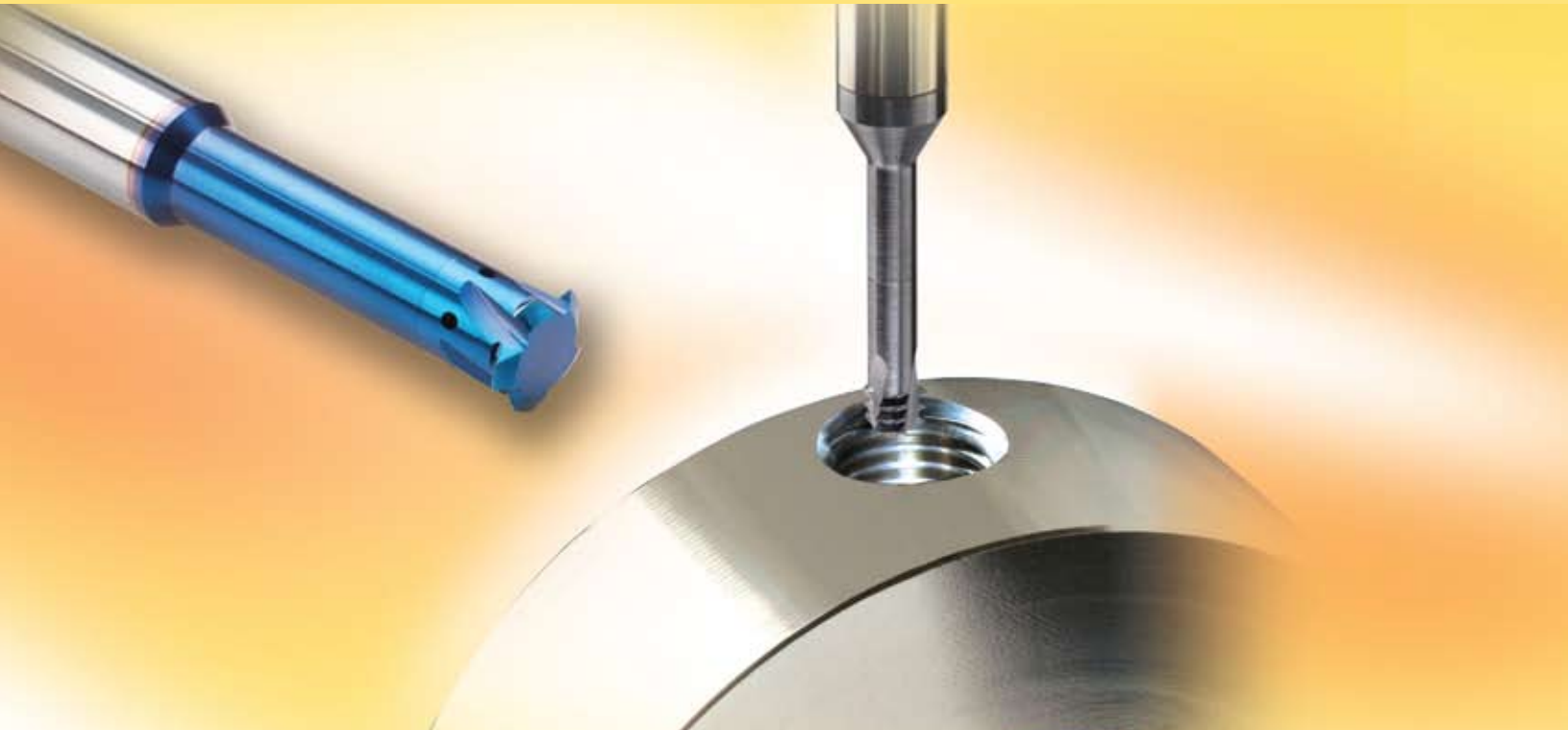


Mini Mill-Thread



MTS

- Threading from ISO M1 x 0.25 and 0-80UN.
- Working in high cutting speed.
- Short machining time.
- Low cutting forces thanks to the short profile.
- No broken taps.
- Machining of hardened materials up to 45 HRc.

Carbide grade: MT7

Sub-Micron grade with Titanium Aluminum Nitride multi-layer coating (ISO K10 - K20). To be run at medium to high cutting speeds. General purpose for all materials

MTI - For threading deep parts

Carbide grade: MT8 Sub-micron grade with advanced PVD triple coating (ISO K10-K20). Extremely high heat resistant and smooth cutting operation, for high performance, and normal machining conditions. General purpose for all materials.

