



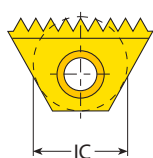
STANDARD

Thread Milling

Inserts | Toolholders

Vardex Ordering Code System

Thread Milling Inserts

3	B	I	1.5	ISO	TM2	F	VBX	028/...
1	2	3	4	5	6	7	8	9
1 - Insert Size 6.0 - 6.0 mm 2 - ¼" 3 - ⅜" 3B - ⅜"B 4 - ½" 5 - ⅝" 6B - ¾"B 			2 - Cutting Edge Length B - TMB			3 - Type of Insert E - External I - Internal EI - External + Internal		4 - Pitch 0.35 - 6.0
5 - Standard ISO- ISO Metric UN- American UN UNJ- UNJ W- Whitworth for BSW, BSP NPT - NPT NPTF- NPTF NPS- NPS BSPT- British Standard Pipe Thread PG- Pg DIN 40430 ACME- ACME TR- Trapez DIN 103						6 - System TM2 TM		8 - Carbide Grade VBX VTX VK2
						7 - Pitch Type F = Fine Pitch		9 - Coarse Pitch Insert 028/...

Thread Milling Toolholders

B	TM	N	C	20	-	3	B		LH	-	
1	2	3	4	5		6	7	8	9		10
1 - Shank Type B - Anti Vibration System			2 - System TM - Thread Milling			3 - Holder Type 2 - Twin Flute M - Mini L - Long Tool N - Tapered Holder V - Vertical Holder S - Single Point O - Offset W - Wide Cut. Dia.			4 - Cooling C - Coolant Channel		
5 - Shank Dia. 10, 12, 16, 20, 25, 32, 40			6 - Insert Size 6.0 - 6.0mm 2 - 1/4" 3 - 3/8" 3B - 3/8"B 4 - 1/2" 5 - 5/8" 6B - 3/4"B			7 - Cut. Edge Length B - TMB			9 - RH / LH Holder None - Right Hand LH - Left Hand		
						8 - Serial No. (for TMO Holders) 1 - 16			10 - Serial No. (for Coarse Pitch Holders) 124/...		

Thread Milling Shell Mill

TMSH	-	D63	-	22	-	3	B
1		2		3		4	5
1 - System			2 - Cutting Dia.		3 - Drive Hole Dia.		4 - Insert Size
Thread Mill Shell Mill			38, 50, 63, 80, 100, 125		16, 22, 27, 32, 40		2 - 1/4"
5 - Cut. Edge Length							3 - 3/8"
B - TMB							3B - 3/8"B
							5 - 5/8"
							6B - 3/4"B

Thread Milling Standard System

TMMC Miniature Applications



No. of Flutes (Z) 1
 Cutting Dia. (D2) 9.0
 Tool Overhang (L1) 12.0-17.0

TMC Standard Applications



No. of Flutes (Z) 1
 Cutting Dia. (D2) 9.0-46.0
 Tool Overhang (L1) 12.0-63.0

TMC 124/... Coarse Pitch Thread



No. of Flutes (Z) 1
 Cutting Dia. (D2) 9.0-22.0
 Tool Overhang (L1) 15.0-40.0

TMLC For Long Threads



No. of Flutes (Z) 1
 Cutting Dia. (D2) 11.5-46.0
 Tool Overhang (L1) 17.0-93.0



TMNC For Conical Applications



No. of Flutes (Z) 1
 Cutting Dia. (D2) 15.5-37.0
 Tool Overhang (L1) 22.0-58.0

TM2C Fast Infeed



No. of Flutes (Z) 2
 Cutting Dia. (D2) 17.0-52.0
 Tool Overhang (L1) 20.0-65.0

TMOC For Fewer Cycles



No. of Flutes (Z) 1
 Cutting Dia. (D2) 14.5-30.0
 Tool Overhang (L1) 25.0-52.0

TMSH Fast Machining in Large Diameters and Deep Holes



No. of Flutes (Z) 6-9
 Cutting Dia. (D2) 38.0-125.0
 Tool Overhang (L1) Max. 200

TMSC For Short Threads Economical Solutions



No. of Flutes (Z) 1
 Cutting Dia. (D2) 12.5
 Tool Overhang (L1) 25.0

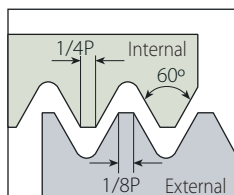
TMVC For Large Pitches



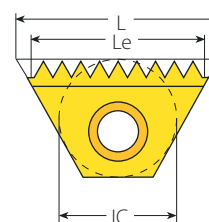
No. of Flutes (Z) 1
 Cutting Dia. (D2) 46.0
 Tool Overhang (L1) 60.0

ISO Metric

External / Internal



Defined by: R262 (DIN 13)
Tolerance class: 6g/6H



Standard TM

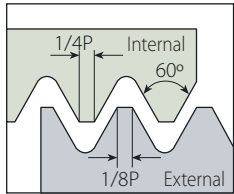
Standard TM

Insert Size		Pitch	Ordering Code		Le	Teeth	Toolholder
IC	L mm	mm	External	Internal	mm		
6.0mm	10.4	0.5		6.0I0.5ISOTM...	10.0	20	TMMC...-6.0
		0.75		6.0I0.75ISOTM...	9.75	13	
		1.0		6.0I1.0ISOTM...	9.0	9	
		1.25		6.0I1.25ISOTM...	8.75	7	
		1.5		6.0I1.5ISOTM...	9.0	6	
1/4"	11	0.5		2I0.5ISOTM2...	10.0	20	TMC...-2 TMSH...-2
		0.75	2E0.75ISOTM2...	2I0.75ISOTM2...	10.5	14	
		1.0	2E1.0ISOTM2...	2I1.0ISOTM2...	10.0	10	
		1.25	2E1.25ISOTM2...		10.0	8	
		1.25		2I1.25ISOTM2...	8.75	7	
		1.5	2E1.5ISOTM2...		9.0	6	
		1.5		2I1.5ISOTM2...	10.5	7	
3/8"	16	0.5		3I0.5ISOTM2...	15.0	30	TMC...-3 TMSH...-3
		0.75	3E0.75ISOTM2...	3I0.75ISOTM2...	15.0	20	
		0.8		3I0.8ISOTM2...	14.4	18	
		1.0	3E1.0ISOTM2...		14.0	14	
		1.0		3I1.0ISOTM2...	15.0	15	
		1.25	3E1.25ISOTM2...	3I1.25ISOTM2...	15.0	12	
		1.5	3E1.5ISOTM2...	3I1.5ISOTM2...	15.0	10	
		1.75	3E1.75ISOTM2...	3I1.75ISOTM2...	14.0	8	
		2.0	3E2.0ISOTM2...	3I2.0ISOTM2...	14.0	7	
3/8"B	22	1.0	3BE1.0ISOTM2...	3BI1.0ISOTM2...	22.0	22	BTMC...-3B TMSH...-3B
		1.25	3BE1.25ISOTM2...	3BI1.25ISOTM2...	21.25	17	
		1.5	3BE1.5ISOTM2...	3BI1.5ISOTM2...	21.0	14	
		1.75	3BE1.75ISOTM2...	3BI1.75ISOTM2...	21.0	12	
		2.0	3BE2.0ISOTM2...	3BI2.0ISOTM2...	22.0	11	
5/8"	27	1.0	5E1.0ISOTM2...	5I1.0ISOTM2...	26.0	26	TMC...-5 TMSH...-5
		1.25	5E1.25ISOTM2...	5I1.25ISOTM2...	25.0	20	
		1.5	5E1.5ISOTM2...	5I1.5ISOTM2...	25.5	17	
		1.75	5E1.75ISOTM2...	5I1.75ISOTM2...	24.5	14	
		2.0	5E2.0ISOTM2...	5I2.0ISOTM2...	24.0	12	
		2.5	5E2.5ISOTM2...	5I2.5ISOTM2...	25.0	10	
		3.0	5E3.0ISOTM2...	5I3.0ISOTM2...	24.0	8	
		3.5	5E3.5ISOTM2...	5I3.5ISOTM2...	24.5	7	
		4.0	5E4.0ISOTM2...	5I4.0ISOTM2...	24.0	6	
		4.5	5E4.5ISOTM2...	5I4.5ISOTM2...	22.5	5	

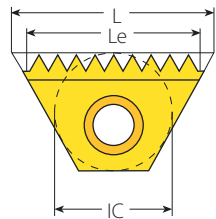
All inserts have 2 cutting edges, except MiniTM (IC 6.0 mm) which has one cutting edge.

ISO Metric (con't)

External / Internal



Defined by: R262 (DIN 13)
Tolerance class: 6g/6H



Standard TM

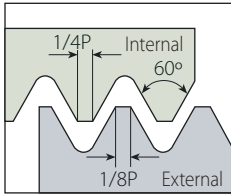
Standard TM

Insert Size		Pitch	Ordering Code		Le	Teeth	Toolholder
IC	L mm	mm	External	Internal	mm		
3/4"B	38.5	1.5	6BE1.5ISOTM2...	6BI1.5ISOTM2...	36.0	24	TMC..-6B TMSH..-6B
		2.0	6BE2.0ISOTM2...	6BI2.0ISOTM2...	36.0	18	
		2.5	6BE2.5ISOTM2...	6BI2.5ISOTM2...	35.0	14	
		3.0	6BE3.0ISOTM2...	6BI3.0ISOTM2...	36.0	12	
		4.0	6BE4.0ISOTM2...	6BI4.0ISOTM2...	32.0	8	
		4.5	6BE4.5ISOTM2...	6BI4.5ISOTM2...	31.5	7	
		5.0	6BE5.0ISOTM2...	6BI5.0ISOTM2...	30.0	6	
		5.5	6BE5.5ISOTM2...	6BI5.5ISOTM2...	33.0	6	
		6.0	6BE6.0ISOTM2...	6BI6.0ISOTM2...	30.0	5	

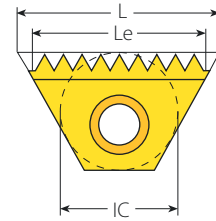
TM Standard

ISO Metric (con't)

Internal



Defined by: R262 (DIN 13)
Tolerance class: 6g/6H



Coarse Pitch TM

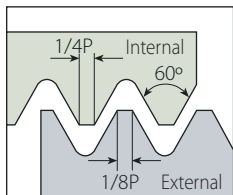
Coarse Pitch TM

Thread	Insert Size		Ordering Code	Cutting Edge	Le	Teeth	Bore Dia. Range	
	IC	L mm	Internal		mm	Toolholder	mm	
M10 X 0.75	6.0 mm	10.4	6.0I0.75ISOTM...028/001	1	9.75	13	TMMC12-6.0	9.1-10
M10 X 0.75			6.0I0.75ISOTM...028/001	1	9.75	13	TMMC20-6.0	9.1-10
M12 X 1.25			6.0I1.25ISOTM...028/002	1	8.75	7	TMMC12-6.0	10.6-11.4
M12 X 1.25			6.0I1.25ISOTM...028/002	1	8.75	7	TMMC20-6.0	10.6-11.4
M12 X 1.75			6.0I1.75ISOTM...028/003	1	8.75	5	TMMC20-6.0-124/003	10.1-19
M14 X 2.0	1/4"	11	2I2.0ISOTM...028/004	2	10.0	5	TMC12-2	11.8-19.5
M14 X 2.0			2I2.0ISOTM...028/004	2	10.0	5	TMC20-2	11.8-19.5
M16 X 2.0			2I2.0ISOTM...028/004	2	10.0	5	TMC12-2	11.8-19.5
M16 X 2.0			2I2.0ISOTM...028/004	2	10.0	5	TMC20-2	11.8-19.5
M20 X 2.5	3/8"	16	3I2.5ISOTM...028/005	1	12.5	5	TMC16-3-124/001	17.2-19.2
M22 X 2.5	1/2"	22	4I2.5ISOTM...028/006	1	17.5	7	TMC25-4-124/002	19.2-31.6
M24 X 3.0			4I3.0ISOTM...028/007	1	18.0	6	TMC25-4-124/002	20.7-32.7
M27 X 3.0			4I3.0ISOTM...028/007	1	18.0	6	TMC25-4-124/002	20.7-32.7
M30 X 3.5	5/8"	27	5I3.5ISOTM...028/008	2	24.5	7	TMC25-5-124/004	26.2-35.9
M33 X 3.5			5I3.5ISOTM...028/008	2	24.5	7	TMC25-5-124/004	26.2-35.9
M36 X 3.0			5I3.0ISOTM...028/009	2	24.0	8	TMC25-5	32.7-39
M36 X 4.0			5I4.0ISOTM...028/010	2	24.0	6	TMC25-5	31.6-38.5
M39 X 3.0			5I3.0ISOTM...028/009	2	24.0	8	TMC25-5	32.7-39
M39 X 4.0			5I4.0ISOTM...028/010	2	24.0	6	TMC25-5	31.6-38.5
M42 X 4.5			5I4.5ISOTM...028/011	2	22.5	5	TMC25-5	37.1-48
M45 X 4.5			5I4.5ISOTM...028/011	2	22.5	5	TMC25-5	37.1-48
M48 X 5.0			5I5.0ISOTM...028/075	2	20.0	4	TMC25-5	38.9-∞
M52 X 5.0			5I5.0ISOTM...028/075	2	20.0	4	TMC25-5	38.9-∞

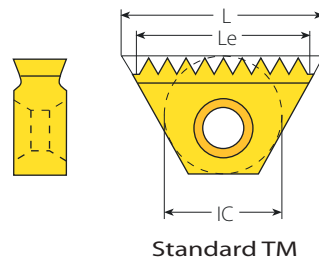
For Toolholder information, see page 284.

ISO Metric (con't)

External / Internal



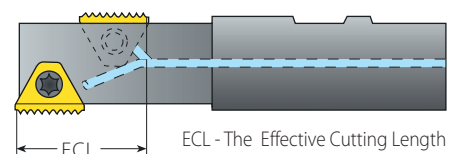
Defined by: R262 (DIN 13)
Tolerance class: 6g/6H



Standard TM

Standard TM Inserts for TMO Toolholders

Insert Size		Pitch	Ordering Code		ECL	
IC	L mm	mm	External	Internal	Toolholder	mm
1/4"	11	0.5		2I0.5ISOTM2...	TMOC20-2-8	19.0
		0.75	2E0.75ISOTM2...	2I0.75ISOTM2...	TMOC20-2-9	19.5
		1.0	2E1.0ISOTM2...	2I1.0ISOTM2...	TMOC20-2-8	19.0
		1.25	2E1.25ISOTM2...		TMOC20-2-10	18.7
		1.25		2I1.25ISOTM2...	TMOC20-2-10	16.2
		1.5	2E1.5ISOTM2...		TMOC20-2-8	18.0
		1.5		2I1.5ISOTM2...	TMOC20-2-8	19.5
3/8"	16	0.5		3I0.5ISOTM2...	TMOC20-3-1	28.5
		0.5		3I0.5ISOTM2...	TMOC20-3-10	29.0
		0.75	3E0.75ISOTM2...	3I0.75ISOTM2...	TMOC20-3-11	28.5
		1.0	3E1.0ISOTM2...		TMOC20-3-10	28.0
		1.0		3I1.0ISOTM2...	TMOC20-3-10	29.0
		1.25	3E1.25ISOTM2...	3I1.25ISOTM2...	TMOC20-3-7	28.7
		1.5	3E1.5ISOTM2...	3I1.5ISOTM2...	TMOC20-3-1	28.5
		1.75	3E1.75ISOTM2...	3I1.75ISOTM2...	TMOC20-3-12	26.2
5/8"	27	2.0	3E2.0ISOTM2...	3I2.0ISOTM2...	TMOC20-3-10	28.0
		1.0	5E1.0ISOTM2...	5I1.0ISOTM2...	TMOC25-5-12	46.0
		1.0	5E1.0ISOTM2...	5I1.0ISOTM2...	TMOC25-5-16	47.0
		1.25	5E1.25ISOTM2...	5I1.25ISOTM2...	TMOC25-5-13	48.7
		1.5	5E1.5ISOTM2...	5I1.5ISOTM2...	TMOC25-5-14	48.0
		1.5	5E1.5ISOTM2...	5I1.5ISOTM2...	TMOC25-5-16	46.5
		1.75	5E1.75ISOTM2...	5I1.75ISOTM2...	TMOC25-5-15	47.2
		2.0	5E2.0ISOTM2...	5I2.0ISOTM2...	TMOC25-5-12	44.0
		2.5	5E2.5ISOTM2...	5I2.5ISOTM2...	TMOC25-5-12	45.0
		2.5	5E2.5ISOTM2...	5I2.5ISOTM2...	TMOC25-5-14	47.5
		3.0	5E3.0ISOTM2...	5I3.0ISOTM2...	TMOC25-5-16	45.0
		3.5	5E3.5ISOTM2...	5I3.5ISOTM2...	TMOC25-5-16	45.5
		4.0	5E4.0ISOTM2...	5I4.0ISOTM2...	TMOC25-5-12	44.0
		4.5	5E4.5ISOTM2...	5I4.5ISOTM2...	TMOC25-5-14	45.0
		5.0		5I5.0ISOTM...028/075	TMOC25-5-12	40.0

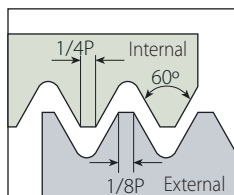


ECL - The Effective Cutting Length

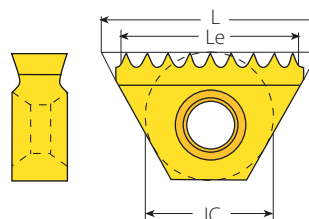
For Le and number of teeth of the above inserts, see the table for standard inserts on pages 256-257.
For Toolholder information, see page 289.

