



## Advantages of Mill-Thread Solid Carbide

- Thread is generated in one pass.
- Spiral flutes allow smooth cutting action.
- Shorter machining time due to multi, 3 to 6 flutes.
- 2.2 mm and up cutting diameter.
- Threads up to shoulder in blind hole.
- Longer tool life due to special multi-layer coating.
- Same tool can be used for a variety of materials.
- Excellent surface finish.
- Low cutting pressure allows thin wall machining.
- Same tool used for R.H and L.H. threads.



Demonstration

**MT** - Thread Mills without internal coolant  
**MTB** - Thread Mills with internal coolant bore for blind holes  
**MTZ** - Thread Mills with internal coolant through the flutes  
**MTQ** - Thread Mills that include relieved neck for deep work pieces  
**FMT** - Fast Thread Mills with internal coolant bore  
**AMT** - Solid Carbide Thread Mills for Aluminum machining  
**EMT** - Thread Mills For External Threads



Demonstration

### Contents:

### Page:

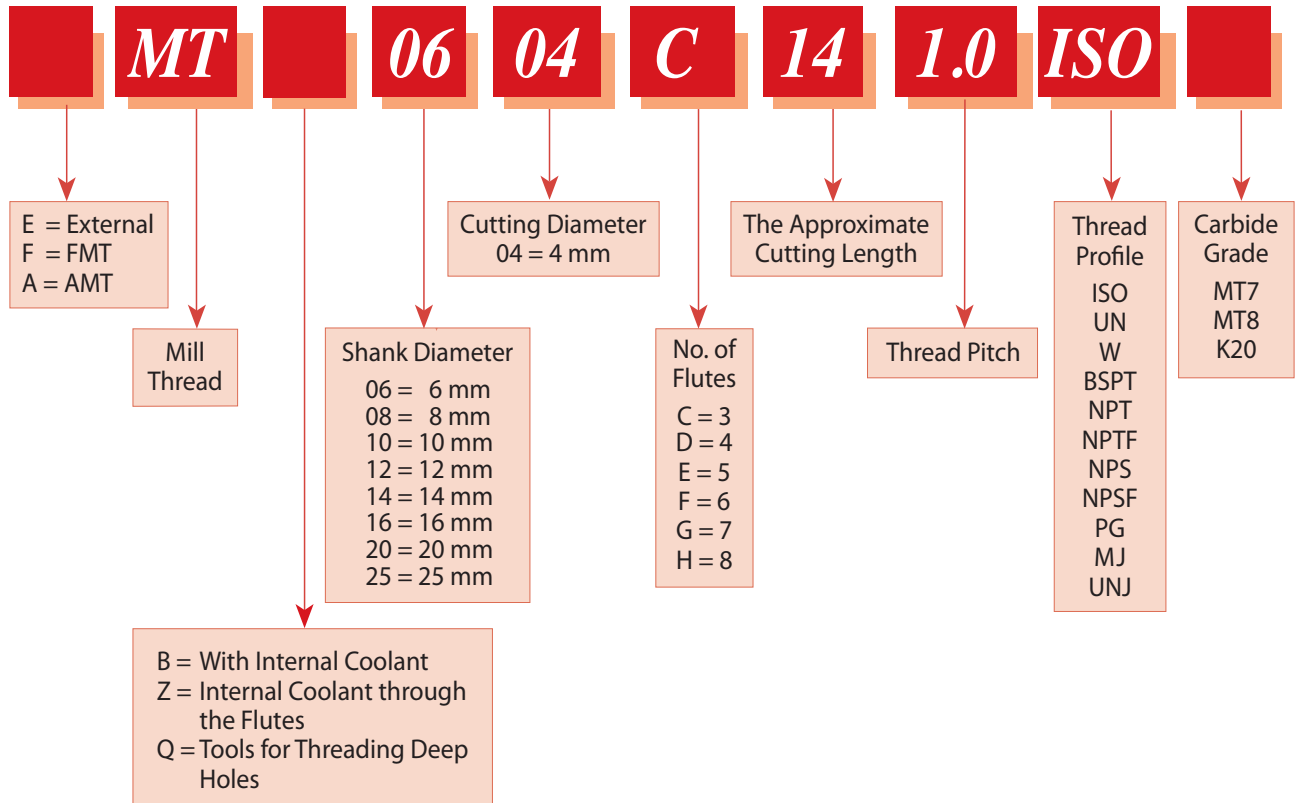
### Contents:

### Page:

Product Identification	2	<b>BSPT</b> - without coolant bore - MT	18
<b>ISO</b> - without coolant bore - MT	3	with internal coolant bore - MTB	18
with internal coolant bore - MTB	4	with internal coolant through the flutes - MTZ	19
with internal coolant through the flutes - MTZ	5	<b>NPT</b> - without coolant bore - MT	20
with relieved neck and internal coolant bore - MTQ	6	with internal coolant bore - MTB	20
with internal coolant bore - FMT	7	with internal coolant through the flutes - MTZ	21
with internal coolant bore - AMT	8	<b>NPTF</b> - without coolant bore - MT	21
with internal coolant bore and cutting chamfer - AMT	8	with internal coolant bore - MTB	22
<b>UN</b> - without coolant bore - MT	9	with internal coolant through the flutes - MTZ	22
with internal coolant bore - MTB	10	<b>Solid Carbide Tapered End Mills</b>	23
with internal coolant through the flutes - MTZ	11	<b>NPS</b> - with internal coolant bore - MTB	24
with relieved neck and internal coolant bore - MTQ	12	<b>NPSF</b> - with internal coolant bore - MTB	24
with internal coolant bore - FMT	13	<b>MJ</b> - with internal coolant bore - MTB	25
with internal coolant bore - AMT	13	<b>UNJ</b> - with internal coolant bore - MTB	25
with internal coolant bore and cutting chamfer - AMT	14	<b>PG DIN 40430</b> - with internal coolant bore MTB	26
<b>G (55°)</b> - without coolant bore - MT	14	<b>Mill - Thread Solid Carbide for External Threads EMT</b>	27-28
with internal coolant bore - MTB	15	ISO	27
with internal coolant through the flutes - MTZ	15	UN	27
with internal coolant bore - FMT	16	MJ	28
<b>Whitworth</b> - with internal coolant bore - MTB	17	UNJ	28
with internal coolant through the flutes - MTZ	17		

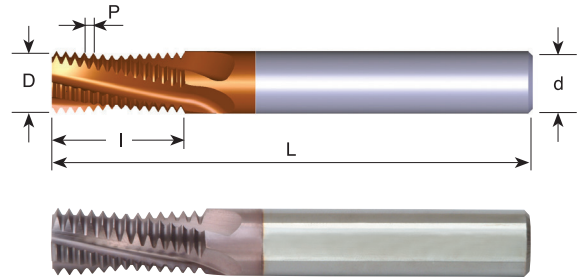
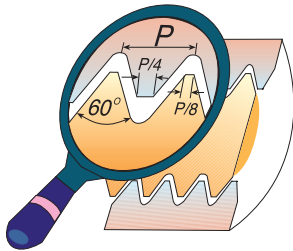
## Product Identification

### Mill-Thread Solid Carbide Ordering Codes



## ISO

### Tools for Internal Thread



Grade	P	M	K	N	S	H
MT7	●	○	●	○	○	

Pitch mm	M coarse	M fine	Ordering Code	d	D	No. of Flutes	I	L
0.5	M3	M4	<b>MT 06022 C5 0.5 ISO</b>	6	2.2	3	5.3	58
0.5		M5	<b>MT 06038 C10 0.5 ISO</b>	6	3.8	3	10.3	58
0.5		M6, M8	<b>MT 06053 D10 0.5 ISO</b>	6	5.3	4	10.3	58
0.7	M4		<b>MT 06031 C7 0.7 ISO</b>	6	3.1	3	7.4	58
0.75		M6, M8	<b>MT 06045 C10 0.75 ISO</b>	6	4.5	3	10.1	58
0.75		M6, M8	<b>MT 0605 C13 0.75 ISO</b>	6	5.0	3	13.1	58
0.8	M5		<b>MT 06036 C9 0.8 ISO</b>	6	3.6	3	9.2	58
0.8	M5		<b>MT 0604 C13 0.8 ISO</b>	6	4.0	3	13.2	58
1.0	M6	M8	<b>MT 0604 C10 1.0 ISO</b>	6	4.0	3	10.5	58
1.0	M6	M8	<b>MT 0604 C14 1.0 ISO</b>	6	4.0	3	14.5	58
1.0		M9	<b>MT 0606 C12 1.0 ISO</b>	6	6.0	3	12.5	58
1.0		M10	<b>MT 0808 D16 1.0 ISO</b>	8	8.0	4	16.5	64
1.25	M8	M10	<b>MT 0605 C14 1.25 ISO</b>	6	5.0	3	14.4	58
1.25	M8	M10	<b>MT 0605 C19 1.25 ISO</b>	6	5.0	3	19.4	58
1.5	M10	M12	<b>MT 0807 C17 1.5 ISO</b>	8	7.0	3	17.3	64
1.5	M10	M12	<b>MT 0807 C24 1.5 ISO</b>	8	7.0	3	24.8	76
1.5		M14	<b>MT 1010 D21 1.5 ISO</b>	10	10.0	4	21.8	73
1.5		M14	<b>MT 1212 D29 1.5 ISO</b>	12	12.0	4	29.3	84
1.5		M16, M18	<b>MT 1414 D32 1.5 ISO</b>	14	14.0	4	32.3	84
1.5		M20	<b>MT 1616 F33 1.5 ISO</b>	16	16.0	6	33.8	105
1.75	M12		<b>MT 0808 C20 1.75 ISO</b>	8	8.0	3	20.1	64
1.75	M12		<b>MT 0808 C28 1.75 ISO</b>	8	8.0	3	28.9	76
2.0	M14	M17	<b>MT 1010 C27 2.0 ISO</b>	10	10.0	3	27.0	73
2.0	M14	M17	<b>MT 1010 C39 2.0 ISO</b>	10	10.0	3	39.0	105
2.0	M16	M18, M20	<b>MT 1212 D27 2.0 ISO</b>	12	12.0	4	27.0	84
2.0	M16	M18, M20	<b>MT 14128 D39 2.0 ISO</b>	14	12.8	4	39.0	105
2.0		M26	<b>MT 2020 F41 2.0 ISO</b>	20	20.0	6	41.0	105
2.5	M18, M20		<b>MT 1414 D33 2.5 ISO</b>	14	14.0	4	33.8	84
2.5	M18, M20		<b>MT 1414 D48 2.5 ISO</b>	14	14.0	4	48.8	105
3.0	M24	M28	<b>MT 1616 C40 3.0 ISO</b>	16	16.0	3	40.5	105
3.0	M24	M28	<b>MT 1616 C58 3.0 ISO</b>	16	16.0	3	58.5	120
3.0	M27	M28, M30	<b>MT 2020 D43 3.0 ISO</b>	20	20.0	4	43.5	105

Order example: MT 1212 D27 2.0 ISO MT7

● First choice    ○ Alternative

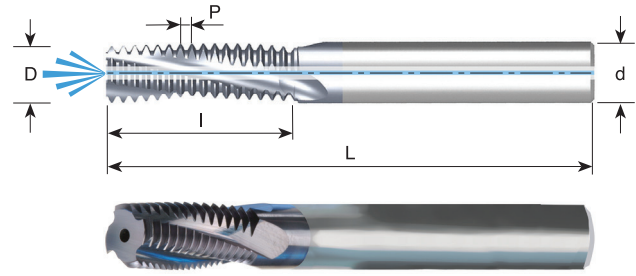
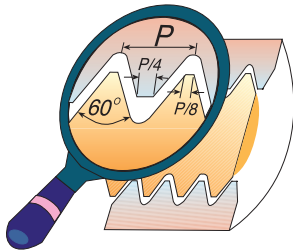
For thread mills with coolant bore see following pages

