



Milling Tools & Inserts



Leitz Metalworking Technology Group
BELIN • BILZ • BOEHLERIT •
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BELIN

LMT.

BILZ

BILZ

ONSRUD

**Onsrud
Cutter**

KIENINGER

**IWI
IKI**

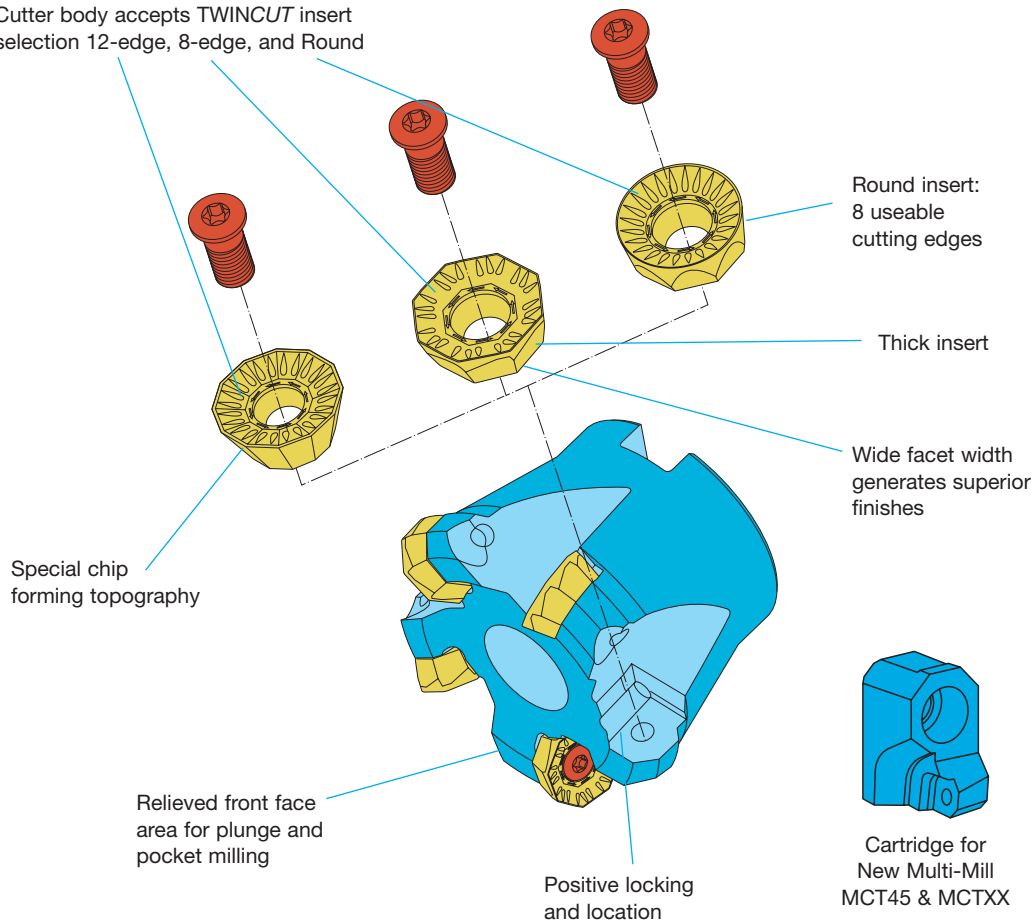
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FCT 45 Features & Benefits

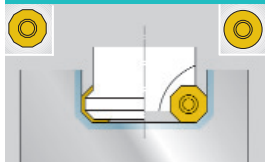
- Exclusive **TWINCUT** geometry
- Large insert grade offering
- Direct pressed inserts in round, 8, and 12 cutting edges
- Designed for roughing and finishing
- Deep, positive chip grooves

Cutter body accepts TWINCUT insert selection 12-edge, 8-edge, and Round



FCT45

Slot Milling



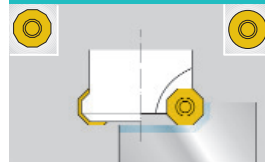
FCT45

Profile Milling-Roughing



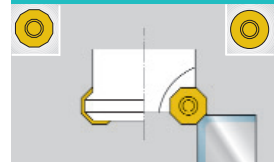
FCTXX Vario/FCT45

Step Milling



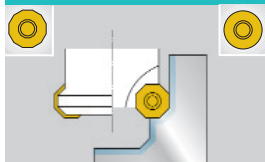
FCT45

Chamfer Milling



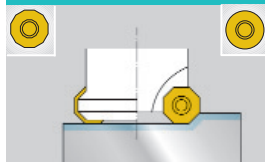
FCTXX Vario/FCT45

Plunge Milling



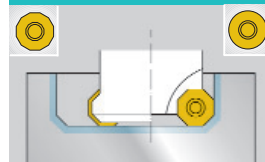
FCTXX Vario/FCT45

Face Milling



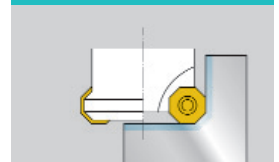
FCTXX Vario/FCT45

Pocket Milling / Ramping



FCT45

Shoulder Milling



TWINCUT VARIO

The **TWINCUT VARIO** is an excellent example of how cutting theory can be applied in practice. It successfully incorporates the principle of using two axially and radially offset edges to make the cut. The upper and lower rows of cutting edges each have different angles of approach and cutting depths.

This produces a technically superior chip cross-section with significantly reduced width to height relationship, sharply reducing the cutting forces. Power input can be reduced to between 75 and 85% of previous requirements. The improved dynamics of the VARIO's twin offset cutting edges make this possible and gives VARIO a competitive advantage.

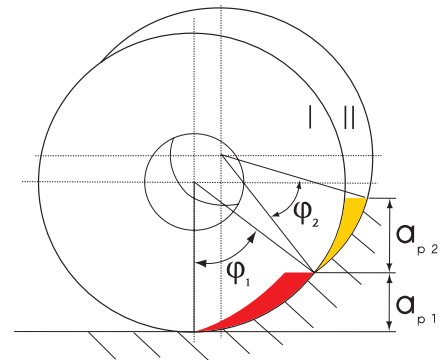
VARIO cutting tools are far superior to conventional button cutters, as they are quiet-running and reduce vibrations. This makes them especially suitable for machining under less stable conditions.

A major benefit of the Vario's innovative design is the versatility of the insert pocket. Vario's pockets will accept both the round and octagonal high-performance inserts.

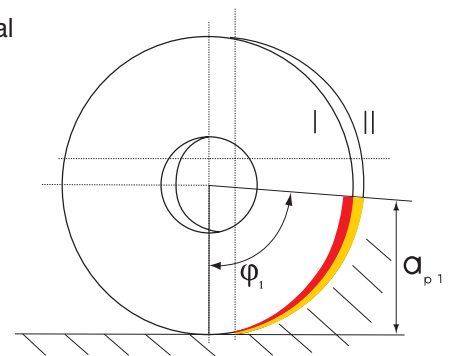
TWINCUT VARIO Features & Benefits

- Broad application range for steel, castings and non-ferrous.
- Option of round or octagonal indexable inserts in same insert pocket.
- This flexible design helps reduce overall tooling costs.
- Increased insert thickness provides high feed rates and shorter machining times.
- Deep molded chip grooves and special design surface topography, lower horsepower requirements, reduce vibration, lower operating temperatures, yield superior surfaces, and extend tool life.
- Stable insert seating prevents insert rotation and allows precise indexing.
- Either z-axis plunging or ramping is possible making the Vario ideal for cavity milling and ramping.
- Precision sintered insert with eight effective cutting edges lower cost per cutting edge.

TWINCUT VARIO Geometry

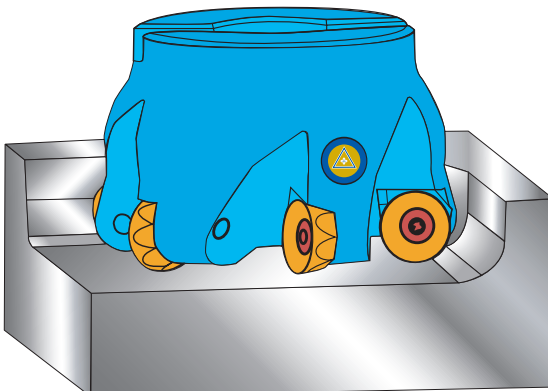


Conventional Geometry

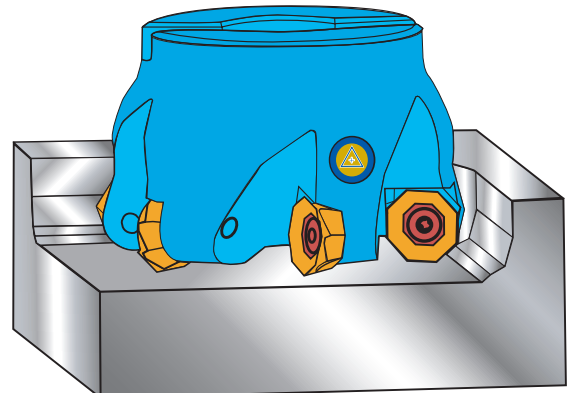


Milling profile with round inserts.

TWINCUT VARIO with RCKX 1606 MO-TR



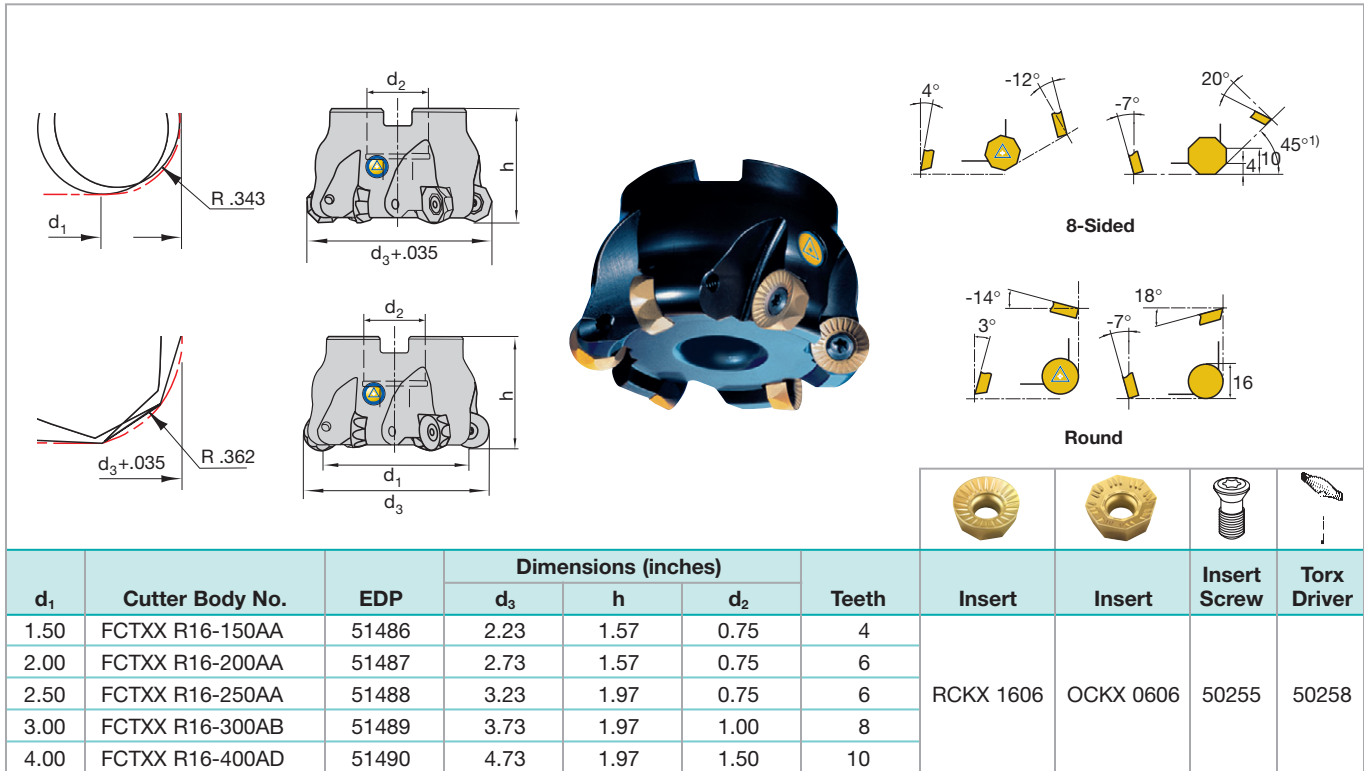
TWINCUT VARIO with OCKX 0606 AD-TR



FCT XX TWINCUT - Vario

Application

- Universal in application face milling of steel, castings, non-ferrous metals
- Exclusive TWINCUT insert design offers round, and 8 sided for roughing applications



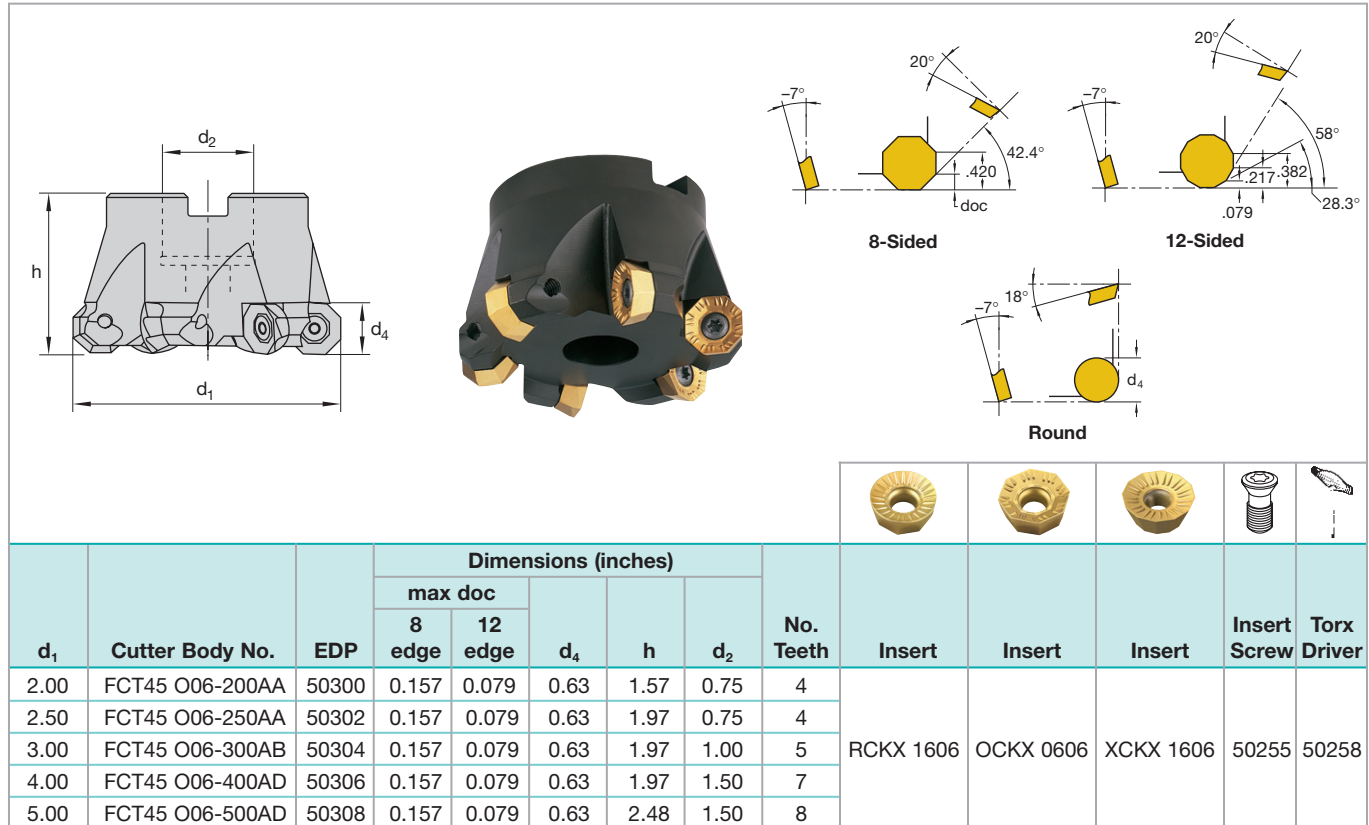
See page 8 for Inserts.

See pages 98 & 99 for recommended cutting data & application information.

FCT45 R/8/12

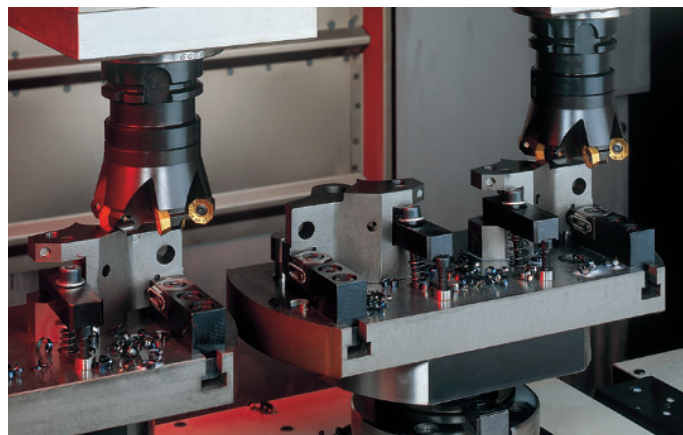
Application

- Universal milling cutter for face milling of steel, stainless and cast iron materials
- Exclusive **TWINCUT** insert design offers round, 8, and 12 cutting edges for high production milling applications



See page 8 for Inserts.

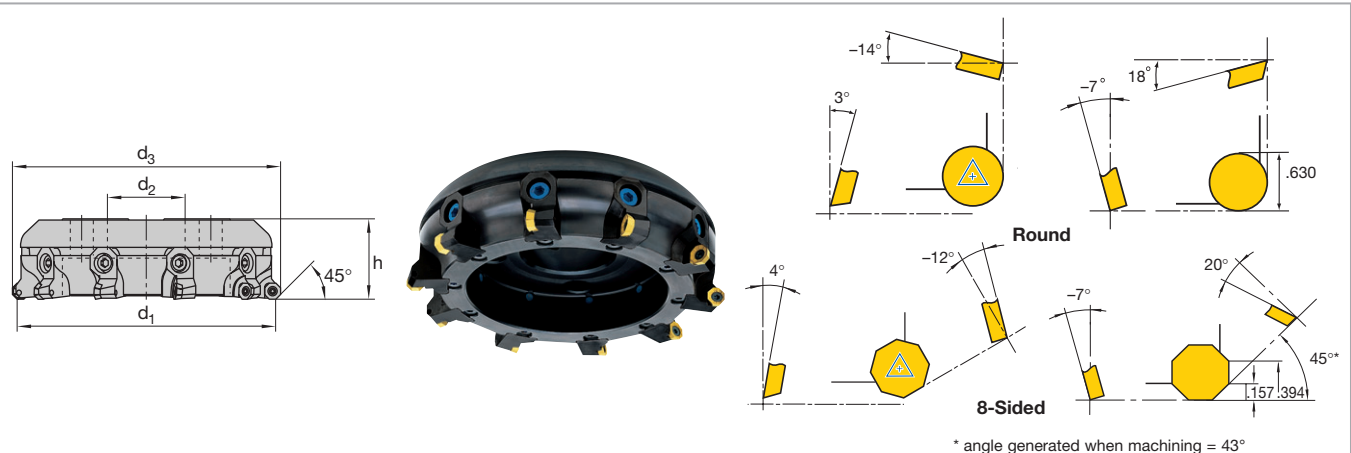
See pages 96 & 97 for recommended cutting data & application information.