ISO Metric (con't)

External / Internal



Defined by: R262 (DIN 13)
Tolerance class: 6g/6H



Fine Pitch TM

Fine Pitch TM

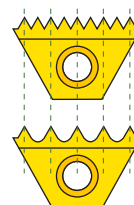
Insert Size		Pitch	Ordering Code		Le	Teeth	Toolholder
IC	L mm	mm	External	Internal	mm		
6.0mm	10.4	0.35	6.0E0.35ISOTMF...	6.0I0.35ISOTMF...	9.45	14	TMMC...-6.0
		0.4	6.0E0.4ISOTMF...	6.0I0.4ISOTMF...	9.2	12	
		0.45	6.0E0.45ISOTMF...	6.0I0.45ISOTMF...	9.45	11	
		0.5	6.0E0.5ISOTMF...		9.5	10	
		0.6	6.0E0.6ISOTMF...		9.0	8	
		0.7	6.0E0.7ISOTMF...		9.1	7	
		0.75	6.0E0.75ISOTMF...		8.25	6	
		0.8	6.0E0.8ISOTMF...		8.8	6	
		0.9	6.0E0.9ISOTMF...		8.1	5	
1/4"	11	0.35	2E0.35ISOTM2F...	2I0.35ISOTM2F...	10.15	15	TMC...-2 TMSH...-2
		0.4	2E0.4ISOTM2F...	2I0.4ISOTM2F...	10.0	13	
		0.45	2E0.45ISOTM2F...	2I0.45ISOTM2F...	9.45	11	
		0.5	2E0.5ISOTM2F...		9.5	10	
		0.6	2E0.6ISOTM2F...		10.2	9	
		0.7	2E0.7ISOTM2F...		9.1	7	
		0.8	2E0.8ISOTM2F...		8.8	6	
		0.9	2E0.9ISOTM2F...		9.9	6	
3/8"	16	0.35	3E0.35ISOTM2F...	3I0.35ISOTM2F...	14.35	21	TMC...-3 TMSH...-3
		0.4	3E0.4ISOTM2F...	3I0.4ISOTM2F...	14.8	19	
		0.45	3E0.45ISOTM2F...	3I0.45ISOTM2F...	14.85	17	
		0.5	3E0.5ISOTM2F...		13.5	14	
		0.6	3E0.6ISOTM2F...		13.8	12	
		0.7	3E0.7ISOTM2F...		14.7	11	
		0.8	3E0.8ISOTM2F...		13.6	9	
		0.9	3E0.9ISOTM2F...		13.5	8	

NOTE: Two orbits are required to complete the thread. Fine Pitch TM Inserts produce partial profile thread.

Sample order: **6.0E0.35ISOTMF VBX**

All inserts have 2 cutting edges, except MiniTM (IC 6.0 mm), which has one cutting edge.

For toolholder information, see page 280.



Fine Pitch Threads

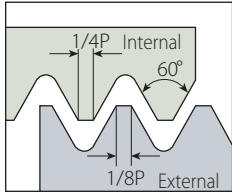
Fine pitch threads are threads with small pitches. It is difficult to produce multitooth inserts for small pitches because of the small radius between the teeth. Vargus developed inserts where every second tooth was dropped to enlarge the radius between the teeth.

Important!

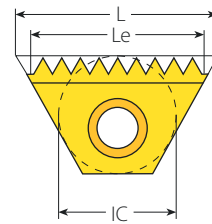
- All the fine pitch inserts are partial profile type (as a result of the enlarged radius).

American UN

External / Internal



Defined by: ANSI B1.1.74
Tolerance class: Class 2A/2B



Standard TM

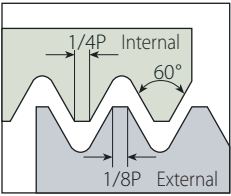
Standard TM

Insert Size		Pitch	Ordering Code		Le	Teeth	Toolholder
IC	L mm	tpi	External	Internal	mm		
6.0mm	10.4	32		6.0I32UNTM...	9.53	12	TMMC...-6.0
		28		6.0I28UNTM...	9.07	10	
		24		6.0I24UNTM...	9.53	9	
		20		6.0I20UNTM...	8.89	7	
		18		6.0I18UNTM...	8.47	6	
		16		6.0I16UNTM...	7.94	5	
1/4"	11	48		2I48UNTM2...	10.05	19	TMC...-2 TMSH...-2
		40		2I40UNTM2...	10.16	16	
		32		2I32UNTM2...	10.32	13	
		28	2E28UNTM2...	2I28UNTM2...	9.98	11	
		27	2E27UNTM2...	2I27UNTM2...	10.35	11	
		24	2E24UNTM2...	2I24UNTM2...	9.53	9	
		20	2E20UNTM2...	2I20UNTM2...	10.16	8	
		18	2E18UNTM2...	2I18UNTM2...	9.88	7	
		16	2E16UNTM2...	2I16UNTM2...	9.53	6	
		14	2E14UNTM2...	2I14UNTM2...	9.07	5	
3/8"	16	40		3I40UNTM2...	14.61	23	TMC...-3 TMSH...-3
		32		3I32UNTM2...	15.08	19	
		28	3E28UNTM2...	3I28UNTM2...	14.51	16	
		27	3E27UNTM2...	3I27UNTM2...	14.11	15	
		26	3E26UNTM2...	3I26UNTM2...	14.65	15	
		24	3E24UNTM2...	3I24UNTM2...	14.82	14	
		20	3E20UNTM2...	3I20UNTM2...	13.97	11	
		18	3E18UNTM2...	3I18UNTM2...	14.11	10	
		16	3E16UNTM2...	3I16UNTM2...	14.29	9	
		14	3E14UNTM2...	3I14UNTM2...	14.51	8	
		13	3E13UNTM2...	3I13UNTM2...	13.68	6	
		12	3E12UNTM2...	3I12UNTM2...	14.82	7	
		11.5	3E11.5UNTM2...	3I11.5UNTM2...	13.25	6	
3/8"B	22	24	3BE24UNTM2...	3BI24UNTM2...	21.16	20	BTMC...-3B TMSH...-3B
		20	3BE20UNTM2...	3BI20UNTM2...	21.59	17	
		18	3BE18UNTM2...	3BI18UNTM2...	21.17	15	
		16	3BE16UNTM2...	3BI16UNTM2...	20.64	13	
		14	3BE14UNTM2...	3BI14UNTM2...	21.77	12	
		13	3BE13UNTM2...	3BI13UNTM2...	21.49	11	
		12	3BE12UNTM2...	3BI12UNTM2...	21.17	10	

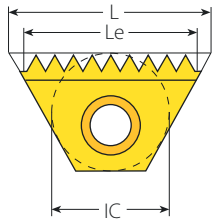
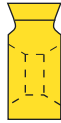
All inserts have 2 cutting edges, except Mini TM (IC 6.0 mm), which has one cutting edge.
For toolholder information, see page 280.

American UN (con't)

External / Internal



Defined by: ANSI B1.1.74
Tolerance class: Class 2A/2B



Standard TM

Standard TM

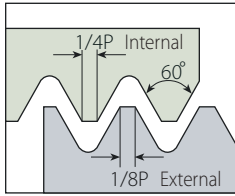
Insert Size		Pitch	Ordering Code		Le	Teeth	Toolholder
IC	L mm	tpi	External	Internal	mm		
5/8"	27	24	5E24UNTM2...	5I24UNTM2...	25.40	24	TMC..-5 TMSH..-5
		20	5E20UNTM2...	5I20UNTM2...	25.40	20	
		18	5E18UNTM2...	5I18UNTM2...	25.40	18	
		16	5E16UNTM2...	5I16UNTM2...	25.40	16	
		14	5E14UNTM2...	5I14UNTM2...	25.40	14	
		13	5E13UNTM2...	5I13UNTM2...	25.40	13	
		12	5E12UNTM2...	5I12UNTM2...	25.40	12	
		11.5	5E11.5UNTM2...	5I11.5UNTM2...	24.30	11	
		11	5E11UNTM2...	5I11UNTM2...	25.40	11	
		10	5E10UNTM2...		22.86	9	
		10		5I10UNTM2...	25.40	10	
		9	5E9UNTM2...	5I9UNTM2...	22.58	8	
		8	5E8UNTM2...	5I8UNTM2...	22.23	7	
		7	5E7UNTM2...		21.77	6	
		7		5I7UNTM2...	25.40	7	
		6	5E6UNTM2...		21.17	5	
3/4"B	38.5	6	6BE6UNTM2...	6BI6UNTM2...	38.87	8	TMC..-6B TMSH..-6B
		5	6BE5UNTM2...	6BI5UNTM2...	30.48	6	
		4.5	6BE4.5UNTM2...	6BI4.5UNTM2...	33.87	6	
		4	6BE4UNTM2...	6BI4UNTM2...	31.75	5	

TM Standard

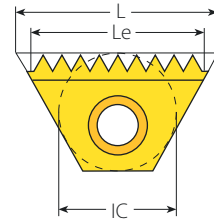
All inserts have 2 cutting edges, except MiniTM (IC 6.0 mm), which has one cutting edge.
For toolholder information, see page 280.

American UN (con't)

Internal



Defined by: ANSI B1.1.74
Tolerance class: Class 2A/2B



Coarse Pitch TM

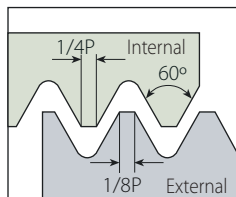
Coarse Pitch TM

Thread	Insert Size		Ordering Code	Cutting Edge	Le	Teeth	Bore Dia. Range	
	IC	L mm	Internal		mm		Toolholder	mm
7/16"-20UNF	6.0mm	10.4	6.0I20UNTM...028/012	1	8.89	7	TMMC12-6.0	9.7-11.4
7/16"-20UNF			6.0I20UNTM...028/012	1	8.89	7	TMMC20-6.0	9.7-11.4
7/16"-16UN			6.0I16UNTM...028/014	1	7.94	5	TMMC12-6.0	9.3-14.1
7/16"-16UN			6.0I16UNTM...028/014	1	7.94	5	TMMC20-6.0	9.3-14.1
7/16"-14UNC			6.0I14UNTM...028/013	1	9.07	5	TMMC20-6.0-124/003	9.1-9.9
1/2"-13UNC	1/4"	11	2I13UNTM...028/015	1	9.77	5	TMC20-2-124/005	10.5-19.5
1/2"-16UN	6.0mm	10.4	6.0I16UNTM...028/014	1	7.94	5	TMMC12-6.0	9.3-14.1
1/2"-16UN			6.0I16UNTM...028/014	1	7.94	5	TMMC20-6.0	9.3-14.1
9/16"-12UNC	1/4"	11	2I12UNTM...028/016	1	8.47	4	TMC20-2-124/005	11.9-15.6
9/16"-18UNF			2I18UNTM...028/017	2	9.88	7	TMC12-2	12.7-14.5
9/16"-18UNF			2I18UNTM...028/017	2	9.88	7	TMC20-2	12.7-14.5
9/16"-16UN	6.0mm	10.4	6.0I16UNTM...028/014	1	7.94	5	TMMC12-6.0	9.3-14.1
9/16"-16UN			6.0I16UNTM...028/014	1	7.94	5	TMMC20-6.0	9.3-14.1
5/8"-11UNC	1/4"	11	2I11UNTM...028/018	1	9.24	4	TMC20-2-124/006	13.3-18.5
5/8"-12UN			2I12UNTM...028/016	1	8.47	4	TMC20-2-124/005	11.9-15.6
5/8"-16UN	6.0mm	10.4	6.0I16UNTM...028/014	1	7.94	5	TMMC12-6.0	9.3-14.1
5/8"-16UN			6.0I16UNTM...028/014	1	7.94	5	TMMC20-6.0	9.3-14.1
11/16"-12UN	1/4"	11	2I12UNTM...028/016	1	8.47	4	TMC20-2-124/005	11.9-15.6
3/4"-10UNC	3/8"	16	3I10UNTM...028/019	1	12.70	5	TMC16-3-124/001	16.3-31.6
3/4"-12UN			3I12UNTM...028/020	2	14.82	7	TMNC16-3	16.7-18.3
13/16"-12UN			3I12UNTM...028/020	2	14.82	7	TMC16-3	18.3-19.5
7/8"-9UNC	1/2"	22	4I9UNTM...028/021	1	16.93	6	TMC25-4-124/002	19.1-32.5

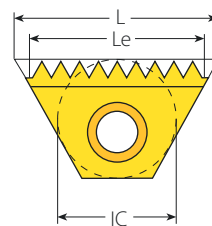
For toolholder information, see page 280.