For small thread mills see pages B09-3, 4, 11, 15, 17 and B11-3, 6



## ISO With internal coolant bore

### Tools for Internal Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch mm	M coarse	M fine	Ordering Code	d	D	No. of Flutes	I	L
0.5		M5	<b>MTB 06038 C10 0.5 ISO</b>	6	3.8	3	10.3	58
0.7	M4		<b>MTB 06031 C7 0.7 ISO</b>	6	3.1	3	7.4	58
0.75		M6, M8	<b>MTB 06045 C10 0.75 ISO</b>	6	4.5	3	10.1	58
0.75		M12, M14	<b>MTB 1010 D24 0.75 ISO</b>	10	10.0	4	24.4	73
0.8	M5		<b>MTB 06038 C9 0.8 ISO</b>	6	3.8	3	9.2	58
0.8	M5		<b>MTB 0604 C13 0.8 ISO</b>	6	4.0	3	13.2	58
1.0	M6		<b>MTB 06046 C10 1.0 ISO</b>	6	4.6	3	10.5	58
1.0	M6		<b>MTB 06046 C14 1.0 ISO</b>	6	4.6	3	14.5	58
1.0		M8	<b>MTB 0606 C12 1.0 ISO</b>	6	6.0	3	12.5	58
1.0		M10	<b>MTB 0808 D16 1.0 ISO</b>	8	8.0	4	16.5	64
1.0		M12	<b>MTB 1010 D24 1.0 ISO</b>	10	10.0	4	24.5	73
1.25	M8	M10	<b>MTB 0606 C14 1.25 ISO</b>	6	6.0	3	14.4	58
1.25	M8	M10	<b>MTB 0606 C19 1.25 ISO</b>	6	6.0	3	19.4	58
1.5	M10	M12	<b>MTB 08078 C17 1.5 ISO</b>	8	7.8	3	17.0	64
1.5	M10	M12	<b>MTB 08078 C24 1.5 ISO</b>	8	7.8	3	24.8	76
1.5		M14	<b>MTB 1010 D21 1.5 ISO</b>	10	10.0	4	21.8	73
1.5		M14-M18	<b>MTB 1212 D26 1.5 ISO</b>	12	12.0	4	26.3	84
1.5		M20	<b>MTB 1616 F33 1.5 ISO</b>	16	16.0	6	33.8	105
1.75	M12		<b>MTB 1009 C20 1.75 ISO</b>	10	9.0	3	20.1	73
1.75	M12		<b>MTB 1009 C28 1.75 ISO</b>	10	9.0	3	28.9	73
2.0	M14	M17	<b>MTB 1010 C27 2.0 ISO</b>	10	10.0	3	27.0	73
2.0	M14	M17	<b>MTB 1211 D39 2.0 ISO</b>	12	11.0	4	39.0	105
2.0	M16	M18, M20	<b>MTB 12118 D27 2.0 ISO</b>	12	11.8	4	27.0	84
2.0	M16	M18, M20	<b>MTB 12118 D39 2.0 ISO</b>	12	11.8	4	39.0	105
2.0		M26	<b>MTB 2020 F41 2.0 ISO</b>	20	20.0	6	41.0	105
2.5	M20		<b>MTB 1615 E33 2.5 ISO</b>	16	15.0	5	33.8	105
2.5	M20		<b>MTB 1615 E48 2.5 ISO</b>	16	15.0	5	48.8	105
3.0	M24	M28	<b>MTB 2018 D40 3.0 ISO</b>	20	18.0	4	40.5	105
3.0	M24	M28	<b>MTB 2018 D58 3.0 ISO</b>	20	18.0	4	58.5	120
3.0	M27	M28, M30	<b>MTB 2020 D43 3.0 ISO</b>	20	20.0	4	43.5	105

Order example: MTB 08078 C17 1.5 ISO MT7

● First choice    ○ Alternative

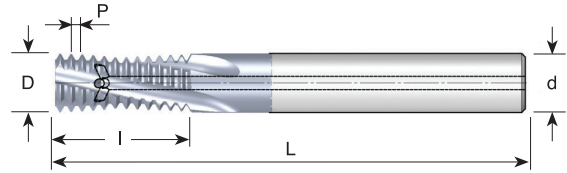
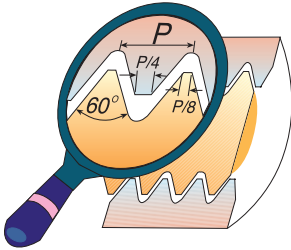
For thread mills with coolant through the flutes see next page

For small thread mills see pages B09-3, 4, 11, 15, 17 and B11-3, 6



## ISO With internal coolant through the flutes

### Tools for Internal Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch mm	M coarse	M fine	Ordering Code	d	D	No. of Flutes	I	L
1.0	M6	M8	<b>MTZ 06048 C10 1.0 ISO</b>	6	4.8	3	10.5	58
1.0		M8, M9	<b>MTZ 0606 C12 1.0 ISO</b>	6	6.0	3	12.5	58
1.0		M10	<b>MTZ 0808 D16 1.0 ISO</b>	8	8.0	4	16.5	64
1.25	M8	M10	<b>MTZ 0606 C14 1.25 ISO</b>	6	6.0	3	14.4	58
1.25	M8	M10	<b>MTZ 0606 C19 1.25 ISO</b>	6	6.0	3	19.4	58
1.5	M10	M12	<b>MTZ 08078 C17 1.5 ISO</b>	8	7.8	3	17.0	64
1.5	M10	M12	<b>MTZ 0808 C23 1.5 ISO</b>	8	8.0	3	23.3	64
1.5		M14	<b>MTZ 1010 D21 1.5 ISO</b>	10	10.0	4	21.8	73
1.5		M14, M16	<b>MTZ 1212 D26 1.5 ISO</b>	12	12.0	4	26.3	84
1.5		M16, M18	<b>MTZ 1414 D32 1.5 ISO</b>	14	14.0	4	32.3	101
1.5		M20	<b>MTZ 1616 E33 1.5 ISO</b>	16	16.0	5	33.8	101
1.75	M12		<b>MTZ 1009 C20 1.75 ISO</b>	10	9.0	3	20.1	73
1.75	M12		<b>MTZ 1009 C28 1.75 ISO</b>	10	9.0	3	28.9	73
2.0	M14	M17	<b>MTZ 1010 C27 2.0 ISO</b>	10	10.0	3	27.0	73
2.0	M16	M18, M20	<b>MTZ 12118 D27 2.0 ISO</b>	12	11.8	4	27.0	84
2.5	M20		<b>MTZ 1615 E33 2.5 ISO</b>	16	15.0	5	33.8	101

Order example: MTZ 08078 C17 1.5 ISO MT7

● First choice

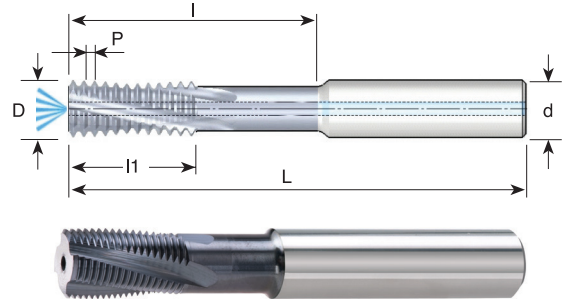
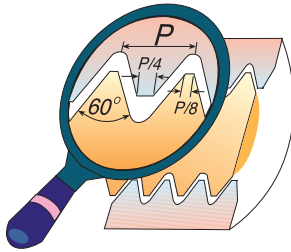
○ Alternative

For small thread mills see pages B09-3, 4, 11, 15, 17 and B11-3, 6



## ISO With relieved neck and internal coolant bore

### Tools for Internal Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch mm	M fine	Ordering Code	d	D	No. of Flutes	l1	l	L
1.0	$\varnothing \geq 12$	<b>MTQ 1010 D32 1.0 ISO</b>	10	10.0	4	18.0	32.0	73
1.0	$\varnothing \geq 14$	<b>MTQ 1212 D38 1.0 ISO</b>	12	12.0	4	21.0	38.0	84
1.0	$\varnothing \geq 18$	<b>MTQ 1616 F45 1.0 ISO</b>	16	16.0	6	26.0	45.0	105
1.5	$\varnothing \geq 13$	<b>MTQ 1010 D30 1.5 ISO</b>	10	10.0	4	18.0	30.0	73
1.5	$\varnothing \geq 15$	<b>MTQ 1212 D34 1.5 ISO</b>	12	12.0	4	19.5	34.5	84
1.5	$\varnothing \geq 19$	<b>MTQ 1616 F43 1.5 ISO</b>	16	16.0	6	25.5	43.5	105
1.5	$\varnothing \geq 23$	<b>MTQ 2020 F60 1.5 ISO</b>	20	20.0	6	36.0	60.0	105
2.0	$\varnothing \geq 16$	<b>MTQ 1212 D42 2.0 ISO</b>	12	12.0	4	24.0	42.0	84
2.0	$\varnothing \geq 20$	<b>MTQ 1616 E45 2.0 ISO</b>	16	16.0	5	26.0	45.0	105
2.0	$\varnothing \geq 24$	<b>MTQ 2020 F56 2.0 ISO</b>	20	20.0	6	34.0	56.0	105
3.0	$\varnothing \geq 22$	<b>MTQ 1616 D45 3.0 ISO</b>	16	16.0	4	30.0	45.0	105
3.0	$\varnothing \geq 26$	<b>MTQ 2020 E54 3.0 ISO</b>	20	20.0	5	33.0	54.0	105
3.5	$\varnothing \geq 26$	<b>MTQ 2020 D45 3.5 ISO</b>	20	20.0	4	28.0	45.5	105
4.0	$\varnothing \geq 31$	<b>MTQ 2525 D64 4.0 ISO</b>	25	25.0	4	40.0	64.0	160

Order example: MTQ 1010 D30 1.5 ISO MT7

● First choice    ○ Alternative

For small thread mills see pages B09-3, 4, 11, 15, 17 and B11-3, 6



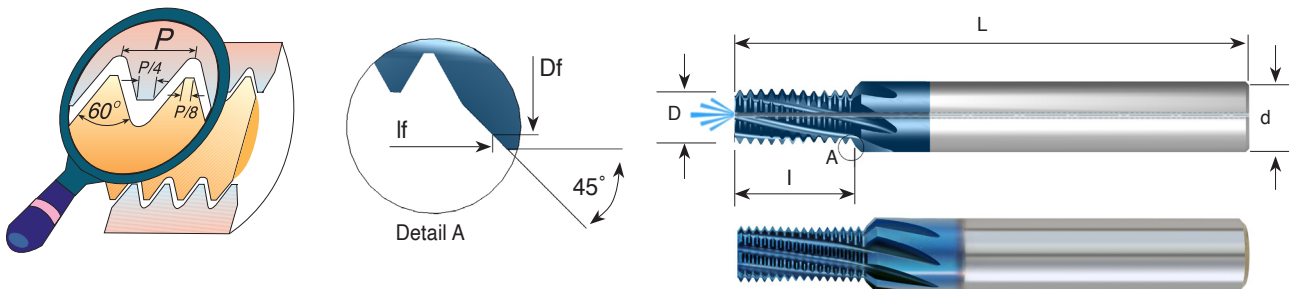
## ISO Fast MT with internal coolant bore

### Tools for Internal Thread

- A unique line of solid carbide thread milling tools (FMT) for increased productivity and extended tool life.
- Large number of flutes results in significantly shorter machining time.

### Carbide grade MT8:

Sub Micron grade with advanced PVD triple coating (ISO K10-K20). Extremely high heat resistance and smooth cutting operation for high performance in normal and general machining conditions on all materials.



Grade	P	M	K	N	S	H
MT8	●	●	●	○	●	≤52 HRc

Pitch mm	M coarse	M fine	Ordering Code	d	D	Df	Flutes	I	lf	L
0.5	M3	M3.5	*FMT 06024 D6 0.5 ISO	6	2.4	4.4	4	6.3	7.3	58
0.5		M4,M5	FMT 06033 E8 0.5 ISO	6	3.3	5.3	5	8.3	9.3	58
0.7	M4		FMT 06032 E7 0.7 ISO	6	3.2	4.8	5	7.4	8.2	58
0.75		M6	FMT 0805 F12 0.75 ISO	8	5.0	7.0	6	12.4	13.4	64
0.8	M5		FMT 0604 E9 0.8 ISO	6	4.0	5.7	5	9.2	10.1	58
1.0	M6	M8	FMT 08048 F10 1.0 ISO	8	4.8	6.8	6	10.5	11.5	64
1.0		M10,M12	FMT 12087 G20 1.0 ISO	12	8.7	11.7	7	20.5	22.0	84
1.25	M8	M10	FMT 10064 G14 1.25 ISO	10	6.4	9.6	7	14.4	16.0	73
1.5	M10	M14	FMT 1008 G17 1.5 ISO	10	8.0	9.8	7	17.3	18.2	73
1.75	M12		FMT 12095 G20 1.75 ISO	12	9.5	11.7	7	20.1	21.2	84
2.0	M14, M16	M18	FMT 1411 G29 2.0 ISO	14	11.0	13.4	7	29.0	30.2	83

Order example: FMT 1008 G17 1.5 ISO MT8

● First choice    ○ Alternative

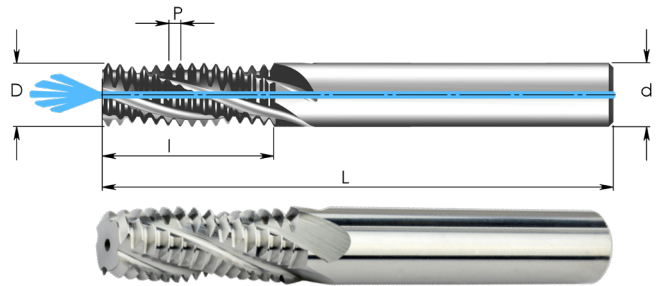
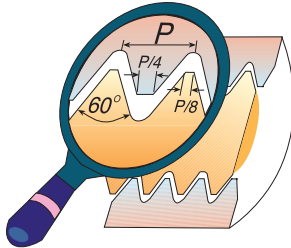
\* Without internal coolant

