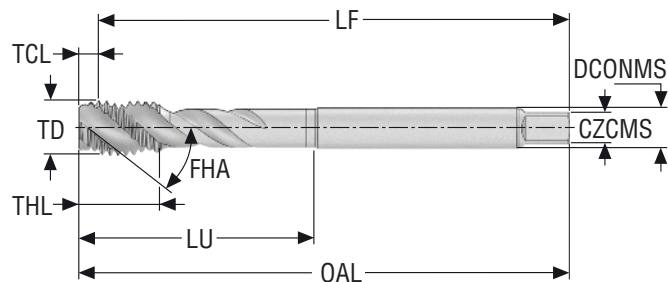


- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-R40U08C03-2-56-21R	10309656	UNC2-56	56.0	1,14 0.045	2,184 0.086	8,0 0.315	13 0.512	43,8 1.724	46,3 1.823	2,8 0.110	2.80x2.10	1,85 0.073	2	C
T30-R40U08C03-4-40-21R	10309432	UNC4-40	40.0	1,45 0.057	2,845 0.112	5,0 0.197	18 0.709	54,7 2.154	57,2 2.252	3,5 0.138	3.50x2.70	2,35 0.093	3	C
T30-R40U08C03-5-40-21R	10309433	UNC5-40	40.0	1,5 0.059	3,175 0.125	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
T30-R40U08C03-6-32-21R	10309434	UNC6-32	32.0	1,92 0.076	3,505 0.138	6,0 0.236	20 0.787	54,2 2.134	57,4 2.260	4,0 0.157	4.00x3.00	2,85 0.112	3	C
T30-R40U08C03-8-32-21R	10309435	UNC8-32	32.0	1,85 0.073	4,166 0.164	7,0 0.276	21 0.827	61,1 2.406	64,6 2.543	4,5 0.177	4.50x3.40	3,5 0.138	3	C
T30-R40U08C03-10-24-21R	10309436	UNC10-24	24.0	2,49 0.098	4,826 0.190	8,0 0.315	25 0.984	67,8 2.669	72,0 2.835	6,0 0.236	6.00x4.90	3,9 0.154	3	C
T30-R40U08C03-12-24-21R	10309657	UNC12-24	24.0	2,42 0.095	5,486 0.216	10,0 0.394	30 1.181	77,7 3.059	82,2 3.236	6,0 0.236	6.00x4.90	4,5 0.177	3	C
T30-R40U08C03-1/4-20-21R	10309437	UNC1/4-20	20.0	2,9 0.114	6,35 0.250	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
T30-R40U08C03-5/16-18-21R	10309438	UNC5/16-18	18.0	3,53 0.139	7,937 0.312	13,0 0.512	35 1.378	86,5 3.406	90,0 3.543	8,0 0.315	8.00x6.20	6,6 0.260	3	C
T30-R40U08C03-3/8-16-21R	10309439	UNC3/8-16	16.0	3,99 0.157	9,525 0.375	15,0 0.591	39 1.535	96,0 3.780	100,0 3.937	10,0 0.394	10.00x8.00	8,0 0.315	3	C

T30-R40UC

Blind holes – UNC threads

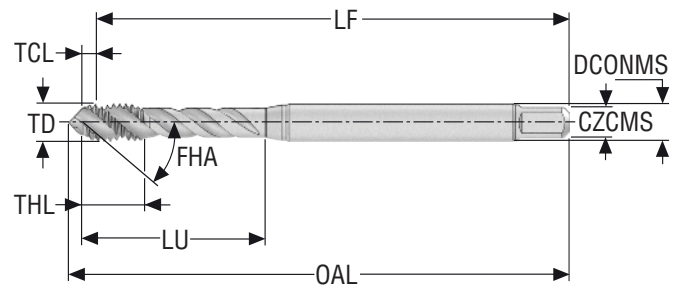


- Substrate: HSSE
- Uncoated
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-R40U08C06-7/16-14-21R	10309606	UNC7/16-14	14.0	4,6 0.181	11,112 0.437	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
T30-R40U08C06-1/2-13-21R	10309607	UNC1/2-13	13.0	4,94 0.194	12,7 0.500	18,0 0.709	83 3.268	105,1 4.138	110,0 4.331	9,0 0.354	9.00x7.00	10,7 0.421	3	C
T30-R40U08C06-9/16-12-21R	10309608	UNC9/16-12	12.0	5,37 0.211	14,287 0.562	20,0 0.787	81 3.189	104,6 4.118	110,0 4.331	11,0 0.433	11.00x9.00	12,3 0.484	4	C
T30-R40U08C06-5/8-11-21R	10309609	UNC5/8-11	11.0	5,81 0.229	15,875 0.625	22,0 0.866	68 2.677	104,2 4.102	110,0 4.331	12,0 0.472	12.00x9.00	13,5 0.531	4	C
T30-R40U08C06-3/4-10-21R	10309610	UNC3/4-10	10.0	6,78 0.267	19,05 0.750	25,0 0.984	81 3.189	118,2 4.654	125,0 4.921	14,0 0.551	14.00x11.00	16,5 0.650	4	C
T30-R40U08C06-7/8-9-21R	10309611	UNC7/8-9	9.0	7,27 0.286	22,225 0.875	30,0 1.181	93 3.661	132,7 5.224	140,0 5.512	18,0 0.709	18.00x14.50	19,5 0.768	4	C
T30-R40U08C06-1-8-21R	10309612	UNC1-8	8.0	8,32 0.328	25,4 1.000	30,0 1.181	97 3.819	151,7 5.972	160,0 6.299	20,0 0.787	20.00x16.00	22,25 0.876	4	C
T30-R40U08C06-1.1/8-7-21R	10309761	UNC11/8-7	7.0	9,16 0.361	28,575 1.125	37,0 1.457	115 4.528	170,8 6.724	180,0 7.087	22,0 0.866	22.00x18.00	25,0 0.984	4	C
T30-R40U08C06-1.1/4-7-21R	10309762	UNC11/4-7	7.0	9,3 0.366	31,75 1.250	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
T30-R40U08C06-1.3/8-6-21R	10309763	UNC13/8-6	6.0	10,5 0.413	34,925 1.375	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

T30-R40UC

Blind holes – UNF threads

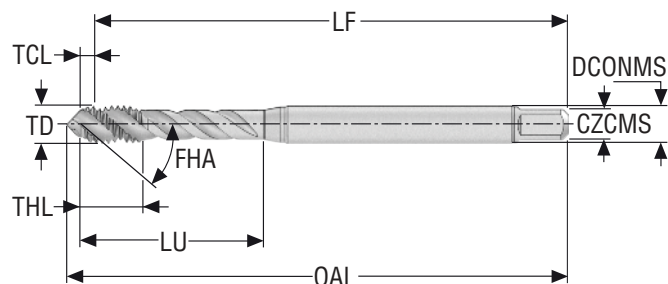


- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-R40U09C03-4-48-21R	10309783	UNF4-48	48.0	1,26 0.050	2,845 0.112	5,0 0.197	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50x2.70	2,4 0.094	3	C
T30-R40U09C03-5-44-21R	10309784	UNF5-44	44.0	1,32 0.052	3,175 0.125	7,0 0.276	18 0.709	54,6 2.150	57,2 2.252	3,5 0.138	3.50x2.70	2,7 0.106	3	C
T30-R40U09C03-6-40-21R	10309785	UNF6-40	40.0	1,56 0.061	3,505 0.138	6,0 0.236	20 0.787	54,5 2.146	57,4 2.260	4,0 0.157	4.00x3.00	2,95 0.116	3	C
T30-R40U09C03-8-36-21R	10309440	UNF8-36	36.0	1,67 0.066	4,166 0.164	7,0 0.276	21 0.827	61,3 2.413	64,6 2.543	4,5 0.177	4.50x3.40	3,5 0.138	3	C
T30-R40U09C03-10-32-21R	10309441	UNF10-32	32.0	1,96 0.077	4,826 0.190	8,0 0.315	25 0.984	68,1 2.681	72,0 2.835	6,0 0.236	6.00x4.90	4,1 0.161	3	C
T30-R40U09C03-12-28-21R	10309442	UNF12-28	28.0	2,07 0.081	5,486 0.216	10,0 0.394	30 1.181	77,9 3.067	82,2 3.236	6,0 0.236	6.00x4.90	4,6 0.181	3	C
T30-R40U09C03-1/4-28-21R	10309443	UNF1/4-28	28.0	2,19 0.086	6,35 0.250	10,0 0.394	29 1.142	77,6 3.055	82,4 3.244	7,0 0.276	7.00x5.50	5,5 0.217	3	C
T30-R40U09C03-5/16-24-21R	10309444	UNF5/16-24	24.0	2,82 0.111	7,937 0.312	13,0 0.512	35 1.378	87,2 3.433	90,0 3.543	8,0 0.315	8.00x6.20	6,9 0.272	3	C
T30-R40U09C03-3/8-24-21R	10309445	UNF3/8-24	24.0	2,91 0.115	9,525 0.375	15,0 0.591	35 1.378	87,1 3.429	90,0 3.543	10,0 0.394	10.00x8.00	8,5 0.335	3	C

T30-R40UC

Blind holes – UNF threads

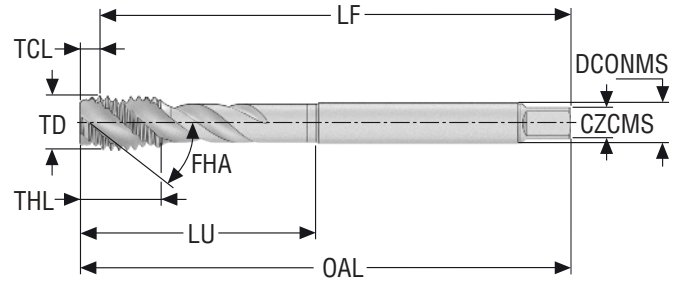


- Substrate: HSSE
- Uncoated
- Standard: DIN374
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-R40U09C05-7/16-20-21R	10309613	UNF7/16-20	20.0	3,35 0.132	11,112 0.437	15,0 0.591	76 2.992	96,6 3.803	100,0 3.937	8,0 0.315	8.00x6.20	9,9 0.390	3	C
T30-R40U09C05-1/2-20-21R	10309614	UNF1/2-20	20.0	3,51 0.138	12,7 0.500	15,0 0.591	73 2.874	96,5 3.799	100,0 3.937	9,0 0.354	9.00x7.00	11,5 0.453	3	C
T30-R40U09C05-9/16-18-21R	10309615	UNF9/16-18	18.0	3,77 0.148	14,287 0.562	15,0 0.591	71 2.795	96,2 3.787	100,0 3.937	11,0 0.433	11.00x9.00	13,0 0.512	4	C
T30-R40U09C05-5/8-18-21R	10309616	UNF5/8-18	18.0	3,86 0.152	15,875 0.625	15,0 0.591	58 2.283	96,1 3.783	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	4	C
T30-R40U09C05-3/4-16-21R	10309617	UNF3/4-16	16.0	4,45 0.175	19,05 0.750	17,0 0.669	66 2.598	105,5 4.154	110,0 4.331	14,0 0.551	14.00x11.00	17,5 0.689	4	C
T30-R40U09C05-7/8-14-21R	10309764	UNF7/8-14	14.0	5,16 0.203	22,225 0.875	17,0 0.669	78 3.071	119,8 4.717	125,0 4.921	18,0 0.709	18.00x14.50	20,5 0.807	4	C
T30-R40U09C05-1-12-21R	10309765	UNF1-12	12.0	5,82 0.229	25,4 1.000	22,0 0.866	93 3.661	134,2 5.283	140,0 5.512	18,0 0.709	18.00x14.50	23,3 0.917	4	C
T30-R40U09C05-1.1/8-12-21R	10309766	UNF11/8-12	12.0	5,98 0.235	28,575 1.125	22,0 0.866	85 3.346	144,0 5.669	150,0 5.906	22,0 0.866	22.00x18.00	26,5 1.043	4	C
T30-R40U09C05-1.1/4-12-21R	10309767	UNF11/4-12	12.0	5,94 0.234	31,75 1.250	22,0 0.866	85 3.346	144,1 5.673	150,0 5.906	22,0 0.866	22.00x18.00	29,5 1.161	4	C
T30-R40U09C05-1.1/2-12-21R	10309768	UNF11/2-12	12.0	6,02 0.237	38,1 1.500	24,0 0.945	101 3.976	164,0 6.457	170,0 6.693	28,0 1.102	28.00x22.00	36,0 1.417	4	C

T30-R40UC

Blind holes – G threads

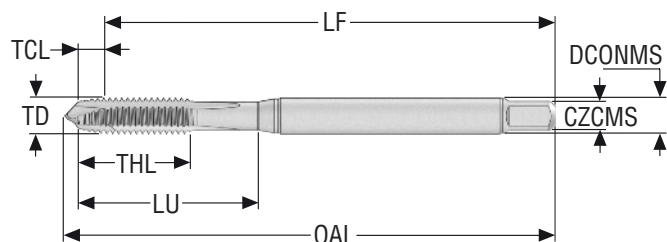


- Substrate: HSSE
- Uncoated
- Standard: DIN5156
- Thread tolerance class: NORMAL
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-R40U21C09-1/16-28-11R	10309758	G1/16	28.0	2,56 0.101	7,723 0.304	10,0 0.394	67 2.638	87,4 3.441	90,0 3.543	6,0 0.236	6.00x4.90	6,8 0.268	3	C
T30-R40U21C09-1/8-28-11R	10309599	G1/8	28.0	2,67 0.105	9,728 0.383	10,0 0.394	67 2.638	87,3 3.437	90,0 3.543	7,0 0.276	7.00x5.50	8,8 0.346	3	C
T30-R40U21C09-1/4-19-11R	10309600	G1/4	19.0	3,72 0.146	13,157 0.518	14,0 0.551	71 2.795	96,3 3.791	100,0 3.937	11,0 0.433	11.00x9.00	11,8 0.465	3	C
T30-R40U21C09-3/8-19-11R	10309601	G3/8	19.0	3,92 0.154	16,662 0.656	15,0 0.591	58 2.283	96,1 3.783	100,0 3.937	12,0 0.472	12.00x9.00	15,25 0.600	4	C
T30-R40U21C09-1/2-14-11R	10309602	G1/2	14.0	5,28 0.208	20,955 0.825	17,0 0.669	80 3.150	119,7 4.713	125,0 4.921	16,0 0.630	16.00x12.00	19,0 0.748	4	C
T30-R40U21C09-3/4-14-11R	10309603	G3/4	14.0	5,45 0.215	26,441 1.041	20,0 0.787	77 3.031	134,5 5.295	140,0 5.512	20,0 0.787	20.00x16.00	24,5 0.965	4	C
T30-R40U21C09-7/8-14-11R	10309604	G7/8	14.0	5,38 0.212	30,201 1.189	22,0 0.866	85 3.346	144,6 5.693	150,0 5.906	22,0 0.866	22.00x18.00	28,25 1.112	4	C
T30-R40U21C09-1-11-11R	10309605	G1	11.0	6,56 0.258	33,249 1.309	24,0 0.945	93 3.661	153,4 6.039	160,0 6.299	25,0 0.984	25.00x20.00	30,75 1.211	4	C
T30-R40U21C09-1.1/4-11-11R	10309759	G1 1/4	11.0	6,71 0.264	41,91 1.650	25,0 0.984	72 2.835	163,3 6.429	170,0 6.693	32,0 1.260	32.00x24.00	39,5 1.555	5	C
T30-R40U21C09-1.1/2-11-11R	10309760	G1 1/2	11.0	6,66 0.262	47,803 1.882	27,0 1.063	87 3.425	183,3 7.217	190,0 7.480	36,0 1.417	36.00x29.00	45,25 1.781	5	C
T30-R40U21C09-2-11-11R	10309789	G2	11.0	6,48 0.255	59,614 2.347	27,0 1.063	111 4.370	213,5 8.406	220,0 8.661	45,0 1.772	45.00x35.00	57,0 2.244	6	C

T30-PXB

Through holes – Metric coarse threads

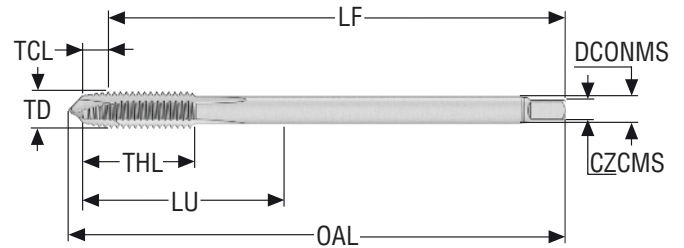


- Substrate: HSSE
- Coating: Vaporized
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PX01B03-3X0.5-63R	10309402	M3	0,5	2,25 0.089	3,0 0.118	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
T30-PX01B03-4X0.7-63R	10309403	M4	0,7	3,3 0.130	4,0 0.157	12,0 0.472	21 0.827	59,8 2.354	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	B
T30-PX01B03-5X0.8-63R	10309404	M5	0,8	3,65 0.144	5,0 0.197	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
T30-PX01B03-6X1-63R	10309405	M6	1,0	4,37 0.172	6,0 0.236	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
T30-PX01B03-7X1-63R	10309649	M7	1,0	4,37 0.172	7,0 0.276	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
T30-PX01B03-8X1.25-63R	10309406	M8	1,25	5,4 0.213	8,0 0.315	20,0 0.787	35 1.378	84,7 3.335	93,3 3.673	8,0 0.315	8.00x6.20	6,8 0.268	3	B
T30-PX01B03-10X1.5-63R	10309407	M10	1,5	6,84 0.269	10,0 0.394	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

T30-PXB

Through holes – Metric coarse threads

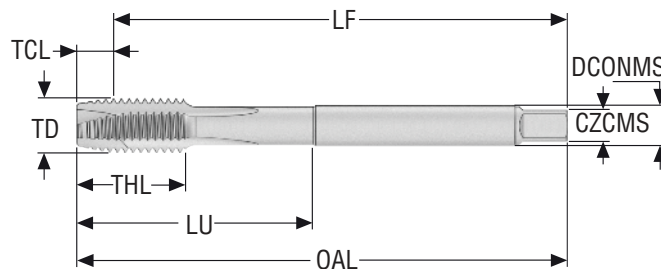


- Substrate: HSSE
- Coating: Vaporized
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PX01B06-3X0.5-63R	10309707	M3	0,5	2,25 0.089	3,0 0.118	11,0 0.433	37 1.457	53,7 2.114	57,2 2.252	2,2 0.087	2.20x1.80	2,5 0.098	3	B
T30-PX01B06-4X0.7-63R	10309520	M4	0,7	3,3 0.130	4,0 0.157	12,0 0.472	44 1.732	59,7 2.350	64,5 2.539	2,8 0.110	2.80x2.10	3,3 0.130	3	B
T30-PX01B06-5X0.8-63R	10309521	M5	0,8	3,65 0.144	5,0 0.197	14,0 0.551	51 2.008	66,4 2.614	72,0 2.835	3,5 0.138	3.50x2.70	4,2 0.165	3	B
T30-PX01B06-6X1-63R	10309522	M6	1,0	4,39 0.173	6,0 0.236	18,0 0.709	61 2.402	75,6 2.976	82,4 3.244	4,5 0.177	4.50x3.40	5,0 0.197	3	B
T30-PX01B06-8X1.25-63R	10309523	M8	1,25	5,7 0.224	8,0 0.315	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
T30-PX01B06-10X1.5-63R	10309525	M10	1,5	6,84 0.269	10,0 0.394	20,0 0.787	77 3.031	93,2 3.669	100,0 3.937	7,0 0.276	7.00x5.50	8,5 0.335	3	B
T30-PX01B06-12X1.75-63R	10309527	M12	1,75	8,01 0.315	12,0 0.472	24,0 0.945	83 3.268	102,0 4.016	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	B
T30-PX01B06-14X2-63R	10309530	M14	2,0	9,14 0.360	14,0 0.551	25,0 0.984	81 3.189	100,9 3.972	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	3	B
T30-PX01B06-16X2-63R	10309532	M16	2,0	9,24 0.364	16,0 0.630	32,0 1.260	68 2.677	100,8 3.969	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	3	B
T30-PX01B06-18X2.5-63R	10309711	M18	2,5	11,38 0.448	18,0 0.709	32,0 1.260	81 3.189	113,6 4.472	125,0 4.921	14,0 0.551	14.00x11.00	15,5 0.610	4	B
T30-PX01B06-20X2.5-63R	10309533	M20	2,5	11,58 0.456	20,0 0.787	32,0 1.260	95 3.740	128,4 5.055	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	B
T30-PX01B06-22X2.5-63R	10309713	M22	2,5	11,78 0.464	20,0 0.787	32,0 1.260	93 3.661	128,2 5.047	140,0 5.512	18,0 0.709	18.00x14.50	19,5 0.768	4	B
T30-PX01B06-24X3-63R	10309535	M24	3,0	13,68 0.539	24,0 0.945	38,0 1.496	113 4.449	146,3 5.760	160,0 6.299	18,0 0.709	18.00x14.50	21,0 0.827	4	B
T30-PX01B06-27X3-63R	10309536	M27	3,0	13,88 0.546	24,0 0.945	38,0 1.496	97 3.819	146,1 5.752	160,0 6.299	20,0 0.787	20.00x16.00	24,0 0.945	4	B
T30-PX01B06-30X3.5-63R	10309714	M30	3,5	15,93 0.627	27,0 1.063	45,0 1.772	115 4.528	164,1 6.461	180,0 7.087	22,0 0.866	22.00x18.00	26,5 1.043	4	B

T30-PXB

Through holes – MF threads

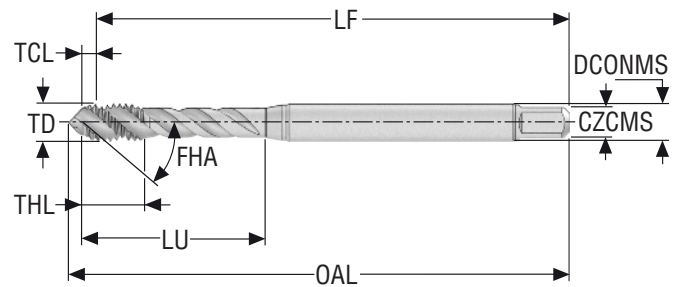


- Substrate: HSSE
- Coating: Vaporized
- Standard: DIN374
- Thread tolerance class: 6H
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-PX02B05-8X1-63R	10309524	MF8X1	1,0	4,67 0.184	8,0 0.315	20,0 0.787	67 2.638	85,3 3.358	90,0 3.543	6,0 0.236	6.00x4.90	7,0 0.276	3	B
T30-PX02B05-10X1-63R	10309708	MF10X1	1,0	4,79 0.189	10,0 0.394	20,0 0.787	67 2.638	85,2 3.354	90,0 3.543	7,0 0.276	7.00x5.50	9,0 0.354	3	B
T30-PX02B05-10X1.25-63R	10309526	MF10X1.25	1,25	5,8 0.228	10,0 0.394	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
T30-PX02B05-12X1-63R	10309709	MF12X1	1,0	4,89 0.193	12,0 0.472	20,0 0.787	73 2.874	95,1 3.744	100,0 3.937	9,0 0.354	9.00x7.00	11,0 0.433	3	B
T30-PX02B05-12X1.25-63R	10309528	MF12X1.25	1,25	5,94 0.234	12,0 0.472	20,0 0.787	73 2.874	94,1 3.705	100,0 3.937	9,0 0.354	9.00x7.00	10,8 0.425	3	B
T30-PX02B05-12X1.5-63R	10309529	MF12X1.5	1,5	6,97 0.274	12,0 0.472	20,0 0.787	73 2.874	93,0 3.661	100,0 3.937	9,0 0.354	9.00x7.00	10,5 0.413	3	B
T30-PX02B05-14X1.5-63R	10309531	MF14X1.5	1,5	7,07 0.278	14,0 0.551	20,0 0.787	71 2.795	92,9 3.657	100,0 3.937	11,0 0.433	11.00x9.00	12,5 0.492	3	B
T30-PX02B05-16X1.5-63R	10309710	MF16X1.5	1,5	7,17 0.282	16,0 0.630	20,0 0.787	58 2.283	92,8 3.654	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	3	B
T30-PX02B05-18X1.5-63R	10309712	MF18X1.5	1,5	7,27 0.286	18,0 0.709	24,0 0.945	66 2.598	102,7 4.043	110,0 4.331	14,0 0.551	14.00x11.00	16,5 0.650	4	B
T30-PX02B05-20X1.5-63R	10309534	MF20X1.5	1,5	7,47 0.294	20,0 0.787	24,0 0.945	80 3.150	117,5 4.626	125,0 4.921	16,0 0.630	16.00x12.00	18,5 0.728	4	B

T30-R40XC

Blind holes – Metric coarse threads

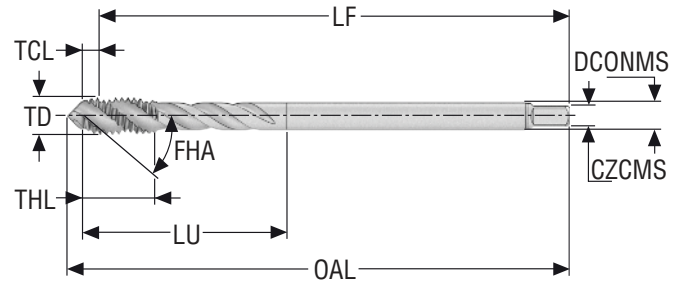


- Substrate: HSSE
- Coating: Vaporized
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-R40X01C03-3X0.5-63R	10309449	M3	0,5	1,17 0.046	3,0 0.118	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
T30-R40X01C03-4X0.7-63R	10309450	M4	0,7	1,72 0.068	4,0 0.157	7,0 0.276	21 0.827	61,3 2.413	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	C
T30-R40X01C03-5X0.8-63R	10309451	M5	0,8	1,9 0.075	5,0 0.197	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
T30-R40X01C03-6X1-63R	10309452	M6	1,0	2,27 0.089	6,0 0.236	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00x4.90	5,0 0.197	3	C
T30-R40X01C03-7X1-63R	10309661	M7	1,0	2,28 0.090	7,0 0.276	10,0 0.394	30 1.181	77,7 3.059	82,9 3.264	7,0 0.276	7.00x5.50	6,0 0.236	3	C
T30-R40X01C03-8X1.25-63R	10309453	M8	1,25	3,11 0.122	8,0 0.315	13,0 0.512	35 1.378	86,9 3.421	91,7 3.610	8,0 0.315	8.00x6.20	6,8 0.268	3	C
T30-R40X01C03-10X1.5-63R	10309454	M10	1,5	3,76 0.148	10,0 0.394	15,0 0.591	39 1.535	96,2 3.787	101,8 4.008	10,0 0.394	10.00x8.00	8,5 0.335	3	C

T30-R40XC

Blind holes – Metric coarse threads

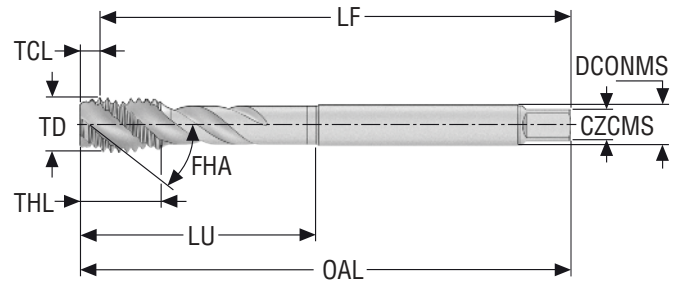


- Substrate: HSSE
- Coating: Vaporized
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-R40X01C06-3X0.5-63R	10309770	M3	0,5	1,17 0.046	3,0 0.118	5,0 0.197	37 1.457	54,8 2.157	57,2 2.252	2,2 0.087	2.20x1.80	2,5 0.098	3	C
T30-R40X01C06-5X0.8-63R	10309772	M5	0,8	1,9 0.075	5,0 0.197	10,0 0.394	51 2.008	68,1 2.681	72,0 2.835	3,5 0.138	3.50x2.70	4,2 0.165	3	C
T30-R40X01C06-6X1-63R	10309620	M6	1,0	2,28 0.090	6,0 0.236	12,0 0.472	61 2.402	77,7 3.059	82,4 3.244	4,5 0.177	4.50x3.40	5,0 0.197	3	C
T30-R40X01C06-8X1.25-63R	10309621	M8	1,25	3,11 0.122	8,0 0.315	15,0 0.591	67 2.638	86,9 3.421	90,0 3.543	6,0 0.236	6.00x4.90	6,8 0.268	3	C
T30-R40X01C06-10X1.5-63R	10309622	M10	1,5	3,76 0.148	10,0 0.394	17,0 0.669	77 3.031	96,2 3.787	100,0 3.937	7,0 0.276	7.00x5.50	8,5 0.335	3	C
T30-R40X01C06-12X1.75-63R	10309624	M12	1,75	4,41 0.174	12,0 0.472	18,0 0.709	83 3.268	105,6 4.157	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	C
T30-R40X01C06-14X2-63R	10309626	M14	2,0	5,08 0.200	14,0 0.551	20,0 0.787	81 3.189	104,9 4.130	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	4	C
T30-R40X01C06-16X2-63R	10309628	M16	2,0	5,15 0.203	16,0 0.630	20,0 0.787	68 2.677	104,8 4.126	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	C
T30-R40X01C06-18X2.5-63R	10309778	M18	2,5	6,31 0.248	18,0 0.709	25,0 0.984	81 3.189	118,7 4.673	125,0 4.921	14,0 0.551	14.00x11.00	15,5 0.610	4	C
T30-R40X01C06-20X2.5-63R	10309630	M20	2,5	6,51 0.256	20,0 0.787	25,0 0.984	95 3.740	133,5 5.256	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	C
T30-R40X01C06-22X2.5-63R	10309631	M22	2,5	6,53 0.257	20,0 0.787	25,0 0.984	93 3.661	133,5 5.256	140,0 5.512	18,0 0.709	18.00x14.50	19,5 0.768	4	C
T30-R40X01C06-24X3-63R	10309632	M24	3,0	7,81 0.307	24,0 0.945	30,0 1.181	113 4.449	152,2 5.992	160,0 6.299	18,0 0.709	18.00x14.50	21,0 0.827	4	C
T30-R40X01C06-27X3-63R	10309780	M27	3,0	7,81 0.307	24,0 0.945	30,0 1.181	97 3.819	152,2 5.992	160,0 6.299	20,0 0.787	20.00x16.00	24,0 0.945	4	C
T30-R40X01C06-30X3.5-63R	10309633	M30	3,5	8,87 0.349	27,0 1.063	35,0 1.378	115 4.528	171,1 6.736	180,0 7.087	22,0 0.866	22.00x18.00	26,5 1.043	4	C

T30-R40XC

Blind holes – MF threads

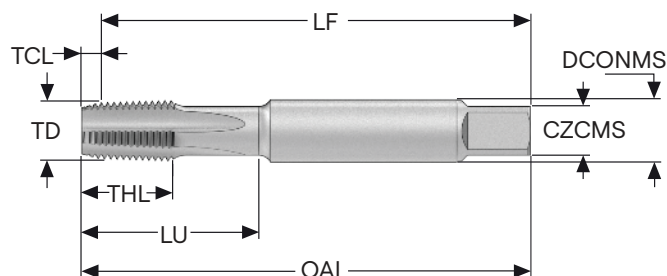


- Substrate: HSSE
- Coating: Vaporized
- Standard: DIN374
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T30-R40X02C05-8X1-63R	10309773	MF8X1	1,0	2,58 0.102	8,0 0.315	10,0 0.394	67 2.638	87,4 3.441	90,0 3.543	6,0 0.236	6.00x4.90	7,0 0.276	3	C
T30-R40X02C05-10X1-63R	10309623	MF10X1	1,0	2,68 0.106	10,0 0.394	10,0 0.394	67 2.638	87,3 3.437	90,0 3.543	7,0 0.276	7.00x5.50	9,0 0.354	3	C
T30-R40X02C05-10X1.25-63R	10309774	MF10X1.25	1,25	3,21 0.126	10,0 0.394	15,0 0.591	77 3.031	96,8 3.811	100,0 3.937	7,0 0.276	7.00x5.50	8,8 0.346	3	C
T30-R40X02C05-12X1-63R	10309775	MF12X1	1,0	2,79 0.110	12,0 0.472	10,0 0.394	73 2.874	97,2 3.827	100,0 3.937	9,0 0.354	9.00x7.00	11,0 0.433	3	C
T30-R40X02C05-12X1.25-63R	10309625	MF12X1.25	1,25	3,34 0.131	12,0 0.472	15,0 0.591	73 2.874	96,7 3.807	100,0 3.937	9,0 0.354	9.00x7.00	10,8 0.425	3	C
T30-R40X02C05-12X1.5-63R	10309776	MF12X1.5	1,5	3,87 0.152	12,0 0.472	15,0 0.591	73 2.874	96,1 3.783	100,0 3.937	9,0 0.354	9.00x7.00	10,5 0.413	3	C
T30-R40X02C05-14X1.5-63R	10309627	MF14X1.5	1,5	3,97 0.156	14,0 0.551	15,0 0.591	71 2.795	96,0 3.780	100,0 3.937	11,0 0.433	11.00x9.00	12,5 0.492	4	C
T30-R40X02C05-16X1.5-63R	10309777	MF16X1.5	1,5	4,07 0.160	16,0 0.630	15,0 0.591	58 2.283	95,9 3.776	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	4	C
T30-R40X02C05-18X1.5-63R	10309629	MF18X1.5	1,5	4,17 0.164	18,0 0.709	17,0 0.669	66 2.598	105,8 4.165	110,0 4.331	14,0 0.551	14.00x11.00	16,5 0.650	4	C
T30-R40X02C05-20X1.5-63R	10309779	MF20X1.5	1,5	4,37 0.172	20,0 0.787	17,0 0.669	80 3.150	120,6 4.748	125,0 4.921	16,0 0.630	16.00x12.00	18,5 0.728	4	C

T30-SUC

Blind and through holes – NPT threads

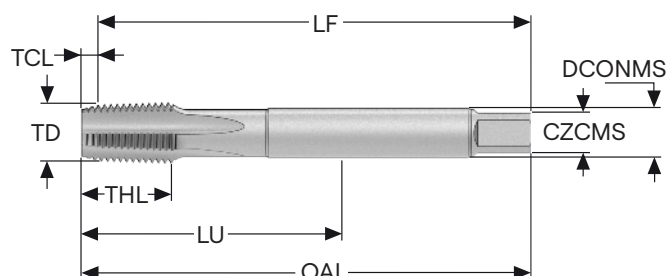


- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: NORMAL
- FHA = 0°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-SU46C03-1/8-27-R	10309414	NPT1/8	27.0	3,14 0.124	10,287 0.405	15,0 0.591	36 1.417	86,9 3.421	90,0 3.543	10,0 0.394	10.00x8.00	8,5 0.335	3	C
T30-SU46C03-1/4-18-R	10309415	NPT1/4	18.0	4,53 0.178	13,716 0.540	20,0 0.787	39,5 1.555	95,5 3.760	100,0 3.937	14,0 0.551	14.00x11.00	11,0 0.433	4	C

T30-SUC

Blind and through holes – NPT threads

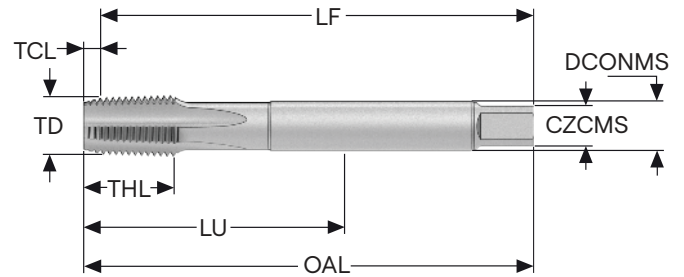


- Substrate: HSSE
- Uncoated
- Standard: DIN374
- Thread tolerance class: NORMAL
- FHA = 0°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-SU46C05-1/16-27-R	10309723	NPT1/16	27.0	2,72 0.107	7,937 0.312	15,0 0.591	67 2.638	87,3 3.437	90,0 3.543	6,0 0.236	6.00x4.90	6,15 0.242	3	C
T30-SU46C05-1/8-27-R	10309546	NPT1/8	27.0	3,14 0.124	10,287 0.405	15,0 0.591	67 2.638	86,9 3.421	90,0 3.543	7,0 0.276	7.00x5.50	8,5 0.335	3	C
T30-SU46C05-1/4-18-R	10309547	NPT1/4	18.0	4,53 0.178	13,716 0.540	20,0 0.787	71 2.795	95,5 3.760	100,0 3.937	11,0 0.433	11.00x9.00	11,0 0.433	4	C
T30-SU46C05-3/8-18-R	10309548	NPT3/8	18.0	4,19 0.165	17,145 0.675	22,0 0.866	66 2.598	105,8 4.165	110,0 4.331	14,0 0.551	14.00x11.00	14,4 0.567	4	C
T30-SU46C05-1/2-14-R	10309549	NPT1/2	14.0	5,65 0.222	21,336 0.840	27,0 1.063	93 3.661	134,4 5.291	140,0 5.512	18,0 0.709	18.00x14.50	17,8 0.701	5	C
T30-SU46C05-3/4-14-R	10309550	NPT3/4	14.0	5,68 0.224	26,67 1.050	28,0 1.102	77 3.031	134,3 5.287	140,0 5.512	20,0 0.787	20.00x16.00	23,15 0.911	5	C
T30-SU46C05-1-11.1/2-R	10309551	NPT1	11.5	7,74 0.305	33,401 1.315	35,0 1.378	93 3.661	152,3 5.996	160,0 6.299	25,0 0.984	25.00x20.00	29,05 1.144	6	C

T30-SUC

Blind and through holes – NPTF threads

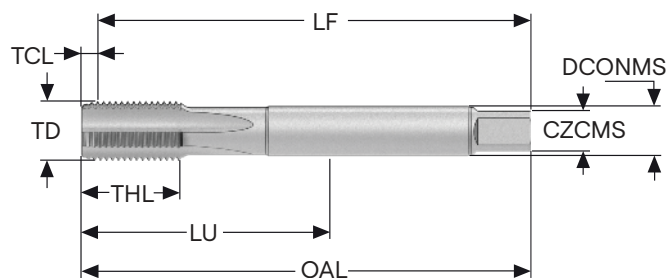


- Substrate: HSSE
- Uncoated
- Standard: DIN374
- Thread tolerance class: NORMAL
- FHA = 0°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-SU47C05-1/8-27-R	10309552	NPTF1/8	27.0	3,14 0.124	10,287 0.405	15,0 0.591	67 2.638	86,9 3.421	90,0 3.543	7,0 0.276	7.00x5.50	8,45 0.333	3	C
T30-SU47C05-1/4-18-R	10309724	NPTF1/4	18.0	4,53 0.178	13,716 0.540	20,0 0.787	71 2.795	95,5 3.760	100,0 3.937	11,0 0.433	11.00x9.00	10,9 0.429	4	C
T30-SU47C05-3/8-18-R	10309725	NPTF3/8	18.0	4,19 0.165	17,145 0.675	22,0 0.866	66 2.598	105,8 4.165	110,0 4.331	14,0 0.551	14.00x11.00	14,3 0.563	4	C
T30-SU47C05-1/2-14-R	10309726	NTPF1/2	14.0	5,65 0.222	21,336 0.840	27,0 1.063	93 3.661	134,4 5.291	140,0 5.512	18,0 0.709	18.00x14.50	17,6 0.693	5	C

T30-SUC

Blind and through holes– Rc threads

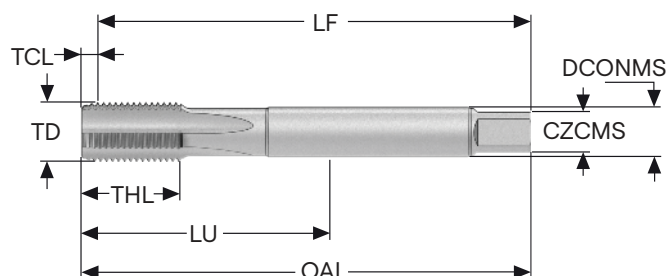


- Substrate: HSSE
- Uncoated
- Standard: DIN5156
- Thread tolerance class: NORMAL
- FHA = 0°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-SU33C09-1/16-28-R	10309722	Rc1/16	28.0	2,55 0.100	7,723 0.304	15,0 0.591	67 2.638	87,5 3.445	90,0 3.543	6,0 0.236	6.00x4.90	6,15 0.242	3	C
T30-SU33C09-1/8-28-R	10309542	Rc1/8	28.0	2,56 0.101	9,728 0.383	15,0 0.591	67 2.638	87,4 3.441	90,0 3.543	7,0 0.276	7.00x5.50	8,15 0.321	3	C
T30-SU33C09-1/4-19-R	10309543	Rc1/4	19.0	3,67 0.144	13,157 0.518	19,0 0.748	71 2.795	96,3 3.791	100,0 3.937	11,0 0.433	11.00x9.00	10,85 0.427	4	C
T30-SU33C09-3/8-19-R	10309544	Rc3/8	19.0	3,61 0.142	16,662 0.656	21,0 0.827	58 2.283	96,4 3.795	100,0 3.937	12,0 0.472	12.00x9.00	14,3 0.563	4	C
T30-SU33C09-1/2-14-R	10309545	Rc1/2	14.0	5,07 0.200	20,955 0.825	26,0 1.024	80 3.150	119,9 4.720	125,0 4.921	16,0 0.630	16.00x12.00	17,8 0.701	5	C

T30-SUC

Blind and through holes – Rp threads

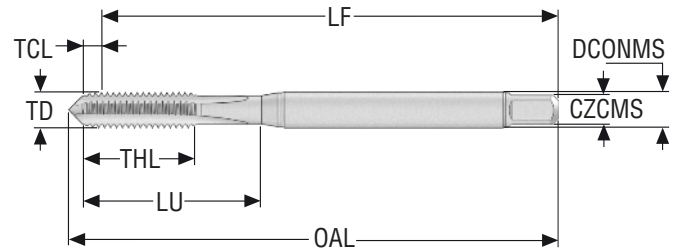


- Substrate: HSSE
- Uncoated
- Standard: DIN5156
- Thread tolerance class: NORMAL
- FHA = 0°
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T30-SU32C09-1/8-28-R	10309540	Rp1/8	28.0	2,24 0.088	9,728 0.383	18,0 0.709	67 2.638	87,8 3.457	90,0 3.543	7,0 0.276	7.00x5.50	8,6 0.339	3	C
T30-SU32C09-1/4-19-R	10309541	Rp1/4	19.0	3,27 0.129	13,157 0.518	22,0 0.866	71 2.795	96,7 3.807	100,0 3.937	11,0 0.433	11.00x9.00	11,5 0.453	4	C
T30-SU32C09-3/8-19-R	10309720	Rp3/8	19.0	3,28 0.129	16,662 0.656	22,0 0.866	58 2.283	96,7 3.807	100,0 3.937	12,0 0.472	12.00x9.00	15,0 0.591	4	C
T30-SU32C09-1/2-14-R	10309721	Rp1.2	14.0	4,71 0.185	20,955 0.825	25,0 0.984	80 3.150	120,3 4.736	125,0 4.921	16,0 0.630	16.00x12.00	18,5 0.728	4	C

T32-SNC-micro

Blind and through holes – Metric coarse threads

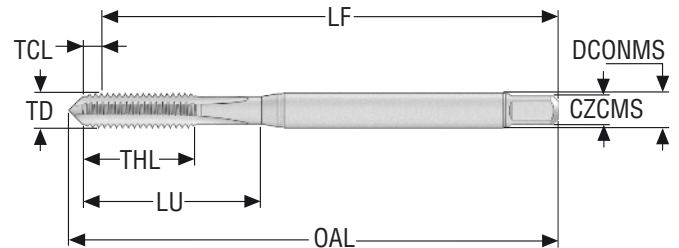


- Substrate: HSS-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 4H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-SN01C03-1X0.25-41R	10139661	M1	0,25	0,68 0.027	1,0 0.039	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	1,1 0.043	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	1,2 0.047	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	1,4 0.055	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

T32-SNC-micro

Blind and through holes – Metric coarse threads

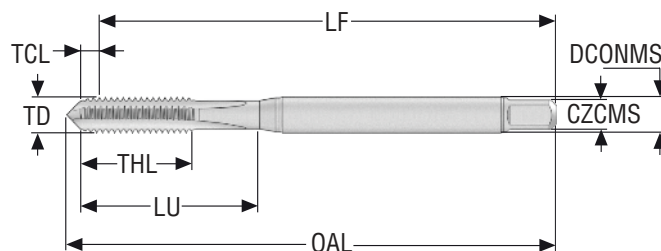


- Substrate: HSS-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-SN01C03-1.6X0.35-63R	10139665	M1.6	0,35	0,92 0.036	1,6 0.063	8,0 0.315	13 0.512	39,08 1.539	41,4 1.630	2,5 0.098	2.50X2.10	1,25 0.049	2	C
T32-SN01C03-1.7X0.35-63R	10139666	M1.7	0,35	0,92 0.036	1,7 0.067	8,0 0.315	13 0.512	39,08 1.539	41,5 1.634	2,5 0.098	2.50X2.10	1,35 0.053	2	C
T32-SN01C03-1.8X0.35-63R	10139667	M1.8	0,35	0,92 0.036	1,8 0.071	8,0 0.315	13 0.512	39,08 1.539	41,6 1.638	2,5 0.098	2.50X2.10	1,45 0.057	2	C
T32-SN01C03-2X0.4-63R	10139668	M2	0,4	1,13 0.044	2,0 0.079	10,0 0.394	13 0.512	43,87 1.727	46,3 1.823	2,8 0.110	2.80X2.10	1,6 0.063	2	C
T32-SN01C03-2.2X0.45-63R	10139669	M2.2	0,45	1,24 0.049	2,2 0.087	10,0 0.394	13 0.512	43,76 1.723	46,3 1.823	2,8 0.110	2.80X2.10	1,75 0.069	2	C
T32-SN01C03-2.3X0.4-63R	10139670	M2.3	0,4	1,13 0.044	2,3 0.091	10,0 0.394	13 0.512	43,87 1.727	46,3 1.823	2,8 0.110	2.80X2.10	1,9 0.075	2	C
T32-SN01C03-2.5X0.45-63R	10139672	M2.5	0,45	1,24 0.049	2,5 0.098	9,0 0.354	14 0.551	48,76 1.920	51,7 2.035	2,8 0.110	2.80X2.10	2,05 0.081	2	C
T32-SN01C03-2.6X0.45-63R	10139673	M2.6	0,45	1,24 0.049	2,6 0.102	9,0 0.354	14 0.551	48,76 1.920	51,7 2.035	2,8 0.110	2.80X2.10	2,15 0.085	2	C

T32-SNC

Blind and through holes – Metric coarse threads

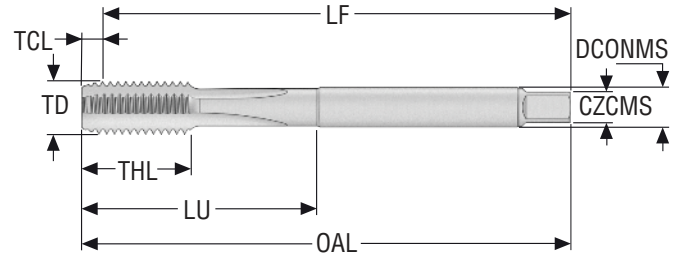


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-SN01C03-3X0.5-63R	10139674	M3	0,5	1,1 0.043	3,0 0.118	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	3,5 0.138	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	4,0 0.157	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	4,5 0.177	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	5,0 0.197	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	6,0 0.236	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	7,0 0.276	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	8,0 0.315	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	9,0 0.354	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	10,0 0.394	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



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T32-SN01C06-3X0.5-63R	10139694	M3	0,5	1,1 0.043	3,0 0.118	11,0 0.433	36 1.417	54,9 2.161	57,2 2.252	2,2 0.087	2.20X1.80	2,5 0.098	3	C
T32-SN01C06-4X0.7-63R	10139696	M4	0,7	1,61 0.063	4,0 0.157	12,0 0.472	43 1.693	61,39 2.417	64,6 2.543	2,8 0.110	2.80X2.10	3,3 0.130	3	C
T32-SN01C06-5X0.8-63R	10139697	M5	0,8	1,78 0.070	5,0 0.197	14,0 0.551	49 1.929	68,22 2.686	72,0 2.835	3,5 0.138	3.50X2.70	4,2 0.165	3	C
T32-SN01C06-6X1-63R	10139698	M6	1,0	2,14 0.084	6,0 0.236	18,0 0.709	59 2.323	77,86 3.065	82,4 3.244	4,5 0.177	4.50X3.40	5,0 0.197	3	C
T32-SN01C06-8X1.25-63R	10139700	M8	1,25	2,94 0.116	8,0 0.315	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	10,0 0.394	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	12,0 0.472	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	14,0 0.551	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	16,0 0.630	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	18,0 0.709	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	20,0 0.787	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	22,0 0.866	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	24,0 0.945	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	27,0 1.063	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	30,0 1.181	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	33,0 1.299	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	36,0 1.417	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	39,0 1.535	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	42,0 1.654	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	45,0 1.772	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	48,0 1.890	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	52,0 2.047	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

Thread turning

MDT

Mini-Shaft™

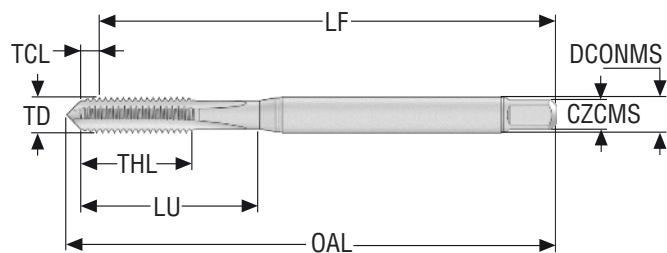
Thread milling

Thread tapping

Annex

T32-SNC

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

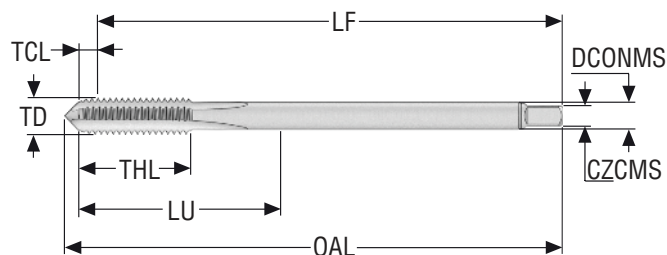


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-SN01C03-3X0.5-63L	10139686	M3	0,5	1,1 0.043	3,0 0.118	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	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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	7,0 0.276	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	8,0 0.315	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	9,0 0.354	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	10,0 0.394	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