American UN (con't)

Internal



Defined by: ANSI B1.1.74
Tolerance class: Class 2A/2B



Coarse Pitch TM

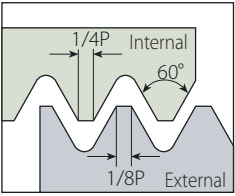
Coarse Pitch TM

Thread	Insert Size		Ordering Code	Cutting Edge	Le	Teeth	Bore Dia. Range	
	IC	L mm	Internal		mm		Toolholder	mm
1"-8UNC	1/2"	22	4I8UNTM...028/022	1	19.05	6	TMC25-4-124/007	21.9-28.3
1 1/16"-8UN			4I8UNTM...028/022	1	19.05	6	TMC25-4-124/007	21.9-28.3
1 1/8"-7UNC			4I7UNTM...028/023	1	18.14	5	TMC25-4-124/002	24.6-35.9
1 1/8"-8UN			4I8UNTM...028/022	1	19.05	6	TMC25-4-124/007	21.9-28.3
1 3/16"-8UN			4I8UNTM...028/022	1	19.05	6	TMC25-4-124/007	21.9-28.3
1 1/4"-7UNC			4I7UNTM...028/023	1	18.14	5	TMC25-4-124/002	24.6-35.9
1 1/4"-8UN	5/8"	27	5I8UNTM...028/024	2	22.23	7	TMC25-5-124/004	28.3-33.0
1 5/16"-8UN			5I8UNTM...028/024	2	22.23	7	TMC25-5-124/004	28.3-33.0
1 3/8"-6UNC			5I6UNTM...028/025	2	25.40	6	TMC25-5-124/004	30.3-36.7
1 3/8"-8UN			5I8UNTM...028/024	2	22.23	7	TMC25-5-124/004	28.3-33.0
1 7/16"-6UN			5I6UNTM...028/025	2	25.40	6	TMC25-5-124/004	30.3-36.7
1 7/16"-8UN			5I8UNTM...028/024	2	22.23	7	TMC25-5	33.0-39.0
1 1/2"-6UNC			5I6UNTM...028/025	2	25.40	6	TMC25-5-124/004	30.3-36.7
1 1/2"-8UN			5I8UNTM...028/024	2	22.23	7	TMC25-5	33.0-39.0
1 9/16"-6UN			5I6UNTM...028/025	2	25.40	6	TMC25-5-124/004	30.3-36.7
1 9/16"-8UN			5I8UNTM...028/024	2	22.23	7	TMC25-5	33.0-39.0
1 5/8"-6UN			5I6UNTM...028/025	2	25.40	6	TMC25-5	36.7-45.0
1 5/8"-8UN			5I8UNTM...028/024	2	22.23	7	TMC25-5	33.0-39.0
1 11/16"-6UN			5I6UNTM...028/025	2	25.40	6	TMC25-5	36.7-45.0
1 3/4"-5UNC			5I5UNTM...028/077	2	20.32	4	TMC25-5	38.9-∞
1 3/4"-6UN			5I6UNTM...028/025	2	25.40	6	TMC25-5	36.7-45.0
1 13/16"-6UN			5I6UNTM...028/025	2	25.40	6	TMC25-5	36.7-45.0
1 7/8"-6UN			5I6UNTM...028/025	2	25.40	6	TMC25-5	36.7-45.0
1 15/16"-6UN			5I6UNTM...028/025	2	25.40	6	TMC25-5	36.7-45.0

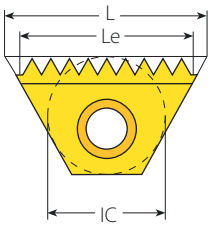
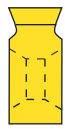
For toolholder information, see page 280.

American UN (con't)

External / Internal



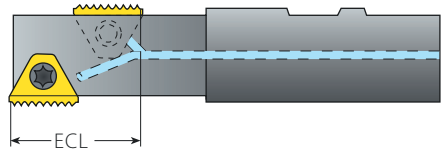
Defined by: ANSI B1.1.74
Tolerance class: Class 2A/2B



Standard TM

Standard TM Inserts for TMO Toolholders

Insert Size		Pitch	Ordering Code			ECL
IC	L mm	tpi	External	Internal	Toolholder	mm
1/4"	11	48		2I48UNTM2...	TMOC20-2-1	19.58
		48		2I48UNTM2...	TMOC20-2-2	18.52
		48		2I48UNTM2...	TMOC20-2-9	19.05
		32		2I32UNTM2...	TMOC20-2-1	19.85
		28	2E28UNTM2...	2I28UNTM2...	TMOC20-2-3	17.24
		24	2E24UNTM2...	2I24UNTM2...	TMOC20-2-2	17.99
		20	2E20UNTM2...	2I20UNTM2...	TMOC20-2-4	19.05
		18	2E18UNTM2...	2I18UNTM2...	TMOC20-2-2	18.34
		16	2E16UNTM2...	2I16UNTM2...	TMOC20-2-1	19.05
		14	2E14UNTM2...	2I14UNTM2...	TMOC20-2-3	16.33
3/8"	16	32		3I32UNTM2...	TMOC20-3-3	27.78
		32		3I32UNTM2...	TMOC20-3-11	28.58
		28	3E28UNTM2...	3I28UNTM2...	TMOC20-3-3	27.21
		27	3E27UNTM2...	3I27UNTM2...	TMOC20-3-4	27.28
		24	3E24UNTM2...	3I24UNTM2...	TMOC20-3-6	27.52
		20	3E20UNTM2...	3I20UNTM2...	TMOC20-3-6	26.67
		18	3E18UNTM2...	3I18UNTM2...	TMOC20-3-6	26.82
		16	3E16UNTM2...	3I16UNTM2...	TMOC20-3-6	26.99
		14	3E14UNTM2...	3I14UNTM2...	TMOC20-3-6	27.21
		13	3E13UNTM2...	3I13UNTM2...	TMOC20-3-2	25.4
		12	3E12UNTM2...	3I12UNTM2...	TMOC20-3-6	27.52
		11.5	3E11.5UNTM2...	3I11.5UNTM2...	TMOC20-3-5	24.3



ECL - The Effective Cutting Length

For Le and number of teeth of the above inserts, see the table for standard inserts on pages 261-262.
For toolholder information, see page 289.

American UN (con't)

External / Internal



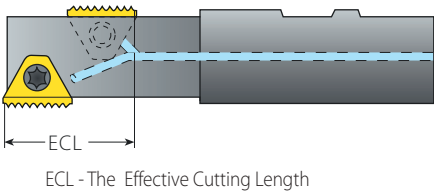
Defined by: ANSI B1.1.74
Tolerance class: Class 2A/2B



Standard TM

Standard TM Inserts for TMO Toolholders

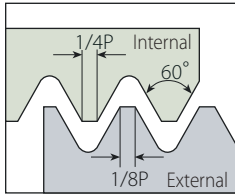
Insert Size		Pitch	Ordering Code		ECL
IC	L mm	tpi	External	Internal	Toolholder mm
5/8"	27	24	5E24UNTM2..	5I24UNTM2...	TMOC25-5-150.80
		24	5E24UNTM2...	5I24UNTM2...	TMOC25-5-246.57
		20	5E20UNTM2...	5I20UNTM2...	TMOC25-5-150.80
		18	5E18UNTM2...	5I18UNTM2...	TMOC25-5-150.80
		18	5E18UNTM2...	5I18UNTM2...	TMOC25-5-246.57
		16	5E16UNTM2...	5I16UNTM2...	TMOC25-5-347.63
		14	5E14UNTM2...	5I14UNTM2...	TMOC25-5-150.80
		14	5E14UNTM2...	5I14UNTM2...	TMOC25-5-447.17
		13	5E13UNTM2...	5I13UNTM2...	TMOC25-5-150.80
		12	5E12UNTM2...	5I12UNTM2...	TMOC25-5-246.57
		12	5E12UNTM2...		TMOC25-5-150.80
		11.5	5E11.5UNTM2...	5I11.5UNTM2...	TMOC25-5-546.38
		11	5E11UNTM2...	5I11UNTM2...	TMOC25-5-648.49
		11		5I11UNTM2...	TMOC25-5-146.18
		10	5E10UNTM2...		TMOC25-5-743.18
		10		5I10UNTM2...	TMOC25-5-745.72
		9	5E9UNTM2...	5I9UNTM2...	TMOC25-5-845.16
		8	5E8UNTM2...	5I8UNTM2...	TMOC25-5-944.45
		7	5E7UNTM2...		TMOC25-5-1043.54
		7		5I7UNTM2...	TMOC25-5-1047.17
		6	5E6UNTM2...		TMOC25-5-242.33
		6		5I6UNTM2...	TMOC25-5-246.57
		5		5I5UNTM...028/077	TMOC25-5-740.64



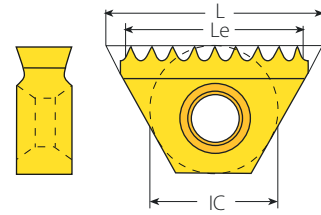
For Le and number of teeth of the above inserts, see the table for standard inserts on pages 261-262.
For toolholder information, see page 289.

American UN (con't)

External / Internal



Defined by: ANSI B1.1.74
Tolerance class: Class 2A/2B



Fine Pitch TM

Fine Pitch TM

Insert Size		Pitch	Ordering Code		Le	Teeth	Toolholder
IC	L mm	tpi	External	Internal	mm		
6.0mm	10.4	80	6.0E80UNTMF...	6.0I80UNTMF...	9.84	16	TMMC...-6.0
		72	6.0E72UNTMF...	6.0I72UNTMF...	9.53	14	
		64	6.0E64UNTMF...	6.0I64UNTMF...	9.13	12	
		56	6.0E56UNTMF...	6.0I56UNTMF...	9.53	11	
		48	6.0E48UNTMF...		9.00	9	
		44	6.0E44UNTMF...		8.66	8	
		40	6.0E40UNTMF...		8.26	7	
		36	6.0E36UNTMF...		9.17	7	
		32	6.0E32UNTMF...		8.73	6	
1/4"	11	80	2E80UNTM2F...	2I80UNTM2F...	9.84	16	TMC...-2 TMSH...-2
		72	2E72UNTM2F...	2I72UNTM2F...	10.23	15	
		64	2E64UNTM2F...	2I64UNTM2F...	9.92	13	
		56	2E56UNTM2F...	2I56UNTM2F...	9.53	11	
		48	2E48UNTM2F...		10.05	10	
		44	2E44UNTM2F...		9.81	9	
		40	2E40UNTM2F...		9.53	8	
		36	2E36UNTM2F...		9.17	7	
		32	2E32UNTM2F...		8.73	6	
3/8"	16	80	3E80UNTM2F...	3I80UNTM2F...	14.29	23	TMC...-3 TMSH...-3
		72	3E72UNTM2F...	3I72UNTM2F...	14.46	21	
		64	3E64UNTM2F...	3I64UNTM2F...	14.68	19	
		56	3E56UNTM2F...	3I56UNTM2F...	14.06	16	
		48	3E48UNTM2F...		14.29	14	
		44	3E44UNTM2F...		14.43	13	
		40	3E40UNTM2F...		14.61	12	
		36	3E36UNTM2F...		14.82	11	
		32	3E32UNTM2F...		13.49	9	

NOTE: Two orbits are required to complete the thread. Fine Pitch TM Inserts produce partial profile thread.

Sample order: **6.0E80UNTMF VBX**

All inserts have 2 cutting edges, except MiniTM (IC 6.0 mm), which has one cutting edge.

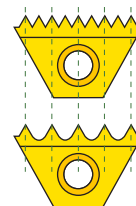
For toolholder information, see page 280.

Fine Pitch Threads

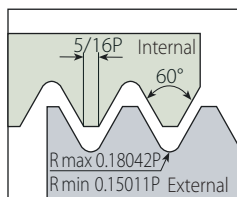
Fine pitch threads are threads with small pitches. It is difficult to produce multitooth inserts for small pitches because of the small radius between the teeth. Vargus developed inserts where every second tooth was dropped to enlarge the radius between the teeth.

Important!

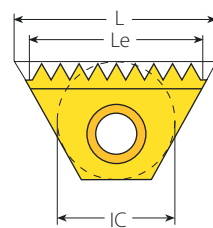
- All the fine pitch inserts are partial profile type (as a result of the enlarged radius).



External / Internal



Defined by: MIL-S-8879C
Tolerance class: 3A/3B



Standard TM

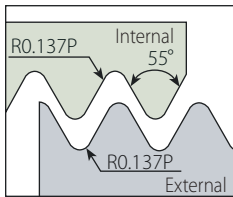
Standard TM

Insert Size		Pitch	Ordering Code		Le	Teeth	Toolholder
IC	L mm	tpi	External	Internal	mm		
6.0mm	10.4	24		6.0I24UNJTM...	9.53	9	TMMC...-6.0
		20		6.0I20UNJTM...	8.89	7	
		18		6.0I18UNJTM...	8.47	6	
		16		6.0I16UNJTM...	9.53	6	
1/4"	11	24	2E24UNJTM2...	2I24UNJTM2...	9.53	9	TMC...-2 TMSH...-2
		20	2E20UNJTM2...	2I20UNJTM2...	10.16	8	
		18		2I18UNJTM2...	9.88	7	
		16	2E16UNJTM2...	2I16UNJTM2...	9.53	6	
		14	2E14UNJTM2...	2I14UNJTM2...	9.07	5	
3/8"	16	24	3E24UNJTM2...	3I24UNJTM2...	14.82	14	TMC...-3 TMSH...-3
		20	3E20UNJTM2...	3I20UNJTM2...	13.97	11	
		18	3E18UNJTM2...	3I18UNJTM2...	14.11	10	
		16	3E16UNJTM2...	3I16UNJTM2...	14.29	9	
		14	3E14UNJTM2...	3I14UNJTM2...	14.51	8	
		13	3E13UNJTM2...		13.68	7	
		12	3E12UNJTM2...	3I12UNJTM2...	14.82	7	
5/8"	27	16	5E16UNJTM2...	5I16UNJTM2...	25.40	16	TMC...-5 TMSH...-5
		12	5E12UNJTM2...	5I12UNJTM2...	25.40	12	
		11	5E11UNJTM2...	5I11UNJTM2...	25.40	11	

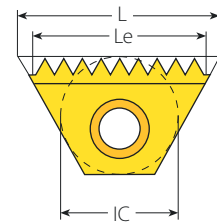
All inserts have 2 cutting edges, except MiniTM (IC 6.0 mm), which has one cutting edge.
For toolholder information, see page 280.

Whitworth for BSW, BSP

External / Internal



BSW Defined by: B.S.84:1956, DIN 259, ISO228/1:1982
 BSP Defined by: B.S.2779:1956
 Tolerance class: BSW-Medium class A, BSP-Medium class



Standard TM

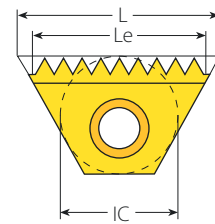
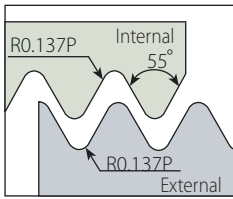
Standard TM

Insert Size		Pitch	Ordering Code	Le	Teeth	Toolholder
IC	L mm	tpi	External + Internal	mm		
6.0mm	10.4	28	6.0EI28WTM...	9.07	10	TMMC...-6.0
		26	6.0EI26WTM...	8.79	9	
		24	6.0EI24WTM...	9.53	9	
		20	6.0EI20WTM...	8.89	7	
		19	6.0EI19WTM...	9.36	7	
1/4"	11	28	2EI28WTM2...	9.98	11	TMC...-2 TMSH...-2
		26	2EI26WTM2...	9.77	10	
		24	2EI24WTM2...	9.53	9	
		20	2EI20WTM2...	10.16	8	
		19	2EI19WTM2...	9.36	7	
3/8"	16	14	2EI14WTM2...	9.07	5	TMC...-3 TMSH...-3
		26	3EI26WTM2...	14.65	15	
		24	3EI24WTM2...	14.82	14	
		20	3EI20WTM2...	13.97	11	
		19	3EI19WTM2...	14.71	11	
		18	3EI18WTM2...	14.11	10	
		16	3EI16WTM2...	14.29	9	
		14	3EI14WTM2...	14.51	8	
3/8"B	22	12	3EI12WTM2...	14.82	7	TMC...-3B TMSH...-3B
		11	3EI11WTM2...	13.85	6	
		24	3BEI24WTM2...	21.17	20	
		20	3BEI20WTM2...	21.59	17	
		19	3BEI19WTM2...	21.39	16	
		18	3BEI18WTM2...	21.17	15	
		16	3BEI16WTM2...	20.64	13	
		14	3BEI14WTM2...	21.77	12	
5/8"	27	12	3BEI12WTM2...	21.17	10	TMC...-5 TMSH...-5
		11	3BEI11WTM2...	20.78	9	
		16	5EI16WTM2...	25.40	16	
		14	5EI14WTM2...	25.40	14	
		12	5EI12WTM2...	23.28	11	
		11	5EI11WTM2...	23.09	10	
		10	5EI10WTM2...	25.40	10	
		9	5EI9WTM2...	22.58	8	
3/4"B	38.5	8	5EI8WTM2...	22.23	7	TMC...-6B TMSH...-6B
		7	5EI7WTM2...	21.77	6	
		6	5EI6WTM2...	21.17	5	
		11	6BEI11WTM2...	34.64	15	
		6	6BEI6WTM2...	33.87	8	
		5	6BEI5WTM2...	30.48	6	
		4.5	6BEI4.5WTM2...	33.87	6	

All inserts have 2 cutting edges, except MiniTM (IC 6.0 mm) which has one cutting edge.
 For toolholder information, see page 280.