For small thread mills see page B09-17



## ISO With internal coolant bore

### Tools for Internal Thread



**Thread length: 2xD**

Grade	P	M	K	N	S	H
K20	○	○	●	●	●	

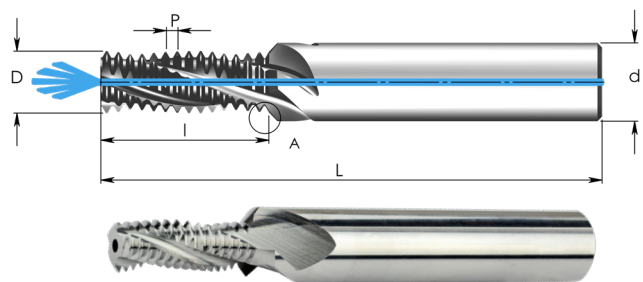
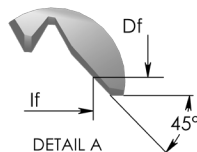
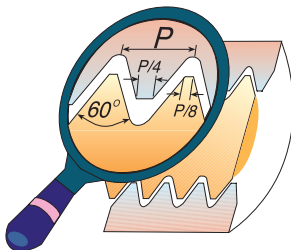
Pitch mm	M coarse	M fine	Ordering Code	d	D	No. of Flutes	I	L
0.5	M3	M4	* AMT 03024 C6 0.5 ISO	3	2.4	3	6.8	39
0.5		M5	AMT 06043 C10 0.5 ISO	6	4.3	3	10.8	58
0.7	M4		AMT 06031 C8 0.7 ISO	6	3.1	3	8.8	58
0.75		M6	AMT 0605 C13 0.75 ISO	6	5.0	3	13.1	58
0.8	M5		AMT 0604 C10 0.8 ISO	6	4.0	3	10.8	58
1.0	M6		AMT 06048 C13 1.0 ISO	6	4.8	3	13.5	58
1.0		M10	AMT 0808 D21 1.0 ISO	8	8.0	4	21.5	64
1.25	M8	M10	AMT 08064 C16 1.25 ISO	8	6.4	3	16.9	64
1.5	M10		AMT 0808 C21 1.5 ISO	8	8.0	3	21.8	64
1.5		M14	AMT 12112 D29 1.5 ISO	12	11.2	4	29.3	84
1.75	M12		AMT 10095 D25 1.75 ISO	10	9.5	4	25.4	73
2.0	M16	M17	AMT14126 D35 2.0 ISO	14	12.6	4	35.0	83

Order example: AMT 08064 C16 1.25 ISO K20

\* Without internal coolant

## ISO With internal coolant bore and cutting chamfer

### Tools for Internal thread



**Thread length: 2xD**

Grade	P	M	K	N	S	H
K20	○	○	●	●	●	

Pitch mm	M coarse	M fine	Ordering Code	d	D	Df	No. of Flutes	I	If	L
0.8	M5		AMT 0604 C10 0.8 ISO-C	6	4.0	5.3	3	10.8	11.5	58
1.0	M6		AMT 08048 C13 1.0 ISO-C	8	4.8	6.4	3	13.5	14.3	64
1.25	M8	M10	AMT 10064 C16 1.25 ISO-C	10	6.4	8.3	3	16.9	17.9	73
1.5	M10		AMT 1208 C21 1.5 ISO-C	12	8.0	10.4	3	21.8	23.0	84

Order example: AMT 10064 C16 1.25 ISO-C K20

For information about AMT Thread Mills and cutting data see page B12-16

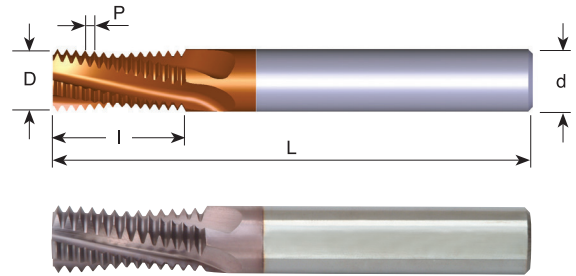
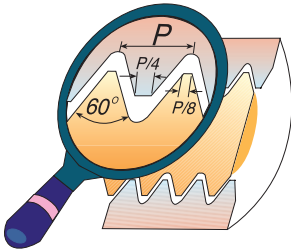
● First choice

○ Alternative



## UN

### Tools for Internal Thread



Grade	P	M	K	N	S	H
MT7	●	○	●	○	○	

Pitch TPI	UNC	UNF	UNEF	Ordering Code	d	D	No. of Flutes	I	L
40	5			<b>MT 06025 C6 40 UN</b>	6	2.5	3	6.0	58
32	8	10	12	<b>MT 06032 C6 32 UN</b>	6	3.2	3	6.8	58
28		1/4		<b>MT 0604 C11 28 UN</b>	6	4.0	3	11.3	58
28		1/4		<b>MT 06052 C15 28 UN</b>	6	5.2	3	15.0	58
28			7/16-1/2	<b>MT 0606 C14 28 UN</b>	6	6.0	3	14.1	58
24		5/16		<b>MT 0605 C14 24 UN</b>	6	5.0	3	14.3	58
24		3/8	9/16-5/8	<b>MT 0807 C21 24 UN</b>	8	7.0	3	20.6	64
20	1/4			<b>MT 06045 C12 20 UN</b>	6	4.5	3	12.1	58
20		7/16-1/2		<b>MT 0807 C21 20 UN</b>	8	7.0	3	21.0	64
20			3/4-1	<b>MT 1212 E27 20 UN</b>	12	12.0	5	27.3	84
18	5/16			<b>MT 0605 C14 18 UN</b>	6	5.0	3	14.8	58
18	5/16			<b>MT 0606 C20 18 UN</b>	6	6.0	3	20.5	58
18		9/16-5/8	1 1/8-1 5/8	<b>MT 1010 D26 18 UN</b>	10	10.0	4	26.1	73
16	3/8			<b>MT 0606 C16 16 UN</b>	6	6.0	3	16.7	58
16	3/8			<b>MT 08074 C24 16 UN</b>	8	7.4	3	24.6	64
16		3/4		<b>MT 1212 D31 16 UN</b>	12	12.0	4	31.0	84
14	7/16			<b>MT 0807 C20 14 UN</b>	8	7.0	3	20.9	64
14	7/16			<b>MT 10085 C28 14 UN</b>	10	8.5	3	28.1	73
14		7/8		<b>MT 1615 E37 14 UN</b>	16	15.0	5	37.2	105
13	1/2			<b>MT 0808 C22 13 UN</b>	8	8.0	3	22.5	64
13	1/2			<b>MT 10098 D32 13 UN</b>	10	9.8	4	32.2	73
12	9/16			<b>MT 1010 C26 12 UN</b>	10	10.0	3	26.5	73
12	9/16			<b>MT 12116 D37 12 UN</b>	12	11.6	4	37.0	84
12		1-1 1/2		<b>MT 1616 E41 12 UN</b>	16	16.0	5	41.3	105
11	5/8			<b>MT 1010 C28 11 UN</b>	10	10.0	3	28.9	73
11	5/8			<b>MT 1212 D38 11 UN</b>	12	12.0	4	38.1	84
10	3/4			<b>MT 1212 C34 10 UN</b>	12	12.0	3	34.3	84
10	3/4			<b>MT 16147 E49 10 UN</b>	16	14.7	5	49.5	105
9	7/8			<b>MT 1615 C38 9 UN</b>	16	15.0	3	38.1	105
8	1			<b>MT 1616 C42 8 UN</b>	16	16.0	3	42.9	105
7	1 1/8 - 1 1/4			<b>MT 2020 D45 7 UN</b>	20	20.0	4	45.3	105

Order example: MT 1615 E37 14 UN MT7

● First choice    ○ Alternative

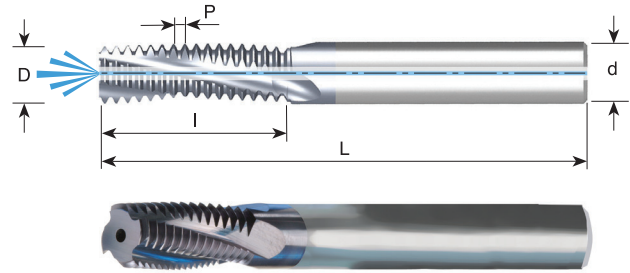
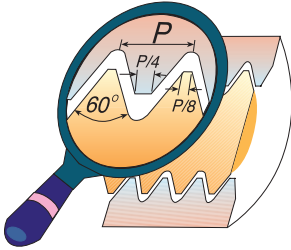
For thread mills with coolant bore see following pages

For small thread mills see pages B09-5, 6, 12, 15, 17 and B11-4, 6



## UN With internal coolant bore

### Tools for Internal Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	UNC	UNF	UNEF	Ordering Code	d	D	No. of Flutes	I	L
32	8	10	12	<b>MTB 06032 C6 32 UN</b>	6	3.2	3	6.8	58
32			5/16	<b>MTB 0606 C14 32 UN</b>	6	6.0	3	14.7	58
32			3/8	<b>MTB 0808 D18 32 UN</b>	8	8.0	4	18.7	64
28		1/4		<b>MTB 0605 C11 28 UN</b>	6	5.0	3	11.3	58
28		1/4		<b>MTB 06052 C15 28 UN</b>	6	5.2	3	15.0	58
28			7/16-1/2	<b>MTB 0606 C14 28 UN</b>	6	6.0	3	14.1	58
24		5/16		<b>MTB 08066 C14 24 UN</b>	8	6.6	3	14.3	64
24		3/8	9/16-5/8	<b>MTB 0808 D21 24 UN</b>	8	8.0	4	20.6	64
20	1/4			<b>MTB 06047 C12 20 UN</b>	6	4.7	3	12.1	58
20		7/16-1/2		<b>MTB 0808 C21 20 UN</b>	8	8.0	3	21.0	64
20		1/2		<b>MTB 1010 D22 20 UN</b>	10	10.0	4	22.3	73
20			3/4-1	<b>MTB 1212 E27 20 UN</b>	12	12.0	5	27.3	84
18	5/16			<b>MTB 06056 C14 18 UN</b>	6	5.6	3	14.8	58
18	5/16			<b>MTB 0606 C20 18 UN</b>	6	6.0	3	20.5	58
18		9/16-5/8	1 1/8-1 5/8	<b>MTB 12113 D26 18 UN</b>	12	11.3	4	26.1	84
16	3/8			<b>MTB 08067 C16 16 UN</b>	8	6.7	3	16.7	64
16	3/8			<b>MTB 08074 C24 16 UN</b>	8	7.4	3	24.6	64
16		3/4		<b>MTB 1212 D31 16 UN</b>	12	12.0	4	31.0	84
14	7/16			<b>MTB 08077 C20 14 UN</b>	8	7.7	3	20.9	64
14	7/16			<b>MTB 10085 C28 14 UN</b>	10	8.5	3	28.1	73
14		7/8		<b>MTB 1616 E37 14 UN</b>	16	16.0	5	37.2	105
13	1/2			<b>MTB 10092 C22 13 UN</b>	10	9.2	3	22.5	73
13	1/2			<b>MTB 10098 D32 13 UN</b>	10	9.8	4	32.2	73
12	9/16			<b>MTB 12105 C26 12 UN</b>	12	10.5	3	26.5	84
12	9/16			<b>MTB 12116 D37 12 UN</b>	12	11.6	4	37.0	84
12		1-1 1/2		<b>MTB 1616 E41 12 UN</b>	16	16.0	5	41.3	105
11	5/8			<b>MTB 12114 C28 11 UN</b>	12	11.4	3	28.9	84
11	5/8			<b>MTB 1212 D38 11 UN</b>	12	12.0	4	38.1	84
10	3/4			<b>MTB 16144 D34 10 UN</b>	16	14.4	4	34.3	105
10	3/4			<b>MTB 16147 E49 10 UN</b>	16	14.7	5	49.5	105
9	7/8			<b>MTB 1616 C38 9 UN</b>	16	16.0	3	38.1	105
8	1			<b>MTB 20195 D42 8 UN</b>	20	19.5	4	42.9	105
7	1 1/8 - 1 1/4			<b>MTB 2020 D45 7 UN</b>	20	20.0	4	45.3	105

