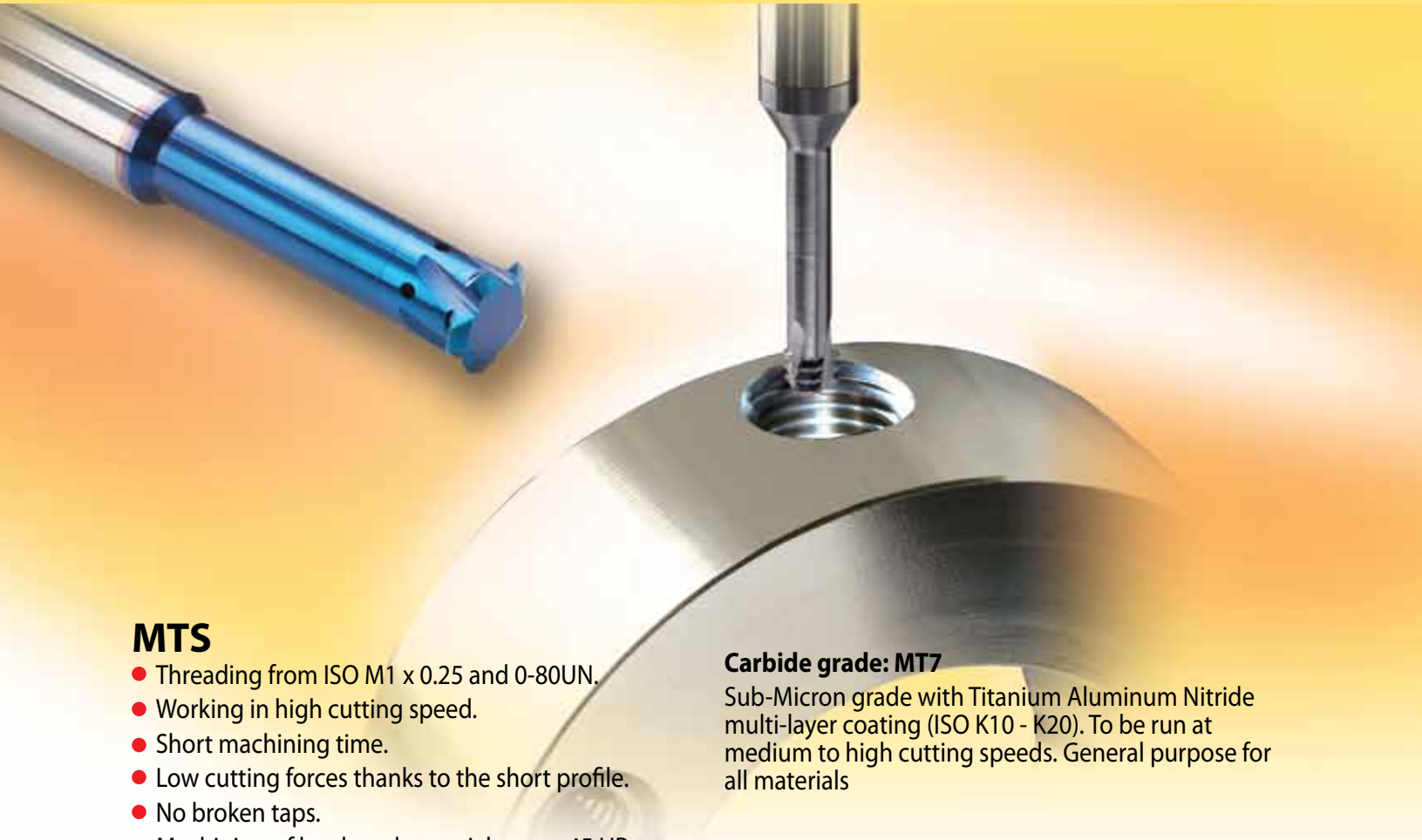


# Mini Mill-Thread



## 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

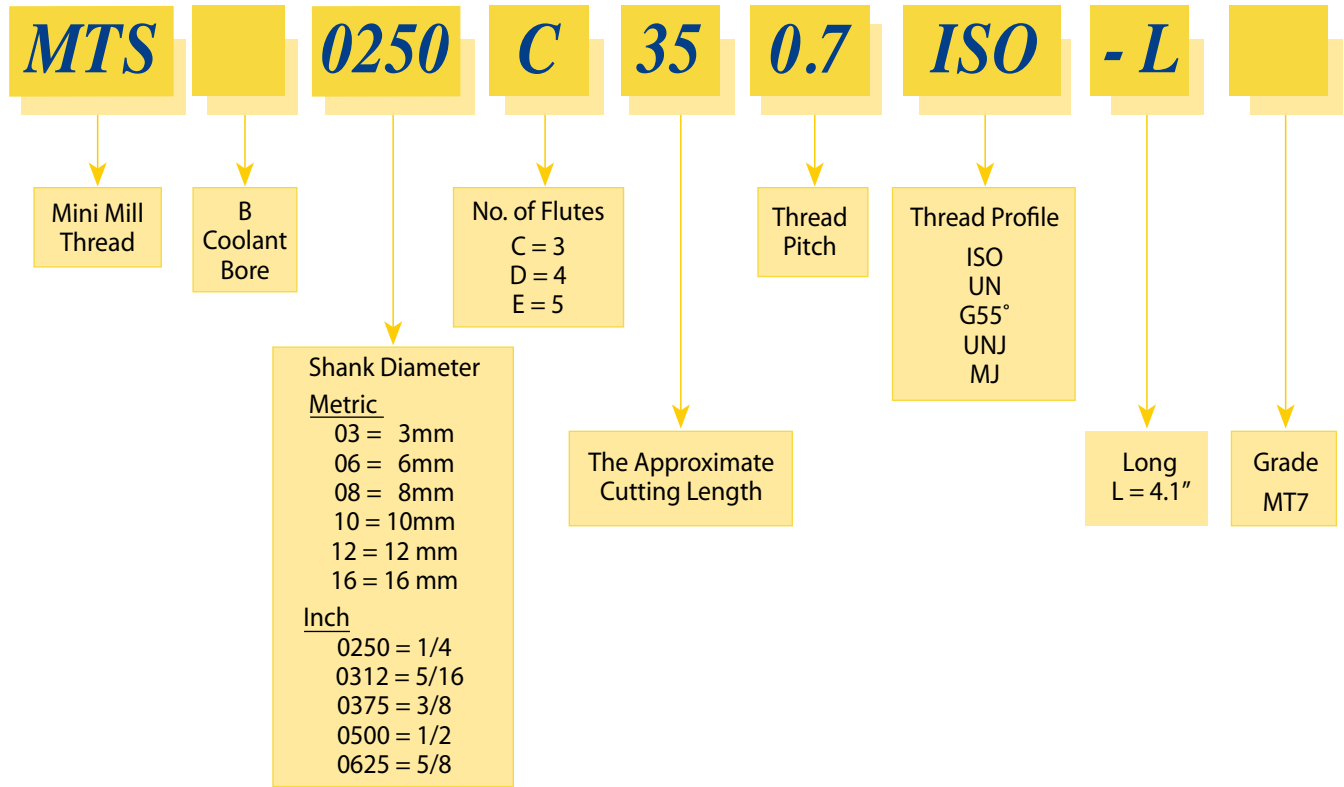
## Advantages

- 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.

