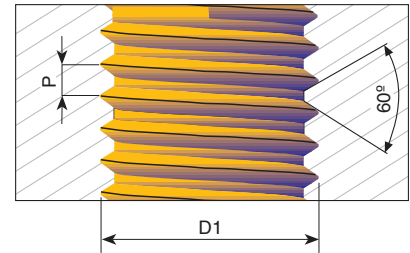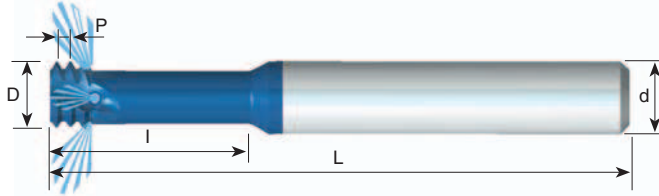## ◆C.P.T.

UNJ With internal coolant through the flutes
Tools for Internal Thread

For thread depth up to 2.5xD1

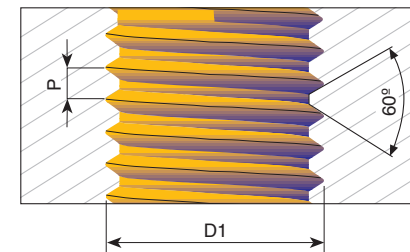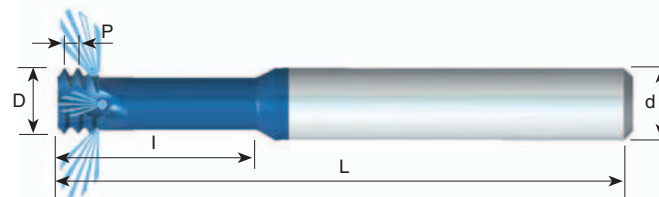| Pitch TPI	UNJC	UNJF	Ordering Code		d	D	No. of Flutes	l	L
*32	8	10	MTS06033C10	32 UNJ	6	3.30	3	10.5	58
28		1/4	MTS08051C16	28 UNJ	8	5.10	3	16.0	64
24		5/16, 3/8	MTS08067C20	24 UNJ	8	6.70	3	20.0	64
*20	1/4		MTS06049C16	20 UNJ	6	4.90	3	16.0	58
20		7/16	MTS0808C28	20 UNJ	8	8.00	3	28.0	64
18	5/16		MTS08061C20	18 UNJ	8	6.15	3	20.0	64
16	3/8		MTS08069C24	16 UNJ	8	6.90	3	24.0	64
14	7/16		MTS08079C25	14 UNJ	8	7.90	3	25.0	64
13	1/2		MTS10094C27	13 UNJ	10	9.40	3	27.5	73

* 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 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

For thread depth up to 2.5xD1

Pitch mm	D1	Ordering Code		d	D	No. of Flutes	l	L
* 0.7	MJ4	MTS06032C10	0.7 MJ	6	3.20	3	10.0	58
* 0.8	MJ5	MTS06039C12	0.8 MJ	6	3.90	3	12.5	58
* 1.0	MJ6	MTS06048C15	1.0 MJ	6	4.80	3	15.0	58
1.25	MJ8	MTS08061C20	1.25 MJ	8	6.10	3	20.0	64
1.5	MJ10	MTS0808C25	1.5 MJ	8	8.00	3	25.0	64
1.75	MJ12	MTS10092C30	1.75 MJ	10	9.20	3	30.0	73
2.0	MJ14, MJ16	MTS1010C35	2.0 MJ	10	10.00	3	35.0	73