MT11 Ultra-fine Sub-micron grade with advanced PVD triple blue coating

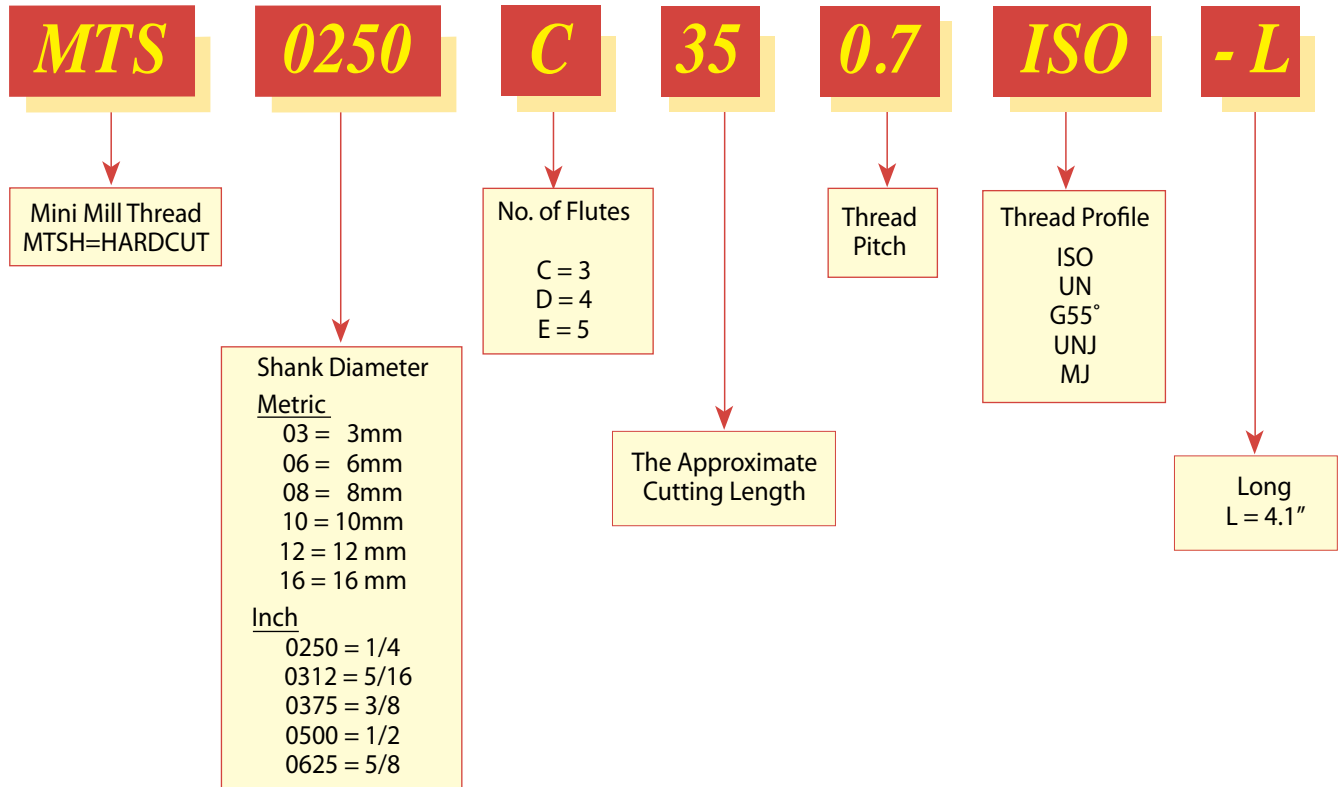
Advantages

- Enables machining in deep holes.
- Same tool can produce a wide range of threads and pitches.
- Same tool can produce both External and Internal threads.
- Coolant through the flutes is very effective for deep holes.
- Spiral flutes allow smooth cutting action.
- Shorter machining time due to multi (3 to 5) flutes.
- Longer tool life due to special triple coating.

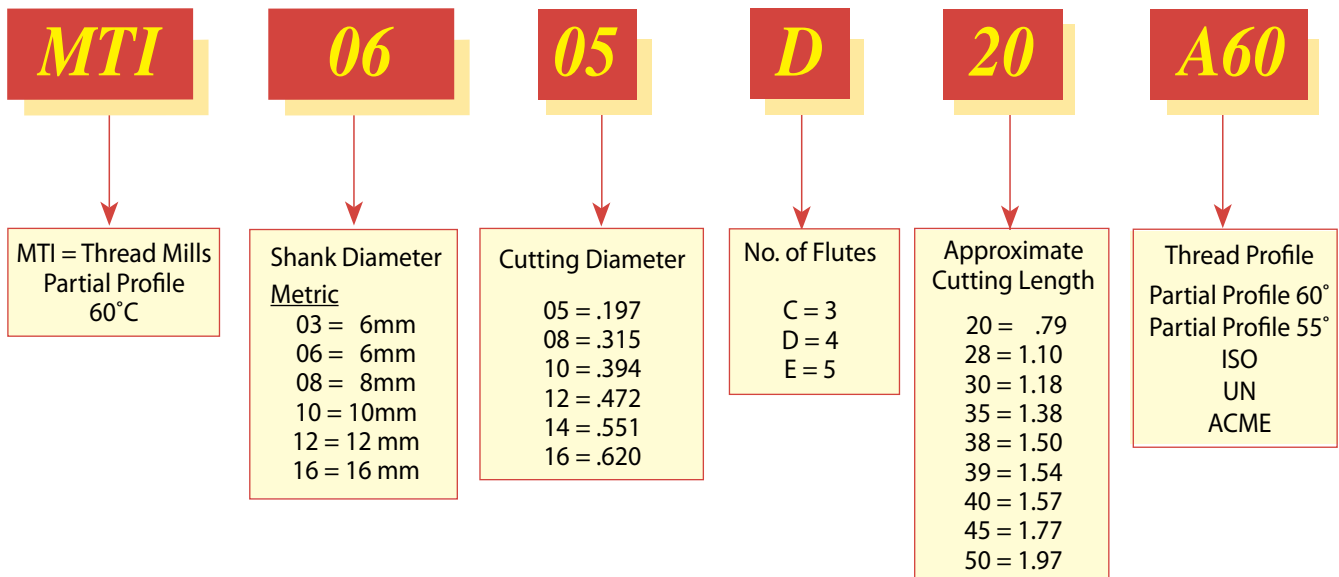
Contents:	Page:	Contents:	Page:
Product Identification	128	MTI	
MTS		Partial Profile 60°	135
ISO	129-130	Partial Profile 60° - with Internal Coolant through the flutes	135
UN	131-133	Partial Profile 55°	136
G55°	133	ISO	137
UNJ - with Internal Coolant through the flutes	134	UN	137
MJ - with Internal Coolant through the flutes	134	Acme	138