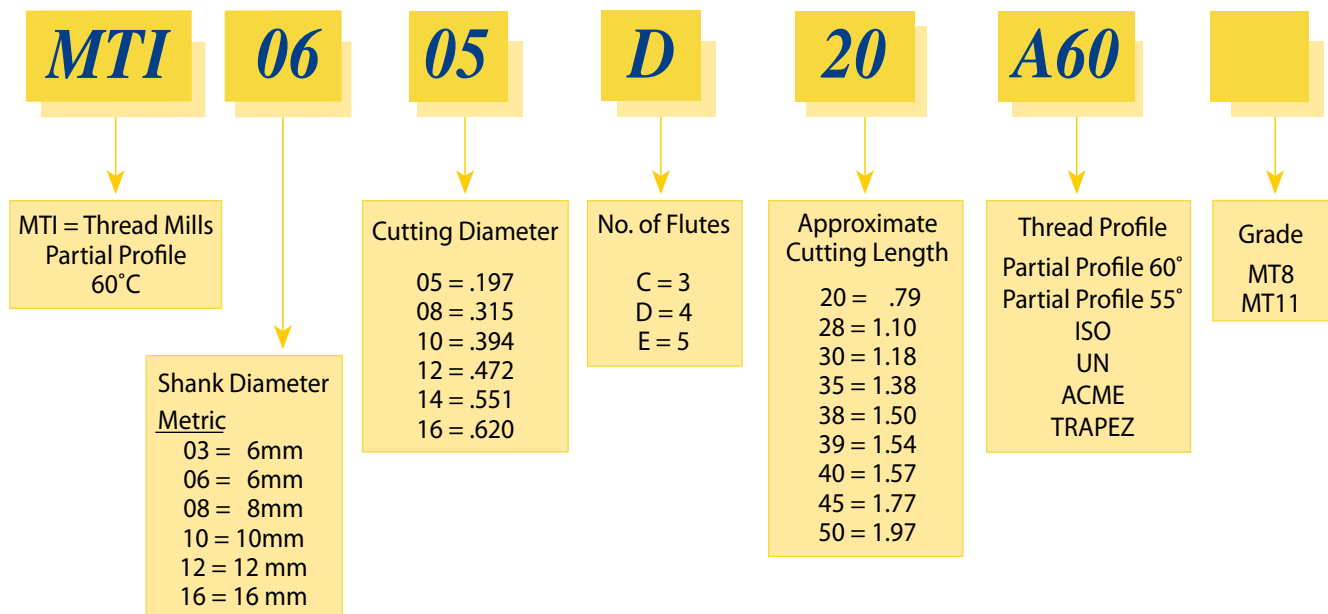
Contents:	Page:	Contents:	Page:
Product Identification	262	UN	271
<b>MTS</b>		<b>MTI</b>	
ISO	263-264	Partial Profile 60°	272
UN	265-266	Partial Profile 60° - with Internal Coolant through the flutes	272
G55°	267	Partial Profile 55°	273
UNJ - with Internal Coolant through the flutes	268	ISO	274
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<b>MTSB</b>		Trapez	275
ISO	270	Acme	276