MCTXX TWINCUT VARIO

Application

- Universal modular milling cutter for face milling of steels, stainless and cast iron materials
- Especially suited for unstable machining and poor fixturing conditions
- Exclusive **TWINCUT** insert design offers round, and 8 sided inserts for high production milling applications
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.

d ₁	Cutter Body No.	EDP	Dimensions (inches)			No. Teeth	Insert	Insert	Insert Screw	Torx Driver
			d ₃	h	d ₂					
Coarse Pitch										
4.00	MCTXX R16-400AD	55934	4.73	2.48	1.50	6	RCKX 1606	OCKX 06060	50255	50258
5.00	MCTXX R16-500AD	52511	5.73	2.48	1.50	8				
6.00	MCTXX R16-600AD	53927	6.73	2.48	1.50	10				
8.00	MCTXX R16-800AF	55935	8.73	2.48	2.50	12				
10.00	MCTXX R16-1000AF	53416	10.73	2.48	2.50	14				
12.00	MCTXX R16-1200AF	55936	12.73	3.15	2.50	18				
16.00	MCTXX R16-1600AF	55937	16.73	3.15	2.50	20				
20.00	MCTXX R16-2000AF	55938	20.73	3.15	2.50	28				
Fine Pitch										
5.00	MCTXX R16-500ADF	55939	5.73	2.48	1.50	8	RCKX 1606	OCKX 06060	50255	50258
6.00	MCTXX R16-600ADF	53519	6.73	2.48	1.50	12				
8.00	MCTXX R16-800AFF	55940	8.73	2.48	2.50	16				
10.00	MCTXX R16-1000AFF	55941	10.73	2.48	2.50	20				
12.00	MCTXX R16-1200AFF	55942	12.73	3.15	2.50	24				
16.00	MCTXX R16-1600AFF	54284	16.73	3.15	2.50	30				
20.00	MCTXX R16-2000AFF	55943	20.73	3.15	2.50	40				

				
Cartridge 51979	Cartridge Screw 50253	Cartridge Key 50254	Adjustment Screw 50263	Adjustment Key 50264

See page 8 for Inserts.

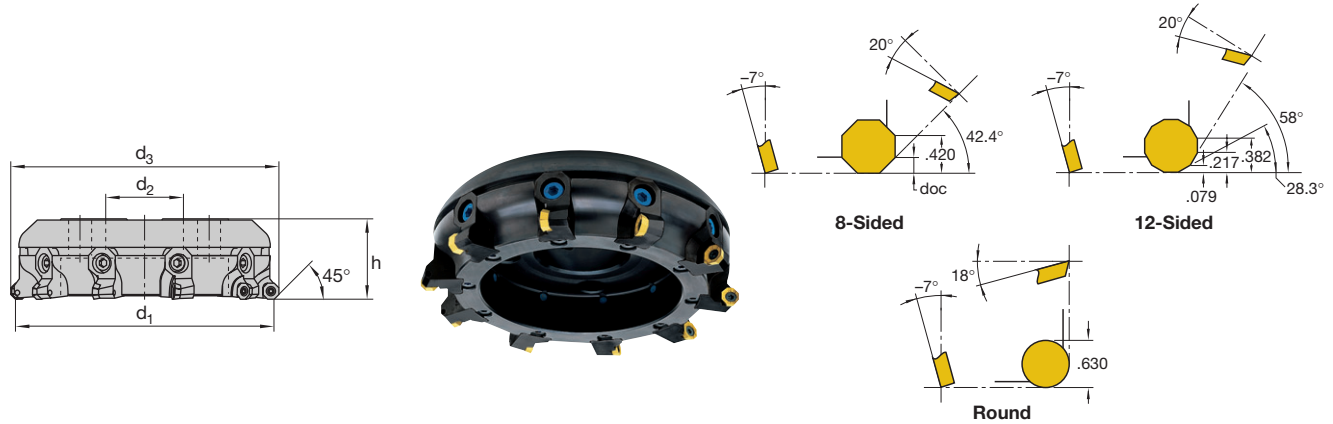
See pages 98 & 99 for recommended cutting data & application information.

Refer to page 111 in Technical Section for Multi-Mill Assembly and Adjustment Instructions.

MCT45 R/8/12

Application

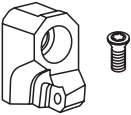
- Universal modular milling cutter for face milling of steels, stainless and cast iron materials
- Exclusive **TWINCUT** insert design offers round, 8, and 12 cutting edges for high production milling applications
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



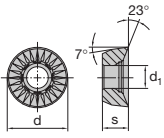
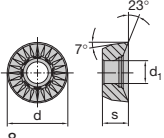
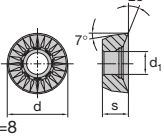
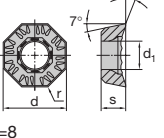
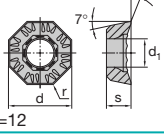
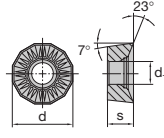
d ₁	Cutter Body No.	EDP	Dimensions (inches)			No. Teeth	Insert	Insert	Insert	Insert Screw	Torx Driver
			d ₃	h	d ₂						
Coarse Pitch											
4.00	MCT45 O06-400AD	50620	4.51	2.48	1.50	6	RCKX 1606	OCKX 0606	XCKX 1606	50255	50258
5.00	MCT45 O06-500AD	50622	5.51	2.48	1.50	6					
6.00	MCT45 O06-600AD	50624	6.51	2.48	1.50	10					
8.00	MCT45 O06-800AF	50626	8.51	2.48	2.50	12					
10.00	MCT45 O06-1000AF	50628	10.51	2.48	2.50	14					
12.00	MCT45 O06-1200AF	50630	12.51	3.15	2.50	18					
16.00	MCT45 O06-1600AF	50632	16.51	3.15	2.50	20					
20.00	MCT45 O06-2000AF	50634	20.51	3.15	2.50	28					
Fine Pitch											
5.00	MCT45 O06-500ADF	50636	5.51	2.48	1.50	8	RCKX 1606	OCKX 0606	XCKX 1606	50255	50258
6.00	MCT45 O06-600ADF	50638	6.51	2.48	1.50	12					
8.00	MCT45 O06-800AFF	50640	8.51	2.48	2.50	16					
10.00	MCT45 O06-1000AFF	50642	10.51	2.48	2.50	20					
12.00	MCT45 O06-1200AFF	50644	12.51	3.15	2.50	24					
16.00	MCT45 O06-1600AFF	50646	16.51	3.15	2.50	30					
20.00	MCT45 O06-2000AFF	50648	20.51	3.15	2.50	40					

 Cartridge 50650	 Cartridge Screw 50253	 Cartridge Key 50254	 Adjustment Screw 50263	 Adjustment Key 50264
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See page 8 for Inserts.

See pages 96 & 97 for recommended cutting data & application information.

Refer to page 111 in Technical Section for Multi-Mill Assembly and Adjustment Instructions.

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
 N=		.250	.630	.228			RCKX 1606 MO-TR	LW610 51529	LC225S 60692	LC240T 60696 LC610T 51530	LC230F 53241	FCT45 R/8/12 MCT45 R/8/12
 N=8		.250	.630	.228			RCKX 1606 MO-TRT			LC610T 51515		
 N=8		.250	.630	.228			RCKX 1606 MO-TRT			LC280TT 54081		
 N=8		.250	.630	.228		.020	OCKX 0606 AD-TR	LW6610 51531	LC225S 60704 LC240S 60706	LC240T 60708	LC230F 53242 LC615E 55949	
 N=12		.250	.630	.228		.020	OCKX 0606 AD-TRT			LC280TT 54077		
 N=12		.250	.630	.228		.020	XCKX 1606 ZDR-TR	LW610 51532	LC225S 52556 LC630S 60700	LC240T 60724 LC630T 60702 LC610T 10255	LC230F 53242	

**F = CVD Multilayer
E = AL₂O₃

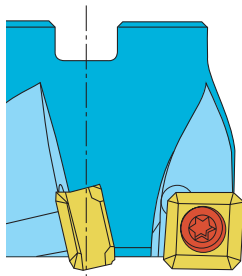
Features & Benefits

LMT-FETTE's exclusive **TWINCUT** geometry lowers cutting forces and enables aggressive feed rates.

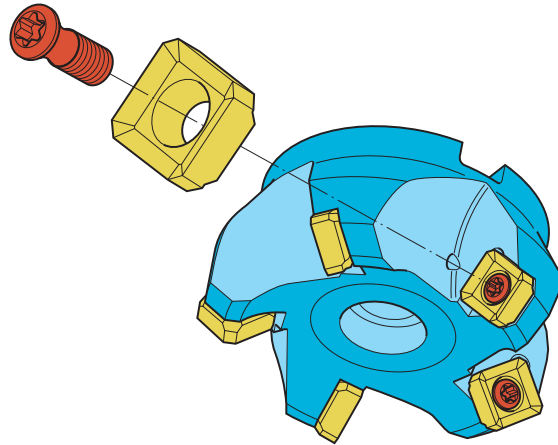
Double Negative Geometry:

The double negative insert position with high positive rake angles works well on a wide variety of materials, and on a wide variety of machines as well. The double negative design is exceptionally strong, offering unsurpassed smooth cutting action. **TWINCUT** geometry directs downward pressure on the work piece, thus providing stability.

- Excellent on steels and cast iron
- Large insert seating surface
- Thick insert with rigid cross section



FMT87

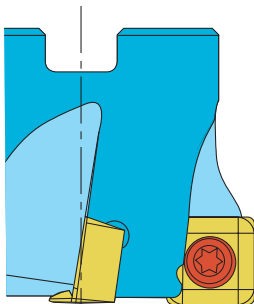


FMT45

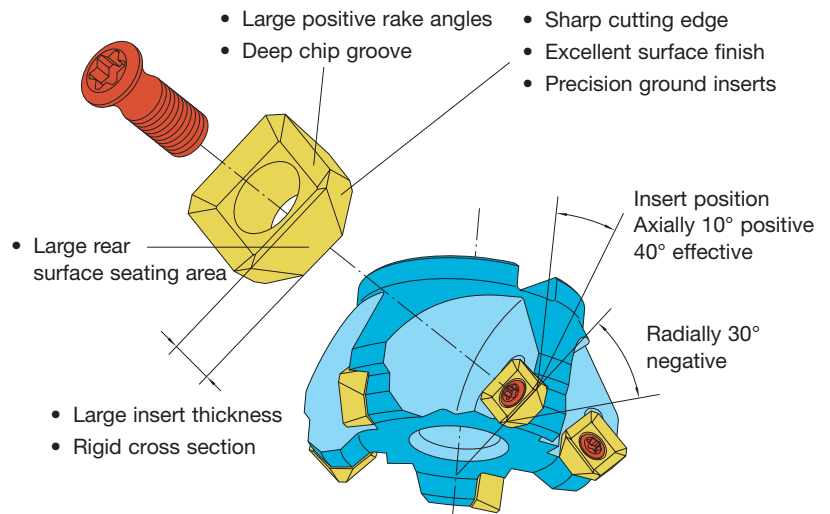
Positive Geometry:

The cutter is designed with a positive axial rake angle that allows the insert to cleanly and quietly shear the workpiece materials. This not only reduces horsepower requirements, but actually reduces wear on machine spindle bearings, ball screws and other components.

- Excellent on stainless steels, high temperature alloys and non-ferrous materials
- Extremely smooth cutting action



FMT90



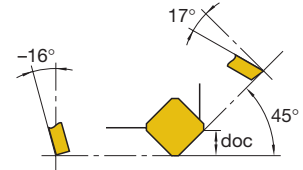
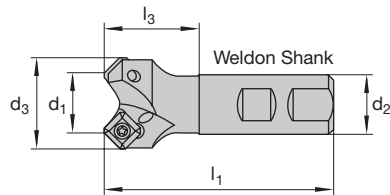
FMV45

EMT45

Application

- Milling cutter for face and chamfer milling of steel and cast iron materials
- Relieved front face for plunge and heavy die sinking operations
- Features ramp milling capabilities

See page 95 for ramping angles



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Euro Ref. No.	Insert	Insert Screw	Torx Driver
			d ₃	l ₃	l ₁	d ₂					
1.00	EMT45 S12-100WE	50464	1.56	1.72	4.00	1.00	2	1950058	SNKX 1205	50256	50258
1.00	EMT45 S12-100WD	50466	1.56	1.72	3.75	0.75	2	1950214			
1.25	EMT45 S12-125WE	50468	1.81	1.72	4.00	1.00	3	1950061			
1.25	EMT45 S12-125WD	50470	1.81	1.72	3.75	0.75	3	1950216			
1.50	EMT45 S12-150WE	50472	2.06	1.72	4.00	1.00	3	1950066			
1.50	EMT45 S12-150WD	50474	2.06	1.72	3.75	0.75	3	1950218			

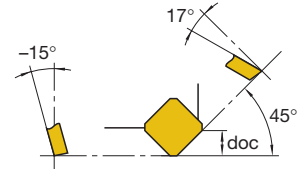
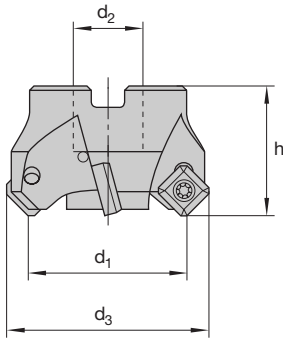
See page 18 for Inserts.

See pages 94 & 95 for recommended cutting data & application information.

FMT45

Application

- First choice milling cutter for face milling of steel and cast iron materials
- Used in rough and finish milling operations
- Features ramp milling capabilities



d_1	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Euro Ref. No.			
			doc	d_3	h	d_2					
2.00	FMT45 S12-200AA	50310	0.28	2.56	1.57	0.75	4	1950044	SNKX 1205	50256	50258
2.50	FMT45 S12-250AA	50312	0.28	3.06	1.57	0.75	5	1950046			
3.00	FMT45 S12-300AB	50314	0.28	3.56	1.97	1.00	5	1950048			
3.00	FMT45 S12-300ABF*	50316	0.28	3.56	1.97	1.00	6	1950048I			
4.00	FMT45 S12-400AD	50318	0.28	4.56	1.97	1.50	7	1950050			
5.00	FMT45 S12-500AD	50320	0.28	5.56	2.48	1.50	8	1950052			
6.00	FMT45 S12-600AD	50322	0.28	6.56	2.48	1.50	9	1950054			
8.00	FMT45 S12-800AF	50324	0.28	8.56	2.48	2.50	12	1950205			
10.00	FMT45 S12-1000AF	50326	0.28	10.56	2.48	2.50	16	1950206			

*Fine Pitch

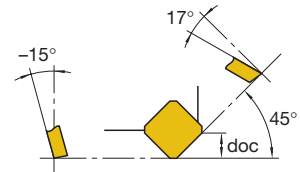
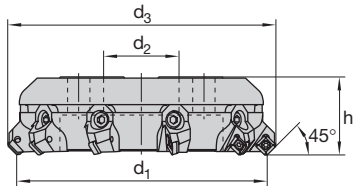
See page 18 for Inserts.

See pages 94 & 95 for recommended cutting data & application information.

MMT45

Application

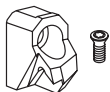
- First choice modular milling cutter for face milling of steel and cast iron materials
- Used in rough and finish milling operations
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



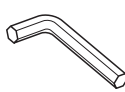
d ₁	Cutter Body No.	EDP No.	Dimensions (inches)				No. Teeth	Insert	Insert Screw	Torx Driver
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMT45 S12-400AD	50061	0.280	4.55	2.48	1.50	6	SNKX 1205 1187-90 Wiper	50256	50258
5.00	MMT45 S12-500AD	50062	0.280	5.55	2.48	1.50	6			
6.00	MMT45 S12-600AD	50063	0.280	6.55	2.48	1.50	10			
8.00	MMT45 S12-800AF	50064	0.280	8.55	2.48	2.50	12			
10.00	MMT45 S12-1000AF	50065	0.280	10.55	2.48	2.50	14			
12.00	MMT45 S12-1200AF	50066	0.280	12.55	3.15	2.50	18			
16.00	MMT45 S12-1600AF	50067	0.280	16.55	3.15	2.50	20			
20.00	MMT45 S12-2000AF	50068	0.280	20.55	3.15	2.50	28			
Fine Pitch										
5.00	MMT45 S12-500ADF	50069	0.280	5.55	2.48	1.50	8	SNKX 1205 1187-90 Wiper	50256	50258
6.00	MMT45 S12-600ADF	50070	0.280	6.55	2.48	1.50	12			
8.00	MMT45 S12-800AFF	50071	0.280	8.55	2.48	2.50	16			
10.00	MMT45 S12-1000AFF	50072	0.280	10.55	2.48	2.50	20			
12.00	MMT45 S12-1200AFF	50073	0.280	12.55	3.15	2.50	24			
16.00	MMT45 S12-1600AFF	50074	0.280	16.55	3.15	2.50	30			
20.00	MMT45 S12-2000AFF	50075	0.280	20.55	3.15	2.50	40			



Cartridge SNKX 1205
50241



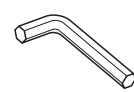
Cartridge Screw
50253



Cartridge Key
50254



Adjustment Screw
50263



Adjustment Key
50264

See page 18 for Inserts.

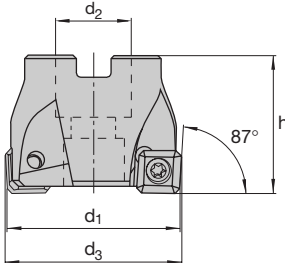
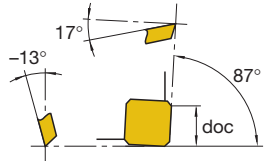
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

FMT87

Application

- All purpose milling cutter for face and shoulder milling of steel and cast iron materials
- Used in rough and finish milling operations

  											
d ₁	Cutter Body No.	EDP No.	Dimensions (inches)				No. Teeth	Euro Ref. No.	Insert	Insert Screw	Torx Driver
2.00	FMT87 S12-200AA	50332	doc	d ₃	h	d ₂	4	1950056	SNKX 1205	50256	50258
2.50	FMT87 S12-250AA	50334	0.390	2.06	1.57	0.75	5	1950068			
3.00	FMT87 S12-300AB	50336	0.390	2.56	1.57	0.75	6	1950132			
4.00	FMT87 S12-400AD	50338	0.390	3.06	1.97	1.00	7	1950133			
5.00	FMT87 S12-500AD	50340	0.390	4.06	1.97	1.50	8	1950134			
6.00	FMT87 S12-600AD	50342	0.390	5.06	2.48	1.50	9	1950138			

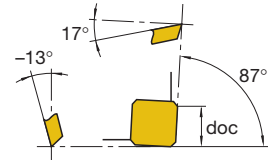
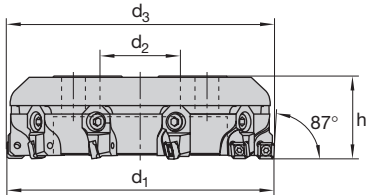
See page 18 for Inserts.

See pages 94 & 95 for recommended cutting data & application information.

MMT87

Application

- All purpose modular milling cutter for face and shoulder milling of steel and cast iron materials
- Used in rough milling operations
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Insert Screw	Torx Driver
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMT87 S12-400AD	50106	0.394	4.03	2.48	1.50	6	SNKX-1205	50256	50258
5.00	MMT87 S12-500AD	50107	0.394	5.03	2.48	1.50	6			
6.00	MMT87 S12-600AD	50108	0.394	6.03	2.48	1.50	10			
8.00	MMT87 S12-800AF	50109	0.394	8.03	2.48	2.50	12			
10.00	MMT87 S12-1000AF	50110	0.394	10.03	2.48	2.50	14			
12.00	MMT87 S12-1200AF	50111	0.394	12.03	3.15	2.50	18			
16.00	MMT87 S12-1600AF	50112	0.394	16.03	3.15	2.50	20			
20.00	MMT87 S12-2000AF	50113	0.394	20.03	3.15	2.50	28			
Fine Pitch										
5.00	MMT87 S12-500ADF	50114	0.394	5.03	2.48	1.50	8	SNKX-1205	50256	50258
6.00	MMT87 S12-600ADF	50115	0.394	6.03	2.48	1.50	12			
8.00	MMT87 S12-800AFF	50116	0.394	8.03	2.48	2.50	16			
10.00	MMT87 S12-1000AFF	50117	0.394	10.03	2.48	2.50	20			
12.00	MMT87 S12-1200AFF	50118	0.394	12.03	3.15	2.50	24			
16.00	MMT87 S12-1600AFF	50119	0.394	16.03	3.15	2.50	30			
20.00	MMT87 S12-2000AFF	50120	0.394	20.03	3.15	2.50	40			



Cartridge
50244



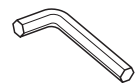
Cartridge Screw
50253



Cartridge Key
50254



Adjustment Screw
50263



Adjustment Key
50264

See page 18 for Inserts.

