

# LEXINGTON

C U T T E R, I N C.

## INDEXABLE FACE MILLS CUTTER BODIES AND INSERTS



ROUND, SQUARE AND OCTAGON INSERTS  
IN THE SAME POCKET

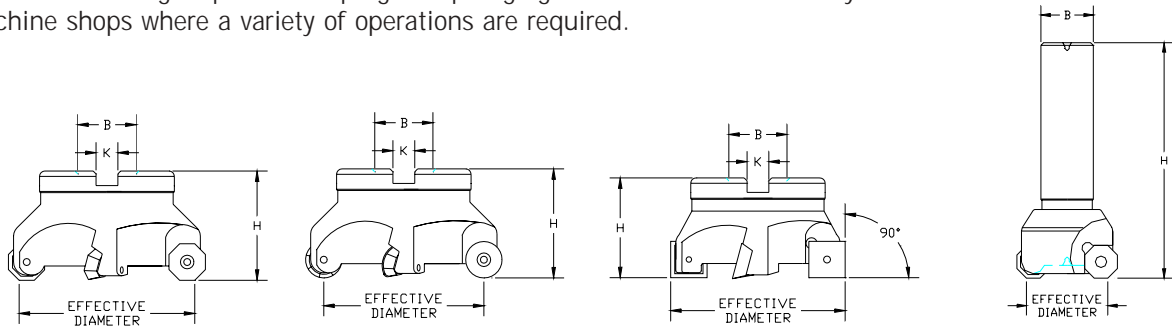
MILL AT SUPER HIGH VELOCITY  
WITH PRECISION GROUND INSERTS

# INDEXABLE FACE MILLS

## TYPE 3215 - FACE MILL CUTTER BODIES FOR 5/8" I.C. ROUND, SQUARE & OCTAGON INSERTS

Cutters accept round, square and octagon inserts for a variety of lead angles, radii and edge preparations. The geometry allows ramping, plunging, chopping as well as square shoulder milling.

Unique pocket design allow cutters to achieve high performance using round, square and octagon inserts without cartridges or other spare parts. High helical and clearance angles permit ramping and plunging. Reduces cutter inventory for machine shops where a variety of operations are required.

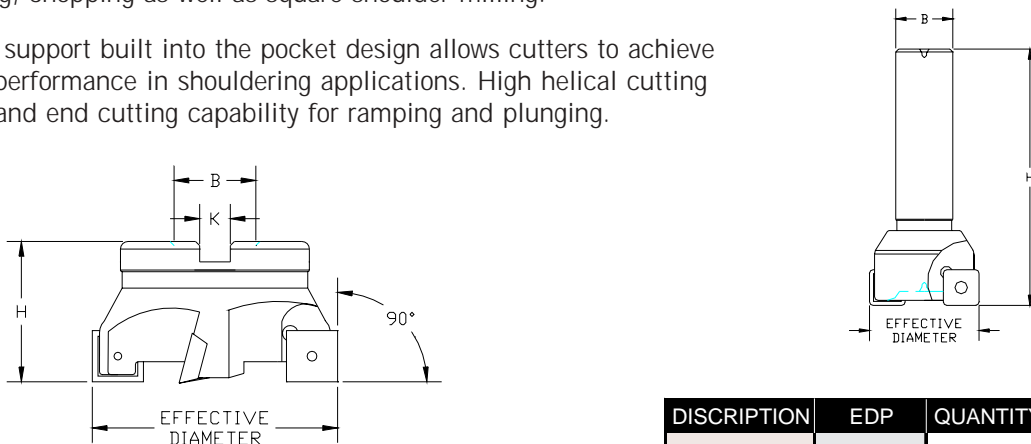


EFFECTIVE DIAMETER PER INSERT SHAPE			NUMBER OF POCKETS	H	B	K	EDP NUMBER	PRICE EACH
OCTAGON	SQUARE	ROUND						
1.50	1.86	1.25	3	4.45	1" Shank	-	321515	\$148.50
2.00	2.36	1.75	4	1.75	0.750	.31	321520	276.25
3.00	3.36	2.75	5	1.83	1.000	.37	321530	306.00
4.00	4.36	3.75	6	2.00	1.500	.63	321540	416.50
6.00	6.36	5.75	8	2.00	1.500	.63	321560	527.00

## TYPE 3205 - FACE MILL CUTTER BODIES FOR 5/8" I.C. SQUARE INSERTS

Cutters accept inserts with a variety of radii and edge styles. The geometry allows ramping, plunging, chopping as well as square shoulder milling.