## Product Identification

### Mini Mill-Thread MTS Ordering Codes

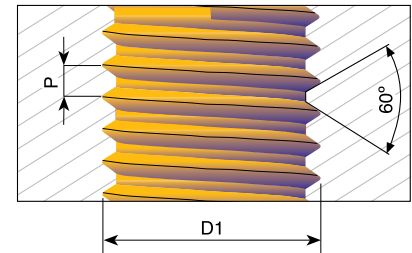


### Mini Mill-Thread MTI Ordering Codes



## ISO

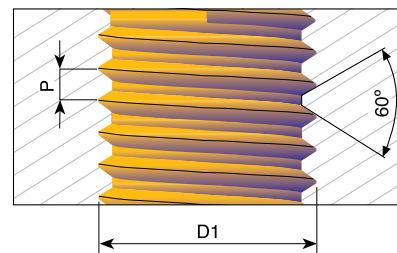
### Tools for Internal Thread



Pitch mm	M coarse	M fine	Ordering Code	d	D	No. of Flutes	I	L	Thread depth
0.25	M1		<b>MTS03007C2 0.25 ISO</b>	3 mm	.028	3	.10	1.5	2.5xD1
0.25	M1.2	M1.4	<b>MTS03009C3 0.25 ISO</b>	3 mm	.035	3	.12	1.5	2xD1
0.3	M1.4		<b>MTS03011C4 0.3 ISO</b>	3 mm	.041	3	.16	1.5	3xD1
0.35	M1.6	M2	<b>MTS03012C5 0.35 ISO</b>	3 mm	.047	3	.19	1.5	3xD1
	M1.6	M2	<b>MTS06012C5 0.35 ISO-L</b>	6 mm	.047	3	.19	4.1	3xD1
0.35		M5, M6	<b>MTS06045D14 0.35 ISO</b>	6 mm	.177	4	.57	2.3	3xD1
0.4	M2		<b>MTS0250C18 0.4 ISO</b>	1/4	.060	3	.18	2.5	2xD1
	M2		<b>MTS06016C4 0.4 ISO-L</b>	6 mm	.060	3	.18	4.1	2xD1
	M2		<b>MTS03016C6 0.4 ISO</b>	3 mm	.060	3	.24	1.5	3xD1
	M2		<b>MTS03016C10 0.4 ISO</b>	3 mm	.060	3	.41	1.5	5xD1
0.45	M2.2		<b>MTS0250C20 0.45 ISO</b>	1/4	.065	3	.20	2.5	2xD1
	M2.2		<b>MTS03017C7 0.45 ISO</b>	3 mm	.065	3	.28	1.5	3xD1
0.45	M2.5		<b>MTS0250C22 0.45 ISO</b>	1/4	.077	3	.22	2.5	2xD1
	M2.5		<b>MTS0602C5 0.45 ISO-L</b>	6 mm	.077	3	.22	4.1	2xD1
	M2.5		<b>MTS0250C30 0.45 ISO</b>	1/4	.077	3	.30	2.5	3xD1
	M2.5		<b>MTS0602C8 0.45 ISO-L</b>	6 mm	.077	3	.31	4.1	3xD1
	M2.5		<b>MTS0302C10 0.45 ISO</b>	3 mm	.077	3	.41	1.5	4xD1
0.5	M3		<b>MTS0250C26 0.5 ISO</b>	1/4	.093	3	.26	2.5	2xD1
	M3		<b>MTS06024C6 0.5 ISO-L</b>	6 mm	.093	3	.26	4.1	2xD1
	M3		<b>MTS0250C37 0.5 ISO</b>	1/4	.093	3	.37	2.5	3xD1
	M3		<b>MTS06024C9 0.5 ISO-L</b>	6 mm	.093	3	.37	4.1	3xD1
	M3		<b>MTS03024C12 0.5 ISO</b>	3 mm	.094	3	.49	1.5	4xD1
	M3		<b>MTS03024C15 0.5 ISO</b>	3 mm	.094	3	.61	1.5	5xD1
		M4, M5	<b>MTS06034D08 0.5 ISO</b>	6 mm	.134	4	.33	2.3	2xD1
		M4, M5	<b>MTS06034D012 0.5 ISO</b>	6 mm	.134	4	.49	2.3	3xD1
0.5		M6, M7	<b>MTS06054D20 0.5 ISO</b>	6 mm	.211	4	.79	2.3	3xD1
0.6		M3.5	<b>MTS0250C30 0.6 ISO</b>	1/4	.108	3	.30	2.5	2xD1
		M3.5	<b>MTS06028C10 0.6 ISO</b>	6 mm	.108	3	.41	2.3	3xD1
0.7	M4		<b>MTS0250C35 0.7 ISO</b>	1/4	.122	3	.35	2.5	2xD1
	M4		<b>MTS0250C49 0.7 ISO</b>	1/4	.122	3	.49	2.5	3xD1
	M4		<b>MTS06031C12 0.7 ISO-L</b>	6 mm	.122	3	.49	4.1	3xD1
	M4		<b>MTS06031C16 0.7 ISO</b>	6 mm	.122	3	.66	2.3	4xD1
0.75	M4.5	M5	<b>MTS06034C9 0.75 ISO</b>	6 mm	.134	3	.39	2.3	2xD1
		M6	<b>MTS06049D12 0.75 ISO</b>	6 mm	.193	4	.50	2.3	2xD1
		M10, M12	<b>MTS0808D25 0.75 ISO</b>	8 mm	.315	4	.98	2.5	2.5xD1
0.8	M5		<b>MTS0250C49 0.8 ISO</b>	1/4	.150	3	.49	2.5	2xD1
	M5		<b>MTS0250C63 0.8 ISO</b>	1/4	.150	3	.63	2.5	3xD1
	M5		<b>MTS06038C16 0.8 ISO-L</b>	6 mm	.150	3	.63	4.1	3xD1
	M5		<b>MTS0604C20 0.8 ISO</b>	6 mm	.157	3	.82	2.3	4xD1

Order example: MTS 0250 C26 0.5 ISO MT7

## ISO Tools for Internal Thread



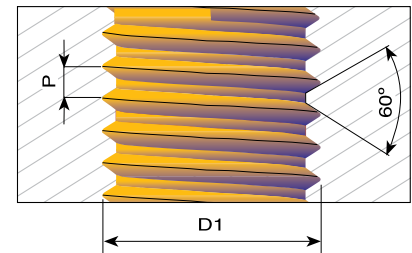
Pitch mm	M coarse	M fine	Ordering Code	d	D	No. of Flutes	I	L	Thread depth
1.0	M6	M8	<a href="#">MTS0250C55 1.0 ISO</a>	1/4	.183	3	.55	2.5	2xD1
	M6	M8	<a href="#">MTS0250C79 1.0 ISO</a>	1/4	.183	3	.79	2.5	3xD1
	M6	M8	<a href="#">MTS06047C20 1.0 ISO-L</a>	6 mm	.183	3	.79	4.1	3xD1
	M6	M8	<a href="#">MTS06048C25 1.0 ISO</a>	6 mm	.189	3	.98	2.3	4xD1
1.0		M10, M12	<a href="#">MTS0808D31 1.0 ISO</a>	8 mm	.315	4	1.22	2.5	3xD1
1.25	M8	M10, M12	<a href="#">MTS0250C71 1.25 ISO</a>	1/4	.236	3	.71	2.5	2xD1
	M8	M10, M12	<a href="#">MTS0250C94 1.25 ISO</a>	1/4	.236	3	.94	2.5	3xD1
	M8	M10, M12	<a href="#">MTS0606C24 1.25 ISO-L</a>	6 mm	.236	3	.94	4.1	3xD1
	M8	M10, M12	<a href="#">MTS08064C33 1.25 ISO</a>	8 mm	.252	3	1.32	2.5	4xD1
1.5	M10	M14, M16	<a href="#">MTS0312C91 1.5 ISO</a>	5/16	.307	3	.91	2.5	2xD1
	M10	M14, M16	<a href="#">MTS08078C31 1.5 ISO</a>	8 mm	.307	3	1.24	2.5	3xD1
	M10	M14, M16	<a href="#">MTS08078C31 1.5 ISO-L</a>	8 mm	.307	3	1.24	4.1	3xD1
	M10	M14, M16	<a href="#">MTS0808C41 1.5 ISO</a>	8 mm	.315	3	1.63	3.1	4xD1
1.75	M12		<a href="#">MTS0375C10 1.75 ISO</a>	3/8	.354	3	1.02	3.0	2xD1
	M12		<a href="#">MTS1009C37 1.75 ISO</a>	10 mm	.354	3	1.49	2.9	3xD1
2.0	M14	M17	<a href="#">MTS1010D30 2.0 ISO</a>	10 mm	.394	4	1.18	2.9	2xD1
	M16	M18, M20	<a href="#">MTS0500D13 2.0 ISO</a>	1/2	.465	4	1.38	3.5	2xD1
	M16	M18, M20	<a href="#">MTS12118D50 2.0 ISO</a>	12 mm	.465	4	1.97	4.1	3xD1
2.5	M20		<a href="#">MTS0625E16 2.5 ISO</a>	5/8	.591	5	1.69	4.0	2xD1

- 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.