Order example: MTB 1212 D31 16 UN MT7

● First choice

○ Alternative

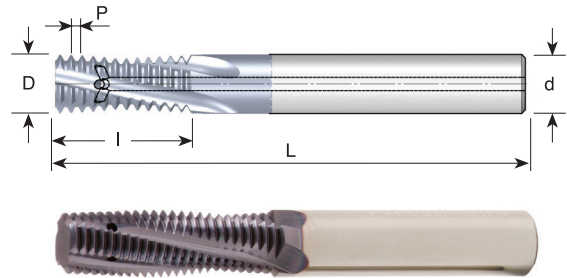
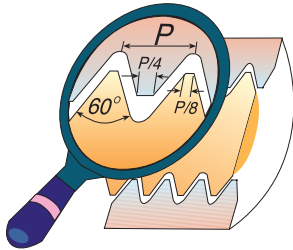
For thread mills with coolant through the flutes see next page

For small thread mills see pages B09-5, 6, 12, 15, 17 and B11-4, 6



## UN With internal coolant through the flutes

### Tools for Internal Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	UNC	UNF	UNEF	Ordering Code	d	D	No. of Flutes	I	L
28		1/4		<b>MTZ 0605 C11 28 UN</b>	6	5.0	3	11.3	58
28			7/16-1/2	<b>MTZ 0606 C14 28 UN</b>	6	6.0	3	14.1	58
24		5/16		<b>MTZ 08066 C14 24 UN</b>	8	6.6	3	14.3	64
24		3/8	9/16-5/8	<b>MTZ 0808 D21 24 UN</b>	8	8.0	4	20.6	64
20		7/16		<b>MTZ 0808 C21 20 UN</b>	8	8.0	3	21.0	64
20		1/2		<b>MTZ 1010 D22 20 UN</b>	10	10.0	4	22.3	73
20			3/4-1	<b>MTZ 1212 E27 20 UN</b>	12	12.0	5	27.3	84
18	5/16			<b>MTZ 06056 C14 18 UN</b>	6	5.6	3	14.8	58
18	5/16			<b>MTZ 0606 C20 18 UN</b>	6	6.0	3	20.5	58
18		9/16-5/8	1 1/8-1 5/8	<b>MTZ 12113 D26 18 UN</b>	12	11.3	4	26.1	84
16	3/8			<b>MTZ 08067 C16 16 UN</b>	8	6.7	3	16.7	64
16	3/8			<b>MTZ 08074 C24 16 UN</b>	8	7.4	3	24.6	64
16		3/4		<b>MTZ 1212 D31 16 UN</b>	12	12.0	4	31.0	84
14	7/16			<b>MTZ 08077 C20 14 UN</b>	8	7.7	3	20.9	64
14	7/16			<b>MTZ 10085 C28 14 UN</b>	10	8.5	3	28.1	73
14		7/8		<b>MTZ 1616 E37 14 UN</b>	16	16.0	5	37.2	101
13	1/2			<b>MTZ 10092 C22 13 UN</b>	10	9.2	3	22.5	73
13	1/2			<b>MTZ 10098 D32 13 UN</b>	10	9.8	4	32.2	73
12	9/16			<b>MTZ 12105 C26 12 UN</b>	12	10.5	3	26.5	84
12	9/16			<b>MTZ 12116 D37 12 UN</b>	12	11.6	4	37.0	84
12		1-1 1/2		<b>MTZ 1616 E41 12 UN</b>	16	16.0	5	41.3	101
11	5/8			<b>MTZ 12114 C28 11 UN</b>	12	11.4	3	28.9	84
10	3/4			<b>MTZ 16144 D34 10 UN</b>	16	14.4	4	34.3	105

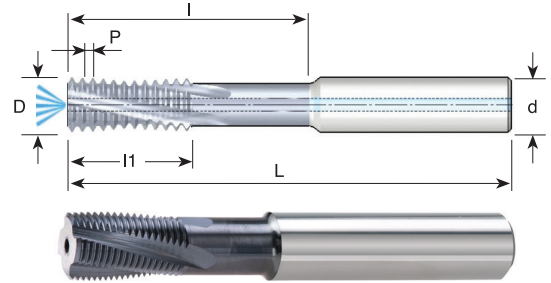
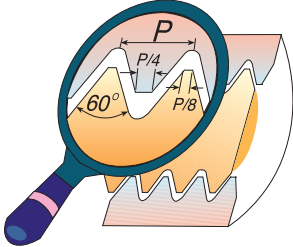
Order example: MTZ 0808 D21 24 UN MT7

● First choice ○ Alternative



## UN With relieved neck and internal coolant bore

### Tools for Internal Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

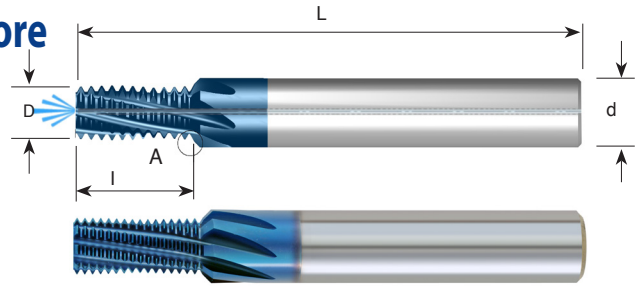
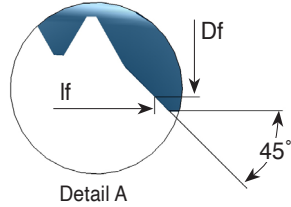
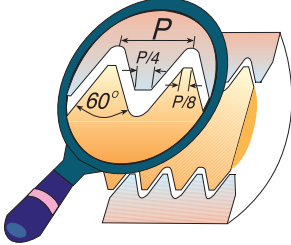
Pitch TPI	Thread size	Ordering Code	d	D	No. of Flutes	l1	l	L
20	$\varnothing \geq 12$	<b>MTQ 1010 D30 20 UN</b>	10	10.0	4	17.8	30.5	73
20	$\varnothing \geq 14$	<b>MTQ 1212 E35 20 UN</b>	12	12.0	5	20.3	35.6	84
20	$\varnothing \geq 18$	<b>MTQ 1616 F43 20 UN</b>	16	16.0	6	25.4	43.2	105
18	$\varnothing \geq 15$	<b>MTQ 1212 D35 18 UN</b>	12	12.0	4	19.7	35.3	84
16	$\varnothing \geq 15$	<b>MTQ 1212 D35 16 UN</b>	12	12.0	4	20.7	35.0	84
16	$\varnothing \geq 19$	<b>MTQ 1616 E42 16 UN</b>	16	16.0	5	25.4	42.9	105
16	$\varnothing \geq 23$	<b>MTQ 2020 F58 16 UN</b>	20	20.0	6	36.5	58.8	105
14	$\varnothing \geq 20$	<b>MTQ 1616 E45 14 UN</b>	16	16.0	5	25.4	45.3	105
12	$\varnothing \geq 16$	<b>MTQ 1212 D42 12 UN</b>	12	12.0	4	25.4	42.3	84
12	$\varnothing \geq 24$	<b>MTQ 2020 E55 12 UN</b>	20	20.0	5	33.9	55.1	105

Order example: MTQ 1212 D35 16 UN MT7

● First choice    ○ Alternative



## UN Fast MT with internal coolant bore Tools for Internal Thread



Grade	P	M	K	N	S	H
MT8	●	●	●	○	●	≤52 HRc

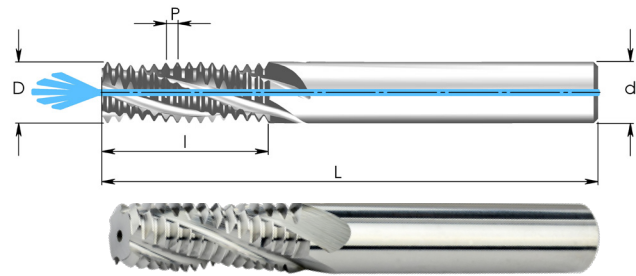
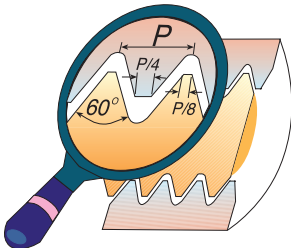
Pitch TPI	UNC	UNF	UNEF	Ordering Code	d	D	Df	No. of Flutes	I	If	L
28		1/4		<b>FMT 08052 F11 28 UN</b>	8	5.2	7.0	6	11.3	12.3	64
28			7/16-1/2	<b>FMT 12098 H19 28 UN</b>	12	9.8	11.8	8	19.5	20.5	84
24		5/16		<b>FMT 10066 G14 24 UN</b>	10	6.6	9.6	7	14.3	15.8	73
24		3/8	9/16, 5/8, 11/16	<b>FMT 12082 G17 24 UN</b>	12	8.2	10.6	7	17.5	18.7	84
20	1/4			<b>*FMT 08048 E12 20 UN</b>	8	4.8	6.8	5	12.1	13.1	64
20		7/16		<b>FMT 12092 H21 20 UN</b>	12	9.2	11.4	8	21.0	22.1	84
20		1/2	3/4, 7/8, 1	<b>FMT 14111 H22 20 UN</b>	14	11.1	13.5	8	22.2	23.4	84
18	5/16			<b>FMT 1006 F14 18 UN</b>	10	6.0	8.4	6	14.8	16.0	73
18		9/16, 5/8	1 1/16, 1 1/8	<b>FMT 16125 H26 18 UN</b>	16	12.5	15.0	8	26.1	27.4	105
16	3/8			<b>FMT 10074 F16 16 UN</b>	10	7.4	9.6	6	16.7	17.8	73
16		3/4		<b>FMT 20167 H34 16 UN</b>	20	16.7	19.3	8	34.1	35.4	105
14	7/16	7/8		<b>FMT 12085 F20 14 UN</b>	12	8.5	10.7	6	20.9	22.0	84
13	1/2			<b>FMT 12098 F24 13 UN</b>	12	9.8	11.8	6	24.4	25.4	84
12	9/16	1		<b>FMT 16116 F26 12 UN</b>	16	11.6	15.2	6	26.5	28.3	105
11	5/8			<b>FMT 1612 F33 11 UN</b>	16	12.0	15.4	6	33.4	35.1	105

Order example: FMT 12092 H21 20 UN

\* without internal coolant

For small thread mills see page B09-17

## UN With internal coolant bore Tools for Internal Thread



Thread length: 2xD

Grade	P	M	K	N	S	H
K20	○	○	●	●	●	

Pitch TPI	UNC	UNF	UNEF	Ordering Code	d	D	No. of Flutes	I	L
32	8	10	12	<b>AMT 06032 C9 32 UN</b>	6	3.2	3	9.1	58
28		1/4		<b>AMT 06052 C14 28 UN</b>	6	5.2	3	14.0	58
24		3/8	9/16-5/8	<b>AMT 0808 D20 24 UN</b>	8	8.0	4	20.6	64
20	1/4			<b>AMT 06048 C14 20 UN</b>	6	4.8	3	14.6	58
20		7/16		<b>AMT 10092 C23 20 UN</b>	10	9.2	3	23.5	73
18	5/16			<b>AMT 0606 C17 18 UN</b>	6	6.0	3	17.6	58
18		9/16-5/8	1 1/8 - 1 5/8	<b>AMT 1212 D30 18 UN</b>	12	12.0	4	30.3	84
16	3/8			<b>AMT 08074 C21 16 UN</b>	8	7.4	3	21.4	64
16		3/4		<b>AMT 1616 E38 16 UN</b>	16	16.0	5	38.9	105

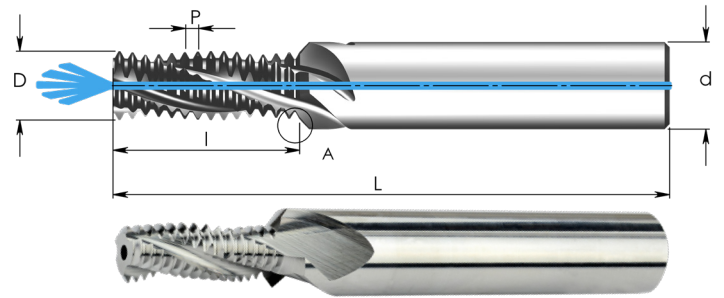
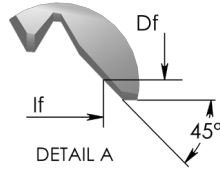
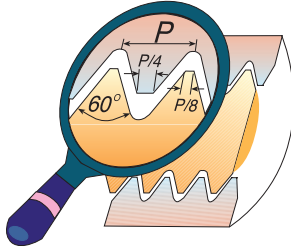
For information about AMT Thread Mills and cutting data see page B12-16

● First choice

○ Alternative

## UN With internal coolant bore and cutting chamfer

### Tools for Internal Thread



### Thread length: 2xD

Grade	P	M	K	N	S	H
K20	○	○	●	●	●	

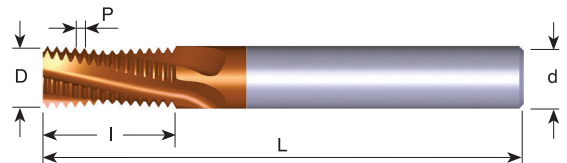
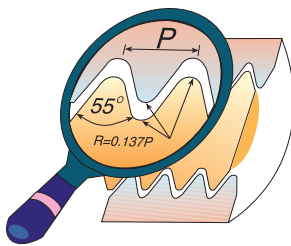
Pitch TPI	UNC	UNF	UNEF	Ordering Code	d	D	Df	No. of Flutes	I	lf	L
20	1/4			<b>AMT 08048 C14 20UN-C</b>	8	4.8	6.8	3	14.6	15.6	64
18	5/16			<b>AMT 1006 C17 18UN-C</b>	10	6.0	8.4	3	17.6	18.8	73
16	3/8			<b>AMT 12074 C21 16UN-C</b>	12	7.4	10.0	3	21.4	22.7	84