Product Identification

Mini Mill-Thread MTS Ordering Codes

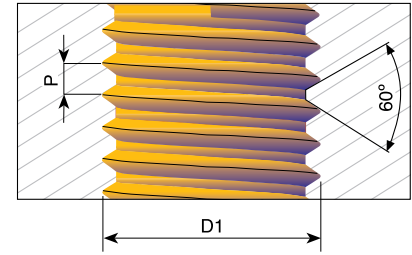


Mini Mill-Thread MTI Ordering Codes



ISO

Tools for Internal Thread



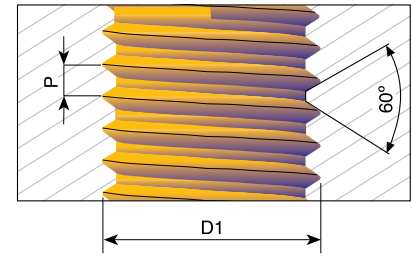
For thread depth up to 2 x D1

Pitch mm	D1	Ordering Code	d	D	No. of Flutes	I	L
0.25	M1	MTS03007C2 0.25 ISO	3 mm	.028	3	.10	1.5
0.25	M1.2	MTS03009C3 0.25 ISO	3 mm	.035	3	.12	1.5
0.4	M2	MTS0250C18 0.4 ISO	1/4	.061	3	.18	2.5
0.4	M2	MTS06016C4 0.4 ISO-L	6 mm	.061	3	.18	4.1
0.45	M2.2	MTS0250C20 0.45 ISO	1/4	.065	3	.20	2.5
0.45	M2.5	MTS0250C22 0.45 ISO	1/4	.077	3	.22	2.5
0.45	M2.5	MTS0602C5 0.45 ISO-L	6 mm	.077	3	.22	4.1
0.5	M3	MTS0250C26 0.5 ISO	1/4	.093	3	.26	2.5
0.5	M3	MTS06024C6 0.5 ISO-L	6 mm	.093	3	.26	4.1
0.6	M3.5	MTS0250C30 0.6 ISO	1/4	.108	3	.30	2.5
0.7	M4	MTS0250C35 0.7 ISO	1/4	.122	3	.35	2.5
0.75	M10	MTS0808D25 0.75 ISO	8 mm	.315	4	.98	2.5
0.8	M5	MTS0250C49 0.8 ISO	1/4	.150	3	.49	2.5
1.0	M6	MTS0250C55 1.0 ISO	1/4	.183	3	.55	2.5
1.25	M8	MTS0250C71 1.25 ISO	1/4	.234	3	.71	2.5
1.5	M10	MTS0312C91 1.5 ISO	5/16	.307	3	.91	2.5
1.75	M12	MTS0375C10 1.75 ISO	3/8	.354	3	1.02	3.0
2.0	M16	MTS0500D13 2.0 ISO	1/2	.465	4	1.38	3.5
2.5	M20	MTS0625E16 2.5 ISO	5/8	.591	5	1.69	4.0