Order example: [MTS 03024C12 0.5 ISO MT7](#)

## UN

### Tools for Internal Thread

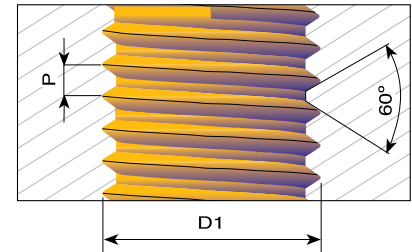


Pitch TPI	UNC	UNF	Ordering Code	d	D	No. of Flutes	l	L	Thread depth
80		0	<b>MTS0250C16 80 UN</b>	1/4	.045	3	.16	2.5	3xD1
		0	<b>MTS03012C8 80 UN</b>	3 mm	.045	3	.31	1.5	5xD1
72		1	<b>MTS0250C15 72 UN</b>	1/4	.057	3	.15	2.5	2xD1
		1	<b>MTS03015C6 72 UN</b>	3 mm	.057	3	.24	1.5	3xD1
64	1	2	<b>MTS0250C15 64 UN</b>	1/4	.055	3	.15	2.5	2xD1
56	2	3	<b>MTS03016C4 56 UN</b>	3 mm	.065	3	.17	1.5	2xD1
	2	3	<b>MTS0250C17 56 UN</b>	1/4	.065	3	.17	2.5	2xD1
	2	3	<b>MTS03016C6 56 UN</b>	3 mm	.065	3	.26	1.5	3xD1
	2	3	<b>MTS0250C26 56 UN</b>	1/4	.065	3	.26	2.5	3xD1
	2	3	<b>MTS06016C6 56 UN-L</b>	6 mm	.065	3	.26	4.1	3xD1
	2	3	<b>MTS03016C9 56 UN</b>	3 mm	.065	3	.36	1.5	4xD1
	2	3	<b>MTS03016C11 56 UN</b>	3 mm	.065	3	.45	1.5	5xD1
48	3	4	<b>MTS0250C20 48 UN</b>	1/4	.075	3	.20	2.5	2xD1
40	4		<b>MTS0250C25 40 UN</b>	1/4	.083	3	.25	2.5	2xD1
	4		<b>MTS06021C6 40 UN-L</b>	6 mm	.083	3	.25	4.1	2xD1
	4		<b>MTS03021C8 40 UN</b>	3 mm	.083	3	.31	1.5	3xD1
	4		<b>MTS0250C31 40 UN</b>	1/4	.083	3	.31	2.5	3xD1
	4		<b>MTS06021C8 40 UN-L</b>	6 mm	.083	3	.31	4.1	3xD1
	4		<b>MTS03021C12 40 UN</b>	3 mm	.083	3	.47	1.5	4xD1
40	5	6	<b>MTS0250C28 40 UN</b>	1/4	.096	3	.28	2.5	2xD1
	5	6	<b>MTS0250C38 40 UN</b>	1/4	.096	3	.38	2.5	3xD1
36		8	<b>MTS0250C35 36 UN</b>	1/4	.130	3	.35	2.5	2xD1
32	6		<b>MTS0250C28 32 UN</b>	1/4	.100	3	.28	2.5	2xD1
	6		<b>MTS06025C7 32 UN-L</b>	6 mm	.100	3	.28	4.1	2xD1
	6		<b>MTS03025C10 32 UN</b>	3 mm	.100	3	.41	1.5	3xD1
	6		<b>MTS0250C40 32 UN</b>	1/4	.100	3	.41	2.5	3xD1
	6		<b>MTS06025C10 32 UN-L</b>	6 mm	.100	3	.41	4.1	3xD1
	6		<b>MTS03025C14 32 UN</b>	3 mm	.100	3	.58	1.5	4xD1
32	8		<b>MTS0250C37 32 UN</b>	1/4	.126	3	.37	2.5	2xD1
	8		<b>MTS06032C9 32 UN-L</b>	6 mm	.126	3	.37	4.1	2xD1
	8		<b>MTS0250C49 32 UN</b>	1/4	.126	3	.49	2.5	3xD1
	8		<b>MTS06032C12 32 UN-L</b>	6 mm	.126	3	.49	4.1	3xD1
	8		<b>MTS06032C17 32 UN</b>	6 mm	.126	3	.69	2.3	4xD1
32		10	<b>MTS0250C41 32 UN</b>	1/4	.146	3	.41	2.5	2xD1
		10	<b>MTS0250C59 32 UN</b>	1/4	.146	3	.59	2.5	3xD1
		10	<b>MTS06037C15 32 UN-L</b>	6	.146	3	.59	4.1	3xD1
		10	<b>MTS06037C20 32 UN</b>	6	.146	3	.79	2.3	4xD1