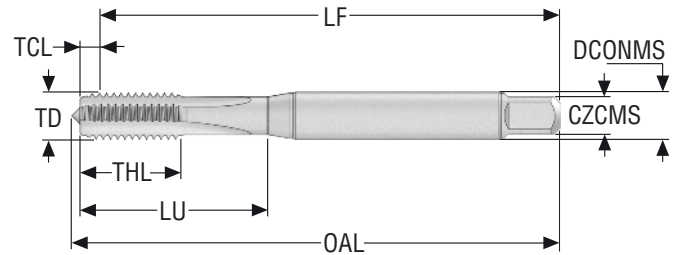


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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	12,0 0.472	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	16,0 0.630	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	20,0 0.787	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	24,0 0.945	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

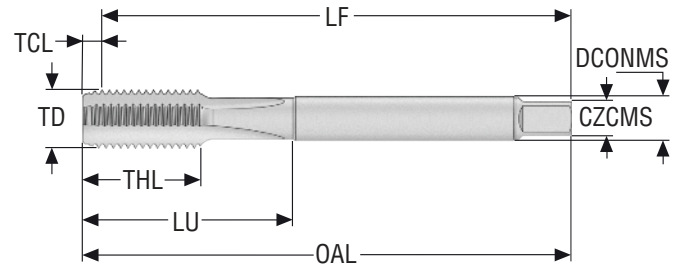


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-SN02C03-8X1-63R	10139684	MF8X1.0	1,0	2,44 0.096	8,0 0.315	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	MF10X1.0	1,0	2,54 0.100	10,0 0.394	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

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) 245

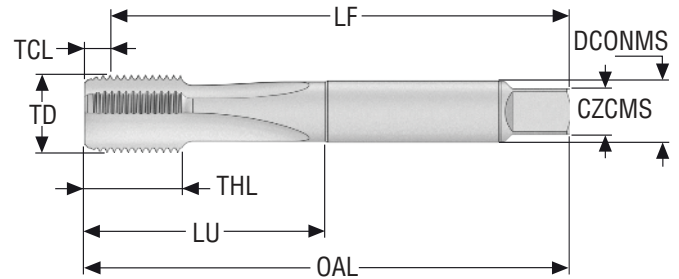
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-SN02C05-8X1-63R	10139719	MF8X1.0	1,0	2,44 0.096	8,0 0.315	20,0 0.787	67 2.638	87,56 3.447	90,0 3.543	6,0 0.236	6.00X4.90	7,0 0.276	3	C
T32-SN02C05-10X0.75-63R	10139720	MF10X0.75	0,75	3,43 0.135	10,0 0.394	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	MF10X1.0	1,0	2,54 0.100	10,0 0.394	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	10,0 0.394	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	MF12X1.0	1,0	2,65 0.104	12,0 0.472	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	12,0 0.472	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	12,0 0.472	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	MF14X1.0	1,0	2,75 0.108	14,0 0.551	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	14,0 0.551	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	14,0 0.551	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	MF16X1.0	1,0	2,85 0.112	16,0 0.630	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	16,0 0.630	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	18,0 0.709	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	MF18X2.0	2,0	4,98 0.196	18,0 0.709	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	20,0 0.787	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	MF20X2.0	2,0	5,18 0.204	20,0 0.787	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	22,0 0.866	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	MF22X2.0	2,0	5,18 0.204	22,0 0.866	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	24,0 0.945	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	MF24X2.0	2,0	4,89 0.193	24,0 0.945	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	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
T32-SN02C05-27X2-63R	10139740	MF27X2.0	2,0	5,39 0.212	27,0 1.063	27,0 1.063	77 3.031	134,61 5.300	140,0 5.512	20,0 0.787	20.00X16.00	25,0 0.984	4	C
T32-SN02C05-30X1.5-63R	10139741	MF30X1.5	1,5	4,38 0.172	30,0 1.181	27,0 1.063	85 3.346	145,62 5.733	150,0 5.906	22,0 0.866	22.00X18.00	28,5 1.122	4	C
T32-SN02C05-30X2-63R	10139742	MF30X1.0	2,0	5,39 0.212	30,0 1.181	27,0 1.063	85 3.346	144,61 5.693	150,0 5.906	22,0 0.866	22.00X18.00	28,0 1.102	4	C

T32-SNC

Blind and through holes – G threads



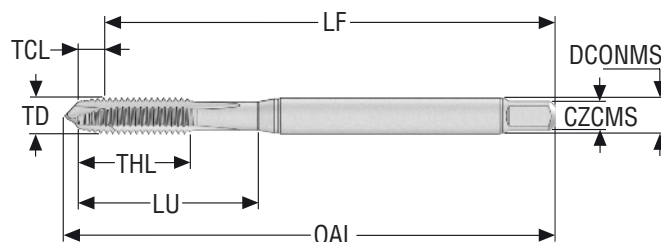
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL
- For cutting data see page(s) 245



Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-SN21C09-1/8-28-11R	10139743	G1/8-28	28,0	2,43 0.096	9,728 0.383	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	G1/4-19	19,0	3,52 0.139	13,157 0.518	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	G3/8-19	19,0	3,72 0.146	16,662 0.656	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	G1/2-14	14,0	5,02 0.198	20,955 0.825	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	G5/8-14	14,0	4,94 0.194	22,911 0.902	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	G3/4-14	14,0	5,19 0.204	26,441 1.041	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	G7/8-14	14,0	5,13 0.202	30,201 1.189	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	G1-11	11,0	6,03 0.237	33,249 1.309	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

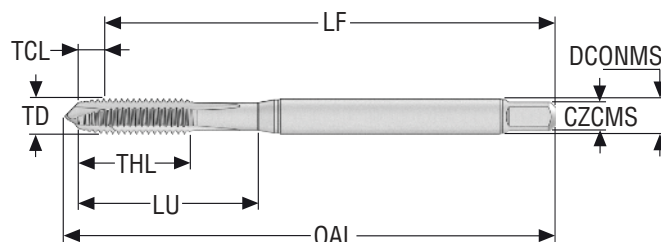


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 4H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-PN01B03-1X0.25-41R	10139427	M1	0,25	1,13 0.044	1,0 0.039	6,0 0.236	13 0.512	38,87 1.530	40,9 1.610	2,5 0.098	2.50X2.10	0,75 0.030	2	B
T32-PN01B03-1.1X0.25-41R	10139428	M1.1	0,25	1,13 0.044	1,1 0.043	6,0 0.236	13 0.512	38,87 1.530	41,0 1.614	2,5 0.098	2.50X2.10	0,85 0.033	2	B
T32-PN01B03-1.2X0.25-41R	10139429	M1.2	0,25	1,13 0.044	1,2 0.047	6,0 0.236	13 0.512	38,87 1.530	41,1 1.618	2,5 0.098	2.50X2.10	0,95 0.037	2	B
T32-PN01B03-1.4X0.3-41R	10139430	M1.4	0,3	1,32 0.052	1,4 0.055	7,0 0.276	13 0.512	38,68 1.523	41,3 1.626	2,5 0.098	2.50X2.10	1,1 0.043	2	B

T32-PNB-micro

Through holes – Metric coarse threads

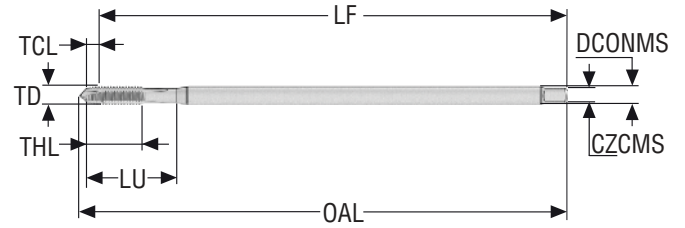


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-PN01B03-1.6X0.35-63R	10139431	M1.6	0,35	1,54 0.061	1,6 0.063	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	1,7 0.067	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	1,8 0.071	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	2,0 0.079	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	2,2 0.087	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	2,3 0.091	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	2,5 0.098	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	2,6 0.102	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

T32-PNB

Through holes – Metric coarse threads

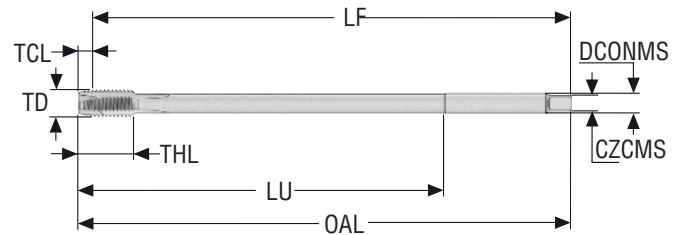


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371/EL
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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	3,0 0.118	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	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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

T32-PNB

Through holes – Metric coarse threads

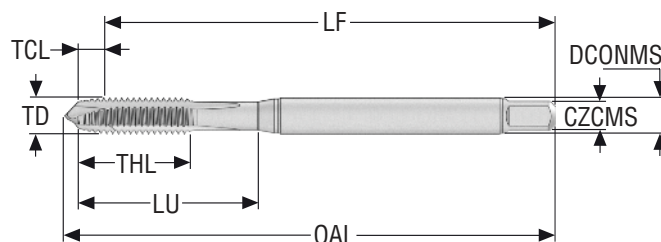


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376/EL
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-PN01B07-8X1.25-63R	10139656	M8	1,25	5,7 0.224	8,0 0.315	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	10,0 0.394	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	12,0 0.472	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	16,0 0.630	32,0 1.260	191 7.520	210,76 8.298	220,0 8.661	12,0 0.472	12.00X9.00	14,0 0.551	3	B

T32-PNB

Through holes – Metric coarse threads

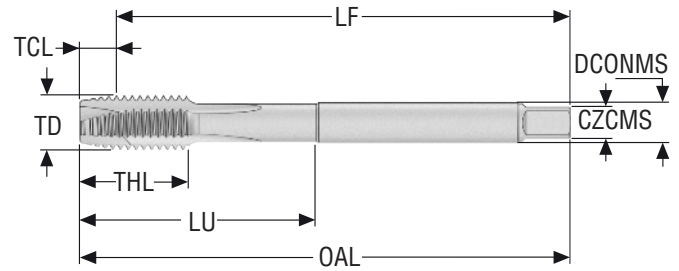


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T32-PN01B03-3X0.5-63R	10139439	M3	0,5	2,28 0.090	3,0 0.118	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	3,5 0.138	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	4,0 0.157	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	4,5 0.177	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	5,0 0.197	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	6,0 0.236	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	7,0 0.276	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	8,0 0.315	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	9,0 0.354	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	10,0 0.394	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) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T32-PN01B06-3X0.5-63R	10139482	M3	0,5	2,2 0.087	3,0 0.118	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	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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
T32-PN01B06-8X1.25-63R	10139488	M8	1,25	5,7 0.224	8,0 0.315	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	9,0 0.354	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	10,0 0.394	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	12,0 0.472	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	14,0 0.551	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	16,0 0.630	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	18,0 0.709	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	20,0 0.787	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	22,0 0.866	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	24,0 0.945	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	27,0 1.063	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	30,0 1.181	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	33,0 1.299	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	36,0 1.417	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	39,0 1.535	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	42,0 1.654	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	45,0 1.772	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	48,0 1.890	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	52,0 2.047	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

Thread turning

MDT

Mini-Shaft™

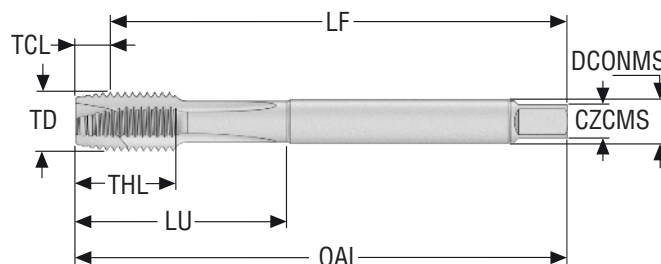
Thread milling

Thread tapping

Annex

T32-PNB

Through holes – Metric coarse threads

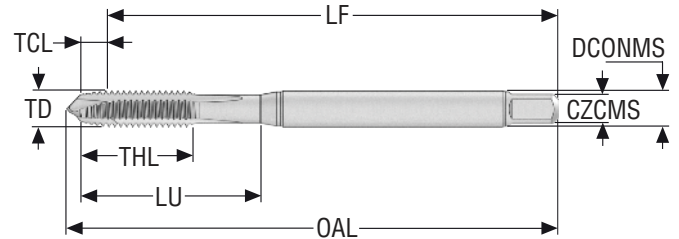


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN/ANSI
- Thread tolerance class: 6H
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T32-PN01B93-3X0.5-63R	10308604	M3	0,5	2,28 0.090	3,0 0.118	10,0 0.394	18 0.709	53,7 2.114	57,2 2.252	3,581 0.141	3.581x2.79	2,5 0.098	3	B
T32-PN01B93-4X0.7-63R	10280435	M4	0,7	3,33 0.131	4,0 0.157	12,0 0.472	31,19 1.228	59,8 2.354	64,6 2.543	4,267 0.168	4.267x3.33	3,3 0.130	3	B
T32-PN01B93-5X0.8-63R	10280436	M5	0,8	3,68 0.145	5,0 0.197	14,0 0.551	25,14 0.990	66,4 2.614	72,0 2.835	4,928 0.194	4.928x3.86	4,2 0.165	3	B
T32-PN01B93-6X1-63R	10280437	M6	1,0	4,41 0.174	6,0 0.236	18,0 0.709	30,14 1.187	75,6 2.976	82,4 3.244	6,477 0.255	6.477x4.85	5,0 0.197	3	B
T32-PN01B93-8X1.25-63R	10280438	M8	1,25	5,43 0.214	8,0 0.315	20,0 0.787	35,19 1.385	84,7 3.335	93,3 3.673	8,077 0.318	8.077x6.05	6,8 0.268	3	B
T32-PN01B93-10X1.5-63R	10280439	M10	1,5	6,84 0.269	10,0 0.394	20,0 0.787	39,14 1.541	93,2 3.669	100,0 3.937	9,667 0.381	9.667x7.26	8,5 0.335	3	B
T32-PN01B96-12X1.75-63R	10280440	M12	1,75	8,01 0.315	12,0 0.472	24,0 0.945	81,82 3.221	101,99 4.015	110,0 4.331	9,322 0.367	9.322x6.99	10,2 0.402	3	B
T32-PN01B96-16X2-63R	10280441	M16	2,0	9,24 0.364	16,0 0.630	25,0 0.984	65,78 2.590	100,76 3.967	110,0 4.331	12,192 0.480	12.192x9.14	14,0 0.551	3	B
T32-PN01B96-18X2.5-63R	10280442	M18	2,5	11,38 0.448	18,0 0.709	32,0 1.260	79 3.110	113,62 4.473	125,0 4.921	13,767 0.542	13.767x10.31	15,5 0.610	4	B
T32-PN01B96-20X2.5-63R	10280443	M20	2,5	11,58 0.456	20,0 0.787	32,0 1.260	92,47 3.641	128,42 5.056	140,0 5.512	16,561 0.652	16.561x12.42	17,5 0.689	4	B
T32-PN01B96-24X3-63R	10280444	M24	3,0	13,68 0.539	24,0 0.945	38,0 1.496	96,95 3.817	146,32 5.761	160,0 6.299	19,304 0.760	19.304x14.48	21,0 0.827	4	B

T32-PNB

Through holes – Metric coarse threads, 6G

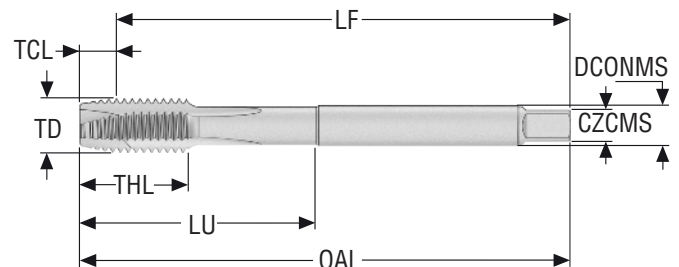


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6G
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-PN01B03-3X0.5-61R	10139474	M3	0,5	2,28 0.090	3,0 0.118	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	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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	7,0 0.276	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	8,0 0.315	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	9,0 0.354	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	10,0 0.394	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, 6G

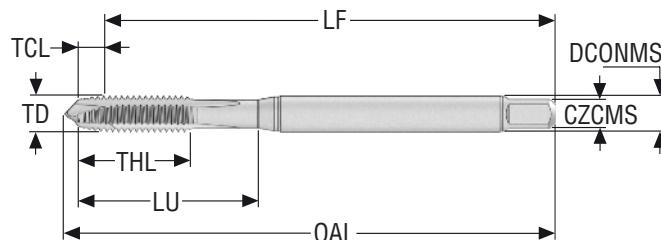


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6G
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-PN01B06-12X1.75-61R	10139564	M12	1,75	8,01 0.315	12,0 0.472	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	16,0 0.630	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	20,0 0.787	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	24,0 0.945	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-PNB

Through holes – Metric coarse threads, left hand thread

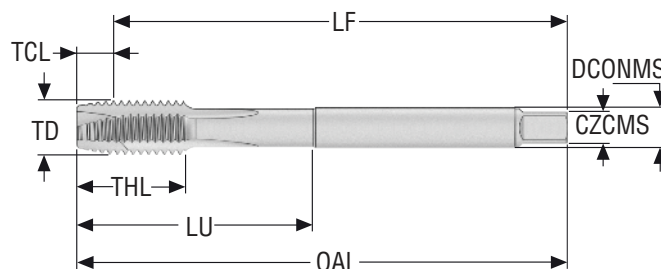


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T32-PN01B03-3X0.5-63L	10139466	M3	0,5	2,2 0.087	3,0 0.118	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	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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	7,0 0.276	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	8,0 0.315	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	9,0 0.354	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	10,0 0.394	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

T32-PNB

Through holes – Metric coarse threads, left hand thread

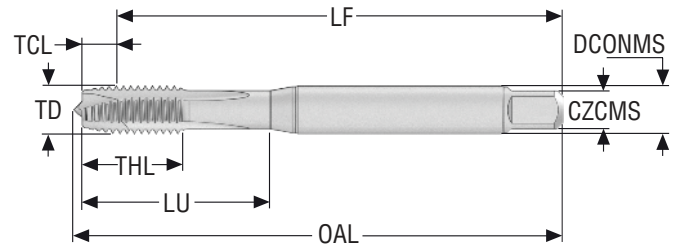


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T32-PN01B06-12X1.75-63L	10139560	M12	1,75	8,01 0.315	12,0 0.472	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	16,0 0.630	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	20,0 0.787	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	24,0 0.945	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-PNB

Through holes – MF threads

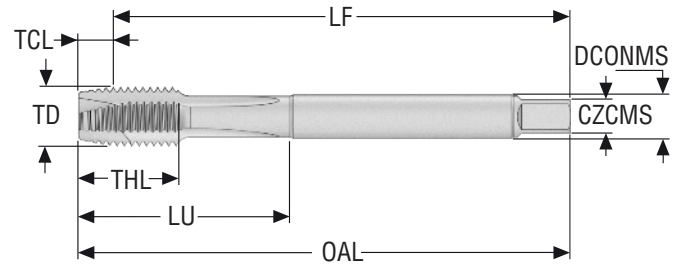


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-PN02B03-8X1-63R	10139449	MF8X1.0	1,0	4,41 0.174	8,0 0.315	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	MF10X1.0	1,0	4,77 0.188	10,0 0.394	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	10,0 0.394	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

T32-PNB

Through holes – MF threads

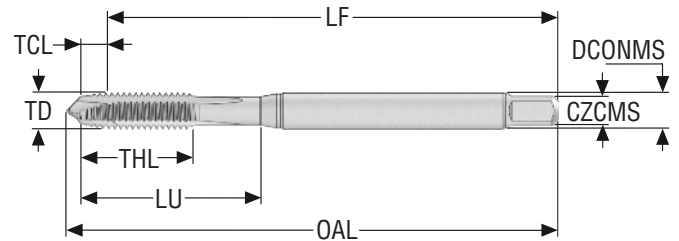


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6H
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T32-PN02B05-8X1-63R	10139507	MF8X1.0	1,0	4,67 0.184	8,0 0.315	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	10,0 0.394	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	MF10X1.0	1,0	4,79 0.189	10,0 0.394	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	10,0 0.394	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	MF12X1.0	1,0	4,89 0.193	12,0 0.472	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	12,0 0.472	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	12,0 0.472	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	MF14X1.0	1,0	4,99 0.196	14,0 0.551	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	14,0 0.551	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	14,0 0.551	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	MF16X1.0	1,0	5,09 0.200	16,0 0.630	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	16,0 0.630	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	18,0 0.709	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	MF18X2.0	2,0	9,34 0.368	18,0 0.709	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	20,0 0.787	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	MF20X2.0	2,0	9,54 0.376	20,0 0.787	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	22,0 0.866	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	MF22X2.0	2,0	9,74 0.383	22,0 0.866	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	24,0 0.945	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	MF24X2.0	2,0	9,57 0.377	24,0 0.945	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	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
T32-PN02B05-27X2-63R	10139528	MF27X2.0	2,0	9,77 0.385	27,0 1.063	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	30,0 1.181	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	MF30X1.0	2,0	9,77 0.385	30,0 1.181	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

T32-PNB

Through holes – UNC threads

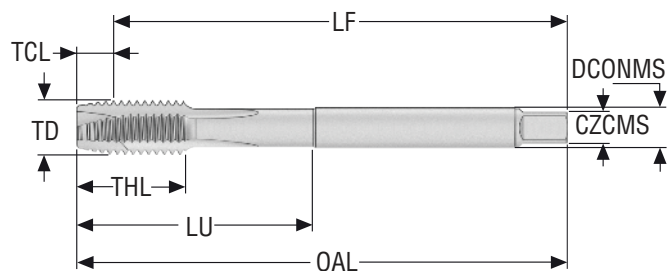


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch
T32-PN08B03-4-40-21R	10139452	UNC4-40	40,0	2,81 0.111	2,845 0.112	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	40,0	2,92 0.115	3,175 0.125	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	32,0	3,71 0.146	3,505 0.138	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	32,0	3,59 0.141	4,166 0.164	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	24,0	4,82 0.190	4,826 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	24,0	4,69 0.185	5,486 0.216	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	20,0	5,6 0.220	6,35 0.250	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	18,0	6,26 0.246	7,937 0.312	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	16,0	7,28 0.287	9,525 0.375	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

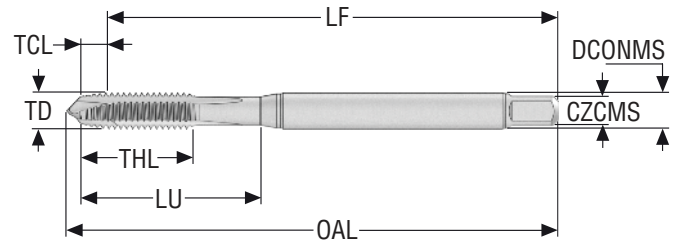


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-PN08B06-7/16-14-21R	10139531	UNC7/16-14	14,0	8,27 0.326	11,112 0.437	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	13,0	9,01 0.355	12,7 0.500	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	12,0	9,76 0.384	14,287 0.562	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	11,0	10,51 0.414	15,875 0.625	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	10,0	11,55 0.455	19,05 0.750	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	9,0	13,04 0.513	22,225 0.875	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	8,0	14,86 0.585	25,4 1.000	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	UNC11/8-7	7,0	16,48 0.649	28,575 1.125	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	UNC11/4-7	7,0	16,74 0.659	31,75 1.250	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	UNC13/8-6	6,0	19,04 0.750	34,925 1.375	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	UNC11/2-6	6,0	19,3 0.760	38,1 1.500	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

T32-PNB

Through holes – UNC threads

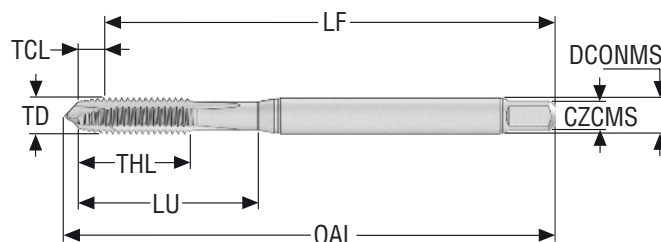


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN/ANSI
- Thread tolerance class: 2B
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	Inch	Inch	Inch	Inch	Inch	Inch	Inch		Inch		
T32-PN08B93-4-40-21R	10280403	UNC4-40	40.0	0.111	0.112	0.394	0.718	2.102	2.252	0.141	3.581x2.79	0.093	3	B
T32-PN08B93-5-40-21R	10280404	UNC5-40	40.0	0.115	0.125	0.394	0.712	2.091	2.252	0.141	3.581x2.79	0.104	3	B
T32-PN08B93-6-32-21R	10280405	UNC6-32	32.0	0.146	0.138	0.472	0.799	2.067	2.260	0.141	3.581x2.79	0.112	3	B
T32-PN08B93-8-32-21R	10280406	UNC8-32	32.0	0.141	0.164	0.472	0.832	2.339	2.543	0.168	4.267x3.33	0.138	3	B
T32-PN08B93-10-24-21R	10280407	UNC10-24	24.0	0.190	0.190	0.551	1.000	2.579	2.835	0.194	4.928x3.86	0.154	3	B
T32-PN08B93-12-24-21R	10280408	UNC12-24	24.0	0.185	0.216	0.709	1.191	2.969	3.236	0.220	5.588x4.19	0.177	3	B
T32-PN08B93-1/4-20-21R	10280409	UNC1/4-20	20.0	0.220	0.250	0.709	1.187	2.929	3.244	0.255	6.477x4.85	0.201	3	B
T32-PN08B93-5/16-18-21R	10280410	UNC5/16-18	18.0	0.246	0.312	0.787	1.391	3.307	3.673	0.318	8.077x6.05	0.260	3	B
T32-PN08B93-3/8-16-21R	10280411	UNC3/8-16	16.0	0.287	0.375	0.787	1.541	3.646	3.937	0.381	9.667x7.26	0.315	3	B
T32-PN08B96-7/16-14-21R	10280412	UNC7/16-14	14.0	0.326	0.437	0.591	2.858	3.619	3.937	0.323	8.204x6.15	0.366	3	B
T32-PN08B96-1/2-13-21R	10280413	UNC1/2-13	13.0	0.355	0.500	0.709	3.221	3.972	4.331	0.367	9.322x6.99	0.421	3	B
T32-PN08B96-9/16-12-21R	10280414	UNC9/16-12	12.0	0.384	0.562	0.787	3.161	3.943	4.331	0.429	10.987x8.18	0.484	3	B
T32-PN08B96-5/8-11-21R	10280415	UNC5/8-11	11.0	0.414	0.625	0.866	2.590	3.917	4.331	0.480	12.192x9.14	0.531	3	B
T32-PN08B96-3/4-10-21R	10280416	UNC3/4-10	10.0	0.455	0.750	1.260	3.050	4.467	4.921	0.590	14.986x11.23	0.650	4	B
T32-PN08B96-7/8-9-21R	10280417	UNC7/8-9	9.0	0.513	0.875	1.260	3.581	4.998	5.512	0.697	17.704x13.28	0.768	4	B
T32-PN08B96-1-8-21R	10280418	UNC1-8	8.0	0.585	1.000	1.496	3.757	5.710	6.299	0.800	20.320x15.24	0.876	4	B

T32-PNB

Through holes – UNF threads

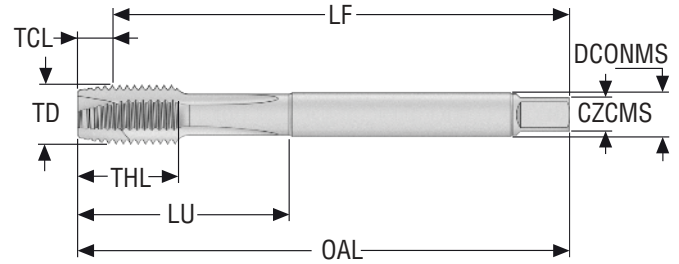


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			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	32,0	3,8 0.150	4,826 0.190	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	28,0	4,01 0.158	5,486 0.216	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	28,0	4,24 0.167	6,35 0.250	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	24,0	4,89 0.193	7,937 0.312	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	24,0	5,22 0.206	9,525 0.375	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

T32-PNB

Through holes – UNF threads

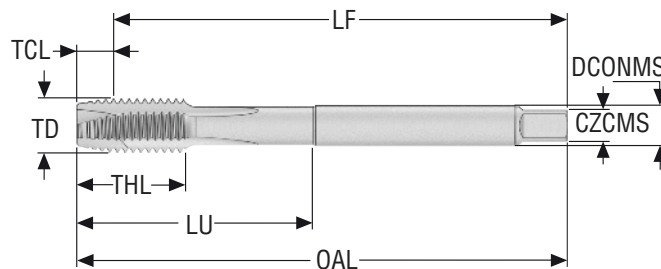


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 2B
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-PN09B05-7/16-20-21R	10139542	UNF7/16-20	20,0	5,88 0.231	11,112 0.437	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	20,0	6,28 0.247	12,7 0.500	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	18,0	6,69 0.263	14,287 0.562	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	18,0	6,76 0.266	15,875 0.625	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	16,0	7,81 0.307	19,05 0.750	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	14,0	8,96 0.353	22,225 0.875	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	12,0	10,44 0.411	25,4 1.000	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	UNF11/8-12	12,0	10,37 0.408	28,575 1.125	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	UNF11/4-12	12,0	10,29 0.405	31,75 1.250	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	UNF13/8-12	12,0	10,55 0.415	34,925 1.375	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	UNF11/2-12	12,0	10,48 0.413	38,1 1.500	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

T32-PNB

Through holes – UNF threads

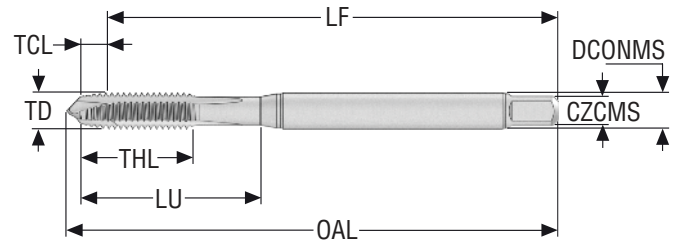


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN/ANSI
- Thread tolerance class: 2B
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	Inch	Inch	Inch	Inch	Inch	Inch	Inch		Inch		
T32-PN09B93-4-48-21R	10280419	UNF4-48	48.0	0.094	0.112	0.394	0.718	2.114	2.252	0.141	3.581x2.79	0.094	3	B
T32-PN09B93-5-44-21R	10280420	UNF5-44	44.0	0.118	0.125	0.394	0.712	2.102	2.252	0.141	3.581x2.79	0.106	3	B
T32-PN09B93-6-40-21R	10280421	UNF6-40	40.0	0.126	0.138	0.472	0.795	2.091	2.260	0.141	3.581x2.79	0.116	3	B
T32-PN09B93-8-36-21R	10280422	UNF8-36	36.0	0.126	0.164	0.472	0.830	2.350	2.543	0.168	4.267x3.33	0.138	3	B
T32-PN09B93-10-32-21R	10280423	UNF10-32	32.0	0.150	0.190	0.551	0.994	2.610	2.835	0.194	4.928x3.86	0.161	3	B
T32-PN09B93-12-28-21R	10280424	UNF12-28	28.0	0.158	0.216	0.709	1.194	3.000	3.236	0.220	5.588x4.19	0.181	3	B
T32-PN09B93-1/4-28-21R	10280425	UNF1/4-28	28.0	0.167	0.250	0.709	1.179	2.976	3.244	0.255	6.477x4.85	0.217	3	B
T32-PN09B93-5/16-24-21R	10280426	UNF5/16-24	24.0	0.193	0.312	0.787	1.383	3.350	3.673	0.318	8.077x6.05	0.272	3	B
T32-PN09B93-3/8-24-21R	10280427	UNF3/8-24	24.0	0.206	0.375	0.787	1.383	3.339	3.543	0.381	9.667x7.26	0.335	3	B
T32-PN09B95-7/16-20-21R	10280428	UNF7/16-20	20.0	0.231	0.437	0.591	2.858	3.706	3.937	0.323	8.204x6.15	0.390	3	B
T32-PN09B95-1/2-20-21R	10280429	UNF1/2-20	20.0	0.247	0.500	0.591	2.828	3.690	3.937	0.367	9.322x6.99	0.453	3	B
T32-PN09B95-9/16-18-21R	10280430	UNF9/16-18	18.0	0.263	0.562	0.591	2.768	3.674	3.937	0.429	10.987x8.18	0.512	3	B
T32-PN09B95-5/8-18-21R	10280431	UNF5/8-18	18.0	0.266	0.625	0.591	2.196	3.671	3.937	0.480	12.192x9.14	0.571	3	B
T32-PN09B95-3/4-16-21R	10280432	UNF3/4-16	16.0	0.307	0.750	0.945	2.459	4.023	4.331	0.590	14.986x11.23	0.689	4	B
T32-PN09B95-7/8-14-21R	10280433	UNF7/8-14	14.0	0.353	0.875	0.945	2.990	4.569	4.921	0.697	17.704x13.28	0.807	4	B
T32-PN09B95-1-12-21R	10280434	UNF1-12	12.0	0.411	1.000	1.063	2.970	5.101	5.512	0.800	20.320x15.24	0.917	4	B

T32-PNB

Through holes – G threads

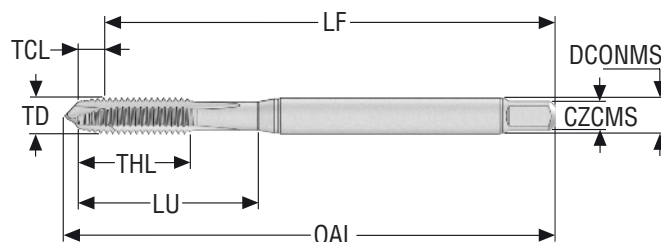


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-PN21B09-1/8-28-11R	10139552	G1/8-28	28,0	4,76 0.187	9,728 0.383	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	G1/4-19	19,0	6,77 0.267	13,157 0.518	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	G3/8-19	19,0	6,89 0.271	16,662 0.656	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	G1/2-14	14,0	9,22 0.363	20,955 0.825	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	G5/8-14	14,0	9,4 0.370	22,911 0.902	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	G3/4-14	14,0	9,36 0.369	26,441 1.041	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	G7/8-14	14,0	9,03 0.356	30,201 1.189	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	G1-11	11,0	11,49 0.452	33,249 1.309	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-PHB

Through holes – Metric coarse threads

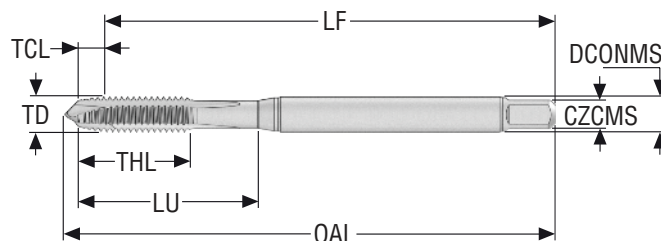


- Substrate: HSSE
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 243

Designation	Item number	TDZ	Pitch	TCL	TD	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-PH01B03-3X0.5-63R	10309408	M3	0,5	2,25 0.089	3,0 0.118	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-PH01B03-4X0.7-63R	10309409	M4	0,7	3,3 0.130	4,0 0.157	12,0 0.472	21 0.827	59,8 2.354	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	B
T32-PH01B03-5X0.8-63R	10309410	M5	0,8	3,65 0.144	5,0 0.197	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-PH01B03-6X1-63R	10309411	M6	1,0	4,37 0.172	6,0 0.236	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-PH01B03-8X1.25-63R	10309412	M8	1,25	5,4 0.213	8,0 0.315	20,0 0.787	35 1.378	84,7 3.335	93,3 3.673	8,0 0.315	8.00x6.20	6,8 0.268	3	B
T32-PH01B03-10X1.5-63R	10309413	M10	1,5	6,84 0.269	10,0 0.394	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

T32-PHB

Through holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 243

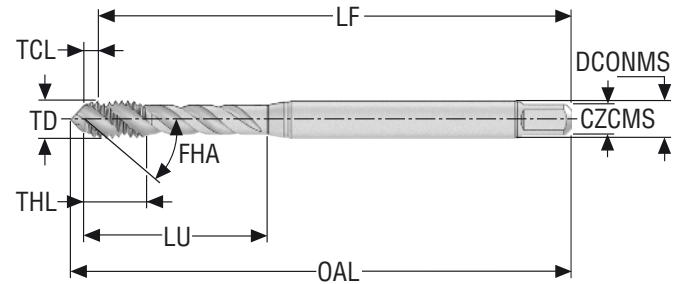
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-PH01B06-12X1.75-63R	10309537	M12	1,75	8,01 0.315	12,0 0.472	24,0 0.945	83 3.268	102,0 4.016	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	B
T32-PH01B06-14X2-63R	10309715	M14	2,0	9,14 0.360	14,0 0.551	25,0 0.984	81 3.189	100,9 3.972	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	3	B
T32-PH01B06-16X2-63R	10309538	M16	2,0	9,24 0.364	16,0 0.630	32,0 1.260	68 2.677	100,8 3.969	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	3	B
T32-PH01B06-20X2.5-63R	10309539	M20	2,5	11,58 0.456	20,0 0.787	32,0 1.260	95 3.740	128,4 5.055	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	B
T32-PH01B06-24X3-63R	10309716	M24	3,0	13,68 0.539	24,0 0.945	38,0 1.496	113 4.449	146,3 5.760	160,0 6.299	18,0 0.709	18.00x14.50	21,0 0.827	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) 245



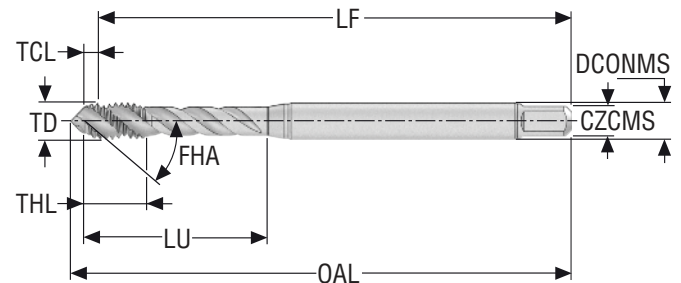
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-R40N01C03-1X0.25-41R	10139129	M1	0,25	0,59 0.023	1,0 0.039	6,0 0.236	13 0.512	39,41 1.552	40,9 1.610	2,5 0.098	2.50X2.10	0,75 0.030	2	C
T32-R40N01C03-1.1X0.25-41R	10139130	M1.1	0,25	0,59 0.023	1,1 0.043	6,0 0.236	13 0.512	39,41 1.552	41,0 1.614	2,5 0.098	2.50X2.10	0,85 0.033	2	C
T32-R40N01C03-1.2X0.25-41R	10139131	M1.2	0,25	0,59 0.023	1,2 0.047	6,0 0.236	13 0.512	39,41 1.552	41,1 1.618	2,5 0.098	2.50X2.10	0,95 0.037	2	C
T32-R40N01C03-1.4X0.3-41R	10139132	M1.4	0,3	0,69 0.027	1,4 0.055	8,0 0.315	13 0.512	39,31 1.548	41,3 1.626	2,5 0.098	2.50X2.10	1,1 0.043	2	C

T32-R40NC-micro

Blind holes – Metric coarse threads



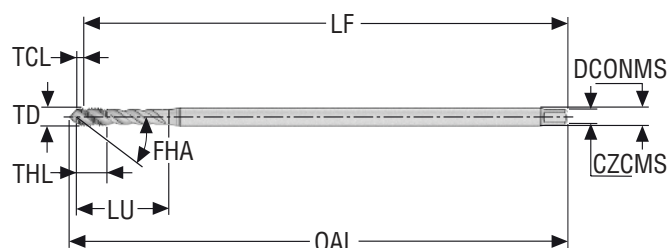
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 245



Designation	Item number	TDZ	Pitch	TCL	TD	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-R40N01C03-1.6X0.35-63R	10139133	M1.6	0,35	0,8 0.031	1,6 0.063	8,0 0.315	13 0.512	39,2 1.543	41,4 1.630	2,5 0.098	2.50X2.10	1,25 0.049	2	C
T32-R40N01C03-1.7X0.35-63R	10139134	M1.7	0,35	0,8 0.031	1,7 0.067	8,0 0.315	13 0.512	39,2 1.543	41,5 1.634	2,5 0.098	2.50X2.10	1,35 0.053	2	C
T32-R40N01C03-1.8X0.35-63R	10139135	M1.8	0,35	0,8 0.031	1,8 0.071	8,0 0.315	13 0.512	39,2 1.543	41,6 1.638	2,5 0.098	2.50X2.10	1,45 0.057	2	C
T32-R40N01C03-2X0.4-63R	10139136	M2	0,4	1,03 0.041	2,0 0.079	10,0 0.394	13 0.512	43,974 1.731	46,3 1.823	2,8 0.110	2.80X2.10	1,6 0.063	2	C
T32-R40N01C03-2.2X0.45-63R	10139137	M2.2	0,45	1,15 0.045	2,2 0.087	10,0 0.394	13 0.512	43,847 1.726	46,3 1.823	2,8 0.110	2.80X2.10	1,75 0.069	2	C
T32-R40N01C03-2.3X0.4-63R	10139138	M2.3	0,4	1,05 0.041	2,3 0.091	10,0 0.394	13 0.512	43,948 1.730	46,3 1.823	2,8 0.110	2.80X2.10	1,9 0.075	2	C
T32-R40N01C03-2.5X0.45-63R	10139139	M2.5	0,45	1,06 0.042	2,5 0.098	5,0 0.197	14 0.551	48,94 1.927	51,7 2.035	2,8 0.110	2.80X2.10	2,05 0.081	2	C
T32-R40N01C03-2.6X0.45-63R	10139140	M2.6	0,45	1,15 0.045	2,6 0.102	5,0 0.197	14 0.551	48,847 1.923	51,7 2.035	2,8 0.110	2.80X2.10	2,15 0.085	2	C

T32-R40NC

Blind holes – Metric coarse threads

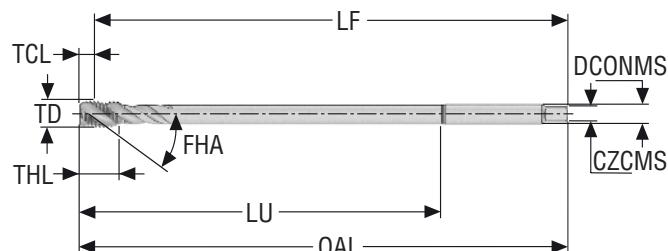


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371/EL
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-R40N01C04-3X0.5-63R	10139179	M3	0,5	1,17 0.046	3,0 0.118	5,0 0.197	18 0.709	98,83 3.891	101,2 3.984	3,5 0.138	3.50X2.70	2,5 0.098	3	C
T32-R40N01C04-4X0.7-63R	10139180	M4	0,7	1,45 0.057	4,0 0.157	7,0 0.276	21 0.827	123,55 4.864	126,6 4.984	4,5 0.177	4.50X3.40	3,3 0.130	3	C
T32-R40N01C04-5X0.8-63R	10139181	M5	0,8	1,9 0.075	5,0 0.197	8,0 0.315	25 0.984	138,1 5.437	142,0 5.591	6,0 0.236	6.00X4.90	4,2 0.165	3	C
T32-R40N01C04-6X1-63R	10139182	M6	1,0	2,28 0.090	6,0 0.236	10,0 0.394	30 1.181	157,72 6.209	162,4 6.394	6,0 0.236	6.00X4.90	5,0 0.197	3	C

T32-R40NC

Blind holes – Metric coarse threads

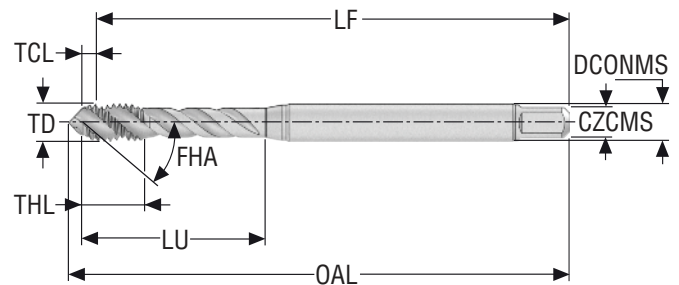


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376/EL
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-R40N01C07-8X1.25-63R	10139183	M8	1,25	3,11 0.122	8,0 0.315	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	10,0 0.394	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	12,0 0.472	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	16,0 0.630	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



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-R40N01C03-3X0.5-63R	10139141	M3	0,5	1,2 0.047	3,0 0.118	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	3,5 0.138	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	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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	7,0 0.276	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	8,0 0.315	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	9,0 0.354	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	10,0 0.394	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

Thread turning

MDT

Mini-Shaft™

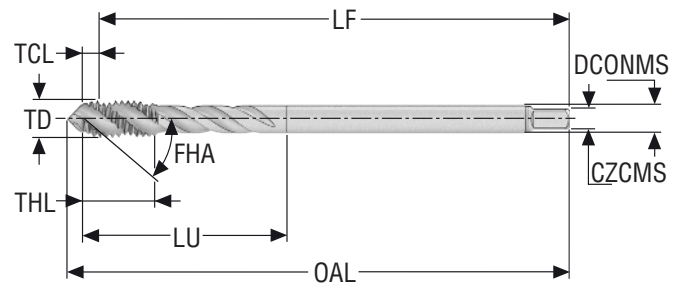
Thread milling

Thread tapping

Annex

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) 245

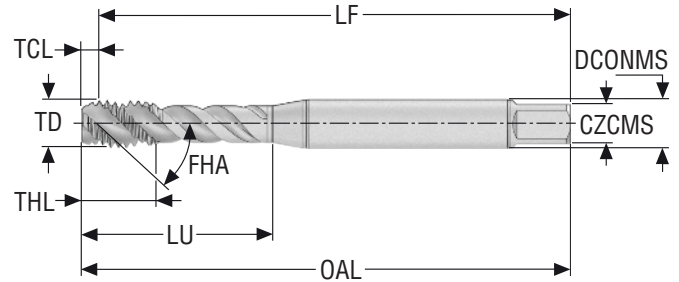
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-R40N01C06-3X0.5-63R	10139568	M3	0,5	1,17 0.046	3,0 0.118	5,0 0.197	36 1.417	54,83 2.159	57,2 2.252	2,2 0.087	2.20X1.80	2,5 0.098	3	C
T32-R40N01C06-4X0.7-63R	10139570	M4	0,7	1,72 0.068	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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	8,0 0.315	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	9,0 0.354	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	10,0 0.394	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	12,0 0.472	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	14,0 0.551	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	16,0 0.630	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	18,0 0.709	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	20,0 0.787	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	22,0 0.866	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	24,0 0.945	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	27,0 1.063	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	30,0 1.181	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	33,0 1.299	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	36,0 1.417	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	39,0 1.535	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	42,0 1.654	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
T32-R40N01C06-45X4.5-63R	10139590	M45	4,5	11,01 0.433	45,0 1.772	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	48,0 1.890	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	52,0 2.047	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

T32-R40NC

Blind holes – Metric coarse threads



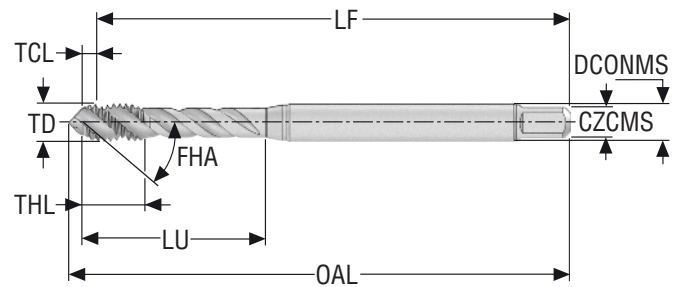
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN/ANSI
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 245



Designation	Item number	TDZ	Pitch	TCL	TD	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		
T32-R40N01C93-3X0.5-63R	10308605	M3	0,5	1,2 0.047	3,0 0.118	5,0 0.197	27,5 1.083	54,8 2.157	57,2 2.252	3,581 0.141	3.581x2.79	2,5 0.098	3	C
T32-R40N01C93-4X0.7-63R	10280348	M4	0,7	1,54 0.061	4,0 0.157	7,0 0.276	21,14 0.832	61,46 2.420	64,6 2.543	4,267 0.168	4.267x3.33	3,3 0.130	3	C
T32-R40N01C93-5X0.8-63R	10280349	M5	0,8	1,9 0.075	5,0 0.197	8,0 0.315	25,14 0.990	68,1 2.681	72,0 2.835	4,928 0.194	4.928x3.86	4,2 0.165	3	C
T32-R40N01C93-6X1-63R	10280350	M6	1,0	2,28 0.090	6,0 0.236	10,0 0.394	30,14 1.187	77,72 3.060	82,4 3.244	6,477 0.255	6.477x4.85	5,0 0.197	3	C
T32-R40N01C93-8X1.25-63R	10280351	M8	1,25	3,11 0.122	8,0 0.315	13,0 0.512	35,14 1.383	86,89 3.421	90,0 3.543	8,077 0.318	8.077x6.05	6,8 0.268	3	C
T32-R40N01C93-10X1.5-63R	10280352	M10	1,5	3,76 0.148	10,0 0.394	15,0 0.591	39,14 1.541	96,24 3.789	100,0 3.937	9,667 0.381	9.667x7.26	8,5 0.335	3	C
T32-R40N01C96-12X1.75-63R	10280353	M12	1,75	4,41 0.174	12,0 0.472	18,0 0.709	81,82 3.221	105,59 4.157	110,0 4.331	9,322 0.367	9.322x6.99	10,2 0.402	3	C
T32-R40N01C96-16X2-63R	10280354	M16	2,0	5,15 0.203	16,0 0.630	20,0 0.787	65,78 2.590	104,79 4.126	110,0 4.331	12,192 0.480	12.192x9.14	14,0 0.551	4	C
T32-R40N01C96-18X2.5-63R	10280355	M18	2,5	6,31 0.248	18,0 0.709	25,0 0.984	79 3.110	118,69 4.673	125,0 4.921	13,767 0.542	13.767x10.31	15,5 0.610	4	C
T32-R40N01C96-20X2.5-63R	10280356	M20	2,5	6,51 0.256	20,0 0.787	25,0 0.984	92,47 3.641	133,49 5.256	140,0 5.512	16,561 0.652	16.561x12.42	17,5 0.689	4	C
T32-R40N01C96-24X3-63R	10280357	M24	3,0	7,81 0.307	24,0 0.945	30,0 1.181	96,95 3.817	152,19 5.992	160,0 6.299	19,304 0.760	19.304x14.48	21,0 0.827	4	C