Whitworth for BSW only (con't)

Internal



Defined by: B.S.84:1956, DIN259, ISO228/1:1982
Tolerance class: Medium class A

Coarse Pitch TM

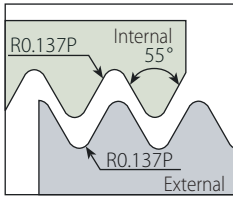
Coarse Pitch TM

Thread	Insert Size		Ordering Code	Cutting Edge	Le	Teeth	Bore Dia. Range	
Inch	IC	L mm	Internal		mm		Toolholder	mm
7/16"-18	6.0mm	10.4	6.0I18WTM...028/035	1	8.47	6	TMMC12-6.0	9.3-14.2
7/16"-18			6.0I18WTM...028/035	1	8.47	6	TMMC20-6.0	9.3-14.2
7/16"-26			6.0I26WTM... 028/036	1	8.79	9	TMMC12-6.0	9.8-10.5
7/16"-26			6.0I26WTM... 028/036	1	8.79	9	TMMC20-6.0	9.8-10.5
1/2"-16	1/4"	11	2I16WTM... 028/051	1	9.53	6	TMC20-2-124/005	10.6-12.2
1/2"-20	6.0mm	10.4	6.0I20WTM...028/037	1	8.89	7	TMMC12-6.0	11.0-11.4
1/2"-20			6.0I20WTM...028/037	1	8.89	7	TMMC20-6.0	11.0-11.4
9/16"-16	1/4"	11	2I16WTM...028/038	2	9.53	6	TMC12-2	12.2-18.5
9/16"-16			2I16WTM...028/038	2	9.53	6	TMC20-2	12.2-18.5
5/8"-14			2I14WTM...028/039	1	9.07	5	TMC20-2-124/006	13.5-19.0
11/16"-14			2I14WTM...028/039	1	9.07	5	TMC20-2-124/006	13.5-19.0
11/16"-16			2I16WTM...028/038	2	9.53	6	TMC12-2	12.2-18.5
11/16"-16			2I16WTM...028/038	2	9.53	6	TMC20-2	12.2-18.5
3/4"-12	3/8"	16	3I12WTM...028/040	1	14.82	7	TMC16-3-124/001	16.3-17.9
3/4"-16	1/4"	11	2I16WTM...028/038	2	9.53	6	TMC12-2	12.2-18.5
3/4"-16			2I16WTM...028/038	2	9.53	6	TMC20-2	12.2-18.5
13/16"-12	3/8"	16	3I12WTM...028/041	2	14.82	7	TMC16-3	17.9-21.0
7/8"-9	1/2"	22	4I9WTM...028/042	1	16.93	6	TMC25-4-124/002	18.6-32.5
7/8"-11			4I11WTM...028/043	1	18.47	8	TMC25-4-124/002	19.2-22.0
15/16"-12	3/8"	16	3I12WTM...028/041	2	14.82	7	TMC20-3	21.0-30.6
1"-8	1/2"	22	4I8WTM...028/044	1	15.88	5	TMC25-4-124/002	21.3-26.0
1"-10			4I10WTM...028/045	1	17.78	7	TMC25-4-124/002	22.1-31.6
1"-12	3/8"	16	3I12WTM...028/041	2	14.82	7	TMC20-3	21.0-30.6
1 1/16"-12			3I12WTM...028/041	2	14.82	7	TMC20-3	21.0-30.6
1 1/8"-7	5/8"	27	5I7WTM...028/046	1	21.77	6	TMC25-5-124/008	23.9-27.1
1 1/8"-9	1/2"	22	4I9WTM...028/042	1	16.93	6	TMC25-4-124/002	18.6-32.5
1 1/8"-12	3/8"	16	3I12WTM...028/041	2	14.82	7	TMC20-3	21.0-30.6
1 3/16"-8	5/8"	27	5I8WTM...028/047	2	22.23	7	TMC25-5-124/004	26.0-32.4
1 3/16"-12	3/8"	16	3I12WTM...028/041	2	14.82	7	TMC20-3	21.0-30.6
1 1/4"-7	5/8"	27	5I7WTM...028/048	2	21.77	6	TMC25-5-124/004	21.7-35.9
1 1/4"-9	1/2"	22	4I9WTM...028/042	1	16.93	6	TMC25-4-124/002	18.6-32.5
1 1/4"-12	3/8"	16	3I12WTM...028/041	2	14.82	7	TMC20-3	21.0-30.6
1 5/16"-6	5/8"	27	5I6WTM...028/049	2	21.17	5	TMC25-5-124/004	27.9-32.6
1 5/16"-8			5I8WTM...028/047	2	22.23	7	TMC25-5-124/004	26.0-32.4

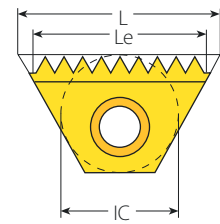
For toolholder information, see page 280.

Whitworth for BSW only (con't)

Internal



Defined by: B.S.84:1956, DIN259, ISO228/1:1982
Tolerance class: Medium class A



Coarse Pitch TM Inserts

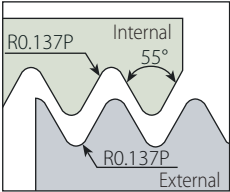
Coarse Pitch TM

Thread	Insert Size		Ordering Code	Cutting Edge	Le	Teeth	Bore Dia. Range	
	IC	L mm	Internal		mm		Toolholder	mm
1 5/16"-12	3/8"	16	3I12WTM...028/041	2	14.82	7	TMC20-3	21.0-30.6
1 3/8"-8	5/8"	27	5I8WTM...028/047	2	22.23	7	TMC25-5-124/004	26.0-32.4
1 3/8"-6			5I6WTM...028/049	2	21.17	5	TMC25-5-124/004	27.9-32.6
1 3/8"-12			5I12WTM...028/050	2	23.28	11	TMC25-5	32.2-34.6
1.4-6			5I6WTM...028/049	2	21.17	5	TMC25-5-124/004	27.9-32.6
1.4-8			5I8WTM...028/047	2	22.23	7	TMC25-5-124/004	26.0-32.4
1.4-12			5I12WTM...028/050	2	23.28	11	TMC25-5	32.2-34.6
1 7/16"-6			5I6WTM...028/049	2	21.17	5	TMC25-5-124/004	27.9-32.6
1 7/16"-8			5I8WTM...028/047	2	22.23	7	TMC25-5	32.4-39.0
1 7/16"-12			5I12WTM...028/050	2	23.28	11	TMC25-5	32.2-34.6
1 1/2"-6			5I6WTM...028/049	2	21.17	5	TMC25-5-124/004	27.9-32.7
1 1/2"-8			5I8WTM...028/047	2	22.23	7	TMC25-5	32.4-39.0
1.6-6			5I6WTM...028/049	2	21.17	5	TMC25-5	32.6-38.5
1.6-8			5I8WTM...028/047	2	22.23	7	TMC25-5	32.4-39.0
1 5/8"-8			5I8WTM...028/047	2	22.23	7	TMC25-5	32.4-39.0
1 5/8"-6			5I6WTM...028/049	2	21.17	5	TMC25-5	32.6-38.5
1 3/4"-7			5I7WTM...028/048	2	21.77	6	TMC25-5	39.8-42.0
1 7/8"-6			5I6 WTM...028/049	2	21.17	5	TMC32-5	42.2-45.0
1.9-6			5I6 WTM...028/049	2	21.17	5	TMC32-5	42.2-45.0

For toolholder information, see page 280.

Whitworth for BSW only (con't)

External / Internal

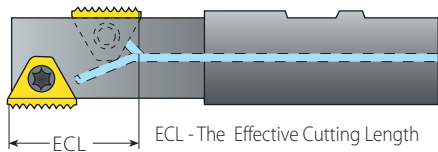


Defined by: B.S.84:1956, DIN259, ISO228/1:1982
Tolerance class: Medium class A

Standard TM

Standard TM Inserts for TMO Toolholders

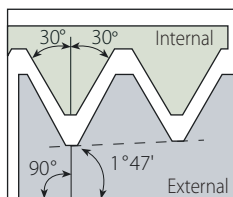
Insert Size		Pitch	Ordering Code		ECL
IC	L mm	tpi	External + Internal	Toolholder	mm
1/4"	11	28	2EI28WTM2...	TMOC20-2-3	17.24
		26	2EI26WTM2...	TMOC20-2-5	18.56
		24	2EI24WTM2...	TMOC20-2-2	17.99
		20	2EI20WTM2...	TMOC20-2-6	19.05
		19	2EI19WTM2...	TMOC20-2-7	17.38
		14	2EI14WTM2...	TMOC20-2-3	16.33
3/8"	16	26	3EI26WTM2...	TMOC20-3-2	27.35
		26	3EI26WTM2...	TMOC20-3-6	26.38
		24	3EI24WTM2...	TMOC20-3-7	28.57
		20	3EI20WTM2...	TMOC20-3-6	26.67
		19	3EI19WTM2...	TMOC20-3-8	28.07
		18	3EI18WTM2...	TMOC20-3-6	26.81
		16	3EI16WTM2...	TMOC20-3-6	26.99
		14	3EI14WTM2...	TMOC20-3-6	27.21
		12	3EI12WTM2...	TMOC20-3-6	27.52
5/8"	27	11	3EI11WTM2...	TMOC20-3-9	27.71
		16	5EI16WTM2...	TMOC25-5-3	47.63
		14	5EI14WTM2...	TMOC25-5-1	50.80
		14	5EI14WTM2...	TMOC25-5-4	47.17
		12	5EI12WTM2...	TMOC25-5-2	44.45
		11	5EI11WTM2...	TMOC25-5-6	46.18
		10	5EI10WTM2...	TMOC25-5-7	45.72
		9	5EI9WTM2...	TMOC25-5-8	45.16
		8	5EI8WTM2...	TMOC25-5-9	44.45
		7	5EI7WTM2...	TMOC25-5-4	43.54
		6	5EI6WTM2...	TMOC25-5-11	42.33



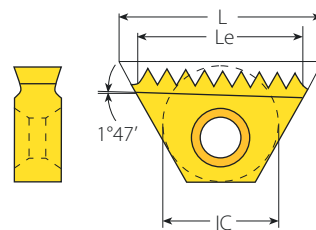
For Le and number of teeth of the above inserts, see the table for standard inserts on page 269.
For toolholder information see page 289.

NPT

External / Internal



Defined by: USAS B2.1:1968
Tolerance class: Standard NPT



Standard TM

Standard TM

Insert Size		Pitch	Ordering Code	Le	Teeth	Toolholder	
IC	L mm	tpi	External + Internal	mm		RH	LH
3/8"	16	18	3E18NPT-TM2... *	14.11	10	TMNC...-3	TMNC...-3LH
		14	3E14NPT-TM2...	14.51	8		
		11.5	3E11.5NPT-TM2...	13.25	6		
3/8"B	22	14	3BE14NPT-TM2...	21.77	12	BTMNC...-3B	BTMNC...-3BLH
		11.5	3BE11.5NPT-TM2... **	19.88	9		
5/8"	27	11.5	5E11.5NPT-TM2...	24.30	11	TM.C...-5	TM.C...-5LH
		8	5E8NPT-TM2...	22.23	7	TMNC...-5	TMNC...-5LH
3/4"B	38.5	11.5	6BE11.5NPT-TM2...	35.34	16	TMC...-6B	TMC...-6BLH
		8	6BE8NPT-TM2...	31.75	10		

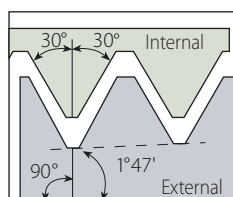
* For external thread only.
To thread with insert cutting edge marked "L", use LH toolholders.
For toolholder information, see page 286.

** Single sided insert - RH only.

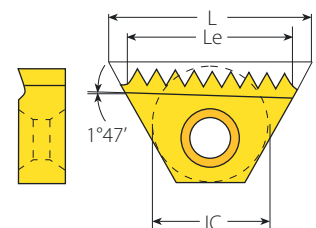
TM Standard

NPT

Internal



Defined by: USAS B2.1:1968
Tolerance class: Standard NPT



Coarse Pitch TM

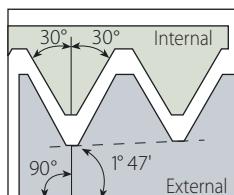
Coarse Pitch TM

Thread	Insert Size		Ordering Code	Cutting Edge	Le	Teeth	Toolholder
Inch	IC	L mm	Internal		mm		
1/4"-18	1/4"	11	2I18NPT-TM...028/074	1	9.88	7	TMC20-2-124/009
3/8"-18			2I18NPT-TM...028/074	1	9.88	7	TMC20-2-124/009

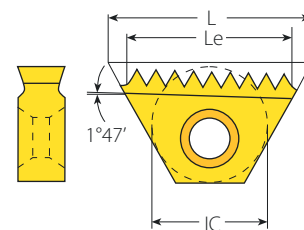
For toolholder information, see page 284.

NPTF (Dry Seal)

External / Internal



Defined by: ANSI 1.20.3-1976
Tolerance class: Standard NPTF



Standard TM

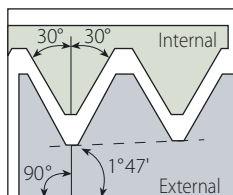
Standard TM

Insert Size		Pitch	Ordering Code	Le	Teeth	Toolholder	
IC	L mm	tpi	External + Internal	mm		RH	LH
3/8"	16	14	3EI14NPTFTM2...	14.51	8	TMNC...-3	TMNC...-3LH
		11.5	3EI11.5NPTFTM2...	13.25	6		
3/8"B	22	14	3BE14NPTFTM2...	21.77	12	BTMNC...-3B	BTMNC...-3BLH
		11.5	3BE11.5NPTFTM2...	19.88	9		
5/8"	27	11.5	5EI11.5NPTFTM2...	24.30	11	TM.C...-5	TM.C...-5LH
		8	5EI8NPTFTM2...	22.23	7	TMNC...-5	TMNC...-5LH
3/4"B	38.5	11.5	6BE11.5NPTFTM2...	35.34	16	TMC...-6B	TMC...-6BLH
		8	6BE8NPTFTM2...	31.75	10		

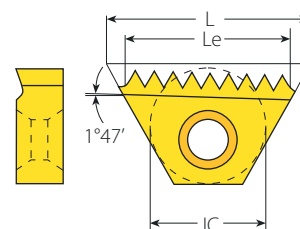
To thread with insert cutting edge marked "L", use LH toolholders.
For toolholder information, see page 286.

NPTF (Dry Seal)

Internal



Defined by: ANSI 1.20.3-1976
Tolerance class: Standard NPTF



Coarse Pitch TM

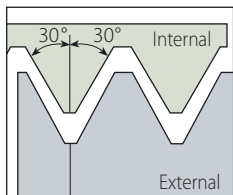
Coarse Pitch TM

Thread	Insert Size		Ordering Code	Cutting Edge	Le	Teeth	Toolholder
Inch	IC	L mm	Internal		mm		
1/4"-18	1/4"	11	2I18NPTFTM...028/078	1	9.88	7	TMC20-2-124/009
3/8"-18			2I18NPTFTM...028/078	1	9.88	7	TMC20-2-124/009

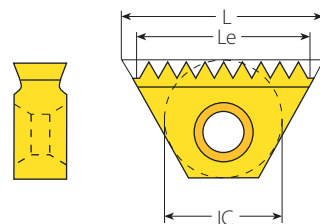
For toolholder information, see page 284.