Order example: MTS 0250C28 40 UN MT7

## UN

### Tools for Internal Thread



Pitch TPI	UNC	UNF	Ordering Code	d	D	No. of Flutes	l	L	Thread depth
28		12	<b>MTS0250C43 28 UN</b>	1/4	.165	3	.43	2.5	2xD1
28		1/4	<b>MTS0250C57 28 UN</b>	1/4	.197	3	.57	2.5	2xD1
		1/4	<b>MTS0250C75 28 UN</b>	1/4	.197	3	.75	2.5	3xD1
		1/4	<b>MTS0605C19 28 UN-L</b>	6 mm	.197	3	.75	4.1	3xD1
		1/4							
24	10, 12		<b>MTS0250C42 24 UN</b>	1/4	.138	3	.42	2.5	2xD1
	10, 12		<b>MTS06035C15 24 UN</b>	6 mm	.138	3	.61	2.3	3xD1
24		5/16, 3/8	<b>MTS0312C67 24 UN</b>	5/16	.260	3	.67	2.5	2xD1
		5/16, 3/8	<b>MTS0312C94 24 UN</b>	5/16	.260	3	.94	2.5	3xD1
20	1/4		<b>MTS0250C55 20 UN</b>	1/4	.187	3	.55	2.5	2xD1
	1/4		<b>MTS06047C14 20 UN-L</b>	6 mm	.187	3	.55	4.1	2xD1
	1/4		<b>MTS0250C75 20 UN</b>	1/4	.187	3	.75	2.5	3xD1
	1/4		<b>MTS06047C19 20 UN-L</b>	6 mm	.187	3	.75	4.1	3xD1
20		7/16	<b>MTS0312C98 20 UN</b>	5/16	.312	3	.98	2.5	2xD1
		7/16	<b>MTS0808C34 20 UN</b>	8 mm	.315	3	1.36	2.5	3xD1
18	5/16		<b>MTS0250C67 18 UN</b>	1/4	.236	3	.67	2.5	2xD1
	5/16		<b>MTS0250C91 18 UN</b>	1/4	.236	3	.91	2.5	3xD1
18		5/8	<b>MTS0500D14 18 UN</b>	1/2	.500	4	1.38	3.5	2xD1
		5/8	<b>MTS1212D49 18 UN</b>	12 mm	.472	4	1.93	4.1	3xD1
16	3/8		<b>MTS0312C87 16 UN</b>	5/16	.264	3	.87	2.5	2xD1
	3/8		<b>MTS08067C30 16 UN</b>	8 mm	.264	3	1.19	2.5	3xD1
14	7/16		<b>MTS0312C98 14 UN</b>	5/16	.303	3	.98	2.5	2xD1
	7/16		<b>MTS08077C35 14 UN</b>	8 mm	.303	3	1.39	2.5	3xD1
13	1/2		<b>MTS0375C10 13 UN</b>	3/8	.362	3	1.08	3.0	2xD1
	1/2		<b>MTS10092C40 13 UN</b>	10 mm	.362	3	1.58	2.9	3xD1
12	9/16		<b>MTS0500C12 12 UN</b>	1/2	.413	3	1.24	3.5	2xD1
	9/16		<b>MTS12105C45 12 UN</b>	12 mm	.413	3	1.77	4.1	3xD1
11	5/8		<b>MTS0500C13 11 UN</b>	1/2	.449	3	1.36	3.5	2xD1
	5/8		<b>MTS12114C50 11 UN</b>	12 mm	.449	3	1.97	4.1	3xD1
10	3/4		<b>MTS16144D41 10 UN</b>	5/8	.567	4	1.63	4.0	2xD1
	3/4		<b>MTS16144D59 10 UN</b>	16 mm	.567	4	2.35	4.1	3xD1

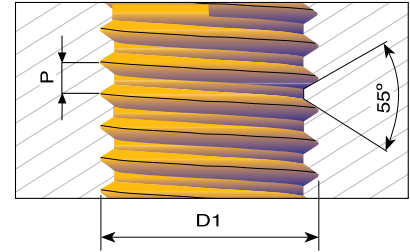
Order example: MTS 0250C26 56UN MT7

\*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.

## G 55° BSW, BSP

Same Tool for Internal and External Thread - Metric Shanks



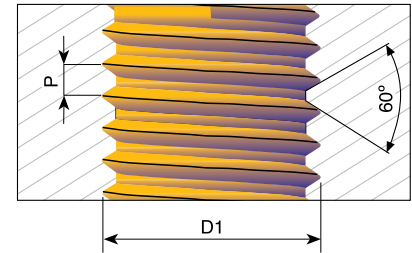
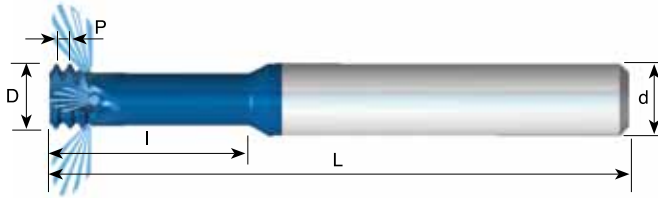
For thread depth up to 2 x D1

Pitch TPI	Standard	Ordering Code	d mm	D	No. of Flutes	I	L
28	G 1/8	<b>MTS08078C19 28 W</b>	8	.307	3	0.77	2.5
19	G 1/4 - 3/8	<b>MTS1010D30 19 W</b>	10	.393	4	1.18	2.9
14	G 1/2 - 7/8	<b>MTS1212D37 14 W</b>	12	.472	4	1.46	3.3
11	G ≥ 1	<b>MTS1616D44 11 W</b>	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	6		MTS06025C7 32 UNJ	6	.100	3	.28	2.3
* 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

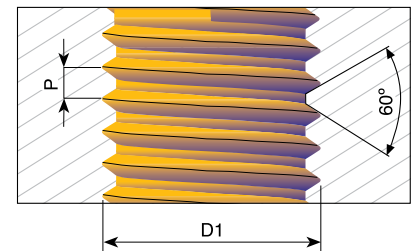
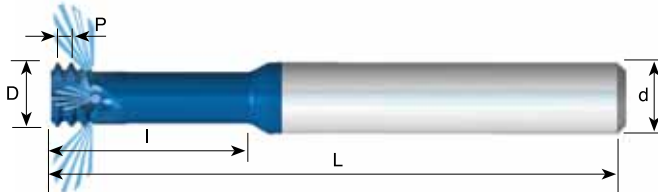
\* Cutters without coolant

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



## MTSB

Carmex has developed a new innovative solid carbide thread milling cutters  
**MTSB** type with internal coolant **Bore**.

The coolant bores provides high coolant pressure through the tool  
into the application pre-hole, and washes the chips away.

High pressure coolant extends tool life.

Also the coolant liquid cools the tool cutting edge very efficient.

### Excellent solution for:

- Small and deep threads.
- Thread milling operation on horizontal machining centers, where chips are concentrated at the bottom of the thread and external coolant can't wash the chips away.
- Complicated applications where external coolant is inefficient or can't reach the machined area.
- In certain cases the tool collet is close to the application pre-hole and blocks the external coolant.

Can be also used on any other thread milling operation (blind or through hole) require improved performance with highest thread quality.