Order example: AMT 12074 C21 16UN-C K20

For information about AMT Thread Mills and cutting data see page B12-16

## G (55°) BSF, BSP

### Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	○	●	○	○	

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
28	G1/16-G1/8	<b>MT 0606 C9 28 W</b>	6	6.0	3	9.5	58
19	G1/4-3/8	<b>MT 0808 C14 19 W</b>	8	8.0	3	14.0	64
14	G1/2-7/8	<b>MT 1212 D19 14 W</b>	12	12.0	4	19.0	84
14	G1/2-7/8	<b>MT 1212 D26 14 W</b>	12	12.0	4	26.3	84
11	G≥1	<b>MT 1212 C24 11 W</b>	12	12.0	3	24.2	84
11	G≥1	<b>MT 1616 D38 11 W</b>	16	16.0	4	38.1	105
11	G≥1	<b>MT 2020 E47 11 W</b>	20	20.0	5	47.3	105

Order example: MT 1212 D19 14 W MT7

For small thread mills see pages B09-7, B09-14 and B11-5

For thread mills with coolant see next page

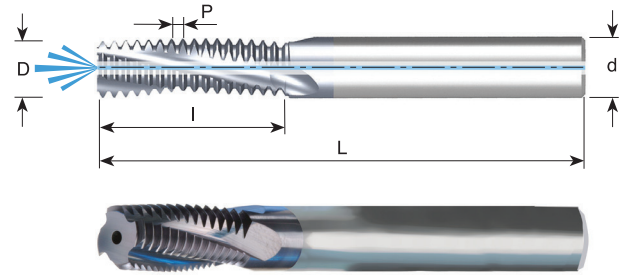
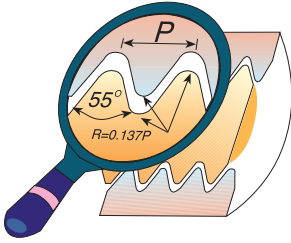


● First choice

○ Alternative

## G (55°) BSF, BSP With internal coolant bore

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

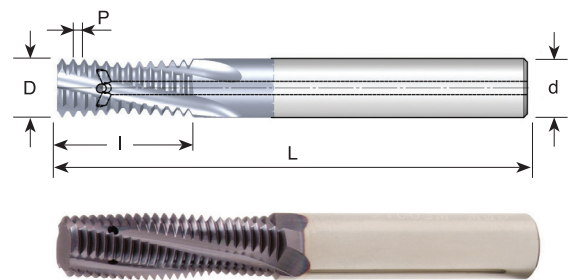
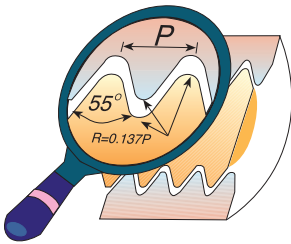
Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
28	G1/8	<b>MTB 08078 C14 28 W</b>	8	7.8	3	14.1	64
28	G1/8	<b>MTB 0808 C20 28 W</b>	8	8.0	3	20.4	64
19	G1/4	<b>MTB 1010 D16 19 W</b>	10	10.0	4	16.7	73
19	G1/4	<b>MTB 1211 D27 19 W</b>	12	11.0	4	27.4	84
19	G3/8	<b>MTB 1414 D26 19 W</b>	14	14.0	4	26.1	83
19	G3/8	<b>MTB 1414 D34 19 W</b>	14	14.0	4	34.1	83
14	G1/2-7/8	<b>MTB 1616 E26 14 W</b>	16	16.0	5	26.3	105
11	G≥1	<b>MTB 1616 D38 11 W</b>	16	16.0	4	38.1	105
11	G≥1	<b>MTB 2020 E47 11 W</b>	20	20.0	5	47.3	105

Order example: MTB 1010 D16 19 W MT7

For small thread mills see pages B09-7, B09-14 and B11-5

## G (55°) BSF, BSP With internal coolant through the flutes

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
28	G1/8	<b>MTZ 08078 C14 28 W</b>	8	7.8	3	14.1	64
19	G1/4-3/8	<b>MTZ 1010 D16 19 W</b>	10	10.0	4	16.7	73
14	G1/2-7/8	<b>MTZ 1616 E26 14 W</b>	16	16.0	5	26.3	101
11	G≥1	<b>MTZ 1616 D38 11 W</b>	16	16.0	4	38.1	101

Order example: MTZ 08078 C14 28 W MT7

For small thread mills see pages B09-7, B09-14 and B11-5

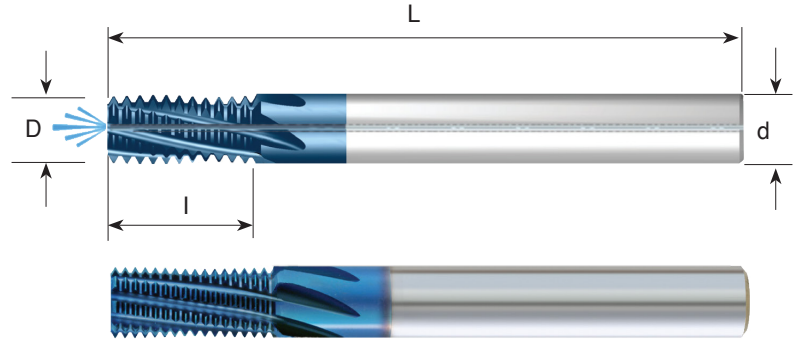
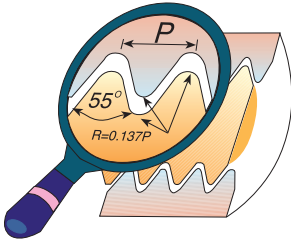


● First choice

○ Alternative

## G (55°) Fast MT With internal coolant bore

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT8	●	●	●	○	●	≤52 HRc

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
28	G1/8	<b>FMT 08078 H14 28 W</b>	8	7.8	8	14.1	64
19	G1/4-3/8	<b>FMT 1010 G16 19 W</b>	10	10.0	7	16.7	73
14	G1/2-7/8	<b>FMT 1414 H26 14 W</b>	14	14.0	8	26.3	84
11	G≥1	<b>FMT 1616 H38 11 W</b>	16	16.0	8	38.1	105

Order example: FMT 1616 H38 11W MT8

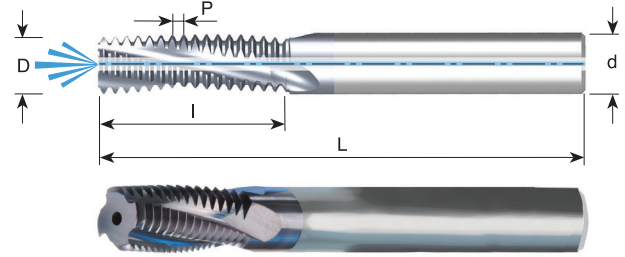
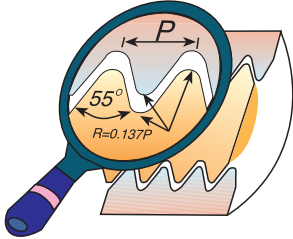
● First choice

○ Alternative



## Whitworth with internal coolant bore

Same Tool for Internal and External Thread



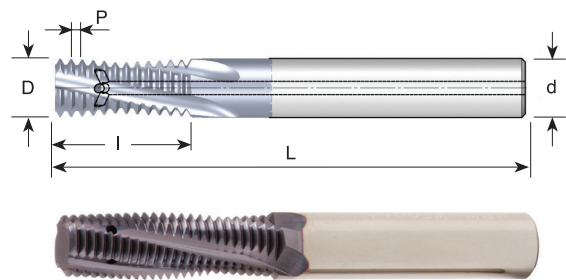
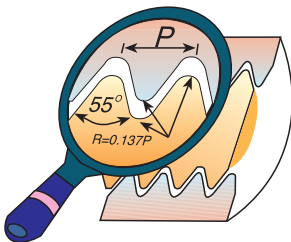
Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	BSW	BSF	Ordering Code	d	D	No. of Flutes	I	L
20	1/4		<b>MTB 06046 C13 20 W</b>	6	4.6	3	13.3	58
20		3/8	<b>MTB 08076 D19 20 W</b>	8	7.6	4	19.7	64
18	5/16		<b>MTB 06056 C16 18 W</b>	6	5.6	3	16.2	58
18		7/16	<b>MTB 10088 D23 18 W</b>	10	8.8	4	23.3	73
16	3/8		<b>MTB 0807 D19 16 W</b>	8	7.0	4	19.8	64
16		1/2-9/16	<b>MTB 1010 E26 16 W</b>	10	10.0	5	26.1	73
14	7/16		<b>MTB 0808 D22 14 W</b>	8	8.0	4	22.7	64
14		5/8-11/16	<b>MTB 14128 E31 14 W</b>	14	12.8	5	31.8	83
12	1/2-9/16	3/4-13/16	<b>MTB 1009 D26 12 W</b>	10	9.0	4	26.5	73
11	5/8	7/8	<b>MTB 12118 E33 11 W</b>	12	11.8	5	33.5	84
10	3/4	1	<b>MTB 1414 E39 10 W</b>	14	14.0	5	39.4	105
9	7/8	1 1/8	<b>MTB 1616 E43 9 W</b>	16	16.0	5	43.7	105

Order example: MTB 06046 C13 20 W MT7

## Whitworth with internal coolant through the flutes

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	BSW	BSF	Ordering Code	d	D	No. of Flutes	I	L
20	1/4	3/8	* <b>MTZ 06046 C12 20 W</b>	6	4.6	3	12.1	58
18	5/16	7/16	<b>MTZ 06053 C14 18 W</b>	6	5.3	3	14.8	58
16	3/8		<b>MTZ 08068 C16 16 W</b>	8	6.8	3	16.7	64
16		1/2-9/16	<b>MTZ 10092 D24 16 W</b>	10	9.2	4	24.6	73
14	7/16	5/8-11/16	<b>MTZ 08078 D20 14 W</b>	8	7.8	4	20.9	64
12	1/2	3/4-13/16	<b>MTZ 10086 D24 12 W</b>	10	8.6	4	24.4	73
11	5/8	7/8	<b>MTZ 12109 D28 11 W</b>	12	10.9	4	28.9	84

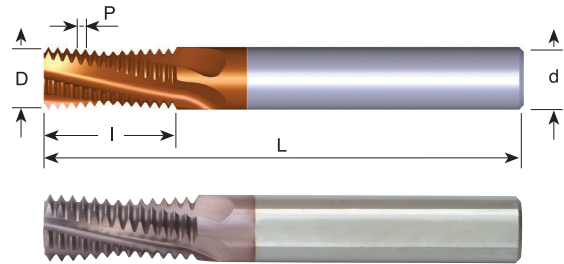
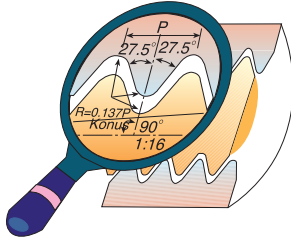
Order example: MTZ 08068 C16 16 W MT7

\* Cutter without coolant

● First choice    ○ Alternative

## BSPT

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	○	●	○	○	

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
28	RC1/16-1/8	<b>MT 0606 C9 28 BSPT</b>	6	6.0	3	9.5	58
19	RC1/4-3/8	<b>MT 0808 C14 19 BSPT</b>	8	8.0	3	14.0	64
14	RC1/2-7/8	<b>MT 1212 D19 14 BSPT</b>	12	12.0	4	19.1	84
11	RC1-2	<b>MT 1616 D28 11 BSPT</b>	16	16.0	4	28.9	105

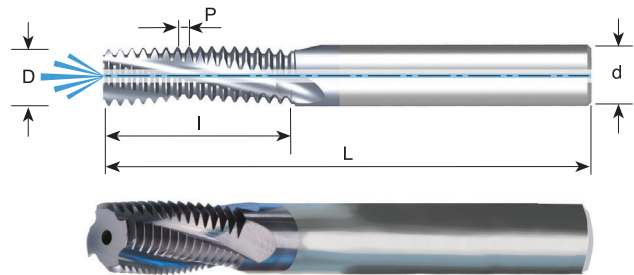
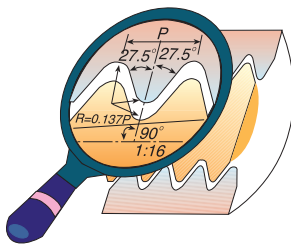
Order example: MT 1616 D28 11 BSPT MT7