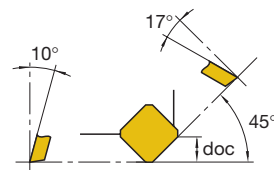
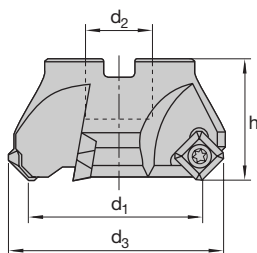
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

FMV45

Application

- High performance *positive* milling cutter for face milling of stainless, high temperature alloys and non-ferrous materials
- Used in rough and finish milling operations
- Extremely smooth and quiet cutting action
- Designed to work well on low horsepower machines



d_1	Cutter Body No.	EDP No.	Dimensions (inches)				No. Teeth	Euro Ref. No.			
			doc	d_3	h	d_2			Insert	Insert Screw	Torx Driver
2.50	FMV45 S12-250AA	50356	0.197	2.93	1.57	0.75	5	1950223	SNHX 1205	50256	50258
3.00	FMV45 S12-300AB	50358	0.197	3.43	1.97	1.00	6	1950225			
4.00	FMV45 S12-400AD	50360	0.197	4.43	1.97	1.50	7	1950227			
5.00	FMV45 S12-500AD	50362	0.197	5.43	2.48	1.50	8	1950229			
6.00	FMV45 S12-600AD	50364	0.197	6.43	2.48	1.50	9	1950231			

See page 18 for Inserts.

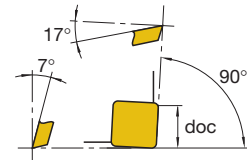
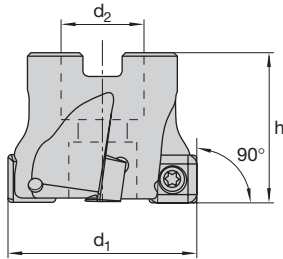
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

FMT90

Application

- All purpose *positive* milling cutter for face and square shoulder milling of steel and non-ferrous materials
- Used in rough and finish milling operations



d_1	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Euro Ref. No.	Insert	Insert Screw	Torx Driver
			doc	d_3	h	d_2					
2.00	FMT90 S12-200AA	50344	0.390	—	1.58	0.75	4	1950197	SPKX 120508	50256	50258
2.50	FMT90 S12-250AA	50346	0.390	—	1.58	0.75	5	1950198			
3.00	FMT90 S12-300AB	50348	0.390	—	1.97	1.00	6	1950199			
4.00	FMT90 S12-400AD	50350	0.390	—	1.97	1.50	7	1950201			
5.00	FMT90 S12-500AD	50352	0.390	—	2.48	1.50	8	1950203			
6.00	FMT90 S12-600AD	50354	0.390	—	2.48	1.50	9	1950204			

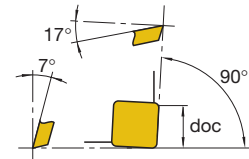
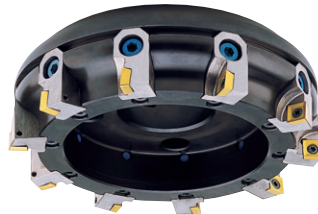
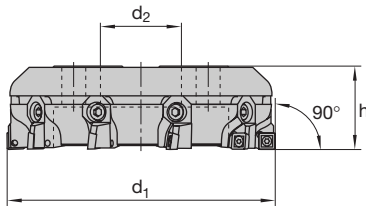
See page 18 for Inserts.

See pages 94 & 95 for recommended cutting data & application information.

MMT90

Application

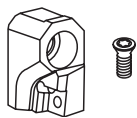
- General purpose modular milling cutter for face and square shoulder milling of steel, cast iron and non-ferrous materials
- Used in rough and finish milling operations
- Positive cutting action for low horsepower machines
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Insert Screw	Torx Driver
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMT90 S12-400AD	50151	0.394	—	2.48	1.50	6	SPKX 120508	50256	50258
5.00	MMT90 S12-500AD	50152	0.394	—	2.48	1.50	6			
6.00	MMT90 S12-600AD	50153	0.394	—	2.48	1.50	10			
8.00	MMT90 S12-800AF	50154	0.394	—	2.48	2.50	12			
10.00	MMT90 S12-1000AF	50155	0.394	—	2.48	2.50	14			
12.00	MMT90 S12-1200AF	50156	0.394	—	3.15	2.50	18			
16.00	MMT90 S12-1600AF	50157	0.394	—	3.15	2.50	20			
20.00	MMT90 S12-2000AF	50158	0.394	—	3.15	2.50	28			
Fine Pitch										
5.00	MMT90 S12-500ADF	50159	0.394	—	2.48	1.50	8	SPKX 120508	50256	50258
6.00	MMT90 S12-600ADF	50160	0.394	—	2.48	1.50	12			
8.00	MMT90 S12-800AFF	50161	0.394	—	2.48	2.50	16			
10.00	MMT90 S12-1000AFF	50162	0.394	—	2.48	2.50	20			
12.00	MMT90 S12-1200AFF	50163	0.394	—	3.15	2.50	24			
16.00	MMT90 S12-1600AFF	50164	0.394	—	3.15	2.50	30			
20.00	MMT90 S12-2000AFF	50165	0.394	—	3.15	2.50	40			



Cartridge
50247



Cartridge Screw
50253



Cartridge Key
50254



Adjustment Screw
50263

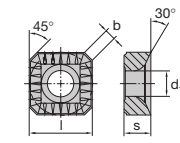
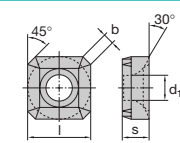
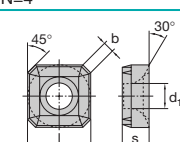
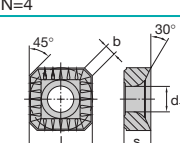
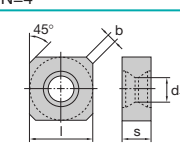
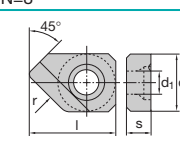
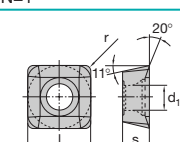
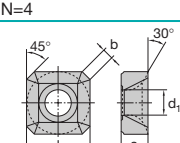
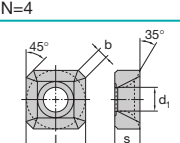


Adjustment Key
50264

See page 18 for Inserts.

See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

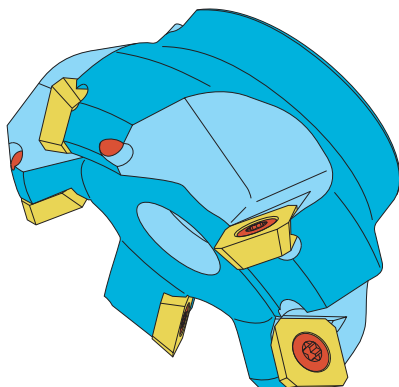
N = Number of Cutting Edges	Dimensions (inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
 N=4	.500	.219		.205	.078		SNKX 1205 AN-TR 1187-10 TR		LC225S 60045			FMT 45 11250-12 FMT87 11230 MMT45 MMT90
 N=4	.500	.219		.205	.078		SNKX 1205 AN 1187-10		LC225S 60036		LC230F 53791	FMT 45 11250-12 FMT87 11230 MMT45 MMT90
 N=4	.500	.219		.205	.078		SNKX 1205 AN-T 1187-12 T-Land		LC225S 60050		LC240T 60053	FMT 45 11250-12 FMT87 11230 MMT45 MMT90
 N=4	.500	.219		.205	.078		SNKX 1205 AN-TT T-Land			LC280TT 54089		FMT 45 11250-12 FMT87 11230 MMT45 MMT90
 N=8	.500	.219		.205	.078		SNKQ 1205 AN 1187-13	LW610 60055		LC240T 50735	LC615E 55954	FMT 45 11250-12 FMT87 11230 MMT45 MMT90
 N=1	.750	.219	.500	.205			1187-90 Wiper Insert		LC225S 60058			FMT 45 11250-12 MMT45
 N=4	.500	.219		.205		.032	SPKX 120508 1187-15		LC225S 60091		LC240T 60093	FMT90 11260 MMT90
 N=4	.500	.219		.205	.086		SNHX 1205 AE 1187-18		LC225S 60340		LC230F 53787	FMV45 11280
 N=4	.500	.219		.205	.078		SNHT 1205 AEFN-ALC 1187-18 ALC		LC440T 50948		LC610T* 89221	FMV45 11280

**F = CVD Multilayer
E = AL₂O₃

*LC610T CVD Coated TiAlN

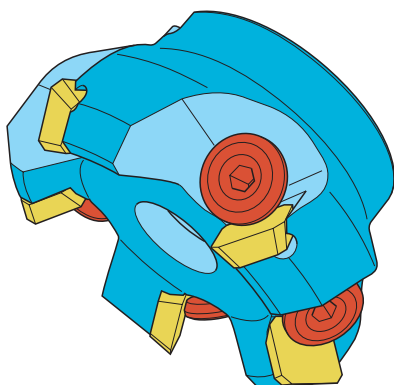
Features & Benefits

- High positive cutting geometry
- Quiet cutting action
- High cutting capacity with low horsepower machines or unstable conditions
- ISO indexable inserts



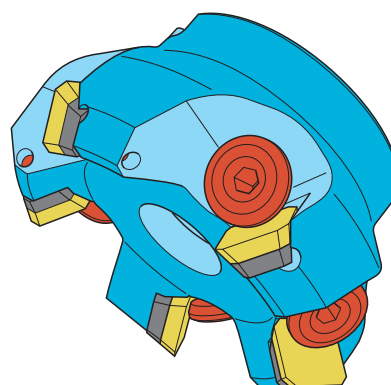
FMH45B

- Torx screw locking
- Thicker inserts for higher feed rates



FMH45A

- Locking screw (left-hand thread) for secure clamping
- Thicker inserts for higher feed rates



FMH45

- Indexable inserts shims to protect the steel cutter body
- Locking screw (left-hand thread) for secure clamping

FMH45B

Application

- General purpose milling cutter for face milling of steel, stainless and non-ferrous materials
- Used in light-duty rough and finish milling operations
- Uses ISO style inserts
- Ideal for low horsepower machines

Technical drawing of the FMH45B face mill showing dimensions: d_1 (overall diameter), d_2 (inner diameter), d_3 (flange diameter), and h (height).

3D perspective view of the FMH45B face mill, showing the cutter body and the insert.

Diagram showing the angles and dimensions of the insert: 19° , 10° , 45° , and doc (insert thickness).

ISO style insert.

Insert screw.

Torx driver.

d_1	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Insert Screw	Torx Driver
			doc	d_3	h	d_2				
2.00	FMH45B S12-200AA	50372	0.216	2.51	1.57	0.75	4			
3.00	FMH45B S12-300AB	50374	0.216	3.51	1.97	1.00	5			
4.00	FMH45B S12-400AD	50376	0.216	4.51	1.97	1.50	6			

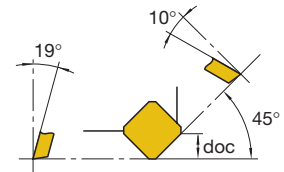
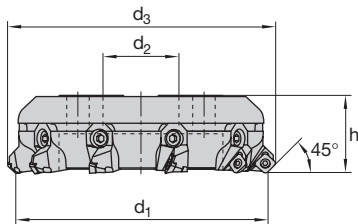
See page 29 for Inserts.

See pages 94 & 95 for recommended cutting data & application information.

MMH45B

Application

- General purpose modular milling cutter for face milling of steel, stainless and non-ferrous materials
- Used in light-duty rough and finish milling operations
- Uses ISO style inserts
- Smooth cutting action on low horsepower machines
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Insert Screw	Torx Driver
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMH45B S12-400AD	50046	0.216	4.51	2.48	1.50	6	SEHW 1204	50255	50258
5.00	MMH45B S12-500AD	50047	0.216	5.51	2.48	1.50	6			
6.00	MMH45B S12-600AD	50048	0.216	6.51	2.48	1.50	10			
8.00	MMH45B S12-800AF	50049	0.216	8.51	2.48	2.50	12			
10.00	MMH45B S12-1000AF	50050	0.216	10.51	2.48	2.50	14			
12.00	MMH45B S12-1200AF	50051	0.216	12.51	3.15	2.50	18			
16.00	MMH45B S12-1600AF	50052	0.216	16.51	3.15	2.50	20			
20.00	MMH45B S12-2000AF	50053	0.216	20.51	3.15	2.50	28			
Fine Pitch										
5.00	MMH45B S12-500ADF	50054	0.216	5.51	2.48	1.50	8	SEHW 1204	50255	50258
6.00	MMH45B S12-600ADF	50055	0.216	6.51	2.48	1.50	12			
8.00	MMH45B S12-800AFF	50056	0.216	8.51	2.48	2.50	16			
10.00	MMH45B S12-1000AFF	50057	0.216	10.51	2.48	2.50	20			
12.00	MMH45B S12-1200AFF	50058	0.216	12.51	3.15	2.50	24			
16.00	MMH45B S12-1600AFF	50059	0.216	16.51	3.15	2.50	30			
20.00	MMH45B S12-2000AFF	50060	0.216	20.51	3.15	2.50	40			



Cartridge
50240



Cartridge Screw
50253



Cartridge Key
50254



Adjustment Screw
50263



Adjustment Key
50264

See page 29 for Inserts.

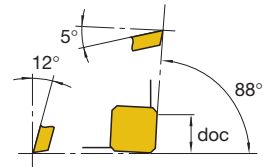
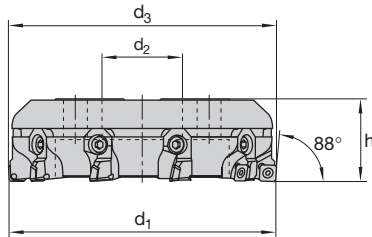
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

MMH88B

Application

- General purpose modular milling cutter for face and shoulder milling of steel, stainless and non-ferrous materials
- Used in light-duty rough and finish face and shoulder milling operations
- Uses ISO style inserts
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Insert Screw	Torx Driver
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMH88B S12-400AD	50136	0.394	4.03	2.48	1.50	6	SEHW 1204	50255	50258
5.00	MMH88B S12-500AD	50137	0.394	5.03	2.48	1.50	6			
6.00	MMH88B S12-600AD	50138	0.394	6.03	2.48	1.50	10			
8.00	MMH88B S12-800AF	50139	0.394	8.03	2.48	2.50	12			
10.00	MMH88B S12-1000AF	50140	0.394	10.03	2.48	2.50	14			
12.00	MMH88B S12-1200AF	50141	0.394	12.03	3.15	2.50	18			
16.00	MMH88B S12-1600AF	50142	0.394	16.03	3.15	2.50	20			
20.00	MMH88B S12-2000AF	50143	0.394	20.03	3.15	2.50	28			
Fine Pitch										
5.00	MMH88B S12-500ADF	50144	0.394	5.03	2.48	1.50	8	SEHW 1204	50255	50258
6.00	MMH88B S12-600ADF	50145	0.394	6.03	2.48	1.50	12			
8.00	MMH88B S12-800AFF	50146	0.394	8.03	2.48	2.50	16			
10.00	MMH88B S12-1000AFF	50147	0.394	10.03	2.48	2.50	20			
12.00	MMH88B S12-1200AFF	50148	0.394	12.03	3.15	2.50	24			
16.00	MMH88B S12-1600AFF	50149	0.394	16.03	3.15	2.50	30			
20.00	MMH88B S12-2000AFF	50150	0.394	20.03	3.15	2.50	40			



Cartridge
50246



Cartridge Screw
50253



Cartridge Key
50254



Adjustment Screw
50263



Adjustment Key
50264

See page 29 for Inserts.

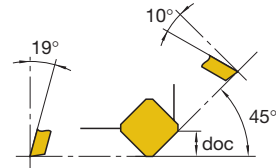
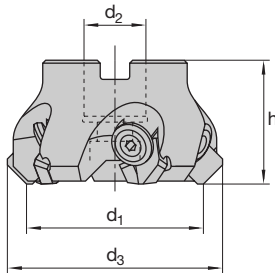
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

FMH45A

Application

- General purpose milling cutter for face milling of steel, stainless and non-ferrous materials
- Used in light-duty rough and finish milling operations
- Uses ISO style inserts
- High positive cutting geometry for low horsepower machines



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth			
			doc	d ₃	h	d ₂				
2.00	FMH45A S12-200AA	50384	0.216	2.51	1.57	0.75	4	SEKN 1204	50652	50264
3.00	FMH45A S12-300AB	50386	0.216	3.51	1.97	1.00	5		50654	
4.00	FMH45A S12-400AD	50388	0.216	4.51	1.97	1.50	6		50654	

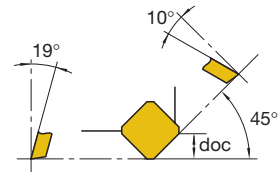
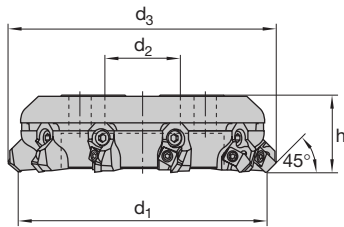
See page 29 for Inserts.

See pages 94 & 95 for recommended cutting data & application information.

MMH45A

Application

- General purpose modular milling cutter for face milling of steel, stainless and non-ferrous materials
- Used in light-duty rough and finish milling operations
- Uses ISO style inserts
- Smooth cutting action on low horsepower machines
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Wedge Clamp Assembly	Wedge Driver (Torx)
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMH45A S12-4-400AD	50016	0.216	4.51	2.48	1.50	6	SEKN 1204	50260	50262
5.00	MMH45A S12-4-500AD	50017	0.216	5.51	2.48	1.50	6			
6.00	MMH45A S12-4-600AD	50018	0.216	6.51	2.48	1.50	10			
8.00	MMH45A S12-4-800AF	50019	0.216	8.51	2.48	2.50	12			
10.00	MMH45A S12-4-1000AF	50020	0.216	10.51	2.48	2.50	14			
12.00	MMH45A S12-4-1200AF	50021	0.216	12.51	3.15	2.50	18			
16.00	MMH45A S12-4-1600AF	50022	0.216	16.51	3.15	2.50	20			
20.00	MMH45A S12-4-2000AF	50023	0.216	20.51	3.15	2.50	28			
Fine Pitch										
5.00	MMH45A S12-4-500ADF	50024	0.216	5.51	2.48	1.50	8	SEKN 1204	50260	50262
6.00	MMH45A S12-4-600ADF	50025	0.216	6.51	2.48	1.50	12			
8.00	MMH45A S12-4-800AFF	50026	0.216	8.51	2.48	2.50	16			
10.00	MMH45A S12-4-1000AFF	50027	0.216	10.51	2.48	2.50	20			
12.00	MMH45A S12-4-1200AFF	50028	0.216	12.51	3.15	2.50	24			
16.00	MMH45A S12-4-1600AFF	50029	0.216	16.51	3.15	2.50	30			
20.00	MMH45A S12-4-2000AFF	50030	0.216	20.51	3.15	2.50	40			

Cartridge 50239	Cartridge Screw 50253	Cartridge Key 50254	Wedge Screw 50261	Adjustment Screw 50263	Adjustment Key 50264

See page 29 for Inserts.