T32-R40NC

Blind holes – Metric coarse threads, 6G

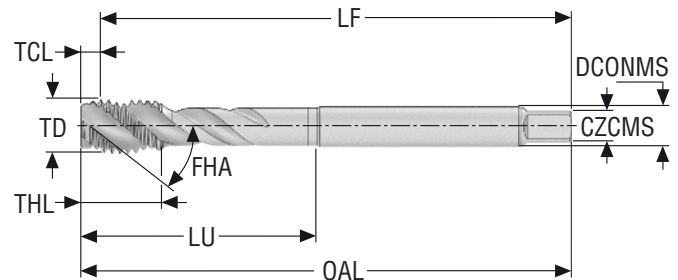


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6G
- FHA = 40°
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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-R40N01C03-3X0.5-61R	10139173	M3	0,5	1,2 0.047	3,0 0.118	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-R40N01C03-4X0.7-61R	10139174	M4	0,7	1,54 0.061	4,0 0.157	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-R40N01C03-5X0.8-61R	10139175	M5	0,8	1,9 0.075	5,0 0.197	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-R40N01C03-6X1-61R	10139176	M6	1,0	2,28 0.090	6,0 0.236	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-R40N01C03-8X1.25-61R	10139177	M8	1,25	3,11 0.122	8,0 0.315	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-R40N01C03-10X1.5-61R	10139178	M10	1,5	3,76 0.148	10,0 0.394	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, 6G



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6G
- FHA = 40°
- For cutting data see page(s) 245

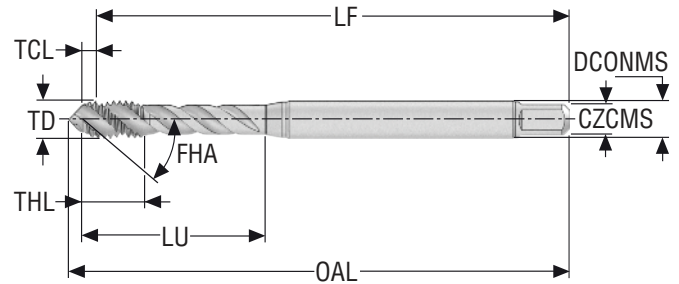
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-R40N01C06-12X1.75-61R	10139649	M12	1,75	4,41 0.174	12,0 0.472	18,0 0.709	83 3.268	105,59 4.157	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	C
T32-R40N01C06-16X2-61R	10139650	M16	2,0	5,15 0.203	16,0 0.630	20,0 0.787	81 3.189	104,85 4.128	110,0 4.331	12,0 0.472	12.00X9.00	14,0 0.551	4	C
T32-R40N01C06-20X2.5-61R	10139651	M20	2,5	6,51 0.256	20,0 0.787	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-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) 245



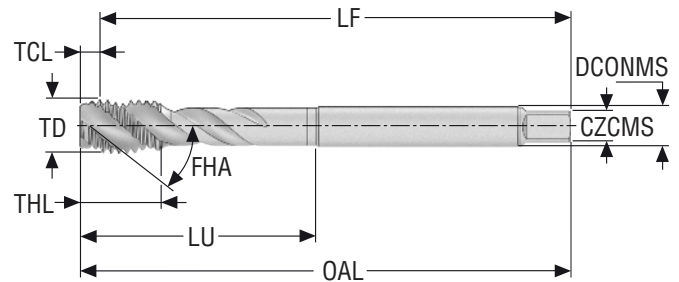
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-L40N01C03-3X0.5-63L	10139167	M3	0,5	1,2 0.047	3,0 0.118	5,0 0.197	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	C
T32-L40N01C03-4X0.7-63L	10139168	M4	0,7	1,54 0.061	4,0 0.157	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-L40N01C03-5X0.8-63L	10139169	M5	0,8	1,9 0.075	5,0 0.197	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-L40N01C03-6X1-63L	10139170	M6	1,0	2,28 0.090	6,0 0.236	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-L40N01C03-8X1.25-63L	10139171	M8	1,25	3,11 0.122	8,0 0.315	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-L40N01C03-10X1.5-63L	10139172	M10	1,5	3,76 0.148	10,0 0.394	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, left hand thread



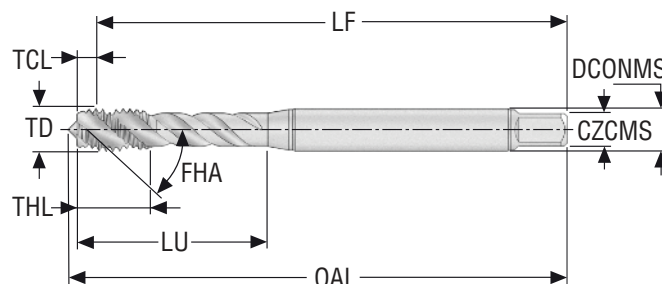
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 245



Designation	Item number	TDZ	Pitch	TCL	TD	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-L40N01C06-12X1.75-63L	10139645	M12	1,75	4,41 0.174	12,0 0.472	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-L40N01C06-16X2-63L	10139646	M16	2,0	5,15 0.203	16,0 0.630	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-L40N01C06-20X2.5-63L	10139647	M20	2,5	6,51 0.256	20,0 0.787	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-L40N01C06-24X3-63L	10139648	M24	3,0	7,81 0.307	24,0 0.945	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-R40NC

Blind holes – MF threads

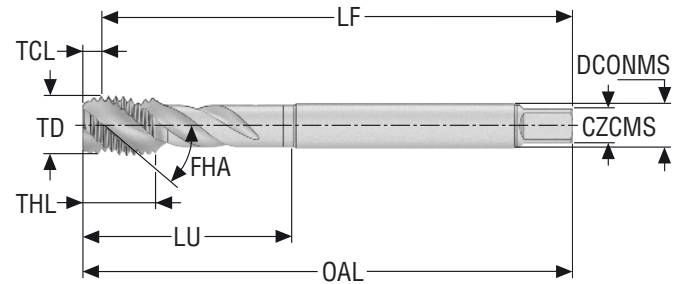


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 245

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

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) 245

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T32-R40N02C05-8X1-63R	10139593	MF8X1.0	1,0	2,58 0.102	8,0 0.315	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	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	MF10X1.0	1,0	2,68 0.106	10,0 0.394	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	10,0 0.394	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	MF12X1.0	1,0	2,79 0.110	12,0 0.472	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	12,0 0.472	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	12,0 0.472	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	MF14X1.0	1,0	2,89 0.114	14,0 0.551	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	14,0 0.551	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	14,0 0.551	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	MF16X1.0	1,0	2,79 0.110	16,0 0.630	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	16,0 0.630	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	18,0 0.709	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	MF18X2.0	2,0	5,25 0.207	18,0 0.709	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	20,0 0.787	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	MF20X2.0	2,0	5,45 0.215	20,0 0.787	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	22,0 0.866	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	MF22X2.0	2,0	5,45 0.215	22,0 0.866	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	24,0 0.945	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	MF24X2.0	2,0	5,67 0.223	24,0 0.945	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
T32-R40N02C05-27X1.5-63R	10139613	MF27X1.5	1,5	4,59 0.181	27,0 1.063	20,0 0.787	77 3.031	135,41 5.331	140,0 5.512	20,0 0.787	20.00X16.00	25,5 1.004	4	C
T32-R40N02C05-27X2-63R	10139614	MF27X2.0	2,0	5,67 0.223	27,0 1.063	20,0 0.787	77 3.031	134,33 5.289	140,0 5.512	20,0 0.787	20.00X16.00	25,0 0.984	4	C
T32-R40N02C05-30X1.5-63R	10139615	MF30X1.5	1,5	4,19 0.165	30,0 1.181	22,0 0.866	85 3.346	145,81 5.741	150,0 5.906	22,0 0.866	22.00X18.00	28,5 1.122	4	C
T32-R40N02C05-30X2-63R	10139616	MF30X1.0	2,0	5,67 0.223	30,0 1.181	22,0 0.866	85 3.346	144,33 5.682	150,0 5.906	22,0 0.866	22.00X18.00	28,0 1.102	4	C

Thread turning

MDT

Mini-Shaft™

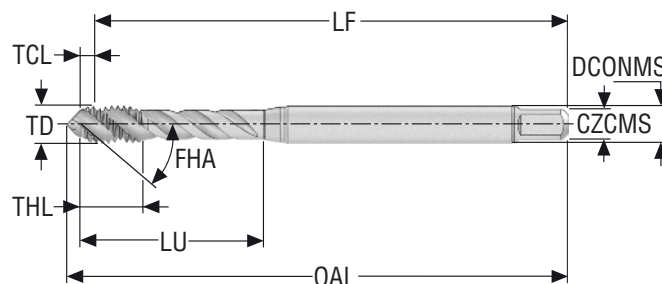
Thread milling

Thread tapping

Annex

T32-R40NC

Blind holes – UNC threads

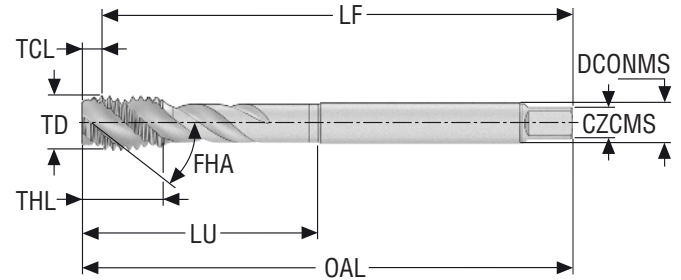


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-R40N08C03-4-40-21R	10139153	UNC4-40	40,0	1,45 0.057	2,845 0.112	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	40,0	1,5 0.059	3,175 0.125	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	32,0	1,92 0.076	3,505 0.138	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	32,0	1,85 0.073	4,166 0.164	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	24,0	2,49 0.098	4,826 0.190	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	24,0	2,43 0.096	5,486 0.216	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	20,0	2,9 0.114	6,35 0.250	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	18,0	3,54 0.139	7,937 0.312	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	16,0	3,99 0.157	9,525 0.375	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

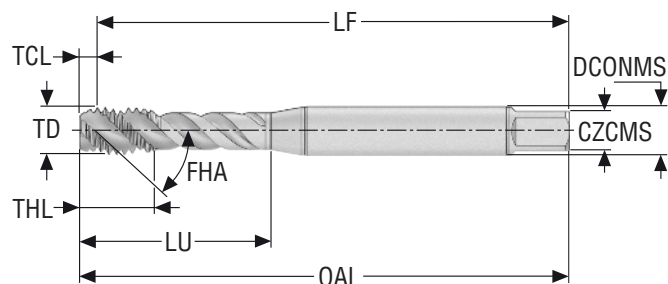


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	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	14,0	4,6 0.181	11,112 0.437	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	13,0	4,94 0.194	12,7 0.500	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	3	C
T32-R40N08C06-9/16-12-21R	10139619	UNC9/16-12	12,0	5,37 0.211	14,287 0.562	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	11,0	5,81 0.229	15,875 0.625	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	10,0	6,78 0.267	19,05 0.750	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	9,0	7,27 0.286	22,225 0.875	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	8,0	8,32 0.328	25,4 1.000	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	UNC11/8-7	7,0	9,17 0.361	28,575 1.125	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	UNC11/4-7	7,0	9,3 0.366	31,75 1.250	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	UNC13/8-6	6,0	10,5 0.413	34,925 1.375	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	UNC11/2-6	6,0	10,63 0.419	38,1 1.500	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 – UNC threads

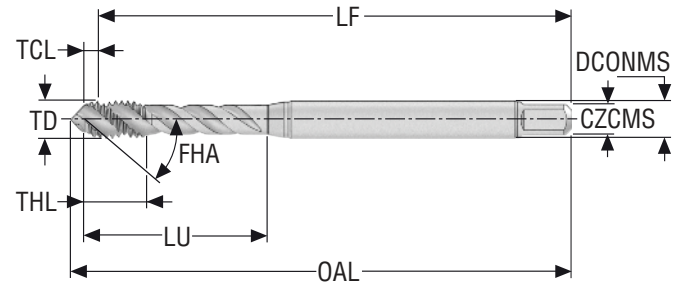


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN/ANSI
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	Inch	Inch	Inch	Inch	Inch	Inch	Inch		Inch		
T32-R40N08C93-4-40-21R	10280314	UNC4-40	40.0	0.057	0.112	0.197	0.720	2.154	2.252	0.141	3.581x2.79	0.093	3	C
T32-R40N08C93-5-40-21R	10280315	UNC5-40	40.0	0.059	0.125	0.276	0.714	2.146	2.252	0.141	3.581x2.79	0.104	3	C
T32-R40N08C93-6-32-21R	10280316	UNC6-32	32.0	0.076	0.138	0.236	0.799	2.135	2.260	0.141	3.581x2.79	0.112	3	C
T32-R40N08C93-8-32-21R	10280317	UNC8-32	32.0	0.073	0.164	0.276	0.832	2.407	2.543	0.168	4.267x3.33	0.138	3	C
T32-R40N08C93-10-24-21R	10280318	UNC10-24	24.0	0.098	0.190	0.315	1.000	2.668	2.835	0.194	4.928x3.86	0.154	3	C
T32-R40N08C93-12-24-21R	10280319	UNC12-24	24.0	0.096	0.216	0.394	1.191	3.058	3.236	0.220	5.588x4.19	0.177	3	C
T32-R40N08C93-1/4-20-21R	10280320	UNC1/4-20	20.0	0.114	0.250	0.512	1.265	3.035	3.244	0.255	6.477x4.85	0.201	3	C
T32-R40N08C93-5/16-18-21R	10280321	UNC5/16-18	18.0	0.139	0.312	0.512	1.383	3.404	3.543	0.318	8.077x6.05	0.260	3	C
T32-R40N08C93-3/8-16-21R	10280322	UNC3/8-16	16.0	0.157	0.375	0.591	1.541	3.780	3.937	0.381	9.667x7.26	0.315	3	C
T32-R40N08C96-7/16-14-21R	10280323	UNC7/16-14	14.0	0.181	0.437	0.591	2.858	3.756	3.937	0.323	8.204x6.15	0.366	3	C
T32-R40N08C96-1/2-13-21R	10280324	UNC1/2-13	13.0	0.194	0.500	0.709	3.221	4.136	4.331	0.367	9.322x6.99	0.421	3	C
T32-R40N08C96-9/16-12-21R	10280326	UNC9/16-12	12.0	0.211	0.562	0.787	3.161	4.119	4.331	0.429	10.987x8.18	0.484	4	C
T32-R40N08C96-5/8-11-21R	10280327	UNC5/8-11	11.0	0.229	0.625	0.866	2.590	4.102	4.331	0.480	12.192x9.14	0.531	4	C
T32-R40N08C96-3/4-10-21R	10280328	UNC3/4-10	10.0	0.267	0.750	1.260	3.050	4.654	4.921	0.590	14.986x11.23	0.650	4	C
T32-R40N08C96-7/8-9-21R	10280329	UNC7/8-9	9.0	0.286	0.875	1.260	3.581	5.226	5.512	0.697	17.704x13.28	0.768	4	C
T32-R40N08C96-1-8-21R	10280330	UNC1-8	8.0	0.328	1.000	1.496	3.757	5.972	6.299	0.800	20.320x15.24	0.876	4	C

T32-R40NC

Blind holes – UNF threads

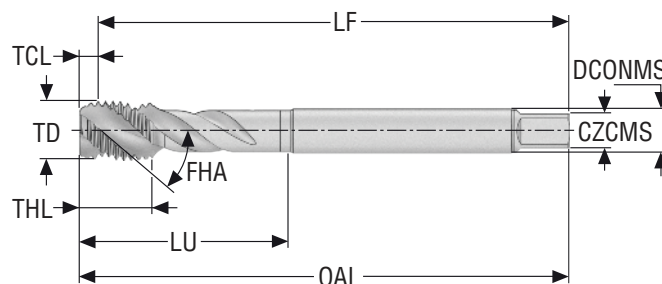


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 245

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T32-R40N09C03-10-32-21R	10139162	UNF10-32	32,0	1,96 0.077	4,826 0.190	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	28,0	2,07 0.081	5,486 0.216	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	28,0	2,19 0.086	6,35 0.250	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	24,0	2,83 0.111	7,937 0.312	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	24,0	2,91 0.115	9,525 0.375	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

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) 245

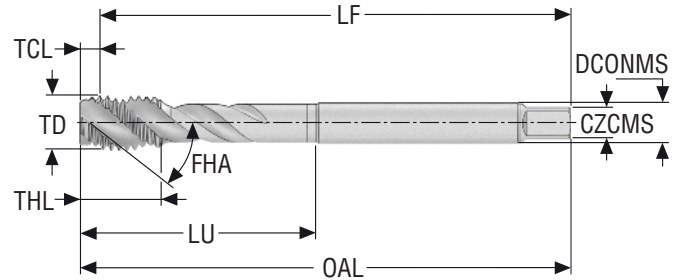
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-R40N09C05-7/16-20-21R	10139627	UNF7/16-20	20,0	3,35 0.132	11,112 0.437	15,0 0.591	76 2.992	96,65 3.805	100,0 3.937	8,0 0.315	8.00X6.20	9,9 0.390	3	C
T32-R40N09C05-1/2-20-21R	10139636	UNF1/2-20	20,0	3,51 0.138	12,7 0.500	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	3	C
T32-R40N09C05-9/16-18-21R	10139629	UNF9/16-18	18,0	3,77 0.148	14,287 0.562	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	18,0	3,86 0.152	15,875 0.625	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	16,0	4,45 0.175	19,05 0.750	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	14,0	5,15 0.203	22,225 0.875	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	12,0	5,82 0.229	25,4 1.000	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	UNF11/8-12	12,0	5,98 0.235	28,575 1.125	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	UNF11/4-12	12,0	5,94 0.234	31,75 1.250	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	UNF13/8-12	12,0	6,07 0.239	34,925 1.375	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	UNF11/2-12	12,0	6,04 0.238	38,1 1.500	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 – UNF threads



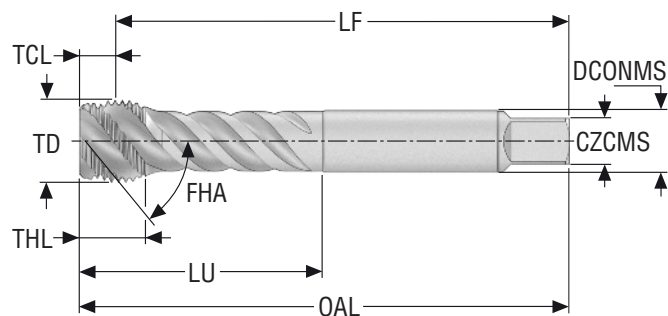
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN/ANSI
- Thread tolerance class: 2B
- FHA = 40°
- For cutting data see page(s) 245



Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	Inch	Inch	Inch	Inch	Inch	Inch	Inch		Inch		
T32-R40N09C93-4-48-21R	10280332	UNF4-48	48.0	0.050	0.112	0.197	0.718	2.159	2.252	0.141	3.581x2.79	0.094	3	C
T32-R40N09C93-5-44-21R	10280333	UNF5-44	44.0	0.052	0.125	0.276	0.712	2.230	2.252	0.141	3.581x2.79	0.106	3	C
T32-R40N09C93-6-40-21R	10280334	UNF6-40	40.0	0.061	0.138	0.236	0.795	2.145	2.260	0.141	3.581x2.79	0.116	3	C
T32-R40N09C93-8-36-21R	10280335	UNF8-36	36.0	0.066	0.164	0.276	0.830	2.413	2.543	0.168	4.267x3.33	0.138	3	C
T32-R40N09C93-10-32-21R	10280336	UNF10-32	32.0	0.077	0.190	0.315	0.994	2.683	2.835	0.194	4.928x3.86	0.161	3	C
T32-R40N09C93-12-28-21R	10280337	UNF12-28	28.0	0.081	0.216	0.394	1.187	3.068	3.236	0.220	5.588x4.19	0.181	3	C
T32-R40N09C93-1/4-28-21R	10280338	UNF1/4-28	28.0	0.086	0.250	0.394	1.179	3.056	3.244	0.255	6.477x4.85	0.217	3	C
T32-R40N09C93-5/16-24-21R	10280339	UNF5/16-24	24.0	0.111	0.312	0.512	1.383	3.432	3.543	0.318	8.077x6.05	0.272	3	C
T32-R40N09C93-3/8-24-21R	10280340	UNF3/8-24	24.0	0.115	0.375	0.591	1.383	3.429	3.543	0.381	9.667x7.26	0.335	3	C
T32-R40N09C95-7/16-20-21R	10280341	UNF7/16-20	20.0	0.132	0.437	0.591	2.858	3.805	3.937	0.323	8.204x6.15	0.390	3	C
T32-R40N09C95-1/2-20-21R	10280342	UNF1/2-20	20.0	0.138	0.500	0.591	2.828	3.799	3.937	0.367	9.322x6.99	0.453	3	C
T32-R40N09C95-9/16-18-21R	10280343	UNF9/16-18	18.0	0.148	0.562	0.591	2.768	3.789	3.937	0.429	10.987x8.18	0.512	4	C
T32-R40N09C95-5/8-18-21R	10280344	UNF5/8-18	18.0	0.152	0.625	0.591	2.196	3.785	3.937	0.480	12.192x9.14	0.571	4	C
T32-R40N09C95-3/4-16-21R	10280345	UNF3/4-16	16.0	0.175	0.750	0.945	2.459	4.156	4.331	0.590	14.986x11.23	0.689	4	C
T32-R40N09C95-7/8-14-21R	10280346	UNF7/8-14	14.0	0.203	0.875	0.945	2.990	4.719	4.921	0.697	17.704x13.28	0.807	4	C
T32-R40N09C95-1-12-21R	10280347	UNF1-12	12.0	0.229	1.000	1.063	2.970	5.283	5.512	0.800	20.320x15.24	0.917	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) 245

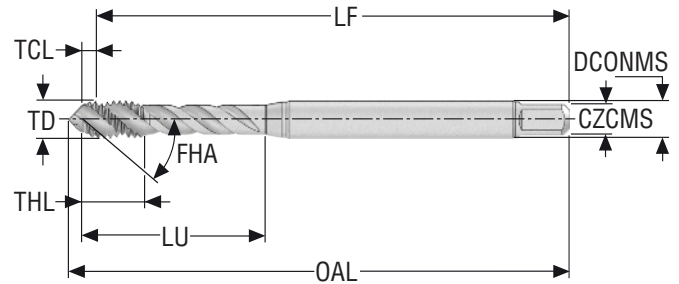
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-R40N21C09-1/8-28-11R	10139637	G1/8-28	28,0	2,67 0.105	9,728 0.383	10,0 0.394	67 2.638	87,33 3.438	90,0 3.543	7,0 0.276	7.00X5.50	8,8 0.346	3	C
T32-R40N21C09-1/4-19-11R	10139638	G1/4-19	19,0	3,72 0.146	13,157 0.518	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	G3/8-19	19,0	3,92 0.154	16,662 0.656	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	G1/2-14	14,0	5,28 0.208	20,955 0.825	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	G5/8-14	14,0	5,21 0.205	22,911 0.902	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	G3/4-14	14,0	5,45 0.215	26,441 1.041	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	G7/8-14	14,0	5,38 0.212	30,201 1.189	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	G1-11	11,0	6,56 0.258	33,249 1.309	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

T32-R40HC

Blind holes – Metric coarse threads



- Substrate: HSSE
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 247



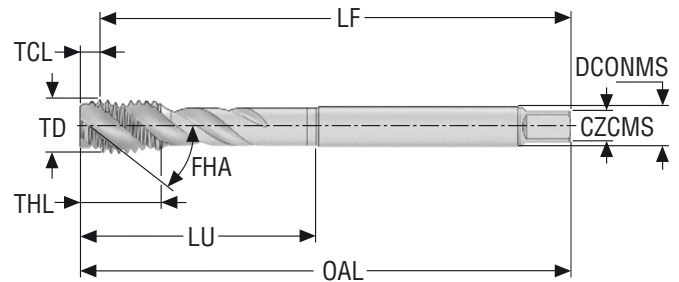
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T32-R40H01C03-3X0.5-63R	10309455	M3	0,5	1,17 0.046	3,0 0.118	5,0 0.197	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50x2.70	2,5 0.098	3	C
T32-R40H01C03-4X0.7-63R	10309456	M4	0,7	1,72 0.068	4,0 0.157	7,0 0.276	21 0.827	61,3 2.413	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	C
T32-R40H01C03-5X0.8-63R	10309457	M5	0,8	1,9 0.075	5,0 0.197	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-R40H01C03-6X1-63R	10309458	M6	1,0	2,27 0.089	6,0 0.236	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00x4.90	5,0 0.197	3	C
T32-R40H01C03-8X1.25-63R	10309459	M8	1,25	3,11 0.122	8,0 0.315	13,0 0.512	35 1.378	86,9 3.421	91,7 3.610	8,0 0.315	8.00x6.20	6,8 0.268	3	C
T32-R40H01C03-10X1.5-63R	10309460	M10	1,5	3,76 0.148	10,0 0.394	15,0 0.591	39 1.535	96,2 3.787	101,8 4.008	10,0 0.394	10.00x8.00	8,5 0.335	3	C

T32-R40HC

Blind holes – Metric coarse threads



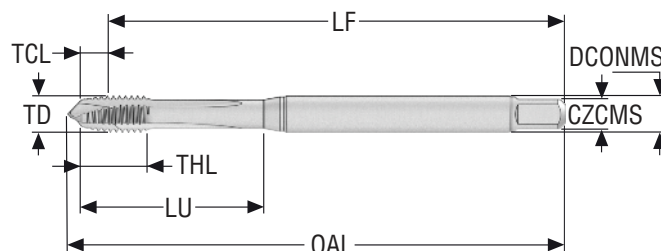
- Substrate: HSSE
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 247



Designation	Item number	TDZ	Pitch	TCL	TD	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-R40H01C06-12X1.75-63R	10309634	M12	1,75	4,41 0.174	12,0 0.472	18,0 0.709	83 3.268	105,6 4.157	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	C
T32-R40H01C06-14X2-63R	10309635	M14	2,0	5,07 0.200	14,0 0.551	20,0 0.787	81 3.189	104,9 4.130	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	4	C
T32-R40H01C06-16X2-63R	10309636	M16	2,0	5,15 0.203	16,0 0.630	20,0 0.787	68 2.677	104,8 4.126	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	C
T32-R40H01C06-20X2.5-63R	10309637	M20	2,5	6,51 0.256	20,0 0.787	25,0 0.984	95 3.740	133,5 5.256	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	C
T32-R40H01C06-24X3-63R	10309639	M24	3,0	7,81 0.307	24,0 0.945	30,0 1.181	113 4.449	152,2 5.992	160,0 6.299	18,0 0.709	18.00x14.50	21,0 0.827	4	C

T34-PHB-micro

Through holes – Metric coarse threads

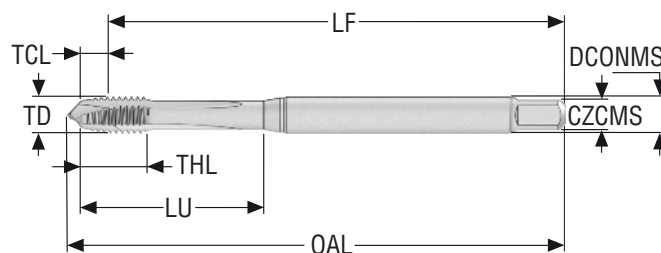


- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 4H
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PH01B03-1X0.25-41R	10139302	M1	0,25	1,13 0.044	1,0 0.039	6,0 0.236	13 0.512	38,87 1.530	40,9 1.610	2,5 0.098	2.50X2.10	0,75 0.030	2	B
T34-PH01B03-1.1X0.25-41R	10139303	M1.1	0,25	1,13 0.044	1,1 0.043	6,0 0.236	13 0.512	38,87 1.530	41,0 1.614	2,5 0.098	2.50X2.10	0,85 0.033	2	B
T34-PH01B03-1.2X0.25-41R	10139304	M1.2	0,25	1,13 0.044	1,2 0.047	6,0 0.236	13 0.512	38,87 1.530	41,1 1.618	2,5 0.098	2.50X2.10	0,95 0.037	2	B
T34-PH01B03-1.4X0.3-41R	10139305	M1.4	0,3	1,32 0.052	1,4 0.055	8,0 0.315	13 0.512	38,68 1.523	41,3 1.626	2,5 0.098	2.50X2.10	1,1 0.043	2	B

T34-PHB-micro

Through holes – Metric coarse threads

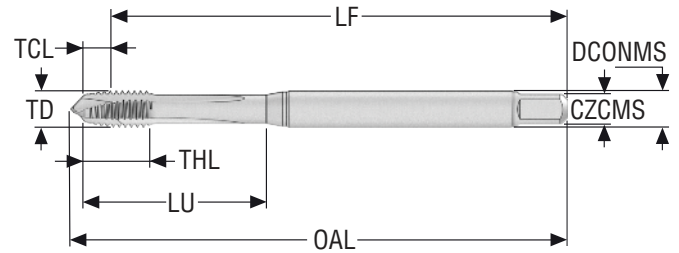


- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PH01B03-1.6X0.35-63R	10139306	M1.6	0,35	1,54 0.061	1,6 0.063	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	1,7 0.067	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	1,8 0.071	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	2,0 0.079	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	2,2 0.087	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	2,3 0.091	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	2,5 0.098	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	2,6 0.102	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

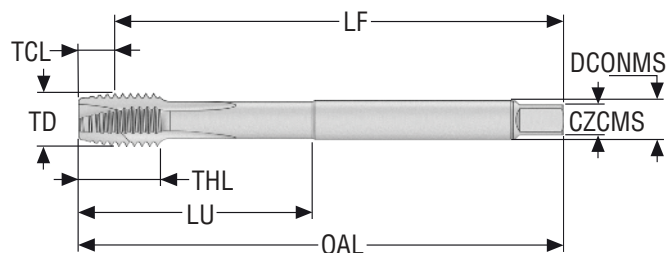


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PH01B03-3X0.5-65R	10139314	M3	0,5	2,3 0.091	3,0 0.118	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	3,5 0.138	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	4,0 0.157	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	4,5 0.177	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	5,0 0.197	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	6,0 0.236	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	8,0 0.315	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	10,0 0.394	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

T34-PHB

Through holes – Metric coarse threads

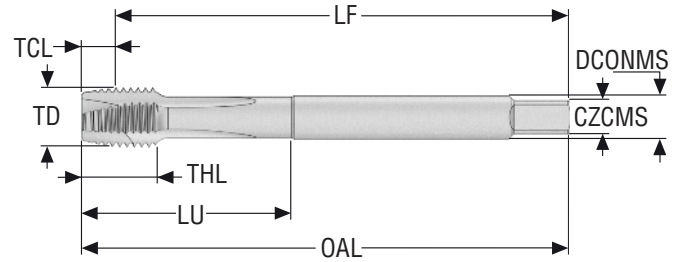


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PH01B06-12X1.75-65R	10139322	M12	1,75	8,11 0.319	12,0 0.472	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	14,0 0.551	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	16,0 0.630	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	18,0 0.709	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	20,0 0.787	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	22,0 0.866	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	24,0 0.945	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	27,0 1.063	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	30,0 1.181	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	33,0 1.299	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	36,0 1.417	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

T34-PHB

Through holes – Metric coarse threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN/ANSI
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PH01B93-4X0.7-65R	10280477	M4	0,7	3,03 0.119	4,0 0.157	7,0 0.276	21,14 0.832	60,0 2.362	64,6 2.543	4,267 0.168	4.267x3.33	3,3 0.130	3	B
T34-PH01B93-5X0.8-65R	10280478	M5	0,8	3,71 0.146	5,0 0.197	8,0 0.315	25,14 0.990	66,3 2.610	72,0 2.835	4,928 0.194	4.928x3.86	4,2 0.165	3	B
T34-PH01B93-6X1-65R	10280480	M6	1,0	4,5 0.177	6,0 0.236	10,0 0.394	30,14 1.187	75,6 2.976	82,4 3.244	6,477 0.255	6.477x4.85	5,0 0.197	3	B
T34-PH01B93-8X1.25-65R	10280481	M8	1,25	5,48 0.216	8,0 0.315	13,0 0.512	35,19 1.385	84,6 3.331	93,3 3.673	8,077 0.318	8.077x6.05	6,8 0.268	3	B
T34-PH01B93-10X1.5-65R	10280482	M10	1,5	6,9 0.272	10,0 0.394	15,0 0.591	39,14 1.541	93,1 3.665	100,0 3.937	9,667 0.381	9.667x7.26	8,5 0.335	3	B
T34-PH01B96-12X1.75-65R	10280483	M12	1,75	8,11 0.319	12,0 0.472	18,0 0.709	81,82 3.221	101,89 4.011	110,0 4.331	9,322 0.367	9.322x6.99	10,2 0.402	3	B
T34-PH01B96-16X2-65R	10280484	M16	2,0	9,36 0.369	16,0 0.630	20,0 0.787	65,78 2.590	100,64 3.962	110,0 4.331	12,192 0.480	12.192x9.14	14,0 0.551	3	B
T34-PH01B96-18X2.5-65R	10280485	M18	2,5	11,3 0.445	18,0 0.709	25,0 0.984	79 3.110	113,5 4.469	125,0 4.921	13,767 0.542	13.767x10.31	15,5 0.610	4	B
T34-PH01B96-20X2.5-65R	10280486	M20	2,5	11,4 0.449	20,0 0.787	25,0 0.984	92,47 3.641	128,5 5.059	140,0 5.512	16,561 0.652	16.561x12.42	17,5 0.689	4	B
T34-PH01B96-24X3-65R	10280487	M24	3,0	13,62 0.536	24,0 0.945	30,0 1.181	96,95 3.817	146,18 5.755	160,0 6.299	19,304 0.760	19.304x14.48	21,0 0.827	4	B

Thread turning

MDT

Mini-Shaft™

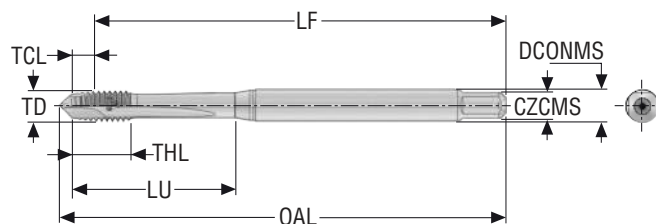
Thread milling

Thread tapping

Annex

T34B-PHB

Through holes – Metric coarse threads

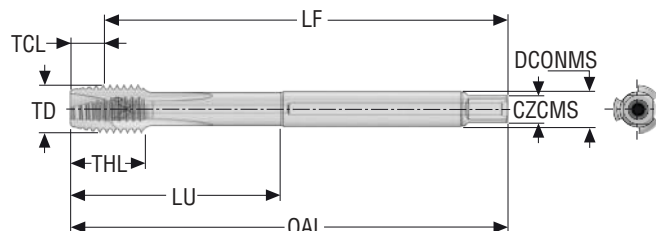


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34B-PH01B03-5X0.8-65R	10139333	M5	0,8	3,71 0.146	5,0 0.197	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
T34B-PH01B03-6X1-65R	10139334	M6	1,0	4,5 0.177	6,0 0.236	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
T34B-PH01B03-8X1.25-65R	10139335	M8	1,25	5,48 0.216	8,0 0.315	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
T34B-PH01B03-10X1.5-65R	10139336	M10	1,5	6,9 0.272	10,0 0.394	15,0 0.591	39 1.535	93,1 3.665	100,0 3.937	10,0 0.394	10.00X8.00	8,5 0.335	3	B

T34B-PHB

Through holes – Metric coarse threads

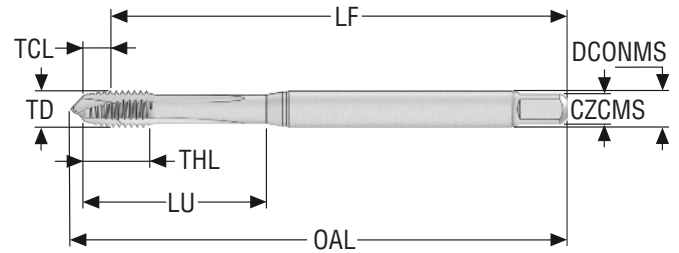


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34B-PH01B06-12X1.75-65R	10139337	M12	1,75	8,11 0.319	12,0 0.472	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	14,0 0.551	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	16,0 0.630	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-PHB

Through holes – MF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PH02B03-3X0.35-65R	10139340	MF3X0.35	0,35	1,6 0.063	3,0 0.118	5,0 0.197	18 0.709	54,4 2.142	57,2 2.252	3,5 0.138	3.50X2.70	2,65 0.104	3	B
T34-PH02B03-3.5X0.35-65R	10139341	MF3.5X0.35	0,35	1,6 0.063	3,5 0.138	5,0 0.197	20 0.787	54,4 2.142	57,4 2.260	4,0 0.157	4.00X3.00	3,15 0.124	3	B
T34-PH02B03-4X0.5-65R	10139342	MF4X0.5	0,5	2,3 0.091	4,0 0.157	7,0 0.276	21 0.827	60,7 2.390	64,6 2.543	4,5 0.177	4.50X3.40	3,5 0.138	3	B
T34-PH02B03-5X0.5-65R	10139343	MF5X0.5	0,5	2,3 0.091	5,0 0.197	8,0 0.315	25 0.984	67,7 2.665	72,0 2.835	6,0 0.236	6.00X4.90	4,5 0.177	3	B
T34-PH02B03-6X0.5-65R	10139344	MF6X0.5	0,5	2,34 0.092	6,0 0.236	10,0 0.394	30 1.181	77,66 3.057	82,4 3.244	6,0 0.236	6.00X4.90	5,5 0.217	3	B
T34-PH02B03-6X0.75-65R	10139345	MF6X0.75	0,75	3,4 0.134	6,0 0.236	10,0 0.394	30 1.181	76,6 3.016	82,4 3.244	6,0 0.236	6.00X4.90	5,2 0.205	3	B
T34-PH02B03-8X0.75-65R	10139346	MF8X0.75	0,75	3,4 0.134	8,0 0.315	10,0 0.394	30 1.181	76,6 3.016	83,6 3.291	8,0 0.315	8.00X6.20	7,2 0.283	3	B
T34-PH02B03-8X1-65R	10139347	MF8X1.0	1,0	4,45 0.175	8,0 0.315	13,0 0.512	35 1.378	85,55 3.368	93,3 3.673	8,0 0.315	8.00X6.20	7,0 0.276	3	B
T34-PH02B03-10X0.75-65R	10139348	MF10X0.75	0,75	3,8 0.150	10,0 0.394	13,0 0.512	35 1.378	86,2 3.394	91,8 3.614	10,0 0.394	10.00X8.00	9,2 0.362	3	B
T34-PH02B03-10X1-65R	10139349	MF10X1.0	1,0	5,25 0.207	10,0 0.394	13,0 0.512	35 1.378	84,75 3.337	91,8 3.614	10,0 0.394	10.00X8.00	9,0 0.354	3	B
T34-PH02B03-10X1.25-65R	10139350	MF10X1.25	1,25	6,28 0.247	10,0 0.394	15,0 0.591	39 1.535	93,72 3.690	101,8 4.008	10,0 0.394	10.00X8.00	8,8 0.346	3	B

Thread turning

MDT

Mini-Shaft™

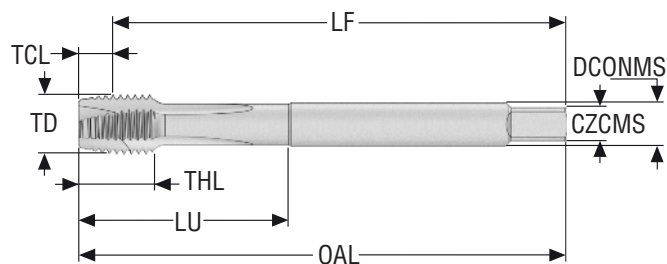
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – MF threads

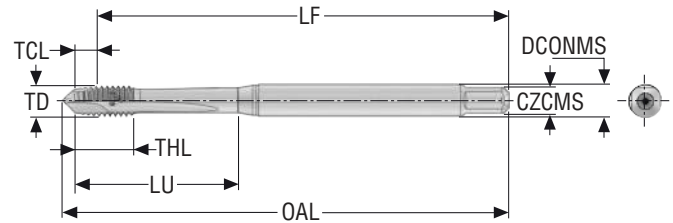


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PH02B05-8X1.65R	10139351	MF8X1.0	1,0	4,75 0.187	8,0 0.315	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	MF10X1.0	1,0	4,85 0.191	10,0 0.394	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	MF12X1.0	1,0	4,98 0.196	12,0 0.472	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	12,0 0.472	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	12,0 0.472	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	14,0 0.551	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	16,0 0.630	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	18,0 0.709	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	20,0 0.787	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	22,0 0.866	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	24,0 0.945	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

T34B-PHB

Through holes – MF threads

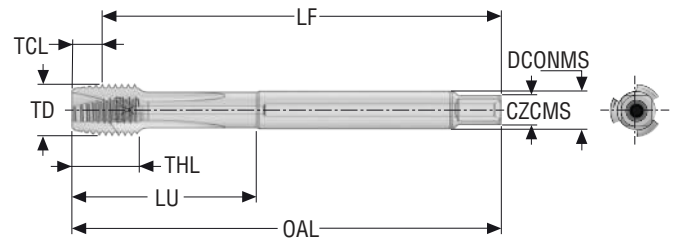


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34B-PH02B03-8X1-65R	10139362	MF8X1.0	1,0	4,45 0.175	8,0 0.315	13,0 0.512	35 1.378	85,55 3.368	93,4 3.677	8,0 0.315	8.00X6.20	7,0 0.276	3	B
T34B-PH02B03-10X1-65R	10139363	MF10X1.0	1,0	5,25 0.207	10,0 0.394	13,0 0.512	35 1.378	84,75 3.337	90,0 3.543	10,0 0.394	10.00X8.00	9,0 0.354	3	B

T34B-PHB

Through holes – MF threads

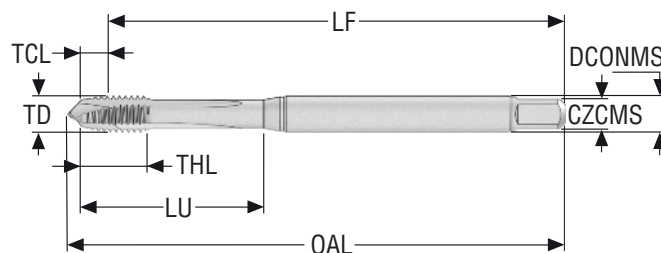


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34B-PH02B05-8X1-65R	10139364	MF8X1.0	1,0	4,75 0.187	8,0 0.315	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
T34B-PH02B05-10X1-65R	10139365	MF10X1.0	1,0	4,85 0.191	10,0 0.394	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
T34B-PH02B05-12X1.5-65R	10139366	MF12X1.5	1,5	7,07 0.278	12,0 0.472	15,0 0.591	73 2.874	92,93 3.659	100,0 3.937	9,0 0.354	9.00X7.00	10,5 0.413	3	B
T34B-PH02B05-14X1.5-65R	10139367	MF14X1.5	1,5	7,17 0.282	14,0 0.551	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
T34B-PH02B05-16X1.5-65R	10139368	MF16X1.5	1,5	7,27 0.286	16,0 0.630	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-PHB

Through holes – UNC threads

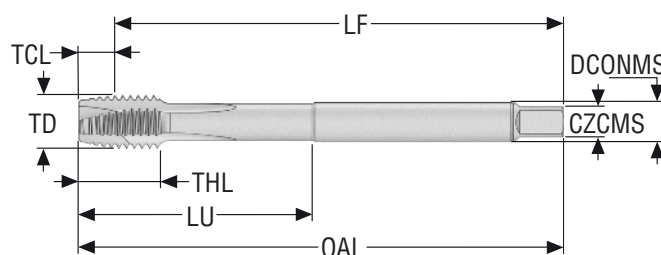


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			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	40,0	2,83 0.111	2,845 0.112	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	40,0	2,94 0.116	3,175 0.125	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	32,0	3,74 0.147	3,505 0.138	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	32,0	3,62 0.143	4,166 0.164	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	24,0	4,86 0.191	4,826 0.190	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	24,0	4,74 0.187	5,486 0.216	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	20,0	5,65 0.222	6,35 0.250	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	18,0	6,31 0.248	7,937 0.312	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	16,0	7,37 0.290	9,525 0.375	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) 249

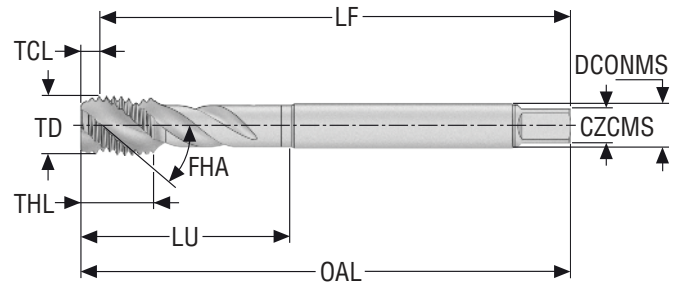
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-PH08B06-7/16-14-22R	10139050	UNC7/16-14	14,0	8,36 0.329	11,112 0.437	15,0 0.591	76 2.992	91,64 3.608	100,0 3.937	8,0 0.315	8.00X6.20	9,3 0.366	3	B
T34-PH08B06-1/2-13-22R	10139051	UNC1/2-13	13,0	9,01 0.355	12,7 0.500	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	12,0	9,87 0.389	14,287 0.562	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	11,0	10,62 0.418	15,875 0.625	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

T34-PHB

Through holes – UNC threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN/ANSI
- Thread tolerance class: 2BX
- For cutting data see page(s) 249



Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	Inch	Inch	Inch	Inch	Inch	Inch	Inch		Inch		
T34-PH08B93-4-40-22R	10280445	UNC4-40	40.0	0.111	0.112	0.197	0.720	2.098	2.252	0.141	3.581x2.79	0.093	3	B
T34-PH08B93-5-40-22R	10280446	UNC5-40	40.0	0.116	0.125	0.276	0.714	2.091	2.252	0.141	3.581x2.79	0.104	3	B
T34-PH08B93-6-32-22R	10280447	UNC6-32	32.0	0.147	0.138	0.236	0.799	2.063	2.260	0.141	3.581x2.79	0.112	3	B
T34-PH08B93-8-32-22R	10280448	UNC8-32	32.0	0.143	0.164	0.276	0.832	2.339	2.543	0.168	4.267x3.33	0.138	3	B
T34-PH08B93-10-24-22R	10280449	UNC10-24	24.0	0.191	0.190	0.315	1.000	2.575	2.835	0.194	4.928x3.86	0.154	3	B
T34-PH08B93-12-24-22R	10280450	UNC12-24	24.0	0.187	0.216	0.394	1.191	2.969	3.236	0.220	5.588x4.19	0.177	3	B
T34-PH08B93-1/4-20-22R	10280451	UNC1/4-20	20.0	0.222	0.250	0.512	1.187	2.925	3.244	0.255	6.477x4.85	0.201	3	B
T34-PH08B93-5/16-18-22R	10280452	UNC5/16-18	18.0	0.248	0.312	0.512	1.391	3.303	3.673	0.318	8.077x6.05	0.260	3	B
T34-PH08B93-3/8-16-22R	10280453	UNC3/8-16	16.0	0.290	0.375	0.591	1.541	3.646	3.937	0.381	9.667x7.26	0.315	3	B
T34-PH08B96-7/16-14-22R	10280454	UNC7/16-14	14.0	0.329	0.437	0.591	2.858	3.608	3.937	0.323	8.204x6.15	0.366	3	B
T34-PH08B96-1/2-13-22R	10280455	UNC1/2-13	13.0	0.355	0.500	0.709	3.221	3.972	4.331	0.367	9.322x6.99	0.421	3	B
T34-PH08B96-9/16-12-22R	10280456	UNC9/16-12	12.0	0.389	0.562	0.787	3.161	3.942	4.331	0.429	10.987x8.18	0.484	3	B
T34-PH08B96-5/8-11-22R	10280457	UNC5/8-11	11.0	0.418	0.625	0.866	2.590	3.913	4.331	0.480	12.192x9.14	0.531	3	B
T34-PH08B96-3/4-10-22R	10280458	UNC3/4-10	10.0	0.475	0.750	1.260	3.050	4.446	4.921	0.590	14.986x11.23	0.650	4	B
T34-PH08B96-7/8-9-22R	10280459	UNC7/8-9	9.0	0.513	0.875	1.260	3.581	4.998	5.512	0.697	17.704x13.28	0.768	4	B
T34-PH08B96-1-8-22R	10280460	UNC1-8	8.0	0.577	1.000	1.496	3.757	5.722	6.299	0.800	20.320x15.24	0.876	4	B

Thread turning

MDT

Mini-Shaft™

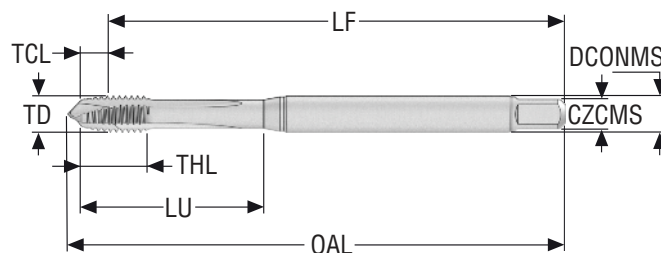
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – UNF threads

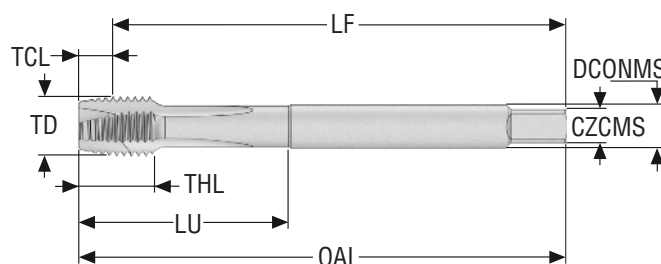


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			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	48,0	2,48 0.098	2,845 0.112	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	44,0	2,6 0.102	3,175 0.125	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	40,0	3,05 0.120	3,505 0.138	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	36,0	3,28 0.129	4,166 0.164	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	32,0	3,5 0.138	4,826 0.190	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	28,0	4,05 0.159	5,486 0.216	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	28,0	3,94 0.155	6,35 0.250	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	24,0	4,6 0.181	7,937 0.312	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	24,0	4,98 0.196	9,525 0.375	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