For thread mills with coolant through the flutes see next page

For conical preparation end mills see page B08-23

## BSPT With internal coolant bore

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

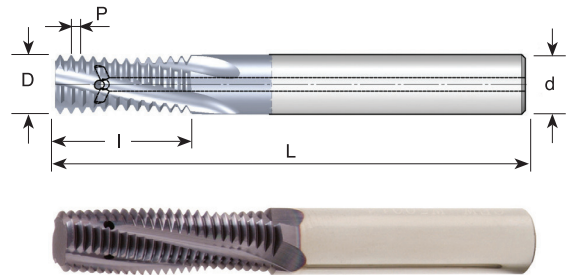
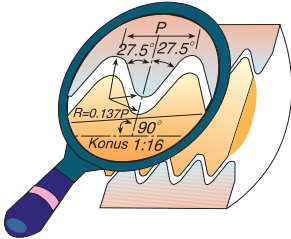
Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
28	RC1/8	<b>MTB 08078 C14 28 BSPT</b>	8	7.8	3	14.1	64
19	RC1/4-3/8	<b>MTB 1010 D16 19 BSPT</b>	10	10.0	4	16.7	73
14	RC1/2-7/8	<b>MTB 1616 E26 14 BSPT</b>	16	16.0	5	26.3	105
11	RC1-2	<b>MTB 1616 D28 11 BSPT</b>	16	16.0	4	28.9	105

Order example: MTB 08078 C14 28 BSPT MT7

● First choice ○ Alternative

## BSPT With internal coolant through the flutes

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
28	RC1/8	<b>MTZ 08078 C14 28 BSPT</b>	8	7.8	3	14.1	64
19	RC1/4-3/8	<b>MTZ 1010 D16 19 BSPT</b>	10	10.0	4	16.7	73
14	RC1/2-7/8	<b>MTZ 1616 E26 14 BSPT</b>	16	16.0	5	26.3	101
11	RC1-2	<b>MTZ 1616 D28 11 BSPT</b>	16	16.0	4	28.9	101

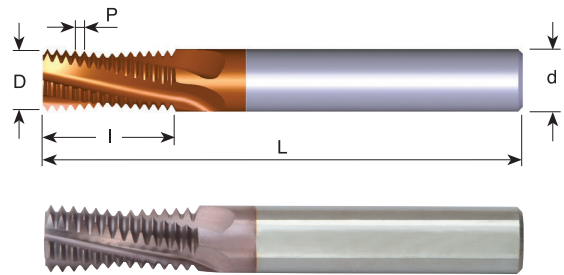
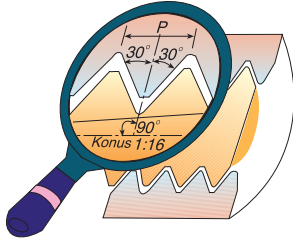
Order example: MTZ 1010 D16 19 BSPT MT7

● First choice    ○ Alternative

For conical preparation end mills see page B08-23

## NPT

Same Tool for Internal and External Thread



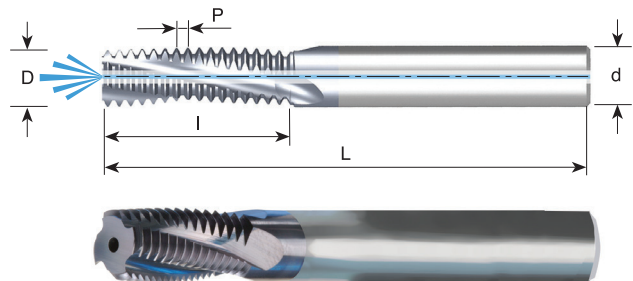
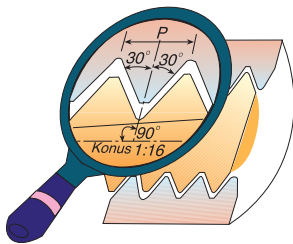
Grade	P	M	K	N	S	H
MT7	●	○	●	○	○	

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
27	1/16-1/8	<b>MT 0606 C9 27 NPT</b>	6	6.0	3	9.9	58
18	1/4-3/8	<b>MT 0808 C14 18 NPT</b>	8	8.0	3	14.8	64
14	1/2-3/4	<b>MT 1212 D20 14 NPT</b>	12	12.0	4	20.9	84
11.5	1-2	<b>MT 1616 D27 11.5 NPT</b>	16	16.0	4	27.6	105
8	≥2 1/2	<b>MT 2020 D39 8 NPT</b>	20	20.0	4	39.7	105

Order example: MT 0808 C14 18 NPT MT7

## NPT With internal coolant bore

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
27	1/8	<b>MTB 08076 C10 27 NPT</b>	8	7.6	3	10.8	64
18	1/4-3/8	<b>MTB 1010 D16 18 NPT</b>	10	10.0	4	16.2	73
14	1/2-3/4	<b>MTB 16155 D22 14 NPT</b>	16	15.5	4	22.7	105
11.5	1-2	<b>MTB 2020 D29 11.5 NPT</b>	20	20.0	4	29.8	105
8	≥2 1/2	<b>MTB 2020 D39 8 NPT</b>	20	20.0	4	39.7	105

Order example: MTB 1010 D16 18 NPT MT7

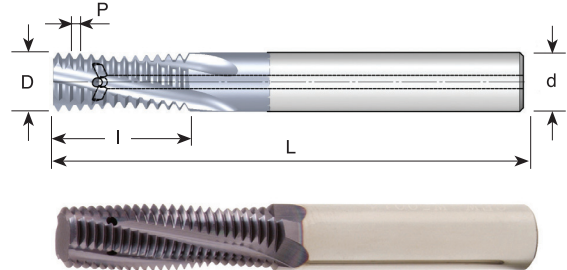
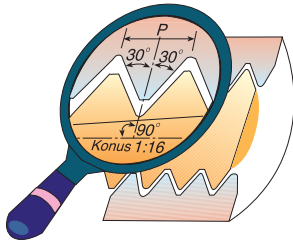
For thread mills with coolant through the flutes see next page

For conical preparation end mills see page B08-23

● First choice    ○ Alternative

## NPT With internal coolant through the flutes

Same Tool for Internal and External Thread



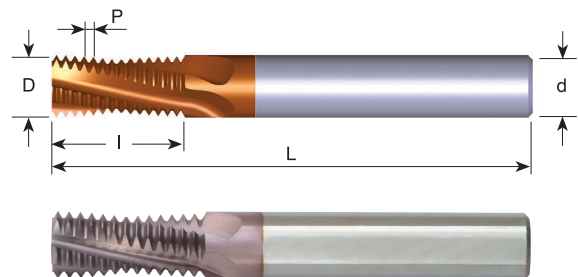
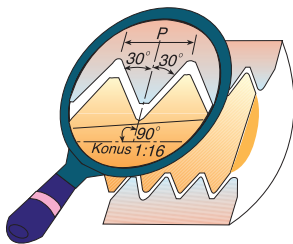
Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
27	1/8	<b>MTZ 08076 C10 27 NPT</b>	8	7.6	3	10.8	64
18	1/4-3/8	<b>MTZ 1010 D16 18 NPT</b>	10	10.0	4	16.2	73
14	1/2-3/4	<b>MTZ 16155 D22 14 NPT</b>	16	15.5	4	22.7	101

Order example: MTZ 08076 C10 27 NPT MT7

## NPTF

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	○	●	○	○	

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
27	1/16-1/8	<b>MT 0606 C9 27 NPTF</b>	6	6.0	3	9.9	58
18	1/4-3/8	<b>MT 0808 C14 18 NPTF</b>	8	8.0	3	14.8	64
14	1/2-3/4	<b>MT 1212 D20 14 NPTF</b>	12	12.0	4	20.9	84
11.5	1-2	<b>MT 1616 D27 11.5 NPTF</b>	16	16.0	4	27.6	105
8	≥2 1/2	<b>MT 2020 D39 8 NPTF</b>	20	20.0	4	39.7	105

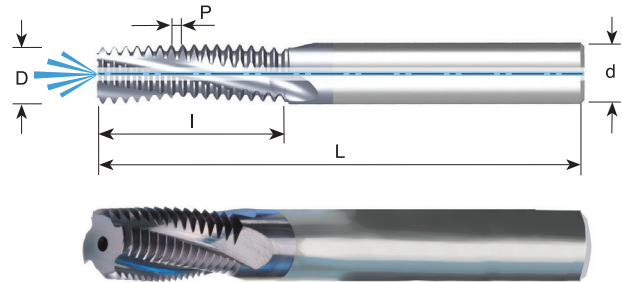
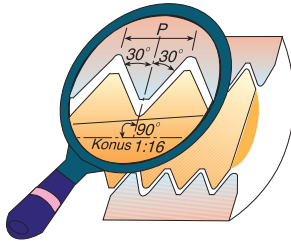
Order example: MT 1212 D20 14 NPTF MT7

For thread mills with coolant bore see next page

For conical preparation end mills see page B08-23

● First choice    ○ Alternative

## NPTF With internal coolant bore Same Tool for Internal and External Thread

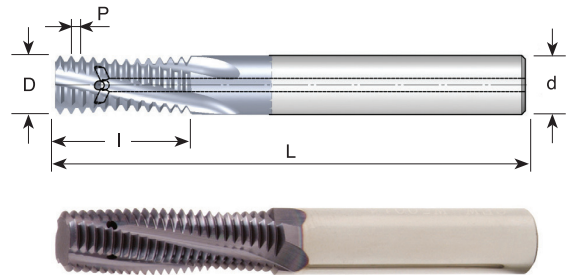
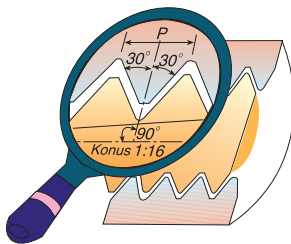


Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
27	1/8	<b>MTB 08076 C10 27 NPTF</b>	8	7.6	3	10.8	64
18	1/4-3/8	<b>MTB 1010 D16 18 NPTF</b>	10	10.0	4	16.2	73
14	1/2-3/4	<b>MTB 16155 D22 14 NPTF</b>	16	15.5	4	22.7	105
11.5	1-2	<b>MTB 2020 D29 11.5 NPTF</b>	20	20.0	4	29.8	105
8	≥ 2 1/2	<b>MTB 2020 D39 8 NPTF</b>	20	20.0	4	39.7	105

Order example: MTB 16155 D22 14 NPTF MT7

## NPTF With internal coolant through the flutes Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	l	L
27	1/8	<b>MTZ 08076 C10 27 NPTF</b>	8	7.6	3	10.8	64
18	1/4-3/8	<b>MTZ 1010 D16 18 NPTF</b>	10	10.0	4	16.2	73
14	1/2-3/4	<b>MTZ 16155 D22 14 NPTF</b>	16	15.5	4	22.7	101

Order example: MTZ 1010 D16 18 NPTF MT7

For conical preparation end mills see page B08-23

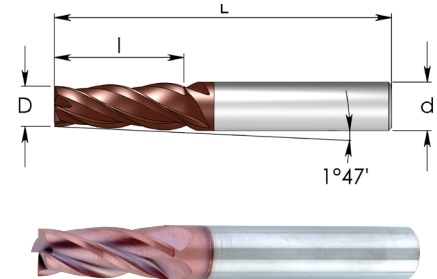
● First choice    ○ Alternative

## Solid Carbide Tapered End Mills

Solid carbide tapered end mills are used for milling preparation of conical threads before the thread milling operation.

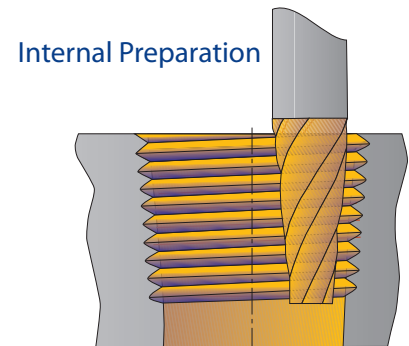
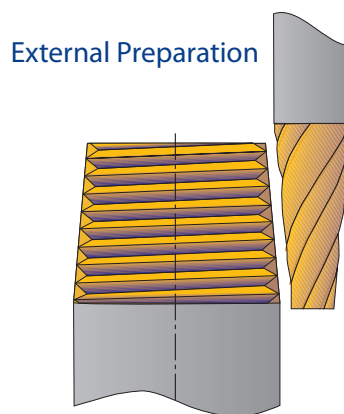
### Advantages:

- \* Increases the tool life of mill thread cutters and indexable inserts.
- \* Equal and uniform load along the cutting edge of the mill thread cutter.
- \* Shorter machining time during the mill thread operation, due to the tapered preparation.
- \* Same tool for internal and external preparation.