Order example: MTS 0250 C26 0.5 ISO MT7

ISO

Tools for Internal Thread



For thread depth up to 3 x D1

Pitch mm	D1	Ordering Code	d	D	No. of Flutes	l	L
* 0.3	M1.4	MTS03011C4 0.3 ISO	3 mm	.041	3	.16	1.5
* 0.35	M1.6	MTS03012C5 0.35 ISO	3 mm	.047	3	.19	1.5
* 0.4	M2	MTS03016C6 0.4 ISO	3 mm	.061	3	.24	1.5
* 0.45	M2.2	MTS03017C7 0.45 ISO	3 mm	.065	3	.28	1.5
0.45	M2.5	MTS0250C30 0.45 ISO	1/4	.077	3	.30	2.5
0.5	M3	MTS0250C37 0.5 ISO	1/4	.093	3	.37	2.5
0.5	M3	MTS06024C9 0.5 ISO-L	6 mm	.093	3	.37	4.1
0.5	M6, M7	MTS06054D20 0.5 ISO	6 mm	.211	4	.79	2.3
0.6	M3.5	MTS06028C10 0.6 ISO	6 mm	.108	3	.41	2.3
0.7	M4	MTS0250C49 0.7 ISO	1/4	.122	3	.49	2.5
0.7	M4	MTS06031C12 0.7 ISO-L	6 mm	.122	3	.49	4.1
0.8	M5	MTS0250C63 0.8 ISO	1/4	.150	3	.63	2.5
0.8	M5	MTS06038C16 0.8 ISO-L	6 mm	.150	3	.63	4.1
1.0	M6	MTS0250C79 1.0 ISO	1/4	.183	3	.79	2.5
1.0	M6	MTS06047C20 1.0 ISO-L	6 mm	.183	3	.79	4.1
1.25	M8	MTS0250C94 1.25 ISO	1/4	.234	3	.94	2.5
1.5	M10	MTS08078C31 1.5 ISO	8 mm	.307	3	1.24	2.5
1.75	M12	MTS1009C37 1.75 ISO	10 mm	.354	3	1.49	2.9
2.0	M16	MTS12118D50 2.0 ISO	12 mm	.465	4	1.97	4.1

*Specially designed for the production of dental implants

- Machining Titanium, surgical stainless steels and hardened materials up to 45 HRc.
- Suitable for high speed air turbine machines (30,000-40,000 RPM) and for standard machining centers (6,000 RPM and higher).
- Can also be used for general purpose threading.

For thread depth up to 4 x D1

Pitch mm	D1	Ordering Code	d	D	No. of Flutes	l	L
0.5	M3	MTS03024C12 0.5 ISO	3 mm	.094	3	.49	1.5
0.7	M4	MTS06031C16 0.7 ISO	6 mm	.122	3	.66	2.3
0.8	M5	MTS0604C20 0.8 ISO	6 mm	.157	3	.82	2.3
1.0	M6	MTS06048C25 1.0 ISO	6 mm	.189	3	.98	2.3

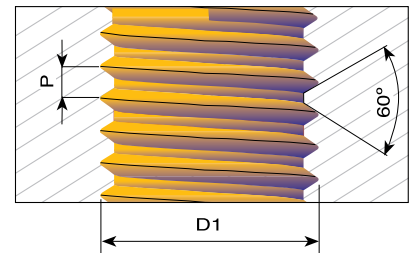
For thread depth up to 5 x D1

Pitch mm	D1	Ordering Code	d	D	No. of Flutes	l	L
0.5	M3	MTS03024C15 0.5 ISO	3 mm	.094	3	.61	1.5

Order example: MTS 03024C12 0.5 ISO MT7

UN

Tools for Internal Thread



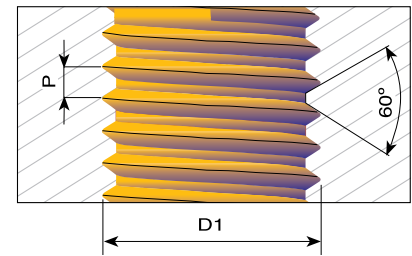
For thread depth up to 2 x D1

Pitch TPI	UNC	UNF	Ordering Code	d	D	No. of Flutes	I	L
72		1	MTS0250C15 72 UN	1/4	.057	3	.15	2.5
64	1	2	MTS0250C15 64 UN	1/4	.055	3	.15	2.5
56	2	3	MTS0250C17 56 UN	1/4	.065	3	.17	2.5
48	3	4	MTS0250C20 48 UN	1/4	.075	3	.20	2.5
40	4		MTS0250C25 40 UN	1/4	.083	3	.25	2.5
40	4		MTS06021C6 40 UN-L	6mm	.083	3	.25	4.1
40	5	6	MTS0250C28 40 UN	1/4	.096	3	.28	2.5
36		8	MTS0250C35 36 UN	1/4	.130	3	.35	2.5
32	6		MTS0250C28 32 UN	1/4	.100	3	.28	2.5
32	6		MTS06025C7 32 UN-L	6mm	.100	3	.28	4.1
32	8		MTS0250C37 32 UN	1/4	.126	3	.37	2.5
32	8		MTS06032C9 32 UN-L	6mm	.126	3	.37	4.1
32		10	MTS0250C41 32 UN	1/4	.146	3	.41	2.5
28		12	MTS0250C43 28 UN	1/4	.165	3	.43	2.5
28		1/4	MTS0250C57 28 UN	1/4	.197	3	.57	2.5
24	10, 12		MTS0250C42 24 UN	1/4	.138	3	.42	2.5
24		5/16, 3/8	MTS0312C67 24 UN	5/16	.260	3	.67	2.5
20	1/4		MTS0250C55 20 UN	1/4	.187	3	.55	2.5
20		7/16	MTS0312C98 20 UN	5/16	.312	3	.98	2.5
18	5/16		MTS0250C67 18 UN	1/4	.236	3	.67	2.5
18	5/8		MTS0500D14 18 UN	1/2	.500	4	1.38	3.5
16	3/8		MTS0312C87 16 UN	5/16	.264	3	.87	2.5
14	7/16		MTS0312C98 14 UN	5/16	.303	3	.98	2.5
13	1/2		MTS0375C10 13 UN	3/8	.362	3	1.08	3.0
12	9/16		MTS0500C12 12 UN	1/2	.413	3	1.24	3.5
11	5/8		MTS0500C13 11 UN	1/2	.449	3	1.36	3.5
10	3/4		MTS0625C16 10 UN	5/8	.567	4	1.63	4.0

