

TOROID "BUTTON CUTTER" SHANK & ARBOR STYLE FACE MILLS



A *Cole* TOOLING SYSTEMS CO.

INCH

High Performance Milling from Heavy Roughing to Fine Finishing.

Millstar face mills are equally useful on newer high velocity machines and older slower equipment and will optimize milling performance of all your machine tools. The hardened tool bodies can be run at aggressive spindle speed and feed rates, when used with Millstar's precision ground, strong and thick, round inserts with proven hard, high performance TLN tool coating.

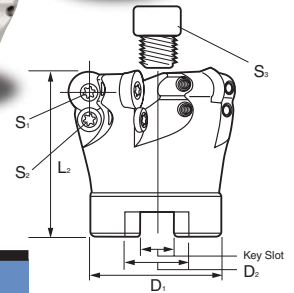
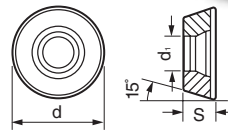
The tools provide for precision finish results, minimal tool deflection and run-out. Excellent milling results can be achieved in roughing, semi finishing and fine finishing in Z-level, profiling or raster cuts, as well as in linear or circular interpolation milling or ramping.

The tools may be used with coolant, but we recommend dry, mist or MQL (minimum quantity lubrication) milling with strong air blast when high speed or hard machining steel, particularly in the higher hardness range (> 45HRC / 425 HBN). Please refer to FAQs (frequently asked questions) about milling on our website www.millstar.com.



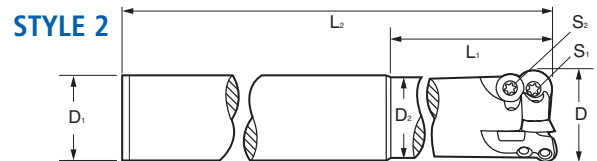
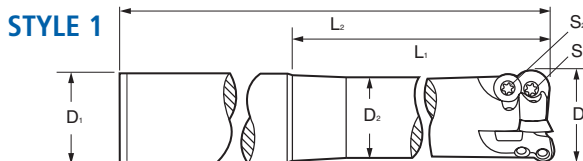
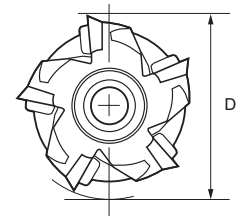
Insert Style

Tool Ordering No.	Diameter d	Thickness S	Diameter d1	Coating
FMI-1003	.393"/10mm	.125	.153	TLN
FMI-12T3	.472"/12mm	.156	.154	TLN
FMI-1604	.629/16mm	.205	.1875	TLN



Arbor Style

Tool Ordering No.	Cutting Diameter D	Neck Diameter D1	No. of Flutes	Overall Length L2	Insert Required	Insert Screw S1	Face Clamp Screw S2	Mounting Screw S3	Bore Diameter D2	Drive Key
FMA 2000/5	2.0	1.57	5	2.0	FMI-12T3	FMIS-1	FMIS-2	FMIS-4	.75	.312
FMA 2500/5	2.5	1.57	5	2.0	FMI-12T3	FMIS-1	FMIS-2	FMIS-4	1.0	.375
FMA 3000/5	3.0	1.57	5	2.0	FMI-12T3	FMIS-1	FMIS-2	FMIS-4	1.0	.375



Shank Style

Tool Ordering No.	Cutting Ø D	Shank Ø D1	Neck Ø D2	No. of Flutes	Neck Length L1	Shank Style	OAL L2	Insert Required	Insert Screw S1	Face Clamp Screw S2
FM-1000/2-6.0-1000	1.00	1.00	.882	2	3.0	1	6.0	FMI-12T3	FMIS-1	FMIS-2
FM-1250/3-6.0-1000	1.25	1.00	.882	3	1.5	2	6.0	FMI-12T3	FMIS-1	FMIS-2
FM-1500/4-6.0-1250	1.50	1.25	1.125	4	1.5	2	6.0	FMI-12T3	FMIS-1	FMIS-2