NPS

External / Internal



Defined by: USA NBS H28 (1957)
Tolerance class: Standard NPS



Standard TM

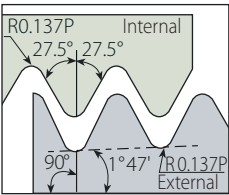
Standard TM

Insert Size		Pitch	Ordering Code	Le	Teeth	Nominal Thread Size	
IC	L mm	tpi	External + Internal	mm			Toolholder
3/8"	16	14	3EI14NPSTM2...	14.51	8	1/2"	TMNC16-3
		14	3EI14NPSTM2...	14.51	8	3/4"	TMNC20-3
		11.5	3EI11.5NPSTM2...	13.25	6	1", 1 1/4"	TMNC20-3
3/8"B	22	11.5	3BEI11.5NPSTM2...*	19.88	9	1", 1 1/4"	BTMNC20-3B
5/8"	27	11.5	5EI11.5NPSTM2...	24.30	11	1 1/2", 2"	TMC25-5
		8	5EI8NPSTM2...	22.23	7	2 1/2" & larger	TMC32-5

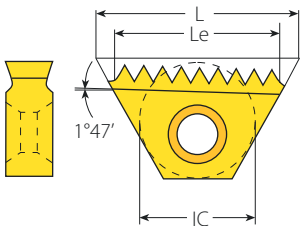
* One cutting edge.
All inserts have 2 cutting edges.
For toolholder information, see page 280.

BSPT

External / Internal



Defined by: B.S. 21:1985
Tolerance class: Standard BSPT



Standard TM

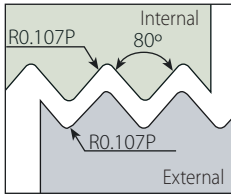
Standard TM

Insert Size		Pitch	Ordering Code	Le	Teeth	Toolholder	
IC	L mm	tpi	External + Internal	mm		RH	LH
1/4"	11	19	2EI19BSPT-TM2...	9.36	7	TMC..-2	TMC...2LH
3/8"	16	14	3EI14BSPT-TM2...	14.51	8	TMNC..-3	TMNC...3LH
		11	3EI11BSPT-TM2...	13.85	6		
5/8"	27	11	5EI11BSPT-TM2...	23.09	10	TMC..-5	TMC...5LH

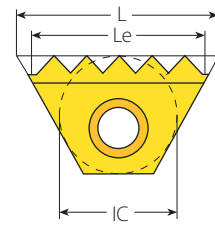
To thread with insert cutting edge marked "L", use a LH toolholder.
For toolholder information, see page 280.

Pg

External / Internal



Defined by: DIN 40430
Tolerance class: Standard



Standard TM

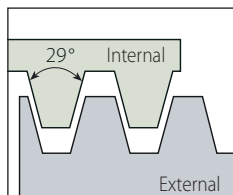
Standard TM

Insert Size		Pitch	Ordering Code	Le	Teeth	Nominal Thread Size	
IC	L mm	tpi	External + Internal	mm			Toolholder
6.0mm	10.4	20	6.0EI20PGTM...	8.99	7	Pg7	TMMC...-6.0
1/4"	11	20	2EI20PGTM2...	10.16	8	Pg7	TMC...-2
		18	2EI18PGTM2...	9.88	7	Pg9, Pg11, Pg13.5, Pg16	TMSH...-2
		16	2EI16PGTM2...	9.53	6	Pg21, Pg29, Pg36, Pg42, Pg48	
3/8"	16	20	3EI20PGTM2...	13.97	11	Pg7	TMC...-3
		18	3EI18PGTM2...	14.11	10	Pg9, Pg11, Pg13.5, Pg16	TMSH...-3
		16	3EI16PGTM2...	14.29	9	Pg21, Pg29, Pg36, Pg42, Pg48	
5/8"	27	16	5EI16PGTM2...	25.40	16	Pg21, Pg29, Pg36, Pg42, Pg48	TMC...-5, TMSH...-5

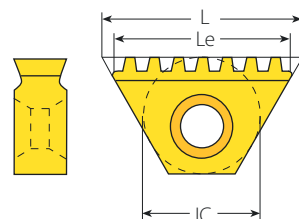
All inserts have 2 cutting edges, except MiniTM (IC 6.0 mm) which has one edge.
For toolholder information, see page 280.

ACME

Internal



Defined by: ANSI B1/5:1988
Tolerance class: 3G



Coarse Pitch TM

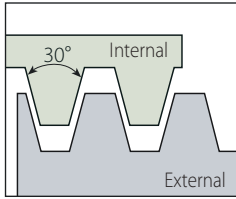
Coarse Pitch TM

Thread	Insert Size		Ordering Code	Cutting Edge	Le	Teeth	Bore Dia. Range	
Inch	IC	L mm	Internal		mm		Toolholder	mm
1/2"-16	6.0mm	10.4	6.0I16ACMETM...028/052	1	7.94	5	TMMC12-6.0	11.1
1/2"-16			6.0I16ACMETM...028/052	1	7.94	5	TMMC20-6.0	11.1
5/8"-16			2I16ACMETM...028/053	2	9.53	6	TMC12-2	14.2
5/8"-16	1/4"	11	2I16ACMETM...028/053	2	9.53	6	TMC20-2	14.2
5/8"-14			2I14ACMETM...028/054	1	9.07	5	TMC20-2-124/005	14.0
3/4"-16			2I16ACMETM...028/055	2	9.53	6	TMC12-2	17.4
3/4"-16			2I16ACMETM...028/055	2	9.53	6	TMC20-2	17.4
3/4"-14			2I14ACMETM...028/083	1	9.07	5	TMC20-2-124/006	17.2
3/4"-12	3/8"	16	2I12ACMETM...028/056	1	8.47	4	TMC20-2-124/006	16.9
7/8"-14			3I14ACMETM...028/057	2	14.51	8	TMNC16-3	20.4
7/8"-12			2I12ACMETM...028/058	1	8.47	4	TMC20-2-124/006	20.1
1"-14	3/8"	16	3I14ACMETM...028/059	2	14.51	8	TMC16-3	23.5
1"-12			3I12ACMETM...028/060	2	14.82	7	TMNC16-3	23.2
1"-10	1/2"	22	4I10ACMETM...028/061	1	17.78	7	TMC25-4-124/002	22.8
1"-8			4I8ACMETM...028/062	1	19.05	6	TMC25-4-124/002	22.2
1 1/8"-12	3/8"	16	3I12ACMETM...028/060	2	14.82	7	TMC16-3	26.4
1 1/8"-10	1/2"	22	4I10ACMETM...028/084	1	17.78	7	TMC25-4-124/007	26.0
1 1/8"-8			4I8ACMETM...028/063	1	19.05	6	TMC25-4-124/002	25.4-28.5
1 1/4"-12	3/8"	16	3I12ACMETM...028/060	2	14.82	7	TMC20-3	29.6
1 1/4"-10	5/8"	27	5I10ACMETM...028/064	2	22.86	9	TMC25-5-124/004	29.2
1 1/4"-8	1/2"	22	4I8ACMETM...028/063	1	19.05	6	TMC25-4-124/002	25.4-28.5
1 3/8"-10	5/8"	27	5I10ACMETM...028/065	2	22.86	9	TMC25-5-124/004	32.3
1 3/8"-8			5I8ACMETM...028/066	2	22.23	7	TMC25-5-124/004	31.7
1 3/8"-6			5I6ACMETM...028/067	1	21.17	5	TMC25-5-124/008	30.6
1 1/2"-10			5I10ACMETM...028/068	2	22.86	9	TMC25-5	35.5
1 1/2"-8			5I8ACMETM...028/069	2	22.23	7	TMC25-5-124/004	34.9
1 1/2"-6			5I6ACMETM...028/070	2	21.17	5	TMC25-5-124/004	33.8
1 3/4"-10			5I10ACMETM...028/064	2	22.86	9	TMC32-5	41.9
1 3/4"-8			5I8ACMETM...028/069	2	22.23	7	TMC25-5	41.2
1 3/4"-6			5I6ACMETM...028/070	2	21.17	5	TMC25-5	40.2
1 3/4"-5			5I5ACMETM...028/071	2	20.32	4	TMC25-5-124/004	39.3
2"-8			5I8ACMETM...028/069	2	22.23	7	TMC32-5	47.6
2"-6			5I6ACMETM...028/072	2	21.17	5	TMC25-5	46.5
2"-5			5I5ACMETM...028/071	2	20.32	4	TMC25-5	45.7
2 1/4"-6			5I6ACMETM...028/072	2	21.17	5	TMC32-5	52.9
2 1/4"-5			5I5ACMETM...028/073	2	20.32	4	TMC25-5	52.0
2 1/2"-5			5I5ACMETM...028/073	2	20.32	4	TMC32-5	58.4

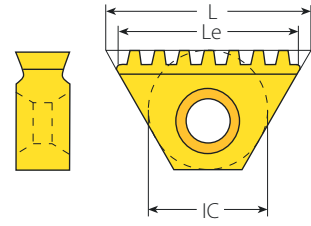
For toolholder information, see page 280.

Trapez

Internal



Defined by: Trapez DIN 103
Tolerance class: 7e/7H



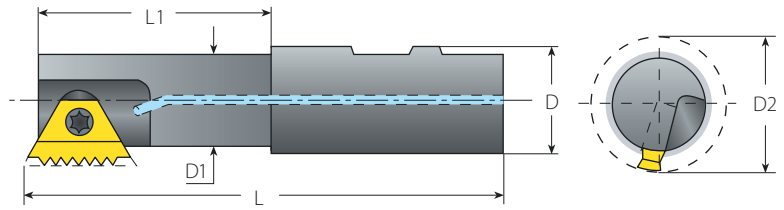
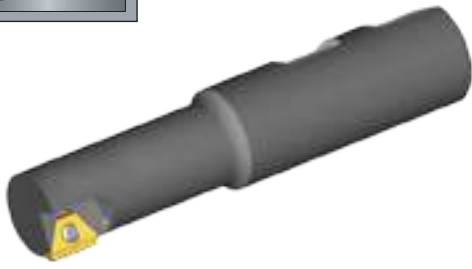
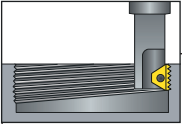
Coarse Pitch TM

Coarse Pitch TM

Thread	Insert Size		Ordering Code	Cutting Edge	Le	Teeth	Bore Dia. Range	
mm	IC	L mm	Internal		mm		Toolholder	mm
TR 16X2.0	1/4"	11	2I2.0TRTM...028/028	1	10	5	TMC20-2-124/006	14.0
TR 18X2.0			2I2.0TRTM...028/029	1	10	5	TMC20-2-124/006	16.0-18.0
TR 20X2.0			2I2.0TRTM...028/029	1	10	5	TMC20-2-124/006	16.0-18.0
TR 24X3.0	1/2"	22	4I3.0TRTM...028/030	1	18	6	TMC25-4-124/002	21.0
TR 26X3.0			4I3.0TRTM...028/031	1	18	6	TMC25-4-124/002	23.0-27.0
TR 28X3.0			4I3.0TRTM...028/031	1	18	6	TMC25-4-124/002	23.0-27.0
TR 30X3.0			4I3.0TRTM...028/031	1	18	6	TMC25-4-124/002	23.0-27.0
TR 32X3.0			4I3.0TRTM...028/032	1	18	6	TMC25-4-124/007	29.0-33.0
TR 34X3.0			4I3.0TRTM...028/032	1	18	6	TMC25-4-124/007	29.0-33.0
TR 36X3.0			4I3.0TRTM...028/032	1	18	6	TMC25-4-124/007	29.0-33.0
TR 38X3.0	5/8"	27	5I3.0TRTM...028/033	2	24	8	TMC25-5-124/004	35.0-39.0
TR 40X3.0			5I3.0TRTM...028/033	2	24	8	TMC25-5-124/004	35.0-39.0
TR 42X3.0			5I3.0TRTM...028/033	2	24	8	TMC25-5-124/004	35.0-39.0
TR 44X3.0			5I3.0TRTM...028/033	2	24	8	TMC25-5	41.0-45.0
TR 46X3.0			5I3.0TRTM...028/033	2	24	8	TMC25-5	41.0-45.0
TR 48X3.0			5I3.0TRTM...028/033	2	24	8	TMC25-5	41.0-45.0
TR 50X3.0			5I3.0TRTM...028/033	2	24	8	TMC32-5	47.0-57.0
TR 52X3.0			5I3.0TRTM...028/033	2	24	8	TMC32-5	47.0-57.0
TR 55X3.0			5I3.0TRTM...028/033	2	24	8	TMC32-5	47.0-57.0
TR 60X3.0			5I3.0TRTM...028/033	2	24	8	TMC32-5	47.0-57.0
TR 65X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0
TR 70X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0
TR 75X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0
TR 80X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0
TR 85X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0
TR 90X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0
TR 95X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0
TR 100X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0
TR 105X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0
TR 110X4.0			5I4.0TRTM...028/034	2	24	6	TMC32-5	61.0-106.0



For toolholder information, see page 280.

External and Internal Toolholders



TM Standard

Spare Parts

Insert Size	Ordering Code	Dimensions mm						
IC		L	L1	D	D1	D2	Insert Screw	Torx Key
6.0mm	TMMC12-6.0	69.0	12.0	12	6.8	9.0	SN7T	K7T
	TMMC20-6.0	84.0	17.0	20	6.8	9.0		
1/4"	TMC12-2	70.0	12.0	12	8.9	11.5	SN2TM	K2T
	TMC20-2	85.0	20.0	20	8.9	11.5		
	TMC20-2LH	85.0	20.0	20	8.9	11.5		
3/8"	TMC16-3	90.0	22.0	16	13.6	17.0	SN3TM	K3T
	TMC20-3	95.0	43.0	20	16.6	20.0		
3/8"B	BTMC16-3B	79.5	29.0	16	13.5	17.0	SN3TM	K3T
	BTMC20-3B	81.5	29.0	20	15.5	19.0		
	BTMC25-3B	92.3	30.0	25	15.5	19.0	SN3T	K3T
	BTMWC25-3B	90.8	30.0	25	18.5	22.0		
5/8"	TMC25-5	110.0	52.0	25	24.0	30.0	SN5TM	K5T
	TMC25-5LH	110.0	52.0	25	24.0	30.0		
	TMC32-5	120.0	58.0	32	31.0	37.0		
3/4"B	TMC32-6B	115.0	53.0	32	27.0	35.0	SM7T	K30T
	TMC40-6B	135.0	63.0	40	38.0	46.0		

TM Standard

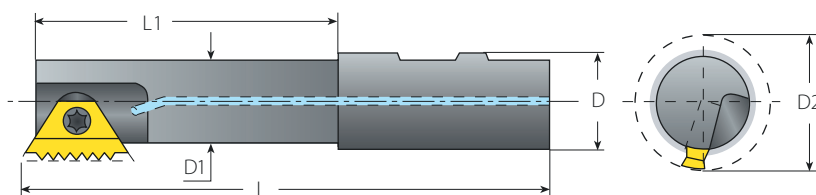
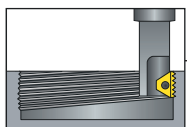
Internal Thread Application for Standard Toolholder

