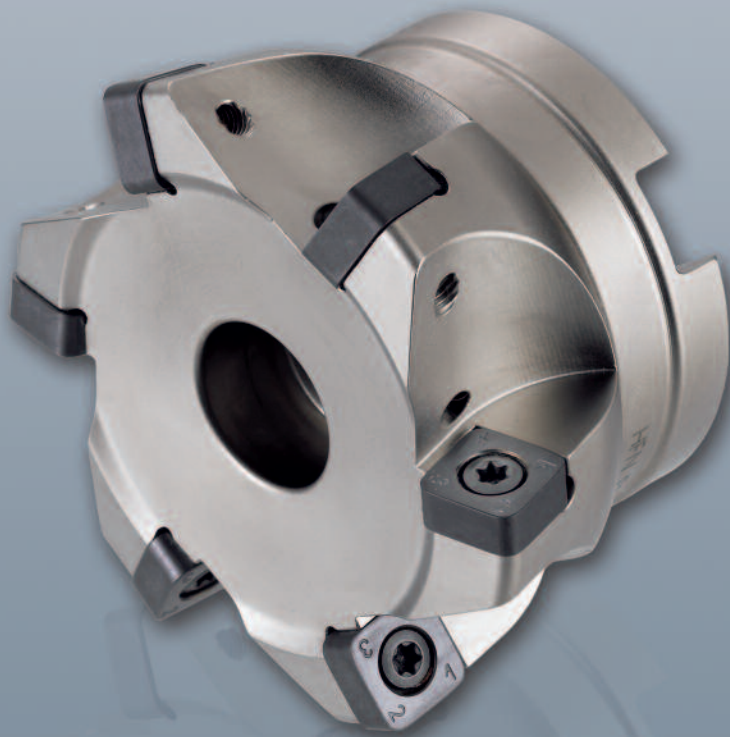
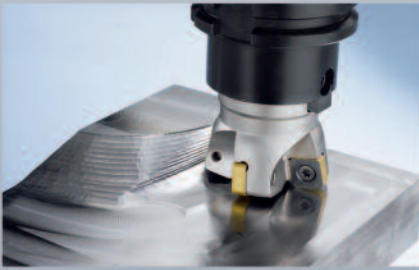


MultiEdge Double 4 Feed

High Feed Face Milling Cutter



Significant increases in productivity and drastic cost savings with high feed mills now reach a new level – with the new LMT Tools MultiEdge Double4Feed High Feed Mill product line. With 8 useable cutting edges per indexable insert, the MultiEdge Double4Feed sets new standards regarding efficiency.

The MultiEdge Double4Feed is an optimal tool for face milling and is available with diameters from 2” to 4”.

High feeds are realized from chip thinning, a result of the smaller lead angle. Vibrations are minimized too from reduced side load, due to cutting forces being directed axially into spindle.

Your success: shorter machining times, reduced production costs. We will be happy to advise you with regard to your applications.

Features

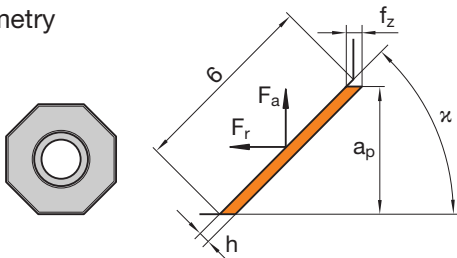
- 8 cutting edges per insert
- High-performance, high feed geometry for face milling operations
- Stable insert geometry for machining steel and cast materials
- Stable cutting due to advanced edge prep design
- Increased performance due to innovative insert grade types as LCP40M, LCP44M, LCKP10M, and LCK10M
- New TERAspeed coating (LCP44M) especially for wet machining of steel materials
- Metric medium and fine pitch bodies available on request.