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METRIC

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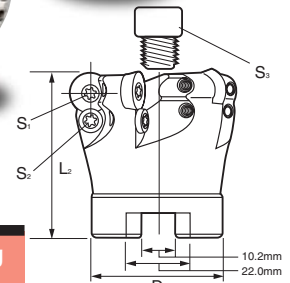
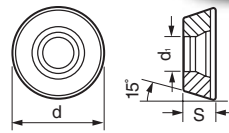
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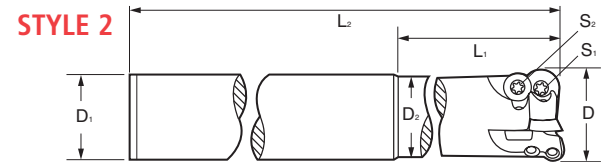
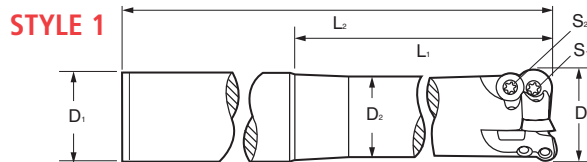
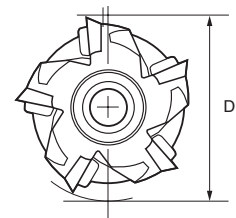
Insert Style

Tool Ordering No.	Diameter d	Thickness S	Diameter d1	Coating
FMI-1003	10mm	3,18mm	3,88mm	TLN
FMI-12T3	12mm	3,97mm	3,9mm	TLN
FMI-1604	16mm	4,77mm	5,2mm	TLN



Arbor Style

Tool Ordering No.	Cutting Diameter D	Neck Diameter D1	No. of Flutes	Overall Length L2	Insert Required	Insert Screw S1	Face Clamp Screw S2	Mounting Screw S3
FMA 50/5	50mm	40mm	5	50mm	FMI-12T3	FMIS-1	FMIS-2	FMIS-3
FMA 52/5	52mm	40mm	5	50mm	FMI-12T3	FMIS-1	FMIS-2	FMIS-3
FMA 63/5	63mm	40mm	5	50mm	FMI-12T3	FMIS-1	FMIS-2	FMIS-3
FMA 52/4-16	52mm	40mm	4	50mm	FMI-1604	FMIS-1	FMIS-2	FMIS-3
FMA 63/5-16	63mm	40mm	5	50mm	FMI-1604	FMIS-1	FMIS-2	FMIS-3



Shank Style

Tool Ordering No.	Cutting Ø D	Shank Ø D1	Neck Ø D2	No. of Flutes	Neck Length L1	Shank Style	OAL L2	Insert Required	Insert Screw S1	Face Clamp Screw S2
FM 25/2-180-25	25mm	25mm	23mm	2	100mm	1	180mm	FMI-12T3	FMIS-1	FMIS-2
FM 32/3-180-25	32mm	25mm	24mm	3	42mm	2	180mm	FMI-12T3	FMIS-1	FMIS-2
FM 32/3-180-32	32mm	32mm	29mm	3	100mm	1	180mm	FMI-12T3	FMIS-1	FMIS-2
FM 40/4-180-32	40mm	32mm	31mm	4	42mm	2	180mm	FMI-12T3	FMIS-1	FMIS-2
FM 42/4-180-32	42mm	32mm	31mm	4	42mm	2	180mm	FMI-12T3	FMIS-1	FMIS-2
FM 32/2-180-32-16	32mm	32mm	31mm	2	42mm	2	180mm	FMI-1604	FMIS-1	FMIS-2
FM 40/3-180-32-16	40mm	32mm	31mm	3	42mm	2	180mm	FMI-1604	FMIS-1	FMIS-2