Toolholder		Min. Thread Dia.				
	D2	ISO Coarse	ISO Fine	UNC	UN/UNF/UNEF/UNS	UNJ
TMMC12-6.0 TMMC20-6.0	9.0		M10x0.75; M12x1.0; M14x1.25; M14x1.5		$\frac{7}{16}$ -32UN; $\frac{7}{16}$ -28UNEF; $\frac{1}{2}$ -24UNS; $\frac{7}{16}$ -20UNF; $\frac{7}{16}$ -18UNF; $\frac{7}{16}$ -16UNF	$\frac{9}{16}$ -24UNJEF; $\frac{1}{2}$ -20UNJF; $\frac{9}{16}$ -18UNJF; $\frac{9}{16}$ -16UNJF
TMC12-2 TMC20-2 TMC20-2LH	11.5		M15x1.0; M16x1.5		$\frac{9}{16}$ -32UN; $\frac{9}{16}$ -28UN; $\frac{9}{16}$ -24UNEF; $\frac{5}{8}$ -20UN; $\frac{9}{16}$ -18UNF; $\frac{9}{16}$ -16UNF; $\frac{7}{8}$ -14UNF	$\frac{9}{16}$ -24UNJEF; $\frac{3}{4}$ -20UNJEF; $\frac{5}{8}$ -18UNJF; $\frac{5}{8}$ -16UNJF; $\frac{7}{8}$ -14UNJF
TMC16-3	17.0		M20x1.0; M22x1.5; M24x2.0		$\frac{3}{4}$ -32UN; $\frac{13}{16}$ -28UN; $\frac{7}{8}$ -24UNS; $\frac{7}{8}$ -20UNEF; $\frac{7}{8}$ -18UNS $\frac{7}{8}$ -16UNS; 1-14UNS; $\frac{13}{16}$ -12UN	$\frac{15}{8}$ -24UNJ; $\frac{7}{8}$ -20UNJEF; $\frac{11}{16}$ -18UNJEF; $\frac{7}{8}$ -16UNJ; $\frac{15}{8}$ -14UNJ; $\frac{15}{16}$ -12UNJ
TMC20-3	20.0		M24x1.0; M25x1.5; M27x2.0		$\frac{7}{8}$ -32UN; $\frac{15}{16}$ -28UN; 1-24UNS; $\frac{15}{16}$ -20UNEF; 1-18UNS; 1-16 UNS; $\frac{11}{8}$ -14UNS; $\frac{11}{16}$ -12UN	$\frac{15}{8}$ -24 UNJ; $\frac{15}{16}$ -20UNJEF; $\frac{11}{16}$ -18UNJEF; 1-16UNJ; $\frac{15}{8}$ -14UNJ; $\frac{11}{16}$ -12UNJ
BTMC16-3B	17.0		M20x1.0; M22x1.5; M24x2.0		$\frac{7}{8}$ -24UNS; $\frac{7}{8}$ -20UNEF; $\frac{7}{8}$ -18UNS; $\frac{7}{8}$ -16UNS; 1-14UNS; $\frac{13}{16}$ -12UN	
BTMC20-3B BTMC25-3B	19.0		M22x1.0; M24x1.5; M25x2.0		$\frac{7}{8}$ -24UNS; $\frac{15}{16}$ -20UNEF; 1-18UNS; 1-16UNS; 1-14UNS; 1-12UNF	
BTMWC25-3B	22.0	M27x1.5	M25x1.0; M30x2		1-24UNS; $\frac{11}{16}$ -20UN; $\frac{11}{16}$ -18UNEF; $\frac{11}{16}$ -16UNEF; $\frac{11}{8}$ -14UNS; $\frac{11}{8}$ -12UNF	
TMC25-5 TMC25-5LH	30.0		M35x1.5; M39x2.0; M36x3.0; M36x4.0; M42x4.5; M48x5.0	$\frac{13}{4}$ -5	$\frac{13}{8}$ -24UNS; $\frac{13}{8}$ -20UN; $\frac{17}{16}$ -18UNEF; $\frac{17}{16}$ -16UNEF; $\frac{11}{2}$ -14UNS; $\frac{11}{2}$ -12UNF; $\frac{15}{8}$ -10UNS; $\frac{17}{16}$ -8UN; $\frac{15}{8}$ -6UN	$\frac{17}{16}$ -16UNJ; $\frac{11}{2}$ -12UNJF
TMC32-5	37.0		M45x1.5; M45x2.0; M50x3.0; M56x4.0		$\frac{15}{8}$ -24UNS; $1\frac{11}{16}$ -20UN; $1\frac{11}{16}$ -18UNEF; $1\frac{11}{16}$ -16UNEF; $\frac{13}{4}$ -14UNS; $\frac{13}{4}$ -12 UN; $\frac{17}{8}$ -10UNS; 2-8 UN; $2\frac{1}{4}$ -6UN	$1\frac{11}{16}$ -16UNJ; $\frac{13}{4}$ -12UNJ
TMC32-6B	35.0	M64x6.0	M42x1.5; M42x2.0; M48x3.0; M55x4.0; M48x5.0; M56x5.5	2-4.5; $2\frac{1}{2}$ -4	$2\frac{1}{4}$ -6UN	
TMC40-6B	46.0	M64x6.0	M52x1.5; M55x2.0; M60x3.0; M60x4.0; M60x5.5	$2\frac{1}{2}$ -4	$2\frac{3}{8}$ -6UN	

TM Standard



	D2	BSW/BSF	BSP	BSPT	NPT	NPTF	PG	NPS	Trapez	ACME
TMMC12-6.0 TMMC20-6.0	9.0	$\frac{7}{16}$ -26BSF; $\frac{1}{2}$ -20BSW; $\frac{7}{16}$ -18BSF;	$\frac{1}{4}$ -19				PG7			$\frac{1}{2}$ -16
TMC12-2 TMC20-2 TMC20-2LH	11.5	$\frac{5}{8}$ -26BSF; $\frac{5}{8}$ -20BSW; $\frac{9}{16}$ -16BSF; $\frac{11}{16}$ -14BSF	$\frac{3}{8}$ -19; $\frac{1}{2}$ -14	$\frac{3}{8}$ -19			PG9; PG21			$\frac{5}{8}$ -16;
TMC16-3	17.0	$\frac{13}{16}$ -26BSF; $\frac{7}{8}$ -20BSW; $\frac{7}{8}$ -16BSW; $\frac{13}{16}$ -12BSW	$\frac{5}{8}$ -14; $\frac{11}{4}$ -11				PG13.5; PG21	$\frac{1}{2}$ -14; 1-11.5		1-14; $\frac{1}{8}$ -12
TMC20-3	20.0	$\frac{15}{16}$ -26BSF; 1-20BSW; $\frac{11}{16}$ -16BSW; $\frac{15}{16}$ -12BSW;	$\frac{3}{4}$ -14; 1-11				PG16; PG21	$\frac{3}{4}$ -14; 1-11.5		$\frac{1}{4}$ -12
BTMC16-3B	17.0	$\frac{7}{8}$ -20BSW; $\frac{7}{8}$ -16BSW; $\frac{13}{16}$ -12BSW	$\frac{5}{8}$ -14; 1-11					1-11.5		
BTMC20-3B BTMC25-3B	19.0	$\frac{15}{16}$ -20BSW; 1-16BSW; $\frac{11}{16}$ -12BSW	$\frac{3}{4}$ -14; 1-11					1-11.5		
BTMWC25-3B	22.0	$\frac{11}{16}$ -20BSW; $\frac{11}{8}$ -16BSW	$\frac{7}{8}$ -14; 1-11					1-11.5		
TMC25-5 TMC25-5LH	30.0	1.4-16BSW; $\frac{13}{8}$ -12BSW; $\frac{17}{16}$ -8BSW; $\frac{13}{4}$ -7BSF; 1.6-6BSW	$\frac{11}{8}$ -11	$\frac{1}{4}$ -11	$\frac{1}{4}$ -11.5	$\frac{1}{4}$ -11.5	PG29	$\frac{1}{4}$ -11.5; $2\frac{1}{2}$ -8	TR44-3.0	$\frac{1}{2}$ -10; $\frac{13}{4}$ -8; $\frac{13}{4}$ -6; 2-5
TMC32-5	37.0	$\frac{13}{4}$ -16BSW; $\frac{17}{8}$ -12BSW; 2.1-8BSW; $\frac{17}{8}$ -6BSW;	$\frac{11}{2}$ -11	$\frac{11}{2}$ -11	$\frac{1}{2}$ -11.5	$\frac{11}{2}$ -11.5	PG36	$\frac{1}{2}$ -11.5; $2\frac{1}{2}$ -8	TR50-3.0; TR65-4.0	$\frac{13}{4}$ -10; 2-8; $2\frac{1}{4}$ -6; $2\frac{1}{2}$ -5
TMC32-6B	35.0	$2\frac{1}{4}$ -6 BSF; 3-5BSF; $3\frac{1}{2}$ -4.5BSF;	$\frac{11}{2}$ -11		$2\frac{1}{2}$ -8	$2\frac{1}{2}$ -8				
TMC40-6B	46.0	$2\frac{5}{8}$ -6BSW; 3-5BSF; $3\frac{1}{2}$ -4.5BSF	2-11		3-8	3-8				

External and Internal Toolholders



TML Long Tools

Spare Parts

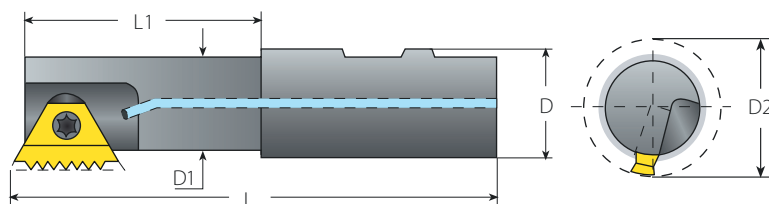
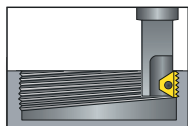
Insert Size	Ordering Code	Dimensions mm						
IC		L	L1	D	D1	D2	Insert Screw	Torx Key
1/4"	TMLC25-2	125.0	17.0	25	8.9	11.5	SN2TM	K2T
3/8"	TMLC25-3	125.0	25.0	25	18.6	22.0	SN3T	K3T
	BTMLC25-3	125.0	63.5	25	18.6	22.0		
3/8"B	BTMLC20-3B	96.5	44.0	20	15.5	19.0	SN3T	K3T
	BTMLC25-3B	125.0	63.5	25	18.6	22.0		
5/8"	TMLC25-5	150.0	92.0	25	24.0	30.0	SN5TM	K5T
	TMLC32-5	160.0	98.0	32	31.0	37.0		
3/4"B	TMLC40-6B	165.0	93.0	40	38.0	46.0	SM7T	K30T

Internal Thread Application for TML Toolholder

Toolholder		Min. Thread Dia.				
	D2	ISO Coarse	ISO Fine	UNC	UN/UNF/UNEF/UNS	UNJ
TMLC25-2	11.5		M15x1.0; M16x1.5		$\frac{9}{16}$ -32UN; $\frac{9}{16}$ -28UN; $\frac{9}{16}$ -24UNEF; $\frac{5}{8}$ -20UN; $\frac{9}{16}$ -18UNF; $\frac{9}{16}$ -16UNF; $\frac{7}{8}$ -14UNF	$\frac{9}{16}$ -24UNJEF; $\frac{3}{4}$ -20UNJEF; $\frac{5}{8}$ -18UNJF; $\frac{5}{8}$ -16UNJF; $\frac{7}{8}$ -14UNJF
TMLC25-3 BTMLC25-3	22.0	M27x1.5	M25x1.0; M30x2.0		1-32UN; 1-28UN; 1-24UNS; $1\frac{1}{16}$ -20UN; $1\frac{1}{16}$ -18UNEF; $1\frac{1}{16}$ -16UNEF; $1\frac{1}{8}$ -14UNS; $1\frac{1}{8}$ -12	$1\frac{5}{8}$ -24 UNJ; $1\frac{1}{16}$ -20UNJ; $1\frac{1}{16}$ -18UNJEF; $1\frac{1}{16}$ -16; $1\frac{1}{8}$ -12UNJF
BTMLC20-3B	19.0		M22x1.0; M24x1.5; M25x2.0		$\frac{7}{8}$ -24UNS; $1\frac{5}{16}$ -20UNEF; 1-18UNS; 1-16UNS; 1-14UNS; 1-12UNF	
BTMLC25-3B	22.0	M27x1.5	M25x1.0; M30x2.0		1-24UNS; $1\frac{1}{16}$ -20UN; $1\frac{1}{16}$ -18UNEF; $1\frac{1}{16}$ -16UNEF; $1\frac{1}{8}$ -14UNS; $1\frac{1}{8}$ -12UNF	
TMLC25-5	30.0		M35x1.5; M39x2.0; M36x3.0; M36x4.0; M42x4.5; M48x5.0	$1\frac{3}{4}$ -5	$1\frac{3}{8}$ -24UNS; $1\frac{3}{8}$ -20UN; $1\frac{7}{16}$ -18UNEF; $1\frac{7}{16}$ -16UNEF; $1\frac{1}{2}$ -14UNS; $1\frac{1}{2}$ -12UNF; $1\frac{5}{8}$ -10UNS; $1\frac{7}{8}$ -8UN; $1\frac{5}{8}$ -6UN	$1\frac{7}{16}$ -16UNJ; $1\frac{1}{2}$ -12UNJF
TMLC32-5	37.0		M45x1.5; M45x2.0; M50x3.0; M56x4.0		$1\frac{5}{8}$ -24UNS; $1\frac{11}{16}$ -20UN; $1\frac{11}{16}$ -18UNEF; $1\frac{11}{16}$ -16UNEF; $1\frac{3}{4}$ -14UNS; $1\frac{3}{4}$ -12UN; $1\frac{7}{8}$ -10UNS; 2-8 UN; $2\frac{1}{4}$ -6UN	$1\frac{11}{16}$ -16UNJ; $1\frac{3}{4}$ -12UNJ
TMLC40-6B	46.0	M64x6.0	M52x1.5; M55x2.0; M60x3.0; M60x4.0; M60x5.5	$2\frac{1}{2}$ -4	$2\frac{3}{8}$ -6UN	



	D2	BSW/BSF	BSP	BSPT	NPT	NPTF	PG	NPS	Trapez	ACME
TMLC25-2	11.5	$\frac{5}{8}$ -26BSF; $\frac{5}{8}$ -20BSW; $1\frac{1}{16}$ -14BSF	$\frac{3}{8}$ -19; $\frac{1}{2}$ -14	$\frac{3}{8}$ -19			PG9; PG21			
TMLC25-3 BTMLC25-3	22.0	$1\frac{1}{16}$ -26BSF; $1\frac{1}{16}$ -20BSW; $1\frac{1}{8}$ -16BSW	$\frac{7}{8}$ -14; 1-11				PG21	1-11.5		
BTMLC20-3B	19.0	$1\frac{5}{16}$ -20BSW; 1-16BSW; $1\frac{1}{16}$ -12BSW	$\frac{3}{4}$ -14; 1-11					1-11.5		
BTMLC25-3B	22.0	$1\frac{1}{16}$ -20BSW; $1\frac{1}{8}$ -16BSW	$\frac{7}{8}$ -14; 1-11				PG21	1-11.5		
TMLC25-5	30.0	$1\frac{3}{4}$ -7BSF; $1\frac{7}{8}$ -6BSW	$1\frac{1}{4}$ -11	$1\frac{1}{4}$ -11	$1\frac{1}{4}$ -11.5	$1\frac{1}{4}$ -11.5	PG29	$1\frac{1}{4}$ -11.5; $2\frac{1}{2}$ -8	TR44-3.0	$1\frac{1}{2}$ -10; $1\frac{3}{4}$ -8; $1\frac{3}{4}$ -6; 2-5
TMLC32-5	37.0	$1\frac{7}{8}$ -6BSW	$1\frac{1}{2}$ -11	$1\frac{1}{2}$ -11	$1\frac{1}{2}$ -11.5	$1\frac{1}{2}$ -11.5	PG36	$1\frac{1}{2}$ -11.5; $2\frac{1}{2}$ -8	TR50-3.0; TR65-4.0	$1\frac{3}{4}$ -10; 2-8; $2\frac{1}{4}$ -6; $2\frac{1}{2}$ -5
TMLC40-6B	46.0	3-5BSF; $3\frac{1}{2}$ -4.5BSF	2-11		$2\frac{1}{2}$ -8	$2\frac{1}{2}$ -8				

