



CARBIDE

Being the best through innovation



X-POWER END MILLS

- Medium Steels to High Hardened Steels up to HRc70

CARBIDE, 2&4 FLUTE STUB LENGTH CORNER RADIUS

- ▶ Designed to machine tool steel, alloy steel, mold steel and other high hardened materials.
- ▶ Superior workpiece finishes.
- ▶ Increased feed rate.



P.914, 915

◆ U.S.A Stock

EM636(2 FLUTE), EM639(4 FLUTE) Series

Unit : Inch

EDP No.		Corner Radius	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
2 FLUTE	4 FLUTE	R (±.001)				
93172	93216	R.008	1/16	1/4	1/8	2-1/4
93173	93217	R.010	1/8	1/4	1/4	2-1/4
93174	93218	R.020	1/8	1/4	1/4	2-1/4
93175	-	R.030	1/8	1/4	1/4	2-1/4
93176	93220	R.010	3/16	1/4	3/8	2-1/2
93177	93221	R.020	3/16	1/4	3/8	2-1/2
93178	93222	R.030	3/16	1/4	3/8	2-1/2
93179	93223	R.010	1/4	1/4	1/2	3
93180	93224	R.020	1/4	1/4	1/2	3
93181	93225	R.030	1/4	1/4	1/2	3
93182	93226	R.020	5/16	5/16	1/2	3
93183	93227	R.030	5/16	5/16	1/2	3
93184	93228	R.060	5/16	5/16	1/2	3
93185	93229	R.090	5/16	5/16	1/2	3
93186	93230	R.020	3/8	3/8	5/8	3
93187	93231	R.030	3/8	3/8	5/8	3
93188	93232	R.060	3/8	3/8	5/8	3
93189	93233	R.090	3/8	3/8	5/8	3
93190	93234	R.020	1/2	1/2	5/8	4
93191	93235	R.030	1/2	1/2	5/8	4
93192	93236	R.060	1/2	1/2	5/8	4
93193	93237	R.090	1/2	1/2	5/8	4

Mill Dia. Tolerance(inch)	Shank Dia. Tolerance
0~.0012	0~.0003

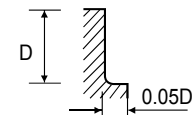
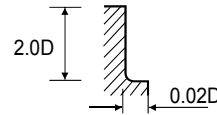
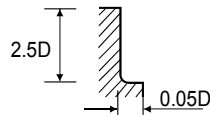
◎ : Excellent ○ : Good

Series	P					H	M	K	N				S	
	Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Stainless Steels	Cast Iron	Copper	Graphite	Aluminum	Acrylic	CFRP	Titanium
	~HRc20	HRc20~30	HRc30~40	HRc40~45	HRc45~55	HRc55~70								
EM636	○	◎	◎	◎	○									
EM639	○	◎	◎	◎	○		○	○						

CARBIDE, 4 FLUTE CORNER RADIUS - SIDE CUTTING

EM639, EM649, EM212 SERIES

MATERIAL	P							
	CARBON STEELS ALLOY STEELS CAST IRON		ALLOY STEELS TOOL STEELS		HARDENED STEELS		HARDENED STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC50		HRC50 ~ HRC55		HRC55 ~ HRC65	
STRENGTH	~ 1000N/mm ²		1000 ~ 1750N/mm ²		1750 ~ 2000N/mm ²		2000N/mm ² ~	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1/4	2630	8.5	2100	7.1	1370	3.3	1160	2.0
5/16	2000	9.0	1580	7.1	1050	3.3	840	2.0
3/8	1680	9.0	1370	7.1	840	3.3	670	2.0
1/2	1370	7.1	1160	6.3	700	2.8	550	1.5

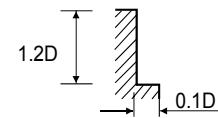
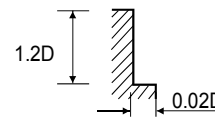
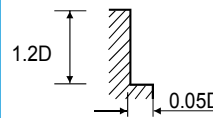
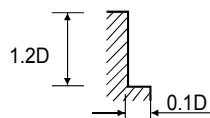


RPM = rev./min.
FEED = inch/min.

CARBIDE, 4 FLUTE 45° HELIX - SIDE CUTTING

EM102 SERIES

MATERIAL	P								M	
	CARBON STEELS ALLOY STEELS CAST IRON		ALLOY STEELS HEAT RESISTANT STEELS		HARDENED STEELS		HARDENED STEELS		STAINLESS STEELS	
HARDNESS	~ HRC30		HRC30 ~ HRC45		HRC45 ~ HRC55		HRC55 ~ HRC60			
STRENGTH	~ 1000N/mm ²		1000 ~ 1500N/mm ²		1500 ~ 2000N/mm ²		2000N/mm ² ~			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
3/8	3010	31.5	2610	14.3	1400	5.3	1000	2.6	1600	7.7
1/2	2260	27.0	1950	12.3	1050	4.6	750	2.0	1200	6.3
5/8	1800	22.6	1560	10.1	840	4.1	600	1.7	960	5.1
3/4	1500	19.0	1300	8.5	700	3.9	500	1.6	800	4.5
7/8	1290	16.1	1120	7.6	600	3.9	430	1.6	690	4.5



RPM = rev./min.
FEED = inch/min.