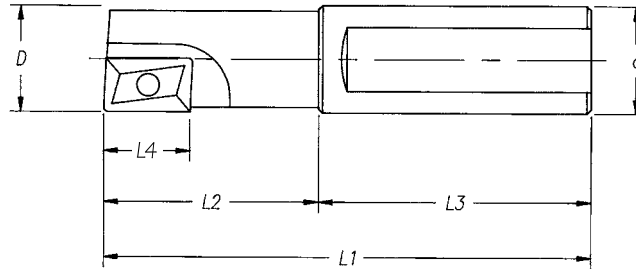


# END MILLS

## Small Diameter End Mills



### Small Diameter End Mills – Single Flute

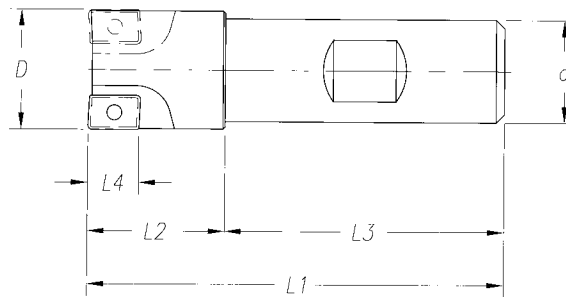
**INCH**

Part Number	D	d	L1	L2	L3	L4	Insert (1-required)	Screw	Head
EM 0437-09*	7/16	1/2	2.78	1	1.78	0.37	XPMT 0902	SCR-04	T7
EM 0500-09*	1/2	1/2	2.78	1	1.78	0.37		SCR-04	T7
EM 0562-09**	9/16	1/2	2.78	1	1.78	0.37		SCR-04	T7

\*Capable of ramping at 3° max.

\*\*Capable of ramping at 8° max.

See page 22 for Insert Specifications and Grade Selection.



### Small Diameter End Mills – Two Flute

**INCH**

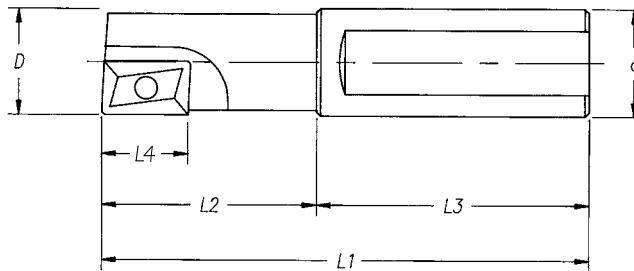
Part Number	D	d	L1	L2	L3	L4	Insert (2-required)	Screw	Head
EM 0625-09*	5/8	5/8	2.90	1	1.90	0.37	XPMT 0902	SCR-04	T7
EM 0688-09*	11/16	5/8	2.90	1	1.90	0.37		SCR-04	T7
EM 0750-09*	3/4	3/4	3.03	1	2.03	0.37		SCR-04	T7
EM 0875-09*	7/8	3/4	3.03	1	2.03	0.37		SCR-01	T7

\*Capable of ramping at 8° max.

See page 22 for Insert Specifications and Grade Selection.

# END MILLS

## Large Diameter End Mills



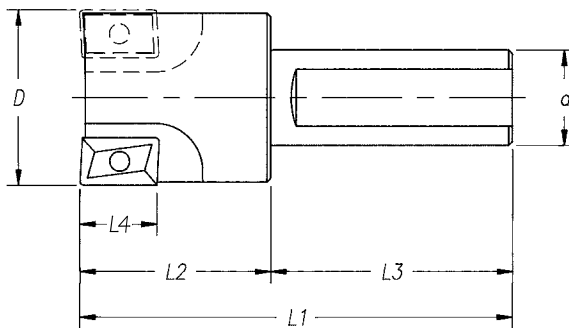
Large Diameter End Mills – Single Flute									INCH	
Part Number	D	d	L1	L2	L3	L4	Insert (1-required)	Screw	Head	
EM 0625†*	5/8	3/4	2.90	1	1.90	0.60	XPMT 15T3	SCR-16	T10	
EM 0688*	11/16	3/4	2.90	1	1.90	0.60		SCR-16	T10	
EM 0750*	3/4	3/4	3.40	1.50	1.90	0.60		SCR-16	T10	
EM 0813**	13/16	3/4	3.40	1.50	1.90	0.60		SCR-16	T10	
EM 0875**	7/8	3/4	3.40	1.50	1.90	0.60		SCR-16	T10	

† The EM 0625 is designed for light cuts only because it has a large insert in a small diameter mill. This tool is non-returnable.