Order example: MTS 0250C28 40 UN MT7

UN

Tools for Internal Thread



For thread depth up to 3 x D1

Pitch TPI	UNC	UNF	Ordering Code	d	D	No. of Flutes	I	L
80		0	MTS0250C16 80 UN	1/4	.045	3	.16	2.5
* 72		1	MTS03015C6 72 UN	3 mm	.057	3	.24	1.5
56	2	3	MTS03016C6 56 UN	3 mm	.065	3	.26	1.5
56	2	3	MTS0250C26 56 UN	1/4	.065	3	.26	2.5
56	2	3	MTS06016C6 56 UN-L	6 mm	.065	3	.26	4.1
40	4		MTS03021C8 40 UN	3 mm	.083	3	.31	2.3
40	4		MTS0250C31 40 UN	1/4	.083	3	.31	2.5
40	4		MTS06021C8 40 UN-L	6 mm	.083	3	.31	4.1
40	5	6	MTS0250C38 40 UN	1/4	.096	3	.38	2.5
32	6		MTS03025C10 32 UN	3 mm	.100	3	.41	1.5
32	6		MTS0250C40 32 UN	1/4	.100	3	.41	2.5
32	6		MTS06025C10 32 UN-L	6 mm	.100	3	.41	4.1
32	8		MTS0250C49 32 UN	1/4	.126	3	.49	2.5
32	8		MTS06032C12 32 UN-L	6 mm	.126	3	.49	4.1
32		10	MTS0250C59 32 UN	1/4	.146	3	.59	2.5
32		10	MTS06037C15 32 UN-L	6 mm	.146	3	.59	4.1
28		1/4	MTS0250C75 28 UN	1/4	.197	3	.75	2.5
28		1/4	MTS0605C19 28 UN-L	6 mm	.197	3	.75	4.1
24	10, 12		MTS06035C15 24 UN	6 mm	.138	3	.61	2.3
24		5/16, 3/8	MTS0312C94 24 UN	5/16	.260	3	.94	2.5
20	1/4		MTS0250C75 20 UN	1/4	.187	3	.75	2.5
20	1/4		MTS06047C19 20 UN-L	6 mm	.187	3	.75	4.1
20		7/16	MTS0808C34 20 UN	8 mm	.315	3	1.36	2.5
18	5/16		MTS0250C91 18 UN	1/4	.236	3	.91	2.5
18	5/8		MTS1212D49 18 UN	12 mm	.472	4	1.93	4.1
16	3/8		MTS08067C30 16 UN	8 mm	.264	3	1.19	2.5
14	7/16		MTS08077C35 14 UN	8 mm	.303	3	1.39	2.5
13	1/2		MTS10092C40 13 UN	10 mm	.362	3	1.58	2.9
12	9/16		MTS12105C45 12 UN	12 mm	.413	3	1.77	4.1
11	5/8		MTS12114C50 11 UN	12 mm	.449	3	1.97	4.1
10	3/4		MTS16144D59 10 UN	16 mm	.567	4	2.35	4.1

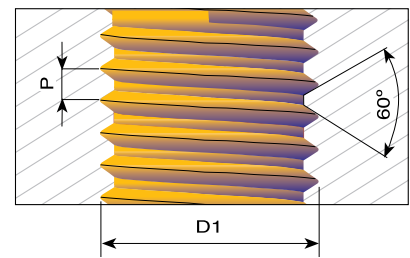
Order example: MTS 0250C26 56UN MT7

*Specially designed for the production of dental implants

- Machining Titanium, surgical stainless steels and hardened materials up to 45 HRC.
- Suitable for high speed air turbine machines (30,000-40,000 RPM) and for standard machining centers (6,000 RPM and higher).
- Can also be used for general purpose threading.

UN

Tools for Internal Thread - Metric Shanks



For thread depth up to 4 x D1

Pitch TPI	UNC	UNF	Ordering Code	d	D	No. of Flutes	I	L
56	2	3	MTS03016C9 56 UN	3 mm	.065	3	.36	1.5
40	4		MTS03021C12 40 UN	3 mm	.083	3	.47	1.5
32	6		MTS03025C14 32 UN	3 mm	.100	3	.58	1.5

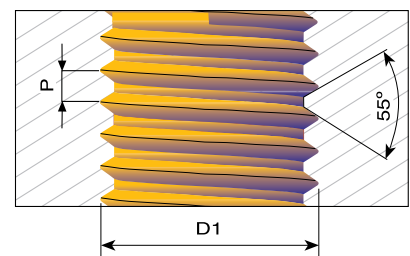
For thread depth up to 5 x D1

Pitch TPI	UNC	UNF	Ordering Code	d	D	No. of Flutes	I	L
80		0	MTS03012C8 80 UN	3 mm	.045	3	.31	1.5
56	2	3	MTS03016C11 56 UN	3 mm	.065	3	.45	1.5