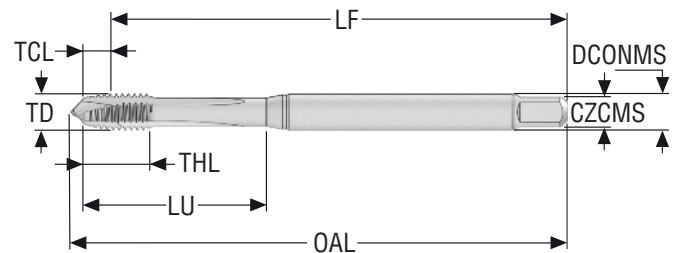


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2BX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-PH09B05-7/16-20-22R	10139378	UNF7/16-20	20,0	5,95 0.234	11,112 0.437	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	20,0	6,14 0.242	12,7 0.500	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	18,0	6,8 0.268	14,287 0.562	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	18,0	6,87 0.270	15,875 0.625	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

T34-PHB

Through holes – UNF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN/ANSI
- Thread tolerance class: 2BX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	Inch	Inch	Inch	Inch	Inch	Inch	Inch		Inch		
T34-PH09B93-4-48-22R	10280461	UNF4-48	48.0	0.098	0.112	0.197	0.718	2.110	2.252	0.141	3.581x2.79	0.094	3	B
T34-PH09B93-5-44-22R	10280462	UNF5-44	44.0	0.102	0.125	0.276	0.712	2.102	2.252	0.141	3.581x2.79	0.106	3	B
T34-PH09B93-6-40-22R	10280463	UNF6-40	40.0	0.120	0.138	0.236	0.795	2.087	2.260	0.141	3.581x2.79	0.116	3	B
T34-PH09B93-8-36-22R	10280464	UNF8-36	36.0	0.129	0.164	0.276	0.830	2.350	2.543	0.168	4.267x3.33	0.138	3	B
T34-PH09B93-10-32-22R	10280465	UNF10-32	32.0	0.138	0.190	0.315	0.992	2.622	2.835	0.194	4.928x3.86	0.161	3	B
T34-PH09B93-12-28-22R	10280466	UNF12-28	28.0	0.159	0.216	0.394	1.187	2.988	3.236	0.220	5.588x4.19	0.181	3	B
T34-PH09B93-1/4-28-22R	10280467	UNF1/4-28	28.0	0.155	0.250	0.394	1.177	2.984	3.244	0.255	6.477x4.85	0.217	3	B
T34-PH09B93-5/16-24-22R	10280468	UNF5/16-24	24.0	0.181	0.312	0.512	1.381	3.358	3.673	0.318	8.077x6.05	0.272	3	B
T34-PH09B93-3/8-24-22R	10280469	UNF3/8-24	24.0	0.196	0.375	0.591	1.383	3.346	3.543	0.381	9.667x7.26	0.335	3	B
T34-PH09B95-7/16-20-22R	10280470	UNF7/16-20	20.0	0.234	0.437	0.591	2.858	3.703	3.937	0.323	8.204x6.15	0.390	3	B
T34-PH09B95-1/2-20-22R	10280471	UNF1/2-20	20.0	0.242	0.500	0.591	2.828	3.699	3.937	0.367	9.322x6.99	0.453	3	B
T34-PH09B95-9/16-18-22R	10280472	UNF9/16-18	18.0	0.268	0.562	0.591	2.768	3.669	3.937	0.429	10.987x8.18	0.512	3	B
T34-PH09B95-5/8-18-22R	10280473	UNF5/8-18	18.0	0.270	0.625	0.591	2.196	3.667	3.937	0.480	12.192x9.14	0.571	3	B
T34-PH09B95-3/4-16-22R	10280474	UNF3/4-16	16.0	0.304	0.750	0.945	2.459	4.026	4.331	0.590	14.986x11.23	0.689	4	B
T34-PH09B95-7/8-14-22R	10280475	UNF7/8-14	14.0	0.333	0.875	0.945	2.990	4.720	4.921	0.697	17.704x13.28	0.807	4	B
T34-PH09B95-1-12-22R	10280476	UNF1-12	12.0	0.387	1.000	1.063	2.970	5.125	5.512	0.800	20.320x15.24	0.917	4	B

Thread turning

MDT

Mini-Shaft™

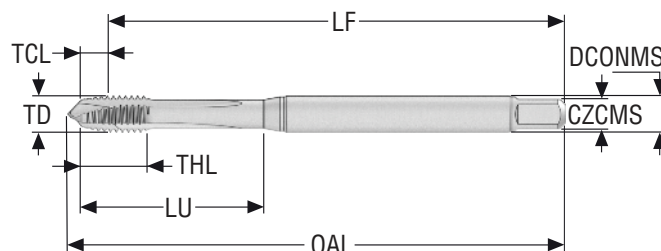
Thread milling

Thread tapping

Annex

T34-PHB

Through holes – EGM threads

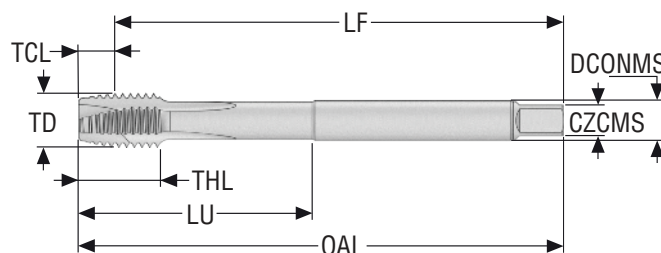


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H mod.
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PH04B03-2X0.4-64R	10139382	EGM2	0,4	2,07 0.081	2,52 0.099	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	3,084 0.121	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	3,65 0.144	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	4,91 0.193	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	6,04 0.238	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	7,3 0.287	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	9,624 0.379	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

T34-PHB

Through holes – EGM threads

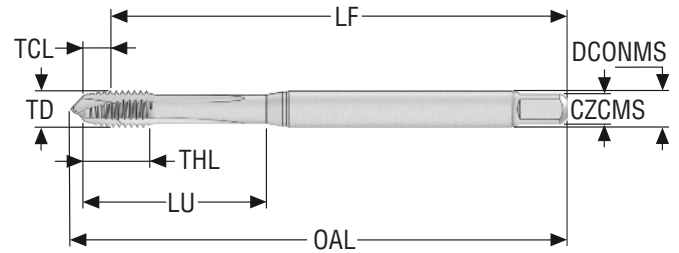


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6H mod.
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PH04B06-10X1.5-64R	10139409	EGM10	1,5	7,41 0.292	11,948 0.470	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	14,274 0.562	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	16,598 0.653	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	18,598 0.732	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	21,248 0.837	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	23,248 0.915	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

T34-PHB

Through holes – EGUNC threads

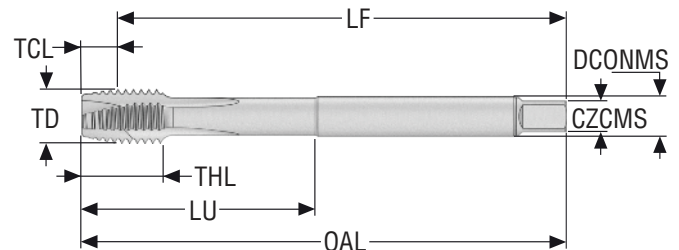


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-PH16B03-4-40-21R	10139389	EGUNC4-40	40,0	2,83 0.111	3,67 0.144	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	32,0	3,75 0.148	4,536 0.179	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	32,0	3,73 0.147	5,197 0.205	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	24,0	3,5 0.138	6,2 0.244	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	20,0	5,71 0.225	8,001 0.315	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	18,0	6,61 0.260	9,771 0.385	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

T34-PHB

Through holes – EGUNC threads

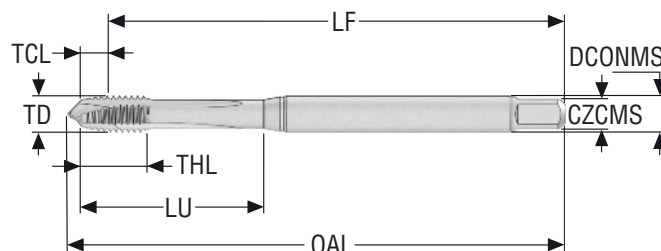


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	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	16,0	7,6 0.299	11,587 0.456	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	14,0	8,6 0.339	13,47 0.530	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	13,0	9,3 0.366	15,237 0.600	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	12,0	9,7 0.382	17,038 0.671	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	11,0	10,6 0.417	18,875 0.743	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	10,0	11,8 0.465	22,349 0.880	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

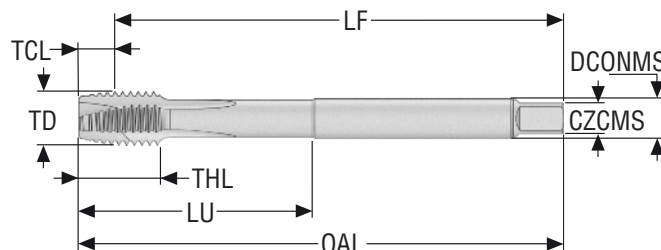


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-PH17B03-4-48-21R	10139395	EGUNF4-48	48,0	2,36 0.093	3,533 0.139	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	40,0	2,75 0.108	4,331 0.171	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	36,0	2,93 0.115	5,083 0.200	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	32,0	3,5 0.138	5,857 0.231	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	28,0	4,09 0.161	7,529 0.296	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	24,0	5,1 0.201	9,312 0.367	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

T34-PHB

Through holes – EGUNF threads

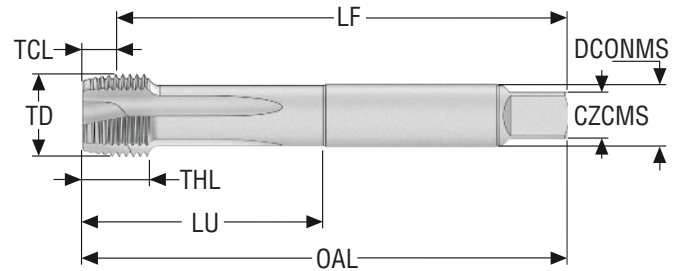


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-PH17B06-3/8-24-21R	10139421	EGUNF3/8-24	24,0	4,43 0.174	10,899 0.429	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	20,0	6,2 0.244	12,763 0.502	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	20,0	6,2 0.244	14,351 0.565	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	18,0	6,9 0.272	16,121 0.635	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	18,0	6,9 0.272	17,709 0.697	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	16,0	7,9 0.311	21,112 0.831	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

T34-PHB

Through holes – G threads

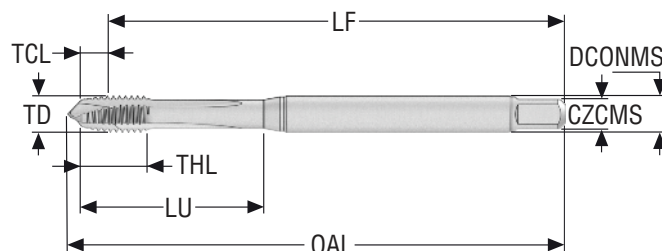


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN5156
- Thread tolerance class: NORMAL-X
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-PH21B09-1/8-28-12R	10139401	G1/8-28	28,0	4,49 0.177	9,728 0.383	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	G1/4-19	19,0	6,85 0.270	13,157 0.518	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	G3/8-19	19,0	6,97 0.274	16,662 0.656	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	G1/2-14	14,0	9,0 0.354	20,955 0.825	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	G5/8-14	14,0	9,4 0.370	22,911 0.902	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	G3/4-14	14,0	9,16 0.361	26,441 1.041	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	G7/8-14	14,0	9,03 0.356	30,201 1.189	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	G1-11	11,0	11,49 0.452	33,249 1.309	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-PCB

Through holes – Metric coarse threads

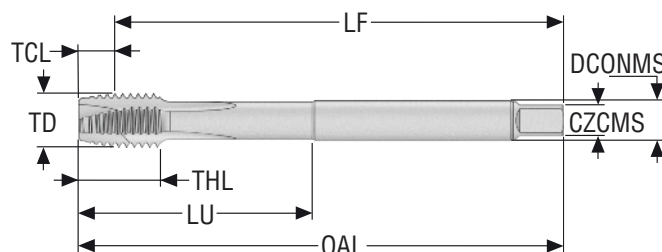


- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 251

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-PC01B03-3X0.5-65R	10309940	M3	0,5	2,3 0.091	3,0 0.118	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-PC01B03-4X0.7-65R	10309941	M4	0,7	3,03 0.119	4,0 0.157	7,0 0.276	21 0.827	60,0 2.362	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	B
T34-PC01B03-5X0.8-65R	10309942	M5	0,8	3,71 0.146	5,0 0.197	8,0 0.315	25 0.984	66,3 2.610	72,0 2.835	6,0 0.236	6.00x4.90	4,2 0.165	3	B
T34-PC01B03-6X1-65R	10309943	M6	1,0	4,45 0.175	6,0 0.236	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
T34-PC01B03-8X1.25-65R	10309944	M8	1,25	5,48 0.216	8,0 0.315	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
T34-PC01B03-10X1.5-65R	10309945	M10	1,5	6,94 0.273	10,0 0.394	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

T34-PCB

Through holes – Metric coarse threads



- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 251

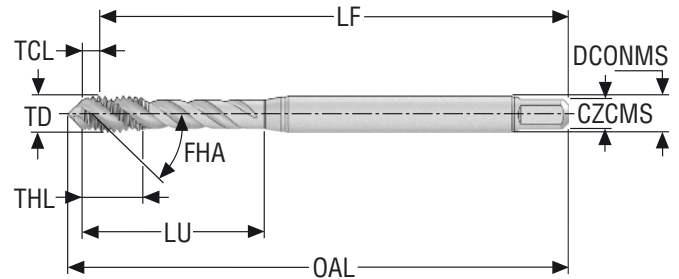
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-PC01B06-12X1.75-65R	10309961	M12	1,75	8,11 0.319	12,0 0.472	18,0 0.709	83 3.268	101,9 4.012	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	B
T34-PC01B06-14X2-65R	10309962	M14	2,0	9,26 0.365	14,0 0.551	20,0 0.787	81 3.189	100,7 3.965	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	3	B
T34-PC01B06-16X2-65R	10309963	M16	2,0	9,36 0.369	16,0 0.630	20,0 0.787	68 2.677	100,6 3.961	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	3	B
T34-PC01B06-18X2.5-65R	10309972	M18	2,5	11,3 0.445	18,0 0.709	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-PC01B06-20X2.5-65R	10309973	M20	2,5	11,4 0.449	20,0 0.787	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-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) 249



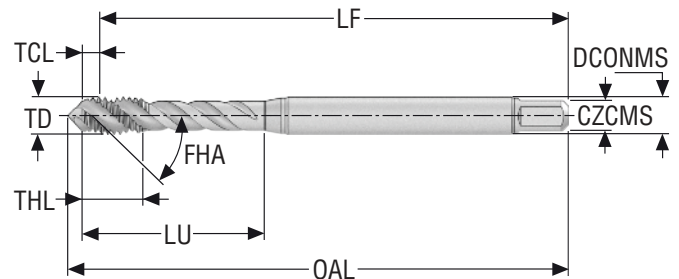
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H01C03-1X0.25-41R	10138952	M1	0,25	0,59 0.023	1,0 0.039	6,0 0.236	13 0.512	39,41 1.552	40,9 1.610	2,5 0.098	2.50X2.10	0,75 0.030	2	C
T34-R45H01C03-1.1X0.25-41R	10138953	M1.1	0,25	0,59 0.023	1,1 0.043	6,0 0.236	13 0.512	39,41 1.552	41,0 1.614	2,5 0.098	2.50X2.10	0,85 0.033	2	C
T34-R45H01C03-1.2X0.25-41R	10138954	M1.2	0,25	0,59 0.023	1,2 0.047	6,0 0.236	13 0.512	39,41 1.552	41,1 1.618	2,5 0.098	2.50X2.10	0,95 0.037	2	C
T34-R45H01C03-1.4X0.3-41R	10138955	M1.4	0,3	0,69 0.027	1,4 0.055	8,0 0.315	13 0.512	39,31 1.548	41,3 1.626	2,5 0.098	2.50X2.10	1,1 0.043	2	C

T34-R45HC-micro

Blind holes – Metric coarse threads



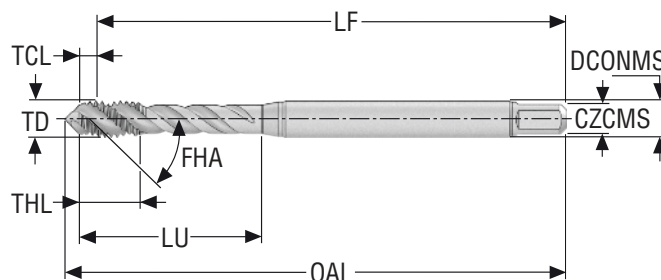
- Substrate: HSS-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 45°
- For cutting data see page(s) 249



Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45H01C03-1.6X0.35-63R	10138956	M1.6	0,35	0,8 0.031	1,6 0.063	8,0 0.315	13 0.512	39,2 1.543	41,4 1.630	2,5 0.098	2.50X2.10	1,25 0.049	2	C
T34-R45H01C03-1.7X0.35-63R	10138957	M1.7	0,35	0,8 0.031	1,7 0.067	8,0 0.315	13 0.512	39,2 1.543	41,5 1.634	2,5 0.098	2.50X2.10	1,35 0.053	2	C
T34-R45H01C03-1.8X0.35-63R	10138958	M1.8	0,35	0,8 0.031	1,8 0.071	8,0 0.315	13 0.512	39,2 1.543	41,6 1.638	2,5 0.098	2.50X2.10	1,45 0.057	2	C
T34-R45H01C03-2X0.4-63R	10138959	M2	0,4	1,05 0.041	2,0 0.079	10,0 0.394	13 0.512	43,95 1.730	46,3 1.823	2,8 0.110	2.80X2.10	1,6 0.063	2	C
T34-R45H01C03-2.2X0.45-63R	10138960	M2.2	0,45	1,15 0.045	2,2 0.087	10,0 0.394	13 0.512	43,85 1.726	46,3 1.823	2,8 0.110	2.80X2.10	1,75 0.069	2	C
T34-R45H01C03-2.3X0.4-63R	10138961	M2.3	0,4	1,05 0.041	2,3 0.091	10,0 0.394	13 0.512	43,95 1.730	46,3 1.823	2,8 0.110	2.80X2.10	1,9 0.075	2	C
T34-R45H01C03-2.5X0.45-63R	10138962	M2.5	0,45	1,06 0.042	2,5 0.098	5,0 0.197	14 0.551	48,94 1.927	51,7 2.035	2,8 0.110	2.80X2.10	2,05 0.081	2	C
T34-R45H01C03-2.6X0.45-63R	10138963	M2.6	0,45	1,15 0.045	2,6 0.102	5,0 0.197	14 0.551	48,85 1.923	51,7 2.035	2,8 0.110	2.80X2.10	2,15 0.085	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) 249

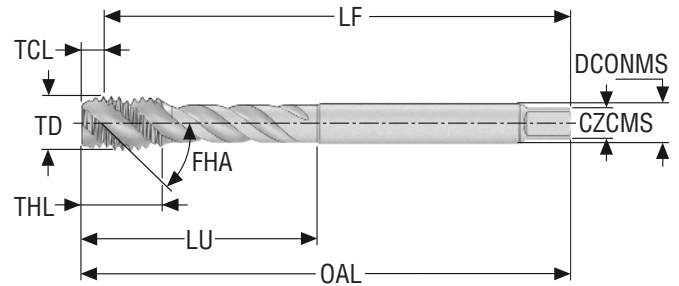
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H01C03-3X0.5-65R	10138964	M3	0,5	1,2 0.047	3,0 0.118	5,0 0.197	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50X2.70	2,5 0.098	3	C
T34-R45H01C03-3.5X0.6-65R	10138966	M3.5	0,6	1,31 0.052	3,5 0.138	6,0 0.236	20 0.787	54,69 2.153	57,4 2.260	4,0 0.157	4.00X3.00	2,9 0.114	3	C
T34-R45H01C03-4X0.7-65R	10138967	M4	0,7	1,82 0.072	4,0 0.157	7,0 0.276	21 0.827	61,18 2.409	64,6 2.543	4,5 0.177	4.50X3.40	3,3 0.130	3	C
T34-R45H01C03-4.5X0.75-65R	10138968	M4.5	0,75	1,82 0.072	4,5 0.177	7,5 0.295	25 0.984	68,18 2.684	71,8 2.827	6,0 0.236	6.00X4.90	3,8 0.150	3	C
T34-R45H01C03-5X0.8-65R	10138969	M5	0,8	2,01 0.079	5,0 0.197	8,0 0.315	25 0.984	67,99 2.677	72,0 2.835	6,0 0.236	6.00X4.90	4,2 0.165	3	C
T34-R45H01C03-6X1-65R	10138970	M6	1,0	2,32 0.091	6,0 0.236	10,0 0.394	30 1.181	77,68 3.058	82,4 3.244	6,0 0.236	6.00X4.90	5,0 0.197	3	C
T34-R45H01C03-8X1.25-65R	10138971	M8	1,25	3,16 0.124	8,0 0.315	13,0 0.512	35 1.378	86,84 3.419	91,7 3.610	8,0 0.315	8.00X6.20	6,8 0.268	3	C
T34-R45H01C03-10X1.5-65R	10138972	M10	1,5	3,81 0.150	10,0 0.394	15,0 0.591	39 1.535	96,19 3.787	101,8 4.008	10,0 0.394	10.00X8.00	8,5 0.335	3	C

T34-R45HC

Blind holes – Metric coarse threads



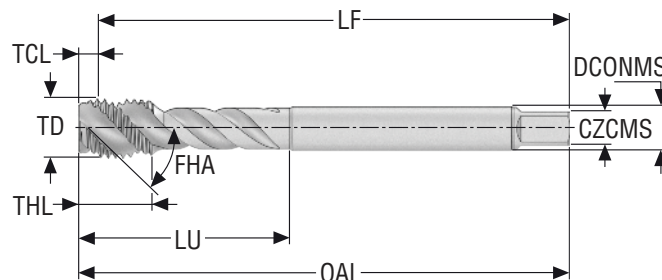
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 249



Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45H01C06-12X1.75-65R	10138973	M12	1,75	4,47 0.176	12,0 0.472	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	14,0 0.551	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	16,0 0.630	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	18,0 0.709	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	20,0 0.787	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	22,0 0.866	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	24,0 0.945	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	27,0 1.063	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	30,0 1.181	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	33,0 1.299	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	36,0 1.417	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-R45HC

Blind holes – Metric coarse threads

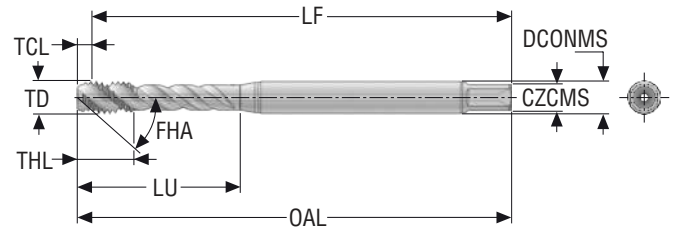


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN/ANSI
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45H01C93-4X0.7-65R	10280390	M4	0,7	1,82 0.072	4,0 0.157	7,0 0.276	21,19 0.834	61,3 2.413	64,6 2.543	4,267 0.168	4.267x3.33	3,3 0.130	3	C
T34-R45H01C93-5X0.8-65R	10280391	M5	0,8	2,01 0.079	5,0 0.197	8,0 0.315	25,14 0.990	68,06 2.680	72,0 2.835	4,928 0.194	4.928x3.86	4,2 0.165	3	C
T34-R45H01C93-6X1-65R	10280392	M6	1,0	2,32 0.091	6,0 0.236	10,0 0.394	30,14 1.187	77,68 3.058	82,4 3.244	6,477 0.255	6.477x4.85	5,0 0.197	3	C
T34-R45H01C93-8X1.25-65R	10280393	M8	1,25	3,16 0.124	8,0 0.315	13,0 0.512	35,14 1.383	86,84 3.419	90,0 3.543	8,077 0.318	8.077x6.05	6,8 0.268	3	C
T34-R45H01C93-10X1.5-65R	10280394	M10	1,5	3,81 0.150	10,0 0.394	15,0 0.591	39,14 1.541	96,19 3.787	100,0 3.937	9,667 0.381	9.667x7.26	8,5 0.335	3	C
T34-R45H01C96-12X1.75-65R	10280395	M12	1,75	4,47 0.176	12,0 0.472	18,0 0.709	81,82 3.221	105,53 4.155	110,0 4.331	9,322 0.367	9.322x6.99	10,2 0.402	3	C
T34-R45H01C96-16X2-65R	10280397	M16	2,0	5,21 0.205	16,0 0.630	20,0 0.787	65,78 2.590	104,79 4.126	110,0 4.331	12,192 0.480	12.192x9.14	14,0 0.551	4	C
T34-R45H01C96-18X2.5-65R	10280398	M18	2,5	6,28 0.247	18,0 0.709	25,0 0.984	79 3.110	118,72 4.674	125,0 4.921	13,767 0.542	13.767x10.31	15,5 0.610	4	C
T34-R45H01C96-20X2.5-65R	10280399	M20	2,5	6,28 0.247	20,0 0.787	25,0 0.984	92,47 3.641	133,72 5.265	140,0 5.512	16,561 0.652	16.561x12.42	17,5 0.689	4	C
T34-R45H01C96-24X3-65R	10280400	M24	3,0	7,48 0.294	24,0 0.945	30,0 1.181	96,95 3.817	152,52 6.005	160,0 6.299	19,304 0.760	19.304x14.48	21,0 0.827	4	C

T34A-R45HC

Blind holes – Metric coarse threads

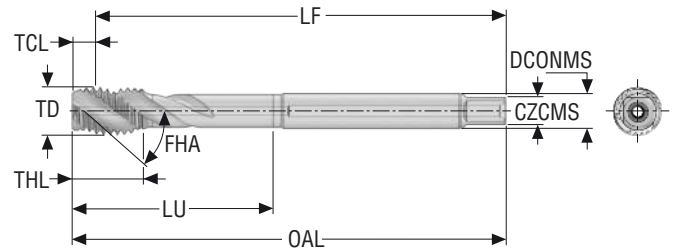


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 249

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

T34A-R45HC

Blind holes – Metric coarse threads

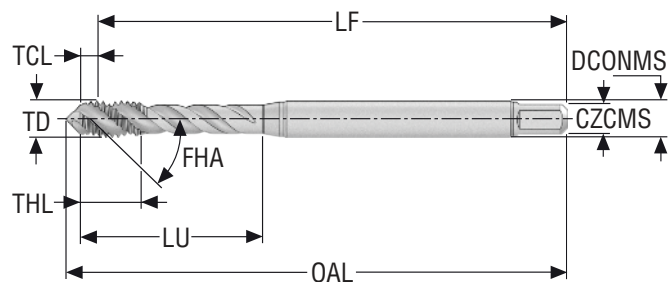


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34A-R45H01C06-12X1.75-65R	10138988	M12	1,75	4,47 0.176	12,0 0.472	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	14,0 0.551	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	16,0 0.630	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-R45HC

Blind holes – MF threads

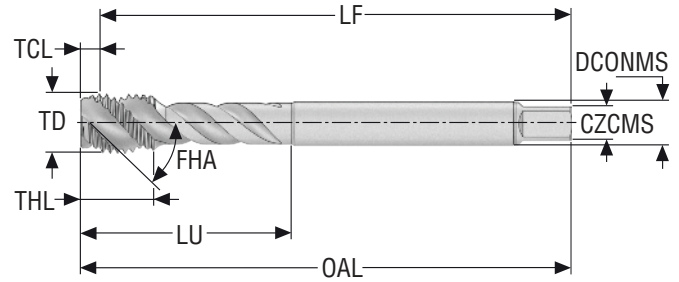


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45H02C03-3X0.35-65R	10139002	MF3X0.35	0,35	0,7 0.028	3,0 0.118	5,0 0.197	18 0.709	55,3 2.177	57,2 2.252	3,5 0.138	3.50X2.70	2,65 0.104	3	C
T34-R45H02C03-3.5X0.35-65R	10139003	MF3.5X0.35	0,35	0,69 0.027	3,5 0.138	5,0 0.197	20 0.787	55,31 2.178	57,4 2.260	4,0 0.157	4.00X3.00	3,15 0.124	3	C
T34-R45H02C03-4X0.5-65R	10139004	MF4X0.5	0,5	1,31 0.052	4,0 0.157	7,0 0.276	21 0.827	61,69 2.429	64,6 2.543	4,5 0.177	4.50X3.40	3,5 0.138	3	C
T34-R45H02C03-5X0.5-65R	10139005	MF5X0.5	0,5	1,2 0.047	5,0 0.197	8,0 0.315	25 0.984	68,8 2.709	72,0 2.835	6,0 0.236	6.00X4.90	4,5 0.177	3	C
T34-R45H02C03-6X0.5-65R	10139006	MF6X0.5	0,5	1,22 0.048	6,0 0.236	10,0 0.394	30 1.181	78,78 3.102	82,4 3.244	6,0 0.236	6.00X4.90	5,5 0.217	3	C
T34-R45H02C03-6X0.75-65R	10139007	MF6X0.75	0,75	1,77 0.070	6,0 0.236	10,0 0.394	30 1.181	78,23 3.080	82,4 3.244	6,0 0.236	6.00X4.90	5,2 0.205	3	C
T34-R45H02C03-8X0.75-65R	10139008	MF8X0.75	0,75	2,07 0.081	8,0 0.315	10,0 0.394	30 1.181	77,93 3.068	81,7 3.217	8,0 0.315	8.00X6.20	7,2 0.283	3	C
T34-R45H02C03-8X1-65R	10139009	MF8X1.0	1,0	2,62 0.103	8,0 0.315	13,0 0.512	35 1.378	87,38 3.440	91,7 3.610	8,0 0.315	8.00X6.20	7,0 0.276	3	C
T34-R45H02C03-10X0.75-65R	10139011	MF10X0.75	0,75	2,17 0.085	10,0 0.394	13,0 0.512	35 1.378	87,83 3.458	91,8 3.614	10,0 0.394	10.00X8.00	9,2 0.362	3	C
T34-R45H02C03-10X1-65R	10139012	MF10X1.0	1,0	2,72 0.107	10,0 0.394	13,0 0.512	35 1.378	87,28 3.436	91,8 3.614	10,0 0.394	10.00X8.00	9,0 0.354	3	C
T34-R45H02C03-10X1.25-65R	10139013	MF10X1.25	1,25	3,26 0.128	10,0 0.394	15,0 0.591	39 1.535	96,74 3.809	101,8 4.008	10,0 0.394	10.00X8.00	8,8 0.346	3	C

T34-R45HC

Blind holes – MF threads

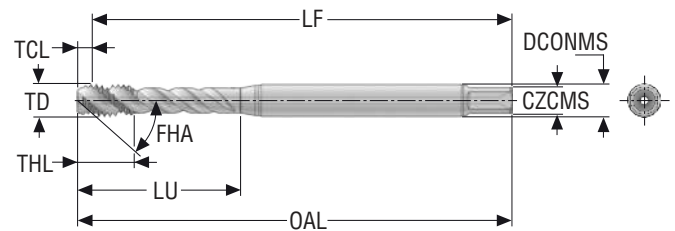


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45H02C05-8X1-65R	10139014	MF8X1.0	1,0	2,62 0.103	8,0 0.315	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
T34-R45H02C05-10X1-65R	10139015	MF10X1.0	1,0	2,62 0.103	10,0 0.394	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
T34-R45H02C05-12X1-65R	10139016	MF12X1.0	1,0	2,83 0.111	12,0 0.472	10,0 0.394	73 2.874	97,17 3.826	100,0 3.937	9,0 0.354	9.00X7.00	11,0 0.433	3	C
T34-R45H02C05-12X1.25-65R	10139017	MF12X1.25	1,25	3,38 0.133	12,0 0.472	15,0 0.591	73 2.874	96,62 3.804	100,0 3.937	9,0 0.354	9.00X7.00	10,8 0.425	3	C
T34-R45H02C05-12X1.5-65R	10139018	MF12X1.5	1,5	3,93 0.155	12,0 0.472	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
T34-R45H02C05-14X1.5-65R	10139019	MF14X1.5	1,5	4,03 0.159	14,0 0.551	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
T34-R45H02C05-16X1.5-65R	10139020	MF16X1.5	1,5	4,13 0.163	16,0 0.630	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
T34-R45H02C05-18X1.5-65R	10139021	MF18X1.5	1,5	4,13 0.163	18,0 0.709	17,0 0.669	66 2.598	105,87 4.168	110,0 4.331	14,0 0.551	14.00X11.00	16,5 0.650	4	C
T34-R45H02C05-20X1.5-65R	10139022	MF20X1.5	1,5	4,13 0.163	20,0 0.787	17,0 0.669	80 3.150	120,87 4.759	125,0 4.921	16,0 0.630	16.00X12.00	18,5 0.728	4	C
T34-R45H02C05-22X1.5-65R	10139023	MF22X1.5	1,5	4,13 0.163	22,0 0.866	17,0 0.669	78 3.071	120,87 4.759	125,0 4.921	18,0 0.709	18.00X14.50	20,5 0.807	4	C
T34-R45H02C05-24X1.5-65R	10139024	MF24X1.5	1,5	4,25 0.167	24,0 0.945	20,0 0.787	93 3.661	135,75 5.344	140,0 5.512	18,0 0.709	18.00X14.50	22,5 0.886	4	C

T34A-R45HC

Blind holes – MF threads

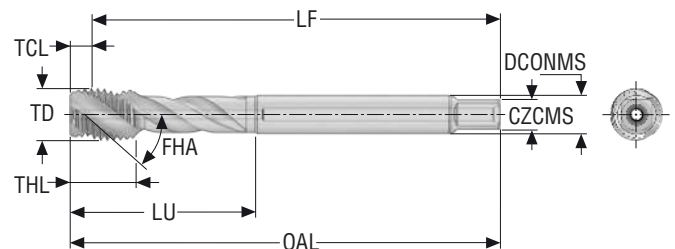


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34A-R45H02C03-8X1-65R	10139025	MF8X1.0	1,0	2,62 0.103	8,0 0.315	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	MF10X1.0	1,0	2,72 0.107	10,0 0.394	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

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) 249

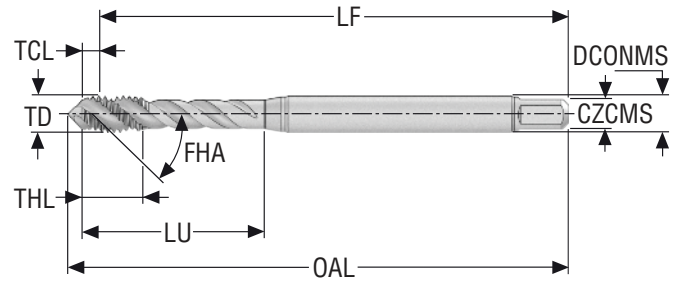
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34A-R45H02C05-8X1-65R	10139027	MF8X1.0	1,0	2,62 0.103	8,0 0.315	10,0 0.394	35 1.378	87,38 3.440	90,0 3.543	6,0 0.236	6.00X4.90	7,0 0.276	3	C
T34A-R45H02C05-10X1-65R	10139028	MF10X1.0	1,0	2,62 0.103	10,0 0.394	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	12,0 0.472	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	14,0 0.551	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	16,0 0.630	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

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) 249



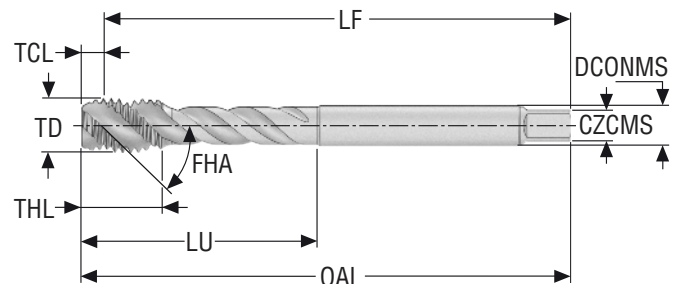
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H08C03-4-40-22R	10139054	UNC4-40	40,0	1,48 0.058	2,845 0.112	5,0 0.197	18 0.709	54,52 2.146	56,0 2.205	3,5 0.138	3.50X2.70	2,35 0.093	3	C
T34-R45H08C03-5-40-22R	10139055	UNC5-40	40,0	1,53 0.060	3,175 0.125	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	32,0	1,95 0.077	3,505 0.138	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	32,0	1,89 0.074	4,166 0.164	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	24,0	2,53 0.100	4,826 0.190	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	24,0	2,47 0.097	5,486 0.216	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	20,0	2,94 0.116	6,35 0.250	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	18,0	3,59 0.141	7,937 0.312	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	16,0	4,03 0.159	9,525 0.375	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



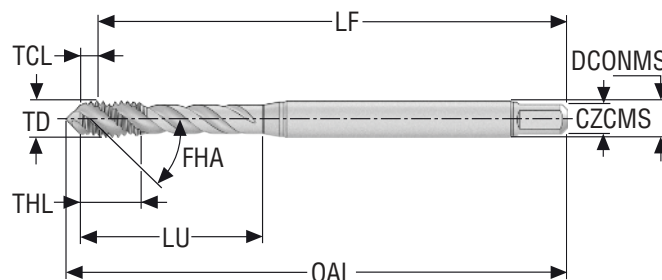
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 249



Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			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	14,0	4,65 0.183	11,112 0.437	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	13,0	4,99 0.196	12,7 0.500	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	3	C
T34-R45H08C06-9/16-12-22R	10139065	UNC9/16-12	12,0	5,43 0.214	14,287 0.562	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	11,0	5,87 0.231	15,875 0.625	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

T34-R45HC

Blind holes – UNC threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN/ANSI
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 249

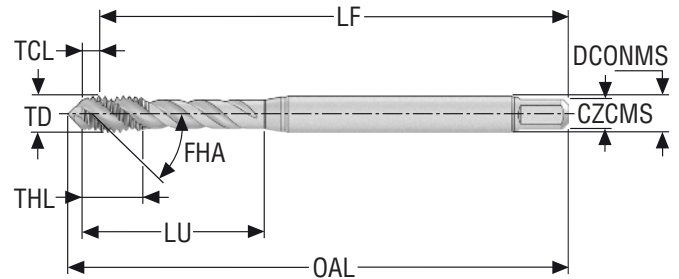
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	Inch	Inch	Inch	Inch	Inch	Inch	Inch		Inch		
T34-R45H08C93-4-40-22R	10280358	UNC4-40	40.0	0.058	0.112	0.197	0.720	2.152	2.252	0.141	3.581x2.79	0.093	3	C
T34-R45H08C93-5-40-22R	10280359	UNC5-40	40.0	0.060	0.125	0.276	0.714	2.144	2.252	0.141	3.581x2.79	0.104	3	C
T34-R45H08C93-6-32-22R	10280360	UNC6-32	32.0	0.077	0.138	0.236	0.799	2.134	2.260	0.141	3.581x2.79	0.112	3	C
T34-R45H08C93-8-32-22R	10280361	UNC8-32	32.0	0.074	0.164	0.276	0.832	2.406	2.543	0.168	4.267x3.33	0.138	3	C
T34-R45H08C93-10-24-22R	10280362	UNC10-24	24.0	0.100	0.190	0.315	1.000	2.666	2.835	0.194	4.928x3.86	0.154	3	C
T34-R45H08C93-12-24-22R	10280363	UNC12-24	24.0	0.097	0.216	0.394	1.191	3.056	3.236	0.220	5.588x4.19	0.177	3	C
T34-R45H08C93-1/4-20-22R	10280364	UNC1/4-20	20.0	0.116	0.250	0.512	1.269	3.034	3.244	0.255	6.477x4.85	0.201	3	C
T34-R45H08C93-5/16-18-22R	10280365	UNC5/16-18	18.0	0.141	0.312	0.512	1.383	3.402	3.543	0.318	8.077x6.05	0.260	3	C
T34-R45H08C93-3/8-16-22R	10280366	UNC3/8-16	16.0	0.159	0.375	0.591	1.541	3.778	3.937	0.381	9.667x7.26	0.315	3	C
T34-R45H08C96-7/16-14-22R	10280367	UNC7/16-14	14.0	0.183	0.437	0.591	2.858	3.754	3.937	0.323	8.204x6.15	0.366	3	C
T34-R45H08C96-1/2-13-22R	10280368	UNC1/2-13	13.0	0.196	0.500	0.709	3.221	4.134	4.331	0.367	9.322x6.99	0.421	3	C
T34-R45H08C96-9/16-12-22R	10280369	UNC9/16-12	12.0	0.214	0.562	0.787	3.161	4.117	4.331	0.429	10.987x8.18	0.484	4	C
T34-R45H08C96-5/8-11-22R	10280370	UNC5/8-11	11.0	0.231	0.625	0.866	2.590	4.100	4.331	0.480	12.192x9.14	0.531	4	C
T34-R45H08C96-3/4-10-22R	10280371	UNC3/4-10	10.0	0.250	0.750	1.260	3.050	4.671	4.921	0.590	14.986x11.23	0.650	4	C
T34-R45H08C96-7/8-9-22R	10280372	UNC7/8-9	9.0	0.277	0.875	1.260	3.581	5.235	5.512	0.697	17.704x13.28	0.768	4	C
T34-R45H08C96-1-8-22R	10280373	UNC1-8	8.0	0.323	1.000	1.496	3.757	5.976	6.299	0.800	20.320x15.24	0.876	4	C

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) 249



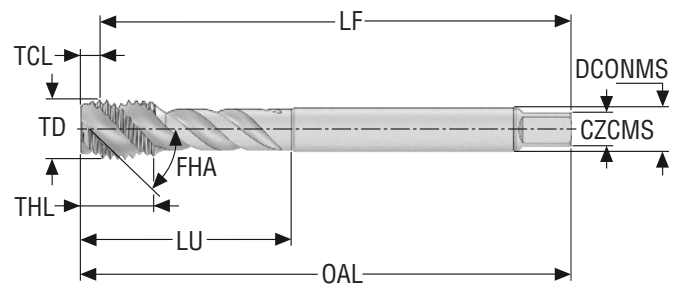
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H09C03-4-48-22R	10139067	UNF4-48	48,0	1,29 0.051	2,845 0.112	5,0 0.197	18 0.709	54,71 2.154	57,2 2.252	3,5 0.138	3.50X2.70	2,4 0.094	3	C
T34-R45H09C03-5-44-22R	10139068	UNF5-44	44,0	1,35 0.053	3,175 0.125	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	40,0	1,59 0.063	3,505 0.138	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	36,0	1,71 0.067	4,166 0.164	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	32,0	2,0 0.079	4,826 0.190	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	28,0	2,11 0.083	5,486 0.216	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	28,0	2,23 0.088	6,35 0.250	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	24,0	2,87 0.113	7,937 0.312	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	24,0	2,96 0.117	9,525 0.375	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

T34-R45HC

Blind holes – UNF threads



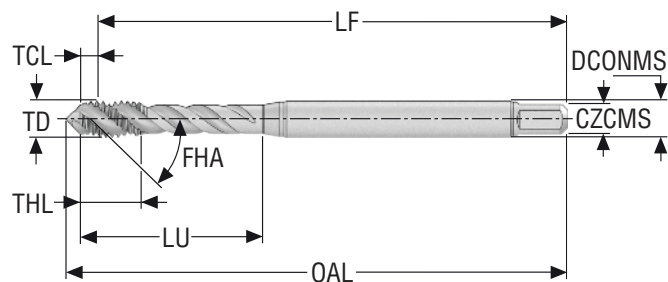
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 249



Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			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	20,0	3,39 0.133	11,112 0.437	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	20,0	3,56 0.140	12,7 0.500	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	3	C
T34-R45H09C05-9/16-18-22R	10139082	UNF9/16-18	18,0	3,86 0.152	14,287 0.562	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	18,0	3,91 0.154	15,875 0.625	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

T34-R45HC

Blind holes – UNF threads



- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN/ANSI
- Thread tolerance class: 2BX
- FHA = 45°
- For cutting data see page(s) 249

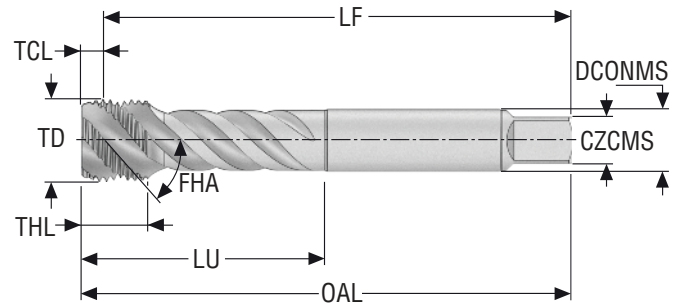
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	Inch	Inch	Inch	Inch	Inch	Inch	Inch		Inch		
T34-R45H09C93-4-48-22R	10280374	UNF4-48	48.0	0.051	0.112	0.197	0.718	2.158	2.252	0.141	3.581x2.79	0.094	3	C
T34-R45H09C93-5-44-22R	10280375	UNF5-44	44.0	0.053	0.125	0.276	0.712	2.150	2.252	0.141	3.581x2.79	0.106	3	C
T34-R45H09C93-6-40-22R	10280376	UNF6-40	40.0	0.063	0.138	0.236	0.795	2.144	2.260	0.141	3.581x2.79	0.116	3	C
T34-R45H09C93-8-36-22R	10280377	UNF8-36	36.0	0.067	0.164	0.276	0.830	2.411	2.543	0.168	4.267x3.33	0.138	3	C
T34-R45H09C93-10-32-22R	10280378	UNF10-32	32.0	0.079	0.190	0.315	0.994	2.681	2.835	0.194	4.928x3.86	0.161	3	C
T34-R45H09C93-12-28-22R	10280379	UNF12-28	28.0	0.083	0.216	0.394	1.187	3.067	3.236	0.220	5.588x4.19	0.181	3	C
T34-R45H09C93-1/4-28-22R	10280380	UNF1/4-28	28.0	0.088	0.250	0.394	1.179	3.054	3.244	0.255	6.477x4.85	0.217	3	C
T34-R45H09C93-5/16-24-22R	10280381	UNF5/16-24	24.0	0.113	0.312	0.512	1.383	3.430	3.543	0.318	8.077x6.05	0.272	3	C
T34-R45H09C93-3/8-24-22R	10280382	UNF3/8-24	24.0	0.117	0.375	0.591	1.383	3.427	3.543	0.381	9.667x7.26	0.335	3	C
T34-R45H09C95-7/16-20-22R	10280383	UNF7/16-20	20.0	0.133	0.437	0.591	2.858	3.804	3.937	0.323	8.204x6.15	0.390	3	C
T34-R45H09C95-1/2-20-22R	10280384	UNF1/2-20	20.0	0.140	0.500	0.591	2.828	3.797	3.937	0.367	9.322x6.99	0.453	3	C
T34-R45H09C95-9/16-18-22R	10280385	UNF9/16-18	18.0	0.152	0.562	0.591	2.768	3.785	3.937	0.429	10.987x8.18	0.512	4	C
T34-R45H09C95-5/8-18-22R	10280386	UNF5/8-18	18.0	0.154	0.625	0.591	2.196	3.783	3.937	0.480	12.192x9.14	0.571	4	C
T34-R45H09C95-3/4-16-22R	10280387	UNF3/4-16	16.0	0.166	0.750	0.945	2.459	4.165	4.331	0.590	14.986x11.23	0.689	4	C
T34-R45H09C95-7/8-14-22R	10280388	UNF7/8-14	14.0	0.187	0.875	0.945	2.990	4.803	4.921	0.697	17.704x13.28	0.807	4	C
T34-R45H09C95-1-12-22R	10280389	UNF1-12	12.0	0.231	1.000	1.063	2.970	5.280	5.512	0.800	20.320x15.24	0.917	4	C

T34-R45HC

Blind holes – G threads



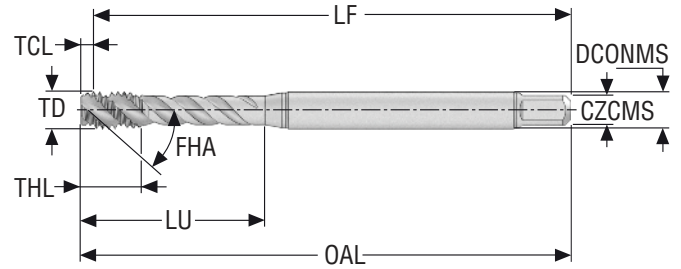
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN5156
- Thread tolerance class: NORMAL-X
- FHA = 45°
- For cutting data see page(s) 249



Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H21C09-1/8-28-12R	10139084	G1/8-28	28,0	2,43 0.096	9,728 0.383	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	G1/4-19	19,0	3,66 0.144	13,157 0.518	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	G3/8-19	19,0	3,67 0.144	16,662 0.656	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	G1/2-14	14,0	4,93 0.194	20,955 0.825	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	G5/8-14	14,0	5,06 0.199	22,911 0.902	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	G3/4-14	14,0	5,05 0.199	26,441 1.041	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	G7/8-14	14,0	4,98 0.196	30,201 1.189	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	G1-11	11,0	6,56 0.258	33,249 1.309	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 – Metric coarse threads

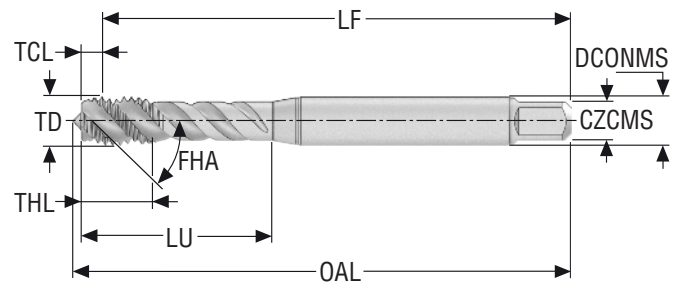


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45H01E03-3X0.5-65R	10138991	M3	0,5	0,81 0.032	3,0 0.118	5,0 0.197	18 0.709	55,19 2.173	56,0 2.205	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	3,5 0.138	6,0 0.236	20 0.787	55,06 2.168	56,0 2.205	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	4,0 0.157	7,0 0.276	21 0.827	61,82 2.434	63,0 2.480	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	4,5 0.177	7,5 0.295	25 0.984	68,82 2.709	70,0 2.756	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	5,0 0.197	8,0 0.315	25 0.984	68,69 2.704	70,0 2.756	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	6,0 0.236	10,0 0.394	30 1.181	78,43 3.088	80,0 3.150	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	8,0 0.315	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	10,0 0.394	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

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) 249

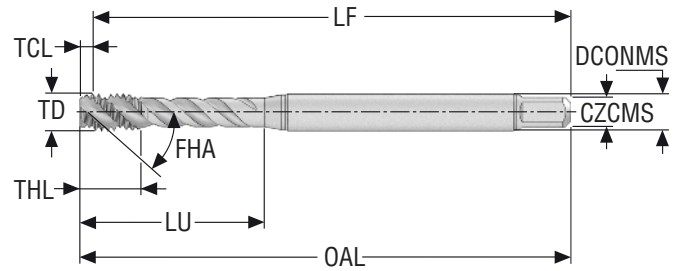
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H01E06-12X1.75-65R	10138999	M12	1,75	3,18 0.125	12,0 0.472	18,0 0.709	83 3.268	106,82 4.206	110,0 4.331	9,0 0.354	9.00X7.00	10,2 0.402	3	E
T34-R45H01E06-14X2-65R	10139000	M14	2,0	3,65 0.144	14,0 0.551	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	16,0 0.630	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