### Features:

- Increased number of flutes for high performance, shorter cycle time and improved tool life.
- Working at high machining parameters (increasing productivity).
- Advance PVD triple coating.
- Threads size: M1.2 up to M8  
0-80 up to 12-24UNC

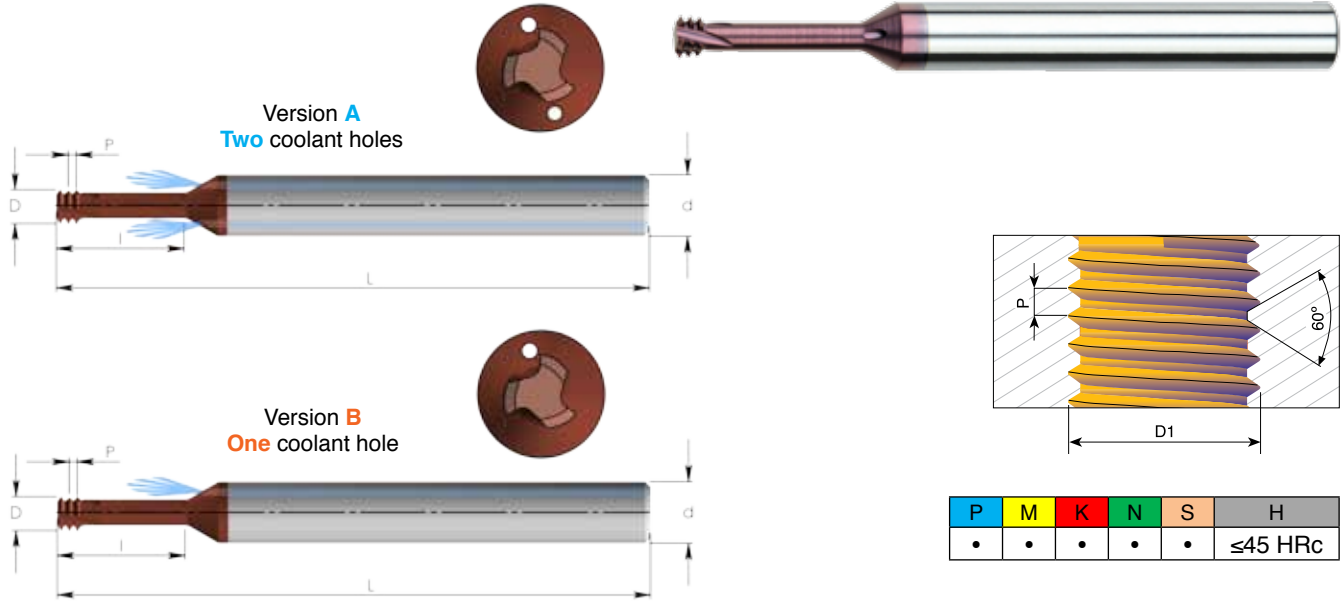
### Carbide grade: MT7

Sub-Micron grade with advance PVD triple coating.

Extremely high heat resistance and smooth cutting operation, for high performance and normal machining conditions.

## ISO

### Tools for Internal Thread

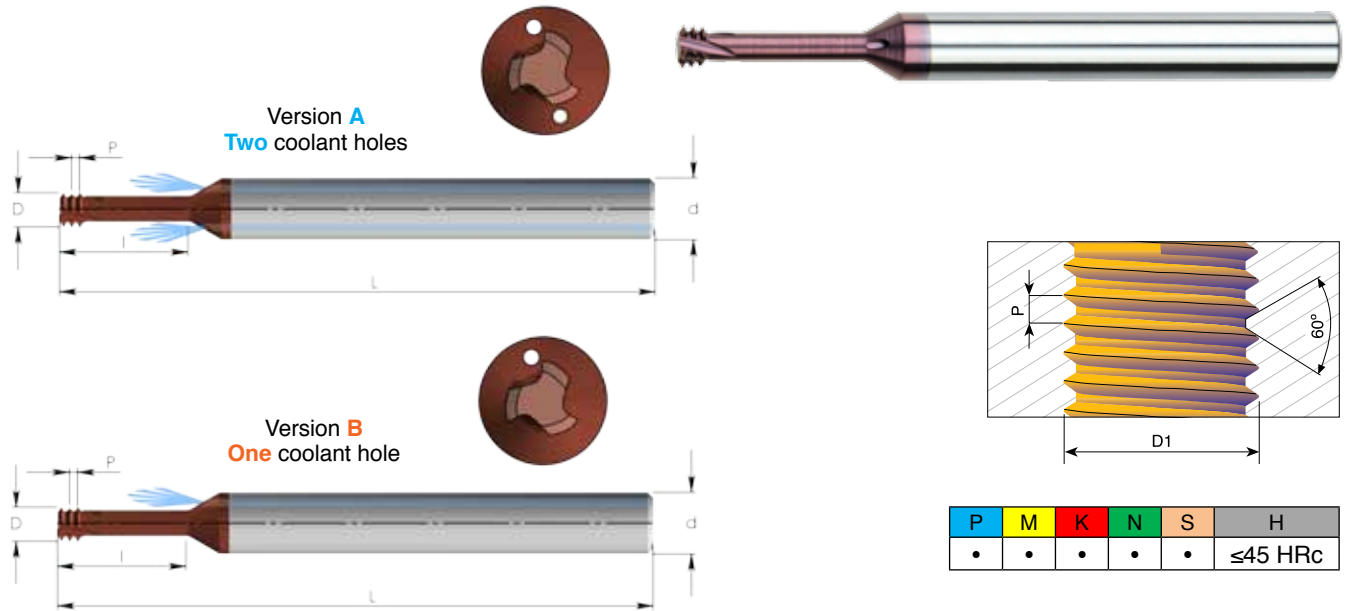


Pitch mm	M coarse	M Fine	Ordering Code	d mm	D	No. of Flutes	I	L	Thread depth	Version
0.25	M1.2	M1.4	<b>MTSB 06009 C2 0.25 ISO</b>	6	.035	3	.11	2.3	2xD1	A
0.3	M1.4		<b>MTSB 06011 C4 0.3 ISO</b>	6	.041	3	.18	2.3	3xD1	A
0.35	M1.6	M2	<b>MTSB 06012 C5 0.35 ISO</b>	6	.047	3	.20	2.3	3xD1	A
0.4	M2		<b>MTSB 06016 C4 0.4 ISO</b>	6	.061	3	.17	2.3	2xD1	A
0.4	M2		<b>MTSB 06016 C6 0.4 ISO</b>	6	.061	3	.25	2.3	3xD1	A
0.45	M2.5		<b>MTSB 0602 D5 0.45 ISO</b>	6	.077	4	.22	2.3	2xD1	A
0.45	M2.5		<b>MTSB 0602 D7 0.45 ISO</b>	6	.077	4	.31	2.3	3xD1	A
0.5	M3		<b>MTSB 06024 D6 0.5 ISO</b>	6	.094	4	.26	2.3	2xD1	A
0.5	M3		<b>MTSB 06024 D9 0.5 ISO</b>	6	.094	4	.37	2.3	3xD1	A
0.6	M3.5		<b>MTSB 06028 D7 0.6 ISO</b>	6	.110	4	.30	2.3	2xD1	A
0.7	M4		<b>MTSB 06032 D8 0.7 ISO</b>	6	.126	4	.34	2.3	2xD1	B
0.7	M4		<b>MTSB 06032 D12 0.7 ISO</b>	6	.126	4	.50	2.3	3xD1	B
0.8	M5		<b>MTSB 06038 D10 0.8 ISO</b>	6	.150	4	.43	2.3	2xD1	B
0.8	M5		<b>MTSB 06038 D15 0.8 ISO</b>	6	.150	4	.62	2.3	3xD1	B
1.0	M6	M8	<b>MTSB 08048 D13 1.0 ISO</b>	8	.189	4	.51	2.5	2xD1	B
1.0	M6	M8	<b>MTSB 08048 D19 1.0 ISO</b>	8	.189	4	.75	2.5	3xD1	B