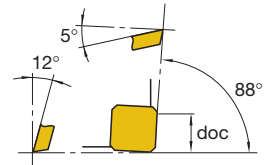
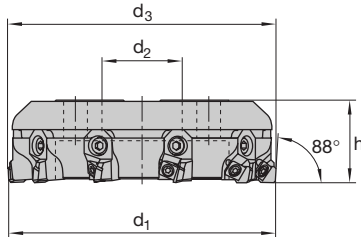
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

MMH88A

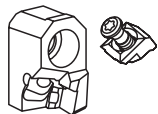
Application

- General purpose modular milling cutter for face and shoulder milling of steel, stainless and non-ferrous materials
- Used in light-duty rough and finish milling operations
- Uses ISO style inserts
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.

d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Wedge Clamp Assembly	Wedge Driver (Torx)
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMH88A S12-400AD	50121	0.394	4.03	2.48	1.50	6	SEKN 1204	50260	50262
5.00	MMH88A S12-500AD	50122	0.394	5.03	2.48	1.50	6			
6.00	MMH88A S12-600AD	50123	0.394	6.03	2.48	1.50	10			
8.00	MMH88A S12-800AF	50124	0.394	8.03	2.48	2.50	12			
10.00	MMH88A S12-1000AF	50125	0.394	10.03	2.48	2.50	14			
12.00	MMH88A S12-1200AF	50126	0.394	12.03	3.15	2.50	18			
16.00	MMH88A S12-1600AF	50127	0.394	16.03	3.15	2.50	20			
20.00	MMH88A S12-2000AF	50128	0.394	20.03	3.15	2.50	28			
Fine Pitch										
5.00	MMH88A S12-500ADF	50129	0.394	5.03	2.48	1.50	8	SEKN 1204	50260	50262
6.00	MMH88A S12-600ADF	50130	0.394	6.03	2.48	1.50	12			
8.00	MMH88A S12-800AFF	50131	0.394	8.03	2.48	2.50	16			
10.00	MMH88A S12-1000AFF	50132	0.394	10.03	2.48	2.50	20			
12.00	MMH88A S12-1200AFF	50133	0.394	12.03	3.15	2.50	24			
16.00	MMH88A S12-1600AFF	50134	0.394	16.03	3.15	2.50	30			
20.00	MMH88A S12-2000AFF	50135	0.394	20.03	3.15	2.50	40			



Cartridge
50245



Cartridge Screw
50253



Cartridge Key
50254



Wedge Screw
50261



Adjustment Screw
50263



Adjustment Key
50264

See page 29 for Inserts.

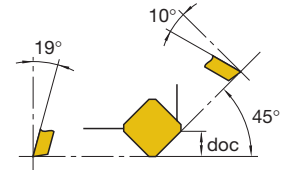
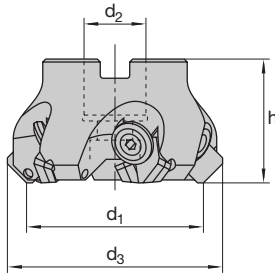
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

FMH45

Application

- General purpose milling cutter for face milling of steel, stainless and non-ferrous materials
- Used in light-duty rough and finish milling operations
- Uses ISO style inserts
- High positive cutting geometry for low horsepower machines



d_1	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Insert Locking Screw	Insert Locking Key
			doc	d_3	h	d_2				
2.00	FMH45 S12-200AA	50378	0.216	2.51	1.57	0.75	4	SEKN 1203	50652	50264
3.00	FMH45 S12-300AB	50380	0.216	3.51	1.97	1.00	5		50654	
4.00	FMH45 S12-400AD	50382	0.216	4.51	1.97	1.50	6		50654	



Insert Shim
50578



Shim Screw
50580



Shim Driver (Torx)
50582

See page 29 for Inserts.

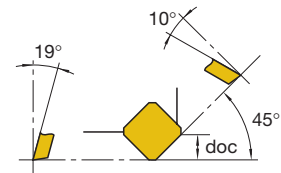
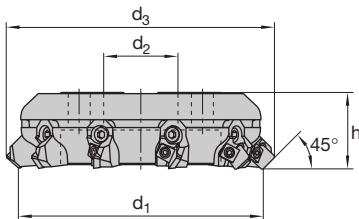
See pages 94 & 95 for recommended cutting data & application information.



MMH45 S12

Application

- General purpose modular milling cutter for face milling of steel, stainless and non-ferrous materials
- Used in light-duty rough and finish milling operations
- Uses ISO style inserts
- High positive cutting geometry
- Smooth cutting action on low horsepower machines
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Wedge Clamp Assembly	Wedge Driver (Torx)
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMH45 S12-3-400AD	50001	0.216	4.51	2.48	1.50	6	SEKN 1203	50260	50262
5.00	MMH45 S12-3-500AD	50002	0.216	5.51	2.48	1.50	6			
6.00	MMH45 S12-3-600AD	50003	0.216	6.51	2.48	1.50	10			
8.00	MMH45 S12-3-800AF	50004	0.216	8.51	2.48	2.50	12			
10.00	MMH45 S12-3-1000AF	50005	0.216	10.51	2.48	2.50	14			
12.00	MMH45 S12-3-1200AF	50006	0.216	12.51	3.15	2.50	18			
16.00	MMH45 S12-3-1600AF	50007	0.216	16.51	3.15	2.50	20			
20.00	MMH45 S12-3-2000AF	50008	0.216	20.51	3.15	2.50	28			
Fine Pitch										
5.00	MMH45 S12-3-500ADF	50009	0.216	5.51	2.48	1.50	8	SEKN 1203	50260	50262
6.00	MMH45 S12-3-600ADF	50010	0.216	6.51	2.48	1.50	12			
8.00	MMH45 S12-3-800AFF	50011	0.216	8.51	2.48	2.50	16			
10.00	MMH45 S12-3-1000AFF	50012	0.216	10.51	2.48	2.50	20			
12.00	MMH45 S12-3-1200AFF	50013	0.216	12.51	3.15	2.50	24			
16.00	MMH45 S12-3-1600AFF	50014	0.216	16.51	3.15	2.50	30			
20.00	MMH45 S12-3-2000AFF	50015	0.216	20.51	3.15	2.50	40			

Cartridge 50237	Cartridge Screw 50253	Cartridge Key 50254	Wedge Screw 50261	Adjustment Screw 50263	Adjustment Key 50264

See page 29 for Inserts.

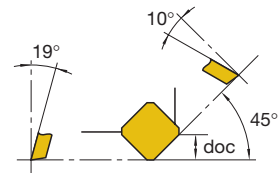
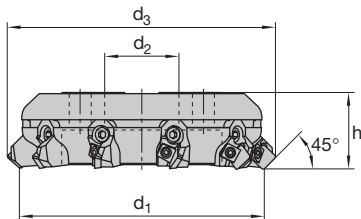
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

MMH45 S15

Application

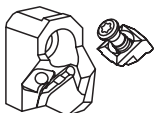
- General purpose modular milling cutter for face milling of steel, stainless and non-ferrous materials
- Used in light-duty rough and finish milling operations
- Uses ISO style inserts
- High positive cutting geometry
- Smooth cutting action on low horsepower machines
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Wedge Clamp Assembly	Wedge Driver (Torx)
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMH45 S15-400AD	50031	0.354	4.71	2.48	1.50	6	SEKN 1504	50260	50262
5.00	MMH45 S15-500AD	50032	0.354	5.71	2.48	1.50	6			
6.00	MMH45 S15-600AD	50033	0.354	6.71	2.48	1.50	10			
8.00	MMH45 S15-800AF	50034	0.354	8.71	2.48	2.50	12			
10.00	MMH45 S15-1000AF	50035	0.354	10.71	2.48	2.50	14			
12.00	MMH45 S15-1200AF	50036	0.354	12.71	3.15	2.50	18			
16.00	MMH45 S15-1600AF	50037	0.354	16.71	3.15	2.50	20			
20.00	MMH45 S15-2000AF	50038	0.354	20.71	3.15	2.50	28			
Fine Pitch										
5.00	MMH45 S15-500ADF	50039	0.354	5.71	2.48	1.50	8	SEKN 1504	50260	50262
6.00	MMH45 S15-600ADF	50040	0.354	6.71	2.48	1.50	12			
8.00	MMH45 S15-800AFF	50041	0.354	8.71	2.48	2.50	16			
10.00	MMH45 S15-1000AFF	50042	0.354	10.71	2.48	2.50	20			
12.00	MMH45 S15-1200AFF	50043	0.354	12.71	3.15	2.50	24			
16.00	MMH45 S15-1600AFF	50044	0.354	16.71	3.15	2.50	30			
20.00	MMH45 S15-2000AFF	50045	0.354	20.71	3.15	2.50	40			



Cartridge
50238



Cartridge Screw
50253



Cartridge Key
50254



Wedge Screw
50261



Adjustment Screw
50263

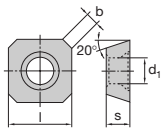
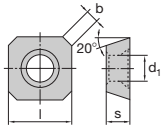
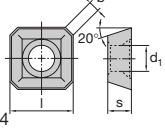
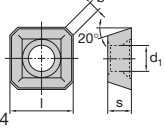
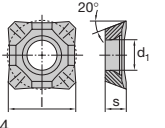
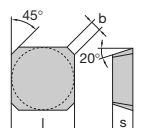
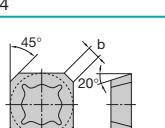
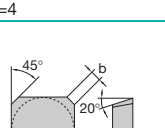
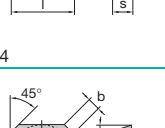
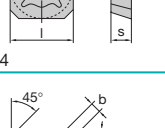
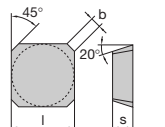
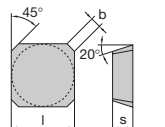


Adjustment Key
50264

See page 29 for Inserts.

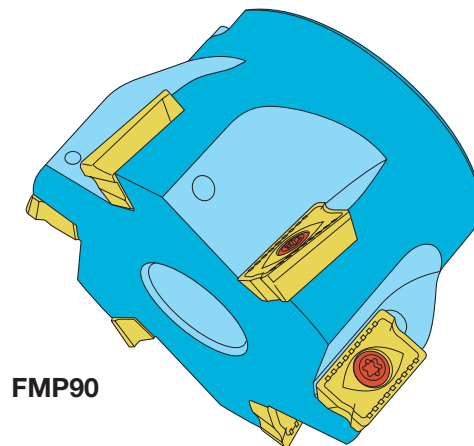
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
 N=4	.500	.187		.217	.062		SEKW 1204 AFSN		LC225S 60031			FMH45B 11171 MMH45B MMH88B
											LC230F 53786	
								LW610 60029		LC610T 60030		
 N=4	.500	.187		.217	.062		SEKW 1204 AESN				LC615E 55953	FMH45B 11171 MMH45B MMH88B
 N=4	.500	.187		.217	.062		SEHT 1204 AFSN		LC225S 60033			
										LC240T 60722		
 N=4	.500	.187		.217	.062		SEHT 1204 AFSN		LC444W 54150	LC430T 53713		
 N=4	.500	.187		.217	.062		SEHT 1204 AFFN-ALC				LC610T* 89222	FMH45 11172 MMH45-12
 N=4	.500	.125			.055		SEKN 1203 AF__		LC225S 60003			
											LC230F 51754	
										LC240T 60732		
 N=4	.500	.125			.063		SEKR 1203 AF__		LC444W 54146	LC440T 51749		FMH45 11172 MMH45-12
								LW610 60002		LC610T 60004	LC615E 60734	
											LC230F 53178	
 N=4	.500	.187			.055		SEKN 1204 AF__		LC225S 60012			FMH45A 11173 MMH45A MMH88A
											LC230F 53178	
										LC240T 60737		
 N=4	.500	.187			.063		SEKR 1204 AF__		LC444W 51825	LC430T 51824		FMH45A 11173 MMH45A MMH88A
											LC230F 53782	
										LC240T 60741		
 N=4	.625	.187			.079		SEKN 1504 AF__ 1193-26		LC225S 60016			MMH45-15
											LC230F 53784	
										LC240T 60745		
 N=4	.625	.187			.079		SEKN 1504 AF__ 1193-26		LC444W 54149	LC430T 50950		MMH45-15
 N=4	.625	.187			.079		SEKN 1504 AF__ 1193-26		LC225S 60021			MMH45-15
										LC240T 50668	LC230F 53783	

**F = CVD Multilayer
E = AL₂O₃

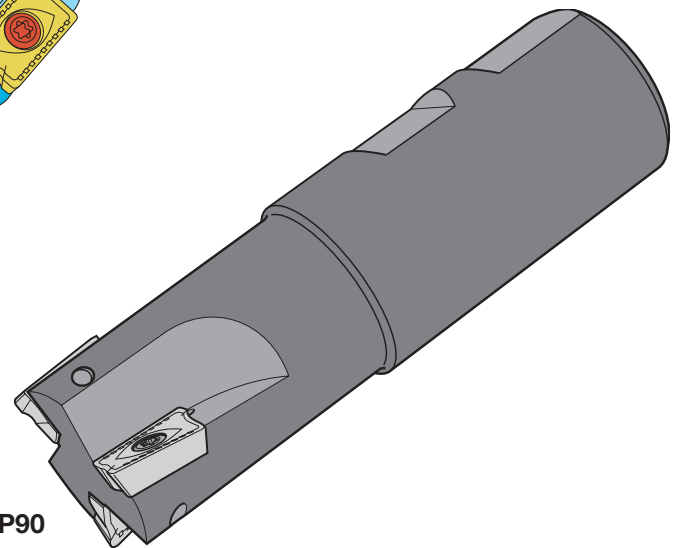
*LC610T CVD Coated TiAlN



FMP90

Special Features

- Universal applications
- Face milling, slotting, and shoulder milling
- For a wide range of materials
- Stable indexable inserts
- Large cutting length
- Positive cutting geometry
- High cutting edge stability



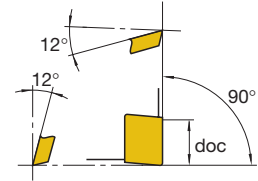
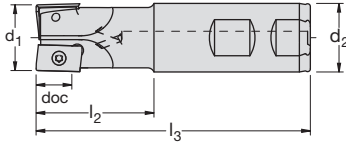
EMP90



EMP90

Application

- General purpose milling cutter for face, edge, slot and square shoulder milling of steel, stainless and non-ferrous materials
- Uses ISO style insert
- Positive cutting action for low horsepower machines



d ₁	Cutter Body No.	EDP	Dimensions (inches)					No. Teeth	Insert	Insert Screw	Torx Driver
			doc	h	l ₃	l ₂	d ₂				
0.500	EMP90-A10-050WCI	53858	0.330	–	3.00	1.10	0.63	1	APKT 1003	53886	89978
0.500	EMP90-A10-050SCI-XL	53866	0.330	–	4.00	2.10	0.63	1			
0.625	EMP90-A10-062WCI	53859	0.330	–	3.00	1.10	0.63	2			
0.625	EMP90-A10-062SCI-XL	53867	0.330	–	4.00	2.10	0.63	2			
0.750	EMP90-A10-075WDI	53860	0.330	–	3.50	1.47	0.75	2			
0.750	EMP90-A10-075WDFI	53861	0.330	–	3.50	1.47	0.75	3			
0.750	EMP90-A10-075SDI-XL	53868	0.330	–	5.00	2.97	0.75	2			
1.000	EMP90-A10-100WEI	53862	0.330	–	4.00	1.72	1.00	3			
1.000	EMP90-A10-100WEFI	53863	0.330	–	4.00	1.72	1.00	4			
1.000	EMP90-A10-100SEI-XL	53869	0.330	–	6.00	3.72	1.00	3			
1.250	EMP90-A10-125WFI	53864	0.330	–	4.00	1.72	1.25	5			
1.500	EMP90-A10-150WFI	53865	0.330	–	4.00	1.72	1.25	6			
0.750	EMP90-A16-075WDI	53871	0.550	–	3.50	1.47	0.75	1	APKT 1604	53887	50259
1.000	EMP90-A16-100WEI	53872	0.550	–	4.00	1.71	1.00	2			
1.000	EMP90-A16-100SEI-XXL	53876	0.550	–	8.00	2.62	1.00	2			
1.250	EMP90-A16-125WFI	53873	0.550	–	4.00	1.71	1.25	3			
1.250	EMP90-A16-125SFI-XXL	53878	0.550	–	8.00	2.62	1.25	3			
1.500	EMP90-A16-150WFI	53874	0.550	–	4.00	–	1.25	3			
1.500	EMP90-A16-150WFFI	53875	0.550	–	4.00	–	1.25	4			
1.500	EMP90-A16-150SFI-XXL	53879	0.550	–	8.00	–	1.25	3			

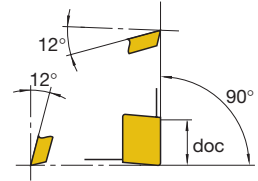
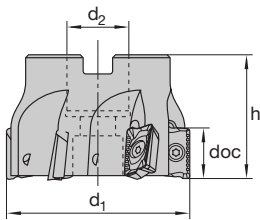
See page 34 for Inserts.

See pages 104 & 105 for face mill data & application information.

FMP90

Application

- General purpose milling cutter for face, edge, slot and square shoulder milling of steel, stainless and non-ferrous materials
- Uses ISO style insert
- Positive cutting action for low horsepower machines



d_1	Cutter Body No.	EDP	Dimensions (inches)					No. Teeth	Insert	Insert Screw	Torx Driver
			doc	h	l_1	l_3	d_2				
2.00	FMP90-A10-200AA	53870	0.330	1.50	—	—	0.75	7	APKT 1003	53886	89978
2.00	FMP90 A16-200AA	50366	0.550	1.57	—	—	0.75	5	APKT 1604	50257	50259
2.50	FMP90-A16-250AB	53881	0.550	1.75	—	—	1.00	6			
3.00	FMP90 A16-300AB	50688	0.550	1.57	—	—	1.00	5			
3.00	FMP90 A16-300ABF	89239	0.550	1.97	—	—	1.00	7			
4.00	FMP90 A16-400AD	50370	0.550	1.97	—	—	1.50	8	APKT 1604	53887	50259
5.00	FMP90-A16-500AD	53884	0.550	2.00	—	—	1.50	9			
6.00	FMP90-A16-600AE	53885	0.550	2.50	—	—	2.00	10			

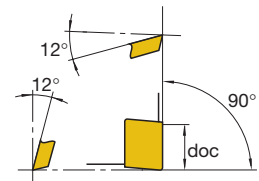
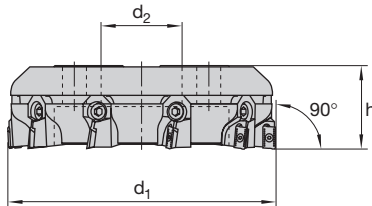
See page 34 for Inserts.

See pages 94 & 95 for face mill data & application information.

MMP90

Application

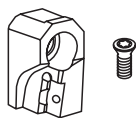
- General purpose modular milling cutter for face, edge, slot, and square shoulder milling of steel, stainless and non-ferrous materials
- Uses ISO style insert
- Positive cutting action for low horsepower machines
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



d ₁	Cutter Body No.	EDP	Dimensions (inches)			No. Teeth	Insert	Insert Screw	Torx Driver
			doc	h	d ₂				
Coarse Pitch									
4.00	MMP90 A16-400AD	50196	0.551	2.48	1.50	6	APKT 1604	50257	50259
5.00	MMP90 A16-500AD	50197	0.551	2.48	1.50	6			
6.00	MMP90 A16-600AD	50198	0.551	2.48	1.50	10			
8.00	MMP90 A16-800AF	50199	0.551	2.48	2.50	12			
10.00	MMP90 A16-1000AF	50200	0.551	2.48	2.50	14			
12.00	MMP90 A16-1200AF	50201	0.551	3.15	2.50	18			
16.00	MMP90 A16-1600AF	50202	0.551	3.15	2.50	20			
20.00	MMP90 A16-2000AF	50203	0.551	3.15	2.50	28			
Fine Pitch									
5.00	MMP90 A16-500ADF	50204	0.551	2.48	1.50	8	APKT 1604	50257	50259
6.00	MMP90 A16-600ADF	50205	0.551	2.48	1.50	12			
8.00	MMP90 A16-800AFF	50206	0.551	2.48	2.50	16			
10.00	MMP90 A16-1000AFF	50207	0.551	2.48	2.50	20			
12.00	MMP90 A16-1200AFF	50208	0.551	3.15	2.50	24			
16.00	MMP90 A16-1600AFF	50209	0.551	3.15	2.50	30			
20.00	MMP90 A16-2000AFF	50210	0.551	3.15	2.50	40			



Cartridge
50250



Cartridge Screw
50253



Cartridge Key
50254



Adjustment Screw
50263

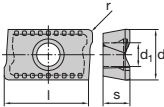
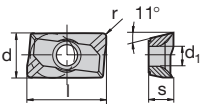
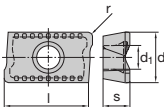
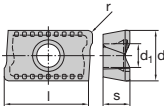
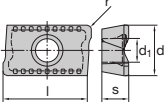
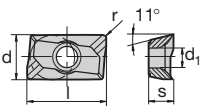
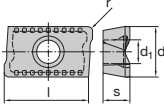


Adjustment Key
50264

See page 34 for Inserts.