Advantages

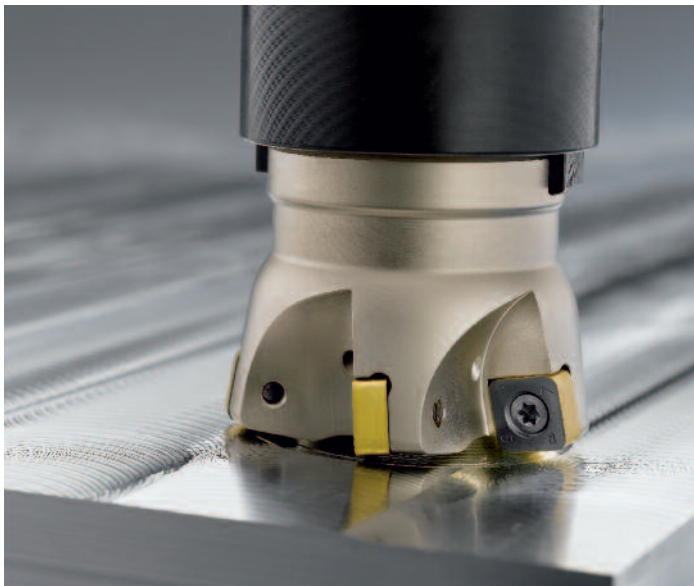
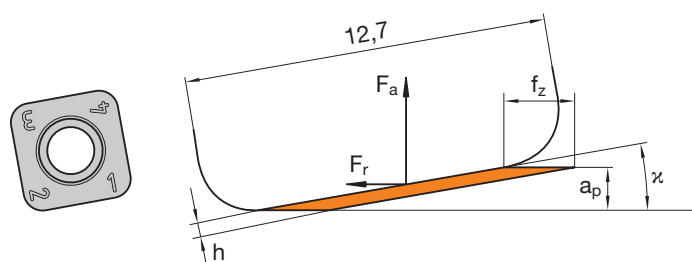
- Reduced tool costs from 8 cutting edges
- Maximum metal removal rate during face milling
- Reduced machining times
- Economic production due to increase in productivity
- Reduced tendency for vibration
- Pocket design assists in chip removal
- Increased tool life compared to conventional face milling operations

MultiEdge Feed Geometry

Cutting conditions and chip cross section with conventional geometry



Cutting conditions and chip cross section with MultiEdge Double 4 Feed geometry



Application Example

Base (Machine construction)

Tool: MultiEdge Double 4 Feed Face Milling Cutter
Cat.-No. HFN S12

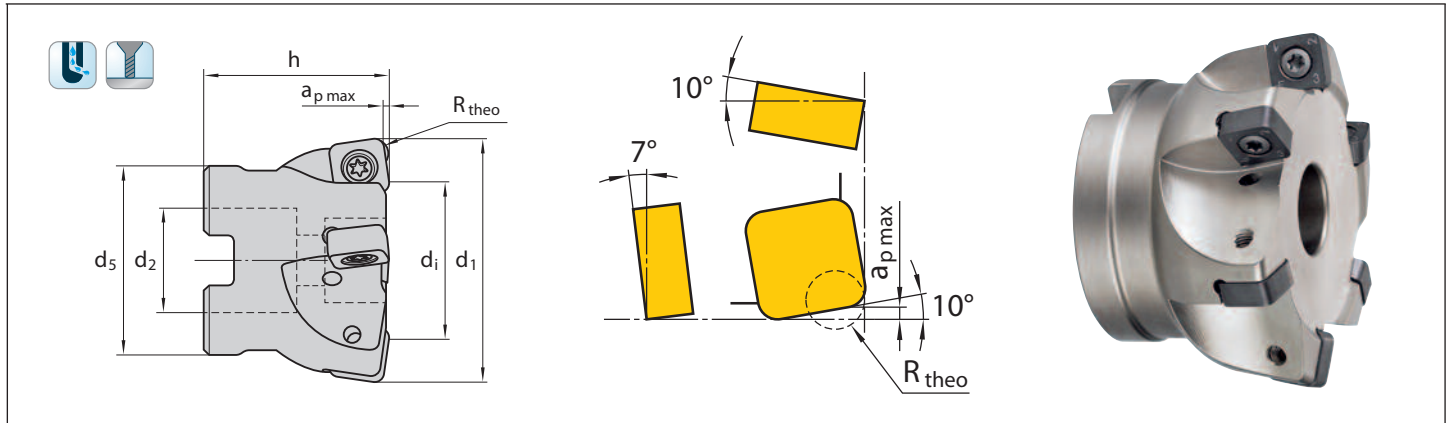
Insert: LCP40M




Material: 1040

Cutting data: $v_c = 820$ SFM
 $f_z = .071$ " FPT
 $v_f = 450$ IPM
 $a_e = 1.750$ " WOC
 $a_p = .040$ " DOC