External and Internal Toolholders



124/... - For Coarse Pitch Threads

Spare Parts

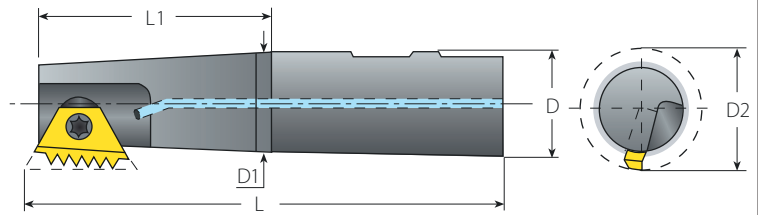
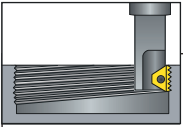
Insert Size	Ordering Code	Dimensions mm						
IC		L	L1	D	D1	D2	Insert Screw	Torx Key
6.0mm	TMMC20-6.0-124/003	85	15.0	20	6.7	9.0	SN7T	K7T
1/4"	TMC20-2-124/005	77	15.5	20	7.4	10.0	SN2TM	K2T
	TMC20-2-124/006	77	15.5	20	9.0	12.0		
	TMC20-2-124/009	77	15.5	20	7.4	10.0		
3/8"	TMC16-3-124/001	91	20.5	16	12.2	15.5	SN3TM	K3T
1/2"	TMC25-4-124/002	88	30.0	25	13.4	18.0	SN4TM	K4T
	TMC25-4-124/007	98	40.0	25	16.0	20.0	SA4TM	
5/8"	TMC25-5-124/004	98	40.0	25	19.0	25.0	SA5TM	K5T
	TMC25-5-124/008	98	40.0	25	16.4	22.0	SN5TM	

Internal Thread Application for 124/... Coarse Pitch Toolholder



Toolholder		Min. Thread Dia.				
	D2	ISO Coarse	ISO Fine	UNC	UN/UNF/UNEF/UNS	UNJ
TMMC20-6.0-124/003	9.0	M12x1.75	M12x1.0; M22x1.5; M12x1.75	7/16-14	11/16-32UN; 1/2-24UNS; 9/16-18UNF; 9/16-16UNF	9/16-24UNJEF; 1/2-20UNJF; 9/16-18UNJF; 9/16-16UNJF
TMC20-2-124/005	10.0			1/2-13	5/8-12UN	
TMC20-2-124/006	12.0			5/8-11		
TMC20-2-124/009	10.0					
TMC16-3-124/001	15.5	M20x2.5	M20x1.0; M22x1.5; M22x2.0	3/4-10	11/16-32UN; 3/4-28UN; 3/4-24UNS; 13/16-20UNEF; 7/8-18UNS; 7/8-16UNS; 7/8-14UNF; 7/8-12UN	15/8-24UNJ; 13/16-20UNJEF; 11/16-18UNJEF; 13/16-16UNJ; 7/8-14UNJF; 7/8-12UNJ
TMC25-4-124/002	18.0	M22x2.5; M24x3.0		7/8-9; 1 1/8-7		
TMC25-4-124/007	20.0			1-8		
TMC25-5-124/004	25.0	M30x3.5	M30x1.5; M33x2.0; M39x3.0; M56x4.0	1 3/8-6	1 1/8-24UNS; 1 3/16-20UN; 1 3/16-18UNEF; 1 3/16-16UNEF; 1 1/4-14UNS; 1 1/4-12UNF; 1 1/2-10UNS; 1 1/4-8UN	1 3/16-16UNJ; 1 1/4-12UNJF
TMC25-5-124/008	22.0					

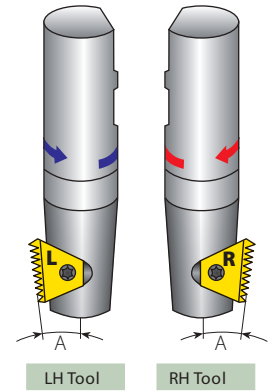
	D2	BSW/BSF	BSP	BSPT	NPT	NPTF	PG	NPS	Trapez	ACME
TMMC20-6.0-124/003	9.0	7/16-26BSF; 7/16-18BSF;	1/4-19				PG7	1/2-14; 1-11.5		
TMC20-2-124/005	10.0	1/2-16BSF								5/8-14
TMC20-2-124/006	12.0	5/8-14BSF							TR16-2	3/4-14; 3/4-12
TMC20-2-124/009	10.0				1/4-18	1/4-18				
TMC16-3-124/001	15.5	3/4-12BSF	1/2-14	3/4-14; 1-11	3/4-14; 1-11.5	3/4-14; 1-11.5	PG13.5; PG21	1-11.5		
TMC25-4-124/002	18.0	7/8-11BSF; 1-10BSF; 7/8-9BSW; 1-8BSW							TR24-3.0	1-10; 1-8
TMC25-4-124/007	20.0								TR32-3.0	1 1/8-10
TMC25-5-124/004	25.0	1 3/16-8BSW; 1 1/4-7BSW; 1 5/16-6BSW	1-11	1-11	1 1/4-11.5; 2 1/2-8	1 1/4-11.5; 2 1/2-8	PG21	1 1/4-11.5; 2 1/2-8	TR38-3.0	1 1/4-10; 1 3/8-8; 1 1/2-6; 1 3/4-5
TMC25-5-124/008	22.0	1 1/8-7BSW								1 3/8-6

External and Internal Toolholders



TMN - For Conical Threads (NPT, NPTF, BSPT)

TMN - For Conical Threads (NPT, NPTF, BSPT)								Spare Parts	
Insert Size		Ordering Code		Dimensions mm					
IC	RH	*LH	L	L1	D	D1	D2	Insert Screw	Torx Key
3/8"	TMNC16-3	TMNC16-3 LH	90.0	22.0	16	12.5	15.5	SN3TM	K3T
	TMNC20-3	TMNC20-3 LH	85.0	23.0	20	15.0	19.0		
3/8"B	BTMNC16-3B	BTMNC16-3B LH	79.5	29.0	16	13.5	17.0	SN3TM	K3T
	BTMNC20-3B	BTMNC20-3B LH	81.5	29.0	20	15.5	19.0		
5/8"	TMNC32-5	TMNC32-5 LH	120.0	58.0	32	31.0	37.0	SN5TM	K5T



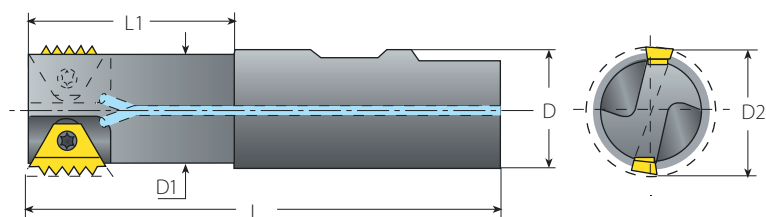
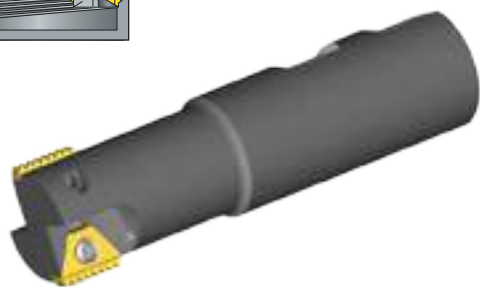
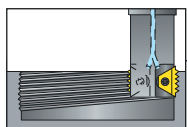
* To use the cutting edge marked "L", LH Cutter is required.

Internal Thread Application for TMN Toolholder

Toolholder		Min. Thread Dia.			
	D2	ISO Fine	UNC	UN/UNF/UNEF/UNS	UNJ
TMNC16-3 TMNC16-3LH	15.5	M20x1.0; M22x1.5; M22x2.0		1 ¹ / ₁₆ -32UN; 3 ³ / ₄ -28UN; 3 ³ / ₄ -24UNS; 1 ³ / ₁₆ -20UNEF; 7 ⁷ / ₈ -18UNS; 7 ⁷ / ₈ -16UNS; 7 ⁷ / ₈ -14UNF; 3 ³ / ₄ -12UN	1 ⁵ / ₈ -24UNJ; 1 ³ / ₁₆ -20UNJEF; 1 ¹ / ₁₆ -18UNJEF; 1 ³ / ₁₆ -16 UNJ; 7 ⁷ / ₈ -14UNJF; 7 ⁷ / ₈ -12UNJ
TMNC20-3 TMNC20-3LH	19.0	M22x1.0; M24x1.5; M25x2.0		7 ⁷ / ₈ -32UN; 7 ⁷ / ₈ -28UN; 7 ⁷ / ₈ -24UNS; 1 ⁵ / ₁₆ -20UNEF; 1-18UNS; 1-16UNS; 1-14UNS; 1-12UNF	1 ⁵ / ₈ -24UNJ; 1 ⁵ / ₁₆ -20UNJEF; 1 ¹ / ₁₆ -18UNJEF; 1 ⁵ / ₁₆ -16UNJ; 1 5 ⁵ / ₈ -14UNJ; 1-12UNJF
BTMNC16-3B BTMNC16-3BLH	17.0	M20x1.0; M22x1.5; M24x2.0		7 ⁷ / ₈ -24UNS; 7 ⁷ / ₈ -20UNEF; 7 ⁷ / ₈ -18UNS; 7 ⁷ / ₈ -16UNS; 1-14UNS; 1 ³ / ₁₆ -12UN	
BTMNC20-3B BTMNC20-3BLH	19.0	M22x1.0; M24x1.5; M25x2.0		7 ⁷ / ₈ -24UNS; 1 ⁵ / ₁₆ -20UNEF; 1-18UNS; 1-16UNS; 1-14UNS; 1-12UNF	
TMNC32-5 TMNC32-5LH	37.0	M45x1.5; M45x2.0; M50x3.0; M56x4.0		1 ⁵ / ₈ -24UNS; 1 ¹¹ / ₁₆ -20UN; 1 ¹¹ / ₁₆ -18UNEF; 1 ¹¹ / ₁₆ -16UNEF; 1 ³ / ₄ -14UNS; 1 ³ / ₄ -12UN; 1 ⁷ / ₈ -10UNS; 2-8UN; 2 ¹ / ₄ -6UN	



	D2	BSW/BSF	BSP	BSPT	NPT	NPTF	PG	NPS	Trapez	ACME
TMNC16-3 TMNC16-3LH	15.5	1 ³ / ₁₆ -16BSW	1 ¹ / ₂ -14	1 ¹ / ₂ -14; 1-11	1 ¹ / ₂ -14; 1-11.5	1 ¹ / ₂ -14; 1-11.5	PG11; PG21	1 ¹ / ₂ -14; 1-11.5		7 ⁷ / ₈ -14; 1-12
TMNC20-3 TMNC20-3LH	19.0	1 ⁵ / ₁₆ -26BSW; 1 ⁵ / ₁₆ -20BSW; 1-16BSW; 1 ¹ / ₁₆ -12BSW	3 ³ / ₄ -14; 1-11	3 ³ / ₄ -14; 1-11	3 ³ / ₄ -14; 1-11.5	3 ³ / ₄ -14; 1-11.5	PG21	3 ³ / ₄ -14; 1-11.5		
BTMNC16-3B BTMNC16-3BLH	17.0	7 ⁷ / ₈ -20BSW; 7 ⁷ / ₈ -16BSW; 1 ³ / ₁₆ -12BSW	5 ⁵ / ₈ -14; 1-11		3 ³ / ₄ -14; 1-11.5	3 ³ / ₄ -14; 1-11.5		1-11.5		
BTMNC20-3B BTMNC20-3BLH	19.0	1 ⁵ / ₁₆ -20BSW; 1-16BSW; 1 ¹ / ₁₆ -12BSW	3 ³ / ₄ -14; 1-11		3 ³ / ₄ -14; 1-11.5	3 ³ / ₄ -14; 1-11.5		1-11.5		
TMNC32-5 TMNC32-5LH	37.0	1 ⁷ / ₈ -6BSW	1 ¹ / ₂ -11	1 ¹ / ₂ -11	1 ¹ / ₂ -11.5; 2 ¹ / ₂ -8	1 ¹ / ₂ -11.5; 2 ¹ / ₂ -8	PG36	1 ¹ / ₂ -11.5; 2 ¹ / ₂ -8		

External and Internal Toolholders



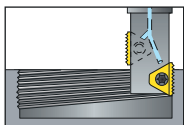
TM2 - Twin Flutes

Spare Parts

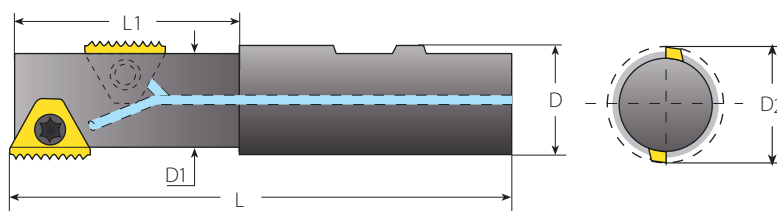
Insert Size	Ordering Code	Dimensions mm						
IC		L	L1	D	D1	D2	Insert Screw	Torx Key
1/4"	TM2C20-2	85	20.0	20	14.4	17.0	SN2TM	K2T
3/8"	TM2C25-3	100	43.0	25	22.5	26.0	SN3T	K3T
3/8"B	BTM2C25-3B	104.2	46.0	25	22.5	26.0		
5/8"	TM2C32-5	120	45.0	32	36.0	42.0	SN5TM	K5T
3/4"B	TM2C40-6B	137.2	65.0	40	44.0	52.0	SM7T	K30T

Internal Thread Application for TM2 Toolholder

Toolholder		Min. Thread Dia.										
	D2 (mm)	ISO Fine	UNC	UN/UNF/UNEF/UNS	UNJ	BSW/BSF	BSP	BSPT	NPT	NPTF	PG	NPS
TM2C20-2	17.0	M22x1.5		3/4-32UN; 13/16-28UN; 7/8-24UNS; 7/8-20UNEF; 7/8-18UNS; 7/8-16UNS; 1-14UNS	15/8-24UNJ; 7/8-20UNJEF; 11/16-18UNJEF; 7/8-16UNJ; 15/8-14UNJ		5/8-14				PG16; PG21	
TM2C25-3 BTM2C25-3B	26.0	M32x1.5; M33x2.0		1 1/4-24UNS; 1 3/16-20UN; 1 1/4-18UNEF; 1 1/4-16UNEF; 1 3/8-14UNS; 1 5/16-12UN	15/8-24UNJ; 1 3/16-20UNJ; 1 1/4-18UNJEF; 1 1/4-16UNJ; 1 5/16-12UNJ	1 3/16-26BSF; 1 1/4-20BSW; 1 5/16-16BSW	1 1/8-11				PG36	1 1/4-11.5
TM2C32-5	42.0	M48x1.5; M50x2.0; M55x3.0; M64x4.0		1 7/8-20UN; 2-18UNS; 2-16UNS; 2-14UNS; 2-12UN; 2 1/4-10UNS; 2 1/4-8UN; 2 1/2-6UN	1 15/16-16UNJ; 2-12UNJ	2-16BSW; 2-12BSW; 2 1/4-8BSW	2-11	2-11	2-11.5	2-11.5	PG36	2-11.5; 2 1/2-8
TM2C40-6B	52.0	M58x1.5; M68x4.0; M70x6.0	2 3/4-4	2 5/8-6UN		2 7/8-6BSW; 2 7/8-5BSW; 3 3/4-4.5BSF	2 1/4-11		2 1/2-8	2 1/2-8		





External and Internal Toolholders



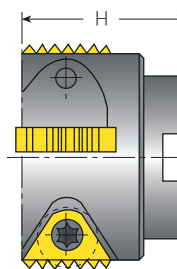
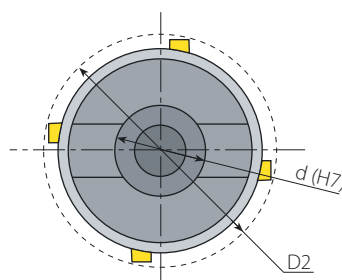
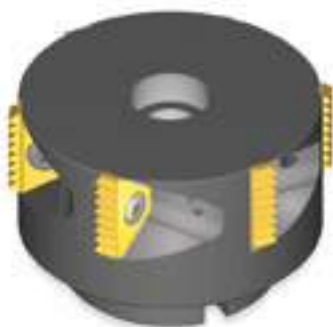
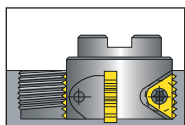
TMO - Twin Flute Offset