Order example: MTSB 06012 C5 0.35 ISO MT7

## UN

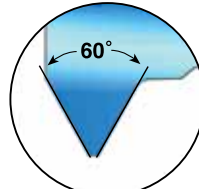
### Tools for Internal Thread



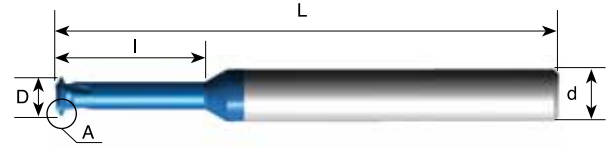
Pitch TPI	UNC	UNF	Ordering Code	d mm	D	No. of Flutes	I	L	Thread depth	Version
80		0	<b>MTSB 06012 C4 80 UN</b>	6	.045	3	.19	2.3	3xD1	A
72		1	<b>MTSB 06014 C5 72 UN</b>	6	.057	3	.23	2.3	3xD1	A
56	2	3	<b>MTSB 06016 C4 56 UN</b>	6	.065	3	.19	2.3	2xD1	A
56	2	3	<b>MTSB 06016 C7 56 UN</b>	6	.065	3	.28	2.3	3xD1	A
48	3	4	<b>MTSB 06019 D5 48 UN</b>	6	.075	4	.22	2.3	2xD1	A
40	4		<b>MTSB 06021 D6 40 UN</b>	6	.083	4	.25	2.3	2xD1	A
40	4		<b>MTSB 06021 D9 40 UN</b>	6	.083	4	.36	2.3	3xD1	A
40	4		<b>MTSB 06021 D12 40 UN</b>	6	.083	4	.47	2.3	4xD1	A
40	5	6	<b>MTSB 06024 D7 40 UN</b>	6	.096	4	.28	2.3	2xD1	A
32	6		<b>MTSB 06025 D7 32 UN</b>	6	.100	4	.31	2.3	2xD1	A
32	6		<b>MTSB 06025 D11 32 UN</b>	6	.100	4	.44	2.3	3xD1	A
32	8		<b>MTSB 06032 D9 32 UN</b>	6	.126	4	.36	2.3	2xD1	B
32	8		<b>MTSB 06032 D13 32 UN</b>	6	.126	4	.52	2.3	3xD1	B
32		10	<b>MTSB 06037 D10 32 UN</b>	6	.146	4	.41	2.3	2xD1	B
32		10	<b>MTSB 06037 D15 32 UN</b>	6	.146	4	.60	2.3	3xD1	B
24	10, 12		<b>MTSB 06035 D10 24 UN</b>	6	.138	4	.42	2.3	2xD1	B
24	10, 12		<b>MTSB 06035 D15 24 UN</b>	6	.138	4	.61	2.3	3xD1	B

Order example: MTSB 06016 C4 56 UN MT7

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



Detail A

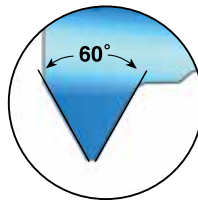


Pitch mm	Pitch TPI	Ordering Code	M Coarse	M Fine	UN, UNC, UNS UNF, UNEF	d mm	D	No. of Flutes	I	L
0.25-0.35	100-72	<b>MTI03012C3 A60</b>	M1.6 x 0.35	M1.6 x 0.25 M1.8 x 0.25 M2.0 x 0.25	0-80 UNF	3	.045	3	.12	1.5
0.35-0.45	72-56	<b>MTI03014C4 A60</b>	M2 x 0.4 M2.2 x 0.45	M2 x 0.35 M2.2 x 0.35	1-64 UNC, 1-72 UNF, 2-56 UNC, 2-64 UNF	3	.055	3	.15	1.5
0.35-0.6	72-40	<b>MTI03019C5 A60</b>	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	<b>MTI03024C7 A60</b>	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	<b>MTI06032C9 A60</b>	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	<b>MTI0604C12 A60</b>	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

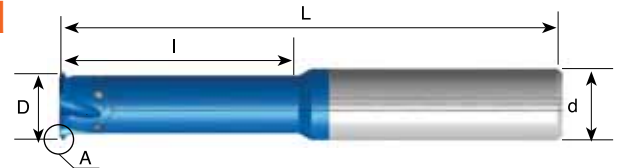
Order example: MTI 03024C7 A60 MT11

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

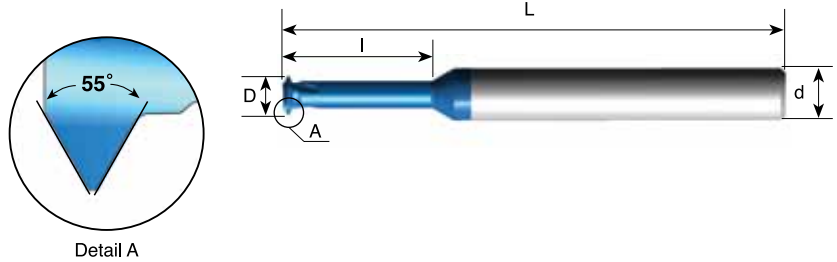
Pitch mm	Pitch TPI	Thread Dia. (mm)	Ordering Code	d mm	D	No. of Flutes	I	L
Int. 0.5 - 0.8 Ex. 0.4 - 0.8	56-28 64-32	ø ≥ 6	<b>MTI0605D20 A60</b>	6	.197	4	.79	2.3
		ø ≥ 9	<b>MTI0808D28 A60</b>	8	.315	4	1.10	2.5
		ø ≥ 13	<b>MTI1212E38 A60</b>	12	.472	5	1.50	3.3
Int. 1.0 - 1.75 Ex. 0.8 - 1.5	28-14 32-16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