See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
 N=2	.431	.138	.262	.110		.020	APKT 100305 PDSR		LC444W 53889	LC440T 53712	LC230F 53889	EMP90 FMP90
									LC630S 89363		LC615E 55944	
 N=2	.431	.138	.262	.110		.020	APHT 1003 PDFR-ALC	LW610 53932			LC620T* 51097	
 N=2	.642	.207	.375	.177		.031	APKT 160408 PDSR		LC225S 60120		LC230F 53382	
										LC240T 60119		
										LC440T 50949	LC444W 54145	
								LW610 60115	LC630S 89500	LC630T 89125	LC615E 55945	
 N=2	.642	.207	.375	.177		.062	APKT 160416 PDSR		LC225S 60720		LC230F 53310	
										LC240T 89319		
									LC630S 89321	LC630T 89322		
 N=2	.642	.207	.375	.177		.094	APKT 160424 SR-BP				LC230F	
 N=2	.642	.207	.375	.177		.031	APHT 1604 PDFR-ALC	LW610 89311		LC610T* 89310		
 N=2	.642	.207	.375	.177		.125	APKT 160432				LC230F 50671	

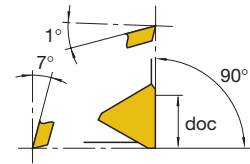
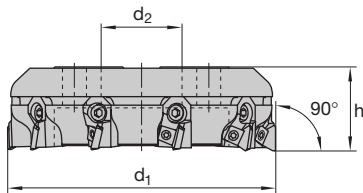
****F = CVD Multilayer**
W = CVD Multilayer
E = AL₂O₃

*LC610T CVD Coated TiAlN

MMP90 T16

Application

- General purpose modular milling cutter for face and square shoulder milling of steel
- Used in rough and finish milling operations
- Positive cutting action
- Designed for light depth of cuts
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.

Multi-Mills furnished with cartridges and hardware. Inserts must be ordered separately.									
d ₁	Cutter Body No.	EDP	Dimensions (inches)			No. Teeth	Insert	Wedge Clamp Assembly	Wedge Driver (Torx)
			doc	h	d ₂				
Coarse Pitch									
4.00	MMP90 T16-400AD	50166	0.472	2.48	1.50	6	TPKN 1603	50260	50262
5.00	MMP90 T16-500AD	50167	0.472	2.48	1.50	6			
6.00	MMP90 T16-600AD	50168	0.472	2.48	1.50	10			
8.00	MMP90 T16-800AF	50169	0.472	2.48	2.50	12			
10.00	MMP90 T16-1000AF	50170	0.472	2.48	2.50	14			
12.00	MMP90 T16-1200AF	50171	0.472	3.15	2.50	18			
16.00	MMP90 T16-1600AF	50172	0.472	3.15	2.50	20			
20.00	MMP90 T16-2000AF	50173	0.472	3.15	2.50	28			
Fine Pitch									
5.00	MMP90 T16-500ADF	50174	0.472	2.48	1.50	8	TPKN 1603	50260	50262
6.00	MMP90 T16-600ADF	50175	0.472	2.48	1.50	12			
8.00	MMP90 T16-800AFF	50176	0.472	2.48	2.50	16			
10.00	MMP90 T16-1000AFF	50177	0.472	2.48	2.50	20			
12.00	MMP90 T16-1200AFF	50178	0.472	3.15	2.50	24			
16.00	MMP90 T16-1600AFF	50179	0.472	3.15	2.50	30			
20.00	MMP90 T16-2000AFF	50180	0.472	3.15	2.50	40			

Cartridge 50248	Cartridge Screw 50253	Cartridge Key 50254	Wedge Screw 50261	Adjustment Screw 50263	Adjustment Key 50264

See page 38 for Inserts.

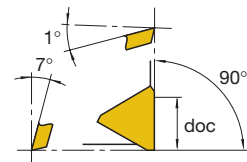
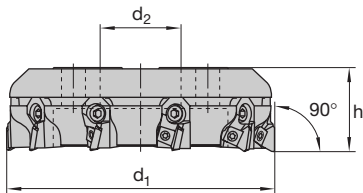
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

MMP90 T22

Application

- General purpose modular milling cutter for face and square shoulder milling of steel
- Used in rough and finish milling operations
- Positive cutting action
- Designed for heavy depth of cuts
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.

Multi-Mills furnished with cartridges and hardware. Inserts must be ordered separately.									
d ₁	Cutter Body No.	EDP	Dimensions (inches)			No. Teeth	Insert	Wedge Clamp Assembly	Wedge Driver (Torx)
			doc	h	d ₂				
Coarse Pitch									
4.00	MMP90 T22-400AD	50181	0.708	2.48	1.50	6	TPKN 2204	50260	50262
5.00	MMP90 T22-500AD	50182	0.708	2.48	1.50	6			
6.00	MMP90 T22-600AD	50183	0.708	2.48	1.50	10			
8.00	MMP90 T22-800AF	50184	0.708	2.48	2.50	12			
10.00	MMP90 T22-1000AF	50185	0.708	2.48	2.50	14			
12.00	MMP90 T22-1200AF	50186	0.708	3.15	2.50	18			
16.00	MMP90 T22-1600AF	50187	0.708	3.15	2.50	20			
20.00	MMP90 T22-2000AF	50188	0.708	3.15	2.50	28			
Fine Pitch									
5.00	MMP90 T22-500ADF	50189	0.708	2.48	1.50	8	TPKN 2204	50260	50262
6.00	MMP90 T22-600ADF	50190	0.708	2.48	1.50	12			
8.00	MMP90 T22-800AFF	50191	0.708	2.48	2.50	16			
10.00	MMP90 T22-1000AFF	50192	0.708	2.48	2.50	20			
12.00	MMP90 T22-1200AFF	50193	0.708	3.15	2.50	24			
16.00	MMP90 T22-1600AFF	50194	0.708	3.15	2.50	30			
20.00	MMP90 T22-2000AFF	50195	0.708	3.15	2.50	40			

Cartridge 50249	Cartridge Screw 50253	Cartridge Key 50254	Wedge Screw 50261	Adjustment Screw 50263	Adjustment Key 50264

See page 38 for Inserts.

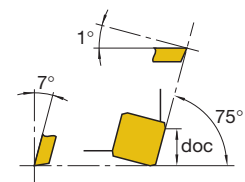
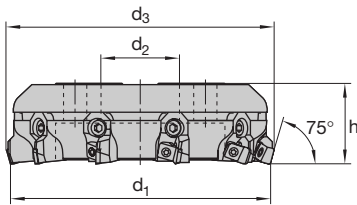
See pages 94 & 95 for recommended cutting data & application information.

Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

MMP75

Application

- General purpose modular milling cutter for face milling of steel
- Used in rough and finish milling operations
- Positive cutting action
- Designed for moderate depth of cuts
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.

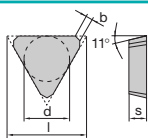
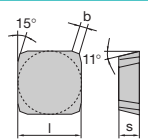
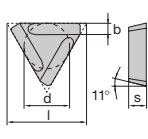
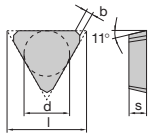
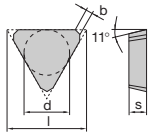
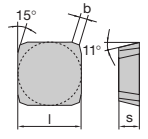
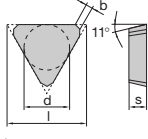
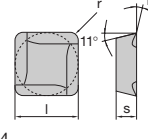
Multi-Mills furnished with cartridges and hardware. Inserts must be ordered separately.										
d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Insert	Wedge Clamp Assembly	Wedge Driver (Torx)
			doc	d ₃	h	d ₂				
Coarse Pitch										
4.00	MMP75 S12-400AD	50091	0.354	4.19	2.48	1.50	6	SPKN 1203	50260	50262
5.00	MMP75 S12-500AD	50092	0.354	5.19	2.48	1.50	6			
6.00	MMP75 S12-600AD	50093	0.354	6.19	2.48	1.50	10			
8.00	MMP75 S12-800AF	50094	0.354	8.19	2.48	2.50	12			
10.00	MMP75 S12-1000AF	50095	0.354	10.19	2.48	2.50	14			
12.00	MMP75 S12-1200AF	50096	0.354	12.19	3.15	2.50	18			
16.00	MMP75 S12-1600AF	50097	0.354	16.19	3.15	2.50	20			
20.00	MMP75 S12-2000AF	50098	0.354	20.19	3.15	2.50	28			
Fine Pitch										
5.00	MMP75 S12-500ADF	50099	0.354	5.19	2.48	1.50	8	SPKN 1203	50260	50262
6.00	MMP75 S12-600ADF	50100	0.354	6.19	2.48	1.50	12			
8.00	MMP75 S12-800AFF	50101	0.354	8.19	2.48	2.50	16			
10.00	MMP75 S12-1000AFF	50102	0.354	10.19	2.48	2.50	20			
12.00	MMP75 S12-1200AFF	50103	0.354	12.19	3.15	2.50	24			
16.00	MMP75 S12-1600AFF	50104	0.354	16.19	3.15	2.50	30			
20.00	MMP75 S12-2000AFF	50105	0.354	20.19	3.15	2.50	40			

Cartridge 50243	Cartridge Screw 50253	Cartridge Key 50254	Wedge Screw 50261	Adjustment Screw 50263	Adjustment Key 50264

See page 38 for Inserts.

See pages 94 & 95 for recommended cutting data & application information.

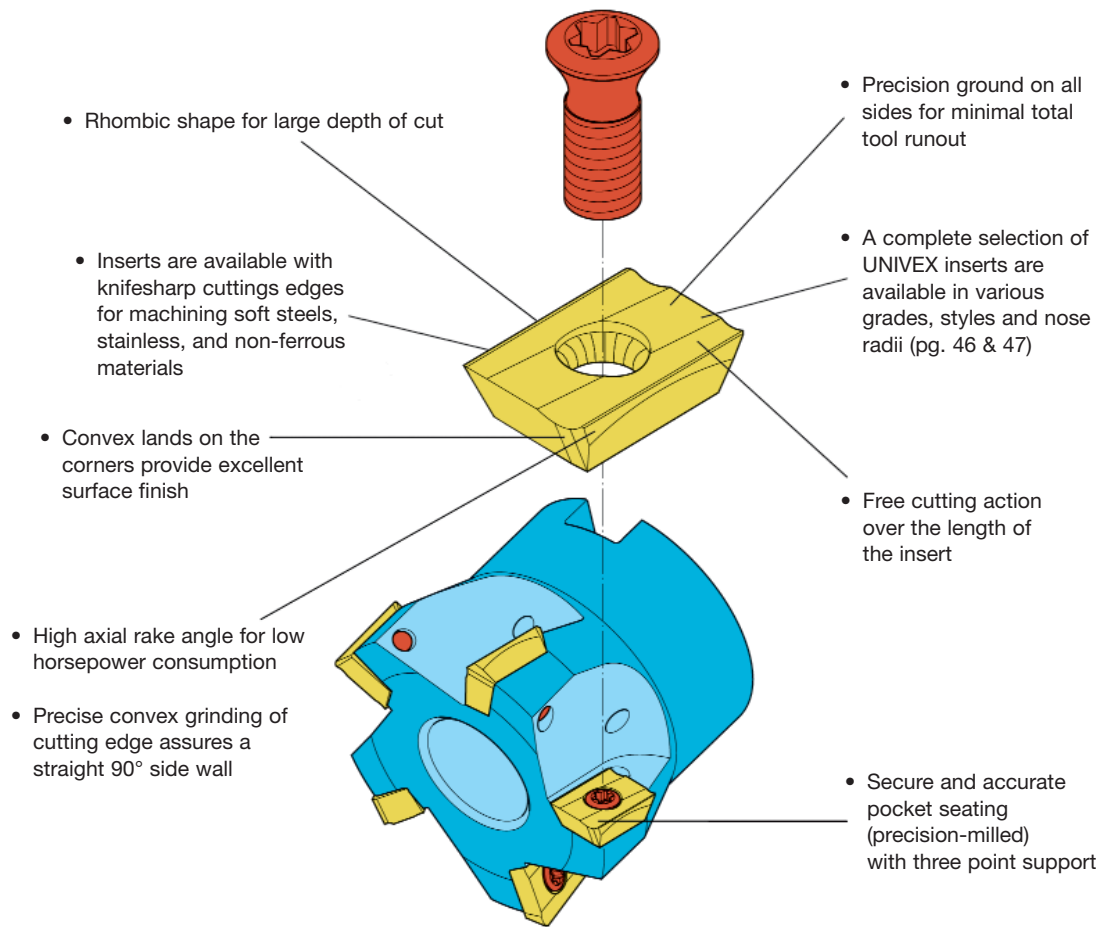
Refer to page 111 in technical section for Multi-Mill assembly and adjustment instructions.

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
 N=3	.650	.125	.375		.047		TPKN 1603 PDER 1172-10		LC225S 60097			MMP90-16
											LC230F 53801	
								LW610 60095		LC610T 60096	LC615E 55961	
 N=3	.650	.125	.375		.055		SPKN 1203 EDSR				LC615E 55956	MMP90-22
 N=3	.650	.125	.375		.047		TPAR 1603 PDR 1165-12		LC225S 60103			MMP90-22
								LW610 60102				
 N=3	.866	.187	.500		.047		TPKN 2204 PDSR		LC225S 60112		LC230F 53802	MMP90-22
								LW610 60110		LC610T 60111		
 N=3	.866	.187	.500		.047		TPKN 2204 PDER				LC615E 55962	MMP75
 N=4	.500	.125			.055		SPKN 1203 EDER 1192-10		LC225S 60069		LC230F 53792	MMP75
										LC240T 51510		
								LW610 60067		LC610T 60068		
 N=4	.650	.125	.375		.047		TPKN 1603 PDER				LC615E 55961	MMP75
 N=4	.500	.125			.047		SPMR 120312 R 1191-10	LW610 60083				MMP75

**F = CVD Multilayer
E = AL₂O₃

Features & Benefits

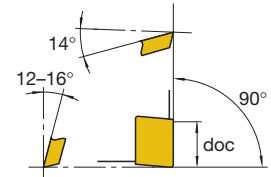
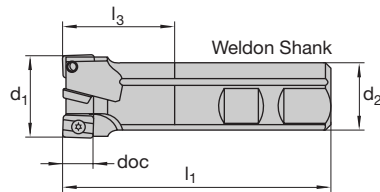
LMT-FETTE's UNIVEX double-positive geometry provides smooth cutting action and low horsepower consumption. LMT-FETTE's UNIVEX line features double positive geometry with a high axial rake angle. UNIVEX offers very smooth cutting action and low horsepower consumption. Capable of cutting a true 90° wall, UNIVEX cutters perform well on steels, stainless and non-ferrous materials. Available in face mills, end mills, long edge helical mills and long edge shell mills. LMT-FETTE offers integral shank designs: CAT 40 and CAT 50.



EMU90

Application

- High performance end milling cutter for square shoulder and slot milling of steel, stainless and non-ferrous materials
- High positive axial rake angle provides quiet and smooth cutting action
- Standard end mills furnished with external coolant slots



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth	Euro Ref. No.	Insert	Insert Screw	Torx Driver
			doc	l ₁	l ₃	d ₂					
0.500	EMU90 A09-050WBI	50390	0.354	2.50	0.70	0.50	1	2304513	ADHX 0903	89972	89978
0.500	EMU90 A09-050WCI	50392	0.354	2.50	0.70	0.63	1	2304515			
0.625	EMU90 A09-0625WCI	50394	0.354	3.00	1.10	0.63	2	1950150			
0.750	EMU90 A09-075WDI	50396	0.354	3.25	1.42	0.75	2	1950151			
0.750	EMU90 A09-075WDIF	50398	0.354	3.25	1.42	0.75	3	1950165			
0.625	EMU90 A11-0625 WCI	54059	0.413	3.00	1.22	0.63	1	—	ADHX 1103	89979	89978
0.750	EMU90 A11-075 WDI	54060	0.413	3.25	1.22	0.75	2	—			
1.000	EMU90 A11-100WDI	50400	0.413	3.25	1.22	0.75	3	1950200			
1.000	EMU90 A11-100WEI	50402	0.413	3.50	1.57	1.00	3	1950152			
1.000	EMU90 A11-100 WEI-060	54062	0.413	6.00	3.65	1.00	3	—			
1.000	EMU90 A11-100 WEI-080	54063	0.413	8.00	5.68	1.00	3	—			
1.250	EMU90 A11-125WDI	50404	0.413	3.25	1.22	0.75	4	1950202			
1.250	EMU90 A11-125 WFI-0325	54064	0.413	3.25	1.57	1.25	4	—			
1.250	EMU90 A11-125WEI	50406	0.413	3.50	1.57	1.00	4	1950153			
1.250	EMU90 A11-125 WFI-060	54065	0.413	6.00	3.65	1.25	4	—			
1.250	EMU90 A11-125 WFI-080	54066	0.413	8.00	5.62	1.25	4	—			
1.500	EMU90 A11-150WEI	50408	0.413	3.50	1.57	1.00	4	1950207			
1.500	EMU90 A11-150 WGI-035	54067	0.413	3.50	1.57	1.50	4	—			
1.500	EMU90 A11-150 WFI-060	54068	0.413	6.00	3.25	1.50	4	—			
1.500	EMU90 A11-150 WFI-080	54069	0.413	8.00	5.20	1.50	4	—			

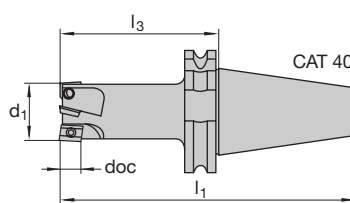
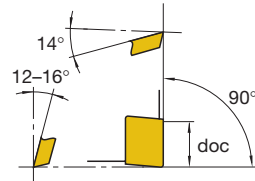
See pages 46–47 for Inserts.

See pages 104 & 105 for recommended cutting data & application information.

EMU90

Application

- High performance end milling cutter for square shoulder and slot milling of steel, stainless and non-ferrous materials
- High positive axial rake angle provides quiet and smooth cutting action for low horsepower machines
- Available in CAT 40 taper only

											
											
d ₁	Cutter Body No.	EDP	Dimensions (inches)			Shank Taper	No. Teeth	Euro Ref. No.	Insert	Insert Screw	Torx Driver
1.00	EMU90 A11-100CA	50410	doc	l ₁	l ₃	40	3	1950154	ADHX 1103	89979	89978
1.25	EMU90 A11-125CA	50412	0.413	6.00	3.27	40	4	1950155			
1.50	EMU90 A11-150CA	50414	0.413	6.25	3.58	40	4	1950156			

See pages 46–47 for Inserts.

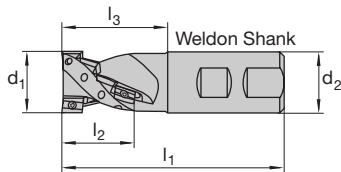
See pages 104 & 105 for recommended cutting data & application information.



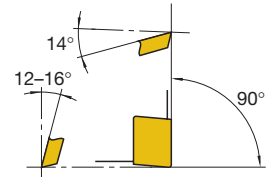
ERU90

Application

- High performance long edge end milling cutter for square shoulder and slot milling of steel, stainless and non-ferrous materials
- All effective flute design
- High positive axial rake angle provides smooth cutting action and good chip removal



l_2 is the effective cutting length



d_1	Cutter Body No.	EDP	Dimensions (inches)				No.Eff. Flutes	No. Inserts	Euro Ref. No.	Insert	Insert Screw	Torx Driver
			l_2	l_3	l_1	d_2						
1.00	ERU90 A09-100WE	50422	0.95	1.75	4.03	1.00	2	6	1950100	ADHX 0903	89972	89978
1.25	ERU90 A11-125WF	50424	1.46	2.25	4.53	1.25	2	8	1950101	ADHX 1103	89979	89978
1.50	ERU90 A11-150WG	50426	1.77	2.75	5.44	1.50	3	15	1950104			

Note: End cutting inserts are offered in various nose radii. When using larger nose radii inserts, the outside corner of the steel body must be modified, or it will protrude beyond the cutting radius of the insert. Side cutting or periphery inserts must have .020 nose radius or smaller. This .020 radius is necessary for the inserts to overlap and not generate peaks.

