



FMTZ & FT

Thread mills for High Cutting Stability



Inch

FMTZ & FT thread mills for high cutting stability

Carmex has developed new solid carbide thread mills: right hand cutting with left hand helix **FMTZ** and **FT**.

The tool enters the material at the upper point of the cutting edge close to the shank.

The **FMTZ** is equipped with radial coolant holes.

The **FT** thread mill offers more flutes for increased productivity

Features

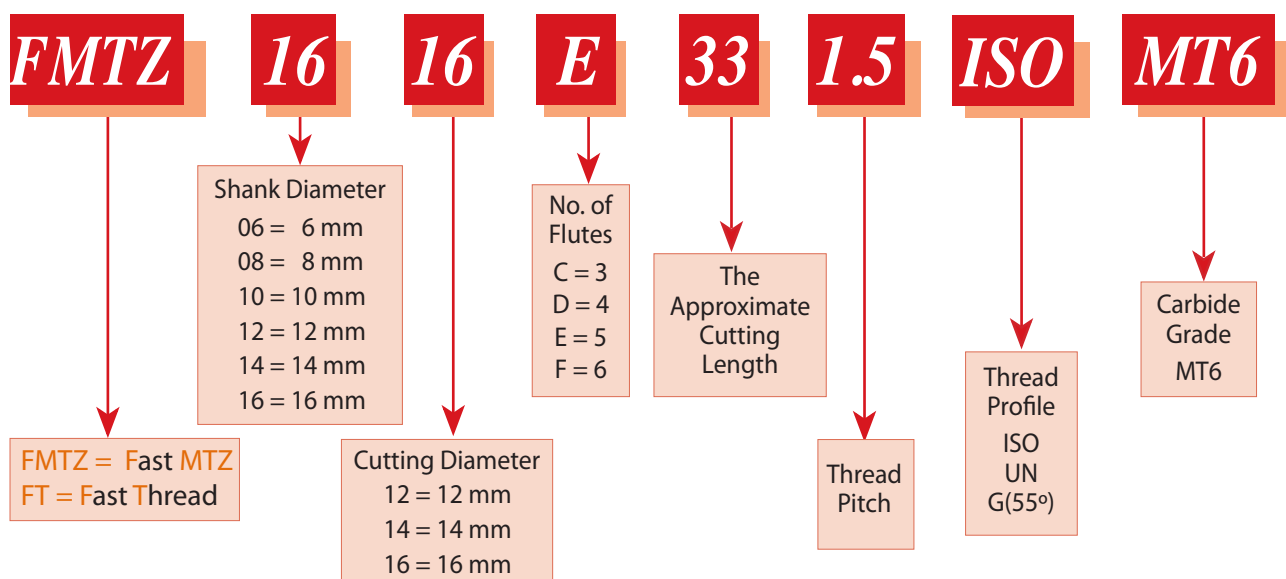
- Smooth cutting and reduced cutting forces during process
- Lower tool vibrations and High Surface Finish
- High Productivity through significant shorter cycle time
- Coolant holes directed to the cutting edge (FMTZ tools type only)
- For both right-hand and left-hand threads
- Optimized Carbide Grade for High Performance Cutting and Edge Stability
- Cylindrical shank

Carbide Grade: **MT6**

Ultra-Fine Carbide Grade with high hardness and toughness provides an excellent solution for machining steels, stainless steels, cast materials and super alloys.

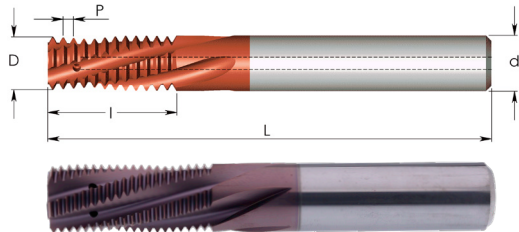
The universal PVD multi-layer coating provides high heat and wear resistance.