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) 249



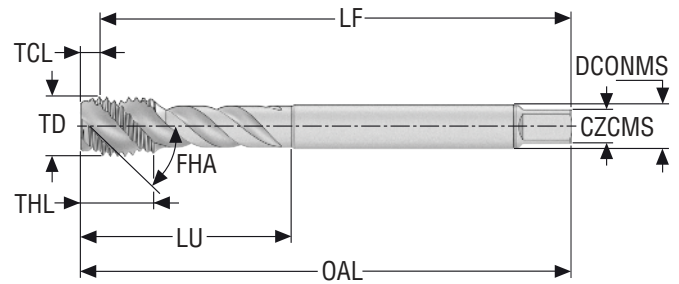
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H02E03-8X1-65R	10139032	MF8X1.0	1,0	1,87 0.074	8,0 0.315	13,0 0.512	35 1.378	88,13 3.470	90,0 3.543	8,0 0.315	8.00X6.20	7,0 0.276	3	E
T34-R45H02E03-10X1-65R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

T34-R45HE

Blind holes – MF threads



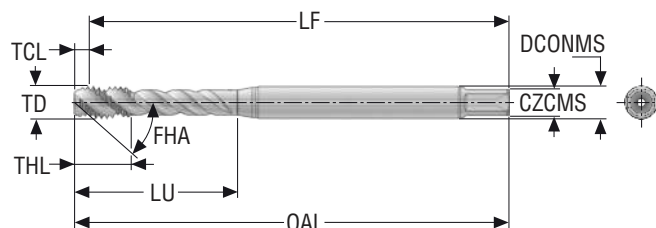
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 249



Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45H02E05-8X1-65R	10139034	MF8X1.0	1,0	1,87 0.074	8,0 0.315	10,0 0.394	35 1.378	88,13 3.470	90,0 3.543	6,0 0.236	6.00X4.90	7,0 0.276	3	E
T34-R45H02E05-10X1-65R	10139035	MF10X1.0	1,0	1,87 0.074	10,0 0.394	10,0 0.394	35 1.378	88,13 3.470	90,0 3.543	7,0 0.276	7.00X5.50	9,0 0.354	3	E
T34-R45H02E05-12X1.5-65R	10139036	MF12X1.5	1,5	2,81 0.111	12,0 0.472	15,0 0.591	73 2.874	97,19 3.826	100,0 3.937	9,0 0.354	9.00X7.00	10,5 0.413	3	E
T34-R45H02E05-14X1.5-65R	10139037	MF14X1.5	1,5	3,01 0.119	14,0 0.551	15,0 0.591	71 2.795	96,99 3.819	100,0 3.937	11,0 0.433	11.00X9.00	12,5 0.492	4	E
T34-R45H02E05-16X1.5-65R	10139038	MF16X1.5	1,5	3,01 0.119	16,0 0.630	15,0 0.591	58 2.283	96,99 3.819	100,0 3.937	12,0 0.472	12.00X9.00	14,5 0.571	4	E

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) 249

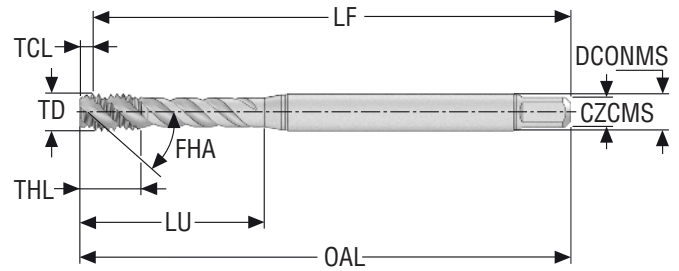
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>		mm <i>Inch</i>		
T34A-R45H02E03-8X1-65R	10139039	MF8X1.0	1,0	1,87 0.074	8,0 0.315	13,0 0.512	35 1.378	88,13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

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) 249



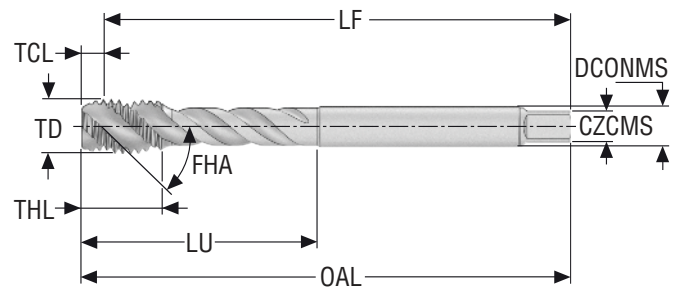
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H04E03-2X0.4-64R	10139092	EGM2	0,4	0,73 0.029	2,52 0.099	5,0 0.197	14 0.551	49,27 1.940	50,0 1.969	2,8 0.110	2.80X2.10	2,1 0.083	2	E
T34-R45H04E03-2.5X0.45-64R	10139093	EGM2.5	0,45	0,75 0.030	3,084 0.121	5,0 0.197	18 0.709	55,25 2.175	56,0 2.205	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	3,65 0.144	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	4,91 0.193	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	6,04 0.238	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	7,3 0.287	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	9,624 0.379	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



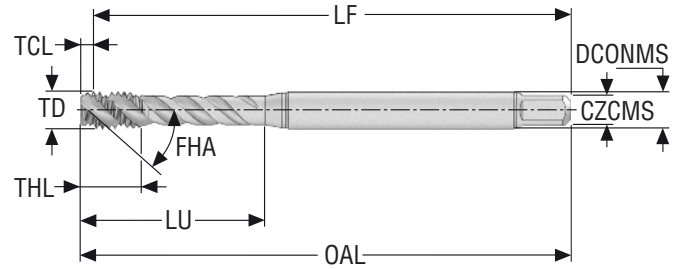
- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 6H mod.
- FHA = 45°
- For cutting data see page(s) 249



Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45H04E06-10X1.5-64R	10139111	EGM10	1,5	2,83 0.111	11,948 0.470	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	14,274 0.562	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	16,598 0.653	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	18,598 0.732	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	21,248 0.837	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	23,248 0.915	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

T34-R45HE

Blind holes – EGUNC threads

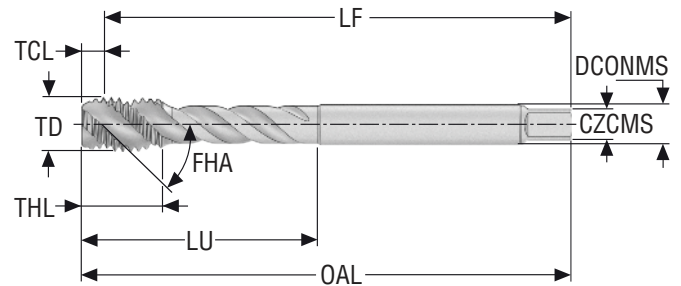


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		
T34-R45H16E03-4-40-21R	10139099	EGUNC4-40	40,0	1,0 0.039	3,67 0.144	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	32,0	1,32 0.052	4,536 0.179	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	32,0	1,32 0.052	5,197 0.205	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	24,0	1,64 0.065	6,2 0.244	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	20,0	2,29 0.090	8,001 0.315	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	18,0	2,5 0.098	9,771 0.385	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

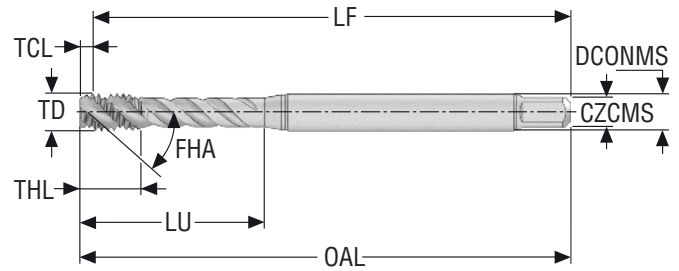


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	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	16,0	2,99 0.118	11,587 0.456	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	14,0	3,3 0.130	13,47 0.530	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	13,0	3,74 0.147	15,237 0.600	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	12,0	3,6 0.142	17,038 0.671	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	11,0	4,3 0.169	18,875 0.743	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	10,0	4,8 0.189	22,349 0.880	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

T34-R45HE

Blind holes – EGUNF threads

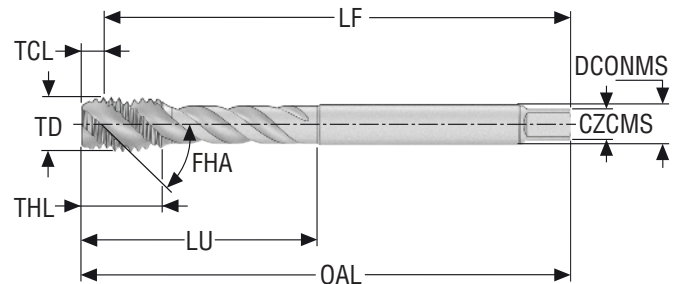


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN371
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			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	48,0	0,83 0.033	3,533 0.139	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	40,0	1,12 0.044	4,331 0.171	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	36,0	1,32 0.052	5,083 0.200	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	32,0	1,23 0.048	5,857 0.231	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	28,0	1,74 0.069	7,529 0.296	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	24,0	2,52 0.099	9,312 0.367	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

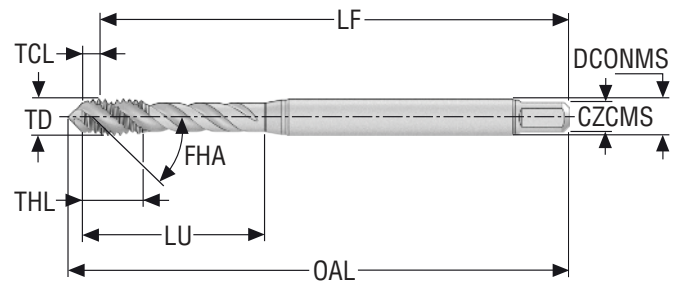


- Substrate: HSSE-PM
- Coating: TiAlN + WC/C
- Standard: DIN376
- Thread tolerance class: 2B
- FHA = 45°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T34-R45H17E06-3/8-24-21R	10139123	EGUNF3/8-24	24,0	2,0 0.079	10,899 0.429	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	20,0	2,5 0.098	12,763 0.502	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	20,0	2,5 0.098	14,351 0.565	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	18,0	2,58 0.102	16,121 0.635	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	18,0	2,7 0.106	17,709 0.697	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	16,0	3,0 0.118	21,112 0.831	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

T34-R45CC

Blind holes – Metric coarse threads

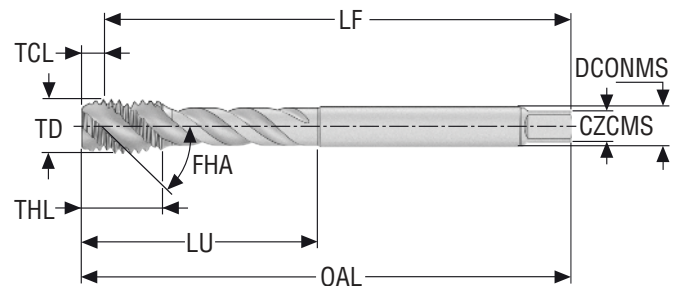


- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 251

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45C01C03-3X0.5-65R	10309853	M3	0,5	1,2 0.047	3,0 0.118	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
T34-R45C01C03-4X0.7-65R	10309854	M4	0,7	1,75 0.069	4,0 0.157	7,0 0.276	21 0.827	61,3 2.413	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	C
T34-R45C01C03-5X0.8-65R	10309855	M5	0,8	1,94 0.076	5,0 0.197	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
T34-R45C01C03-6X1-65R	10309856	M6	1,0	2,31 0.091	6,0 0.236	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00x4.90	5,0 0.197	3	C
T34-R45C01C03-8X1.25-65R	10309857	M8	1,25	3,16 0.124	8,0 0.315	13,0 0.512	35 1.378	86,8 3.417	91,7 3.610	8,0 0.315	8.00x6.20	6,8 0.268	3	C
T34-R45C01C03-10X1.5-65R	10309858	M10	1,5	3,81 0.150	10,0 0.394	15,0 0.591	39 1.535	96,2 3.787	101,8 4.008	10,0 0.394	10.00x8.00	8,5 0.335	3	C

T34-R45CC

Blind holes – Metric coarse threads

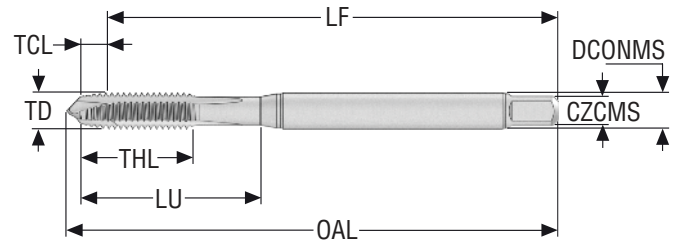


- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 45°
- For cutting data see page(s) 251

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T34-R45C01C06-12X1.75-65R	10309870	M12	1,75	4,47 0.176	12,0 0.472	18,0 0.709	83 3.268	105,5 4.154	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	C
T34-R45C01C06-14X2-65R	10309871	M14	2,0	5,11 0.201	14,0 0.551	20,0 0.787	81 3.189	104,9 4.130	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	4	C
T34-R45C01C06-16X2-65R	10309872	M16	2,0	5,21 0.205	16,0 0.630	20,0 0.787	68 2.677	104,8 4.126	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	C
T34-R45C01C06-18X2.5-65R	10309902	M18	2,5	6,28 0.247	18,0 0.709	25,0 0.984	81 3.189	118,7 4.673	125,0 4.921	14,0 0.551	14.00x11.00	15,5 0.610	4	C
T34-R45C01C06-20X2.5-65R	10309873	M20	2,5	6,28 0.247	20,0 0.787	25,0 0.984	95 3.740	133,7 5.264	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	C

T35-PSB-P

Through holes – Metric coarse threads

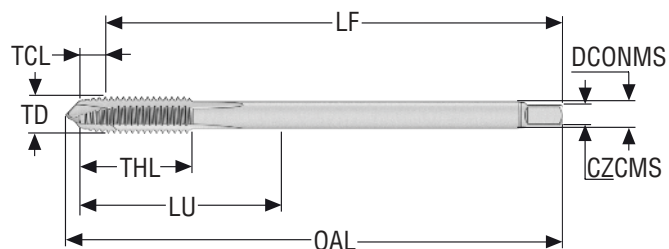


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-PS01B03-3X0.5-63R-P	10309932	M3	0,5	2,25 0.089	3,0 0.118	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
T35-PS01B03-4X0.7-63R-P	10309933	M4	0,7	3,3 0.130	4,0 0.157	12,0 0.472	21 0.827	59,8 2.354	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	B
T35-PS01B03-5X0.8-63R-P	10309934	M5	0,8	3,65 0.144	5,0 0.197	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
T35-PS01B03-6X1-63R-P	10309935	M6	1,0	4,37 0.172	6,0 0.236	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
T35-PS01B03-8X1.25-63R-P	10309936	M8	1,25	5,4 0.213	8,0 0.315	20,0 0.787	35 1.378	84,7 3.335	93,3 3.673	8,0 0.315	8.00x6.20	6,8 0.268	3	B
T35-PS01B03-10X1.5-63R-P	10309938	M10	1,5	6,84 0.269	10,0 0.394	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

T35-PSB-P

Through holes – Metric coarse threads

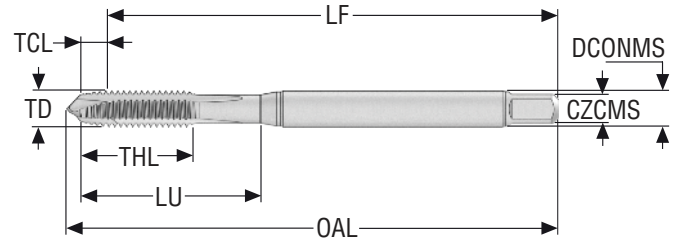


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6H
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-PS01B06-3X0.5-63R-P	10309965	M3	0,5	2,25 0.089	3,0 0.118	11,0 0.433	37 1.457	53,8 2.118	57,2 2.252	2,2 0.087	2.20x1.80	2,5 0.098	3	B
T35-PS01B06-4X0.7-63R-P	10309948	M4	0,7	3,3 0.130	4,0 0.157	12,0 0.472	44 1.732	59,7 2.350	64,5 2.539	2,8 0.110	2.80x2.10	3,3 0.130	3	B
T35-PS01B06-5X0.8-63R-P	10309949	M5	0,8	3,65 0.144	5,0 0.197	14,0 0.551	51 2.008	66,4 2.614	72,0 2.835	3,5 0.138	3.50x2.70	4,2 0.165	3	B
T35-PS01B06-6X1-63R-P	10309950	M6	1,0	4,37 0.172	6,0 0.236	18,0 0.709	61 2.402	75,6 2.976	82,4 3.244	4,5 0.177	4.50x3.40	5,0 0.197	3	B
T35-PS01B06-8X1.25-63R-P	10309951	M8	1,25	5,7 0.224	8,0 0.315	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
T35-PS01B06-10X1.5-63R-P	10309952	M10	1,5	6,84 0.269	10,0 0.394	20,0 0.787	77 3.031	93,2 3.669	100,0 3.937	7,0 0.276	7.00x5.50	8,5 0.335	3	B
T35-PS01B06-12X1.75-63R-P	10309953	M12	1,75	8,01 0.315	12,0 0.472	24,0 0.945	83 3.268	102,0 4.016	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	B
T35-PS01B06-14X2-63R-P	10309955	M14	2,0	9,14 0.360	14,0 0.551	25,0 0.984	81 3.189	100,9 3.972	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	3	B
T35-PS01B06-16X2-63R-P	10309957	M16	2,0	9,24 0.364	16,0 0.630	32,0 1.260	68 2.677	100,8 3.969	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	3	B
T35-PS01B06-18X2.5-63R-P	10309970	M18	2,5	11,38 0.448	18,0 0.709	32,0 1.260	81 3.189	113,6 4.472	125,0 4.921	14,0 0.551	14.00x11.00	15,5 0.610	4	B
T35-PS01B06-20X2.5-63R-P	10309959	M20	2,5	11,58 0.456	20,0 0.787	32,0 1.260	95 3.740	128,4 5.055	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	B
T35-PS01B06-22X2.5-63R-P	10309971	M22	2,5	11,78 0.464	20,0 0.787	32,0 1.260	93 3.661	128,2 5.047	140,0 5.512	18,0 0.709	18.00x14.50	19,5 0.768	4	B
T35-PS01B06-24X3-63R-P	10309960	M24	3,0	13,88 0.546	24,0 0.945	38,0 1.496	113 4.449	146,1 5.752	160,0 6.299	18,0 0.709	18.00x14.50	21,0 0.827	4	B

T35-PSB-P

Through holes – MF threads

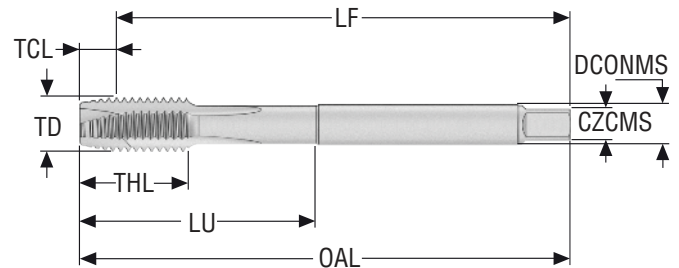


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6H
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-PS02B03-8X1-63R-P	10309937	MF8X1	1,0	4,37 0.172	8,0 0.315	20,0 0.787	35 1.378	85,5 3.366	93,3 3.673	8,0 0.315	8.00x6.20	7,0 0.276	3	B
T35-PS02B03-10X1-63R-P	10309939	MF10X1	1,0	4,77 0.188	10,0 0.394	20,0 0.787	35 1.378	85,2 3.354	91,8 3.614	10,0 0.394	10.00x8.00	9,0 0.354	3	B

T35-PSB-P

Through holes – MF threads

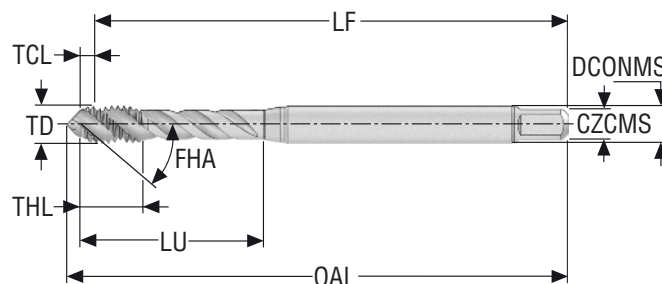


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN374
- Thread tolerance class: 6H
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-PS02B05-8X1-63R-P	10309966	MF8X1	1,0	4,67 0.184	8,0 0.315	20,0 0.787	67 2.638	85,3 3.358	90,0 3.543	6,0 0.236	6.00x4.90	7,0 0.276	3	B
T35-PS02B05-10X1-63R-P	10309967	MF10X1	1,0	4,77 0.188	10,0 0.394	20,0 0.787	67 2.638	85,2 3.354	90,0 3.543	7,0 0.276	7.00x5.50	9,0 0.354	3	B
T35-PS02B05-10X1.25-63R-P	10309968	MF10X1.25	1,25	5,8 0.228	10,0 0.394	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
T35-PS02B05-12X1.25-63R-P	10309969	MF12X1.25	1,25	5,94 0.234	12,0 0.472	20,0 0.787	73 2.874	94,1 3.705	100,0 3.937	9,0 0.354	9.00x7.00	10,8 0.425	3	B
T35-PS02B05-12X1.5-63R-P	10309954	MF12X1.5	1,5	6,97 0.274	12,0 0.472	20,0 0.787	73 2.874	93,0 3.661	100,0 3.937	9,0 0.354	9.00x7.00	10,5 0.413	3	B
T35-PS02B05-14X1.5-63R-P	10309956	MF14X1.5	1,5	7,07 0.278	14,0 0.551	20,0 0.787	71 2.795	92,9 3.657	100,0 3.937	11,0 0.433	11.00x9.00	12,5 0.492	3	B
T35-PS02B05-16X1.5-63R-P	10309958	MF16X1.5	1,5	7,17 0.282	16,0 0.630	20,0 0.787	58 2.283	92,8 3.654	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	3	B

T35-R40SC-P

Blind holes – Metric coarse threads



- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 253

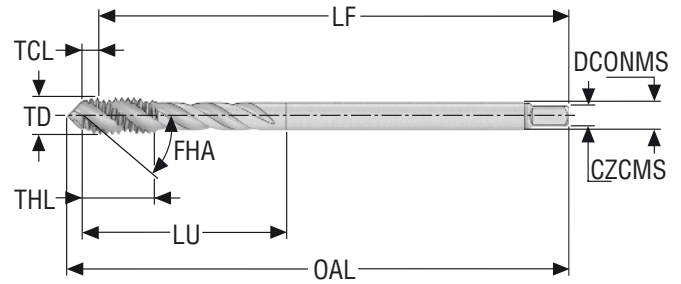
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T35-R40S01C03-3X0.5-63R-P	10309859	M3	0,5	1,17 0.046	3,0 0.118	5,0 0.197	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50x2.70	2,5 0.098	3	C
T35-R40S01C03-4X0.7-63R-P	10309860	M4	0,7	1,72 0.068	4,0 0.157	7,0 0.276	21 0.827	61,3 2.413	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	C
T35-R40S01C03-5X0.8-63R-P	10309861	M5	0,8	1,9 0.075	5,0 0.197	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
T35-R40S01C03-6X1-63R-P	10309862	M6	1,0	2,28 0.090	6,0 0.236	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00x4.90	5,0 0.197	3	C
T35-R40S01C03-8X1.25-63R-P	10309863	M8	1,25	3,11 0.122	8,0 0.315	13,0 0.512	35 1.378	86,9 3.421	91,7 3.610	8,0 0.315	8.00x6.20	6,8 0.268	3	C
T35-R40S01C03-10X1.5-63R-P	10309865	M10	1,5	3,76 0.148	10,0 0.394	15,0 0.591	39 1.535	96,2 3.787	101,8 4.008	10,0 0.394	10.00x8.00	8,5 0.335	3	C

T35-R40SC-P

Blind holes – Metric coarse threads



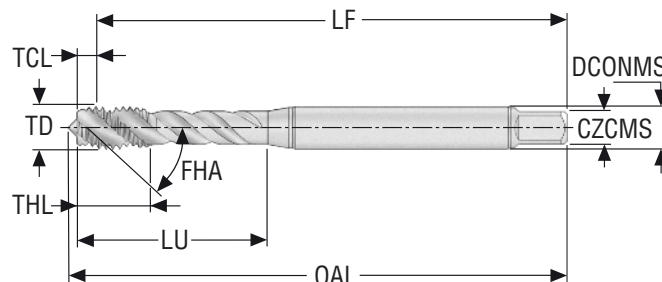
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 253



Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-R40S01C06-3X0.5-63R-P	10309903	M3	0,5	1,17 0.046	3,0 0.118	5,0 0.197	37 1.457	54,8 2.157	57,2 2.252	2,2 0.087	2.20x1.80	2,5 0.098	3	C
T35-R40S01C06-4X0.7-63R-P	10309904	M4	0,7	1,72 0.068	4,0 0.157	8,0 0.315	44 1.732	61,2 2.409	64,5 2.539	2,8 0.110	2.80x2.10	3,3 0.130	3	C
T35-R40S01C06-5X0.8-63R-P	10309905	M5	0,8	1,9 0.075	5,0 0.197	10,0 0.394	51 2.008	68,1 2.681	72,0 2.835	3,5 0.138	3.50x2.70	4,2 0.165	3	C
T35-R40S01C06-6X1-63R-P	10309906	M6	1,0	2,28 0.090	6,0 0.236	12,0 0.472	61 2.402	77,7 3.059	82,4 3.244	4,5 0.177	4.50x3.40	5,0 0.197	3	C
T35-R40S01C06-8X1.25-63R-P	10309874	M8	1,25	3,11 0.122	8,0 0.315	15,0 0.591	67 2.638	86,9 3.421	90,0 3.543	6,0 0.236	6.00x4.90	6,8 0.268	3	C
T35-R40S01C06-10X1.5-63R-P	10309876	M10	1,5	3,76 0.148	10,0 0.394	17,0 0.669	77 3.031	96,2 3.787	100,0 3.937	7,0 0.276	7.00x5.50	8,5 0.335	3	C
T35-R40S01C06-12X1.75-63R-P	10309877	M12	1,75	4,41 0.174	12,0 0.472	18,0 0.709	83 3.268	105,6 4.157	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	C
T35-R40S01C06-14X2-63R-P	10309879	M14	2,0	5,07 0.200	14,0 0.551	20,0 0.787	81 3.189	104,9 4.130	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	4	C
T35-R40S01C06-16X2-63R-P	10309880	M16	2,0	5,15 0.203	16,0 0.630	20,0 0.787	68 2.677	104,8 4.126	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	C
T35-R40S01C06-18X2.5-63R-P	10309882	M18	2,5	6,31 0.248	18,0 0.709	25,0 0.984	81 3.189	118,7 4.673	125,0 4.921	14,0 0.551	14.00x11.00	15,5 0.610	4	C
T35-R40S01C06-20X2.5-63R-P	10309884	M20	2,5	6,51 0.256	20,0 0.787	25,0 0.984	95 3.740	133,5 5.256	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	C
T35-R40S01C06-22X2.5-63R-P	10309885	M22	2,5	6,51 0.256	20,0 0.787	25,0 0.984	93 3.661	133,5 5.256	140,0 5.512	18,0 0.709	18.00x14.50	19,5 0.768	4	C
T35-R40S01C06-24X3-63R-P	10309886	M24	3,0	7,81 0.307	24,0 0.945	30,0 1.181	113 4.449	152,2 5.992	160,0 6.299	18,0 0.709	18.00x14.50	21,0 0.827	4	C
T35-R40S01C06-27X3-63R-P	10309887	M27	3,0	7,81 0.307	24,0 0.945	30,0 1.181	97 3.819	152,2 5.992	160,0 6.299	20,0 0.787	20.00x16.00	24,0 0.945	4	C
T35-R40S01C06-30X3.5-63R-P	10309888	M30	3,5	8,87 0.349	27,0 1.063	35,0 1.378	115 4.528	171,1 6.736	180,0 7.087	22,0 0.866	22.00x18.00	26,5 1.043	4	C

T35-R40SC-P

Blind holes – MF threads

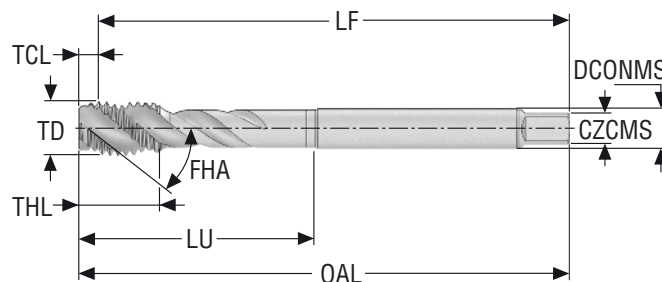


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-R40S02C03-8X1-63R-P	10309864	MF8X1	1,0	2,58 0.102	8,0 0.315	13,0 0.512	35 1.378	87,4 3.441	91,7 3.610	8,0 0.315	8.00x6.20	7,0 0.276	3	C
T35-R40S02C03-10X1-63R-P	10309866	MF10X1	1,0	2,68 0.106	10,0 0.394	13,0 0.512	35 1.378	87,3 3.437	91,8 3.614	10,0 0.394	10.00x8.00	9,0 0.354	3	C
T35-R40S02C03-10X1.25-63R-P	10309896	MF10X1.25	1,25	3,21 0.126	10,0 0.394	15,0 0.591	39 1.535	96,8 3.811	101,8 4.008	10,0 0.394	10.00x8.00	8,8 0.346	3	C

T35-R40SC-P

Blind holes – MF threads

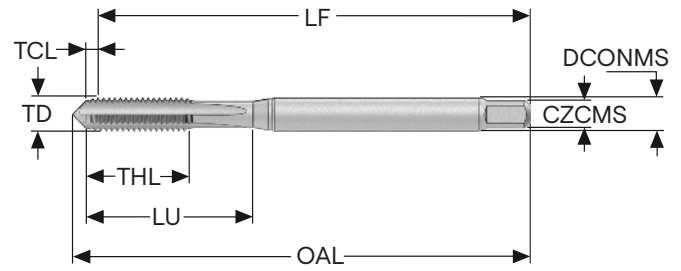


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN374
- Thread tolerance class: 6H
- FHA = 40°
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-R40S02C05-8X1-63R-P	10309875	MF8X1	1,0	2,58 0.102	8,0 0.315	10,0 0.394	67 2.638	87,4 3.441	90,0 3.543	6,0 0.236	6.00x4.90	7,0 0.276	3	C
T35-R40S02C05-10X1-63R-P	10309907	MF10X1	1,0	2,68 0.106	10,0 0.394	10,0 0.394	67 2.638	87,3 3.437	90,0 3.543	7,0 0.276	7.00x5.50	9,0 0.354	3	C
T35-R40S02C05-10X1.25-63R-P	10309908	MF10X1.25	1,25	3,21 0.126	10,0 0.394	15,0 0.591	77 3.031	96,8 3.811	100,0 3.937	7,0 0.276	7.00x5.50	8,8 0.346	3	C
T35-R40S02C05-12X1-63R-P	10309878	MF12X1	1,0	2,79 0.110	12,0 0.472	10,0 0.394	73 2.874	97,2 3.827	100,0 3.937	9,0 0.354	9.00x7.00	11,0 0.433	3	C
T35-R40S02C05-12X1.25-63R-P	10309909	MF12X1.25	1,25	3,34 0.131	12,0 0.472	15,0 0.591	73 2.874	96,7 3.807	100,0 3.937	9,0 0.354	9.00x7.00	10,8 0.425	3	C
T35-R40S02C05-12X1.5-63R-P	10309910	MF12X1.5	1,5	3,87 0.152	12,0 0.472	15,0 0.591	73 2.874	96,1 3.783	100,0 3.937	9,0 0.354	9.00x7.00	10,5 0.413	3	C
T35-R40S02C05-14X1.5-63R-P	10309911	MF14X1.5	1,5	3,97 0.156	14,0 0.551	15,0 0.591	71 2.795	96,0 3.780	100,0 3.937	11,0 0.433	11.00x9.00	12,5 0.492	4	C
T35-R40S02C05-16X1.5-63R-P	10309881	MF16X1.5	1,5	4,07 0.160	16,0 0.630	15,0 0.591	58 2.283	95,9 3.776	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	4	C
T35-R40S02C05-18X1.5-63R-P	10309883	MF18X1.5	1,5	4,17 0.164	18,0 0.709	17,0 0.669	66 2.598	105,8 4.165	110,0 4.331	14,0 0.551	14.00x11.00	16,5 0.650	4	C

T35-SSC-K

Blind and through holes – Metric coarse threads

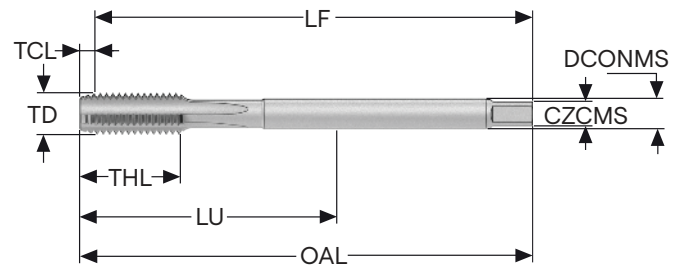


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-SS01C03-3X0.5-65R-K	10309980	M3	0,5	1,49 0.059	3,0 0.118	10,0 0.394	20 0.787	54,5 2.146	57,2 2.252	3,5 0.138	3.50x2.70	2,5 0.098	3	C
T35-SS01C03-4X0.7-65R-K	10309981	M4	0,7	1,96 0.077	4,0 0.157	12,0 0.472	20,5 0.807	61,0 2.402	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	3	C
T35-SS01C03-5X0.8-65R-K	10309982	M5	0,8	2,19 0.086	5,0 0.197	14,0 0.551	25 0.984	67,8 2.669	72,0 2.835	6,0 0.236	6.00x4.90	4,2 0.165	3	C
T35-SS01C03-6X1-65R-K	10309983	M6	1,0	2,66 0.105	6,0 0.236	18,0 0.709	30 1.181	77,3 3.043	82,4 3.244	6,0 0.236	6.00x4.90	5,0 0.197	3	C
T35-SS01C03-8X1.25-65R-K	10309984	M8	1,25	3,63 0.143	8,0 0.315	20,0 0.787	35 1.378	86,4 3.402	91,8 3.614	8,0 0.315	8.00x6.20	6,8 0.268	3	C
T35-SS01C03-10X1.5-65R-K	10309985	M10	1,5	4,42 0.174	10,0 0.394	20,0 0.787	39 1.535	95,6 3.764	101,8 4.008	10,0 0.394	10.00x8.00	8,5 0.335	3	C

T35-SSC-K

Blind and through holes – Metric coarse threads

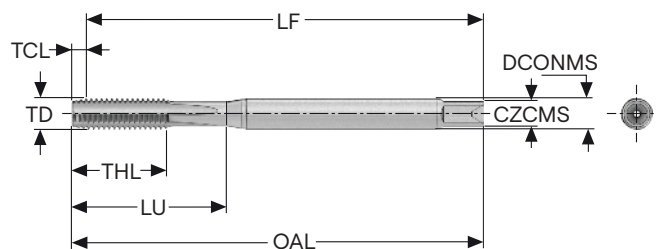


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-SS01C06-8X1.25-65R-K	10309996	M8	1,25	3,63 0.143	8,0 0.315	20,0 0.787	67 2.638	86,4 3.402	90,0 3.543	6,0 0.236	6.00x4.90	6,8 0.268	4	C
T35-SS01C06-10X1.5-65R-K	10309997	M10	1,5	4,31 0.170	10,0 0.394	20,0 0.787	77 3.031	95,7 3.768	100,0 3.937	7,0 0.276	7.00x5.50	8,5 0.335	4	C
T35-SS01C06-12X1.75-65R-K	10309999	M12	1,75	5,0 0.197	12,0 0.472	24,0 0.945	83 3.268	105,0 4.134	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	4	C
T35-SS01C06-14X2-65R-K	10310002	M14	2,0	5,77 0.227	14,0 0.551	25,0 0.984	81 3.189	104,2 4.102	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	4	C
T35-SS01C06-16X2-65R-K	10310004	M16	2,0	5,87 0.231	16,0 0.630	32,0 1.260	68 2.677	104,1 4.098	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	C
T35-SS01C06-18X2.5-65R-K	10310025	M18	2,5	7,29 0.287	18,0 0.709	32,0 1.260	81 3.189	117,7 4.634	125,0 4.921	14,0 0.551	14.00x11.00	15,5 0.610	4	C
T35-SS01C06-20X2.5-65R-K	10310007	M20	2,5	6,99 0.275	20,0 0.787	32,0 1.260	95 3.740	133,0 5.236	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	C

T35A-SSC-K

Blind holes – Metric coarse threads

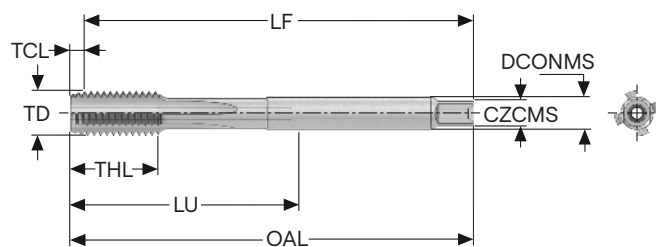


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 0°
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35A-SS01C03-6X1-65R-K	10309845	M6	1,0	2,8 0.110	6,0 0.236	18,0 0.709	30 1.181	77,2 3.039	80,0 3.150	6,0 0.236	6.00x4.90	5,0 0.197	4	C
T35A-SS01C03-8X1.25-65R-K	10309846	M8	1,25	3,63 0.143	8,0 0.315	20,0 0.787	35 1.378	86,4 3.402	90,0 3.543	8,0 0.315	8.00x6.20	6,8 0.268	4	C
T35A-SS01C03-10X1.5-65R-K	10309847	M10	1,5	4,42 0.174	10,0 0.394	20,0 0.787	39 1.535	95,6 3.764	100,0 3.937	10,0 0.394	10.00x8.00	8,5 0.335	4	C

T35A-SSC-K

Blind holes – Metric coarse threads

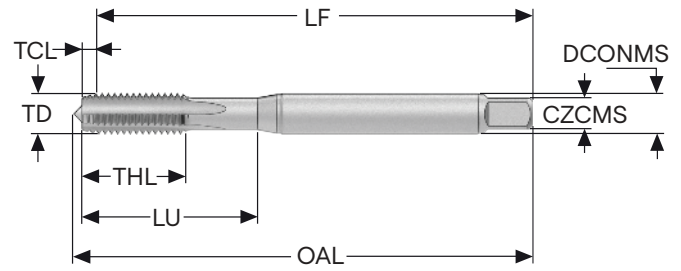


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 0°
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35A-SS01C06-12X1.75-65R-K	10309899	M12	1,75	5,0 0.197	12,0 0.472	24,0 0.945	83 3.268	105,0 4.134	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	4	C
T35A-SS01C06-14X2-65R-K	10309900	M14	2,0	5,77 0.227	14,0 0.551	25,0 0.984	81 3.189	104,2 4.102	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	4	C
T35A-SS01C06-16X2-65R-K	10309867	M16	2,0	5,87 0.231	16,0 0.630	32,0 1.260	68 2.677	104,1 4.098	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	C
T35A-SS01C06-20X2.5-65R-K	10309868	M20	2,5	6,99 0.275	20,0 0.787	32,0 1.260	95 3.740	133,0 5.236	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	C

T35-SSC-K

Blind and through holes – MF threads

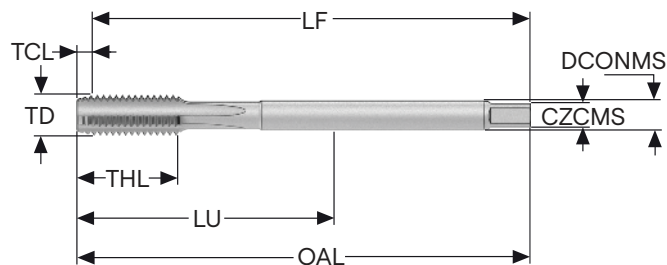


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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>		
T35-SS02C03-8X1-65R-K	10310019	MF8X1	1,0	2,96 0.117	8,0 0.315	20,0 0.787	35 1.378	87,0 3.425	91,8 3.614	8,0 0.315	8.00x6.20	7,0 0.276	3	C
T35-SS02C03-10X1-65R-K	10310020	MF10X1	1,0	2,96 0.117	10,0 0.394	20,0 0.787	35 1.378	87,0 3.425	91,8 3.614	10,0 0.394	10.00x8.00	9,0 0.354	3	C
T35-SS02C03-10X1.25-65R-K	10309986	MF10X1.25	1,25	3,73 0.147	10,0 0.394	20,0 0.787	39 1.535	96,3 3.791	101,8 4.008	10,0 0.394	10.00x8.00	8,8 0.346	3	C

T35-SSC-K

Blind and through holes – MF threads

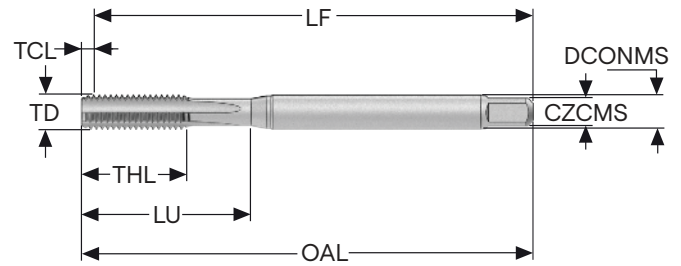


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-SS02C05-8X1-65R-K	10310021	MF8X1	1,0	2,96 0.117	8,0 0.315	20,0 0.787	67 2.638	87,0 3.425	90,0 3.543	6,0 0.236	6.00x4.90	7,0 0.276	4	C
T35-SS02C05-10X1-65R-K	10309998	MF10X1	1,0	2,96 0.117	10,0 0.394	20,0 0.787	67 2.638	87,0 3.425	90,0 3.543	7,0 0.276	7.00x5.50	9,0 0.354	4	C
T35-SS02C05-12X1-65R-K	10310022	MF12X1	1,0	2,98 0.117	12,0 0.472	20,0 0.787	73 2.874	96,8 3.811	100,0 3.937	9,0 0.354	9.00x7.00	11,0 0.433	4	C
T35-SS02C05-12X1.25-65R-K	10310000	MF12X1.25	1,25	3,67 0.144	12,0 0.472	20,0 0.787	73 2.874	96,1 3.783	100,0 3.937	9,0 0.354	9.00x7.00	10,8 0.425	4	C
T35-SS02C05-12X1.5-65R-K	10310001	MF12X1.5	1,5	4,54 0.179	12,0 0.472	20,0 0.787	73 2.874	95,5 3.760	100,0 3.937	9,0 0.354	9.00x7.00	10,5 0.413	4	C
T35-SS02C05-14X1-65R-K	10310023	MF14X1	1,0	2,98 0.117	14,0 0.551	20,0 0.787	71 2.795	96,7 3.807	100,0 3.937	11,0 0.433	11.00x9.00	13,0 0.512	4	C
T35-SS02C05-14X1.5-65R-K	10310003	MF14X1.5	1,5	4,44 0.175	14,0 0.551	20,0 0.787	71 2.795	95,6 3.764	100,0 3.937	11,0 0.433	11.00x9.00	12,5 0.492	3	C
T35-SS02C05-16X1-65R-K	10310024	MF16X1	1,0	2,98 0.117	16,0 0.630	20,0 0.787	58 2.283	97,0 3.819	100,0 3.937	12,0 0.472	12.00x9.00	15,0 0.591	4	C
T35-SS02C05-16X1.5-65R-K	10310005	MF16X1.5	1,5	4,44 0.175	16,0 0.630	20,0 0.787	58 2.283	95,6 3.764	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	4	C
T35-SS02C05-18X1-65R-K	10310026	MF18X1	1,0	2,98 0.117	18,0 0.709	24,0 0.945	66 2.598	106,7 4.201	110,0 4.331	14,0 0.551	14.00x11.00	17,0 0.669	4	C
T35-SS02C05-18X1.5-65R-K	10310006	MF18X1.5	1,5	4,44 0.175	18,0 0.709	24,0 0.945	66 2.598	105,6 4.157	110,0 4.331	14,0 0.551	14.00x11.00	16,5 0.650	4	C
T35-SS02C05-20X1.5-65R-K	10310008	MF20X1.5	1,5	4,54 0.179	20,0 0.787	24,0 0.945	80 3.150	120,5 4.744	125,0 4.921	16,0 0.630	16.00x12.00	18,5 0.728	4	C

T35-SSE-K

Blind and through holes – Metric coarse threads

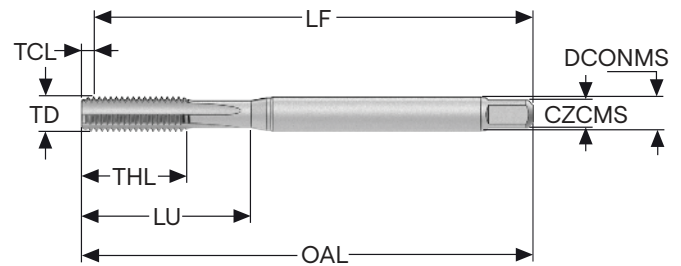


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-SS01E03-3X0.5-65R-K	10309987	M3	0,5	0,85 0.033	3,0 0.118	10,0 0.394	18 0.709	55,1 2.169	56,0 2.205	3,5 0.138	3.50x2.70	2,5 0.098	3	E
T35-SS01E03-4X0.7-65R-K	10309988	M4	0,7	1,12 0.044	4,0 0.157	12,0 0.472	21 0.827	61,9 2.437	63,0 2.480	4,5 0.177	4.50x3.40	3,3 0.130	3	E
T35-SS01E03-5X0.8-65R-K	10309989	M5	0,8	1,25 0.049	5,0 0.197	14,0 0.551	25 0.984	68,7 2.705	70,0 2.756	6,0 0.236	6.00x4.90	4,2 0.165	3	E
T35-SS01E03-6X1-65R-K	10309990	M6	1,0	1,52 0.060	6,0 0.236	18,0 0.709	30 1.181	78,4 3.087	80,0 3.150	6,0 0.236	6.00x4.90	5,0 0.197	3	E
T35-SS01E03-8X1.25-65R-K	10309991	M8	1,25	2,2 0.087	8,0 0.315	20,0 0.787	35 1.378	87,8 3.457	90,0 3.543	8,0 0.315	8.00x6.20	6,8 0.268	3	E
T35-SS01E03-10X1.5-65R-K	10309993	M10	1,5	2,69 0.106	10,0 0.394	20,0 0.787	39 1.535	97,3 3.831	100,0 3.937	10,0 0.394	10.00x8.00	8,5 0.335	3	E

T35-SSE-K

Blind and through holes – Metric coarse threads

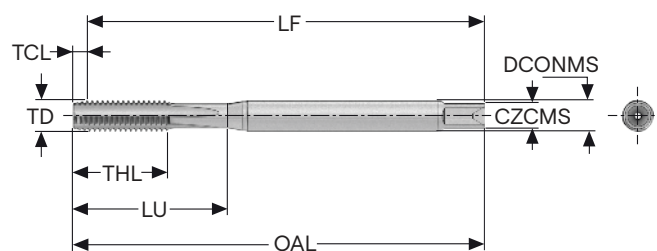


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-SS01E06-12X1.75-65R-K	10310009	M12	1,75	3,07 0.121	12,0 0.472	24,0 0.945	83 3.268	106,9 4.209	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	4	E
T35-SS01E06-14X2-65R-K	10310011	M14	2,0	3,55 0.140	14,0 0.551	25,0 0.984	81 3.189	106,4 4.189	110,0 4.331	11,0 0.433	11.00x9.00	12,0 0.472	4	E
T35-SS01E06-16X2-65R-K	10310014	M16	2,0	3,25 0.128	16,0 0.630	32,0 1.260	68 2.677	106,7 4.201	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	E
T35-SS01E06-20X2.5-65R-K	10310017	M20	2,5	4,41 0.174	20,0 0.787	32,0 1.260	95 3.740	135,6 5.339	140,0 5.512	16,0 0.630	16.00x12.00	17,5 0.689	4	E

T35A-SSE-K

Blind holes – Metric coarse threads

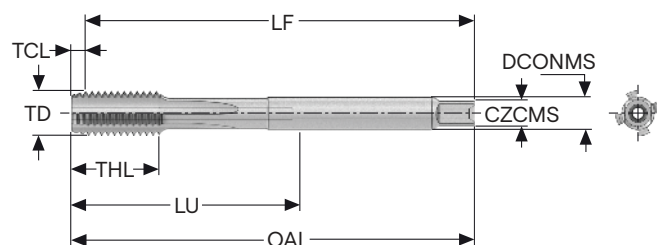


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 0°
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35A-SS01E03-5X0.8-65R-K	10309848	M5	0,8	1,45 0.057	5,0 0.197	14,0 0.551	25 0.984	68,6 2.701	70,0 2.756	6,0 0.236	6.00x4.90	4,2 0.165	3	E
T35A-SS01E03-6X1-65R-K	10309849	M6	1,0	1,69 0.067	6,0 0.236	18,0 0.709	30 1.181	78,3 3.083	80,0 3.150	6,0 0.236	6.00x4.90	5,0 0.197	4	E
T35A-SS01E03-8X1.25-65R-K	10309850	M8	1,25	2,2 0.087	8,0 0.315	20,0 0.787	35 1.378	87,8 3.457	90,0 3.543	8,0 0.315	8.00x6.20	6,8 0.268	4	E
T35A-SS01E03-10X1.5-65R-K	10309852	M10	1,5	2,69 0.106	10,0 0.394	20,0 0.787	39 1.535	97,3 3.831	100,0 3.937	10,0 0.394	10.00x8.00	8,5 0.335	4	E

T35A-SSE-K

Blind holes – Metric coarse threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 0°
- For cutting data see page(s) 253