\* Capable of ramping at 3° max.

\*\* Capable of ramping at 8° max.

See page 22 for Insert Specifications and Grade Selection.



Large Diameter End Mills – Two Flute and Three Flute									INCH	
Part Number	D	d	L1	L2	L3	L4	Flutes	Insert (2-3 required)	Screw	Head
EM 0938*	15/16	3/4	3.40	1.50	1.90	0.60	2	XPMT 15T3	SCR-16	T10
EM 1000-09-3F*	1	3/4	3.03	1	2.03	0.37	3	XPMT 0902	SCR-01	T7
EM 1000*	1	3/4	3.40	1.50	1.90	0.60	2	XPMT 15T3	SCR-16	T10
EM 1000-1005*	1	1	3.78	1.50	2.28	0.60	2		SCR-16	T10
EM 1125*	1-1/8	3/4	3.40	1.50	1.90	0.60	2		SCR-30	T10
EM 1250*	1-1/4	3/4	3.40	1.50	1.90	0.60	2		SCR-30	T10
EM 1250-3F*	1-1/4	1	3.78	1.50	2.28	0.60	3		SCR-30	T10
EM 1375*	1-3/8	3/4	3.40	1.50	1.90	0.60	2		SCR-30	T10
EM 1500*	1-1/2	3/4	3.40	1.50	1.90	0.60	2		SCR-30	T10
EM 1500-3F*	1-1/2	1	3.78	1.50	2.28	0.60	3		SCR-30	T10

\* Capable of ramping at 8° max.

See page 22 for Insert Specifications and Grade Selection.

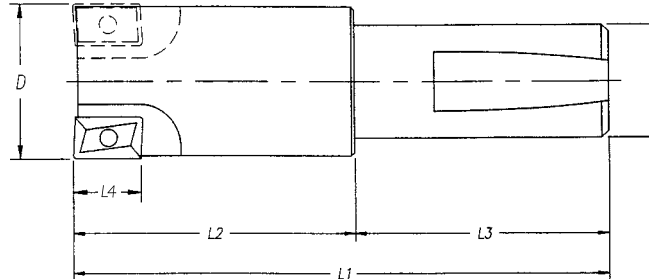
## END MILLS

### Extended Length End Mills



## END MILLS

### Long Edge End Mills



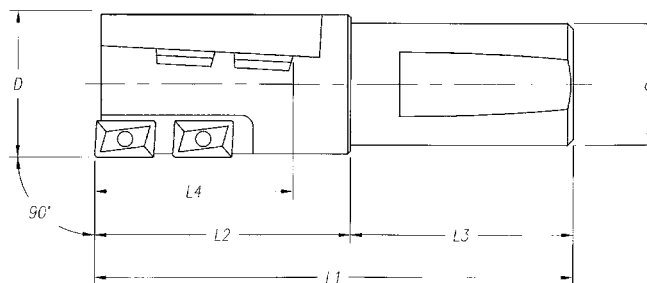
### Extended Length End Mills

INCH

Part Number	D	d	L1	L2	L3	L4	Flutes	Insert (2 required)	Screw	Head
EM 1000-2.5*	1	3/4	4.40	2.50	1.90	0.60	2	XPMT 15T3	SCR-16	T10
EM 1000-3.5*	1	1	5.78	3.50	2.28	0.60	2		SCR-16	T10
EM 1250-2.5*	1-1/4	1	4.78	2.50	2.28	0.60	2		SCR-30	T10

\* Capable of ramping at 8° max.

See page 22 for Insert Specifications and Grade Selection.