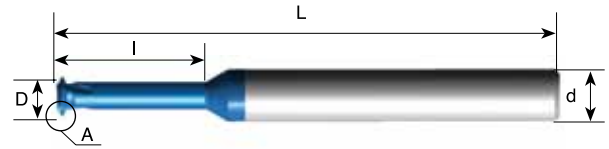
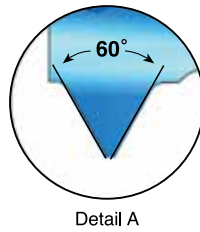
Pitch TPI	Ordering Code	d mm	D	No. of Flutes	l	L
40-32	<b>MTI03023C7 A55</b>	3	.089	3	.28	1.5
28-20	<b>MTI06044C14 A55</b>	6	.171	3	.55	2.3
28-18	<b>MTI06059C20 A55</b>	6	.230	3	.81	2.3
20-14	<b>MTI0807C23 A55</b>	8	.276	3	.91	2.5

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

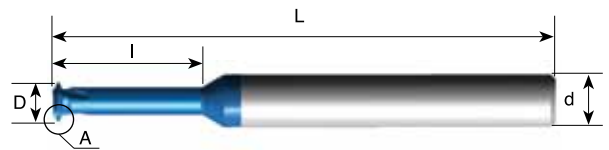
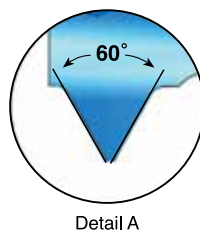
Pitch mm	M Coarse	M Fine	Ordering Code	d mm	D	No. of Flutes	l	L
0.25	M1 x 0.25		<b>MTI03007C3 0.25 ISO</b>	3	.028	3	.14	1.5
0.25	M1.2 x 0.25	M1.4 x 0.25 M1.6 x 0.25	<b>MTI03009C4 0.25 ISO</b>	3	.035	3	.17	1.5
0.3	M1.4 x 0.3		<b>MTI03011C5 0.3 ISO</b>	3	.041	3	.20	1.5
0.35	M1.6 x 0.35	M2 x 0.35 M2.2 x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

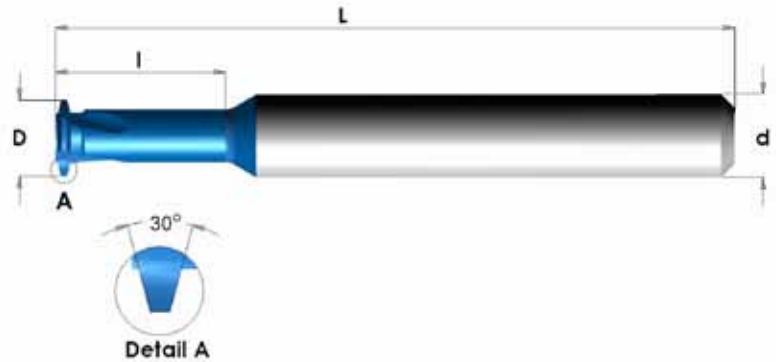
Pitch TPI	UNC	UNF	Ordering Code	d mm	D	No. of Flutes	l	L
80		0	<b>MTI03012C5 80 UN</b>	3	.045	3	.22	1.5
72		1	<b>MTI03015C7 72 UN</b>	3	.057	3	.26	1.5
56	2	3	<b>MTI03016C9 56 UN</b>	3	.065	3	.35	1.5
40	4		<b>MTI03021C10 40 UN</b>	3	.083	3	.40	1.5

Order example: MTI 03016C9 56 UN MT11

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

## Trapez-DIN 103

### Tools for Internal Thread



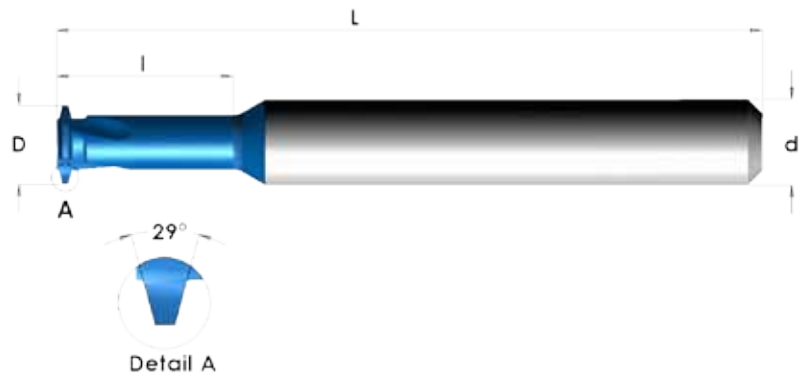
For thread depth up to 2 x D1

Pitch mm	Thread size	Ordering Code	d mm	D	No. of Flutes	l	L
1.5	Tr8x1.5 Tr9x1.5	<b>MTI06055C13 1.5 TR</b>	6	.217	3	.53	2.3
2	Tr10x2 Tr11x2	<b>MTI08066C21 2 TR</b>	8	.260	3	.83	2.5
2	Tr12x2 Tr14x2	<b>MTI10086D25 2 TR</b>	10	.339	4	.98	2.9
3	Tr12x3	<b>MTI0807C25 3 TR</b>	8	.276	3	.98	2.5
3	Tr14x3 Tr22x3	<b>MTI10089D29 3 TR</b>	10	.350	4	1.14	2.9
4	Tr16x4 Tr18x4 Tr20x4	<b>MTI10092C33 4 TR</b>	10	.362	3	1.30	2.9
5	Tr22x5 Tr24x5 Tr26x5	<b>MTI14135D45 5 TR</b>	14	.531	4	1.77	4.1

Order example: MTI 08066C21 2TR MT8

## Acme

### Tools for Internal Thread



Pitch TPI	Thread size	Ordering Code	d	D	No. of Flutes	I	L
16	1/4-16	<b>MTI0250C04 16 ACME</b>	1/4	.170	3	.38	2.5
14	5/16-14	<b>MTI0250C06 14 ACME</b>	1/4	.205	3	.60	2.5
12	3/8-12 7/16-12	<b>MTI0250C08 12 ACME</b>	1/4	.240	3	.75	2.5
10	1/2-10	<b>MTI0375D10 10 ACME</b>	3/8	.327	4	1.00	3.0
8	5/8-8	<b>MTI0500D11 8 ACME</b>	1/2	.410	4	1.10	3.5
6	3/4-6 7/8-6	<b>MTI0500D12 6 ACME</b>	1/2	.472	4	1.20	3.5
5	1-5 1 1/8-5 1 1/4-5	<b>MTI 0625E15 5 ACME</b>	5/8	.625	5	1.50	4.0

Order example: MTI 0375D10 10ACME MT8