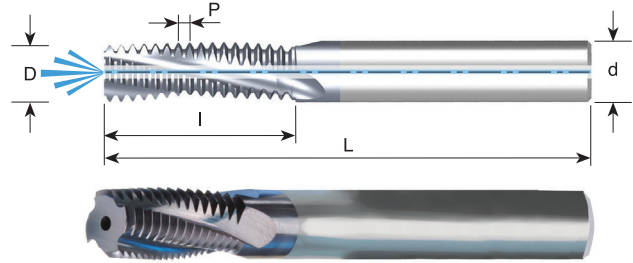
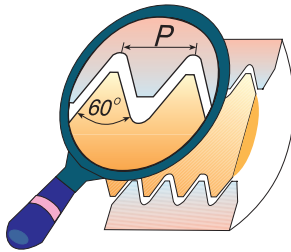
Ordering Code	d	D	l	L	No. of Flutes	Size
<b>SC0652D12</b>	6	5.2	12	58	4	NPT 1/16" - 1/8" NPTF 1/16" - 1/8" BSPT 1/16" - 1/8"
<b>SC1085D24</b>	10	8.5	24	73	4	NPT 1/4" - 1" NPTF 1/4" - 1" BSPT 1/4" - 1"
<b>SC1210D32</b>	12	10	32	84	4	NPT 1/4" - 3" NPTF 1/4" - 3" BSPT 1/4" - 3"

Order example: SC 1085 D24 MT7  
Carbide grade: MT7



## NPS With internal coolant bore

Same Tool for Internal and External Thread - Inch Shank



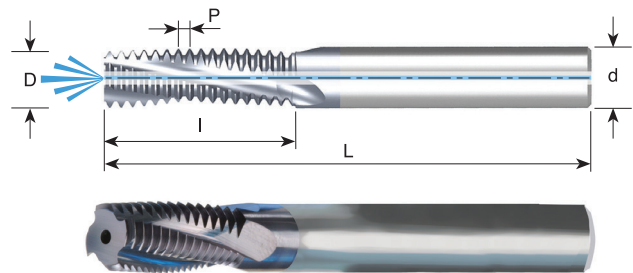
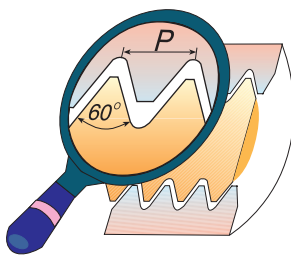
Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Standard	Ordering Code	d inch	D	No. of Flutes	I	L
27	1/8	<b>MTB 0312 C04 27 NPS</b>	5/16	7.6	3	10.8	63
18	1/4-3/8	<b>MTB 0375 D06 18 NPS</b>	3/8	9.5	4	16.2	76
14	1/2-3/4	<b>MTB 0625 D08 14 NPS</b>	5/8	15.5	4	22.7	101
11.5	1-2	<b>MTB 0750 D11 11.5 NPS</b>	3/4	19.0	4	29.8	101

Order example: MTB 0375 D06 18 NPS MT7

## NPSF With internal coolant bore

Same Tool for Internal and External Thread - Inch Shank



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Standard	Ordering Code	d inch	D	No. of Flutes	I	L
27	1/8	<b>MTB 0312 C04 27 NPSF</b>	5/16	7.6	3	10.8	63
18	1/4-3/8	<b>MTB 0375 D06 18 NPSF</b>	3/8	9.5	4	16.2	76
14	1/2-3/4	<b>MTB 0625 D08 14 NPSF</b>	5/8	15.5	4	22.7	101
11.5	1-2	<b>MTB 0750 D11 11.5 NPSF</b>	3/4	19.0	4	29.8	101

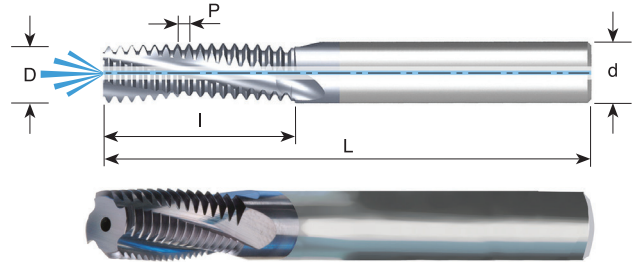
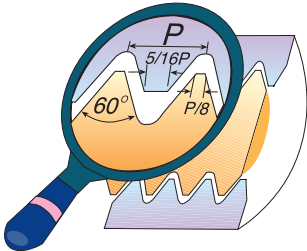
Order example: MTB 0312 C04 27 NPSF MT7

● First choice    ○ Alternative



## MJ With internal coolant bore

Tools for internal thread



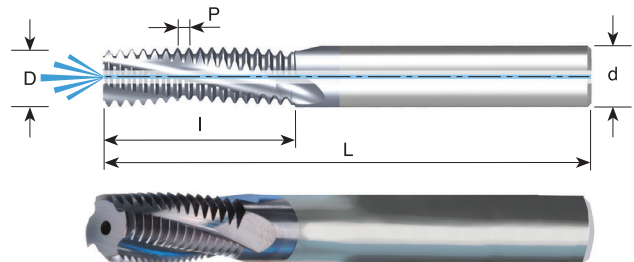
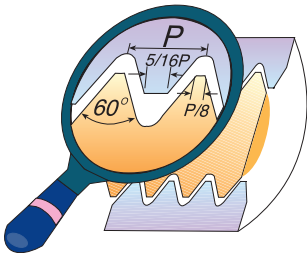
Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch mm	Thread	Ordering Code	d	D	No. of Flutes	I	L
0.7	MJ4	<b>MTB 06032 C8 0.7 MJ</b>	6	3.2	3	8.1	58
0.8	MJ5	<b>MTB 0604 C10 0.8 MJ</b>	6	4.0	3	10.0	58
1.0	MJ6	<b>MTB 06048 D12 1.0 MJ</b>	6	4.8	4	12.5	58
1.25	MJ8	<b>MTB 08064 D15 1.25 MJ</b>	8	6.4	4	15.6	64
1.5	MJ10	<b>MTB 0808 D20 1.5 MJ</b>	8	8.0	4	20.3	64
1.75	MJ12	<b>MTB 10095 D23 1.75 MJ</b>	10	9.5	4	23.6	73

Order example: MTB 06048 D12 1.0 MJ MT7

## UNJ With internal coolant bore

Tools for internal thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

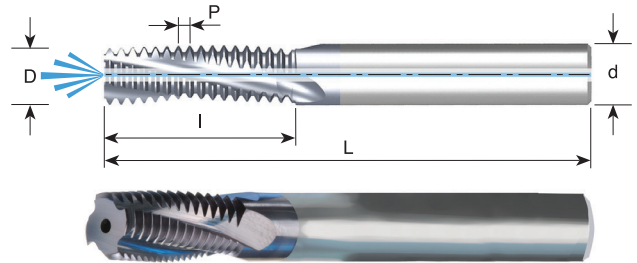
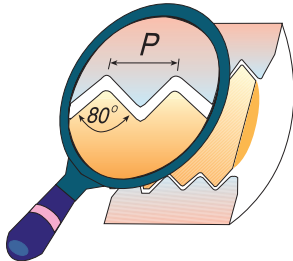
Pitch TPI	UNJC	UNJF	Ordering Code	d	D	No. of Flutes	I	L
28		1/4	<b>MTB 06052 D13 28 UNJ</b>	6	5.2	4	13.2	58
24		5/16	<b>MTB 08066 D16 24 UNJ</b>	8	6.6	4	16.4	64
24		3/8	<b>MTB 10082 D19 24 UNJ</b>	10	8.2	4	19.6	73
20	1/4		<b>MTB 06048 C13 20 UNJ</b>	6	4.8	3	13.3	58
20		7/16-1/2	<b>MTB 10092 D22 20 UNJ</b>	10	9.2	4	22.2	73
18	5/16		<b>MTB 0606 C16 18 UNJ</b>	6	6.0	3	16.2	58
16	3/8		<b>MTB 08074 D19 16 UNJ</b>	8	7.4	4	19.9	64
14	7/16		<b>MTB 10085 D22 14 UNJ</b>	10	8.5	4	22.7	73
13	1/2		<b>MTB 10098 D26 13 UNJ</b>	10	9.8	4	26.4	73
12	9/16		<b>MTB 12116 D28 12 UNJ</b>	12	11.6	4	28.6	84

Order example: MTB 0606 C16 18 UNJ MT7

● First choice    ○ Alternative

## PG DIN 40430 - With internal coolant bore

Same Tool for Internal and External Thread



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Standard	Ordering Code	d	D	No. of Flutes	I	L
20	Pg 7	<b>MTB 1010 D19 20 PG</b>	10	10.0	4	19.7	73
18	Pg 9, 11, 13.5, 16	<b>MTB 1212 D20 18 PG</b>	12	12.0	4	20.5	84
16	Pg 21, 29, 36, 42, 48	<b>MTB 1212 D23 16 PG</b>	12	12.0	4	23.0	84

Order example: MTB 1212 D20 18 PG MT7

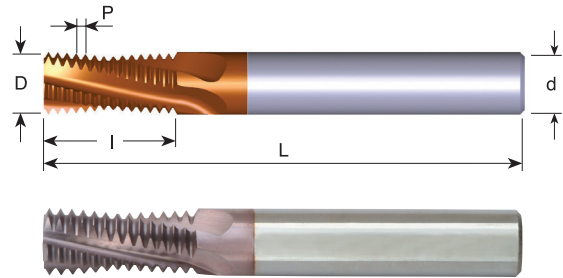
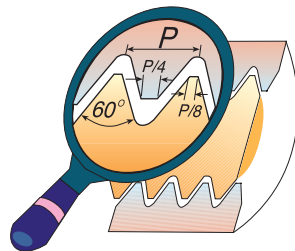
● First choice    ○ Alternative

## Mill - Thread Solid Carbide for External Threads

### Advantages:

- Excellent surface finish thanks to the spiral flutes
- Short machining time due to multi 3 to 5 flutes

### ISO

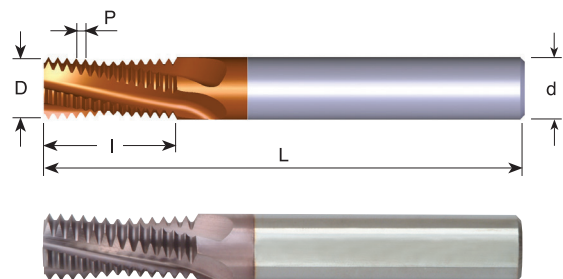
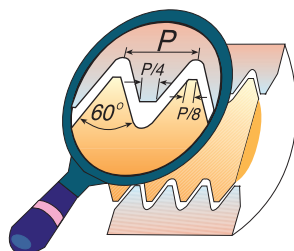


Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch mm	Ordering Code	d	D	No. of Flutes	I	L
1.0	<b>EMT 1010 D16 1.0 ISO</b>	10	10.0	4	16.5	73
1.0	<b>EMT 1212 E20 1.0 ISO</b>	12	12.0	5	20.5	84
1.25	<b>EMT 1010 D16 1.25 ISO</b>	10	10.0	4	16.9	73
1.5	<b>EMT 1010 D15 1.5 ISO</b>	10	10.0	4	15.8	73
1.5	<b>EMT 1212 D20 1.5 ISO</b>	12	12.0	4	20.3	84
1.75	<b>EMT 1212 D20 1.75 ISO</b>	12	12.0	4	20.1	84
2.0	<b>EMT 1010 C17 2.0 ISO</b>	10	10.0	3	17.0	73
2.0	<b>EMT 1212 D21 2.0 ISO</b>	12	12.0	4	21.0	84

Order example: EMT 1010 D15 1.5 ISO MT7

### UN



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

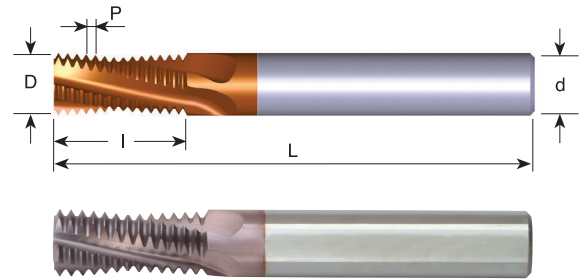
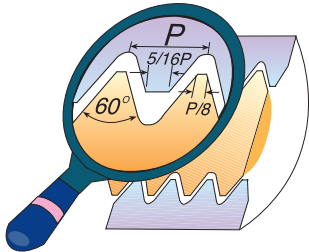
Pitch TPI	Ordering Code	d	D	No. of Flutes	I	L
24	<b>EMT 1010 D16 24 UN</b>	10	10.0	4	16.4	73
20	<b>EMT 1212 E21 20 UN</b>	12	12.0	5	21.0	84
18	<b>EMT 1212 D20 18 UN</b>	12	12.0	4	20.5	84
16	<b>EMT 1212 D21 16 UN</b>	12	12.0	4	21.4	84
14	<b>EMT 1212 D20 14 UN</b>	12	12.0	4	20.9	84
12	<b>EMT 1212 D20 12 UN</b>	12	12.0	4	20.1	84