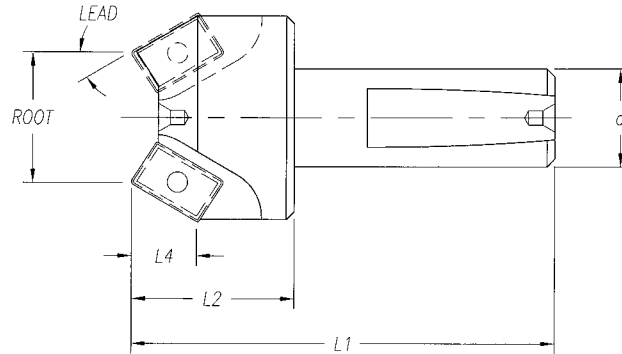
### Long Edge End Mills

INCH

Part No.	D	d	L1	L2	L3	L4	Inserts	Flutes	Insert	Screw	Head
EM 1250-1500-LE	1-1/4	1	4.41	2.13	2.28	1.50	6	2	XPMT 15T308	SCR-16	T10
EM 1500-2000-LE	1-1/2	1-1/4	4.91	2.63	2.28	2.00	8	2	XPMT 15T3	SCR-30	T10
EM 2000-2775-LE	2	1-1/2	6.25	3.50	2.75	2.77	10	2	(Bottom row)	SCR-30	T10

See page 22 for Insert Specifications and Grade Selection.

# CHAMFER MILLS



Chamfer Mills										INCH
Part Number	Lead	Root	d	Width	Depth	L1	L2	Insert (2)	Screw	Wrench
CM-0563-15-09	15-deg	0.563	0.500	0.089	0.340	2.78	1.00	XPMT 0902	SCR-04	T7
CM-0563-20-09	20-deg	0.563	0.500	0.116	0.330	2.78	1.00			
CM-0563-25-09	25-deg	0.563	0.500	0.143	0.310	2.78	1.00			
CM-0563-30-09	30-deg	0.563	0.625	0.169	0.300	2.91	1.00			
CM-0563-35-09	35-deg	0.563	0.625	0.194	0.280	2.91	1.00			
CM-0563-45-09	45-deg	0.563	0.625	0.239	0.240	2.91	1.00			
CM-0563-60-09	60-deg	0.563	0.625	0.301	0.160	2.91	1.00			
CM-0563-75-09	75-deg	0.563	0.625	0.327	0.080	2.91	1.00			
CM-1000-03	3-deg	1.000	0.750	0.031	0.589	3.15	1.25	XPMT 15T3	SCR-16	T10
CM-1000-05	5-deg	1.000	0.750	0.052	0.586	3.15	1.25			
CM-1000-10	10-deg	1.000	0.750	0.103	0.577	3.15	1.25			
CM-1000-15	15-deg	1.000	0.750	0.154	0.564	3.15	1.25			
CM-1000-20	20-deg	1.000	0.750	0.204	0.547	3.15	1.25			
CM-1000-25	25-deg	1.000	0.750	0.252	0.526	3.15	1.25			
CM-1000-30	30-deg	1.000	0.750	0.298	0.501	3.15	1.25			
CM-1000-35	35-deg	1.000	0.750	0.343	0.472	3.15	1.25			
CM-1000-37.5	37.5-deg	1.000	0.750	0.372	0.456	3.15	1.25	XPMT 15T3	SCR-30	T10
CM-1000-41	41-deg	1.000	0.750	0.393	0.433	3.15	1.25			
CM-1000-45	45-deg	1.000	0.750	0.400	0.400	3.15	1.25			
CM-1000-50	50-deg	1.000	0.750	0.454	0.376	3.15	1.25			
CM-1000-55	55-deg	1.000	0.750	0.507	0.327	3.15	1.25			
CM-1000-60	60-deg	1.000	0.750	0.521	0.284	3.15	1.25			
CM-1000-70	70-deg	1.000	0.750	0.547	0.193	3.15	1.25			
CM-1000-75	75-deg	1.000	0.750	0.584	0.146	3.15	1.25			