Product Identification



ISO With internal coolant through the flutes

Tools for Internal Thread



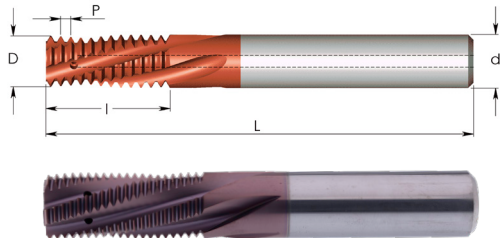
Grade	P	M	K	N	S	H
MT6	●	●	●	○	●	≤55 HRc

Pitch mm	M coarse	M fine	Ordering Code	d mm	D	No. of Flutes	I	L
1.0	M6	M8	FMTZ 06048 C10 1.0ISO	6	.189	3	.41	2.3
1.0		M8, M9	FMTZ 0606 C12 1.0ISO	6	.236	3	.49	2.3
1.0		M10	FMTZ 0808 D16 1.0ISO	8	.315	4	.65	2.5
1.0		M12, M14	FMTZ 12107 E24 1.0ISO	12	.421	5	.96	3.3
1.25	M8	M10	FMTZ 08064 D14 1.25ISO	8	.252	4	.57	2.5
1.5	M10	M12	FMTZ 08078 C17 1.5ISO	8	.307	3	.68	2.5
1.5		M14	FMTZ 1010 D21 1.5ISO	10	.394	4	.86	2.9
1.5		M14, M16	FMTZ 1212 D26 1.5ISO	12	.472	4	1.04	3.3
1.5		M16, M18	FMTZ 1414 E32 1.5ISO	14	.551	5	1.27	4.0
1.5		M20	FMTZ 1616 E33 1.5ISO	16	.630	5	1.33	4.0
1.75	M12		FMTZ 10095 E20 1.75ISO	10	.374	5	.79	2.9

Order example: FMTZ 08078 C17 1.5ISO MT6

UN With internal coolant through the flutes

Tools for Internal Thread



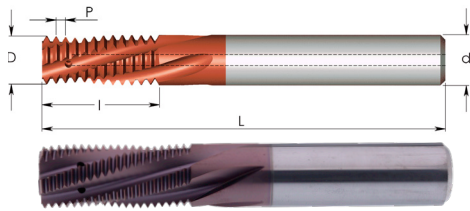
Grade	P	M	K	N	S	H
MT6	●	●	●	○	●	≤55 HRc

Pitch TPI	UNC	UNF	UNEF	Ordering Code	d mm	D	No. of Flutes	I	L
28		1/4		FMTZ 06052 D11 28UN	6	.205	4	.44	2.3
24		5/16		FMTZ 08066 D14 24UN	8	.260	4	.56	2.5
24		3/8	9/16-5/8	FMTZ 0808 D21 24UN	8	.315	4	.81	2.5
20		7/16-1/2		FMTZ 0808 C21 20UN	8	.315	3	.83	2.5
20			3/4-1	FMTZ 1212 E27 20UN	12	.472	5	1.07	3.3
18	5/16			FMTZ 0606 D14 18UN	6	.236	4	.58	2.3
18		9/16-5/8	1 1/8-1 5/8	FMTZ 12113 D26 18UN	12	.445	4	1.03	3.3
16	3/8			FMTZ 08074 D16 16UN	8	.291	4	.66	2.5
16		3/4		FMTZ 1212 D31 16UN	12	.472	4	1.22	3.3
14	7/16			FMTZ 10085 D20 14UN	10	.335	4	.82	2.9
14		7/8		FMTZ 1616 E37 14UN	16	.630	5	1.46	4.0
13	1/2			FMTZ 10098 E22 13UN	10	.386	5	.89	2.9
12	9/16			FMTZ 12116 E26 12UN	12	.457	5	1.04	3.3
12		1-1 1/2		FMTZ 1616 E41 12UN	16	.630	5	1.63	4.0
11	5/8			FMTZ 1212 E28 11UN	12	.472	5	1.14	3.3
10	3/4			FMTZ 16147 E34 10UN	16	.579	5	1.35	4.0
8	1			FMTZ 20195 E42 8UN	20	.768	5	1.69	4.1

Order example: FMTZ 1212 D31 16UN MT6

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

Same tool for Internal and External Thread

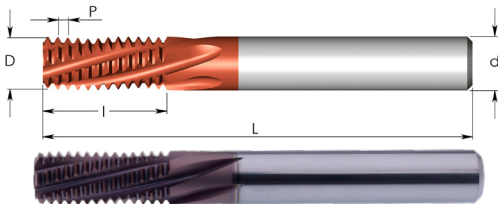


Grade	P	M	K	N	S	H
MT6	●	●	●	○	●	≤55 HRC

Pitch TPI	Standard	Ordering Code	d mm	D	No. of Flutes	I	L
28	G1/8	FMTZ 08078 C14 28W	8	.307	3	.56	2.5
28	G1/8	FMTZ 08078 C20 28W	8	.307	3	.80	2.5
19	G1/4-3/8	FMTZ 1010 D16 19W	10	.394	4	.66	2.9
19	G1/4-3/8	FMTZ 1010 D26 19W	10	.394	4	1.03	2.9
14	G1/2-7/8	FMTZ 1616 E26 14W	16	.630	5	1.04	4.0
11	G≥1	FMTZ 1616 D38 11W	16	.630	4	1.50	4.0