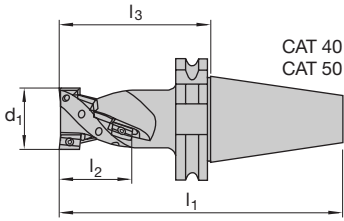
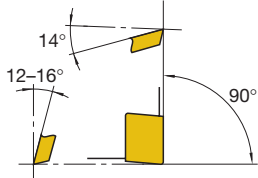
See pages 46–47 for Inserts.

See pages 104 & 105 for recommended cutting data & application information.

ERU90

Application

- High performance long edge end milling cutter for square shoulder and slot milling of steel, stainless and non-ferrous materials
- High positive axial rake angle provides smooth cutting action and excellent chip removal
- All-effective fluted design

												
l_2 is the effective cutting length												
d_1	Cutter Body No.	EDP	Dimensions (inches)			Shank Taper	No.Eff. Flutes	No. Inserts	Euro Ref. No.	Insert	Insert Screw	Torx Driver
			l_2	l_3	l_1							
CAT 40												
1.00	ERU90 A09-100CA	50428	0.95	2.75	5.44	40	2	6	1950070	ADHX 0903	89972	89978
1.25	ERU90 A11-125CA	50430	1.46	3.13	5.82	40	2	8	1950072	ADHX 1103	89979	89978
1.50	ERU90 A11-150CA	50432	1.77	3.50	6.19	40	3	15	1950090			
CAT 50												
2.00	ERU90 A12-200CB	50434	2.40	4.50	8.50	50	3	18	1950096	ADHX 12T3	89974	50259
2.50	ERU90 A12-250CB	50436	2.95	5.00	9.00	50	4	28	1950098			

Note: End cutting inserts are offered in various nose radii. When using larger nose radii inserts, the outside corner of the steel body must be modified, or it will protrude beyond the cutting radius of the insert. Side cutting or periphery inserts must have .031 nose radius or smaller (for CAT 40) or .024 nose radius or smaller (for CAT 50). This radius is necessary for the inserts to overlap and not generate peaks.

See pages 46–47 for Inserts.

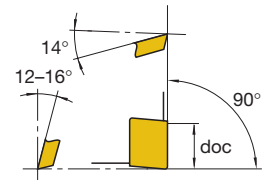
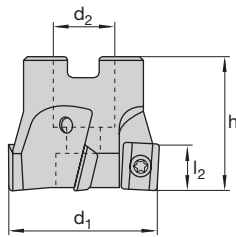
See pages 104 & 105 for recommended cutting data & application information.



FMU90

Application

- High performance milling cutter for face, slot and square shoulder milling of steel, stainless and non-ferrous materials
- High positive axial rake angle provides quiet and smooth cutting action



d_1	Cutter Body No.	EDP	Dimensions (inches)			No. Teeth	Euro Ref. No.	Insert	Insert Screw	Torx Driver
			l_2	h	d_2					
2.00	FMU90 A11-200AAI	54070	0.41	1.57	0.75	4	4052271	ADHX 1103	89979	89978
2.00	FMU90 A11-200AAFI	54071	0.41	1.57	0.75	5	4052274			
2.50	FMU90 A11-250ABI	54072	0.41	1.57	1.00	5	4052272			
2.50	FMU90 A11-250ABFI	54073	0.41	1.57	1.00	6	4052275			
3.00	FMU90 A11-300ACI	54074	0.41	1.97	1.25	6	4052273			
3.00	FMU90 A11-300ACFI	54075	0.41	1.97	1.25	8	4052276			
1.58	FMU90 A12-158AA	50416	0.47	1.42	0.75	4	1950195	ADHX 12T3	89974	50259
2.00	FMU90 A12-200AA	50418	0.47	1.57	0.75	5	1950158			
2.50	FMU90 A12-250AA	50420	0.47	1.57	0.75	6	1950159			

See pages 46–47 for Inserts.

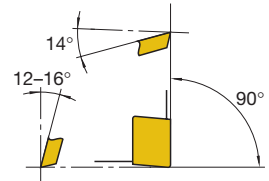
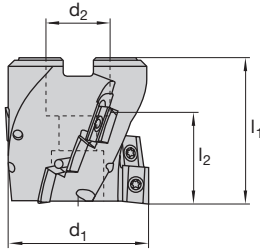
See pages 104 & 105 for recommended cutting data & application information.



FRU90

Application

- High performance long edge milling cutter for square shoulder and slot milling of steel, stainless and non-ferrous materials
- High positive axial rake angle provides smooth cutting action and excellent chip removal
- Full effective fluted design
- Offered in shell mill style



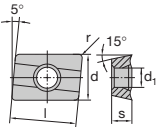
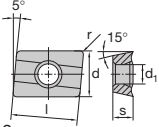
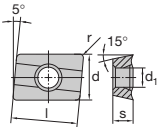
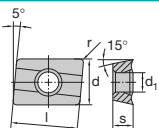
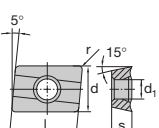
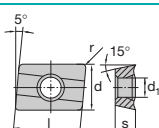
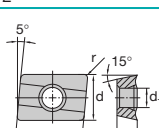
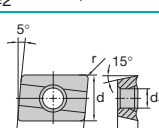
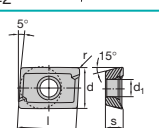
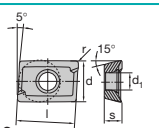
d ₁	Cutter Body No.	EDP	Dimensions (inches)			Flutes	No.Eff. Ref. No.	Euro Inserts	No. Inserts	Insert Screw	Torx Driver
			l ₂	l ₁	d ₂						
2.00	FRU90 A12-200AA200	50438	1.10	2.00	0.75	3	1950124	9	ADHX 12T3	89974	50259
2.00	FRU90 A12-200AA287	50440	2.00	2.88	0.75	3	1950126	15			
2.50	FRU90 A12-250AB200	50442	1.25	2.00	1.00	4	1950128	12			
2.50	FRU90 A12-250AB287	50444	2.00	2.88	1.00	4	1950130	20			

*Socket head cap screw NOT furnished with cutter.

Note: End cutting inserts are offered in various nose radii. When using larger nose radii inserts, the outside steel body must be modified, or it will protrude beyond the cutting radius of the insert. Side cutting or periphery inserts must have .024 nose radius or smaller. This .024 radius is necessary for the inserts to overlap and not generate peaks.

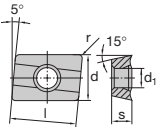
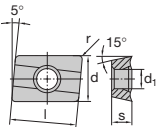
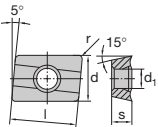
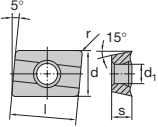
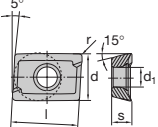
See pages 46–47 for Inserts.

See pages 104 & 105 for recommended cutting data & application information.

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
 N=2	.375	.113	.250	.110		.016	ADHX 090304 ER 1196-80		LC225S 60511			EMU90 11473-IC EMU90 11474 ERU90 11552 ERU90 11555
										LC240T 60482	LC230F 53757	
										LC430T 50965		
								LW610 60510		LC610T 89382		
 N=2	.375	.113	.250	.110		.031	ADHX 090308 ER 1196-80		LC225S 60636			
											LC230F 53831	
								LW630 60634	LC630S 60757	LC630T 60758		
 N=2	.375	.113	.250	.110		.060	ADHX 090315 ER 1196-80		LC225S 60639			
											LC230F 53832	
								LW630 60637				
 N=2	.375	.113	.250	.110		.016	ADMX 090304 ER 1196-81		LC225S 60520			
										LC240T 60542		
 N=2	.437	.125	.313	.134		.020	ADHX 110305 ER 1196-82		LC225S 60514			
										LC240T 60483	LC230F 53788	
										LC430T 50946		
								LW610 60513		LC610T 60533		
 N=2	.437	.125	.313	.134		.031	ADHX 110308 ER 1196-82		LC225S 60630			
											LC230F 53833	
								LW630 60628	LC630S 60765	LC630T 60766		
 N=2	.437	.125	.313	.134		.060	ADHX 110315 ER 1196-82		LC225S 60633			
											LC230F 53834	
								LW630 60631	LC630S 60770	LC630T 60771		
 N=2	.437	.125	.313	.134		.020	ADMX 110305 ER 1196-83		LC225S 60478			
										LC240T 60772		
 N=2	.375	.113	.250	.110		.016	ADHT 090304 FR-ALC 1196-80 ALC					
								LW610 51663			LC610T* 89347	
 N=2	.437	.125	.313	.134		.020	ADHT 110305 FR-ALC 1196-82 ALC					
								LW610 51664			LC610T* 89348	

**F = CVD Multilayer
E = AL₂O₃

*LC610T CVD Coated TiAlN

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
 N=2	.500	.156	.375	.157		.024	ADHX 12T306 ER 1196-84	LC225S 60517				FMU90 11475 FRU90 11335 ERU90 11555
									LC240T 60484		LC230F 53758	
									LC430T 50947			
								LW610 60516		LC610T 60534		
								LW630 60133	LC630S 60716	LC630T 60747		
 N=2	.500	.156	.375	.157		.060	ADHX 12T315 ER 1196-84	LC225S 60642			LC230F 53835	
								LW630 60640	LC630S 60748	LC630T 60749		
 N=2	.500	.156	.375	.157		.090	ADHX 12T323 ER 1196-84	LC225S 60645			LC230F 53836	
								LW630 60643	LC630S 60750	LC630T 60751		
 N=2	.500	.156	.375	.157		.024	ADMX 12T306 ER 1196-85	LC225S 60526				
										LC240T 60545		
 N=2	.500	.156	.375	.157		.024	ADHT 12T306 FR-ALC 1196-84 ALC	LW610 51667		LC610T* 89349		

**F = CVD Multilayer

*LC610T CVD Coated TiAlN

E = AL₂O₃

Insert Tolerance

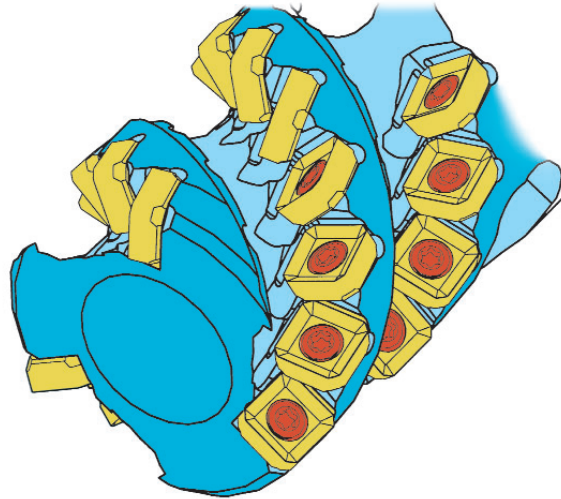
ADHX & ADHT (Ground) 1196-80 1196-82 1196-84			ADMX (Direct Pressed) 1196-81 1196-83 1196-85		
s = +/- 0.001			s = +/- 0.001		
l = +/- 0.0004			l = +/- 0.002		
d = +/- 0.0004			d = +/- 0.002		

Features & Benefits

With **TWINCUT** Geometry:

These end mills are excellent for operations that require roughing, semi-finishing, contour profile milling, and 90° shoulder milling.

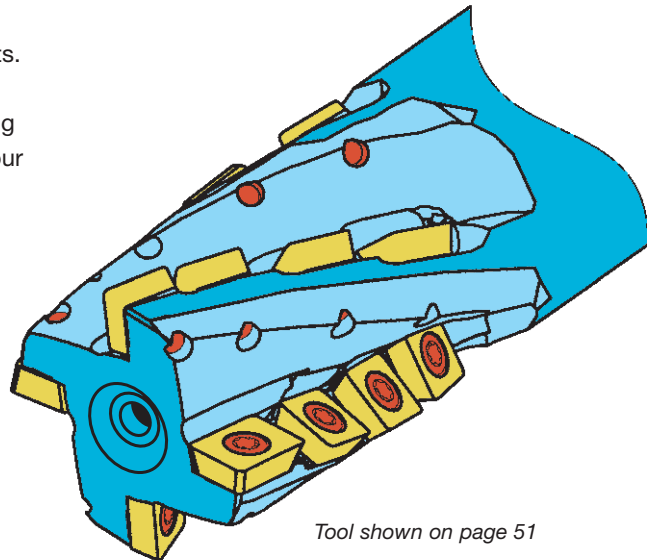
- For contour milling, maximum width of cut $\leq 0.5 \times d1$ using the **TWINCUT** inserts
- Also available in longer lengths as special designs
- Stable cutting action due to rigid pocket



With **Right Hand Helix**:

These end mills use screw on positive ISO inserts.

- For roughing work, slotting, and contour milling
- Staggered inserts are located on a helix contour
- Extremely smooth cutting action
- Replaceable end cap with integral pilot
- Extra large flute capacity for easier chip flow

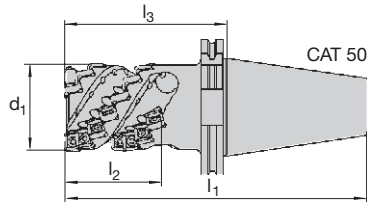


Tool shown on page 51

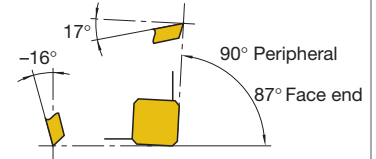
ERT90

Application

- Heavy-duty long edge end milling cutter used *only* for edge milling of steel plate, and cast iron materials
- *Left hand helix* provides smooth cutting action
- All-effective fluted design
- *Not* recommended for face, step or slot milling
- Only offered in CAT 50



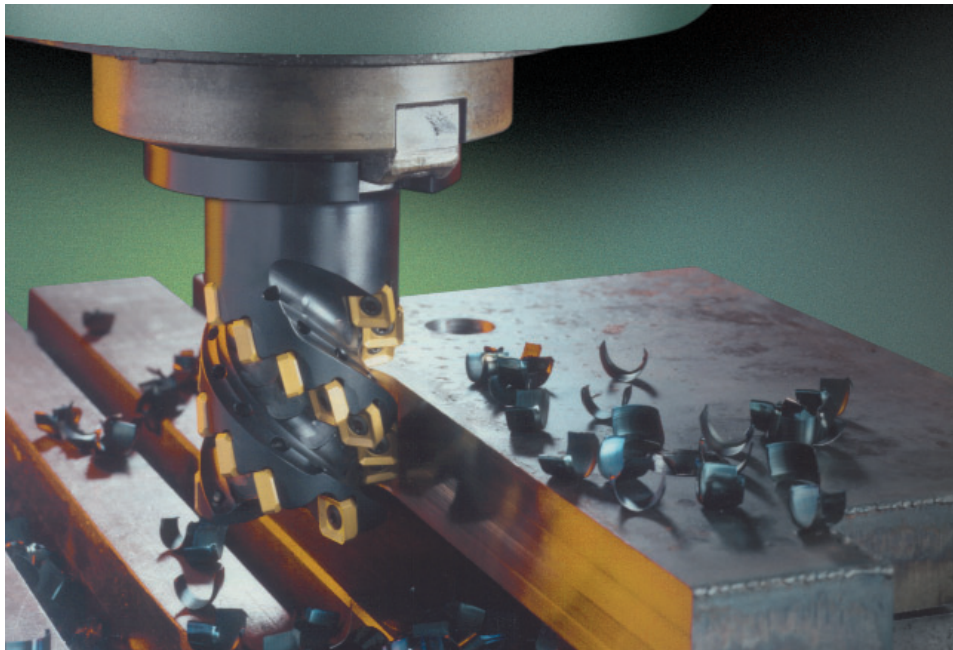
l_2 is the effective cutting length



d_1	Cutter Body No.	EDP	Dimensions (inches)			Shank Taper	No. Eff. Flutes	No. Inserts	Euro Ref. No.	Insert	Insert Screw	Torx Driver
			l_2	l_1	l_3							
2.00	ERT90 S12-200CB	50606	2.50	8.75	4.75	50	2	16	1950010	SNKX 1205	50256	50258
2.50	ERT90 S12-250CB	50608	3.00	9.75	5.75	50	3	27	1950012			
3.00	ERT90 S12-300CB	50610	4.00	11.75	7.75	50	3	36	1950014			

See page 53 for Inserts.

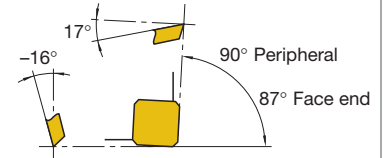
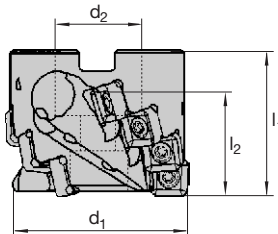
See pages 104 & 105 for recommended cutting data & application information.



FRT90

Application

- Heavy-duty long edge milling cutter used *only* for edge milling of steel plate, and cast iron materials
- *Left hand helix* provides smooth cutting action
- All-effective fluted design
- *Not* recommended for face, step or slot milling



d_1	Cutter Body No.	EDP	Dimensions (inches)			No. Eff. Flutes	No. Inserts	Euro Ref. No.	Insert	Insert Screw	Torx Driver
			l_2	l_1	d_2						
2.00	FRT90 S12-200AA	50612	1.10	2.00	0.75	2	6	1950024	SNKX 1205	50256	50258
2.50	FRT90 S12-250AB	50614	1.42	2.00	1.00	3	12	1950026			
3.00	FRT90 S12-300AD	50616	1.77	2.50	1.50	3	15	1950028			

See page 53 for Inserts.

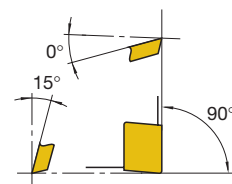
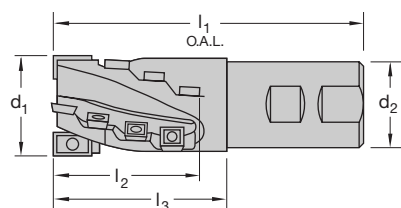
See pages 104 & 105 for recommended cutting data & application information.



ERP90

Application

- Long edge end milling cutter for square shoulder and slot milling of steel and stainless materials
- Flute clearance provides maximum space for chip removal, *air blast always recommended*



l_2 is the effective cutting length

d_1	Cutter Body No.	EDP	Dimensions (inches)				No. Flutes	*No. Eff. Flutes	Euro Ref. No.	No. Per. Inserts	Periphery Insert	No. Face Inserts	Face End Insert	Insert Screw	Torx Driver
			l_2	l_1	l_3	d_2									
1.25	ERP90 S09 125WF	50446	1.58	4.53	2.25	1.25	3	1	1950102	8	SDMW 322	1	ADHW322	89974	50259
1.50	ERP90 S09 150WF	50448	1.97	5.51	3.32	1.25	4	2	1950106	12		2			
2.00	ERP90 S12 200WH	50450	2.36	6.23	3.03	2.00	4	2	1950108	12	SPMW432	2	SDHW533	89971	50258

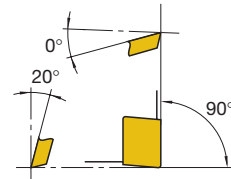
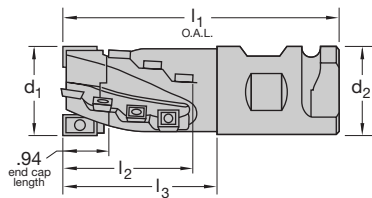
See page 53 for Inserts.

See pages 104 & 105 for recommended cutting data & application information.