Order example: MTS 03016C11 56 UN MT7

G 55° BSW, BSP

Same Tool for Internal and External Thread - Metric Shanks



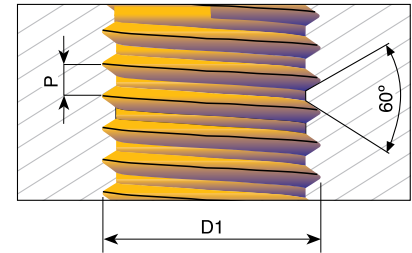
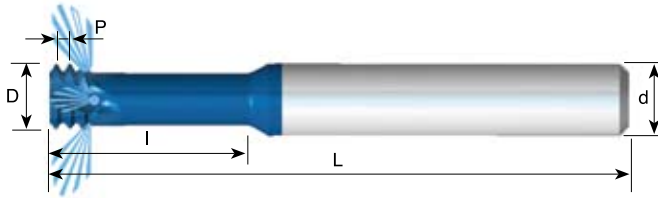
For thread depth up to 2 x D1

Pitch TPI	Standard	Ordering Code	d mm	D	No. of Flutes	I	L
28	G 1/8	MTS08078C19 28 W	8	.307	3	0.77	2.5
19	G 1/4 - 3/8	MTS1010D30 19 W	10	.393	4	1.18	2.9
14	G 1/2 - 7/8	MTS1212D37 14 W	12	.472	4	1.46	3.3
11	G ≥ 1	MTS1616D44 11 W	16	.630	4	1.73	4.1

Order example: MTS 1212D37 14 W MT7

UNJ With internal coolant through the flutes

Tools for Internal Thread - Metric Shanks



For thread depth up to 2.5 x D1

Pitch TPI	UNJC	UNJF	Ordering Code	d mm	D	No. of Flutes	l	L
* 32	8	10	MTS06033C10 32 UNJ	6	.130	3	.41	2.3
28		1/4	MTS08051C16 28 UNJ	8	.201	3	.63	2.5
24		5/16, 3/8	MTS08067C20 24 UNJ	8	.264	3	.79	2.5
* 20	1/4		MTS06049C16 20 UNJ	6	.193	3	.63	2.3
20		7/16	MTS0808C28 20 UNJ	8	.315	3	1.10	2.5
18	5/16		MTS08061C20 18 UNJ	8	.242	3	.79	2.5
16	3/8		MTS08069C24 16 UNJ	8	.272	3	.94	2.5
14	7/16		MTS08079C25 14 UNJ	8	.311	3	.98	2.5
13	1/2		MTS10094C27 13 UNJ	10	.370	3	1.08	2.9

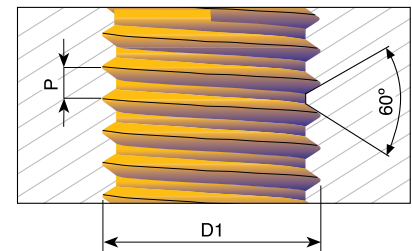
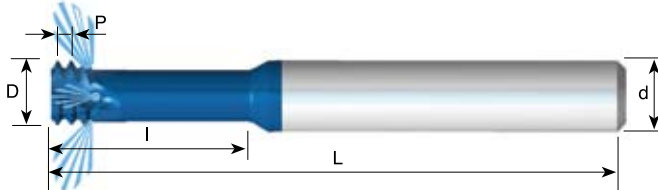
* Cutters without coolant

Order example: MTS 06049C16 20 UNJ MT8

Carbide grade MT8 Sub Micron grade with advanced PVD triple coating (ISO K 10-K20). Extremely high heat resistant and smooth cutting operation, for high performance, and normal machining conditions. General purpose for all materials

MJ With internal coolant through the flutes

Tools for Internal Thread - Metric Shanks



For thread depth up to 2.5 x D1

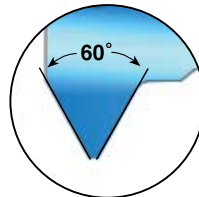
Pitch TPI	D1	Ordering Code	d mm	D	No. of Flutes	l	L
* 0.7	MJ4	MTS06032C10 0.7 MJ	6	.126	3	.39	2.3
* 0.8	MJ5	MTS06039C12 0.8 MJ	6	.154	3	.49	2.3
* 1.0	MJ6	MTS06048C15 1.0 MJ	6	.189	3	.59	2.3
1.25	MJ8	MTS08061C20 1.25 MJ	8	.240	3	.79	2.5
1.5	MJ10	MTS0808C25 1.5 MJ	8	.315	3	.98	2.5
1.75	MJ12	MTS10092C30 1.75 MJ	10	.362	3	1.18	2.9
2.0	MJ14, MJ16	MTS1010C35 2.0 MJ	10	.394	3	1.38	2.9

* Cutters without coolant

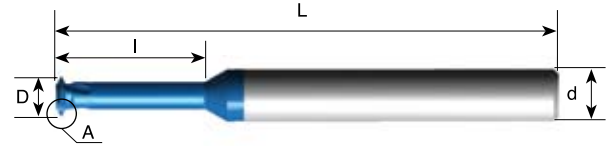
Order example: MTS 06048C15 1.0 MJ MT8

Carbide grade MT8 Sub Micron grade with advanced PVD triple coating (ISO K 10-K20). Extremely high heat resistant and smooth cutting operation, for high performance, and normal machining conditions. General purpose for all materials