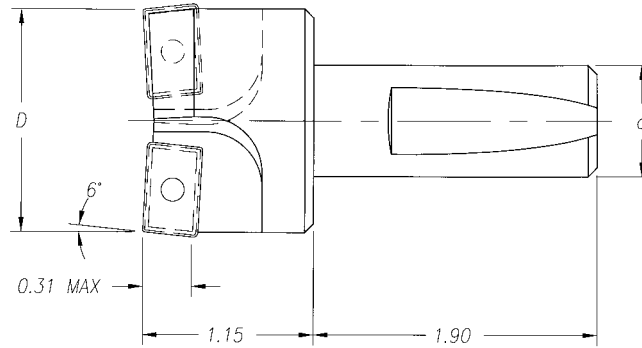
See page 22 for Insert Specifications and Grade Selection.

# FACE MILLS

Integral Shank

# FACE MILLS

Fixed Pocket



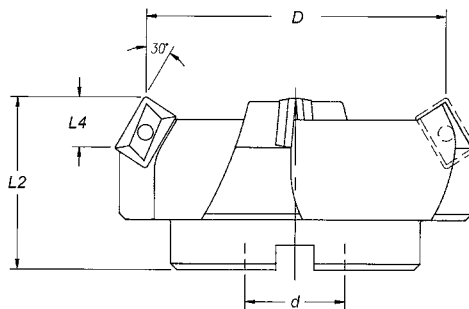
## Integral Shank Face Mills

INCH

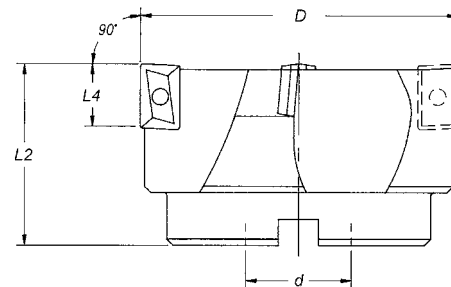
Part Number	Lead Angle	D	d	Flutes	Inserts	Screw	Head
FM 1500-6 RH	6-deg	1-1/2	3/4	2	XPMT 15T3	SCR-30	T10

See page 22 for Insert Specifications and Grade Selection.

This tool allows for the use of the opposite, often unused, corner of the insert.



3" Diameter, 30° Lead Angle



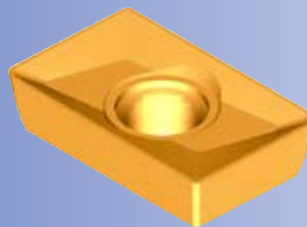
3" Diameter, 0° Lead Angle

## Fixed Pocket Face Mills

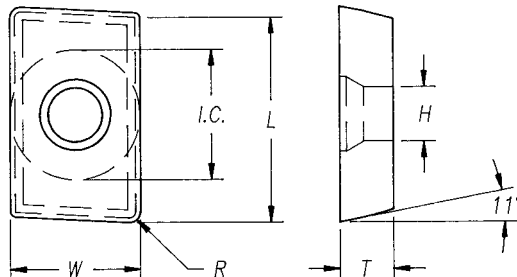
INCH

Part Number	D	Lead Angle	L2	L4	d	K'way	# Flutes	Inserts	Screw	Head
FM 2000-30 RH/LH	2	30-deg	1-11/32	0.50	1	3/8	3	XPMT 15T3	SCR-30	T10
FM 2000-90 RH	2	0-deg	1-13/32	0.60	3/4	5/16	3		SCR-30	T10
FM 3000-30 RH/LH	3	30-deg	1-23/32	0.50	1	3/8	4		SCR-30	T10
FM 3000-90 RH	3	0-deg	1-25/32	0.60	1	3/8	4		SCR-30	T10

See page 22 for Insert Specifications and Grade Selection.