ERP90

Application

- General purpose long edge end milling cutter for square shoulder and slot milling of steel, stainless and non-ferrous materials
- Positive axial rake angle and generous chip gullets provide space for chip removal, *air blast always recommended*
- Sold as assembled tool with replaceable end cap



l_2 is the effective cutting length

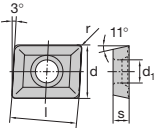
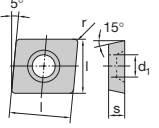
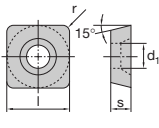
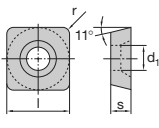
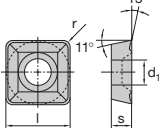
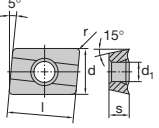
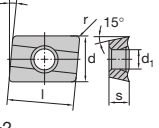
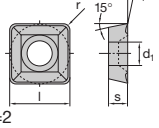
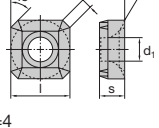
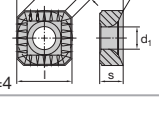
l ₂ is the effective cutting length																
d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Flutes	*No. Eff. Flutes	No. Per. Inserts	Periphery Insert	No. Face Inserts	Face End Insert	Rep. Front End Cap	EC Soc. Hd. Screw	Insert Screw	Torx Driver
			l ₂	l ₁	l ₃	d ₂										
2.00	ERP90 S12 200PH 081	89251	4.30	8.10	4.85	2.00	4	2	20	SPMT 120408	2	XPMT 150408	89245	89312	89314	50258
2.00	ERP90 S12 200PH 101	89240	6.30	10.10	6.85	2.00	4	2	30		2					
2.50	ERP90 S12 250PI 083	89252	4.30	8.30	4.80	2.50	4	2	20		2					
2.50	ERP90 S12 250PI 103	89253	6.30	10.30	6.80	2.50	4	2	30		2		89246	89313		
2.50	ERP90 S12 250PI 123	89254	8.30	12.30	8.80	2.50	4	2	40		2					
2.50	ERP90 S12 250PI 143	89255	10.30	14.30	10.80	2.50	4	2	50		2					
3.00	ERP90 S12 300PI 113	89323	7.10	11.30	7.80	2.50	4	2	34		2		89268			

Note: End mills furnished with Combo Posi-lock shanks. Posi-lock shanks can also be used in standard weldon shank end mill holders. End mills shipped with insert locking screws, replaceable end cap screw & T20 torx wrench.

*Inserts are staggered in rows; two rows make one effective flute. Only one row cuts to the end. Each insert in that row is spaced so the next adjacent row of inserts cuts in the gap area (with some overlap) to complete the length of cut (and make an effective flute).

See page 53 for Inserts.

See pages 104 & 105 for recommended cutting data & application information.

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	AL ₂ O ₃	
 N=2	.625	.187	.500	.216		.031	XPMT 150408 1196-79		LC435I 89140			ERP 90 11453
 N=2	.500	.125	.375	.157		.031	(ADHW 322) ADHW 120308 R 1196-02	LW610 60439	LC225S 60442			ERP 90 11453 EPR 90 11452
 N=4	.375	.125		.154		.031	(SDMW 322) SDMW 090308 1196-01	LW610 60435	LC225S 60438	LC240T 51200		ERP 90 11452
 N=4	.500	.187		.205		.031	(SPMW 432) SPMW 120408 1196-10	LW610 60451	LC225S 60452		LC230F 53800 LC615E 55958	
 N=4	.500	.187		.205		.031	SPMT 120408 1196-12	LW610 60456	LC225S 60458 LC435I 89130	LC240T 60773	LC230F 51759	
 N=2	.500	.125	.375	.157		.031	(ADHW 322) ADMW 120308 R 1196-06	LW610 60574				
 N=2	.500	.125	.375	.157		.031	(ADMT 322) ADMT 120308 R 1196-04	LW610 60446	LC225S 60649			
 N=2	.630	.197		.205		.039	(SDMT 533) SDMT 150410 1196-22		LC225S 60651			
 N=4	.500	.219		.205	.078		SNKX 1205 AN 1187-10		LC225S 60036		LC230F 53791	ERT90 11257 FRT90 11259
 N=4	.500	.219		.205	.078		SNKX 1205 AN-TR 1187-10 TR		LC610T 89936 LC225S 60045		LC615E 89365 LC240T 60047 LC610T 60048	

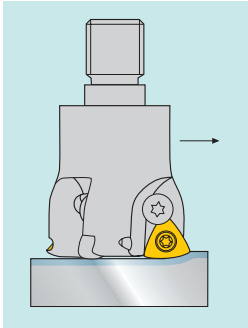
**F = CVD Multilayer
E = AL₂O₃

TWINCUT Feed Mills

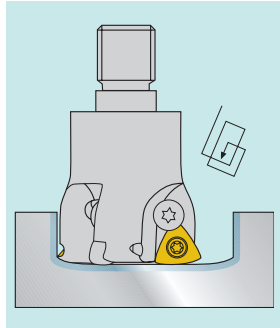
Advantages

- High feed rates with small cutting depths
- Proven indexable insert geometry with optimized cutting edge design
- Indexable insert with three cutting edges and large inscribed circle
- Internal coolant supply

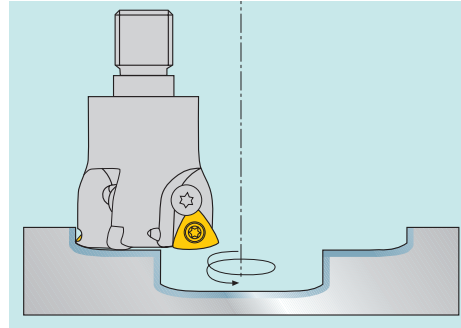
Face milling



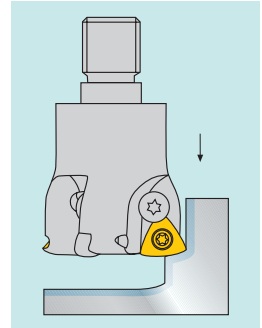
Pocketing



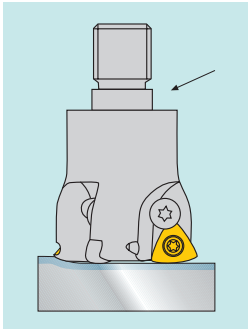
Helical boring



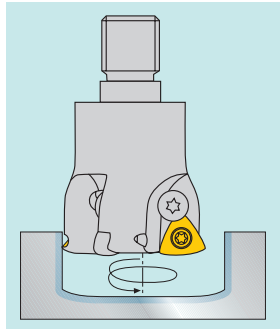
Plunge milling



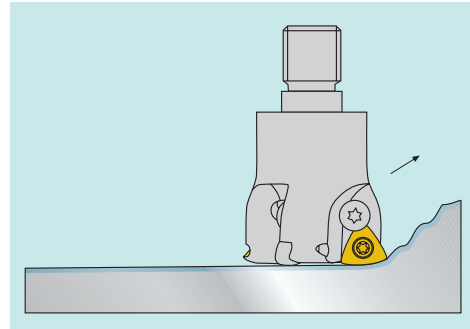
Ramping



Helical interpolation



3D rough copy milling

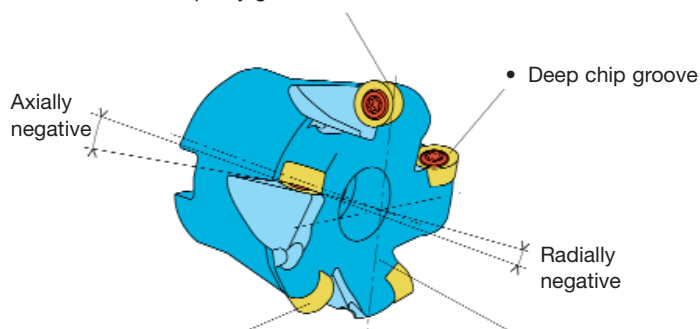


TWINCUT Copy Face Mills

Features & Benefits

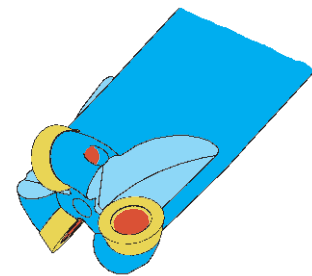
LMT-FETTE's Copy face milling cutters with round inserts are designed for copy, face, ramping, and contour milling of molds and dies.

- Negative insert mounting allows thick, stable insert cross section
- Periphery ground insert



- Double negative insert position with high positive rake angles permits smooth entry and quiet operation

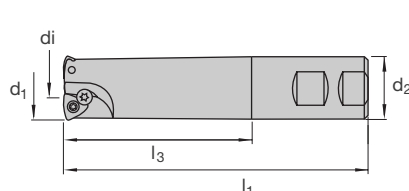
- Relieved front face for ramp milling and heavy die sinking operations



ECP05

Application

- **TWINCUT** feed for use in roughing, semifinish in die and mold industry
- Provides superior metal removal rates
- Offers ramping, plunge milling, helical boring and drilling capabilities




												
d ₁	Cutter Body No.	EDP	Dimensions (inches)				z	Insert	Insert Screw	Top Clamp Screw	Torx Driver	
			di	d ₂	l ₃	l ₁						
1.00	ECP05X11 1000WE-I 060	53837	0.60	1.00	3.72	6.00	2	WP1177-11T	50546	54095	50259	
1.00	ECP05X11 100WE-I 080	53838	0.60	1.00	5.72	8.00	2					
1.25	ECP05X11 125WF-I 060	53839	0.85	1.25	3.72	6.00	3	WP1177-11T	50546			
1.25	ECP05X11 125WF-I 080	53840	0.85	1.25	5.72	8.00	3					
1.25	ECP05X65 125WF-I 060	53841	0.60	1.25	3.72	6.00	2	WP1177-65T	89974			
1.25	ECP05X65 125WF-I 080	53842	0.60	1.25	5.72	8.00	2					
1.50	ECP05X11 150WG-I 060	53843	1.10	1.50	3.31	6.00	4	WP1177-11T	50546			
1.50	ECP05X11 150WG-I 080	53844	1.10	1.50	5.31	8.00	4					
1.50	ECP05X65 150WG-I 060	53845	0.85	1.50	3.31	6.00	3	WP1177-65T	89974			
1.50	ECP05X65 150WG-I 080	53846	0.85	1.50	5.31	8.00	3					

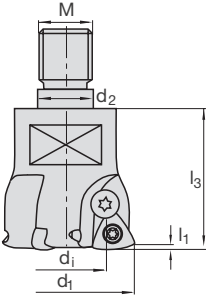
See pages 100 & 101 for recommended cutting data & application information.

Screw-On TWINCUT Feed

ECP05

Application

- **TWINCUT** feed for use in roughing, semifinish in die and mold industry
- Provides superior metal removal rates
- Offers ramping, plunge milling, helical boring and drilling capabilities



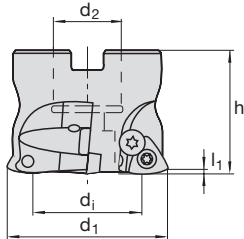

d ₁	Cutter Body No.	EDP	Dimensions (inches)				z								
			d _i	d ₂	M	l ₃									
1.00	ECP05X11 100TF-I 1.00	53847	0.60	0.49	M12	1.30	2					WP1177-11T	50546	54095	50259
1.25	ECP05X65 125TH-I 1.25	53848	0.60	0.67	M16	1.69	2					WP1177-65T	89974		
1.50	ECP05X65 150TH-I 1.50	53849	0.85	0.67	M16	1.69	3								

See page 61-62 for Inserts. See page 74 for Extension Arbor for Screw-On tools.

FCP05

Application

- **TWINCUT** feed for use in roughing, semi-finish in die and mold industry
- Provides superior metal removal rates
- Offers ramping, plunge milling, helical boring and helical drilling capabilities



			
Insert	Insert Screw	Top Clamp Screw	Torx Driver
WP1177-11T	50546	50495	50259
WP1177-65T	89974		
WP1177-11T	50546		
WP1177-65T	89974		
WP1177-11T	50546		
WP1177-65T	89974		
WP1177-11T	50546		
WP1177-65T	89974		

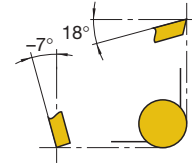
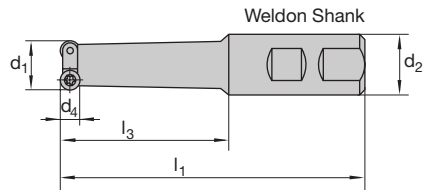
See page 61–62 for Inserts.

See pages 100 & 101 for recommended cutting data & application information.

ECT R

Application

- Milling cutter for copy, face, and contour milling of steel, stainless, and cast iron materials
- Features ramping capabilities
- Straight front end (no taper)



d ₁	Cutter Body No.	EDP	Dimensions (inches)				No. Teeth			
			d ₄	l ₁	l ₃	d ₂				
1.00	ECT R12 100WE 040*	89352	0.47	4.00	1.72	1.00	2	RC_X 1205	50256	50258
1.00	ECT R12 100WE 060*	50584	0.47	6.00	3.72	1.00	2			
1.00	ECT R12 100WE 080*	10603	0.47	8.00	5.77	1.00	2			
1.25	ECT R12 125WF 040*	50586	0.47	4.00	1.72	1.25	3			
1.25	ECT R12 125WF 060	10345	0.47	6.00	3.72	1.25	2			
1.25	ECT R12 125WFF 060	89244	0.47	6.00	3.72	1.25	3			
1.25	ECT R12 125WF 080	10347	0.47	8.00	5.77	1.25	2			
1.25	ECT R12 125WFF 080	50588	0.47	8.00	5.77	1.25	3			
1.50	ECT R12 150WG 060	50590	0.47	6.00	3.31	1.50	3			
1.50	ECT R12 150WG 080	50592	0.47	8.00	5.31	1.50	3			
1.50	ECT R12 150WG 100	50594	0.47	10.00	7.31	1.50	3			

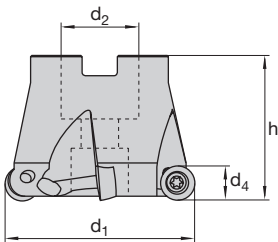
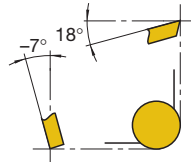
See page 61–62 for Inserts.

See pages 96 & 97 for recommended cutting data & application information.

FCT R

Application

- First choice milling cutter for copy, face, and contour milling of steel, stainless, and cast iron materials
- Features ramping capabilities

														
														
d ₁	Cutter Body No.	EDP	Dimensions (inches)			No. Teeth	Euro Ref. No.	Insert	Insert Screw	Torx Driver				
2.00	FCT R12 200AA	89803	d ₄	h	d ₂	5	1950040	RC_X 1205	50256	50258				
2.50	FCT R12 250AB	89804	0.47	1.98	1.00	6	1950042							
3.00	FCT R12 300AB	50743	0.47	1.98	1.00	6								
2.50	FCT R16 250AB	89805	0.63	1.98	1.00	5	1950051	RC_X 1606	50255					
3.00	FCT R16 300AB	89813	0.63	1.98	1.00	6	1950182							
4.00	FCT R16 400AD	89800	0.63	1.98	1.50	7								

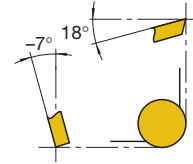
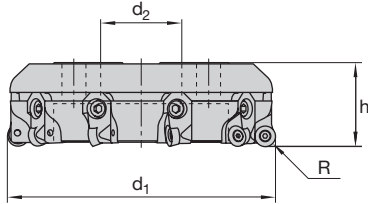
See page 61–62 for Inserts.

See pages 96 & 97 for recommended cutting data & application information.

MMT R

Application

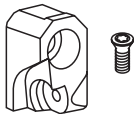
- Modular milling cutter for face and contour milling of steel, stainless and cast iron materials
- Used in rough milling operations
- Cartridge design interchangeable with other LMT Multi-Mills
- Available in coarse and fine pitch



Multi-Mills furnished with cartridges and hardware.
Inserts must be ordered separately.



d ₁	Cutter Body No.	EDP	Dimensions (inches)		No. Teeth	Insert	Insert Screw	Torx Driver
			h	d ₂				
Coarse Pitch								
4.00	MMT R16-400AD	50211	2.48	1.50	6	RCHX 1606	50255	50258
5.00	MMT R16-500AD	50212	2.48	1.50	6			
6.00	MMT R16-600AD	50213	2.48	1.50	10			
8.00	MMT R16-800AF	50214	2.48	2.50	12			
10.00	MMT R16-1000AF	50215	2.48	2.50	14			
12.00	MMT R16-1200AF	50216	3.15	2.50	18			
16.00	MMT R16-1600AF	50217	3.15	2.50	20			
20.00	MMT R16-2000AF	50218	3.15	2.50	28			
Fine Pitch								
5.00	MMT R16-500ADF	50219	2.48	1.50	8	RCHX 1606	50255	50258
6.00	MMT R16-600ADF	50220	2.48	1.50	12			
8.00	MMT R16-800AFF	50221	2.48	2.50	16			
10.00	MMT R16-1000AFF	50222	2.48	2.50	20			
12.00	MMT R16-1200AFF	50223	3.15	2.50	24			
16.00	MMT R16-1600AFF	50224	3.15	2.50	30			
20.00	MMT R16-2000AFF	50225	3.15	2.50	40			



Cartridge
50251



Cartridge Screw
50253



Cartridge Key
50254



Adjustment Screw
50263



Adjustment Key
50264

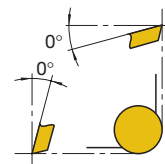
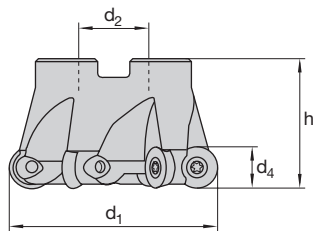
See page 61–62 for Inserts.

See pages 96 & 97 for recommended cutting data & application information.

FCZ R

Application

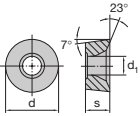
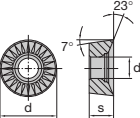
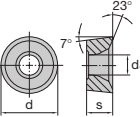
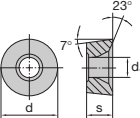
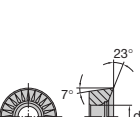
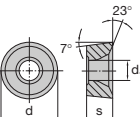
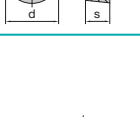
- Milling cutter for copy, face, and contour milling of steel, stainless, and cast iron materials
- Used in rough milling operations
- Features ramp and plunge capabilities



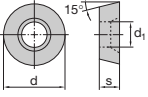
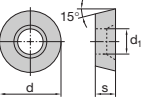
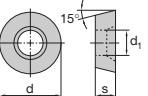
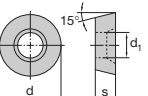
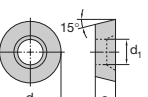
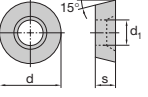
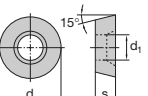
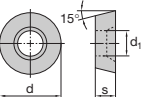
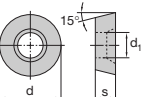
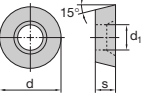
d ₁	Cutter Body No.	EDP	Dimensions (inches)			No. Teeth	Euro Ref. No.		Insert Screw	
			doc	d ₃	h					
2.00	FCZ R12 200AA	50596	0.472	1.77	0.75	5	1940031	RDHW 12T3	50256	50258
3.00	FCZ R12 300AB	50598	0.472	1.97	1.00	6	1940033			
4.00	FCZ R16 400AD	50600	0.630	1.97	1.50	6	1940035	RDHW 1604	50530	
5.00	FCZ R16 500AD	50602	0.630	2.48	1.50	8	1940037			

See page 61–62 for Inserts.
See pages 96 & 97 for recommended cutting data & application information.