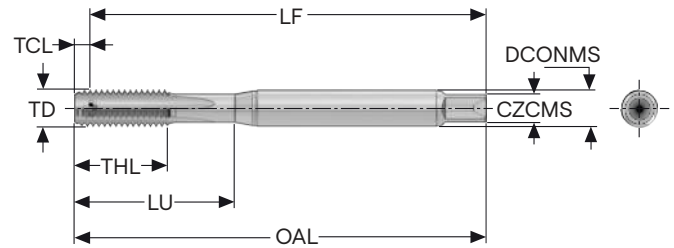
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T35A-SS01E06-12X1.75-65R-K	10309869	M12	1,75	3,07 0.121	12,0 0.472	24,0 0.945	83 3.268	106,9 4.209	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	4	E
T35A-SS01E06-16X2-65R-K	10309901	M16	2,0	3,65 0.144	16,0 0.630	32,0 1.260	68 2.677	106,3 4.185	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	4	E

T35B-SSE-K

Blind and through holes – Metric coarse threads



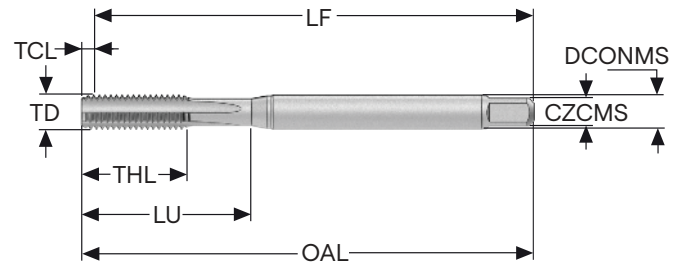
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 253



Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35B-SS01E03-8X1.25-65R-K	10309946	M8	1,25	2,2 0.087	8,0 0.315	20,0 0.787	35 1.378	87,8 3.457	90,0 3.543	8,0 0.315	8.00x6.20	6,8 0.268	4	E
T35B-SS01E03-10X1.5-65R-K	10309947	M10	1,5	2,59 0.102	10,0 0.394	20,0 0.787	39 1.535	97,4 3.835	100,0 3.937	10,0 0.394	10.00x8.00	8,5 0.335	4	E

T35-SSE-K

Blind and through holes – MF threads

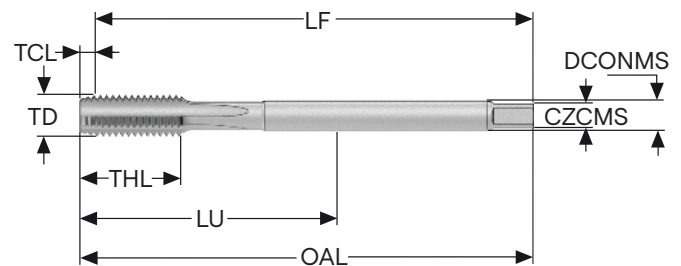


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-SS02E03-8X1-65R-K	10309992	MF8X1	1,0	1,82 0.072	8,0 0.315	20,0 0.787	35 1.378	88,2 3.472	90,0 3.543	8,0 0.315	8.00x6.20	7,0 0.276	3	E
T35-SS02E03-10X1-65R-K	10309994	MF10X1	1,0	1,82 0.072	10,0 0.394	20,0 0.787	35 1.378	88,2 3.472	90,0 3.543	10,0 0.394	10.00x8.00	9,0 0.354	3	E
T35-SS02E03-10X1.25-65R-K	10309995	MF10X1.25	1,25	2,3 0.091	10,0 0.394	20,0 0.787	39 1.535	97,7 3.846	100,0 3.937	10,0 0.394	10.00x8.00	8,8 0.346	3	E

T35-SSE-K

Blind and through holes – MF threads

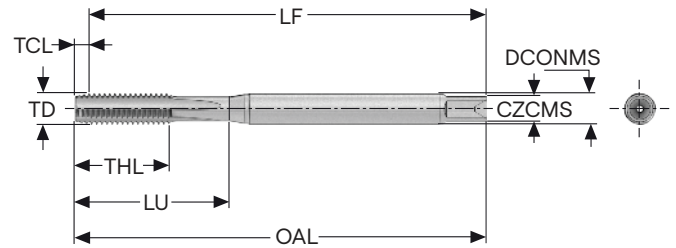


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-SS02E05-12X1-65R-K	10310010	MF12X1	1,0	1,83 0.072	12,0 0.472	20,0 0.787	83 3.268	108,2 4.260	110,0 4.331	9,0 0.354	9.00x7.00	11,0 0.433	4	E
T35-SS02E05-12X1.5-65R-K	10310027	MF12X1.5	1,5	2,81 0.111	12,0 0.472	20,0 0.787	73 2.874	97,2 3.827	100,0 3.937	9,0 0.354	9.00x7.00	10,5 0.413	4	E
T35-SS02E05-14X1-65R-K	10310012	MF14X1	1,0	1,83 0.072	14,0 0.551	20,0 0.787	71 2.795	98,2 3.866	100,0 3.937	11,0 0.433	11.00x9.00	13,0 0.512	4	E
T35-SS02E05-14X1.5-65R-K	10310013	MF14X1.5	1,5	2,71 0.107	14,0 0.551	20,0 0.787	71 2.795	97,3 3.831	100,0 3.937	11,0 0.433	11.00x9.00	12,5 0.492	4	E
T35-SS02E05-16X1.5-65R-K	10310015	MF16X1.5	1,5	2,61 0.103	16,0 0.630	20,0 0.787	58 2.283	97,4 3.835	100,0 3.937	12,0 0.472	12.00x9.00	14,5 0.571	4	E
T35-SS02E05-18X1.5-65R-K	10310016	MF18X1.5	1,5	2,71 0.107	18,0 0.709	24,0 0.945	66 2.598	107,3 4.224	110,0 4.331	14,0 0.551	14.00x11.00	16,5 0.650	4	E
T35-SS02E05-20X1.5-65R-K	10310018	MF20X1.5	1,5	2,81 0.111	20,0 0.787	24,0 0.945	80 3.150	122,2 4.811	125,0 4.921	16,0 0.630	16.00x12.00	18,5 0.728	4	E

T35A-SSE-K

Blind holes – MF threads

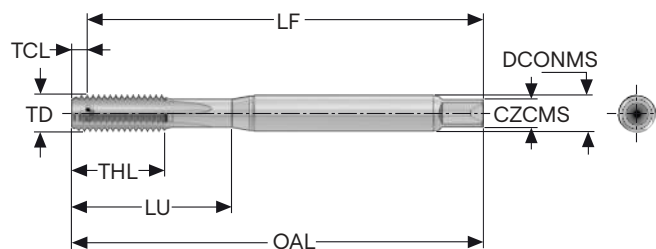


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 0°
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	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>		
T35A-SS02E03-8X1-65R-K	10309851	MF8X1	1,0	1,82 0.072	8,0 0.315	20,0 0.787	35 1.378	88,2 3.472	90,0 3.543	8,0 0.315	8.00x6.20	7,0 0.276	4	E
T35A-SS02E03-10X1-65R-K	10309895	MF10X1	1,0	1,82 0.072	10,0 0.394	20,0 0.787	35 1.378	88,2 3.472	90,0 3.543	10,0 0.394	10.00x8.00	9,0 0.354	4	E

T35B-SSE-K

Blind and through holes – MF threads



- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 253

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T35B-SS02E03-10X1-65R-K	10309964	MF10X1	1,0	1,82 0.072	10,0 0.394	20,0 0.787	35 1.378	88,2 3.472	90,0 3.543	10,0 0.394	10.00x8.00	9,0 0.354	4	E

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

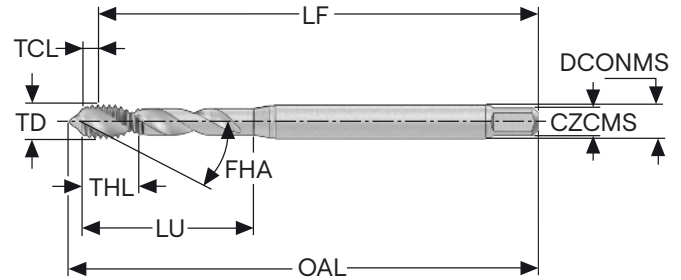
Annex

T35-R45UC-N

Blind holes – Metric coarse threads



- Substrate: HSSE
- Uncoated
- Standard: DIN371
- Thread tolerance class: 6H
- FHA = 45°
- For cutting data see page(s) 253



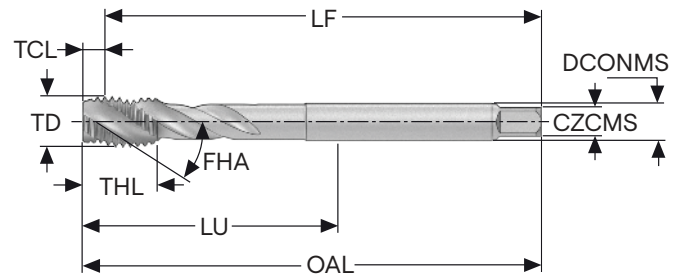
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T35-R45U01C03-3X0.5-63R-N	10309889	M3	0,5	1,17 0.046	3,0 0.118	5,0 0.197	18 0.709	54,8 2.157	57,2 2.252	3,5 0.138	3.50x2.70	2,5 0.098	2	C
T35-R45U01C03-4X0.7-63R-N	10309890	M4	0,7	1,72 0.068	4,0 0.157	7,0 0.276	21 0.827	61,3 2.413	64,6 2.543	4,5 0.177	4.50x3.40	3,3 0.130	2	C
T35-R45U01C03-5X0.8-63R-N	10309891	M5	0,8	1,9 0.075	5,0 0.197	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	2	C
T35-R45U01C03-6X1-63R-N	10309892	M6	1,0	2,28 0.090	6,0 0.236	10,0 0.394	30 1.181	77,7 3.059	82,4 3.244	6,0 0.236	6.00x4.90	5,0 0.197	2	C
T35-R45U01C03-8X1.25-63R-N	10309893	M8	1,25	3,25 0.128	8,0 0.315	13,0 0.512	35 1.378	88,5 3.484	93,3 3.673	8,0 0.315	8.00x6.20	6,8 0.268	2	C
T35-R45U01C03-10X1.5-63R-N	10309894	M10	1,5	3,9 0.154	10,0 0.394	15,0 0.591	39 1.535	96,2 3.787	101,8 4.008	10,0 0.394	10.00x8.00	8,5 0.335	2	C

T35-R45UC-N

Blind holes – Metric coarse threads



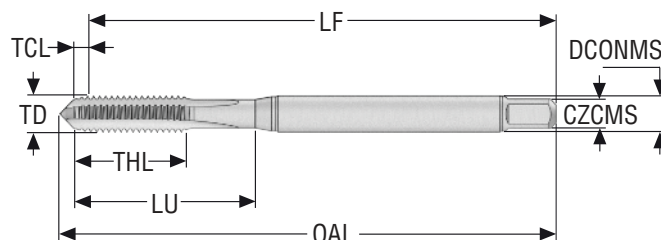
- Substrate: HSSE
- Uncoated
- Standard: DIN376
- Thread tolerance class: 6H
- FHA = 45°
- For cutting data see page(s) 253



Designation	Item number	TDZ	Pitch	TCL	TD	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		
T35-R45U01C06-12X1.75-63R-N	10309897	M12	1,75	4,41 0.174	12,0 0.472	18,0 0.709	83 3.268	105,6 4.157	110,0 4.331	9,0 0.354	9.00x7.00	10,2 0.402	3	C
T35-R45U01C06-16X2-63R-N	10309898	M16	2,0	5,15 0.203	16,0 0.630	20,0 0.787	68 2.677	104,8 4.126	110,0 4.331	12,0 0.472	12.00x9.00	14,0 0.551	3	C

T35-SSC-H

Blind and through holes – Metric coarse threads

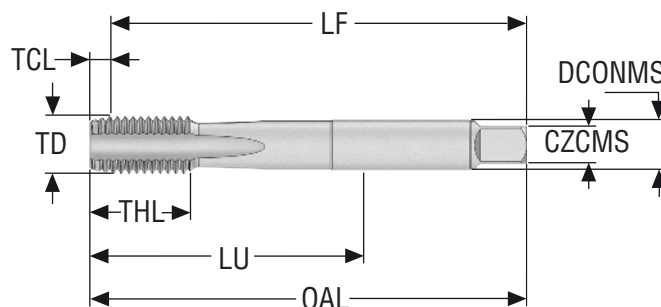


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35-SS01C03-3X0.5-65R-H	10265557	M3	0,5	1,49	3,0	10,0	18	54,5	57,2	3,5	3.50x2.70	2,5	3	C
T35-SS01C03-4X0.7-65R-H	10265558	M4	0,7	1,96	4,0	12,0	21	61,0	64,6	4,5	4.50x3.40	3,3	3	C
T35-SS01C03-5X0.8-65R-H	10265559	M5	0,8	2,19	5,0	14,0	25	67,8	72,0	6,0	6.00x4.90	4,2	3	C
T35-SS01C03-6X1-65R-H	10265560	M6	1,0	2,66	6,0	18,0	30	77,3	82,4	6,0	6.00x4.90	5,0	3	C
T35-SS01C03-8X1.25-65R-H	10265561	M8	1,25	3,63	8,0	20,0	35	86,4	91,7	8,0	8.00x6.20	6,8	3	C
T35-SS01C03-10X1.5-65R-H	10265562	M10	1,5	4,42	10,0	20,0	39	95,6	100,0	10,0	10.00x8.00	8,5	3	C

T35-SSC-H

Blind and through holes – Metric coarse threads

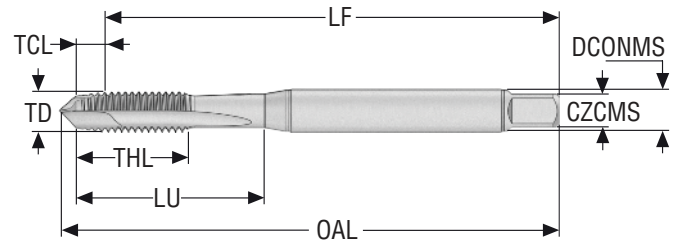


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35-SS01C06-12X1.75-65R-H	10265563	M12	1,75	5,0	12,0	24,0	83	105,0	110,0	9,0	9.00x7.00	10,2	3	C
T35-SS01C06-16X2-65R-H	10265564	M16	2,0	5,87	16,0	32,0	68	104,1	110,0	12,0	12.00x9.00	14,0	4	C
T35-SS01C06-20X2.5-65R-H	10265565	M20	2,5	7,29	20,0	32,0	95	132,5	140,0	16,0	16.00x12.00	17,5	4	C

T35-PSB-H

Through holes – Metric coarse threads

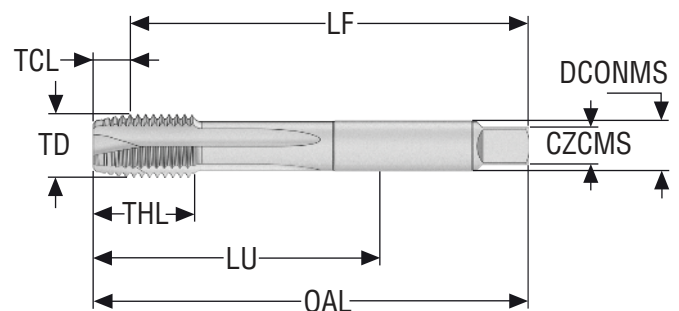


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35-PS01B03-3X0.5-65R-H	10265546	M3	0,5	2,3	3,0	13,0	13	53,7	57,2	3,5	3.50x2.70	2,5	3	B
T35-PS01B03-4X0.7-65R-H	10265547	M4	0,7	3,0	4,0	16,0	16	60,0	64,6	4,5	4.50x3.40	3,3	3	B
T35-PS01B03-5X0.8-65R-H	10265548	M5	0,8	3,7	5,0	20,0	20	66,3	72,0	6,0	6.00x4.90	4,2	3	B
T35-PS01B03-6X1-65R-H	10265549	M6	1,0	4,4	6,0	25,0	25	75,6	82,4	6,0	6.00x4.90	5,0	3	B
T35-PS01B03-8X1.25-65R-H	10265550	M8	1,25	5,5	8,0	20,0	35	84,6	93,3	8,0	8.00x6.20	6,8	3	B
T35-PS01B03-10X1.5-65R-H	10265551	M10	1,5	6,9	10,0	20,0	39	93,1	101,8	10,0	10.00x8.00	8,5	3	B

T35-PSB-H

Through holes – Metric coarse threads

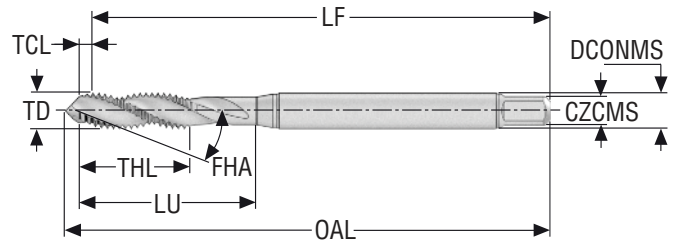


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35-PS01B06-12X1.75-65R-H	10265552	M12	1,75	8,11	12,0	24,0	83	101,9	110,0	9,0	9.00x7.00	10,2	3	B
T35-PS01B06-14X2-65R-H	10265553	M14	2,0	9,26	14,0	25,0	81	100,7	110,0	11,0	11.00x9.00	12,0	3	B
T35-PS01B06-16X2-65R-H	10265554	M16	2,0	9,36	16,0	32,0	68	100,6	110,0	12,0	12.00x9.00	14,0	3	B
T35-PS01B06-18X2.5-65R-H	10265555	M18	2,5	10,83	18,0	32,0	81	114,2	125,0	14,0	14.00x11.00	15,5	4	B
T35-PS01B06-20X2.5-65R-H	10265556	M20	2,5	11,7	20,0	32,0	95	128,3	140,0	16,0	16.00x12.00	17,5	4	B

T35-R15SC-H

Blind holes – Metric coarse threads

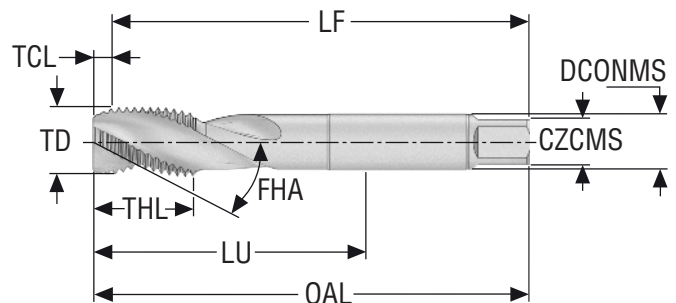


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 15°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35-R15S01C03-3X0.5-65R-H	10265499	M3	0,5	1,49	3,0	10,0	18	54,5	57,2	3,5	3.50x2.70	2,5	3	C
T35-R15S01C03-4X0.7-65R-H	10265500	M4	0,7	1,96	4,0	12,0	21	61,0	64,6	4,5	4.50x3.40	3,3	3	C
T35-R15S01C03-5X0.8-65R-H	10265501	M5	0,8	2,19	5,0	14,0	25	67,8	72,0	6,0	6.00x4.90	4,2	3	C
T35-R15S01C03-6X1-65R-H	10265502	M6	1,0	2,66	6,0	18,0	30	77,3	82,4	6,0	6.00x4.90	5,0	3	C
T35-R15S01C03-8X1.25-65R-H	10265503	M8	1,25	3,73	8,0	20,0	35	86,3	91,8	8,0	8.00x6.20	6,8	3	C
T35-R15S01C03-10X1.5-65R-H	10265504	M10	1,5	4,42	10,0	20,0	39	95,6	101,8	10,0	10.00x8.00	8,5	3	C

T35-R15SC-H

Blind holes – Metric coarse threads

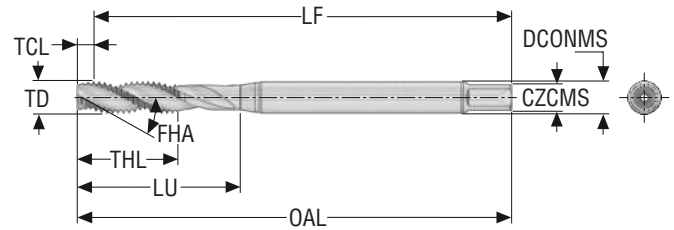


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 15°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35-R15S01C06-12X1.75-65R-H	10265505	M12	1,75	5,0	12,0	24,0	83	105,0	110,0	9,0	9.00x7.00	10,2	3	C
T35-R15S01C06-14X2-65R-H	10265506	M14	2,0	5,77	14,0	25,0	81	104,2	110,0	11,0	11.00x9.00	12,0	3	C
T35-R15S01C06-16X2-65R-H	10265507	M16	2,0	5,87	16,0	32,0	68	104,1	110,0	12,0	12.00x9.00	14,0	3	C
T35-R15S01C06-18X2.5-65R-H	10265508	M18	2,5	7,29	18,0	32,0	81	117,7	125,0	14,0	14.00x11.00	15,5	3	C
T35-R15S01C06-20X2.5-65R-H	10265509	M20	2,5	7,49	20,0	32,0	95	132,7	140,0	16,0	16.00x12.00	17,5	3	C
T35-R15S01C06-22X2.5-65R-H	10265510	M22	2,5	7,29	22,0	32,0	93	132,7	140,0	18,0	18.00x14.50	19,5	3	C
T35-R15S01C06-24X3-65R-H	10265511	M24	3,0	8,65	24,0	38,0	113	151,3	160,0	18,0	18.00x14.50	21,0	4	C
T35-R15S01C06-27X3-65R-H	10265512	M27	3,0	8,65	27,0	38,0	97	151,7	160,0	20,0	20.00x16.00	24,0	4	C
T35-R15S01C06-30X3.5-65R-H	10265513	M30	3,5	9,96	30,0	45,0	115	170,0	180,0	22,0	22.00x18.00	26,5	4	C

T35A-R15SC-H

Blind holes – Metric coarse threads

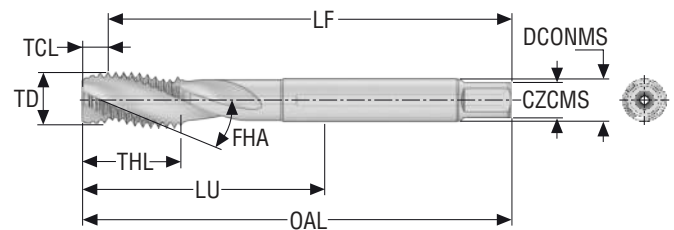


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN371
- Thread tolerance class: 6HX
- FHA = 15°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35A-R15S01C03-5X0.8-65R-H	10265526	M5	0,8	2,19	5,0	14,0	25	67,6	70,0	6,0	6.00x4.90	4,2	3	C
T35A-R15S01C03-6X1-65R-H	10265527	M6	1,0	2,66	6,0	18,0	30	77,1	80,0	6,0	6.00x4.90	5,0	3	C
T35A-R15S01C03-8X1.25-65R-H	10265528	M8	1,25	3,73	8,0	20,0	35	86,4	90,0	8,0	8.00x6.20	6,8	3	C
T35A-R15S01C03-10X1.5-65R-H	10265529	M10	1,5	4,42	10,0	20,0	39	95,6	100,0	10,0	10.00x8.00	8,5	3	C

T35A-R15SC-H

Blind holes – Metric coarse threads

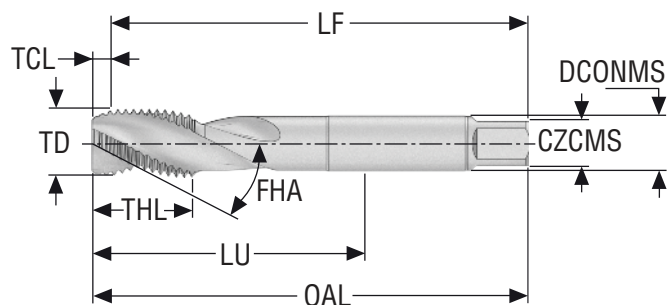


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN376
- Thread tolerance class: 6HX
- FHA = 15°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35A-R15S01C06-12X1.75-65R-H	10265530	M12	1,75	5,0	12,0	24,0	83	105,0	110,0	9,0	9.00x7.00	10,2	3	C
T35A-R15S01C06-14X2-65R-H	10265531	M14	2,0	5,77	14,0	25,0	81	104,2	110,0	11,0	11.00x9.00	12,0	3	C
T35A-R15S01C06-16X2-65R-H	10265532	M16	2,0	5,87	16,0	32,0	68	104,1	110,0	12,0	12.00x9.00	14,0	3	C
T35A-R15S01C06-20X2.5-65R-H	10265533	M20	2,5	7,49	20,0	32,0	95	132,7	140,0	16,0	16.00x12.00	17,5	3	C

T35-R15SC-H

Blind holes – MF threads

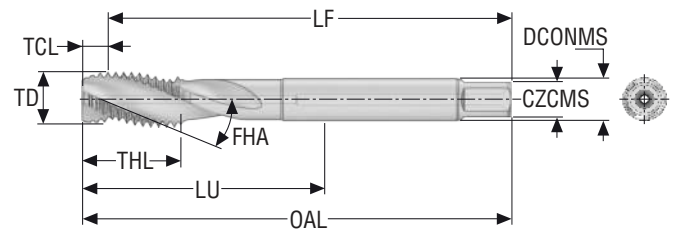


- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 15°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35-R15S02C05-8X1-65R-H	10265516	MF8X1	1,0	2,96	8,0	20,0	67	87,0	90,0	6,0	6.00x4.90	7,0	3	C
T35-R15S02C05-10X1-65R-H	10265517	MF10X1	1,0	2,96	10,0	20,0	67	86,9	90,0	7,0	7.00x5.50	9,0	3	C
T35-R15S02C05-10X1.25-65R-H	10265518	MF10X1.25	1,25	3,63	10,0	20,0	77	96,4	100,0	7,0	7.00x5.50	8,8	3	C
T35-R15S02C05-12X1-65R-H	10265519	MF12X1	1,0	2,98	12,0	20,0	73	96,8	100,0	9,0	9.00x7.00	11,0	3	C
T35-R15S02C05-12X1.25-65R-H	10265514	MF12X1.25	1,25	3,67	12,0	20,0	73	96,1	100,0	9,0	9.00x7.00	10,8	3	C
T35-R15S02C05-12X1.5-65R-H	10265520	MF12X1.5	1,5	4,44	12,0	20,0	73	95,5	100,0	9,0	9.00x7.00	10,5	3	C
T35-R15S02C05-14X1-65R-H	10265521	MF14X1	1,0	2,98	14,0	20,0	71	97,0	100,0	11,0	11.00x9.00	13,0	3	C
T35-R15S02C05-14X1.5-65R-H	10265515	MF14X1.5	1,5	4,44	14,0	20,0	71	95,4	100,0	11,0	11.00x9.00	12,5	3	C
T35-R15S02C05-16X1-65R-H	10265522	MF16X1	1,0	2,98	16,0	20,0	58	97,0	100,0	12,0	12.00x9.00	15,0	3	C
T35-R15S02C05-16X1.5-65R-H	10265523	MF16X1.5	1,5	4,44	16,0	20,0	58	95,6	100,0	12,0	12.00x9.00	14,5	3	C
T35-R15S02C05-18X1.5-65R-H	10265524	MF18X1.5	1,5	4,44	18,0	24,0	81	105,6	110,0	14,0	14.00x11.00	16,5	3	C
T35-R15S02C05-20X1.5-65R-H	10265525	MF20X1.5	1,5	4,44	20,0	24,0	80	120,6	125,0	16,0	16.00x12.00	18,5	3	C

T35A-R15SC-H

Blind holes – MF threads

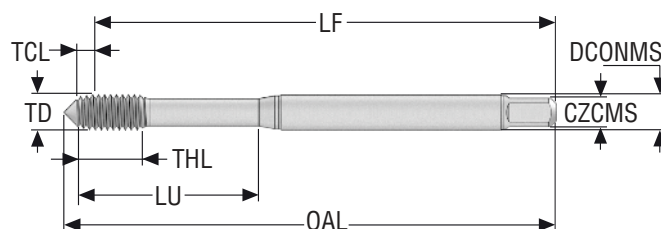


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiAlSiN
- Standard: DIN374
- Thread tolerance class: 6HX
- FHA = 15°
- For cutting data see page(s) 249

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm	mm		mm		
T35A-R15S02C05-8X1-65R-H	10265536	MF8X1	1,0	2,96	8,0	20,0	67	87,0	90,0	6,0	6.00x4.90	7,0	3	C
T35A-R15S02C05-10X1-65R-H	10265537	MF10X1	1,0	2,96	10,0	20,0	67	96,9	90,0	7,0	7.00x5.50	9,0	3	C
T35A-R15S02C05-10X1.25-65R-H	10265538	MF10X1.25	1,25	3,63	10,0	20,0	77	96,4	100,0	7,0	7.00x5.50	8,8	3	C
T35A-R15S02C05-12X1-65R-H	10265539	MF12X1	1,0	2,98	12,0	20,0	73	96,8	100,0	9,0	9.00x7.00	11,0	3	C
T35A-R15S02C05-12X1.25-65R-H	10265534	MF12X1.25	1,25	3,67	12,0	20,0	73	96,1	100,0	9,0	9.00x7.00	10,8	3	C
T35A-R15S02C05-12X1.5-65R-H	10265540	MF12X1.5	1,5	4,44	12,0	20,0	73	95,5	100,0	9,0	9.00x7.00	10,5	3	C
T35A-R15S02C05-14X1-65R-H	10265541	MF14X1	1,0	2,98	14,0	20,0	71	97,0	100,0	11,0	11.00x9.00	13,0	3	C
T35A-R15S02C05-14X1.5-65R-H	10265535	MF14X1.5	1,5	4,44	14,0	20,0	71	95,4	100,0	11,0	11.00x9.00	12,5	3	C
T35A-R15S02C05-16X1-65R-H	10265542	MF16X1	1,0	2,98	16,0	20,0	58	97,0	100,0	12,0	12.00x9.00	15,0	3	C
T35A-R15S02C05-16X1.5-65R-H	10265543	MF16X1.5	1,5	4,44	16,0	20,0	58	95,6	100,0	12,0	12.00x9.00	14,5	3	C
T35A-R15S02C05-18X1.5-65R-H	10265544	MF18X1.5	1,5	4,44	18,0	24,0	81	105,6	110,0	14,0	14.00x11.00	16,5	3	C
T35A-R15S02C05-20X1.5-65R-H	10265545	MF20X1.5	1,5	4,44	20,0	24,0	80	121,6	125,0	16,0	16.00x12.00	18,5	3	C

T33-FNC

Forming taps – Blind and through holes – Metric coarse threads

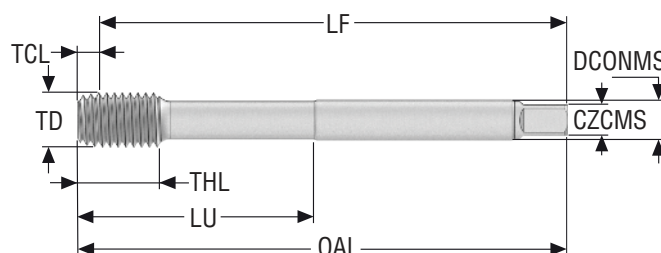


- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FN01C03-2X0.4-65R	10139189	M2	0,4	1,02 0.040	2,0 0.079	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	2,5 0.098	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	3,0 0.118	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	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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	8,0 0.315	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	10,0 0.394	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

T33-FNC

Forming taps – Blind and through holes – Metric coarse threads

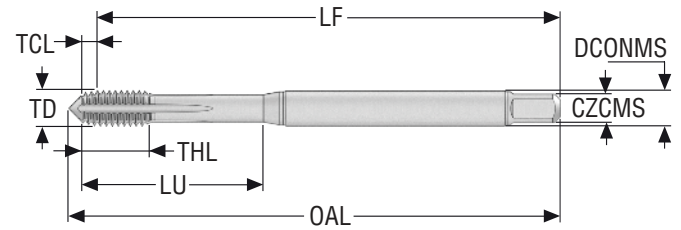


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FN01C06-12X1.75-65R	10139198	M12	1,75	3,7 0.146	12,0 0.472	18,0 0.709	83 3.268	106,3 4.185	110,0 4.331	9,0 0.354	9.00X7.00	11,25 0.443	0	C
T33-FN01C06-14X2-65R	10139199	M14	2,0	4,6 0.181	14,0 0.551	20,0 0.787	81 3.189	105,4 4.150	110,0 4.331	11,0 0.433	11.00X9.00	13,1 0.516	0	C
T33-FN01C06-16X2-65R	10139200	M16	2,0	4,6 0.181	16,0 0.630	20,0 0.787	81 3.189	105,4 4.150	110,0 4.331	12,0 0.472	12.00X9.00	15,1 0.594	0	C
T33-FN01C06-18X2.5-65R	10139201	M18	2,5	5,76 0.227	18,0 0.709	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	0	C
T33-FN01C06-20X2.5-65R	10139202	M20	2,5	5,8 0.228	20,0 0.787	25,0 0.984	95 3.740	134,2 5.283	140,0 5.512	16,0 0.630	16.00X12.00	18,85 0.742	0	C

T33-FSNC

Forming taps – Blind and through holes – Metric coarse threads

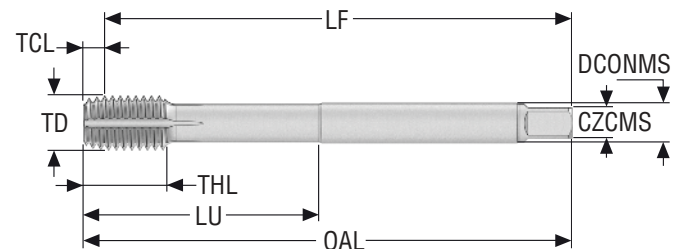


- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FSN01C03-2X0.4-65R	10139204	M2	0,4	1,02 0.040	2,0 0.079	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	2,5 0.098	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	3,0 0.118	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	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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	8,0 0.315	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	10,0 0.394	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

Forming taps – Blind and through holes – Metric coarse threads

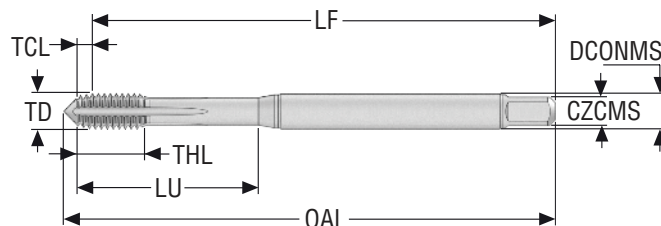


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FSN01C06-12X1.75-65R	10139212	M12	1,75	3,9 0.154	12,0 0.472	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	14,0 0.551	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	16,0 0.630	20,0 0.787	81 3.189	105,4 4.150	110,0 4.331	12,0 0.472	12.00X9.00	15,1 0.594	6	C
T33-FSN01C06-18X2.5-65R	10139215	M18	2,5	5,76 0.227	18,0 0.709	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	20,0 0.787	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

T33-FSNC

Forming taps – Blind and through holes – Metric coarse threads, 6GX

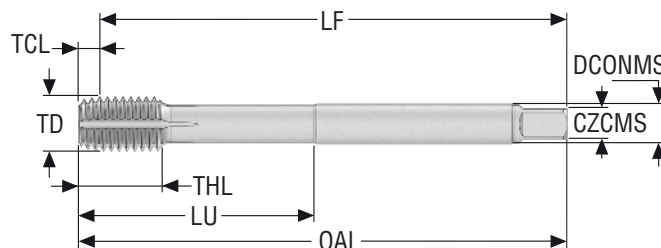


- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6GX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FSN01C03-3X0.5-62R	10139258	M3	0,5	1,2 0.047	3,0 0.118	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	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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	8,0 0.315	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	10,0 0.394	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

T33-FSNC

Forming taps – Blind and through holes – Metric coarse threads, 6GX

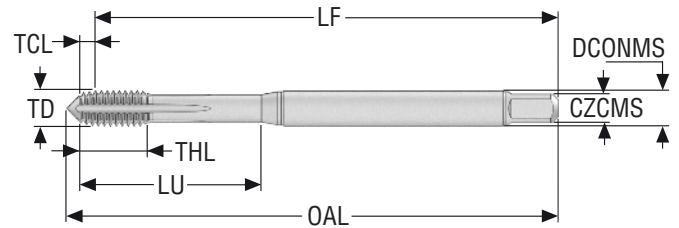


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 6GX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FSN01C06-12X1.75-62R	10139264	M12	1,75	3,9 0.154	12,0 0.472	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-FSN01C06-14X2-62R	10139265	M14	2,0	4,77 0.188	14,0 0.551	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-FSN01C06-16X2-62R	10139266	M16	2,0	5,88 0.231	16,0 0.630	20,0 0.787	81 3.189	104,12 4.099	110,0 4.331	12,0 0.472	12.00X9.00	15,1 0.594	6	C
T33-FSN01C06-18X2.5-62R	10139267	M18	2,5	5,47 0.215	18,0 0.709	25,0 0.984	81 3.189	119,53 4.706	125,0 4.921	14,0 0.551	14.00X11.00	16,85 0.663	6	C
T33-FSN01C06-20X2.5-62R	10139268	M20	2,5	6,68 0.263	20,0 0.787	25,0 0.984	95 3.740	133,32 5.249	140,0 5.512	16,0 0.630	16.00X12.00	18,85 0.742	6	C

T33-FSNC

Forming taps – Blind and through holes – MF threads

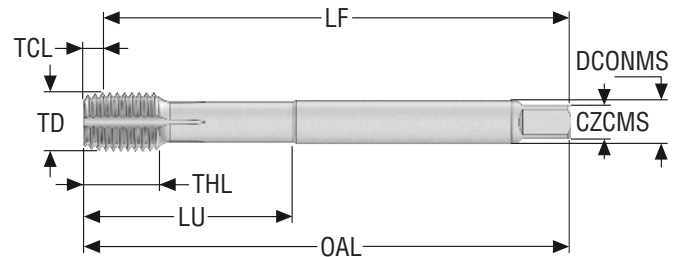


- Substrate: HSSE-PM
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FSN02C03-4X0.5-65R	10139217	MF4X0.5	0,5	1,4 0.055	4,0 0.157	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	5,0 0.197	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	6,0 0.236	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	6,0 0.236	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	MF8X1.0	1,0	2,25 0.089	8,0 0.315	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	MF10X1.0	1,0	2,9 0.114	10,0 0.394	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	10,0 0.394	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

Forming taps – Blind and through holes – MF threads

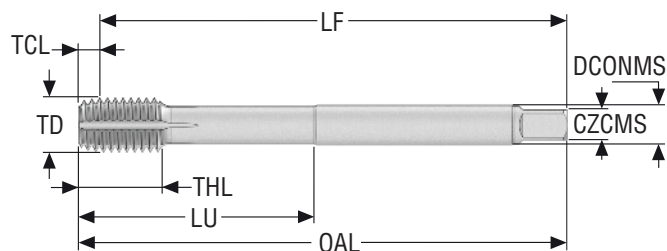


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FSN02C05-12X1-65R	10139224	MF12X1.0	1,0	3,27 0.129	12,0 0.472	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-FSN02C05-12X1.25-65R	10139225	MF12X1.25	1,25	3,96 0.156	12,0 0.472	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-FSN02C05-12X1.5-65R	10139226	MF12X1.5	1,5	4,15 0.163	12,0 0.472	15,0 0.591	73 2.874	95,85 3.774	100,0 3.937	9,0 0.354	9.00X7.00	11,35 0.447	5	C
T33-FSN02C05-16X1.5-65R	10139227	MF16X1.5	1,5	4,33 0.170	16,0 0.630	15,0 0.591	71 2.795	95,67 3.767	100,0 3.937	12,0 0.472	12.00X9.00	15,35 0.604	6	C
T33-FSN02C05-18X1.5-65R	10139228	MF18X1.5	1,5	4,4 0.173	18,0 0.709	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	6	C
T33-FSN02C05-20X1.5-65R	10139229	MF20X1.5	1,5	4,6 0.181	20,0 0.787	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	6	C

T33-FSNC

Forming taps – Blind and through holes – UNC threads

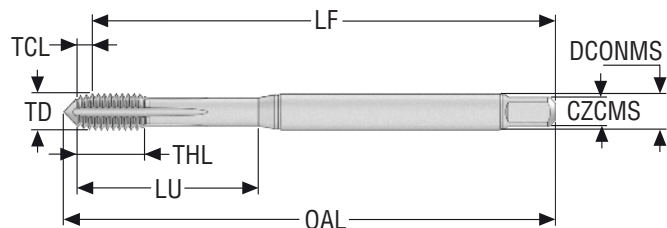


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN376
- Thread tolerance class: 2BX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			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	14,0	5,4 0.213	11,112 0.437	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	13,0	5,8 0.228	12,7 0.500	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	11,0	6,8 0.268	15,875 0.625	20,0 0.787	81 3.189	103,2 4.063	110,0 4.331	12,0 0.472	12.00X9.00	14,8 0.583	6	C

T33-FSNC

Forming taps – Blind and through holes – UNC threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 257

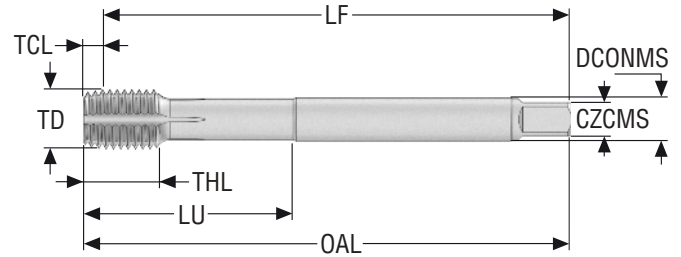
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T33-FSN08C03-5-40-22R	10139230	UNC5-40	40,0	1,6 0.063	3,175 0.125	7,0 0.276	18 0.709	54,4 2.142	57,2 2.252	3,5 0.138	3.50X2.70	2,9 0.114	3	C
T33-FSN08C03-6-32-22R	10139231	UNC6-32	32,0	1,8 0.071	3,505 0.138	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	32,0	2,0 0.079	4,166 0.164	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	24,0	2,7 0.106	4,826 0.190	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	24,0	2,7 0.106	5,486 0.216	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	20,0	3,9 0.154	6,35 0.250	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	18,0	3,6 0.142	7,937 0.312	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	16,0	4,74 0.187	9,525 0.375	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

Forming taps – Blind and through holes – UNF threads



- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN374
- Thread tolerance class: 2BX
- For cutting data see page(s) 257



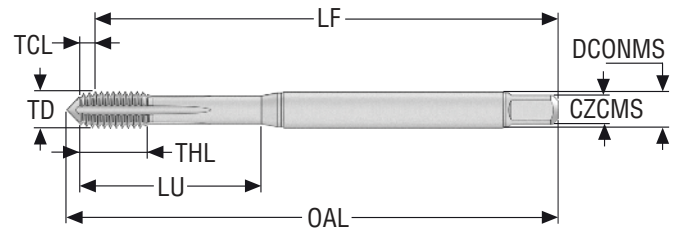
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T33-FSN09C05-7/16-20-22R	10139249	UNF7/16-20	20,0	3,8 0.150	11,112 0.437	15,0 0.591	76 2.992	96,2 3.787	100,0 3.937	8,0 0.315	8.00X6.20	10,55 0.415	5	C
T33-FSN09C05-1/2-20-22R	10139250	UNF1/2-20	20,0	3,8 0.150	12,7 0.500	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	18,0	4,7 0.185	15,875 0.625	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

T33-FSNC

Forming taps – Blind and through holes – UNF threads



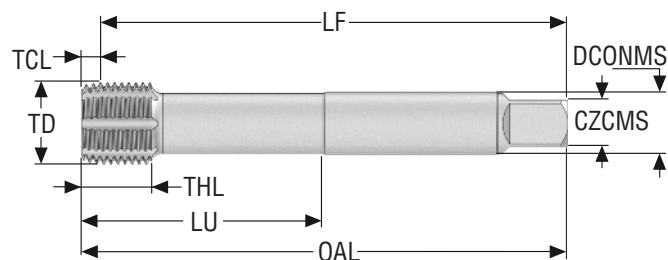
- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN371
- Thread tolerance class: 2BX
- For cutting data see page(s) 257



Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T33-FSN09C03-5-44-22R	10139241	UNF5-44	44,0	1,4 0.055	3,175 0.125	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	40,0	1,6 0.063	3,505 0.138	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	36,0	1,8 0.071	4,166 0.164	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	32,0	1,9 0.075	4,826 0.190	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	28,0	1,9 0.075	5,486 0.216	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	28,0	2,23 0.088	6,35 0.250	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	24,0	2,6 0.102	7,937 0.312	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	24,0	3,5 0.138	9,525 0.375	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

Forming taps – Blind and through holes – G threads

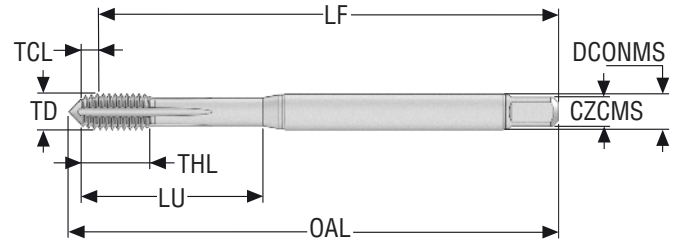


- Substrate: HSSE
- Coating: TiAlN + TiN
- Standard: DIN5156
- Thread tolerance class: NORMAL-X
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T33-FSN21C09-1/8-28-12R	10139252	G1/8-28	28,0	2,6 0.102	9,728 0.383	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	G1/4-19	19,0	3,7 0.146	13,157 0.518	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	G3/8-19	19,0	3,85 0.152	16,662 0.656	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	G1/2-14	14,0	5,1 0.201	20,955 0.825	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	G5/8-14	14,0	5,1 0.201	22,911 0.902	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	G3/4-14	14,0	5,1 0.201	26,441 1.041	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

T33-FSCC

Forming taps – Blind and through holes – Metric coarse threads

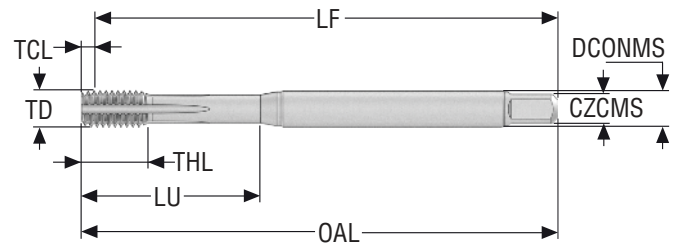


—Substrate: HSSE-PM
—Coating: TiN + TiCN
—Standard: DIN371
—Thread tolerance class: 6HX
—For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FSC01C03-3X0.5-65R	10139282	M3	0,5	1,2 0.047	3,0 0.118	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-FSC01C03-4X0.7-65R	10139283	M4	0,7	1,6 0.063	4,0 0.157	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-FSC01C03-5X0.8-65R	10139284	M5	0,8	2,1 0.083	5,0 0.197	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-FSC01C03-6X1-65R	10139285	M6	1,0	2,3 0.091	6,0 0.236	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-FSC01C03-8X1.25-65R	10139286	M8	1,25	3,1 0.122	8,0 0.315	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-FSC01C03-10X1.5-65R	10139287	M10	1,5	3,5 0.138	10,0 0.394	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-FSCE

Forming taps – Blind and through holes – Metric coarse threads

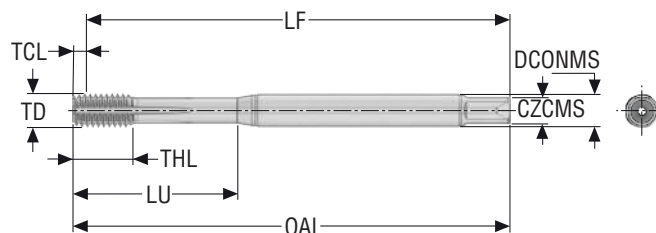


—Substrate: HSSE-PM
—Coating: TiN + TiCN
—Standard: DIN371
—Thread tolerance class: 6HX
—For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33-FSC01E03-3X0.5-65R	10139288	M3	0,5	1,2 0.047	3,0 0.118	10,0 0.394	18 0.709	54,8 2.157	56,0 2.205	3,5 0.138	3.50X2.70	2,8 0.110	3	E
T33-FSC01E03-4X0.7-65R	10139289	M4	0,7	1,6 0.063	4,0 0.157	7,0 0.276	21 0.827	61,4 2.417	63,0 2.480	4,5 0.177	4.50X3.40	3,7 0.146	5	E
T33-FSC01E03-5X0.8-65R	10139290	M5	0,8	1,5 0.059	5,0 0.197	8,0 0.315	25 0.984	68,5 2.697	70,0 2.756	6,0 0.236	6.00X4.90	4,65 0.183	5	E

T33A-FSCE

Forming taps – Blind holes – Metric coarse threads

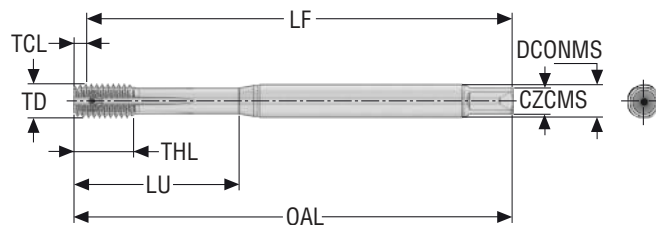


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33A-FSC01E03-5X0.8-65R	10139294	M5	0,8	1,7 0.067	5,0 0.197	8,0 0.315	25 0.984	68,3 2.689	70,0 2.756	6,0 0.236	6.00X4.90	4,65 0.183	5	E
T33A-FSC01E03-6X1-65R	10139295	M6	1,0	1,95 0.077	6,0 0.236	10,0 0.394	30 1.181	78,05 3.073	80,0 3.150	6,0 0.236	6.00X4.90	5,6 0.220	5	E
T33A-FSC01E03-8X1.25-65R	10139296	M8	1,25	2,55 0.100	8,0 0.315	13,0 0.512	35 1.378	87,45 3.443	90,0 3.543	8,0 0.315	8.00X6.20	7,45 0.293	5	E
T33A-FSC01E03-10X1.5-65R	10139297	M10	1,5	2,84 0.112	10,0 0.394	15,0 0.591	39 1.535	97,16 3.825	100,0 3.937	10,0 0.394	10.00X8.00	9,35 0.368	5	E