# XPMT INSERTS



XPMT Inserts						INCH								
Part Number	I.C.	L	W	T	R	Grades Available								
						Cermet			Uncoated Carbide		Coated Carbide			
						1	5	6	10	13	23C	66C	93C	
XPMT 090204	1/4	0.375	0.248	0.094	0.016									
XPMT 090208	1/4	0.375	0.248	0.094	0.031									
XPMT 090216	1/4	0.375	0.248	0.094	0.063									
XPMT 090224	1/4	0.375	0.248	0.094	0.094									
XPMT 090231	1/4	0.375	0.248	0.094	0.122									
XPMT 15T304	3/8	0.590	0.374	0.156	0.016									
XPMT 15T308	3/8	0.590	0.374	0.156	0.031									
XPMT 15T316	3/8	0.590	0.374	0.156	0.063									
XPMT 15T324	3/8	0.590	0.374	0.156	0.094									
XPMT 15T331	3/8	0.590	0.374	0.156	0.122									
XPMT 15T348	3/8	0.590	0.374	0.156	0.187									
XPMT 15T364	3/8	0.590	0.374	0.156	0.250									

XPMT Inserts are available in the Grades listed above.  
See page 3 for complete grade descriptions.

XPMT Inserts are used in End Mills (Small and Large Diameter and Extended Length and Long Edge), Chamfer Mills and Face Mills shown on pages 17-21.

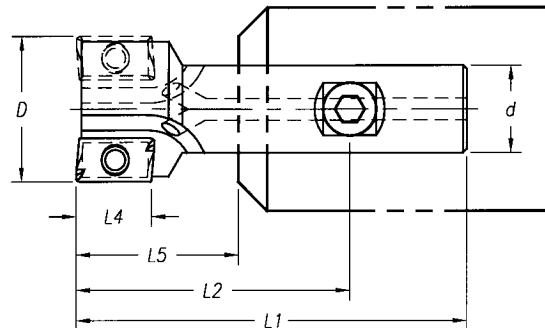
# ALUMINUM CUTTING END MILLS

## Aluminum Cutting



# ALUMINUM CUTTING END MILLS

## Extended Length Aluminum Cutting



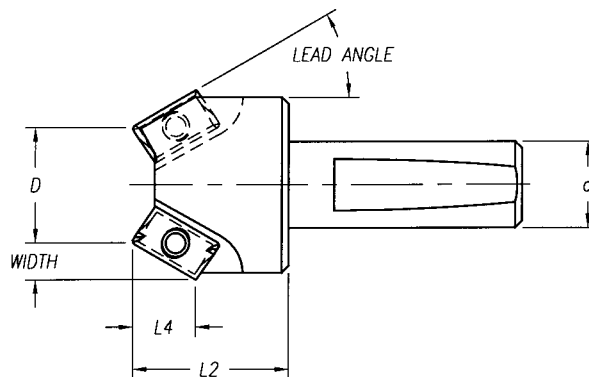
Aluminum Cutting End Mills										INCH
Part Number	D	d	L1	L2	L4	L5	Flutes	Insert	Screw	Head
EM-0750-AL*	3/4	3/4	3.360	2.351	0.300	1.350	2	APET 0803	SCR-01	T7
EM-0875-AL*	7/8	3/4	3.360	2.351	0.300	1.350	2			
EM-1000-AL*	1	3/4	3.380	2.365	0.640	1.360	2	APET 1604	SCR-02	T15
EM-1250-AL*	1-1/4	3/4	3.380	2.365	0.640	1.360	2			
EM-1500-AL*	1-1/2	1	4.000	2.864	0.640	1.740	2			
EM-2000-AL*	2	1	4.250	3.110	0.640	1.990	3			

\* Capable of ramping at 8° max.  
See page 26 for Insert Specifications and Grade Selection.

Extended Length Aluminum Cutting End Mills										INCH
Part Number	D	d	L1	L2	L4	L5	Flutes	Insert	Screw	Head
EM-1000-2.75-AL*	1	3/4	4.780	3.780	0.640	2.750	2	APET 1604	SCR-02	T15
EM-1000-3.75-AL*	1	1	6.015	4.875	0.640	3.750	2			
EM-1250-2.125-AL*	1-1/4	1	4.433	3.293	0.640	2.125	2			

\* Capable of ramping at 8° max.  
See page 26 for Insert Specifications and Grade Selection.