Order example: FMTZ 1010 D26 19W MT6

ISO Tools for Internal Thread



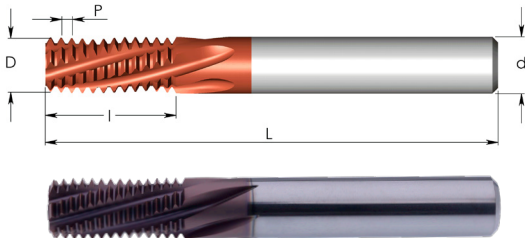
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MT6	●	●	●	○	●	≤55 HRC

Pitch mm	M coarse	M fine	Ordering Code	d mm	D	No. of Flutes	I	L
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1.0		M8, M9	FT 0606 E12 1.0ISO	6	.236	5	.49	2.2
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1.25	M8	M10	FT 08064 E14 1.25ISO	8	.252	5	.57	2.5
1.5	M10	M12	FT 08078 E17 1.5ISO	8	.307	5	.67	2.5
1.5		M14	FT 1010 F21 1.5ISO	10	.394	6	.86	2.8
1.5		M14, M16	FT 1212 F26 1.5ISO	12	.472	6	1.04	3.3
1.5		M16, M18	FT 1414 F32 1.5ISO	14	.551	6	1.27	3.9
1.5		M20	FT 1616 F33 1.5ISO	16	.630	6	1.33	4.1
1.75	M12		FT 10095 F20 1.75ISO	10	.374	6	.79	2.8

Order example: FT 08078 E17 1.5ISO MT6

UN

Tools for Internal Thread



Grade	P	M	K	N	S	H
MT6	●	●	●	○	●	≤55 HRc

Pitch TPI	UNC	UNF	UNEF	Ordering Code	d mm	D	No. of Flutes	I	L
28		1/4		FT 06052 E11 28UN	6	.205	5	.44	2.2
24		5/16		FT 08066 E14 24UN	8	.260	5	.56	2.5
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10	3/4			FT 16147 E34 10UN	16	.579	5	1.35	4.1
8	1			FT 20195 F42 8UN	20	.768	6	1.69	4.1

Order example: FT 1212 F31 16UN MT6

FMTZ & FT thread mills

ISO Standard	Material	Cutting Speed ft/min	Cutting Diameter = D Feed inch/tooth		
			D ≤ .16	.16 < D < .35	D ≥ .35
P	Low & Medium Carbon Steels < 0.55%C	330-820	.0012-.0016	.0012-.0031	.0031-.0047
	High Carbon Steels ≥ 0.55%C	360-590	.0008-.0012	.0008-.0028	.0028-.0039
	Alloy Steels, Treated Steels	290-520	.0008-.0012	.0012-.0024	.0020-.0031
M	Stainless Steel-Free Cutting	200-520	.0008-.0012	.0012-.0024	.0020-.0031
	Stainless Steel-Austenitic	200-390	.0008-.0012	.0012-.0020	.0016-.0028
	Cast Steels	430-560	.0008-.0012	.0012-.0020	.0016-.0028
K	Cast Iron	230-490	.0012-.0016	.0020-.0031	.0031-.0047
N	Aluminum ≤ 12%Si, Copper	490-1150	.0012-.0016	.0020-.0031	.0031-.0047
	Aluminum > 12%Si	330-820	.0008-.0012	.0012-.0020	.0016-.0028
	Synthetics, Duroplastics, Thermoplastics	330-1310	.0020-.0028	.0028-.0043	.0039-.0059
S	Nickel alloys, Titanium alloys	70-260	.0008-.0012	.0008-.0012	.0008-.0016
H	Hardened Steel 45-50 HRc	200-230	.0008-.0012	.0008-.0012	.0008-.0016
	Hardened Steel 50-55 HRc	160-200	.0004-.0008	.0004-.0008	.0004-.0012



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