T33B-FSCE

Forming taps – Blind and through holes – Metric coarse threads

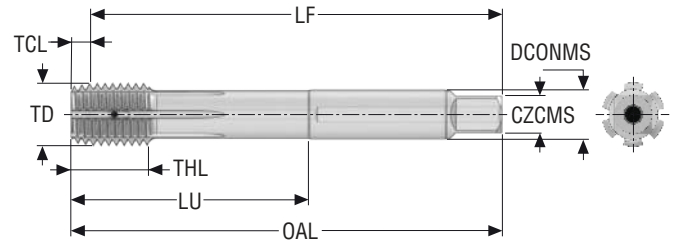


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	TD	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		
T33B-FSC01E03-5X0.8-65R	10139298	M5	0,8	1,57 0.062	5,0 0.197	8,0 0.315	25 0.984	68,43 2.694	70,0 2.756	6,0 0.236	6.00X4.90	4,65 0.183	5	E
T33B-FSC01E03-6X1-65R	10139299	M6	1,0	1,95 0.077	6,0 0.236	10,0 0.394	30 1.181	78,05 3.073	80,0 3.150	6,0 0.236	6.00X4.90	5,6 0.220	5	E
T33B-FSC01E03-8X1.25-65R	10139300	M8	1,25	2,42 0.095	8,0 0.315	13,0 0.512	35 1.378	87,58 3.448	90,0 3.543	8,0 0.315	8.00X6.20	7,45 0.293	5	E
T33B-FSC01E03-10X1.5-65R	10139301	M10	1,5	2,84 0.112	10,0 0.394	15,0 0.591	39 1.535	97,16 3.825	100,0 3.937	10,0 0.394	10.00X8.00	9,35 0.368	5	E

T33B-FSCC

Forming taps – Blind and through holes – Metric coarse threads

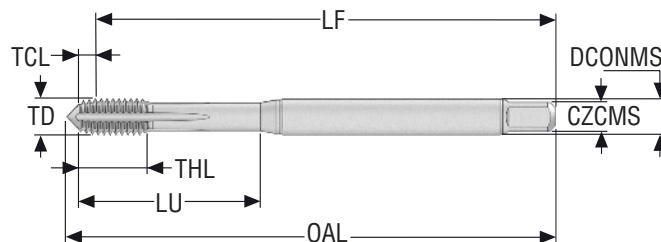


- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN376
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm		mm		
T33B-FSC01C06-12X1.75-65R	10208929	M12	1,75	3,9	18,0	83	105,1	110,0	9,0	9.00x7.00	11,25	5	C
T33B-FSC01C06-14X2-65R	10208930	M14	2,0	5,88	20,0	81	104,3	110,0	11,0	11.00x9.00	13,1	6	C
T33B-FSC01C06-16X2-65R	10208931	M16	2,0	5,88	20,0	68	104,3	110,0	12,0	12.00x9.00	15,1	6	C
T33B-FSC01C06-18X2.5-65R	10208932	M18	2,5	6,95	25,0	81	118,0	125,0	14,0	14.00x11.00	16,85	6	C
T33B-FSC01C06-20X2.5-65R	10208933	M20	2,5	6,62	25,0	95	133,0	140,0	16,0	16.00x12.00	18,85	6	C
T33B-FSC01C06-22X2.5-65R	10208934	M22	2,5	6,92	25,0	93	133,0	140,0	18,0	18.00x14.50	20,85	6	C
T33B-FSC01C06-24X3-65R	10208935	M24	3,0	8,44	30,0	113	151,3	160,0	18,0	18.00x14.50	22,65	6	C

T33-FSCC

Forming taps – Blind and through holes – MF threads



- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN371
- Thread tolerance class: 6HX
- For cutting data see page(s) 257

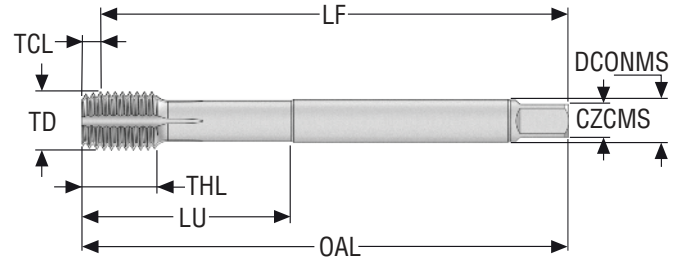
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T33-FSC02C03-4X0.5-65R	10139269	MF4X0.5	0,5	1,4 0.055	4,0 0.157	7,0 0.276	21 0.827	61,6 2.425	64,6 2.543	4,5 0.177	4.50X3.40	3,8 0.150	5	C
T33-FSC02C03-5X0.5-65R	10139270	MF5X0.5	0,5	1,2 0.047	5,0 0.197	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-FSC02C03-6X0.5-65R	10139271	MF6X0.5	0,5	1,35 0.053	6,0 0.236	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-FSC02C03-6X0.75-65R	10139272	MF6X0.75	0,75	1,8 0.071	6,0 0.236	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-FSC02C03-8X1-65R	10139273	MF8X1.0	1,0	2,25 0.089	8,0 0.315	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-FSC02C03-10X1-65R	10139274	MF10X1.0	1,0	2,9 0.114	10,0 0.394	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-FSC02C03-10X1.25-65R	10139275	MF10X1.25	1,25	4,0 0.157	10,0 0.394	15,0 0.591	39 1.535	96,0 3.780	101,8 4.008	10,0 0.394	10.00X8.00	9,45 0.372	5	C

T33-FSCC

Forming taps – Blind and through holes – MF threads



- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 257



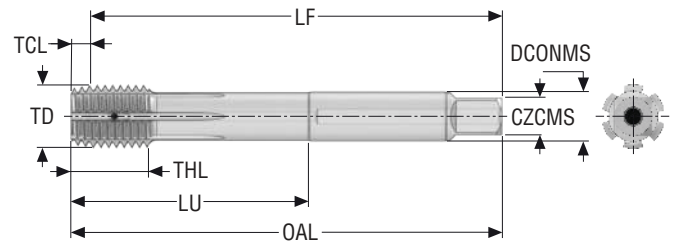
Designation	Item number	TDZ	Pitch	TCL	TD	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch		mm Inch		
T33-FSC02C05-12X1.65R	10139276	MF12X1.0	1,0	3,27 0.129	12,0 0.472	10,0 0.394	73 2.874	96,73 3.808	100,0 3.937	9,0 0.354	9.00X7.00	11,6 0.457	5	C
T33-FSC02C05-12X1.25-65R	10139277	MF12X1.25	1,25	3,96 0.156	12,0 0.472	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	12,0 0.472	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	16,0 0.630	15,0 0.591	71 2.795	95,67 3.767	100,0 3.937	12,0 0.472	12.00X9.00	15,35 0.604	5	C
T33-FSC02C05-18X1.5-65R	10139280	MF18X1.5	1,5	4,4 0.173	18,0 0.709	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	20,0 0.787	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

T33B-FSCC

Forming taps – Blind and through holes – MF threads



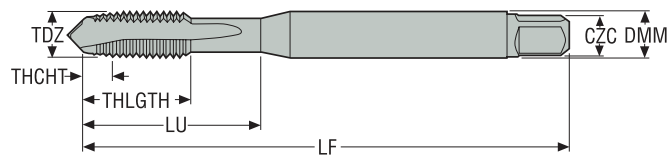
- Internal coolant
- Substrate: HSSE-PM
- Coating: TiN + TiCN
- Standard: DIN374
- Thread tolerance class: 6HX
- For cutting data see page(s) 257



Designation	Item number	TDZ	Pitch	TCL	THL	LU	LF	OAL	DCONMS	CZCMS	PHDR Ø	NOF	THCHT
			mm	mm	mm	mm	mm	mm	mm		mm		
T33B-FSC02C05-12X1.25-65R	10208936	MF12X1.25	1,25	3,96	15,0	73	95,9	100,0	9,0	9.00x7.00	11,45	5	C
T33B-FSC02C05-14X1.5-65R	10208937	MF14X1.5	1,5	4,33	15,0	81	95,7	100,0	11,0	11.00x9.00	13,35	6	C
T33B-FSC02C05-16X1.5-65R	10208938	MF16X1.5	1,5	4,27	15,0	58	95,7	100,0	12,0	12.00x9.00	15,35	6	C

MTP-P003

Through holes – Metric coarse threads

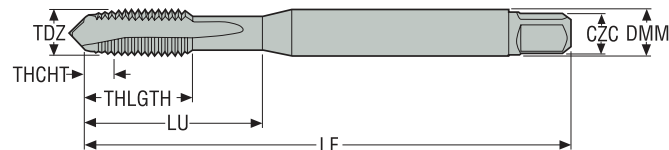


- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 261

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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 – Metric coarse threads

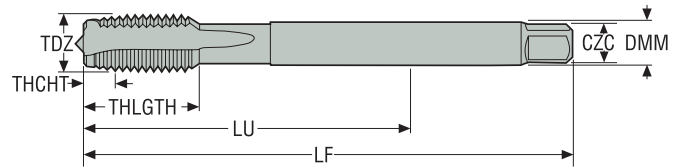


- Internal coolant
- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 261

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

MTP-P004

Through holes – Metric coarse threads

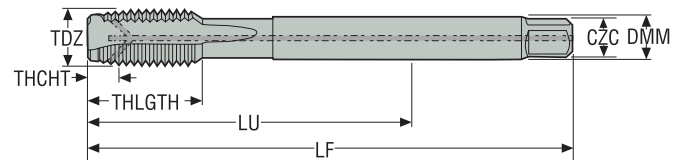


- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 261

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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 – Metric coarse threads

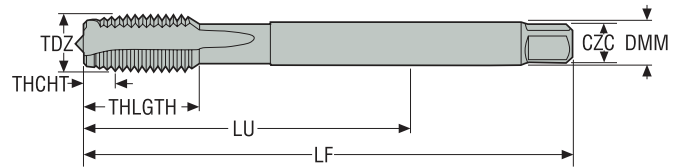


- Internal coolant
- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 261

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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 – MF threads



- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 261

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M4X0.50ISO6HX-TB-P011	02999944	MF4X0.5	0,5	2,8 0.110	43,0 1.693	12,0 0.472	60,6875 2.389	3,5 0.138	2.80X2.10	3	DIN374	6HX	B
MTP-M5X0.50ISO6HX-TB-P011	02999945	MF5X0.5	0,5	3,5 0.138	49,0 1.929	13,0 0.512	67,57 2.660	4,5 0.177	3.50X2.70	3	DIN374	6HX	B
MTP-M6X0.75ISO6HX-TB-P011	02999946	MF6X0.75	0,75	4,5 0.177	59,0 2.323	15,0 0.591	76,5 3.012	5,3 0.209	4.50X3.40	3	DIN374	6HX	B
MTP-M8X0.75ISO6HX-TB-P011	02999947	MF8X0.75	0,75	6,0 0.236	57,0 2.244	15,0 0.591	76,43 3.009	7,3 0.287	6.00X4.90	3	DIN374	6HX	B
MTP-M8X1.00ISO6HX-TB-P011	02999948	MF8X1.0	1,0	6,0 0.236	67,0 2.638	18,0 0.709	85,375 3.361	7,1 0.280	6.00X4.90	3	DIN374	6HX	B
MTP-M10X0.75ISO6HX-TB-P011	02999949	MF10X0.75	0,75	7,0 0.276	67,0 2.638	17,6 0.693	86,42 3.402	9,3 0.366	7.00X5.50	3	DIN374	6HX	B
MTP-M10X1.00ISO6HX-TB-P011	02999950	MF10X1.0	1,0	7,0 0.276	67,0 2.638	17,6 0.693	85,375 3.361	9,1 0.358	7.00X5.50	3	DIN374	6HX	B
MTP-M10X1.25ISO6HX-TB-P011	02999951	MF10X1.25	1,25	7,0 0.276	77,0 3.031	19,8 0.780	98,51875 3.879	8,8 0.346	7.00X5.50	3	DIN374	6HX	B
MTP-M12X1.00ISO6HX-TB-P011	02999952	MF12X1.0	1,0	9,0 0.354	73,0 2.874	21,0 0.827	95,36 3.754	11,1 0.437	9.00X7.00	4	DIN374	6HX	B
MTP-M12X1.25ISO6HX-TB-P011	02999953	MF12X1.25	1,25	9,0 0.354	73,0 2.874	21,0 0.827	94,21875 3.709	10,8 0.425	9.00X7.00	4	DIN374	6HX	B
MTP-M12X1.50ISO6HX-TB-P011	02999954	MF12X1.5	1,5	9,0 0.354	73,0 2.874	21,0 0.827	93,37 3.676	10,6 0.417	9.00X7.00	4	DIN374	6HX	B
MTP-M14X1.00ISO6HX-TB-P011	02999955	MF14X1.0	1,0	11,0 0.433	71,0 2.795	21,0 0.827	95,35 3.754	13,1 0.516	11.00X9.00	4	DIN374	6HX	B
MTP-M14X1.25ISO6HX-TB-P011	02999956	MF14X1.25	1,25	11,0 0.433	71,0 2.795	21,0 0.827	94,33 3.714	12,8 0.504	11.00X9.00	4	DIN374	6HX	B
MTP-M14X1.50ISO6HX-TB-P011	02999957	MF14X1.5	1,5	11,0 0.433	71,0 2.795	21,0 0.827	93,0625 3.664	12,6 0.496	11.00X9.00	4	DIN374	6HX	B
MTP-M16X1.00ISO6HX-TB-P011	02999958	MF16X1.0	1,0	12,0 0.472	58,0 2.283	21,0 0.827	95,35 3.754	15,1 0.594	12.00X9.00	4	DIN374	6HX	B
MTP-M16X1.50ISO6HX-TB-P011	02999959	MF16X1.5	1,5	12,0 0.472	58,0 2.283	21,0 0.827	93,0625 3.664	14,6 0.575	12.00X9.00	4	DIN374	6HX	B
MTP-M18X1.00ISO6HX-TB-P011	02999960	MF18X1.0	1,0	14,0 0.551	66,0 2.598	24,0 0.945	105,35 4.148	17,1 0.673	14.00X11.00	4	DIN374	6HX	B
MTP-M18X1.50ISO6HX-TB-P011	02999961	MF18X1.5	1,5	14,0 0.551	66,0 2.598	24,0 0.945	103,35 4.069	16,6 0.654	14.00X11.00	4	DIN374	6HX	B
MTP-M20X1.00ISO6HX-TB-P011	02999962	MF20X1.0	1,0	16,0 0.630	80,0 3.150	24,0 0.945	120,24 4.734	19,1 0.752	16.00X12.00	4	DIN374	6HX	B
MTP-M20X1.50ISO6HX-TB-P011	02999963	MF20X1.5	1,5	16,0 0.630	80,0 3.150	24,0 0.945	118,25 4.656	18,6 0.732	16.00X12.00	4	DIN374	6HX	B
MTP-M22X1.50ISO6HX-TB-P011	02999964	MF22X1.5	1,5	18,0 0.709	78,0 3.071	25,0 0.984	118,25 4.656	20,5 0.807	18.00X14.50	4	DIN374	6HX	B
MTP-M24X1.50ISO6HX-TB-P011	02999965	MF24X1.5	1,5	18,0 0.709	93,0 3.661	28,0 1.102	133,23 5.245	22,5 0.886	18.00X14.50	4	DIN374	6HX	B
MTP-M24X2.00ISO6HX-TB-P011	02999966	MF24X2.0	2,0	18,0 0.709	93,0 3.661	28,0 1.102	131,28 5.169	22,0 0.866	18.00X14.50	4	DIN374	6HX	B
MTP-M25X1.50ISO6HX-TB-P011	02999967	MF25X1.5	1,5	18,0 0.709	93,0 3.661	28,0 1.102	133,23 5.245	23,5 0.925	18.00X14.50	4	DIN374	6HX	B
MTP-M26X1.50ISO6HX-TB-P011	02999968	MF26X1.5	1,5	18,0 0.709	93,0 3.661	28,0 1.102	133,23 5.245	24,5 0.965	18.00X14.50	4	DIN374	6HX	B
MTP-M27X1.50ISO6HX-TB-P011	02999969	MF27X1.5	1,5	20,0 0.787	77,0 3.031	28,0 1.102	133,22 5.245	25,5 1.004	20.00X16.00	4	DIN374	6HX	B

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
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™

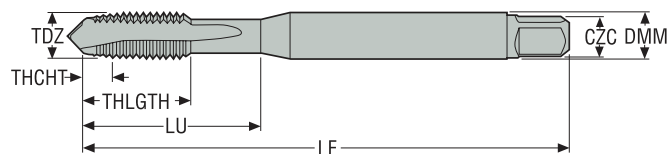
Thread milling

Thread tapping

Annex

MTP-M003-A

Through holes – Metric coarse threads

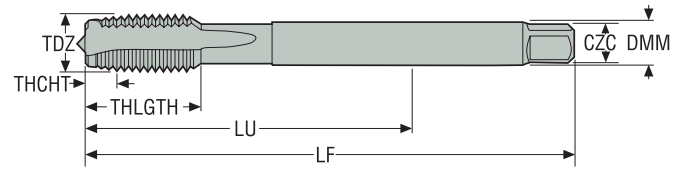


- Internal coolant
- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 263

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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 – Metric coarse threads

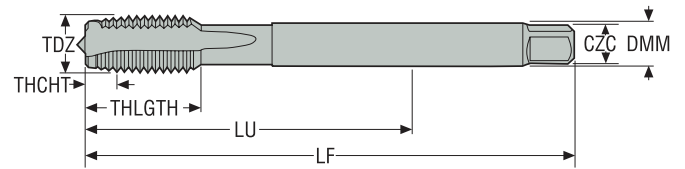


- Internal coolant
- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 263

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M12X1.75ISO6H-TB-M004	03000087	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	03000088	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	6H	B
MTP-M16X2.00ISO6H-TB-M004	03000090	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	6H	B
MTP-M18X2.50ISO6H-TB-M004	03000091	M18	2,5	14,0 0.551	81,0 3.189	30,0 1.181	113,4375 4.466	15,7 0.618	14.00X11.00	4	DIN376	6H	B
MTP-M20X2.50ISO6H-TB-M004	03000092	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	6H	B

MTP-M004

Through holes – Metric coarse threads



- Internal coolant
- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 263

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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

Thread turning

MDT

Mini-Shaft™

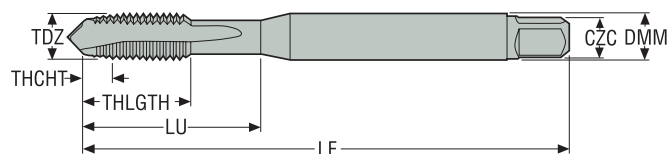
Thread milling

Thread tapping

Annex

MTP-N001

Through holes – Metric coarse threads

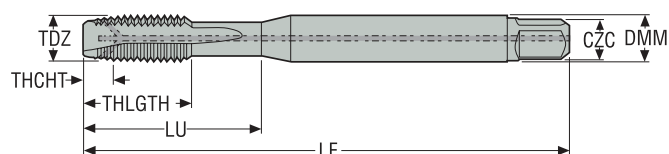


- Substrate: HSS-E
- Coating: BRIGHT
- For cutting data see page(s) 265

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTP-N001-A

Through holes – Metric coarse threads

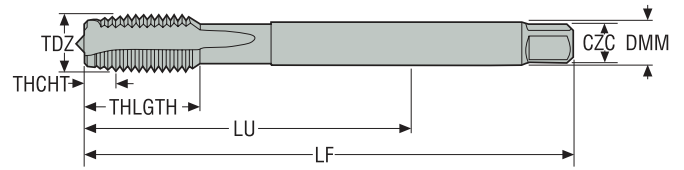


- Internal coolant
- Substrate: HSS-PM
- Coating: BRIGHT
- For cutting data see page(s) 265

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-M4X0.70ISO6H-TB-N001-A	03000145	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-A	03000146	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-A	03000147	M6	1,0	6,0 0.236	27,0 1.063	15,0 0.591	75,5 2.972	5,1 0.201	6.00X4.90	3	DIN371	6H	B
MTP-M8X1.25ISO6H-TB-N001-A	03000148	M8	1,25	8,0 0.315	28,0 1.102	18,0 0.709	84,37 3.322	6,8 0.268	8.00X6.20	3	DIN371	6H	B
MTP-M10X1.50ISO6H-TB-N001-A	03000149	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

MTP-N002

Through holes – Metric coarse threads

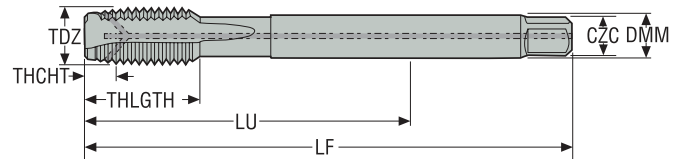


—Substrate: HSS-E
—Coating: BRIGHT
—For cutting data see page(s) 265

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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 – Metric coarse threads

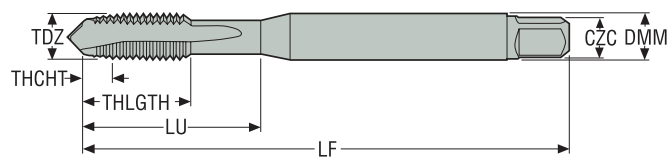


—Internal coolant
—Substrate: HSS-PM
—Coating: BRIGHT
—For cutting data see page(s) 265

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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 – Metric coarse threads

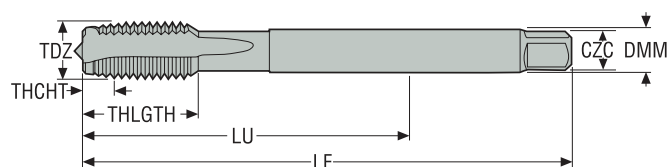


—Substrate: HSS-E-PM
—Coating: AlCrN
—For cutting data see page(s) 271

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTP-S002

Through holes – Metric coarse threads

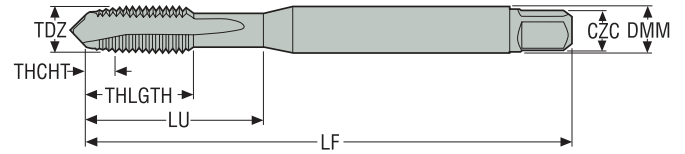


—Substrate: HSS-E-PM
—Coating: AlCrN
—For cutting data see page(s) 271

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTP-S011

Through holes – MF threads

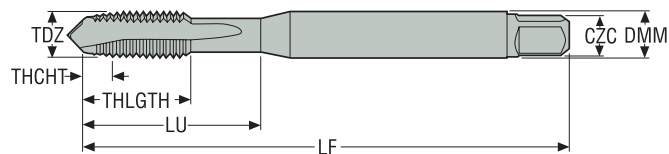


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 271

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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	MF8X1.0	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	MF10X1.0	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	MF12X1.0	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

MTP-S012

Through holes – MJ threads

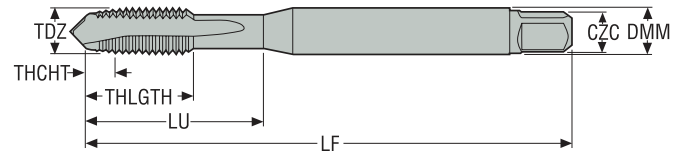


—Substrate: HSS-E-PM
—Coating: AlCrN
—For cutting data see page(s) 271

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
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

MTP-S013

Through holes – EGM threads



—Substrate: HSS-E-PM
—For cutting data see page(s) 271

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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™

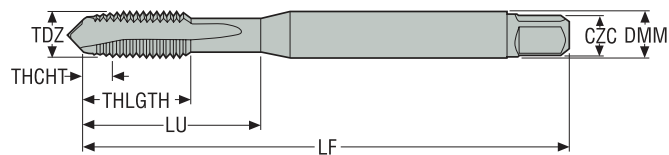
Thread milling

Thread tapping

Annex

MTP-S042

Through holes – UNJF threads

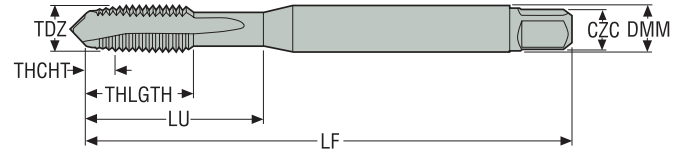


—Substrate: HSS-E-PM
—Coating: AlCrN
—For cutting data see page(s) 271

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTP-S043

Through holes – EGUNF threads

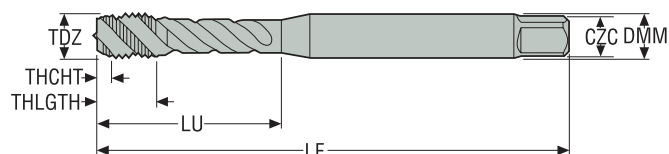


—Substrate: HSS-E-PM
—For cutting data see page(s) 271

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTP-10-32EGUNF3B-TB-S043	10001214	EGUNF10-32	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

MTH-P003

Blind holes – Metric coarse threads

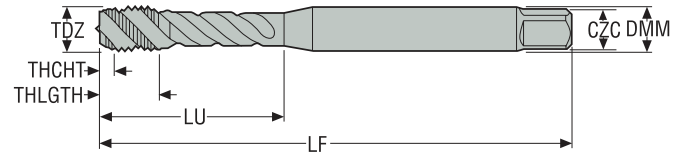


- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 259

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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

MTH-P003-A

Blind holes – Metric coarse threads

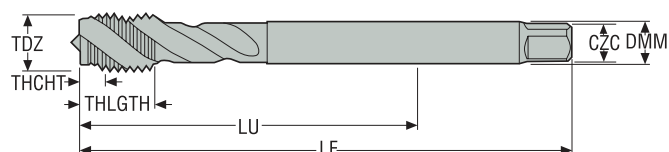


- Internal coolant
- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 259

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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 – Metric coarse threads

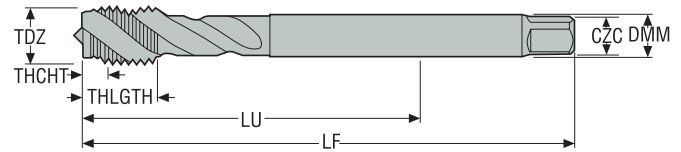


—Substrate: HSS-E-PM
—Coating: AlTiN-based
—For cutting data see page(s) 259

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTH-P004-A

Blind holes – Metric coarse threads

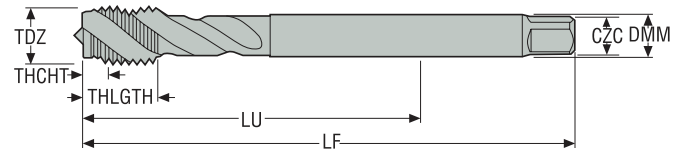


- Internal coolant
- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 259

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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 – MF threads



- Substrate: HSS-E-PM
- Coating: AlTiN-based
- For cutting data see page(s) 259

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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
MTH-M24X2.00ISO6HX-BC-P011	03000062	MF24X2.0	2,0	18,0 0.709	93,0 3.661	20,0 0.787	134,7 5.303	22,0 0.866	18.00X14.50	4	DIN374	6HX	C
MTH-M25X1.50ISO6HX-BC-P011	03000063	MF25X1.5	1,5	18,0 0.709	93,0 3.661	20,0 0.787	135,7 5.343	23,5 0.925	18.00X14.50	4	DIN374	6HX	C
MTH-M26X1.50ISO6HX-BC-P011	03000064	MF26X1.5	1,5	18,0 0.709	93,0 3.661	20,0 0.787	135,7 5.343	24,5 0.965	18.00X14.50	4	DIN374	6HX	C
MTH-M27X1.50ISO6HX-BC-P011	03000065	MF27X1.5	1,5	20,0 0.787	77,0 3.031	20,0 0.787	135,875 5.349	25,5 1.004	20.00X16.00	4	DIN374	6HX	C

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
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™

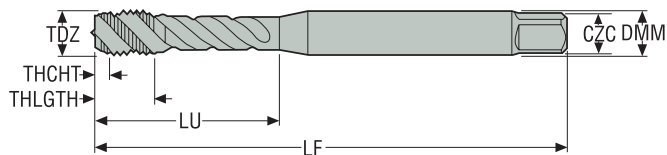
Thread milling

Thread tapping

Annex

MTH-M003

Blind holes – Metric coarse threads

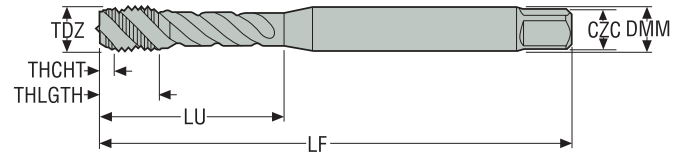


- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 263

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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-M2.5X0.45ISO6H-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

MTH-M003-A

Blind holes – Metric coarse threads

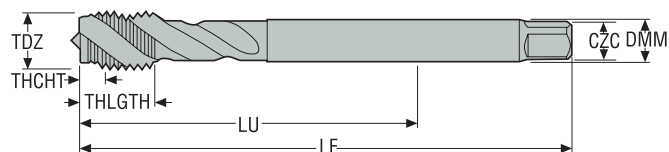


- Internal coolant
- Substrate: HSS-E
- Coating: TiCN
- For cutting data see page(s) 263

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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 – Metric coarse threads

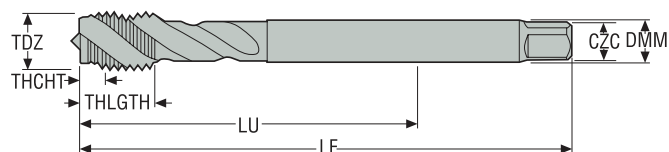


—Substrate: HSS-E
—Coating: TiCN
—For cutting data see page(s) 263

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTH-M004-A

Blind holes – Metric coarse threads

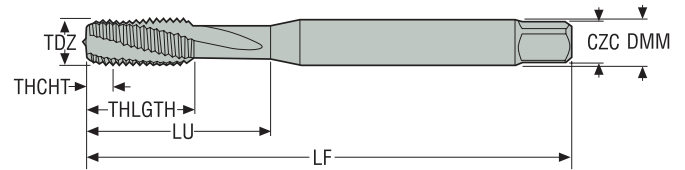


—Internal coolant
—Substrate: HSS-E
—Coating: TiCN
—For cutting data see page(s) 263

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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

MTH-N001

Blind holes – Metric coarse threads

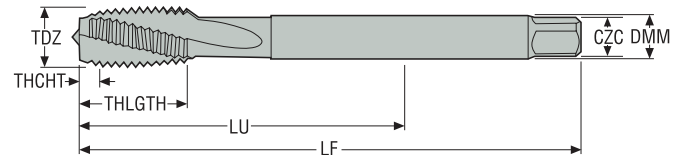


—Substrate: HSS-E-PM
—Coating: BRIGHT
—For cutting data see page(s) 265

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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 – Metric coarse threads

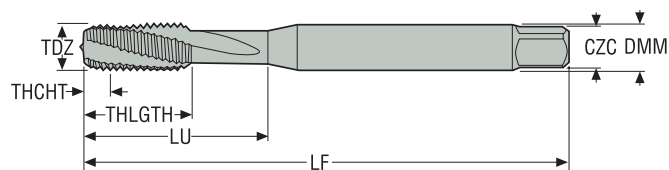


—Substrate: HSS-E-PM
—Coating: BRIGHT
—For cutting data see page(s) 265

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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

MTH-S001

Blind holes – Metric coarse threads

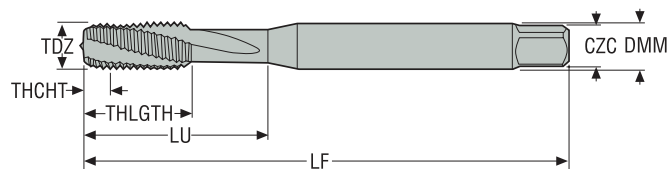


—Substrate: HSS-E-PM
—For cutting data see page(s) 267

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTH-S002

Blind holes – Metric coarse threads

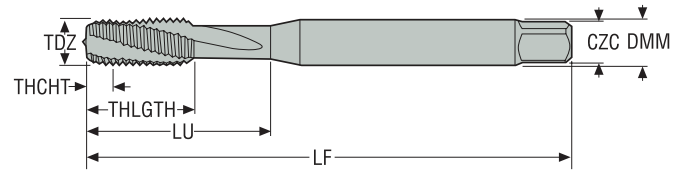


—Substrate: HSS-E-PM
—For cutting data see page(s) 267

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

MTH-S003

Blind holes – Metric coarse threads

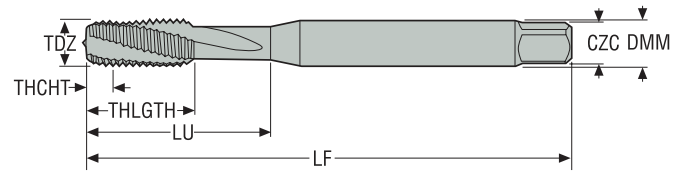


- Substrate: HSS-E-PM
- Coating: TiN
- For cutting data see page(s) 267

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTH-S004

Blind holes – Metric coarse threads

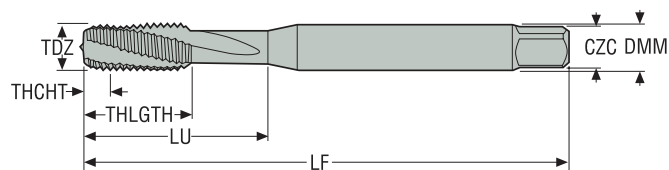


- Substrate: HSS-E-PM
- Coating: TiN
- For cutting data see page(s) 267

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

MTH-S011

Blind holes – MF threads

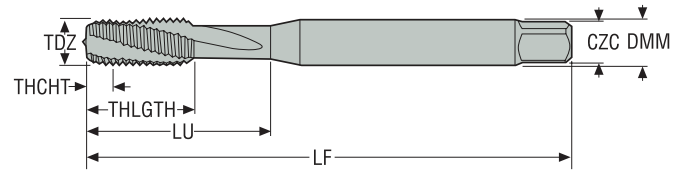


—Substrate: HSS-E-PM
—For cutting data see page(s) 267

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
MTH-M8X1.00ISO6HX-BC-S011	10001082	MF8X1.0	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	MF10X1.0	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

MTH-S012

Blind holes – MJ threads

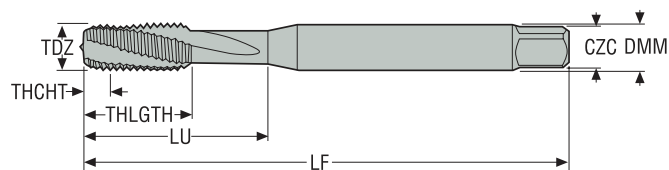


—Substrate: HSS-E-PM
—For cutting data see page(s) 267

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
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

MTH-S031

Blind holes – UNC threads

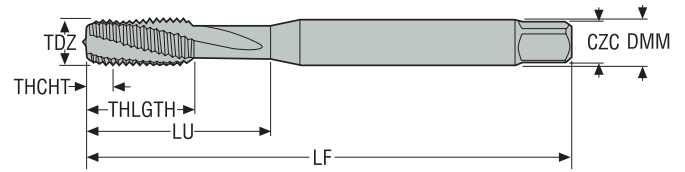


–Substrate: HSS-E-PM
–For cutting data see page(s) 267

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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 – UNJC threads

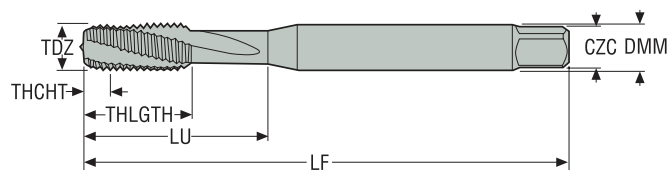


—Substrate: HSS-E-PM
—For cutting data see page(s) 267

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

MTH-S041

Blind holes – UNF threads

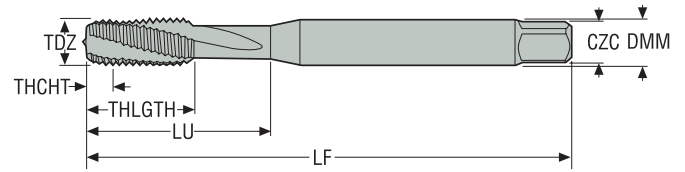


–Substrate: HSS-E-PM
–For cutting data see page(s) 269

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTH-S042

Blind holes – UNJF threads

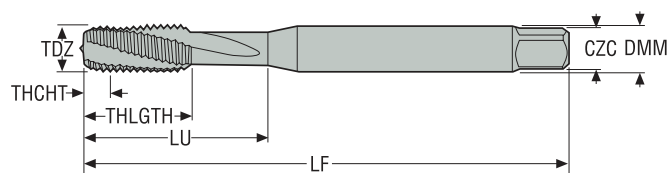


—Substrate: HSS-E-PM
—For cutting data see page(s) 269

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

MTH-S043

Blind holes – EGUNF threads

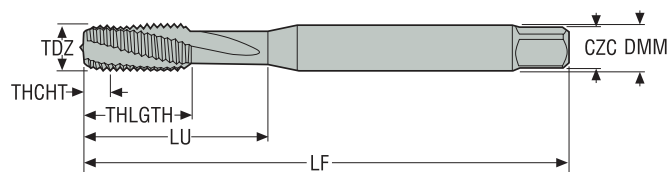


—Substrate: HSS-E-PM
—Coating: AlCrN
—For cutting data see page(s) 269

Designation	Item number	TDZ	TPIN	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			TPI	mm inch	mm inch	mm inch	mm inch	mm inch					
MTH-10-32EGUNF3B-BC-S043 MTH-10-32STIUNF3B-BC-S043	10001199	EGUNF10-32	32,0	6,0 0.236	23 0.906	15,0 0.591	77,8 3.062	5,1 0.201	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 0.315	30 1.161	18,0 0.709	87,5 3.443	6,6 0.260	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 0.394	34 1.319	20,0 0.787	97,0 3.820	8,2 0.323	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 0.315	76 2.992	20,0 0.787	97,0 3.820	9,8 0.386	8.00X6.20	4	DIN2184-1	3B	C

MTH-S044

Blind holes – EGUNF threads

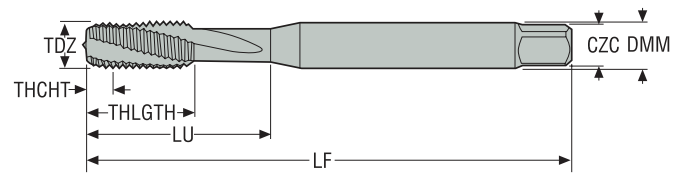


—Substrate: HSS-E-PM
—For cutting data see page(s) 269

Designation	Item number	TDZ	TPIN	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			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

MTH-S101

Blind holes – Metric coarse threads

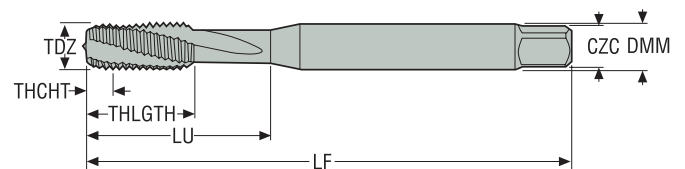


—Substrate: HSS-E-PM
—Coating: AlCrN
—For cutting data see page(s) 269

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTH-S102

Blind holes – Metric coarse threads



—Substrate: HSS-E-PM
—Coating: AlCrN
—For cutting data see page(s) 269

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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™

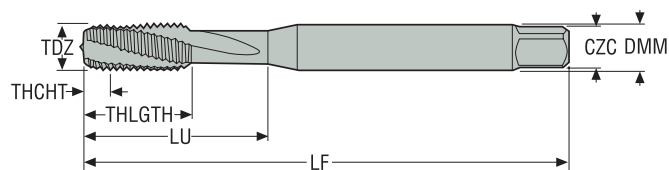
Thread milling

Thread tapping

Annex

MTH-S111

Blind holes – MF threads

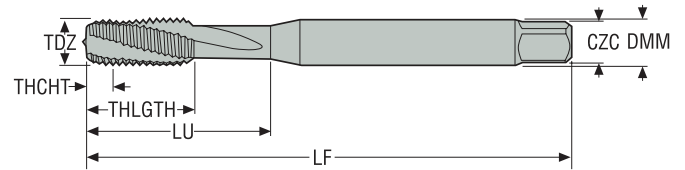


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 269

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>	mm <i>Inch</i>					
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	MF8X1.0	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	MF10X1.0	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 – MJ threads

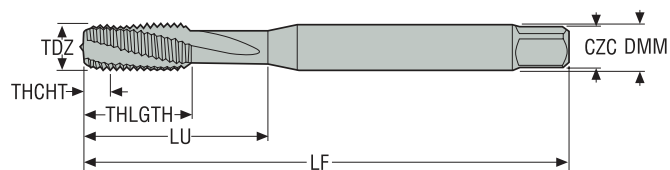


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 269

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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

MTH-S142

Blind holes – UNJF threads

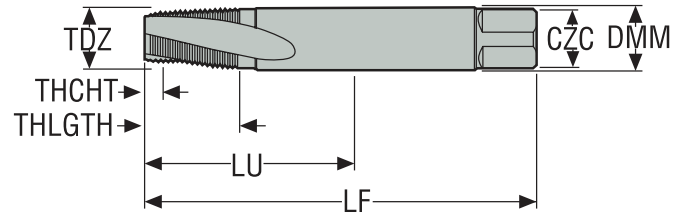


- Substrate: HSS-E-PM
- Coating: AlCrN
- For cutting data see page(s) 269

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTH-V048

Blind holes – NPT threads

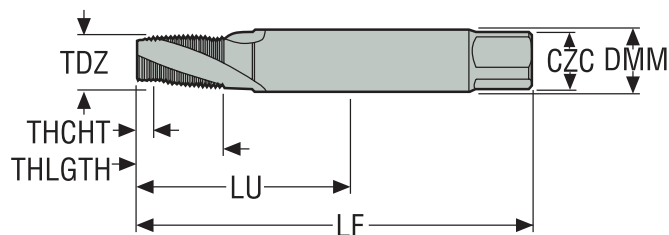


- Substrate: HSS-E
- Vaporized
- For cutting data see page(s) 275

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTH-V050

Blind holes – NPTF threads

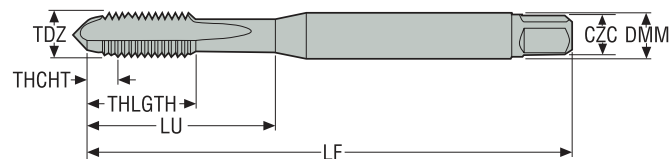


—Substrate: HSS-E
—Vaporized
—For cutting data see page(s) 275

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			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

MTS-K101

Blind and through holes – Metric coarse threads

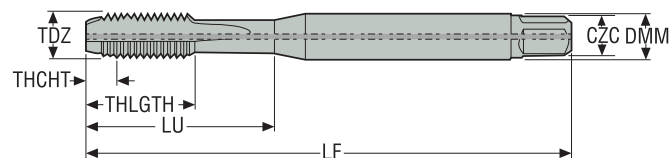


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTS-M3X0.50ISO6HX-XC-K101	03305497	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	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	61,075 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	67,8 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	86,5625 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	95,875 3.775	8,6 0.339	10.00X8.00	5	DIN371	6HX	C

MTS-K101-A

Blind and through holes – Metric coarse threads



- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTS-M4X0.70ISO6HX-XC-K101-A	03305448	M4	0,7	4,5 0.177	21,0 0.827	12,0 0.472	61,07 2.404	3,4 0.134	4.50X3.40	4	DIN371	6HX	C
MTS-M5X0.80ISO6HX-XC-K101-A	03305450	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	5	DIN371	6HX	C
MTS-M5X0.80ISO6HX-XE-K101-A	03305460	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	5	DIN371	6HX	E
MTS-M6X1.00ISO6HX-XC-K101-A	03305451	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-M6X1.00ISO6HX-XE-K101-A	03305461	M6	1,0	6,0 0.236	30,0 1.181	15,0 0.591	78,25 3.081	5,1 0.201	6.00X4.90	5	DIN371	6HX	E
MTS-M8X1.25ISO6HX-XC-K101-A	03305452	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	5	DIN371	6HX	C
MTS-M8X1.25ISO6HX-XE-K101-A	03305462	M8	1,25	8,0 0.315	35,0 1.378	18,0 0.709	87,8125 3.457	6,8 0.268	8.00X6.20	5	DIN371	6HX	E
MTS-M10X1.50ISO6HX-XC-K101-A	03305453	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	5	DIN371	6HX	C
MTS-M10X1.50ISO6HX-XE-K101-A	03305463	M10	1,5	10,0 0.394	39,0 1.535	20,0 0.787	97,375 3.834	8,6 0.339	10.00X8.00	5	DIN371	6HX	E

Thread turning

MDT

Mini-Shaft™

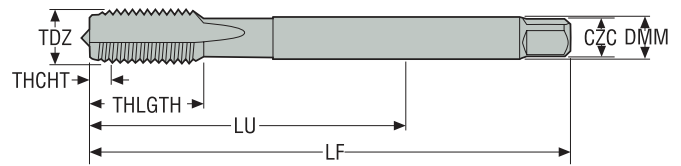
Thread milling

Thread tapping

Annex

MTS-K002

Blind and through holes – Metric coarse threads

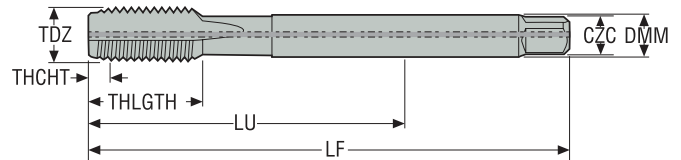


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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 – Metric coarse threads

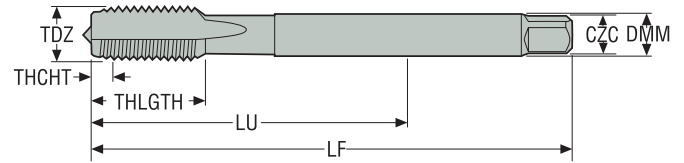


- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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 – Metric coarse threads



- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
MTS-M8X1.25ISO6HX-XC-K102	03305503	M8	1,25	6,0 0.236	67,0 2.638	20,0 0.787	86,5625 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	95,875 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	105,1875 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	104,5 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	104,5 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	118,125 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	133,125 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	133,125 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™

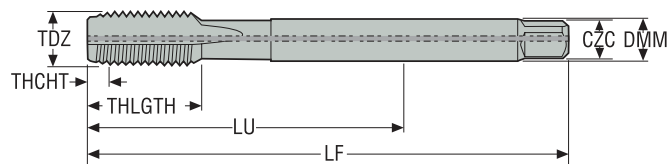
Thread milling

Thread tapping

Annex

MTS-K102-A

Blind and through holes – Metric coarse threads

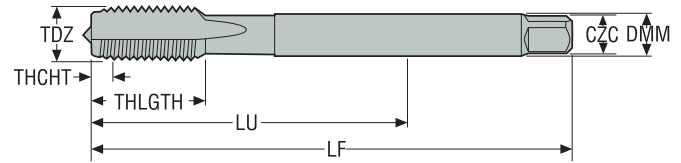


- Internal coolant
- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	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	105,1875 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	106,9375 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	104,5 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	104,5 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	106,5 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	133,125 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	133,125 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

MTS-K111

Blind and through holes – MF threads

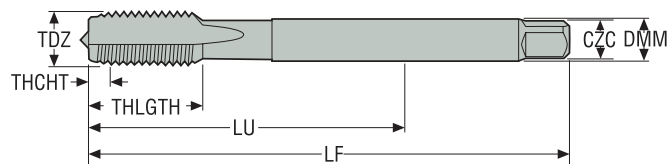


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			mm	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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	96,5625 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	96,5625 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	95,875 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	95,875 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	95,875 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	105,875 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	120,875 4.759	18,5 0.728	16.00X12.00	5	DIN374	6HX	C

MTS-K121

Blind and through holes – G threads

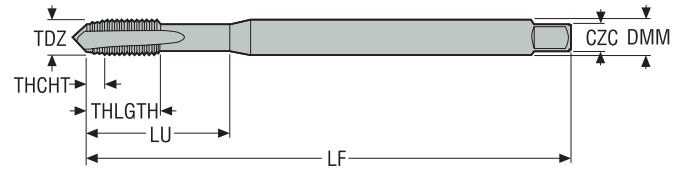


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			TPI	mm Inch	mm Inch	mm Inch	mm Inch	mm Inch					
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

MTS-K131

Blind and through holes – UNC threads

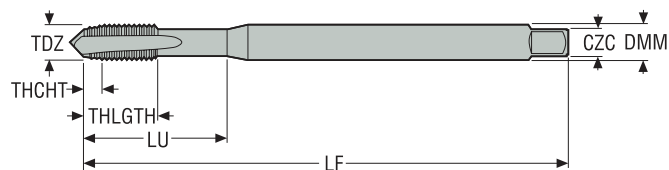


- Substrate: HSS-E-PM
- Coating: TiAlN
- For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			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

MTS-K141

Blind and through holes – UNF threads



—Substrate: HSS-E-PM
—Coating: TiAlN
—For cutting data see page(s) 273

Designation	Item number	TDZ	Pitch	DMM	LU	THLGTH	LF	PHDR	CZC	NOF	BSG	TCTR	THCHT
			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

Cemented carbide inserts and insert carriers

Cemented carbide inserts and cemented carbide insert carriers from Seco Tools are not included in the product range intended for the following requirements.

Nevertheless Seco Tools can make the following declaration.

These products meet all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.

Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:

Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:

Seco Tools will buy back used inserts and solid carbide tools for recycling. Inserts and solid carbide tools should be separated from other metal waste (steel, aluminium, copper etc).

All packing material is fully recyclable.

CBN and PCD inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.

This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.

Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Regrinding:

Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:

Seco Tools will buy back used CBN- or PCD-tipped inserts for recycling. Inserts should be separated from other metal waste (steel, aluminium, copper etc). Solid CBN-inserts may be discarded as landfill waste.

All packing material is fully recyclable.

Black oxide insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration.

This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements.

Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations.

Disposal:

Used insert carriers may be sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling.

All packing material is fully recyclable.

Cermet inserts

Inserts from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration. This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements. Cermet grade C15M inserts do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is higher than specified in norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin. These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for cermet inserts. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling cermet inserts.

Regrinding:

Wet or dry grinding can produce potentially hazardous dusts or mists that can irritate skin, eyes, nose, throat and result in lung damage or disease. To avoid injury use proper safety precautions and protective equipment.

Disposal:

Used inserts may be recycled. Inserts should be separated from other metal waste (steel, aluminium, copper, etc) including cemented carbide inserts. All packing material is fully recyclable.