Greater support built into the pocket design allows cutters to achieve higher performance in shouldering applications. High helical cutting angles and end cutting capability for ramping and plunging.



DISCRIPTION	EDP	QUANTITY	PRICE EACH
Insert Screws	32151032	10 pcs.	\$10.00
T20 Wrench	32150000	1 pc.	\$5.00

EFFECTIVE DIAMETER SQUARE INSERT	NUMBER OF POCKETS	H	B	K	EDP NUMBER	PRICE EACH
1.50	3	4.45	1" Shank	-	320515	\$148.50
2.00	3	1.75	0.750	.31	320520	208.25
3.00	5	1.70	1.000	.37	320530	306.00
4.00	6	2.00	1.500	.63	320540	416.50

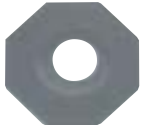
LEXINGTON CUTTER, INC. · Bradenton, Florida 34203 · PHONE 800-882-2627 · FAX 800-882-3637

# PRECISION GROUND 5/8" I.C. INSERTS FOR FACE MILLS

## \*\*CARBIDE GRADE INFORMATION

- MX refers to LEXINGTON CUTTER'S indexable insert grades.
- The first number represents the substrate of the insert.
- MX2 = C2 or K10/20 micrograin for nonferrous and cast iron.
- MX5 = C5 or P20/30 special multi-grain size grade for steel.
- The second number represents the coating.

MX21 or MX51 (uncoated) - For general purpose applications.



MX24 or MX54 (TiN) - For general purpose milling in a wide variety of applications.



MX28 or MX58 (AlTiN) - For high temperature applications and dry milling of hard & abrasive materials.



- P = Positive face grind. For high SFPM and fine finishing applications.
- K = Strengthening land on cutting edge. For heavy feeds and difficult machining conditions.
- P2 & K2 designates honed edge. For improved edge strength where needed.
- Uncoated inserts can be honed and/or coated quickly. Call for details.



DESCRIPTION	EDP NUMBER	LEAD/RADIUS	COATING	MATERIAL CLASSIFICATION*							CARBIDE GRADE**	PRICE EACH
				1	2	3	4	5	6	7		
<b>OCTAGON</b>												
OEEB-534-F-MX21	3215132	45°	-								MX2	\$ 7.75
OEEB-534-F-MX51	3215135	45°	-								MX5	7.75
OEEB-534-F-MX54	3215235	45°	TiN								MX5	10.25
OEEB-534-K-MX21	3215122	45°	-								MX2	8.50
OEEB-534-K-MX24	3215222	45°	TiN								MX2	10.95
OEEB-534-K-MX51	3215125	45°	-								MX5	8.50
OEEB-534-K-MX54	3215225	45°	TiN								MX5	10.95
OEEB-534-K2-MX21	3215123	45°	-								MX2	8.95
OEEB-534-K2-MX24	3215223	45°	TiN								MX2	11.45
OEEB-534-K2-MX28	3215224	45°	AlTiN								MX2	11.95
OEEB-534-K2-MX51	3215126	45°	-								MX5	8.95
OEEB-534-K2-MX54	3215127	45°	TiN								MX5	11.45
OEEB-534-K2-MX58	3215227	45°	AlTiN								MX5	11.95
OEEB-534-P-MX21	3215112	45°	-								MX2	8.50
OEEB-534-P-MX24	3215212	45°	TiN								MX2	10.95
OEEB-534-P-MX51	3215115	45°	-								MX5	8.50
OEEB-534-P-MX54	3215215	45°	TiN								MX5	10.95
OEEB-534-P2-MX28	3215144	45°	AlTiN								MX2	11.95
OEEB-534-P2-MX58	3215148	45°	AlTiN								MX5	11.95
<b>ROUND</b>												
REEB-53-F2-MX54	3215337	.312	TiN								MX5	10.75
REEB-53-P-MX21	3215312	.312	-								MX2	8.50
REEB-53-P-MX24	3215412	.312	TiN								MX2	10.95
REEB-53-P2-MX28	3215413	.312	AlTiN								MX2	11.95
REEB-53-P-MX51	3215315	.312	-								MX5	8.50
REEB-53-P-MX54	3215415	.312	TiN								MX5	10.95
REEB-53-P2-MX58	3215417	.312	-								MX5	11.95
<b>SQUARE</b>												
SEEB-531-P-MX21	3215512	.015	-								MX2	8.50
SEEB-531-P-MX24	3215712	.015	TiN								MX2	10.95
SEEB-531-P-MX51	3215515	.015	-								MX5	8.50
SEEB-531-P-MX54	3215715	.015	TiN								MX5	10.95
SEEB-532-K-MX21	3215532	.032	-								MX2	8.50
SEEB-532-K-MX24	3215732	.032	TiN								MX2	10.95
SEEB-532-K-MX51	3215535	.032	-								MX5	8.50
SEEB-532-K-MX54	3215735	.032	TiN								MX5	10.95
SEEB-532-K2-MX58	3215736	.032	AlTiN								MX5	11.95
SEEB-532-P-MX21	3215522	.032	-								MX2	8.50
SEEB-532-P-MX24	3215722	.032	TiN								MX2	10.95
SEEB-532-P2-MX28	3215523	.032	AlTiN								MX2	11.95
SEEB-532-P-MX51	3215525	.032	-								MX5	8.50
SEEB-532-P-MX54	3215725	.032	TiN								MX5	10.95
SEEB-532-P2-MX58	3215527	.032	AlTiN								MX5	11.95
SEEB-534-P-MX21	3215562	.062	-								MX2	8.50
SEEB-534-P-MX24	3215762	.062	TiN								MX2	10.95
SEEB-534-P-MX51	3215565	.062	-								MX5	8.50
SEEB-534-P-MX54	3215765	.062	TiN								MX5	10.95
SEEB-534-K-MX51	3215767	.062	-								MX5	8.50
SEEB-538-K-MX21	3215552	.125	-								MX2	8.50
SEEB-538-K2-MX28	3215554	.125	AlTiN								MX2	11.95
SEEB-538-K-MX51	3215555	.125	-								MX5	8.50
SEEB-538-K2-MX58	3215557	.125	AlTiN								MX5	11.95
SEEB-538-P-MX21	3215542	.125	-								MX2	8.50
SEEB-538-P-MX24	3215742	.125	TiN								MX2	10.95
SEEB-538-P-MX51	3215545	.125	-								MX5	8.50
SEEB-538-P-MX54	3215745	.125	TiN								MX5	10.95
SEEB-5316-P2-MX51	3215566	.250	-								MX5	8.50