Spare Parts

Insert Size	Ordering Code		Applicable Threads		Dimensions mm						
IC	External		Internal	External & Internal	L	L1	D	D1	D2	Insert Screw	Torx Key
1/4"	TMOC20-2-1	16UN	48/32/16UN		90	25	20	11.9	14.5	SN2TM	K2T
	TMOC20-2-2	24/18UN	48/24/18UN	24W							
	TMOC20-2-3	28/14UN	28/14UN	28/14W							
	TMOC20-2-4	20UN	20UN								
	TMOC20-2-5			26W							
	TMOC20-2-6			20W							
	TMOC20-2-7			19W							
	TMOC20-2-8	1.0/1.5ISO	0.5/1.0/1.5ISO								
	TMOC20-2-9	0.75ISO	48UN, 0.75ISO								
	TMOC20-2-10	1.25ISO	1.25ISO								
3/8"	TMOC20-3-1	1.5ISO	0.5/1.5ISO		95	43	20	16.6	20.0	SN3T	K3T
	TMOC20-3-2	13UN	13UN	26W							
	TMOC20-3-3	28UN	32/28UN								
	TMOC20-3-4	27UN	27UN								
	TMOC20-3-5		11.5UN	11.5NPS							
	TMOC20-3-6	24/20/18/16/14/12UN	24/20/18/16/14/12UN	26/20/18/16/14/12W, 14NPS							
	TMOC20-3-7	1.25ISO	1.25ISO	24W							
	TMOC20-3-8			19W							
	TMOC20-3-9			11W							
	TMOC20-3-10	1.0/2.0ISO	0.5/1.0/2.0ISO								
	TMOC20-3-11	0.75ISO	32UN, 0.75ISO								
	TMOC20-3-12	1.75ISO	1.75ISO								
5/8"	TMOC25-5-1	24/20/18/14/13/12UN	24/20/18/14/13/11UN	14W	110	52	25	24	30.0	SN5TM	K5T
	TMOC25-5-2	24/18/12UN	24/18/12/6UN	12W							
	TMOC25-5-3	16UN	16UN	16W, 8NPS							
	TMOC25-5-4	14/7UN	14UN	14/7W							
	TMOC25-5-5		11.5UN	11.5NPS							
	TMOC25-5-6	11UN	11UN	11W							
	TMOC25-5-7	10UN	10/5UN	10W							
	TMOC25-5-8	9UN	9UN	9W							
	TMOC25-5-9	8UN	8UN	8W							
	TMOC25-5-10		7UN								
	TMOC25-5-11	6UN		6W							
	TMOC25-5-12	1.0/2.0/2.5/4.0ISO	1.0/2.0/2.5/4.0/5.0ISO								
	TMOC25-5-13	1.25ISO	1.25ISO								
	TMOC25-5-14	1.5/2.5/4.5ISO	1.5/2.5/4.5/ISO								
	TMOC25-5-15	1.75ISO	1.75ISO								
	TMOC25-5-16	1.0/1.5/3.0/3.5ISO	1.0/1.5/3.0/3.5ISO								

TM Standard




External and Internal Toolholders



Cutter Drive
ISO 240-1975 (mm)

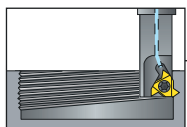
TM Shell Mill

Spare Parts

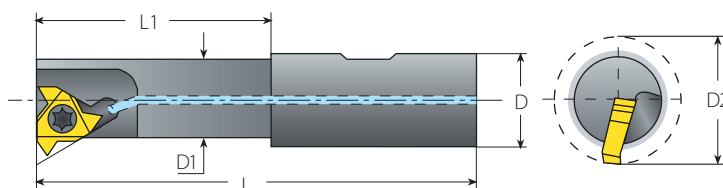
Insert Size	Ordering Code	No. of inserts	Dimensions mm					
IC			D2	d(H7)	H	Insert Screw	Torx Key	Holder Screw
1/4"	TMSH-D38-16-2	6	38.0	16.0	40.0	SN2T	HK2T	M8x1.25x35
1/4"	TMSH-D50-22-2	8	50.0	22.0	40.0			M10x1.50x35
3/8"	TMSH-D50-22-3	6	50.0	22.0	40.0	SN3TM	HK3T	M10x1.50x35
3/8B"	TMSH-D63-22-3B	6	63.0	22.0	40.0			
5/8"	TMSH-D63-22-5	4	63.0	22.0	45.0	SN5TM	HK5T	M10x1.50x35
3/4B"	TMSH-D63-22-6B	4	63.0	22.0	50.0	SM7T	HK7T	M10x1.50x35
5/8"	TMSH-D80-27-5	6	80.0	27.0	50.0	SN5TM	HK5T	M12x1.75x40
3/4B"	TMSH-D80-27-6B	5	80.0	27.0	50.0	SM7T	HK7T	M12x1.75x40
5/8"	TMSH-D100-32-5	7	100.0	32.0	55.0	SN5TM	HK5T	M16x2.00x40
3/4B"	TMSH-D100-32-6B	6	100.0	32.0	55.0	SM7T	HK7T	M16x2.00x40
5/8"	TMSH-D125-40-5	9	125.0	40.0	63.0	SN5TM	HK5T	M20x2.50x50
3/4B"	TMSH-D125-40-6B	8	125.0	40.0	63.0	SM7T	HK7T	M20x2.50x50

Internal Thread Application for Shell Mill Toolholder

Toolholder		Min. Thread Dia.										
	D2 (mm)	ISO Fine	UNC	UN/UNF/UNEF/UNS	UNJ	BSW/BSF	BSP	BSPT	NPT	NPTF	PG	NPS
TMSH-D38-16-2	38.0	M45x1.5		1 ¹¹ / ₁₆ -20UN; 1 ³ / ₄ -18UNS; 1 ³ / ₄ -16UNS; 1 ⁷ / ₈ -14UNS	1 ⁵ / ₈ -24UNJ; 1 ¹¹ / ₁₆ -20UNJ; 1 ³ / ₄ -16UNJ	1 ³ / ₄ -26BSF; 1 ³ / ₄ -20BSW					PG36	
TMSH-D50-22-2	50.0	M56x1.5		2 ¹ / ₄ -20UN; 2 ¹ / ₄ -18UNS; 2 ¹ / ₄ -20UNJ; 2 ¹ / ₄ -16UNS; 2 ¹ / ₄ -14UNS	2 ¹ / ₄ -16UNJ							
TMSH-D50-22-3	50.0	M56x1.5; M58x2.0		2 ¹ / ₄ -20UN; 3 ¹ / ₄ -18UNS; 2 ¹ / ₄ -20UNJ; 3 ¹ / ₄ -16UNS; 3 ¹ / ₄ -14UNS; 2 ¹ / ₄ -16UNJ; 2 ³ / ₈ -12UN	2 ¹ / ₄ -20UNJ; 2 ³ / ₈ -12UNJ	2 ¹ / ₄ -20BSW; 2 ³ / ₈ -16BSW; 2 ³ / ₈ -12BSW	2 ¹ / ₄ -11				PG42	2-11.5
TMSH-D63-22-3B	63.0	M70x1.5; M70x2.0		2 ³ / ₄ -20UN; 2 ³ / ₄ -18UNS; 2 ³ / ₄ -16UNS; 2 ³ / ₄ -14UNS; 2 ⁷ / ₈ -12UN			2 ¹ / ₂ -11					
TMSH-D63-22-5	63.0	M70x1.5; M70x2.0; M75x3.0; M80x4.0		2 ³ / ₄ -20UN; 3 ³ / ₄ -18UNS; 3 ³ / ₄ -16UNS; 3 ³ / ₄ -14UNS; 2 ³ / ₄ -16UNJ; 2 ⁷ / ₈ -12UN; 3-10UNS; 2 ⁷ / ₈ -12UNJ 3-8UN	2 ³ / ₄ -16UNJ; 3 ³ / ₄ -12UNJ	2 ⁷ / ₈ -16BSW; 2 ⁷ / ₈ -12BSW; 3 ³ / ₈ -8BSW	2 ¹ / ₂ -11	3-11				3-8
TMSH-D63-22-6B	63.0	M70x2.0; M80x4.0; M85x6.0	3 ¹ / ₄ -4	3 ¹ / ₄ -6UN		3 ³ / ₈ -6BSW; 3 ¹ / ₂ -4.5BSF	2 ¹ / ₂ -11		3-8	3-8		
TMSH-D80-27-5	80.0	M90x2.0; M95x3.0; M95x4.0		3 ¹ / ₂ -18UNS; 3 ¹ / ₂ -16UNS; 3 ¹ / ₂ -14UNS; 3 ¹ / ₂ -12UN; 3 ³ / ₄ -10UNS; 3 ³ / ₄ -8UN	3 ³ / ₈ -16UNJ; 3 ¹ / ₂ -12UNJ	3 ¹ / ₂ -16BSW; 3 ¹ / ₂ -12BSW; 3 ³ / ₄ -8BSW	3 ¹ / ₄ -11	4-11				3 ¹ / ₂ -8
TMSH-D80-27-6B	80.0	M90x2.0; M95x4.0; M105x6.0		3 ⁷ / ₈ -6UN		4-6BSW	3 ¹ / ₄ -11		3 ¹ / ₂ -8	3 ¹ / ₂ -8		
TMSH-D100-32-5	100.0	M110x2.0; M115x3.0; M115x4.0			4 ¹ / ₄ -16UNJ; 4 ³ / ₈ -12UNJ	4 ¹ / ₄ -16BSW; 4 ¹ / ₄ -12BSW; 4 ⁵ / ₈ -8BSW	4-11	4-11				
TMSH-D100-32-6B	100.0	M110x2.0; M115x4.0; M125x6.0				4 ⁷ / ₈ -6BSW	4-11		5-8	5-8		
TMSH-D125-40-5	125.0	M135x2.0; M140x3.0; M140x4.0			5 ¹ / ₄ -16UNJ; 5 ³ / ₈ -12UNJ	5 ¹ / ₄ -16BSW; 5 ¹ / ₄ -12BSW; 5 ⁵ / ₈ -8BSW	5-11	5-11				
TMSH-D125-40-6B	125.0	M135x2.0; M140x4.0; M150x6.0				5 ⁷ / ₈ -6BSW	5-11		5-8	5-8		





External and Internal Toolholders

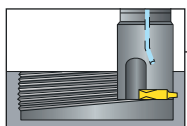


TMS - Single Point (Standard Inserts)

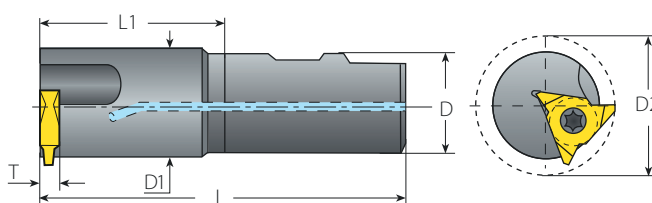
Spare Parts

Insert Size	Ordering Code	Dimensions mm						
IC		L	L1	D	D1	D2	Insert Screw	Torx Key
1/4"	TMSC10-2	65	25	10	9.3	12.5	SN2TK	K2T

Use Standard laydown thread turning inserts. See Thread Turning Inserts section - Page 17.
Use external LH inserts for external thread and internal RH inserts for internal thread.





External and Internal Toolholders



TMV - Single Point (Vertical Insert)

Spare Parts



Insert Size	Ordering Code	Dimensions mm						
IC		L	L1	D	D1	D2	Insert Screw	Torx Key
5/8"V	TMVC32-5	120	60	32	35.6	46	SN6T	K6T

Requires IC 5/8" Vertical thread turning inserts (width T=6). Use external LH inserts for external threads and internal RH inserts for internal threads.
See Thread Turning Inserts section - Page 17.

Recommended Grades, Cutting Speeds Vc [m/min] and Feed f [mm/tooth]

Material Group	Vargus No.	Material		Hardness Brinell HB	Vc [m/min]			Feed f [mm/tooth]
					Coated		Uncoated	
					VBX	VTX	VK2	
P Steel	1	Unalloyed Steel	Low Carbon (C=0.1-0.25%)	125	100-210	90-180		0.05-0.3
	2		Medium Carbon (C=0.25-0.55%)	150	100-180	90-170		0.05-0.25
	3		High Carbon (C=0.55-0.85%)	170	100-170	90-160		0.05-0.2
	4	Low Alloy Steel (alloying elements ≤ 5%)	Non Hardened	180	90-160	90-155		0.05-0.25
	5		Hardened	275	80-180	80-160		0.05-0.2
	6		Hardened	350	70-140	70-150		0.05-0.15
	7	High Alloy Steel (alloying elements > 5%)	Annealed	200	60-130	70-115		0.05-0.2
	8		Hardened	325	70-110	60-100		0.05-0.1
	9	Cast Steel	Low Alloy (alloying elements < 5%)	200	100-170	100-170	100-150	0.05-0.15
	10		High Alloy (alloying elements > 5%)	225	70-120	70-130	60-130	0.05-0.1
M Stainless Steel	11	Stainless Steel Ferritic	Non Hardened	200	100-170	120-180		0.05-0.15
	12		Hardened	330	100-170	120-180		0.05-0.1
	13	Stainless Steel Austenitic	Austenitic	180	70-140	100-140		0.05-0.15
	14		Super Austenitic	200	70-140	100-140		0.05-0.1
	15	Stainless Steel Cast Ferritic	Non Hardened	200	70-140	100-140		0.05-0.15
	16		Hardened	330	70-140	100-140		0.05-0.1
	17	Stainless Steel Cast Austenitic	Austenitic	200	70-120	100-120		0.05-0.15
	18		Hardened	330	70-120	100-120		0.05-0.1
K Cast Iron	28	Malleable Cast Iron	Ferritic (short chips)	130	60-130	100-120		0.02-0.8
	29		Pearlitic (long chips)	230	60-120	80-100		0.02-0.05
	30	Grey Cast Iron	Low Tensile Strength	180	60-130	80-100		0.05-0.15
	31		High Tensile Strength	260	60-100	80-100		0.05-0.1
	32	Nodular Sg Iron	Ferritic	160	60-125	80-100		0.05-0.15
	33		Pearlitic	260	50-90	60-90		0.05-0.1
N Non-Ferrous Metals	34	Aluminium Alloys Wrought	Non Aging	60	100-250		200-300	0.1-0.4
	35		Aged	100	100-180		60-110	0.1-0.3
	36	Aluminium Alloys	Cast	75	150-400		60-120	0.1-0.3
	37		Cast & Aged	90	150-280		60-100	0.05-0.25
	38	Aluminium Alloys	Cast Si 13-22%	130	80-150		20-50	0.1-0.3
	39	Copper and Copper Alloys	Brass	90	120-210	100-200	50-70	0.1-0.3
	40		Bronze And Non Lead Copper	100	120-210	100-200	50-70	0.05-0.25
S Heat Resistant Material	19	High Temperature Alloys	Annealed (iron based)	200	20-45	20-40	20-30	0.05-0.1
	20		Aged (iron based)	280	20-30	20-30	15-25	0.02-0.05
	21		Annealed (nickel or cobalt based)	250	20-50	15-20	15-20	0.02-0.05
	22		Aged (nickel or cobalt based)	350	10-15	10-15	10-15	0.02-0.05
	23	Titanium Alloys	Pure 99.5 Ti	400Rm	70-140	70-120	40-60	0.02-0.05
	24		α+β Alloys	1050Rm	20-50	20-50	20-40	0.02-0.05
H Hardened Material	25	Extra Hard Steel	Hardened & Tempered	45-50HRC	20-45	20-45		0.01-0.03
	26			51-55HRC	20-45	20-45		0.01-0.02

Grades

Grade	Application	Sample
VBX	First choice for steel and cast iron A tough sub-micron substrate with TiCN coating	
VTX	First choice for stainless steel A tough sub-micron substrate with TiAlN coating	
VK2	Uncoated grade for machining cast iron & nonferrous metals	