N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
		.219	.472	.205			RCHX 1205 MO 1195-13		LC225S 89847			ECT / FCT R12
										LC240T 89862		
								LW610 89841		LC610T 60775		
		.219	.472	.205			RCHT 1205 MO				LC230T 53261	
		.219	.472	.205			RCHX 1205 MO-TR 1195-13 TR		LC225S 89849			ECT / FCT R12
										LC240T 89864		
								LW610 89843		LC610T 89872		
		.219	.472	.205			RCKT 1205 MO-TT			LC280TT 54079		
		.219	.472	.205			RCHX 1205 MO - T 1195-23 T-Land		LC225S 89851			ECT / FCT R16
										LC240T 60777		
								LW610 89845		LC610T 50669		
		.219	.472	.205			RCMX 1205 MO - T 1195-27 T-Land			LC240T 89868		
		.250	.630	.228			RCHX 1606 MO 1195-14		LC225S 60124			ECT / FCT R16
										LC240T 60126	LC230F 53262	
								LW610 60123		LC610T 60127		
		.250	.630	.228			RCHT 1606 MO				LC230F 53262	
		.250	.630	.228			RCHX 1606 MO - TR 1195-14TR		LC225S 60131			ECT / FCT R16
										LC240T 60134		
								LW610 60130		LC610T 60135		
		.250	.630	.228			RCKT 1606 MO			LC280TT 54080		
		.250	.630	.228			RCHX 1606 MO - T 1195-24 T-Land		LC225S 60139			ECT / FCT R16
										LC240T 60141		
								LW610 60138		LC610T 60779		
		.250	.630	.228			RCMX 1606 MO - T 1195-28 T-Land			LC240T 89869		
		.109	.375	.154	.236	.150	WP1177-11T			LC280TT 54090		ECP 05 / FCP 05 X11
										LC610T 54097		
		.157	.375	.154	.984	.079	WP1177-65T			LC280TT 54091		ECP 05 / FCP 05 X65
										LC240T 55035		
N=3										LC610T 54098		

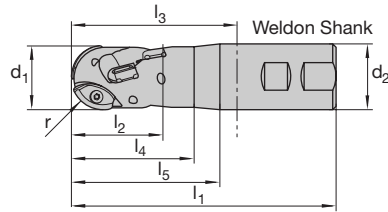
**F = CVD Multilayer
E = AL₂O₃

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	AL ₂ O ₃	
		.059	.197	.079			RDHX 0501 MO			LC240T 53469		ECZ
										LC603Z 53462		
										LC610T 56055		
		.094	.276	.106			RDHX 0702 MO			LC240T 53470		ISO
										LC603Z 53463		
										LC610T 56056		
		.094	.276	.106			RDKT 0702 MO-TT			LC280TT 54082		
		.094	.315	.110			RDHW 0802 MO			LC240T 89402		ECZ
										LC603Z 53464		
										LC610T 56057		
		.094	.315	.110			RDHW 0802 MO			LC280TT 54083		
		.125	.394	.150			RDHW 1003 MO 1195-25		LC225S 60587	LC240T 60424		ISO
										LC603Z 53465		
										LC610T 52528		
		.125	.394	.150			RDKT 1003 MO-TT			LC280TT 54084		
		.156	.472	.197			RDHW 12T3 MO 1195-35		LC225S 60591			ECZ
										LC240T 60425		
										LC603Z 53466		
										LC610T 52529		
								LW610 60589				
		.156	.472	.150			RDHX 12T3 MO			LC240T 53471		ISO
										LC603Z 53467		
										LC610T 55005		
		.156	.472	.197			RDKT 12T3 MO-TT			LC280TT 54085		ECZ
		.156	.472	.150			RDKX 12T3 MO-TT			LC280TT 54087		ISO
		.187	.630	.205			RDHW 1604 MO 1195-45		LC225S 60594	LC240T 60426		ECZ ISO
										LC603Z 53468		
										LC610T 52531		
		.187	.630	.205			RDKT 1604 MO-TT			LC280TT 54086		

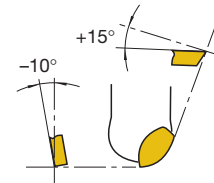
EBT

Application

- Heavy duty rough copy milling cutter for use on steel, stainless, and non-ferrous molds and dies
- Features periphery inserts for deep cavity molds
- Ball end inserts are two effective and offer 2 indexes
- Periphery inserts offer 2 and 4 indexes for deep cavity work



l_2 is the effective cutting length



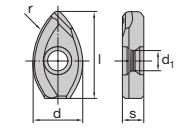
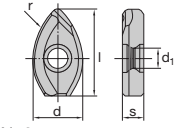
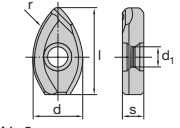
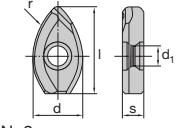
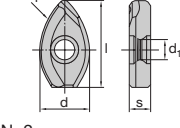
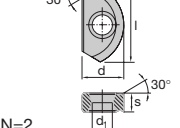
d ₁	Cutter Body No.	EDP	Dimensions (inches)							Euro Ref. No.	Ball End Insert	Periphery Insert
			r	l ₁	l ₂	l ₄	l ₅	l ₃	d ₂			
0.750	EBT T0750W1000 532	89821	0.38	5.32	1.18	1.58	2.36	3.11	1.00	1950210	1179-24	CCMT 060204
0.750	EBT T0750W1000 630	89822	0.38	6.30	1.18	1.58	3.35	4.09	1.00	1950211		
0.787	EBT T0787W1000 532	89836	0.39	5.32	1.18	1.58	2.36	3.11	1.00	1950248	1179-25	
0.787	EBT T0787W1000 630	89837	0.39	6.30	1.18	1.58	3.35	4.09	1.00	1950249		
1.000	EBT T1000W1000 472	89823	0.50	4.72	1.38	2.13	2.13	2.13	1.00	1950212	1179-35	CCMT 080308
1.000	EBT T1000W1250 669	89824	0.50	6.69	1.38	1.97	3.54	4.33	1.25	1950213		
1.250	EBT T1250W1250 591	89825	0.63	5.91	1.58	2.76	2.76	3.54	1.25	1950215	1179-45	SNKX 0904
1.250	EBT T1250W1500 787	89826	0.63	7.87	1.58	2.36	4.53	5.12	1.50	1950217		
1.500	EBT T1500W1500 571	89827	0.75	5.71	2.17	3.15	3.15	3.35	1.25	1950219	1179-55	SNKX 1205
1.500	EBT T1500W1500 787	89828	0.75	7.87	2.17	4.53	4.53	5.12	1.50	1950220		
2.000	EBT T2000W2000 700	89840	1.00	7.00	3.00	3.75	3.75	3.75	2.00	2340261	1179-66	
2.000	EBT T2000W2000 900	89838	1.00	9.00	4.00	5.00	5.75	5.75	2.00	2340257		
2.000	EBT T2000W2000 110	89839	1.00	11.00	4.00	7.00	7.75	7.75	2.00	2340259		

Parts and Accessories									
Spare Parts for Cutter Body Number	EDP	No. of Inserts	Ball End Insert	Insert Screw EDP Euro Ref. No.	No. of Inserts	Periphery Insert	Insert Screw	Torx Driver	
EBT T0750W1000 532	89821	2	1179-24	89979	4	*CCMT 060204	89972	89978	
EBT T0750W1000 630	89822								
EBT T0787W1000 532	89836	2	1179-25	89974	4	*CCMT 080308	89979	50259	
EBT T0787W1000 630	89837								
EBT T1000W1000 472	89823	2	1179-35	89976	4	SNKX 0904	89974	50258	
EBT T1000W1250 669	89824								
EBT T1250W1250 591	89825	2	1179-45	50255	6	SNKX 1205	50256	50258	
EBT T1250W1500 787	89826								
EBT T1500W1500 571	89827	2	1179-55	50255	9	SNKX 1205	50256	50258	
EBT T1500W1500 787	89828								
EBT T2000W2000 700	89840	2	1179-66	50255	9	SNKX 1205	50256	50258	
EBT T2000W2000 900	89838								
EBT T2000W2000 110	89839								

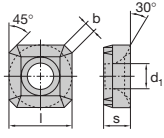
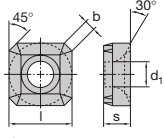
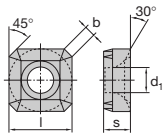
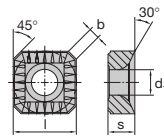
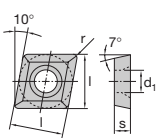
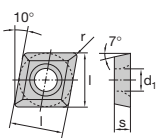
See pages 64–65 for Inserts.

See pages 102 & 103 for recommended cutting data & application information.

*Periphery inserts with 2 indexes.

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
 N=2	.504	.125	.281	.138		.375	1179-24		LC225S 89886			EBT 11493
										LC240T 89917		
 N=2	.504	.125	.281	.138		.378	1179-25		LC225S 89887			
										LC240T 89918		
								LW610 89875		LC610T 60783		
 N=2	.630	.156	.352	.161		.473	1179-35		LC225S 89888			
										LC240T 89919		
								LW610 89876		LC610T 60785		
 N=2	.806	.200	.450	.177		.606	1179-45		LC225S 89889			
										LC240T 89920		
								LW610 89877		LC610T 60788		
 N=2	1.00	.250	.563	.217		.757	1179-55		LC225S 89890			
										LC240T 89921		
								LW610 89878		LC610T 60786		
 N=2	1.424	.250	.563	.217		.953	1179-66					
										LC240T 89922		

**F = CVD Multilayer
E = AL₂O₃

N = Number of Cutting Edges	Dimensions (Inch)						Insert Description ISO Code LMT Cat. No.	Insert Grade Ordering No.				For Cutter Cat. No.
	l	s	d	d ₁	b	r		Uncoated	TiCN Plus	AL Plus	**CVD or AL ₂ O ₃	
 N=4	.375	.187		.173	.059		SNKX 0904 AN 1187-00		LC225S 89892			EBT 11493
										LC240T 88923		
								LW610 89880		LC610T 51855		
 N=4	.375	.187		.173	.059		SNKX 0904 AN - TT			LC280TT 54088		
 N=4	.500	.219		.205	.079		SNKX 1205 AN 1187-10		LC225S 60036			
											LC230F 53791	
										LC240T 60039		
								LW610 60035			LC615E 55961	
 N=4	.500	.219		.205	.079		SNKX 1205 AN - TR 1187-10TR		LC225S 60045			
										LC240T 60047		
										LC610T 60048		
 N=2	.250	.094		.110	.016		CCMT 060204 1196-36		LC225S 89896			EBT 11493
										LC240T 89927		
								LW610 89884		LC610T 51856		
 N=2	.313	.125		.134	.031		CCMT 080308 1196-46		LC225S 89897			
										LC240T 89928		
								LW610 89885		LC610T 51870		

**F = CVD Multilayer
E = AL₂O₃

Features & Benefits

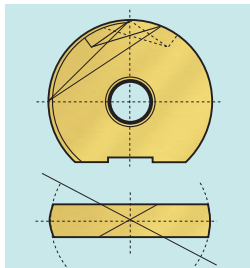
LMT-FETTE's finish copy mills are setting the global standard for precision and performance.

- Steel holders offered in straight and tapered neck design, capable of running at spindle speeds up to 80,000 rpm
- Precision manufacturing enables the highest accuracy of the finished workpiece
- Total tool runout within .0008" for insert/cutter assembly
- Inserts available in chipbreaker and non-chipbreaker styles
- The copying end mill dia. .250", .312" and .375" can also accept flat bottom and back draft inserts
- Metric insert sizes 6mm-32mm and shanks also available



Copy Inserts

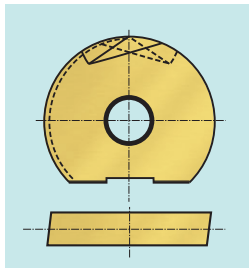
Used for super finishing



F = Super Finisher

7° radial clearance angle

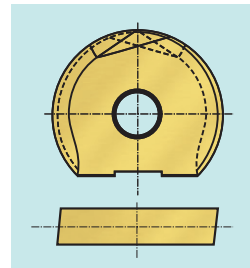
Used for finishing



N = Non Chipbreaker

7° radial clearance angle

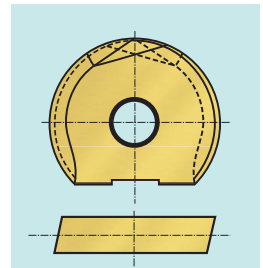
Used for semi-finishing



**CF = Chipbreaker
Ferrous**

7° radial clearance angle

Used for semi-finishing

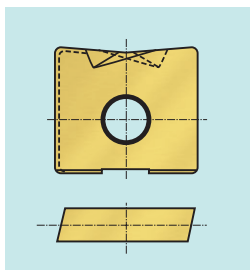


**CN = Chipbreaker
Non-ferrous**

12° radial clearance angle
for less friction

Flat Bottom Inserts

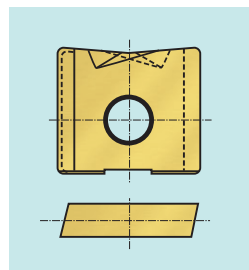
Used for finishing



N = Non Chipbreaker

7° radial clearance angle

Used for semi-finishing

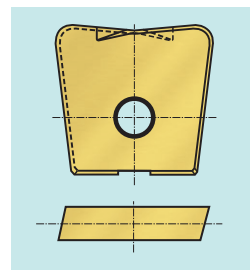


**CF = Chipbreaker
Ferrous**

7° radial clearance angle

7° Back Draft Inserts

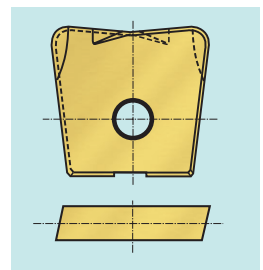
Used for finishing



N = Non Chipbreaker

7° radial clearance angle

Used for semi-finishing



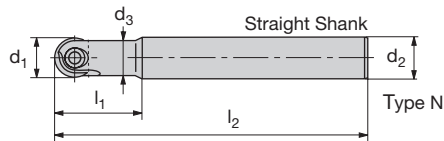
**CF = Chipbreaker
Ferrous**

7° radial clearance angle

EBG-R-N (Inch) Straight Neck Cutter Body - HSS

Application

- First choice rough and finish copy milling cutter for milling of steel, stainless and non-ferrous molds and dies
- Ground steel shank holders are offered in a variety of lengths



d ₁	Cutter Body No.	EDP	Dimensions (inches)				Size	Insert Screw	Torx Driver
			l ₁	l ₂	d ₂	d ₃			
0.375	EBG R0375A0500 090N	88114	1.34	3.54	0.50	0.34	WPR 0375	88706	50259
0.500	EBG R0500A0500 130N	88115	1.26	5.12	0.50	0.41	WPR 0500	88707	50259
0.500	EBG R0500A0500 150N	88116	1.81	5.91	0.50	0.41	WPR 0500	88707	50259
0.625	EBG R0625A0625 140N	88117	1.42	5.51	0.63	0.55	WPR 0625	88708	50258
0.625	EBG R0625A0625 160N	88118	2.09	6.30	0.63	0.55	WPR 0625	88708	50258
0.750	EBG R0750A0750 160N	88119	1.77	6.30	0.75	0.71	WPR 0750	88709	50258
0.750	EBG R0750A0750 175N	88120	2.40	6.89	0.75	0.71	WPR 0750	88709	50258
0.750	EBG R0750A0750 210N	88913	2.36	8.27	0.75	0.71	WPR 0750	88709	50258
1.000	EBG R1000A1000 160N	88121	1.77	6.30	1.00	0.88	WPR 1000	88710	88606
1.000	EBG R1000A1000 190N	88122	2.76	7.48	1.00	0.88	WPR 1000	88710	88606
1.000	EBG R1000A1000 230N	88898	3.14	9.06	1.00	0.88	WPR 1000	88710	88606
30mm	*EBG R30 A1250 175N	88123	2.20	6.89	1.25	1.13	WPR 30	88711	88606
30mm	*EBG R30 A1250 210N	88124	3.15	8.27	1.25	1.13	WPR 30	88711	88606
1.250	EBG R1250A1250 175N	88125	2.20	6.89	1.25	1.13	WPR 1250	88711	88606
1.250	EBG R1250A1250 210N	88126	3.15	8.27	1.25	1.13	WPR 1250	88711	88606
2.000	EBG R2000A2000 330N	88906	4.92	12.99	2.00	1.77	WPR 2000	88910	88712 88713

*Metric cutting diameter, inch shank

High temperature anti-seize lubricant available - Order: 88610

See page 70-71 for Inserts.

See pages 102 & 103 for recommended cutting data & application information.

See LMT-FETTE Mold & Die Catalog for complete metric offering.

Copy Mill Insert Identification System

INCH

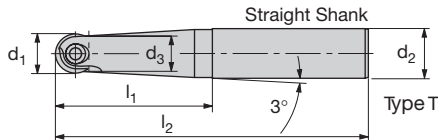
WP R 0500 - CF

Indexable Insert ————
 Shape Of Cut, R = Ball Nose V = Flatbottom B = Back-Draft ————
 Diameter or Width Of Cut (inch) ————
 Chipbreaker Style ————
 N = None, Flat Face
 CF = Ferrous Materials
 CN = Non-ferrous Materials

EBG-R-T (Inch) Tapered Neck Cutter Body – HSS

Application

- Roughing, semi-finishing, and finish copy milling cutter for steel, stainless, and non-ferrous molds and dies
- Inserts are available in chipbreaker and non-chipbreaker styles, and can be used in both tapered and straight style holders



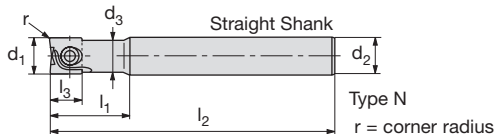
d ₁	Cutter Body No.	EDP	Dimensions (inches)				Insert Size	Insert Screw	Torx Driver
			l ₁	l ₂	d ₂	d ₃			
0.250	EBG R0250A0375 090T	10525	1.57	3.54	0.38	0.22	WPR 0250	88704	88600
0.312	EBG R0312A0500 140T	88100	1.97	5.51	0.50	0.30	WPR 0312	88705	89978
0.375	EBG R0375A0500 150T	88101	1.38	5.91	0.50	0.35	WPR 0375	88706	50259
0.500	EBG R0500A0625 160T	88102	2.36	6.30	0.63	0.41	WPR 0500	88707	50259
0.625	EBG R0625A0750 175T	88103	2.64	6.89	0.75	0.55	WPR 0625	88708	50258
0.750	EBG R0750A1000 190T	88104	3.15	7.48	1.00	0.71	WPR 0750	88709	50258
1.000	EBG R1000A1250 210T	88105	3.94	8.27	1.25	0.88	WPR 1000	88710	88606
1.250	EBG R1250A1500 240T	88106	4.84	9.45	1.50	1.17	WPR 1250	88711	88606

Flat Bottom / Back Draft Mills

EBG-V-N (Inch) Flat Bottom & Back Draft Cutter Body – HSS

Application

- Roughing, semi-finishing and finish, flat bottom and back draft milling cutter for steel, stainless, and non-ferrous molds and dies
- Flat Bottom 90° (WPR) and Back Draft 7° (WPB) inserts can be used in the same cutter body



d ₁	Cutter Body No.	EDP	Dimensions (inches)					Insert Size	Insert Screw	Torx Driver
			l ₁	l ₂	d ₂	d ₃	l ₃			
0.500	EBG V0500A0500 130N	88139	1.34	5.20	0.50	0.41	0.55	WP_ 0500	88707	50259
0.500	EBG V0500A0500 150N	88140	1.89	5.98	0.50	0.41	0.55	WP_ 0500	88707	50259
0.625	EBG V0625A0625 140N	88141	1.50	5.51	0.63	0.55	0.63	WP_ 0625	88708	50258
0.625	EBG V0625A0625 160N	88142	2.16	6.30	0.63	0.55	0.63	WP_ 0625	88708	50258
0.750	EBG V0750A0750 160N	88143	1.85	6.30	0.75	0.71	0.70	WP_ 0750	88709	50258
0.750	EBG V0750A0750 175N	88144	2.48	6.89	0.75	0.71	0.70	WP_ 0750	88709	50258
0.750	EBG V0750A0750 210N	88914	2.36	8.27	0.75	0.71	0.70	WP_ 0750	88709	50258
1.000	EBG V1000A1000 160N	88145	1.85	6.30	1.00	0.88	0.93	WP_ 1000	88710	88606
1.000	EBG V1000A1000 190N	88146	2.83	7.48	1.00	0.88	0.93	WP_ 1000	88710	88606
1.000	EBG V1000A1000 230N	88902	3.14	9.06	1.00	0.88	0.93	WP_ 1000	88710	88606

High temperature anti-seize lubricant available - Order: 88610

See page 70-71 for Inserts.

See pages 102 & 103 for recommended cutting data & application information.