* Cutters without coolant
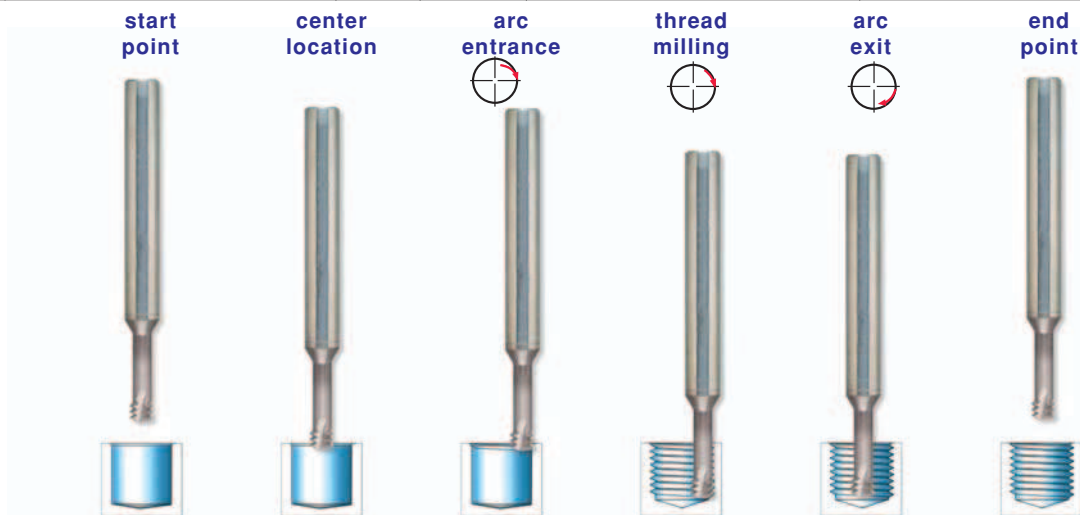
Order example: MTS 06048C15 1.0 MJ MT8

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

C.P.T.

Mini Mill Thread MTS and MTI types

MT7 Sub-Micron Grade with Titanium Aluminum Nitride multi-layer coating (ISO K10 - K20). This is a general purpose grade, which can be used with all materials; it should be run at medium to high cutting speeds.

MT8 Sub-Micron Grade with Aluminium Titanium Nitride (AlTiN) multi-layer coating (ISO K10-K20). Extremely high heat resistant and smooth cutting operation, for high performance, and normal machining conditions. General purpose for all materials.

ISO Standard	Material	Cutting Speed m/min	Feed mm/tooth Cutting Diameter = D													
			ø1	ø1.5	ø2	ø3	ø4	ø5	ø6	ø7	ø8	ø9	ø10	ø12	ø14	ø16
P	Low & Medium Carbon Steels < 0.55%C	60-120	0.04	0.05	0.05	0.07	0.09	0.11	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.18
	High Carbon Steels ≥ 0.55%C	60- 90	0.03	0.04	0.05	0.06	0.08	0.09	0.10	0.12	0.13	0.14	0.14	0.16	0.17	0.18
	Alloy Steels, Treated Steels	50- 80	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.10	0.12	0.13	0.14
M	Stainless Steels - Free Cutting	70-100	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13
	Stainless Steel-Austenitic	60- 90	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.10	0.11	0.12	0.13
	Cast Steels	70- 90	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.08	0.09	0.10	0.12	0.13	0.14
K	Cast Iron	40- 80	0.04	0.05	0.05	0.07	0.09	0.11	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.18
N	Aluminium ≤10%Si, Copper	100-200	0.04	0.05	0.05	0.07	0.09	0.11	0.13	0.14	0.15	0.16	0.16	0.17	0.18	0.18
	Aluminium >10%Si	60-140	0.03	0.03	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.10	0.11	0.13	0.14
	Synthetics, Duroplastics, Thermoplastics	50-200	0.09	0.10	0.11	0.12	0.14	0.16	0.18	0.19	0.19	0.19	0.19	0.19	0.20	0.20
S	Nickel Alloys and Titanium Alloys	20-40	0.03	0.03	0.03	0.04	0.04	0.05	0.06	0.06	0.06	0.07	0.07	0.07	0.08	0.08

start point   **center location**   **arc entrance**   **thread milling**   **arc exit**   **end point**

Mini Mill-Thread vs. Taps

Features	Mini Mill-Thread	Taps
Thread surface quality	High	Medium
Thread geometry	Very accurate	Medium
Thread tolerances	4H, 5H, 6H with std cutter	6H with standard tap, 4H with specific tap
Machining time	Same as tap or shorter	Short
Tool breakage	Almost not possible	Could happen often
Machining load	Very low	High
Range of thread diameters	Wide range of diameters	Specific tap for each diameter
Right/Left hand threading	Same cutter	Specific tap for each
Geometric shape	Full profile	Partial profile