Partial Profile 60° Same Tool for Internal and External Thread Metric Shanks



Detail A

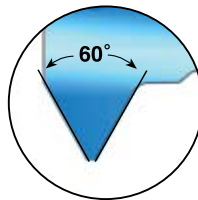


Pitch mm	Pitch TPI	Ordering Code	M Coarse	M Fine	UN, UNC, UNS UNF, UNEF	d mm	D	No. of Flutes	I	L
0.25-0.35	100-72	MTI03012C3 A60	M1.6 x 0.35	M1.6 x 0.25 M1.8 x 0.25 M2.0 x 0.25	0-80 UNF	3	.045	3	.12	1.5
0.35-0.45	72-56	MTI03014C4 A60	M2 x 0.4 M2.2 x 0.45	M2 x 0.35 M2.2 x 0.35	1-64 UNC, 1-72 UNF, 2-56 UNC, 2-64 UNF	3	.055	3	.15	1.5
0.35-0.6	72-40	MTI03019C5 A60	M2.5 x 0.45	M2.5 x 0.35 M3 x 0.35	3-84 UNC, 3-56 UNF, 4-40 UNC, 4-48 UNF	3	.075	3	.20	1.5
0.5 -0.8	48-32	MTI03024C7 A60	M3 x 0.5 M3.5 x 0.6	M3.5 x 0.5	5-40 UNC, 5-44 UNF, 6-32 UNC, 6-40 UNF	3	.096	3	.28	1.5
0.5 -1.0	48-24	MTI06032C9 A60	M4 x 0.7 M4.5 x 0.75	M4 x 0.5	8-32 UNC, 8-36 UNF, 10-24 UNC, 10-28 UNS, 10-32 UNF	6	.126	3	.37	2.3
0.5 -1.0	48-24	MTI0604C12 A60	M5 x 0.8 M6 x 1.0	M5 x 0.5 M5.5 x 0.5 M5 x 0.75	10-36 UNS, 10-40 UNS, 10-48 UNS, 12-24 UNC, 12-28 UNF	6	.157	3	.49	2.3

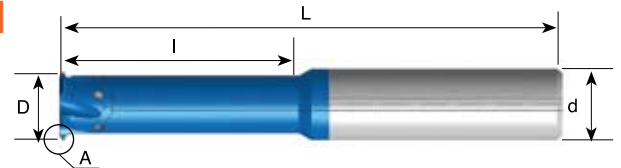
Order example: MTI 03024C7 A60 MT11

Carbide grade: MT11 Ultra-fine Sub-micron grade with PVD triple Blue coating

Partial Profile 60° With internal coolant through the flutes Same Tool for Internal and External Thread Metric Shanks



Detail A



For threading deep parts

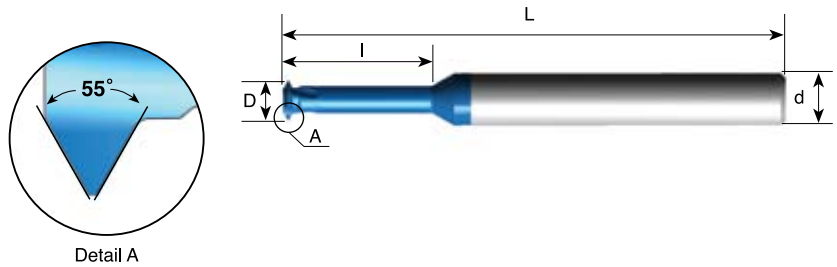
Pitch mm	Pitch TPI	Thread Dia. (mm)	Ordering Code	d mm	D	No. of Flutes	I	L
Int. 0.5 - 0.8 Ex. 0.4 - 0.8	56-28 64-32	≥ 6	MTI0605D20 A60	6	.197	4	.79	2.3
		≥ 9	MTI0808D28 A60	8	.315	4	1.10	2.5
		≥ 13	MTI1212E38 A60	12	.472	5	1.50	3.3
Int. 1.0 - 1.75 Ex. 0.8 - 1.5	28-14 32-16	≥ 10	MTI0808D30 A60	8	.315	4	1.18	2.5
		≥ 12	MTI1010D35 A60	10	.394	4	1.38	2.9
		≥ 14	MTI1212E39 A60	12	.472	5	1.54	3.3
Int. 2.0 - 3.0 Ex. 1.75-2.5	13- 8 15-10	≥ 16	MTI1212E40 A60	12	.472	5	1.57	3.3
		≥ 18	MTI1614E45 A60	16	.551	5	1.77	4.0
		≥ 20	MTI1616E50 A60	16	.630	5	1.97	4.0