Order example: EMT 1212 D20 18 UN MT7

● First choice

○ Alternative

## MJ

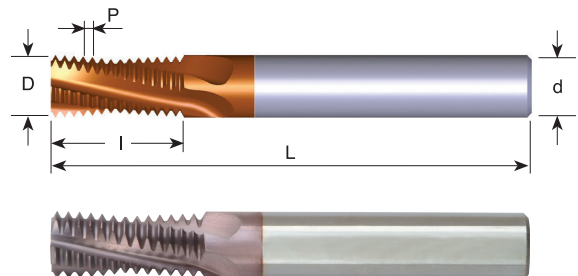
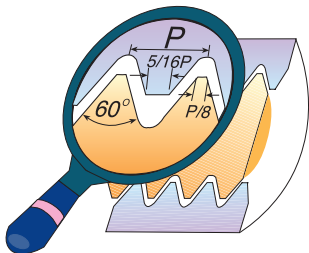


Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch mm	Ordering Code	d	D	No. of Flutes	I	L
1.0	<b>EMT 1010 D20 1.0 MJ</b>	10	10.0	4	20.5	72
1.0	<b>EMT 1212 E24 1.0 MJ</b>	12	12.0	5	24.5	83
1.25	<b>EMT 1010 D19 1.25 MJ</b>	10	10.0	4	19.4	72
1.5	<b>EMT 1010 D21 1.5 MJ</b>	10	10.0	4	21.8	72
1.5	<b>EMT 1212 D26 1.5 MJ</b>	12	12.0	4	26.3	83
1.75	<b>EMT 1212 D27 1.75 MJ</b>	12	12.0	4	27.1	83
2.0	<b>EMT 1010 C21 2.0 MJ</b>	10	10.0	3	21.0	72
2.0	<b>EMT 1212 D27 2.0 MJ</b>	12	12.0	4	27.0	83

Order example: EMT 1010 C21 2.0 MJ MT7

## UNJ UNJC, UNJF, UNJEF, UNJS



Grade	P	M	K	N	S	H
MT7	●	●	●	○	●	≤47 HRc

Pitch TPI	Ordering Code	d	D	No. of Flutes	I	L
32	<b>EMT 0606 C13 32 UNJ</b>	6	6.0	3	13.9	57
28	<b>EMT 0808 D17 28 UNJ</b>	8	8.0	4	17.7	63
24	<b>EMT 1010 D20 24 UNJ</b>	10	10.0	4	20.6	72
20	<b>EMT 1212 E27 20 UNJ</b>	12	12.0	5	27.3	83
18	<b>EMT 1212 D26 18 UNJ</b>	12	12.0	4	26.1	83
16	<b>EMT 1212 D26 16 UNJ</b>	12	12.0	4	26.2	83
14	<b>EMT 1212 D26 14 UNJ</b>	12	12.0	4	26.3	83
12	<b>EMT 1212 D26 12 UNJ</b>	12	12.0	4	26.5	83

Order example: EMT 0808 D17 28 UNJ MT7

For cutting data information see page B12-12

● First choice    ○ Alternative

## Mill-Thread Solid Carbide Grades, Speed and Feed Selection

### MT type

**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.

ISO	Materials	Cutting Speed m/min	Feed mm/tooth Cutting Diameter=D										
			Ø2	Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25
<b>P</b>	Low and Medium Carbon Steels <0.55%C	90 - 200	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18
	High Carbon Steels ≥0.55%C Alloy Steels, Treated Steels	100 - 145	0.02	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.12	0.15
<b>M</b>	Stainless Steels - Free Cutting	55 - 130	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.11
	Stainless Steels - Austenitic	55 - 100	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10
	Cast Steels	120 - 135	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10
<b>K</b>	Cast Iron	65 - 120	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18
<b>N</b>	Aluminum ≤12%Si, Copper	135 - 280	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18
	Aluminum >12% Si	90 - 200	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10
	Synthetics, Duroplastics, Thermoplastics	90 - 320	0.05	0.06	0.07	0.08	0.10	0.11	0.12	0.14	0.15	0.18	0.22
<b>S</b>	Nickel Alloys, Titanium Alloys	20 - 70	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05

For cutters with long cutting length reduce feed rate by 40%

### MTB, MTZ, EMT types

ISO	Materials	Cutting Speed m/min	Feed mm/tooth Cutting Diameter=D										
			Ø2	Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø20	Ø25
<b>P</b>	Low and Medium Carbon Steels <0.55%C	100 - 250	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18
	High Carbon Steels ≥0.55%C	110 - 180	0.02	0.03	0.03	0.05	0.06	0.07	0.08	0.09	0.10	0.12	0.15
	Alloy Steels, Treated Steels	90 - 160	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10
<b>M</b>	Stainless Steels - Free Cutting	60 - 160	0.02	0.03	0.03	0.04	0.05	0.06	0.06	0.07	0.08	0.09	0.11
	Stainless Steels - Austenitic	60 - 120	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10
	Cast Steels	130 - 170	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10
<b>K</b>	Cast Iron	70 - 150	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18
<b>N</b>	Aluminum ≤12%Si, Copper	150 - 350	0.03	0.04	0.04	0.06	0.07	0.08	0.09	0.11	0.12	0.15	0.18
	Aluminum >12% Si	100 - 250	0.02	0.02	0.03	0.03	0.04	0.05	0.05	0.06	0.07	0.08	0.10
	Synthetics, Duroplastics, Thermoplastics	100 - 400	0.05	0.06	0.07	0.08	0.10	0.11	0.12	0.13	0.15	0.18	0.22
<b>S</b>	Nickel Alloys, Titanium Alloys	20 - 80	0.02	0.02	0.02	0.03	0.03	0.03	0.03	0.04	0.04	0.04	0.05

For cutters with long cutting length reduce feed rate by 40%

## MTQ type

Thread mills with relieved neck and internal coolant for milling medium and large threads on relatively deep work pieces.

- To produce medium and large threads on relatively deep work pieces.
- To use overhang according to the application.
- To perform deep threads at the bottom of the application.

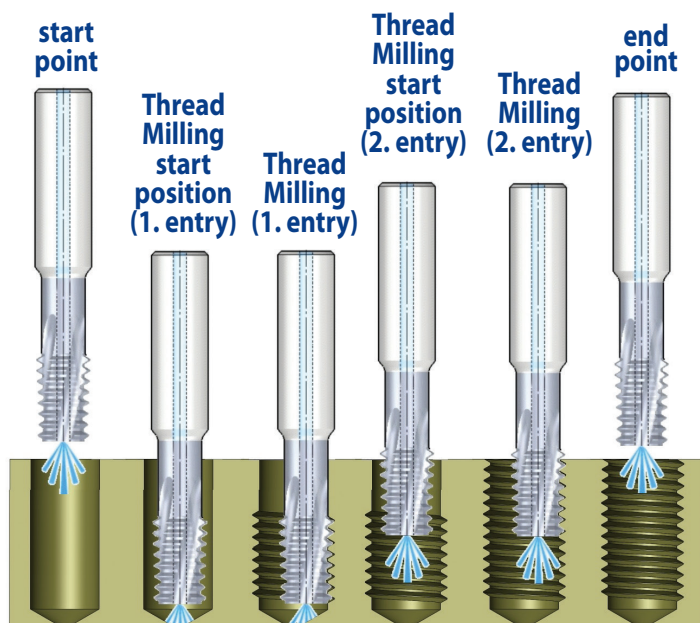
### Advantages

- Provides high rigidity and stability (anti-vibration).
- Accomplishes deep threads in one pass.
- Relatively low cutting forces due to short cutting length.
- Threads length up to 3D.

## Cutting Data

**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.

ISO	Materials	Cutting Speed m/min	Feed mm/tooth Cutting Diameter=D					
			Ø10	Ø12	Ø14	Ø16	Ø20	Ø25
<b>P</b>	Low and Medium Carbon Steels < 0.55%C	100 - 250	0.06	0.07	0.07	0.08	0.10	0.12
	High Carbon Steels ≥ 0.55%C	110 - 180	0.05	0.05	0.06	0.07	0.09	0.10
	Alloy Steels, Treated Steels	90 - 160	0.03	0.04	0.04	0.05	0.06	0.07
<b>M</b>	Stainless Steels - Free Cutting	60 - 160	0.04	0.04	0.05	0.06	0.06	0.08
	Stainless Steels - Austenitic	60 - 120	0.04	0.04	0.04	0.05	0.06	0.07
	Cast Steels	130 - 170	0.03	0.04	0.04	0.05	0.06	0.07
<b>K</b>	Cast Iron	70 - 150	0.06	0.07	0.07	0.08	0.10	0.12
<b>N</b>	Aluminum ≤ 12%Si, Copper	150 - 350	0.06	0.07	0.07	0.08	0.10	0.12
	Aluminum > 12% Si	100 - 250	0.03	0.04	0.04	0.05	0.06	0.07
	Synthetics, Duroplastics, Thermoplastics	100 - 400	0.08	0.09	0.10	0.11	0.13	0.15
<b>S</b>	Nickel Alloys, Titanium Alloys	20 - 80	0.02	0.02	0.02	0.03	0.03	0.03



## Cutting Data

### FMT - Fast MT type

**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.

ISO Standard	Materials	Cutting Speed m/min	Feed mm/tooth Cutting Diameter = D				
			Ø5	Ø6	Ø8	Ø10	Ø12
<b>P</b>	Low and Medium Carbon Steels < 0.55%C	100 - 250	0.03	0.06	0.07	0.08	0.09
	High Carbon Steels ≥ 0.55%C	110 - 180	0.03	0.05	0.06	0.07	0.08
	Alloy Steels, Treated Steels	90 - 60	0.02	0.03	0.04	0.05	0.05
<b>M</b>	Stainless Steel - Free Cutting	60 - 160	0.03	0.04	0.05	0.06	0.06
	Stainless Steel - Austenitic	60 - 120	0.01	0.03	0.04	0.05	0.05
	Cast Steels	130 - 170	0.02	0.03	0.04	0.05	0.05
<b>K</b>	Cast Iron	70 - 150	0.04	0.06	0.07	0.08	0.09
<b>N</b>	Aluminum ≤ 12%Si, Copper	150 - 350	0.04	0.06	0.07	0.08	0.09
	Aluminum > 12%Si	100 - 250	0.03	0.03	0.04	0.05	0.05
	Synthetics, Duroplastics, Thermoplastics	100 - 400	0.06	0.08	0.10	0.11	0.12
<b>S</b>	Nickel Alloys, Titanium Alloys.	20 - 80	0.02	0.03	0.03	0.03	0.03
<b>H</b>	Hardened Steel, 45-50HRc	60 - 70	0.02	0.03	0.03	0.03	0.03

## AMT Solid Carbide Thread Mills for Aluminum Machining

Solid carbide thread mills for High-speed Aluminum machining. High-speed aluminum machining requires tools that minimize the tendency of Aluminum to stick to the tool cutting edges, provides high surface finish, ensuring efficient chip evacuation and sufficient strength of the cutting edge to absorb the cutting forces.

### Features

- Optimized carbide grade for Aluminum, cast iron and stainless steels
- Cylindrical shank (Weldon shank - upon request)
- With internal coolant bore
- Uncoated, smooth cutting edge
- High thread surface quality
- Same tool for right hand or left hand internal threads
- Additional items with cutting chamfer

## Cutting Data

### AMT

**K20** Uncoated Sub- Micron carbide grade for Aluminum and non-ferrous materials, Stainless Steels and Titanium.

ISO Standard	Materials	Cutting Speed m/min	Feed mm/tooth Cutting Diameter = D		
			D ≤ 4	4 < D < 9	D ≥ 9
<b>P</b>	Low & Medium Carbon Steels < 0.55%C	50-140	0.005-0.03	0.01-0.05	0.02-0.10
	High Carbon Steels ≥ 0.55%C	60-130	0.005-0.02	0.01-0.04	0.02-0.09
	Alloy Steels, Treated Steels				
<b>M</b>	Stainless Steel-Free Cutting	40-120	0.005-0.02	0.01-0.04	0.02-0.09
	Stainless Steel-Austenitic				
	Cast Steels	70-120	0.005-0.03	0.01-0.05	0.02-0.10
<b>K</b>	Cast Iron	50-120	0.005-0.03	0.01-0.05	0.02-0.10
<b>N</b>	Aluminum ≤ 12%Si, Copper	130-250	0.005-0.04	0.01-0.06	0.02-0.13
	Aluminum > 12%Si	80-180	0.005-0.04	0.01-0.06	0.02-0.13
	Synthetics, Duroplastics, Thermoplastics	80-180	0.005-0.04	0.01-0.06	0.02-0.13
<b>S</b>	Nickel alloys, Titanium alloys	20- 80	0.005-0.02	0.01-0.04	0.02-0.09