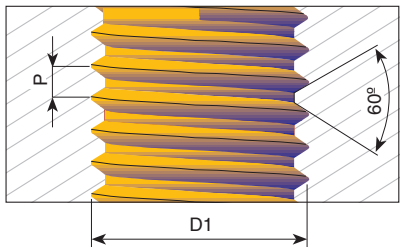
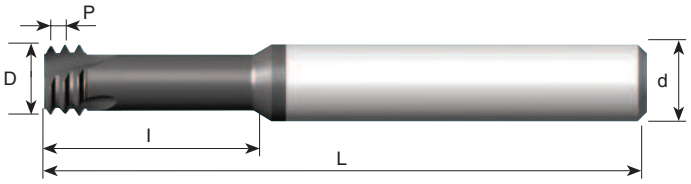
HARDCUT

A unique line of thread milling tools designed specifically for the machining of hardened materials up to 62HRc.
These tools provide high performance, improved cut and an excellent surface finish.



Carbide grade: MT9
Sub-micron carbide grade with advanced Titanium Aluminium Nitride coating.



- Threading from M1.4 x 0.3
- Perfect solution for the Die and Mold industry
- Working at high cutting speeds
- Short machining time
- Low cutting forces thanks to the short profile

ISO

Tools for Internal Thread

For thread depth up to 2xD1

Left hand cutting
For CNC code use M04

Pitch mm	D1	Ordering Code	d	D	No. of Flutes	l	L
0.4	M2	MTSH06016C4 0.4 ISO	6	1.55	3	4.5	58
0.45	M2.2	MTSH06017C5 0.45 ISO	6	1.65	3	5.0	58
0.45	M2.5	MTSH0602C5 0.45 ISO	6	1.95	3	5.5	58
0.5	M3	MTSH06024C6 0.5 ISO	6	2.35	3	6.5	58
0.6	M3.5	MTSH06028C7 0.6 ISO	6	2.75	3	7.5	58
0.7	M4	MTSH06031C9 0.7 ISO	6	3.10	3	9.0	58
0.8	M5	MTSH06038C12 0.8 ISO	6	3.80	3	12.5	58
1.0	M6	MTSH06047C14 1.0 ISO	6	4.65	3	14.0	58
1.25	M8	MTSH0606C18 1.25 ISO	6	5.95	3	18.0	58
1.5	M10	MTSH08078C23 1.5 ISO	8	7.80	3	23.0	64
1.75	M12	MTSH1009C26 1.75 ISO	10	9.00	3	26.0	73
2.0	M16	MTSH12118D35 2.0 ISO	12	11.80	4	35.0	84

For thread depth up to 3xD1

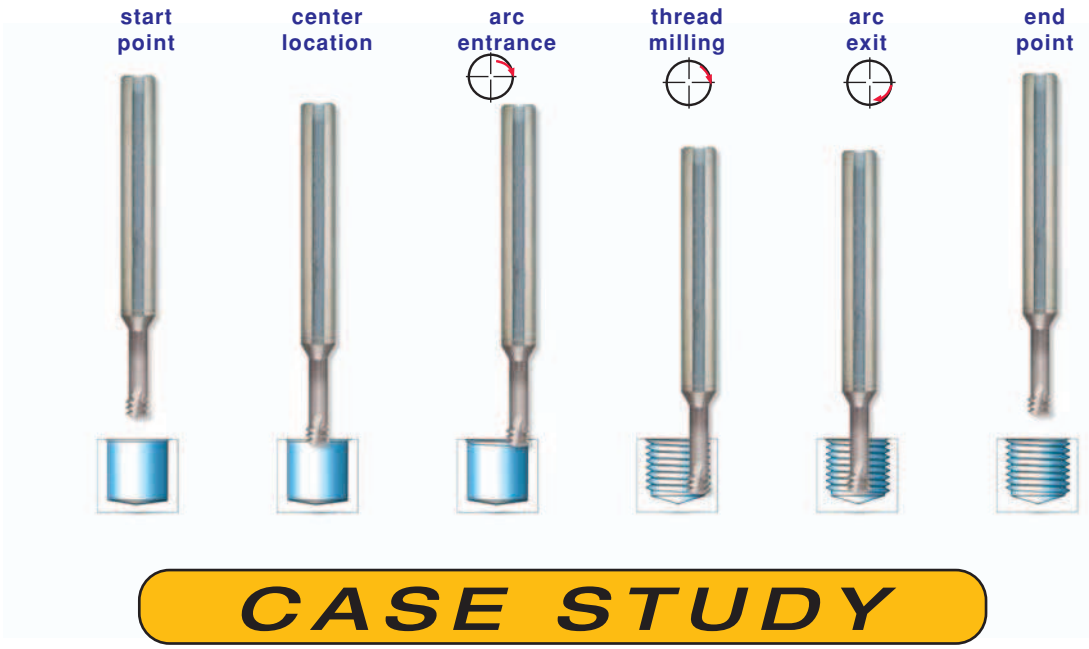
Pitch mm	D1	Ordering Code	d	D	No. of Flutes	l	L
0.3	M1.4	MTSH03011C4 0.3 ISO	3	1.05	3	4.0	39
0.35	M1.6	MTSH03012C5 0.35 ISO	3	1.20	3	4.8	39
0.4	M2	MTSH03016C6 0.4 ISO	3	1.55	3	6.0	39
0.45	M2.5	MTSH0602C7 0.45 ISO	6	1.95	3	7.5	58
0.5	M3	MTSH06024C9 0.5 ISO	6	2.35	3	9.5	58
0.7	M4	MTSH06031C12 0.7 ISO	6	3.10	3	12.5	58
0.8	M5	MTSH06038C16 0.8 ISO	6	3.80	3	16.0	58
1.0	M6	MTSH06047C20 1.0 ISO	6	4.65	3	20.0	58
1.25	M8	MTSH0606C24 1.25 ISO	6	5.95	3	24.0	58

Order example: MTSH 06031C9 C 0.7 ISO MT9

Mini Mill Thread MTSH type

MT9 Sub-Micron Grade with advanced PVD triple coating.

ISO	Material	Hardness HRc	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
S	Nickel Alloys, Titanium Alloys and High Temp. 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
H	Hardened Steels	45-50	60-70	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.08	0.09	0.10	0.11
		51-55	50-60	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.07	0.08	0.09	0.10
		56-62	40-50	0.01	0.02	0.02	0.03	0.03	0.04	0.04	0.05	0.05	0.06	0.06	0.07	0.08	0.09



CASE STUDY

Application	Internal Thread M4 X 0.7
Thread Depth	8.0 mm
Workpiece Material	Tool Steel: D2
Hardness	60-62 (HRc)
Cutter Description	MTSH0250C35 0.7 ISO
Machining Conditions	Cutting Speed: 44 m / min Feed: 0.03 mm / tooth
Machine	Mori Seiki VN5000
Control	Fanuc
Cooling Lubricant	Emulsion
Tool Life (No. of Threads)	84