\*See back page for material classification details.

MATERIAL CLASSIFICATION			SFPM	FEED PER TOOTH ‡ (Octagon)	STARTING POINT *			ASSUME 2/3 WIDTH OF CUTTER FOR DEPTH OF CUT SHOWN RESULTS IN CUBIC INCHES OF STOCK REMOVED PER MINUTE					
					CUTTER DIAMETER	R.P.M.	INCHES PER MINUTE	D.O.C. .035		D.O.C. .075		D.O.C. .150	
								CUBIC INCHES	HP	CUBIC INCHES	HP	CUBIC INCHES	HP
1	NON-FERROUS (SOFT)	ALUMINUM ALLOY - CAST	2500-6000	P STYLE ‡ .003-.020	1.50	10823	357	12.38	1.7	26.52	3.7	53.04	7.4
		MAGNESIUM ALLOY			2.00	8118	357	16.50	2.3	35.36	5.0	70.72	10.0
		LEAD ALLOY			3.00	5412	298	20.63	3.2	44.20	6.8	88.40	13.7
		NON-METAL AND PLASTIC			4.00	4059	268	24.75	4.5	53.04	9.6	106.08	19.2
		ZINC ALLOY - DIE CAST			6.00	2706	238	33.00	6.8	70.72	14.6	141.44	29.2
2	NON-FERROUS (HARD)	ALUMINUM BRONZE	1800-5500	P STYLE ‡ .002-.015	1.50	9232	222	7.68	1.3	16.45	2.7	32.90	5.4
		BRASS ALLOY - LEADED AND FREE CUTTING			2.00	6924	222	10.24	2.1	21.93	4.5	43.87	9.0
		BRASS ALLOY - YELLOW, RED, NAVAL			3.00	4616	185	12.80	3.1	27.42	6.7	54.84	13.4
		NICKEL SILVER			4.00	3462	166	15.35	4.4	32.90	9.4	65.80	18.8
		COPPER ALLOY - TOUGH			6.00	2308	148	20.47	6.7	43.87	14.3	87.74	28.6
3	CAST IRON	DUCTILE CAST IRON - AUSTENITIC	350-750	P STYLE ‡ .003-.007	1.50	1401	21	0.73	0.4	1.56	0.8	-	-
		FERRITIC			2.00	1051	21	0.97	0.6	2.08	1.3	4.16	2.5
		MARTENSITIC			3.00	700	18	1.21	0.9	2.60	1.9	5.20	3.8
		GRAY CAST IRON			4.00	525	16	1.46	1.2	3.12	2.6	6.24	5.3
		(FOR HARD CAST IRON USE K STYLE)			6.00	350	14	1.94	1.9	4.16	4.0	8.32	8.1
4	LOW CARBON STEELS	LOW AND MEDIUM CARBON STEEL - WROUGHT	500-1500	P STYLE ‡ .002-.006	1.50	2547	31	1.06	0.8	2.27	1.8	4.54	3.6
		LOW AND MEDIUM CARBON STEEL - FREE MACHINING			2.00	1910	31	1.41	1.4	3.03	3.0	6.05	6.1
		LOW CARBON STEEL - CAST			3.00	1273	25	1.76	2.1	3.78	4.5	7.56	9.1
		LEADED LOW CARBON			4.00	955	23	2.12	3.0	4.54	6.4	9.08	12.7
		LEADED MEDIUM CARBON			6.00	637	20	2.82	4.5	6.05	9.7	12.10	19.4
5	MEDIUM STRENGTH STEELS	LOW AND MEDIUM CARBON ALLOY STEEL	450-750	P STYLE .002-.006	1.50	1528	18	0.64	0.5	1.36	1.0	-	-
		LOW AND MEDIUM CARBON ALLOY STEEL - FREE MACH.			2.00	1146	18	0.85	0.8	1.82	1.7	3.63	3.3
		MEDIUM AND HIGH CARBON ALLOY STEEL - LEADED			3.00	764	15	1.06	1.2	2.27	2.5	4.54	5.0
		STAINLESS STEEL - 300 SERIES (FREE MACH.)*			4.00	573	14	1.27	1.6	2.72	3.5	5.45	6.9