Nickel coated insert carriers

Insert carriers from Seco Tools are not included in the product range intended for the following requirements. Nevertheless Seco Tools can make the following declaration. This product meets all requirements in RoHS (Restriction of the use of certain Hazardous Substances in electrical and electronic equipment), WEEE (Waste Electrical & Electronic Equipment) and ELV (End of Life Vehicles) requirements. Products do not contain mercury, lead, hexavalent chromium, cadmium, CFC, HCFC, flame retardants or solvents in concentrations that exceed specifications in the regulations. Insert carriers do contain nickel and will leach nickel when in contact with the skin. Amount of leaching is not higher than norm SS-EN 1811 Reference test method for release of nickel from products intended to come into direct and prolonged contact with the skin. These norms are intended for products that are in direct and prolonged contact with the skin and are therefore not directly applicable for insert carriers. Persons with known allergic reactions to nickel are advised to wear protective gloves when handling nickel coated insert carriers.

Disposal:

Used tools maybe sent for recycling together with ordinary steel waste (swarf and discarded steel scrap) for recycling. All packing material is fully recyclable.

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Intentionally added alloying elements

Grade	Cemented carbide											Coating						
	W	Ti	Ta	Nb	Co	Cr	Ni	Mo	C	N	Ru	Ti	Al	C	N	O	Si	Nb
CP20	■				■				■			■			■			
CP200	■				■	■			■			■	■		■			
CP300	■	■	■	■	■	■			■			■	■		■			
CP500	■				■	■			■			■	■		■			
CP600	■				■	■			■			■	■		■			
C15M	■	■	■	■	■		■	■	■	■								
CF	■		■		■		■	■	■									
CM	■		■		■		■	■	■									
DP2000	■		■	■	■				■			■	■	■	■	■		
DP3000	■	■	■	■	■				■	■		■	■	■	■	■		
DS2050	■				■	■			■			■	■		■			■
DS4050	■				■	■			■			■	■		■			■
F15M	■				■	■			■			■	■		■			
F25M	■	■	■	■	■				■			■	■		■			
F30M	■				■	■			■			■	■		■			
F40M	■				■	■			■			■	■		■			
HX	■		■		■				■									
H02	■		■		■	■			■									
H15	■				■	■			■									
H25	■				■	■			■									
KX	■				■	■			■									
MH1000	■				■	■			■			■	■		■			
MK1500	■		■		■				■			■	■	■	■	■		
MK2050	■		■		■	■			■			■	■	■	■		■	
MM4500	■				■	■			■			■	■	■	■	■		
MP1501	■		■	■	■				■			■	■	■	■	■		
MP2050	■				■						■	■	■	■	■		■	
MP2501	■		■	■	■				■			■	■	■	■	■		
MP3000	■				■	■			■			■	■	■	■	■		
MP3501	■		■	■	■				■			■	■	■	■	■		
MS2500	■		■	■	■				■			■	■	■	■	■		
MS2050	■				■	■			■			■	■	■	■			■
RX1500	■		■		■		■	■	■			■	■		■			
RX2000	■		■		■	■			■			■	■		■			
RM2020	■				■				■			■						
RM2090	■				■	■			■			■	■				■	
RN2010	■				■	■			■			■					■	
RS2090	■				■	■			■			■	■				■	
T350M	■		■	■	■				■			■	■	■	■	■		
T25M	■		■	■	■				■			■	■	■	■			
TGH1050	■				■	■			■			■	■		■		■	
TGK1500	■		■		■				■			■	■	■	■	■		
TGP25	■	■	■	■	■				■			■	■	■	■	■		
TGP35	■		■	■	■				■			■	■	■	■	■		
TGP45	■		■	■	■				■			■	■	■	■	■		
TGS2050	■				■	■			■			■	■		■		■	
TH1000	■				■	■			■			■	■		■		■	
TH1500	■				■	■			■			■	■	■	■	■		
TK0501	■				■	■			■			■	■	■	■	■		
TK1501	■		■		■	■			■			■	■	■	■	■		
TM1501	■	■	■	■	■	■			■			■	■	■	■	■		
TM2000	■	■	■	■	■				■	■		■	■	■	■	■		
TM2501	■	■	■	■	■				■	■		■	■	■	■	■		
TM3501	■				■				■			■	■	■	■	■		
TM4000	■	■	■	■	■				■	■		■	■	■	■	■		
TP0501	■	■	■	■	■	■			■			■	■	■	■	■		
TP1020	■	■	■	■	■				■	■		■						

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

secotools.com

Steels, ferritic and martensitic stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
P1	Free-cutting steels	$360 < R_m < 880$	11 SMn30 $R_m = 385 \text{ N/mm}^2$	1500	0,14
P2	Low-alloy ferritic steels, $C < 0.25\% \text{wt}$ Low-alloy weldable general structural steels	$320 < R_m < 600$	S235JRG2 $R_m = 420 \text{ N/mm}^2$	1600	0,23
P3	Ferritic & ferritic/pearlitic steels, $C < 0.25\% \text{wt}$ Weldable general structural steels Case-hardening steels	$430 < R_m < 610$	16 MnCr 5 $R_m = 550 \text{ N/mm}^2$	1800	0,14
P4	Low-alloy general structural steels, $0.25\% < C < 0.67\% \text{wt}$ Low-alloy Quench & Temper steels	$520 < R_m < 1200$	C 45E $R_m = 660 \text{ N/mm}^2$	2000	0,15
P5	Structural steels, $0.25\% < C < 0.67\% \text{wt}$ Quench & Temper steels	$550 < R_m < 1200$	42 CrMo 4 $R_m = 700 \text{ N/mm}^2$	2020	0,18
P6	Low-alloy through-hardening steels, $C > 0.67\% \text{wt}$ Low-alloy spring and bearing steels	$520 < R_m < 1200$	C 100S $R_m = 600 \text{ N/mm}^2$	2100	0,17
P7	Through-hardening steels, $C > 0.67\% \text{wt}$ Spring and bearing steels	$600 < R_m < 1200$	100 Cr 6 $R_m = 650 \text{ N/mm}^2$	2160	0,17
P8	Tool steels High Speed Steels (HSS)	$600 < R_m < 1200$	X 40 CrMoV 5 1 $R_m = 700 \text{ N/mm}^2$	2400	0,20
P11	Ferritic & martensitic stainless steels	$415 < R_m < 1200$	X 20 Cr 13 $R_m = 675 \text{ N/mm}^2$	2000	0,15
P12	Maraging and precipitation-hardening stainless steels	$500 < R_m < 1200$	X 5 CrNiCuNb 16 4 $R_m = 1100 \text{ N/mm}^2$	2100	0,17

Free-cutting, austenitic and duplex stainless steels

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
M1	Free-cutting austenitic stainless steels		X 10 CrNiS 18 9	1700	0,14
M2	Low-alloy austenitic stainless steels		X 5 CrNi 18 10	1920	0,18
M3	Medium-alloy austenitic stainless steels		X 2 CrNiMo 18 14 3	2070	0,17
M4	High-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 22 5 3	2230	0,16
M5	Difficult high-alloy austenitic and duplex stainless steels		X 2 CrNiMoN 25 7 4	2510	0,13

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Cast irons

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
K1	Grey cast irons (GCI)		EN-GJL-250	930	0,32
K2	Compacted graphite irons (CGI)		EN-GJV-400	1000	0,35
K3	Malleable cast irons (MCI)		EN-GJMB-550-4	1050	0,37
K4	Nodular cast irons (SGI)		EN-GJS-500-7	1160	0,37
K5	Austempered ductile irons (ADI)		EN-GJS-1000-5	0	
K6	Austenitic lamellar cast irons		EN-GJLA-XNiCuCr15-6-2	0	
K7	Austenitic nodular cast irons		EN-GJSA-XNiMn23-4	0	

Non-ferrous metals

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
N1	Aluminium alloys, Si < 9%		AW-7075	0	
N2	Aluminium alloys, 9% < Si < 16%		AC-44200 Si = 12%	0	
N3	Aluminium alloys, Si > 16%		AlSi17Cu5	0	
N11	Copper alloys		CW614N	740	0,26

Superalloys and titanium

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
S1	Iron-based superalloys		Disalloy	0	
S2	Cobalt-based superalloys		Stellite 21	0	
S3	Nickel-based superalloys		Inconel 718	2530	0,21
S11	Titanium, low alloyed, (α)		Ti	0	
S12	Titanium, medium alloyed, (α + β)		TiAl6V4	1500	0,24
S13	Titanium, high alloyed, (near β and β)		Ti10V2Fe3Al	0	

Hard materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
H3	Case-hardened steels	58 < HRC < 62	16 MnCr 5 60 HRC	2070	0,14
H5	Quenched & Tempered steels	38 < HRC < 56	42 CrMo 4 50 HRC	2320	0,18
H7	Quenched & Tempered steels Bearing steels	56 < HRC < 64	100 Cr 6 60 HRC	2480	0,17
H8	Tool steels High Speed Steels (HSS)	38 < HRC < 64	X 40 CrMoV 5 1 50 HRC	2750	0,20
H11	Martensitic stainless steels	38 < HRC < 50	X 20 Cr 13 45 HRC	2300	0,15
H12	Maraged and precipitation-hardened stainless steels	1200 < R _m < 1650	X 5 CrNiCuNb 16 4 R _m = 1450 N/mm ²	2410	0,17
H21	Manganese steels	23 < HRC < 64	X 120 Mn 12 50 HRC	0	
H31	White cast irons	50 < HRC < 64	EN-GJN-HV600(XCr11) 55 HRC	0	

Other difficult materials

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
PM1	Low-alloy PM-materials		F-0008 Fe-0.7C	0	
PM2	Medium-alloy PM-materials		FLC-4608 Fe2Cu1.8Ni 0.5Mo0.2Mn0.8C	0	
PM3	High-alloy PM-materials Exhaust valve seat materials, etc.			0	
HF1	Hardfacing alloys Welded or plasma-deposited iron-based alloys			0	
HF2	Hardfacing alloys Welded or plasma-deposited cobalt- and nickel-based alloys			0	
CC1	Sintered tungsten carbide		G50	0	

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

Plastics and Composites

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
TS1	Thermosetting polymers		Urea formaldehyde (UF)	0	
TS2	Thermosetting carbon-fibre composites		T300 T700 T800 HTA-S IMA - Epoxy (M21)...	0	
TS3	Thermosetting glass-fibre composites		Epoxy - HX...(42..)/E glass (7781...)...	0	
TS4	Thermosetting aramide-fibre composites		Kevlar 49	0	
TP1	Thermoplastic polymers		Polycarbonate (PC)	0	
TP2	Thermoplastic carbon-fibre composites		PPS/PEEK - T300..	0	
TP3	Thermoplastic glass-fibre composites		PPS/PEEK - E-glass or A-glass...	0	
TP4	Thermoplastic aramide-fibre composites			0	

Graphite

SMG	Description	Properties	Reference	$k_{c1.1}$	m_c
GR1	Graphite		R 8500	0	

SMG	EN	EN-Nr	W-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P1	11 SMn 30	1.0715	1.0715	9 SMn 28	S 250	230 M 07	CF 9 SMn 28	SUM 22	1912	G12130
	11 SMnPb 30	1.0718	1.0718	9 SMnPb 28	S 250 Pb		CF 9 SMnPb 28	SUM 22 L	1914	G12134
	10 S 20	1.0721	1.0721	10 S 20	10 F 1	210 M 15	CF 10 S 20			
			1.0722	10 SPb 20	10 PbF 2		CF 10 SPb 20			
	15 SMn 13	1.0725	1.0723	15 S 20		210 A 15		SUM 32	1922	
	35 S20	1.0726	1.0726	35 S 20	35 MF 4	212 M 36			1957	G11400
	46 S20	1.0727	1.0727	46 S 20	45 MF 4	212 M 44			1973	G11460
	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
P2	11 SMn 37	1.0736	1.0736	9 SMn 36	S 300	240 M 07	CF 9 SMn 36			G12150
	S235JR	1.0037	1.0037	St 37-2	E 24-2		Fe 360 B	STKM 12 C	1311	
	S235JRG2	1.0038	1.0116	St 37-3	E 24-3, E 24-4	4360-40 C	Fe 360 D FF		1312, 1313	
	S275J2G3	1.0144	1.0144	St 44-3 N	E 28-3, E 28-4	4360-43 C	Fe 430 D FF	SM 41 C	1412, 1414	
	C 10	1.0301	1.0301	C 10	34 C 10, XC 10	045 M 10	C 10	S 10 C		G10100
			1.0401	C 15	37 C 12, XC 18	080 M 15	C 15, C 16		1350	G10170
	C22	1.0402	1.0402	C 22	C 20	050 A 20	C 20, C 21		1450	G10200
	S355JR	1.0570	1.0570	St 52-3	E 36-3, E 36-4	4360-50 C	Fe 510 B	SM 50 YA	2172, 2132	
P3	C 15R	1.1141	1.1141	Ck 15	XC 15, XC 18	080 M 15	C 15, C 16	S 15 C, S 15 CK	1370	G10170
			1.1158	Ck 25	XC 25	060 A 25	C 25	S 25 C		G10250
	16 Mo 3	1.5415	1.2162	21 MnCr 5	20 NC 5			SCR 420 H		
			1.5415	15 Mo 3	15 D 3	1501-240	16 Mo 3		2912	
			1.5423	16 Mo 5		1503-245-420	16 Mo 5	SB 450 M		G45200
	14 NiCr 14	1.5752	1.5752	14 NiCr 14	12 NC 15	655 M 13		SNC 815 (H)		G33106
			1.5919	15 CrNi 6	16 NC 6	S 107	16 CrNi 4			
	18 NiCrMo 7 6	1.6587	1.6587	18 CrNiMo 7 6	18 NCD 6	820 A 16	18 NiCrMo 7			
P4	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
	16 MnCrS 5	1.7139	1.7139	16 MnCrS 5						
	20 MnCr 5	1.7147	1.7147	20 MnCr 5	20 MC 5		20 MnCr 5	SMnC 420 (H)		G51200
	20 MnCrS 5	1.7149	1.7149	20 MnCrS 5	20 MnCrS 5			SMnC 21 H		
	13 CrMo 4 5	1.7335	1.7335	13 CrMo 4 4	15 CD 3.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
			1.7337	16 CrMo 4 4	15 CD 4.5	1501-620 Gr. 27	14 CrMo 4 5		2216	
	10 CrMo 9 10	1.7380	1.7380	10 CrMo 9 10	10 CD 9.10	1501-622 Gr. 31	12 CrMo 9 10		2218	J21890
	C35		1.0501	C 35	55 C 35	060 A 35	C 35		1550	G10350
P5	E 335	1.0503	1.0503	C 45	65 C 45	80 M 46	C 45	S 45 C	1650	G10430
	C40		1.0511	C 40	60 C 40	080 M 40	C 40	S 40 C		
	E 360	1.0070	1.0535	St 70-2	A 70-2		Fe 690		1655	
	C60	1.0601	1.0601	C 60	CC 55	080 A 62	C 60			G10600
			1.1157	40 Mn 4	35 M 5	150 M 36				G10390
	G 28 Mn6	1.1165	1.1165	30 Mn 5		120 M 36		SMn 1 H, SCMn 2		G13300
	C 35E	1.1181	1.1181	Ck 35	XC 38 H1	080 M 36	C 35	S 35 C	1572	G10340
	C 45E	1.1191	1.1191	Ck 45	XC 42	080 M 46	C 45	S 45 C	1672	G10420
P6	C 60E	1.1221	1.1221	Ck 60	XC 60	080 A 62	C 60	S 58 C	1665, 1678	G10640
			1.1740	C 60 W	Y3 55			SK 7		
	55 SiCr7	1.7100	1.0904	55 Si 7	55 S 7	250 A 53	55 Si 8		2085, 2090	
			1.2330	35 CrMo 4	34 CD 4	708 A 37	35 CrMo 4		2234	T51620
			1.2542	45 WCrV 7		BS 1	45 WCrV 8 KU		2710	T41901
		1.2714	1.2714	56 NiCrMoV 7		BH 224-5	56 NiCrMoV7-KU	SKT 4		T61206
			1.5121	46 MnSi 4						
			1.5710	36 NiCr 6	35 NC 6	640 A 35		SNC 236		
P5			1.5736	36 NiCr 10	35 NC 11		35 NiCr 9	SNC 631 (H)		
	36 CrNiMo 4		1.6511	36 CrNiMo 4	40 NCD 3	816 M 40	38 NiCrMo 4 (KB)			G98400
	34 CrNiMo 6	1.6582	1.6582	34 CrNiMo 6	35 NCD 6	817 M 40	35 NiCrMo 6 (KW)	SNCM 447	2541	G43400
	34 Cr 4	1.7033	1.7033	34 Cr 4	32 C 4	530 A 32	34 Cr 4 (KB)	SCR 430 (H)		G51320
	41 Cr 4	1.7035	1.7035	41 Cr 4	42 C 4	530 M 40	41 Cr 4	SCR 440 (H)		G51400
	25 CrMo 4	1.7218	1.7218	25 CrMo 4	25 CD 4 S	708 M 25	25 CrMo 4 (KB)	SCM 425	2225	G41300
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
	42 CrMo 4	1.7225	1.7225	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
P6			1.7361	32 CrMo 12	30 CD 12	722 M 24	32 CrMo 12		2240	
	50 CrV 4	1.8159	1.8159	50 CrV 4	50 CV 4	735 A 50	51 CrV 4	SUP 10	2230	H61500
	41 CrAlMo 7 10	1.8509	1.8509	41 CrAlMo 7	40 CAD 6.12	905 M 39	41 CrAlMo 7	SACM 645	2940	K24065
	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU	SK 3	1880	
			1.1645	C 105 W2	Y1 105		C 100 KU	SK 2		
			1.1663	C 125 W	Y2 120		C 120 KU			

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

	U.N.E./I.H.A.	AISI / ASTM	GOST	CSN	Misc. Brands	Condition	Structure
Thread turning		1213				Annealed	
		12 L 13				Annealed	
		1108				Annealed	
		11 L 08				Annealed	
		1140	40			Annealed	
		1146				Annealed	
		1215				Annealed	
MDT		12 L 14				Annealed	
		A573 Grade 58	16D			Annealed	
		A573 Grade 70	18kp	11 378		Annealed	
		1010	St14kP	11 448		Annealed	
	F.1110	1015	10			Annealed	
		1020, 1023	15			Annealed	
			20	12 024		Annealed	
			17G1S	11 523		Annealed	
	F.1511	1015	15			Annealed	
	F.1120	1025	25			Annealed	
		A204 Grade A		15 020		Annealed	
		4520				Annealed	
		3310, 9314	20X2H4A	16 420		Annealed	
		4320		16 220		Annealed	
	F.1516	5115	12KHN2	14 220		Annealed	
Mini-Shaft™			18HG			Annealed	
		5120	20KH	14 221		Annealed	
		5120 H	20KH			Annealed	
		A182-F11, A182-F12	12KHM	15 121		Annealed	
		A387 Grade 12 Cl. 2				Annealed	
	F.155	A182-F22	12KH8	15 313		Annealed	
	F.1130	1035	35	12 040		Annealed	
	F.5110	1045	45	12 050		Annealed	
		1040	40	12 041		Annealed	
	F.1150	1055	55			Annealed	
		1060	60	12 061		Annealed	
		1039	40G			Annealed	
		1330	30G2			Annealed	
	F.1135	1035	35			Annealed	
	F.1140	1045	45	12 050		Annealed	
Thread milling	F.1150	1064	60			Annealed	
		1060	60			Annealed	
	F.144	9255	55S2			Annealed	
	F.1250	4135	35KHM			Annealed	
	F.5241	S1	5KHN2S			Annealed	
		L6	5KHNV			Annealed	
		5045				Annealed	
		3135				Quenched & Tempered	
		3435				Annealed	
		9840				Quenched & Tempered	
	F.1280	4340	38H2N2MA	16 343		Annealed	
		5132	35KH			Quenched & Tempered	
		5140	40H	14 140		Quenched & Tempered	
	F.1251	4130	20KHM	15 130		Quenched & Tempered	
	F.1252	4142, 4140	38HM	15 142		Annealed	
Thread tapping	F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
						Quenched & Tempered	
	F.143	6150	50KHFA	15 260		Quenched & Tempered	
	F.1740	A355 Cl. A				Annealed	
	F.5103	1070	70			Annealed	
	F.5117	1095				Annealed	
	F.5118	W1	U10A			Annealed	
			U10			Annealed	
		W1	U13			Annealed	

SMG	EN	EN-Nr	W-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
P7	107 CrV 3	1.2210	1.2210	115 CrV 3	100 C 3		107 CrV 3 KU			T61202
	90 MnCrV 8	1.2842	1.2842	100 MnCrV 4	90 MNCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
	100 Cr 6	1.3505	1.3505	90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
P8	X 210 Cr 12	1.2080	1.2080	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
			1.2343	X 38 CrMoV 5 1	Z 38 CDV 5	BH 11	X 210 Cr 13 KU	SKD 1		T30403
	X 40 CrMoV 5 1	1.2344	1.2344	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 37 CrMoV 5 1 KU	SKD 6		T20811
	X 100 CrMoV 5	1.2363	1.2363	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
			1.2365	X 32 CrMoV 3 3	32 DCV 28	BH 10	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
			1.2436	X 210 CrW 12			30 CrMoV 12 27 KU	SKD 7		T20810
			1.2601	X 165 CrMoV 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2713	55 NiCrMoV 6	55 NCDV 7		X 165 CrMoW 12 KU		2310	
	HS 6-5-2-5	1.3243	1.3243	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 6-5-2-5	SKT 4		T61206
	HS 2-10-1-8	1.3247	1.3247	S 2-10-1-8	Z 110 DKCWV 09-08-04	BM 42	HS 2-9-1-8	SKH 55	2723	
	HS 18-1-2-5	1.3255	1.3255	S 18-1-2-5	Z 80 WKCVC 18-05-04-01	BT 4	HS 18-1-1-5	SKH 51		T11342
	HS 6-5-2	1.3343	1.3343	S 6-5-2	Z 85 WDCV 06-05-04-02	BM 2	HS 6-5-2	SKH 3		T12004
	HS 2-9-2	1.3348	1.3348	S 2-9-2	Z 100 DCWV 09-04-02-02		HS 2-9-2	SKH 9, SKH 51	2722	T11302
	HS 18-0-1	1.3355	1.3355	S 18-0-1	Z 80 WCV 18-04-01	BT 1	HS 18-0-1	SKH 58	2782	T11307
								SKH 2		T12001
P11	X 6 Cr 13	1.4000	1.4000	X 6 Cr 13	Z 6 C 12	403 S 17	X 6 Cr 13	SUS 403	2301	S41008
	X 12 Cr 13	1.4006	1.4006	X 10 Cr 13	Z 10 C 13	410 S 21	X 12 Cr 13	SUS 410	2302	S41000
	X 6 Cr 17	1.4016	1.4016	X 6 Cr 17	Z 8 C 17	430 S 15	X 8 Cr 17	SUS 430	2320	S43000
	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 39 Cr 13	1.4031	1.4031	X 40 Cr 13	Z 40 C 14	420 S 45	X 40 Cr 14	SUS 420	2304	S40280
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 3 CrNiMo 13 3	1.4313	1.4313	X 5 CrNi 13 4	Z 5 CN 13 4	425 C 11	X 6 CrNi 13 04	SCS 5	2385	S41500
	X 18 CrN 28	1.4749	1.4749	X 18 CrN 28	Z 18 C 25				2322	S44600
P12	X 6 NiCrTiMoV 25 15	1.4534	1.4534	X 3 CrNiMoAl 13 8 2						S13800
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
		1.4540	1.4540	X 4 CrNiCuNb 16 4	Z 4 CNUNb 16.4 M					S15500
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4						S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
	X 5 CrNiCuNb 17 4	1.4548	1.4542	X 5 CrNiCuNb 17 4	Z 6 CNU 17.4			SCS 24, SUS 630		S17400
	X 7 CrNiAl 17 7	1.4564	1.4564	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7	SUS 631	2388	S17700
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMo 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
M1	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K92890
	X 10 CrNiS 18 9	1.4305	1.4305	X 10 CrNiS 18 9	Z 10 CNF 18.09	303 S 31	X 10 CrNi 18 09	SUS 303	2346	S30300
M2	X 2 CrNi 19 11	1.4306	1.4306	X 2 CrNi 19 11	Z 2 CN 18.10	304 S 12	X 3 CrNi 18 11	SUS 304 L	2352	S30403
	X 5 CrNi 18 10	1.4301	1.4301	X 5 CrNi 18 10	Z 6 CN 18.09	304 S 31	X 5 CrNi 18 11	SUS 304	2333	S30400
	X 5 CrNiMo 17 12 2	1.4401	1.4401	X 5 CrNiMo 17 12 2	Z 3 CND 17.11.1	316 S 31	X 5 CrNiMo 17 12	SUS 316	2347	S31600
	X 6 CrNiNb 18 10	1.4550	1.4550	X 6 CrNiNb 18 10	Z 6 CNNb 18.10	347 S 31	X 6 CrNiNb 18 11	SUS 347	2338	S34700
	X 9 CrNi 18 8	1.4310	1.4310	X 12 CrNi 17 7	Z 12 CN 17.07	301 S 21	X 12 CrNi 17 07	SUS 301	(2331)	S30100
M3	X 12 CrNi 18 8	1.4300	1.4300	X 12 CrNi 18 8	Z 12 CN 18	302 S 25		SUS 302	2331	S30200
	X 2 CrNiMo 18 14 3	1.4435	1.4435	X 2 CrNiMo 18 14 3	Z 2 CND 17.13	316 S 12	X 2 CrNiMo 17 13 2	SCS 16, SUS 316 L	2353	S31603
	X 2 CrNiMoN 17 13 3	1.4429	1.4429	X 2 CrNiMoN 17 13 3	Z 2 CND 17.13 Az	316 S 62	X 2 CrNiMoN 17 13 3	SUS 316 LN	2375	S31653
	X 2 CrNiN 18 10	1.4311	1.4311	X 2 CrNiN 19 11	Z 2 CN 18.10 Az	304 S 62	X 2 CrNiN 18 11	SUS 304 LN	2371	S30453
	X 3 CrNiMo 18 12 3	1.4466	1.4466	X 5 CrNi 18 15		317 S 16	X 5 CrNi 18 15	SUS 317	2366	S31700
	X 9 CrNiSiNCE 21 11 2	1.4835	1.4893	X 9 CrNiSiNCE 21 11 2		310 S 31			2368	S30815
M4	X 12 CrNi 25 21	1.4335	1.4335	X 12 CrNi 25 21	Z 12 CN 25.20	310 S 24	X 6 CrNi 26 20	SUH 310, SUS 310 S	2361	S31008
	X 2 CrNiMoN 22 5 3	1.4462	1.4462	X 2 CrNiMoN 22 5	Z 2 CND 22.05 Az	332 S 15	X 2 CrNiMoN 22 5		2377	S31803
	X 2 CrNiMoSi 19 5	1.4424	1.4417	X 2 CrNiMoSi 19 5	Z 2 CND 18.05.03				2376	S31500
	X 2 NiCrMoCu 25 20 5	1.4539	1.4539	X 2 NiCrMoCu 25 20 5	Z 2 NCDU 25 20	904 S 13			2562	N08904
	X 3 CrNiMo 27 5 2	1.4460	1.4460	X 4 CrNiMo 27 5 2	Z 3 CND 25.7 Az		X 3 CrNiMo 27 5 2	SUS 329 J 1	2324	S32900
M5	X 5 CrNiCuNb 16 4	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51		SUH 660	2570	S66286
	X 1 CrNiMoN 20 18 7	1.4547	1.4529	X 1 CrNiMoN 20 18 7	Z 1 CNDU 20.18.05 Az		X 1 CrNiMoN 20 18 7		2778	S31254
	X 1 CrNiMoN 25 22 8	1.4652	1.4652	X 2 CrNiMoN 25 22 7				NCF 800		S32654
	X 10 NiCrAlTi 32 20	1.4876	1.4876	X 10 NiCrAlTi 32 20	Z 10 NC 32.21					N08800
	X 2 CrNiMoN 25 7 4	1.4410	1.4410	X 2 CrNiMoN 25 7 4	Z 3 CND 25.07 Az		X 2 CrNiMoN 25 7 4		2328	S32750

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

	U.N.E./I.H.A.	AISI / ASTM	GOST	CSN	Misc. Brands	Condition	Structure
Thread turning	F.520L	L2	11KHF			Annealed	
	F.5220	O1	9KHVG			Annealed	
		O2	9G2F			Annealed	
	F.5230	52100	SHKH15	14 109		Annealed	
	F.5212	D3	KH12			Annealed	
		H11	4KH5MFS			Annealed	
	F.5318	H13	4KH5MF1S			Annealed	
	F.5227	A2	9KH5VF			Annealed	
		H10	3KH3M3F			Annealed	
	F.5213		KH12			Annealed	
MDT			KH12MF			Annealed	
	F.520.S	L6	5KHNM			Annealed	
	F.5613	M35	R6M5K5			Annealed	
		M42	R2AM9K5			Annealed	
		T4	R18K5F2			Annealed	
	F.5603	M2	R6M5			Annealed	
		M7				Annealed	
		T1	R18			Annealed	
		403	08KH13			Annealed	Ferritic
	F.3401	410, CA-15	12KH13, 08KH13			Annealed	Martensitic
Mini-Shaft™	F.3113	430	12KH17			Annealed	Ferritic
	F.5261	420	20KH13	17 022		Annealed	Martensitic
	F.3404	420	40KH13			Annealed	Martensitic
		440 A				Annealed	Martensitic
		440 B	95KH18			Annealed	Martensitic
		440 C	95KH18			Annealed	Martensitic
		A182 F6NM			F6NM	Annealed	Martensitic
		446	15KH28			Annealed	Ferritic
		XM-13			PH 13-8 Mo	Solution annealed	Austenitic
		XM-12			15-5 PH	H1150	Martensitic
Thread milling		XM-12			15-5 PH	Solution annealed	Martensitic
		XM-12			15-5 PH	H1025	Martensitic
		SAE 630			17-4 PH	H1150	Martensitic
		630			17-4 PH	Solution annealed	Martensitic
		631	09KH17N7YU1		17-7 PH	Solution annealed	Austenitic/Ferritic
		AMS 6515			Marage 350	Solution annealed	Martensitic
		AMS 6521			Marage 300	Solution annealed	Martensitic
		AMS 6514			Marage 300, Vascomax C300	Solution annealed	Martensitic
		AMS 6512			Marage 250	Solution annealed	Martensitic
		AMS 6512			Marage 250, Vascomax C250	Solution annealed	Martensitic
Thread tapping	F.3508	303	12KH19N9			Annealed	Austenitic
	F.3504	304 L	03KH18N11			Annealed	Austenitic
	F.3504	304	08KH18N10	17 240		Annealed	Austenitic
	F.3534	316	08KH17H13M2T	17 346		Annealed	Austenitic
	F.3524	347	08KH18N12B			Annealed	Austenitic
	F.3517	301	07KH16N6			Annealed	Austenitic
		302	12KH18N9			Annealed	Austenitic
	F.3533	(316 L)	03KH17N14M3	17 349		Annealed	Austenitic
		316 LN	03KH16N15M3			Annealed	Austenitic
	F.3541	304 LN	03KH18N11			Annealed	Austenitic
Annex		317	08KH17H15M3T			Annealed	Austenitic
					253 MA	Annealed	Austenitic
		310 S	12KH25N20			Annealed	Austenitic
		329 LN			SAF 2205	Annealed	Duplex
					3RE60	Annealed	Duplex
		904L				Annealed	Super austenitic
		329				Annealed	Duplex
		660			A286	Solution annealed	Austenitic
					254 SMO	Annealed	Super austenitic
					654 SMO	Annealed	Super austenitic
Annex					Alloy 800	Annealed	Austenitic
		F 53			SAF 2507	Annealed	Super duplex

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
K1	EN-GJL-150	0.6150	0.6150	GG-15	Ft 15 D	Grade 150	G15	FC 150	01 15-00	F11601
	EN-GJL-200	0.6200	0.6200	GG-20	Ft 20 D	Grade 220	G20	FC 200	01 20-00	F12101
	EN-GJL-250	0.6250	0.6250	GG-25	Ft 25 D	Grade 260	G25	FC 250	01 25-00	F12401
	EN-GJL-350	0.6350	0.6350	GG-35	Ft 35 D	Grade 350	G35	FC 350	01 35-00	F13502
	EN-GJL-215			GG-220 HB					02 19	
K2	EN-GJV-300			GJV-300						
	EN-GJV-350			GJV-350						
	EN-GJV-400			GJV-400						
	EN-GJV-450			GJV-450						
	EN-GJV-500			GJV-500						
K3	EN-GJMB-550-4	0.8155		GTS-55-04	P 540/5	P 540/5	P 55-04	PCMP55-04	08 54-00	F24130
K4	EN-GJS-350-22	0.7033	0.7033	GGG-35.3	FGS 370-17	Grade 350/22		FCD 350-22L	07 17-15	
	EN-GJS-400-15	0.7040	0.7040	GGG-40	FGS 400-12	Grade 420/12	GS 400-12	FCD 400-18L	07 17-02	F32800
	EN-GJS-400-18	0.7043	0.7043	GGG-40.3	FGS 370-17	Grade 370/17	GSO 42/17		07 17-12	F32800
	EN-GJS-500-7	0.7050	0.7050	GGG-50	FGS 500-7	Grade 500/7	GS 500-7	FCD 500-7	07 27-02	F33800
	EN-GJS-600-3	0.7060	0.7060	GGG-60	FGS 600-3	Grade 600/3	GS 600-3	FCD 600-3	07 32-03	F34100
	EN-GJS-700-2	0.7070	0.7070	GGG-70	FGS 700-2	Grade 700/2	GS 700-2	FCD 700-2	07 37-01	F34800
K5	EN-GJS-1000-5			GJS-1000-5						ADI grade 5
	EN-GJS-1200-2			GJS-1200-2						ADI grade 2
	EN-GJS-1400-1			GJS-1400-1						ADI grade 3
	EN-GJS-800-8			GJS-800-8						ADI grade 4
										ADI grade 1
K6	EN-GJLA-XNiCr 20-2	0.6660	0.6660	GGL-NiCr 20 2	FGL Ni20 Cr2	Grade F2			05 23-00	F41002
	EN-GJLA-XNiCr 30-3	0.6676	0.6676	GGL-NiCr 30 3	FGL Ni30 Cr3	Grade F3				F41004
	EN-GJLA-XNiCuCr 15-6-2	0.6655	0.6655	GGL-NiCuCr 15 6 2	FGL Ni15 Cu6 Cr2	Grade F1				F41000
K7	EN-GJSA-XNiMn 13-7	0.7652	0.7652	GGG-NiMn 13 7	FGS Ni13 Mn7	Grade S6			07 72-00	
	EN-GJSA-XNiCr 20-2	0.7660	0.7660	GGG-NiCr 20 2	FGS Ni20 Cr2	Grade S2				F43000
	EN-GJSA-XNiMn 23-4	0.7673	0.7673	GGG-NiMn 23 4	FGS Ni23 Mn4	Grade S2M				F43010
	EN-GJSA-XNiCr 30-3	0.7676	0.7676	GGG-NiCr 30 3	FGS Ni30 Cr3	Grade S3				F43003
	EN-GJSA-XNi 35	0.7683	0.7683	GGG-Ni 35	FGS Ni35					F43006
N1	AW-1050A	Al99.5	3.0255	Al99.5	A-5/1050A	1B		(A1050)	4007	AA1050A
	AW-2011	AlCuBiPb	3.1655	AlCuBiPb	A-U5PbBi/2011	FC1		A2011	4355	AA2011
	AW-2014	AlCuSiMn	3.1255	AlCuSiMn	A-U4SG/2014	H15			4338	AA2014
	AW-5005	AlMg1	3.3315	AlMg1	A-G0.6	N41			4106	AA5005
	AW-6060	AlMgSi0.5	3.3206	AlMgSi0.5	A-GS/6060	(H9)			4103	AA6060
	AW-6063	AlMgSi0.7	3.3210	AlMgSi0.7	A-GSUC/6061	(H10)		(A6063)	4104, 4107	AA6005
	AW-3103	AlMn1	3.0515	AlMn1		N3			4054	AA3103
	AW-3003	AlMn1Cu	3.0517	AlMn1Cu	A-M1/3003			A3003		AA3003
	AW-7020	AlZn4.5Mg1	3.4335	AlZn4.5Mg1	A-Z5G/7020	H17			4425	AA7020
	AW-7075		3.4365	AlZnMgCu1.5	A-Z5GU/7075	2L95/2L96		A7075		AA7075
	AC-42000		3.2341	G-AlSi5Mg	A-S7G	LM25	3599	AC 4C	4244	
	AC-46200	AlSi8Cu3(Si)	3.2161	G-AlSi8Cu3					4251	A13800
	MG-P-63	MgAl6Zn	3.5612	G-MgAl6Zn	G-A6-Z1	MAG-E-121				M11600
	MG-P-61	MgAl8Zn	3.5812	G-MgAl8Zn	(G-A7-Z1)					
	MN65120	MgSe3Zn2Zr1	3.5103	G-MgSe3Zn2Zr1	ZRE1	MAG6-TE				M12330
N2	AC-43400	AlSi10Mg(Fe)	3.2381	G-AlSi10Mg	A-S10G	LM9			4253	A13600
	AC-44200	AlSi12	3.2382	GD-AlSi12						
	AW-6082	AlMgSi1	3.2315	AlMgSi1	A-SGM0.7/6082	H30			4212	AA6082
N3		AlSi17Cu5						ADC14		
N11	CC331G		2.0940.01	CuAl10Fe	CuAl10Fe	AB1			5710	C95200
	CC333G		2.0975.01	CuAl10Ni	CuAl10Ni5Fe5	AB2			5716	C95500
		CuNi10Fe1Mn	2.0872	CuNi10Fe1Mn	CuNi10Fe1Mn	CN102			5667	C70600
				CuNi10Zn45						
		CW408J	2.0790	CuNi18Zn19Pb	CuNi18Zn19Pb1					C76300
	CW352H		2.1176	CuPb10Sn	CuSn10Pb10	LB2			5640	C93700
	CC480K		2.1050.01	CuSn10	CuSn10	CT1			5443	C90700
			2.1087	CuSn10Zn					5458	C90500
	CW452K	CuSn6	2.1020	CuSn6	CuSn6	PB103		C5191	5428	C51900
	CW502L	CuZn15	2.0240	CuZn15	CuZn15	CZ102		C2300	5112	C23000
	CW706R	CuZn28Sn1	2.0470	CuZn28Sn1	CuZn29Sn1				5220	C44300
	CW508L	CuZn37	2.0321	CuZn37	CuZn37	CZ108			5150	C27200
	CW717R	CuZn38Sn1	2.0530	CuZn38Sn1						C46400
	CW614N	CuZn39Pb3	2.0401	CuZn39Pb3	CuZn39Pb3	CZ121			5170	C38500
	CW612N	CuZn40Pb2	2.0402	CuZn40Pb2	CuZn39Pb2	CZ120			5168	C37800
	CW622N	CuZn44Pb2	2.0410	CuZn44Pb2		CZ104			5272	C68700

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

	U.N.E./ I.H.A.	AISI / ASTM	GOST	CSN	Misc. Brands	Condition	Structure
Thread turning		A48 25 B	Sc 15	422 415			Grey cast iron (GCI)
		A48 30 B	Sc 20	422 420			Grey cast iron (GCI)
		A48 35 B	Sc 25	422 425			Grey cast iron (GCI)
		A48 50 B	Sc 35				Grey cast iron (GCI)
		G 3500					Grey cast iron (GCI)
		Grade 350					Compacted graphite iron (CGI)
		Grade 400					Compacted graphite iron (CGI)
MDT		Grade 400-15					Compacted graphite iron (CGI)
		Grade 450					Compacted graphite iron (CGI)
		Grade 500					Compacted graphite iron (CGI)
		A220 60004				Tempered	Malleable cast iron (MCI)
	FGE 38-17	60-40-18	Vc 42-12	422 304			Nodular cast iron (SGI)
		60-40-18	Vc 42-12				Nodular cast iron (SGI)
	FGE 50-7	A536, 80-55-06	Vc 50-2	422 305			Nodular cast iron (SGI)
	FGE 60-2	A476, 80-60-03	Vc 60-2	422 306			Nodular cast iron (SGI)
	FGE 70-2	A536, 100-70-03	Vc 70-2				Nodular cast iron (SGI)
		1600/1300/- 1050/700/7					Austempered ductile iron (ADI)
Mini-Shaft™		1200/850/4					Austempered ductile iron (ADI)
		1400/1100/1					Austempered ductile iron (ADI)
		850/550/10					Austempered ductile iron (ADI)
		A436 Type 2			Ni-Resist 2		Austenitic lamellar cast iron
		A436 Type 3			Ni-Resist 3		Austenitic lamellar cast iron
		A436 Type 1			Ni-Resist 1		Austenitic lamellar cast iron
					Nodumag		Austenitic nodular cast iron
		A436 Type D-2			Ni-Resist D-2		Austenitic nodular cast iron
		A439 Type D-2M			Ni-Resist D-2M		Austenitic nodular cast iron
		A436 Type D-3			Ni-Resist D-3		Austenitic nodular cast iron
Thread milling		A439 Type D-5			Ni-Resist D-5		Austenitic nodular cast iron
Thread tapping		B26					
		A380					
		AZ61A					
		AZ80A					
		AMS 4442					
		B85					
		A413.2					
		B390.0					
		CA952	BrA9ZH3L				
Annex		CA955	BrA10ZH4N4L				
		CA937					
			BrOF6.5-0.15				
			L90				
			LOMsh70-1-0.05				
			LO60-1				
Annex			LAMsh77-2-0.05				

SMG	EN	EN-Nr	W.-Nr	DIN	AFNOR	BS	UNI	JIS	SS	UNS
S1										
S2										
S3	NiMo30		2.4810							N10002
	NiMo16Cr15W		2.4819							N10276
	NiCr19Fe19Nb5Mo3		2.4668							N07718
	NiCr20TiAl		2.4669							N07750
	NiCr20TiAl		2.4631							N07080
	NiCr19Co18Mo4Ti3Al3									N07500
	NiCr20Co13Mo4Ti3Al		2.4654							N07001
S11			3.7024							R54620
S12	TiAl6V4		3.7164							R56320
S13				TiV10Fe2Al3						R56400
H3	16 MnCr 5	1.7131	1.7131	16 MnCr 5	16 MC 5	527 M 17	16 MnCr 5	SCR 415	2511	G51170
H5	C 67S	1.1231	1.1231	Ck 67	XC 68	060 A 67	C 70		1770	G10700
	C 75S	1.1248	1.1248	Ck 75	XC 75	060 A 78	C 75		1774, 1778	G10780
	C 100S	1.1274	1.1274	Ck 101		060 A 96		SUP 4	1870	G10950
	C 105U	1.1545	1.1545	C 105 W1	Y1 105		C 100 KU		1880	
	55 Cr 3	1.7176	1.7176	60 WCrV 7	55 WC 20		55 WCrV 8 KU			
	42 CrMo 4	1.7225	1.7225	55 Cr 3	55 C 3	527 A 60	55 Cr 3	SUP 9 (A)	2253	G51550
H7	107 CrV 3	1.2210	1.2210	42 CrMo 4	42 CD 4	708 M 40	42 CrMo 4	SCM 440 (H)	2244	G41400
	90 MnCrV 8	1.2842	1.2842	107 CrV 3	100 C 3		107 CrV 3 KU			T61202
	100 Cr 6	1.3505	1.3505	100 MnCrW 4	90 MWCV 5	BO 1	95 MnWCr 5 KU	SKS 3	2140	T31501
				90 MnCrV 8	90 MV 8	BO 2	90 MnVCr 8 KU			T31502
H8	X 40 CrMoV 5 1	1.2344	1.2344	100 Cr 6	100 C 6	534 A 99	100 Cr 6	SUJ 2	2258	G51986
	X 100 CrMoV 5	1.2363	1.2363	X 40 CrMoV 5 1	Z 40 CDV 5	BH 13	X 40 CrMo 5 1 1 KU	SKD 61	2242	T20813
	X 155 CrVMo 12 1	1.2379	1.2379	X 100 CrMoV 5 1	Z 100 CDV 5	BA 2	X 100 CrMoV 5 1 KU	SKD 12	2260	T30102
			1.2436	X 155 CrVMo 12 1	Z 160 CDV 12	BD 2	X 155 CrVMo 12 1 KU	SKD 11		T30402
			1.2601	X 210 CrW 12			X 215 CrW 12 1 KU	SKD 2	2312	
			1.2713	X 165 CrMoV 12			X 165 CrMoW 12 KU		2310	
H11	HS 6-5-2-5	1.3243	1.3243	55 NiCrMoV 6	55 NCDV 7		HS 6-5-2-5	SKT 4		T61206
	HS 2-10-1-8	1.3247	1.3247	S 6-5-2-5	Z 85 WDKCV 06-05-05-04-02		HS 2-9-1-8	SKH 55	2723	
	HS 18-0-1	1.3355	1.3355	S 2-10-1-8	Z 110 DKCWV 09-08-	BM 42	HS 18-0-1	SKH 51		T11342
				S 18-0-1	Z 80 WCV 18-04-01	BT 1		SKH 2		T12001
H12	X 20 Cr 13	1.4021	1.4021	X 20 Cr 13	Z 20 C 13	420 S 37	X 20 Cr 13	SUS 420 J 1	2303	S42000
	X 70 CrMo 15	1.4109	1.4109	X 65 CrMo 14	Z 70 D 14			SUS 440 A		S44002
	X 90 CrMoV 18	1.4112	1.4112	X 90 CrMoV 18	Z 2 CND 18 05	409 S 19	X CrTi 12	SUS 440 B	2327	S44003
	X 105 CrMo 17	1.4125	1.4125	X 105 CrMo 17	Z 100 CD 17		X 105 CrMo 17	SUS 440 C		S44004
	X 4 CrNiCuNb 16 4	1.4540	1.4540	X 4 CrNiCuNb 16 4				SUS 630		S15500
	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 630		S17400
H12	X 5 CrNiCuNb 16 4	1.4542	1.4542	X 5 CrNiCuNb 16 4				SUS 631	2388	S17700
	X 7 CrNiAl 17 7	1.4568	1.4568	X 7 CrNiAl 17 7	Z 9 CAN 17.7	301 S 81	X 7 CrNiAl 17 7			S15700
	X 8 CrNiMoAl 15 7 5	1.4574	1.4574	X 8 CrNiMoAl 15 7 5				SUH 660	2570	S66286
	X 6 NiCrTiMoV 25 15	1.4980	1.4943	X 4 NiCrTi 25 15	Z 6 NCTDV 25.15	HR 51				K92890
	X 2 NiCoMo 18 8 5	1.6359	1.6359	X 2 NiCoMo 18 8 5		S 162				K93120
	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
H21	X 2 NiCoMoTi 18 9 5	1.6358	1.6358	X 2 NiCoMoTi 18 9 5	Z 2 NKD 19-09					K93120
	X 2 NiCoMoTi 18 12 4	1.6356	1.6356	X 2 NiCoMoTi 18 12 4						K93160
H31	EN-GJN-HV520	0.9620	0.9620	X 120 Mn 12	Z 120 M 12	BW 10		SC MnH 1	2183	
H31	EN-GJN-HV550	0.9625	0.9625	G-X330 NiCr 4 2	FB Ni4 Cr2 BC	Grade 2 A			05 12-00	F45001
	EN-GJN-HV600(XCr11)	0.9630	0.9630	G-X260 NiCr 4 2	FB Ni4 Cr2 HC	Grade 2 B			05 13-00	F45000
				G-X300 CrNiSi 9 5 2	FB Cr9 Ni5	Grade 2 C, D, E			04 57-00	F45003

Thread turning

MDT

Mini-Shaft™

Thread milling

Thread tapping

Annex

	U.N.E./ I.H.A.	AISI / ASTM	GOST	CSN	Misc. Brands	Condition	Structure
Thread turning					Discolloy	Precipitation hardened	
					Haynes 25		
					Stellite 21		
			KHN65MV		Hastelloy C		
					Hastelloy C-276		
					IN 100		
					Inconel 718		
					Inconel X-750	Solution annealed	
					Nimonic 80A		
MDT					René 41		
					Udimet 500		
					Waspalloy		
		AMS 4919			Ti	Commercially pure	Ti (α)
		AMS 4943			Ti 6-2-4-2	Annealed	Ti (α)
		AMS 4920, Grade 5	VT6		Ti 3Al-2.5V (grd 9)	Annealed	Ti (α+β)
		AMS 4986			Ti 6Al-4V	Annealed	Ti (α+β)
					Ti 10V-2Fe-3Al	Annealed	Ti (β)
	F.1516	5115	12KHN2	14 220		Case hardened	
	F.5103	1070	70			Quenched & Tempered	
Mini-Shaft™	F.5107	1078, 1080	75			Quenched & Tempered	
	F.5117	1095				Quenched & Tempered	
	F.5118	W1	U10A			Quenched & Tempered	
		S1	5KHV2SF			Quenched & Tempered	
		5155				Quenched & Tempered	
	F.1252	4142, 4140	38HM	15 142		Quenched & Tempered	
	F.520L	L2	11KHF			Quenched & Tempered	
	F.5220	O1	9KHVG			Quenched & Tempered	
		O2	9G2F			Quenched & Tempered	
	F.5230	52100	SHKH15	14 109		Quenched & Tempered	
Thread milling	F.5318	H13	4KH5MF1S			Quenched & Tempered	
	F.5227	A2	9KH5VF			Quenched & Tempered	
	F.5211	D2	KH12MF			Quenched & Tempered	
	F.5213		KH12			Quenched & Tempered	
			KH12MF			Quenched & Tempered	
	F.520.S	L6	5KHNM			Quenched & Tempered	
	F.5613	M35	R6MSK5			Quenched & Tempered	
		M42	R2AM9K5			Quenched & Tempered	
		T1	R18			Quenched & Tempered	
	F.5261	420	20KH13	17 022		Quenched & Tempered	Martensitic
Thread tapping		440 A				Quenched & Tempered	Martensitic
		440 B	95KH18			Quenched & Tempered	Martensitic
		440 C	95KH18			Quenched & Tempered	Martensitic
		XM-12			15-5 PH	H900	Martensitic
		SAE 630			17-4 PH	H1025	Martensitic
		SAE 630			17-4 PH	H900	Martensitic
		AMS 5528	09KH17N7YU1		17-7 PH	TH1050	Martensitic
		632			PH 15-7 Mo	TH1050	Martensitic
		660			A286	Precipitation hardened	Austenitic
		AMS 6512			Marage 250	Precipitation hardened	Martensitic
Annex		AMS 6521			Marage 300	Precipitation hardened	Martensitic
		AMS 6521			Marage 300	Precipitation hardened	Martensitic
		AMS 6515			Marage 350	Precipitation hardened	Martensitic
		A128 Grade A			Hadfield		
		A532 IB (NiCr-LC)			Ni-Hard 2		White cast iron
		A532 IA (NiCr-HC)			Ni-Hard 1		White cast iron
		A532 ID (Ni-HiCr)			Ni-Hard 4		White cast iron

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