# ALUMINUM CUTTING CHAMFER MILLS

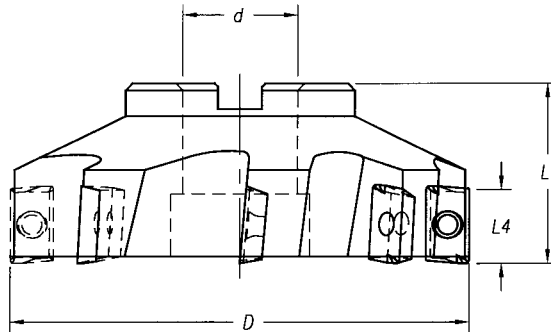


Aluminum Cutting Chamfer Mills								INCH	
Part Number	Lead Angle	D	d	L2	L4	Width	Insert (2 req'd)	Screw	Head
CM-1000-15-AL	15-deg	1.000	3/4	1.350	0.613	0.158	APET 1604	SCR-02	T15
CM-1000-20-AL	20-deg	1.000	3/4	1.350	0.595	0.208			
CM-1000-30-AL	30-deg	1.000	3/4	1.350	0.544	0.304			
CM-0800-45-AL	45-deg	0.800	3/4	1.350	0.440	0.430			
CM-0800-60-AL	60-deg	0.800	3/4	1.350	0.308	0.528			
CM-0690-75-AL	75-deg	0.690	3/4	1.350	0.158	0.591			

See page 26 for Insert Specifications and Grade Selection.

# ALUMINUM CUTTING FACE MILLS

## Fixed Pocket



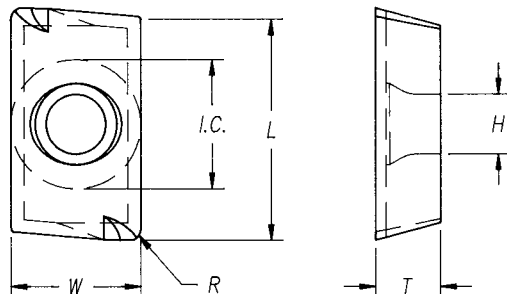
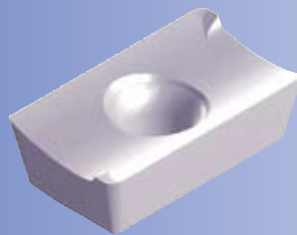
### Aluminum Cutting Face Mills – Fixed Pocket

**INCH**

Part Number	Cut Dia.	Lead Angle	L1	L4	D	Keyway	# Flutes	Inserts	Screw	Head
FM-AL-2500-90-3	2-1/2"	0-deg	1.570"	0.640"	3/4"	3/8"	3	APET 1604	SCR-02	T15
FM-3000-90-AL	3"	0-deg	1.570"	0.640"	1"	3/8"	6			
FM-4000-90-AL	4"	0-deg	1.570"	0.640"	1"	3/8"	8			
FM-4000-90-AL-125	4"	0-deg	1.570"	0.640"	1-1/4"	1/2"	8			
FM-AL-4000-90-5	4"	0-deg	1.570"	0.640"	1"	3/8"	5			
FM-5000-90-AL	5"	0-deg	1.570"	0.640"	1-1/4"	1/2"	8			

See page 26 for Insert Specifications and Grade Selection.

# APET INSERTS



APET Inserts						INCH	
Part Number	I.C.	L	W	T	R	Grades Available	
						Uncoated Carbide	Coated Carbide
						12	35C
APET 0803PDFR	1/4	0.300	0.250	0.125	0.028	APET Inserts are available in the Grades listed above. See page 3 for complete grade descriptions.	
APET 1604PDFR	3/8	0.630	0.375	0.188	0.039		
APET 160416	3/8	0.630	0.375	0.188	0.060		
APET 160431	3/8	0.630	0.375	0.188	0.125		

APET Inserts are used in Aluminum Cutting End Mills, Aluminum Cutting Chamfer Mills and Aluminum Cutting Face Mills shown on pages 23-25.