Order example: MTI 0808D28 A60 MT8

Carbide grade: MT8 With triple Blue coating

Partial Profile 55°

Same Tool for Internal and External Thread - Metric Shanks



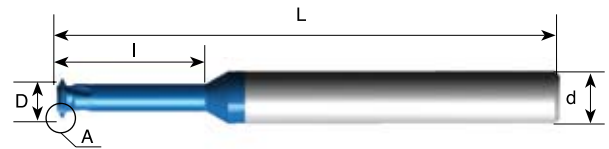
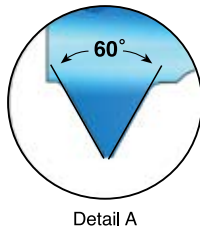
Pitch TPI	Ordering Code	d mm	D	No. of Flutes	l	L
40-32	MTI03023C7 A55	3	.089	3	.28	1.5
28-20	MTI06044C14 A55	6	.171	3	.55	2.3
28-18	MTI06059C20 A55	6	.230	3	.81	2.3
20-14	MTI0807C23 A55	8	.276	3	.91	2.5

Order example: MTI 06044C14A55 MT11

Carbide grade: MT11 Ultra-fine Sub-micron grade with PVD triple Blue coating

ISO

Tools for Internal Thread Metric Shanks



For thread depth up to 3.5 x D1

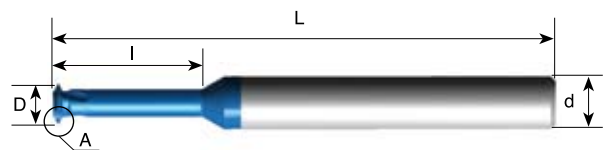
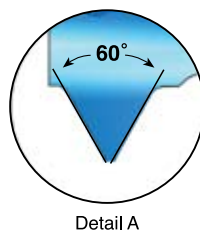
Pitch mm	M Coarse	M Fine	Ordering Code	d mm	D	No. of Flutes	I	L
0.25	M1 x 0.25		MTI03007C3 0.25 ISO	3	.028	3	.14	1.5
0.25	M1.2 x 0.25	M1.4 x 0.25 M1.6 x 0.25	MTI03009C4 0.25 ISO	3	.035	3	.17	1.5
0.3	M1.4 x 0.3		MTI03011C5 0.3 ISO	3	.041	3	.20	1.5
0.35	M1.6 x 0.35	M2 x 0.35 M2.2 x 0.35	MTI03012C6 0.35 ISO	3	.047	3	.22	1.5
0.4	M2 x 0.4		MTI03016C7 0.4 ISO	3	.061	3	.28	1.5
0.5	M3 x 0.5	M3.5 x 0.5 M4 x 0.5	MTI03024C10 0.5 ISO	3	.093	3	.42	1.5

Order example: MTI 03012C6 0.35 ISO MT11

Carbide grade: MT11 Ultra-fine Sub-micron grade with PVD triple Blue coating

UN

Tools for Internal Thread Metric Shanks



For thread depth up to 3.5 x D1

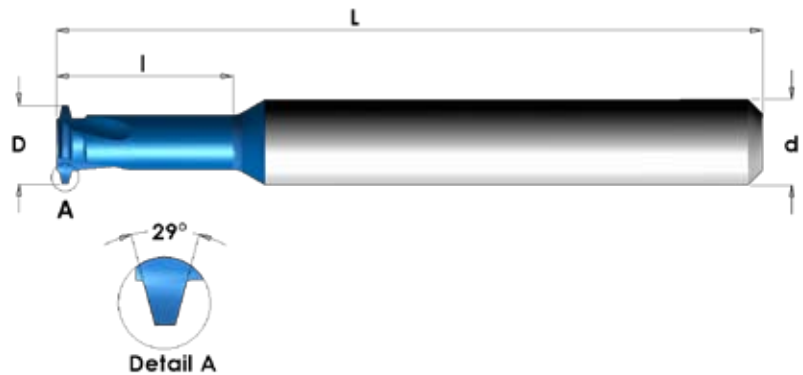
Pitch TPI	UNC	UNF	Ordering Code	d mm	D	No. of Flutes	I	L
80		0	MTI03012C5 80 UN	3	.045	3	.22	1.5
72		1	MTI03015C7 72 UN	3	.057	3	.26	1.5
56	2	3	MTI03016C9 56 UN	3	.065	3	.35	1.5
40	4		MTI03021C10 40 UN	3	.083	3	.40	1.5

Order example: MTI 03016C9 56 UN MT11

Carbide grade: MT11 Ultra-fine Sub-micron grade with PVD triple Blue coating

Acme

Tools for Internal Thread



Pitch TPI	Thread size	Ordering Code	d	D	No. of Flutes	l	L
16	1/4-16	MTI0250C04 16 ACME	1/4	.170	3	.38	2.5
14	5/16-14	MTI0250C06 14 ACME	1/4	.205	3	.60	2.5
12	3/8-12 7/16-12	MTI0250C08 12 ACME	1/4	.240	3	.75	2.5
10	1/2-10	MTI0375D10 10 ACME	3/8	.327	4	1.00	3.0
8	5/8-8	MTI0500D11 8 ACME	1/2	.410	4	1.10	3.5
6	3/4-6 7/8-6	MTI0500D11 6 ACME	1/2	.473	4	1.10	3.5
5	1-5 1 1/8-5 1 1/4-5	MTI 0625E15 5 ACME	5/8	.625	5	1.50	4.0

Order example: MTI 0375D10 10ACME MT8