		STAINLESS STEEL - 400 SERIES (FREE MACH.)			6.00	382	12	1.69	2.5	3.63	5.3	7.26	10.6
6	HIGH STRENGTH STEELS	ARMOR PLATE	250-550	P STYLE .002-.005	1.50	1019	11	0.37	0.6	0.79	1.3	-	-
		HIGH CARBON ALLOY STEEL			2.00	764	11	0.49	1.0	1.06	2.1	2.12	4.2
		HIGH STRENGTH STEEL - WROUGHT			3.00	509	9	0.62	1.5	1.32	3.2	2.65	6.4
		NITRIDING STEEL			4.00	382	8	0.74	2.1	1.59	4.4	3.18	8.9
		TOOL STEEL			6.00	255	7	0.99	3.2	2.12	6.8	4.24	13.6
7	HIGH TEMP. ALLOYS	IRON BASE ALLOY	100-275	P STYLE .001-.003	1.50	478	3	0.10	0.2	0.21	0.3	-	-
		NICKEL BASE ALLOY			2.00	358	3	0.13	0.3	0.28	0.6	-	-
		STAINLESS STEEL - 300 SERIES			3.00	239	2	0.17	0.4	0.35	0.9	-	-
		STAINLESS STEEL - PH SERIES			4.00	179	2	0.20	0.6	0.43	1.2	-	-
		TITANIUM ALLOY (USE P STYLE)			6.00	119	2	0.26	0.8	-	-	-	-

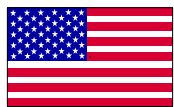
‡Feed per tooth assumes 45° lead octagon in the style indicated. For square insert reduce feed per tooth 10%-20%. For round insert feed adjustment may be required from -10% up to +20% depending on material hardness. This chart assumes materials are not altered by heat treatment. Because of the chance of thermal cracking most milling should be run without coolant but with some exceptions including but not limited to the following: Aluminum (optional), Titanium, High Nickel materials, finishing cuts, slow SFPM applications.

To calculate RPM: SFPM x 3.82 / Cutter Diameter=RPM

To calculate feed rate: Feed per tooth x # of teeth (flutes) in cutter x RPM= Inches Per Minute (IPM)

To calculate cubic inches of stock removed per minute: Depth Of Cut (DOC) x Width Of Cut (WOC) x IPM= CI<sup>3</sup>

\*All figures are approximate. Calculations based on using the style insert indicated and mid-point of starting parameters. Higher feed rates are possible but greater horsepower is required when using the K style insert. Many factors can change results significantly. Calculations also assume that the machine setup, include but is not limited to, rigid and secure fixturing, correct machine settings, knowledge of material being cut, adequate horsepower, inserts properly seated in their pockets, and competent and safe operation. Refer to the Lexington Cutter, Inc. 2001 catalog for warnings and warranty information.



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