Coolant: Dry

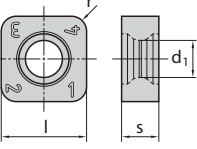
MultiEdge Double 4 Feed Milling Cutter



d1	EDP#	LMT Code	dI	h	d2	d5	z	a _p max	R _{theo}			
2.00	46200	HFN S12.200 AN-I	1.181	1.575	0.750	1.575	5	0.060	0.138	 SNKQ 120520	 SN1045123	 1048344 T20
2.50	49796	HFN S12.250 AN-I	1.693	1.969	1.000	6	0.060	0.138				
3.00	49498	HFN S12.300 AN-I	2.362	1.969	1.000	2.362	5	0.060	0.138			
4.00	49582	HFN S12.400 AN-I	3.150	1.969	1.500	2.560	7	0.060	0.138			

Torque: 7.6Nm









Maximum Ramp Angle: 1°

N = Number of Cutting Edges	LMT - CODE	l	d	s	r	INSERT GRADES				For Cutter
						LCP40M	LCP44M	LCKP10M	LCK10M	CAT NO
 N = 8	SNKQ 120520 SN	.500"	-	.218	.078"	45742				HFN S12
	SNKQ 120520 SN	.500"	-	.218	.078"		45743			
	SNKQ 120520 SN	.500"	-	.218	.078"			45744		
	SNKQ 120520 SN	.500"	-	.218	.078"				45745	
							X	A	A	
						A				M
								X	X	K

X = First Choice
A = Alternative

Insert Grades	Description
LCP40M	Suited for high feed rates. A combination of tough carbide substrate with a double layer PVD coating. The inserts are coated with AL6 and have an additional TiN-layer allowing for easier wear detection.
LCP44M	A combination of tough carbide substrate with the temperature resistant coating TERA speed (AlTiN-CVD) is ideal for wet steel milling operations. The multilayer coating architecture provide the feature to minimized thermal crack initiation and prevent crack growth.
LCKP10M	These indexable inserts are made of a tough, wear resistant, micro-grain substrate. The AL2Plus coating is extremely resistant to oxidation. Particularly well suited for high performance cutting of gray cast iron and steel materials at higher cutting speeds and with reduced infeeds.
LCK10M	TERAspeed (AlTiN-CVD) coated micro-grain carbide grade for milling cast iron materials. Especially well suited for dry machining at high cutting speeds due to the high temperature resistance.

Cutting Data Recommendations MultiEdge Double 4 Feed

	Material	Material No.	DIN Description	HBN	Cutting speed vc SFM	Coolant	Recommended Feed Per Tooth (FPT)
P	Plain carbon steel 1018, 1025	1.0037	St 37	90-150	656-787	 	.030" - .100"
		1.0044	St 44				
		1.0038	R St 37-2				
		1.0052	St 52	152-210			
		1.0710	St 70				
	Free Cutting Steel 1212, 1243	1.0711	9 S 20	105-165			
		1.0715	9 SMn 28				
		1.0727	45 S 20	180-240			
		1.0728	60 S 20				
	Structural Alloy Steel 1040, 4130	1.1191	C 45 E	152-280			
1.1221		C 60 E					
Heat treatable steel, medium strength 4140, 6150	1.7219	26 CrMo 4	152-280	460-590	 	.030" - .080"	
	1.7225						
	1.2241	50 CrV 4					
Cast steel 4340, 8740	1.0416	GS 40	200-280				
	1.7220	GS 34CrMo 4					
Case hardening steel 8620	1.2162	21 MnCr5	210-250	330 - 460	 	.030" - .080"	
	1.2764	X 19NiCrMo 4					
	1.7131	16 MnCr5					
Nitriding steel A 355	1.8504	34 CrAl 6	230-300				
	1.8550	34 CrAlNi7					
	1.8519	31 CrMoV 9					
Tool steel D2, H13	1.2080	X 310 Cr12	240-350				
	1.2312	40 CrMnMoS 8.6					
	1.2379	X 155 CrVMo 12 1					
M	Stainless steel 400 Series, Ph Series	1.4003	X 2CrNi 12	240-380HB	400-600		.030" - .070"
		1.4105	X 4CrMoS 18				
K	Grey Cast Iron A 319, J 431	EN-JL-1040 (0.6025)	EN-GJL-250 (GG 25)	120-260	650 - 850	 	.030" - .100"
	Ductile Cast Iron J 434, A536	EN-JS-1030 (0.7040)	EN-GJS400 (GGG 60)	135-180	600 - 750		
	Malleable cast iron A 220, A 47	EN-JM-1160	EN-GJMB-550-4	150-280	525 - 650		

The cutting data indicated above are starting values and must be adjusted to the conditions. Call for running parameters for PH stainless.



Dry Machining, air-blast cooling is advantageous



Wet machining, sufficient emulsion volume required

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