

CARBIDE

HSS



**TANK-POWER
END MILLS**

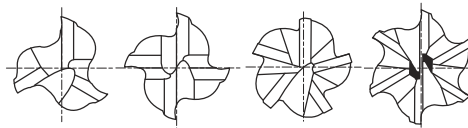
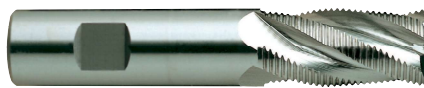
E9990

SERIES

FLAT SHANK

**PREMIUM HSS-PM, MULTI FLUTE REGULAR LENGTH
FINE PITCH ROUGHING**

► This TANK-POWER rougher is designed for high production metal removal in a wide range of work piece material. It is suitable for a very broad spectrum of materials having up to high tensile strengths. In many cases, the milled surfaces are of acceptable quality.



P.808

◆ U.S.A Stock

Unit : Inch

EDP No.		Mill Diameter	Shank Diameter	Length of Cut	Overall Length	No. of Flute
UNCOATED	TANK-POWER COATED					
E9990016	E9990016TF	1/4	3/8	5/8	2-7/16	3
E9990907	E9990907TF	1/4	3/8	1-1/8	2-15/16	3
E9990020	E9990020TF	5/16	3/8	3/4	2-1/2	3
E9990024	E9990024TF	3/8	3/8	3/4	2-1/2	4
E9990028	E9990028TF	7/16	3/8	1	2-11/16	4
E9990032	E9990032TF	1/2	1/2	1-1/4	3-1/4	4
E9990908	E9990908TF	1/2	1/2	1-5/8	3-5/8	4
E9990036	E9990036TF	9/16	1/2	1-3/8	3-3/8	4
E9990040	E9990040TF	5/8	5/8	1-5/8	3-3/4	4
E9990048	E9990048TF	3/4	3/4	1-5/8	3-7/8	4
E9990948	E9990948TF	3/4	5/8	1-5/8	3-7/8	4
E9990909	E9990909TF	3/4	3/4	2-1/2	4-3/4	4
E9990056	E9990056TF	7/8	7/8	1-7/8	4-1/8	5
E9990901	E9990901TF	7/8	3/4	1-7/8	4-1/8	5
E9990064	E9990064TF	1	1	2	4-1/2	5
E9990905	E9990905TF	1	1	3	5-1/2	5
E9990108	E9990108TF	1-1/8	1	2	4-1/2	6
E9990116	E9990116TF	1-1/4	1-1/4	2	4-1/2	6
E9990906	E9990906TF	1-1/4	1-1/4	3	5-1/2	6

Mill Dia. Tolerance (inch)	
up to 1	0~+.0030
over 1	0~+.0060

Carbon Steels	Alloy Steels	Prehardened Steels	Hardened Steels		High Hardened Steels	Copper	Graphite	Cast Iron	Aluminum	Stainless Steels	Titanium	Inconel
~HRc20	HRc20~30	HRc30~40	HRc40~45	HRc45~55	HRc55~70							
◎	◎	◎				○		◎		◎		

◎ : Excellent ○ : Good

CBN
END MILL

i-Xmill
END MILL

X5070
END MILLS

4G MILLS
END MILLS

X-SPEED
ROUGHER
END MILLS

X-POWER
END MILLS

JET-POWER
END MILLS

V7 Mill STEEL
END MILLS

V7 Mill INOX
END MILLS

ALU-POWER
END MILLS

D-POWER
END MILLS

STANDARD
CARBIDE
END MILLS

TANK-POWER
END MILLS

STANDARD
COBALT
& HSS
END MILLS

TECHNICAL
DATA



CBN
END MILL

i-Xmill
END MILL

X5070
END MILLS

4G MILLS
END MILLS

X-SPEED
ROUGHER
END MILLS

X-POWER
END MILLS

JET-POWER
END MILLS

V7 Mill STEEL
END MILLS

V7 Mill INOX
END MILLS

ALU-POWER
END MILLS

D-POWER
END MILLS

STANDARD
CARBIDE
END MILLS

TANK-POWER
END MILLS

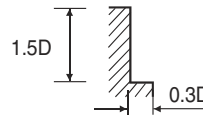
STANDARD
COBALT
& HSS
END MILLS

TECHNICAL
DATA

PREMIUM HSS-PM, 3&4 FLUTE 60° HELIX - SIDE CUTTING

E9988 SERIES

MATERIAL	STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		ALLOY STEELS, TOOL STEELS AUSTENITIC STAINLESS STEELS	
HARDNESS	~HRc20		HRc20 ~ HRc30		HRc30 ~ HRc40	
STRENGTH	500 ~ 800N/mm ²		800 ~ 1000N/mm ²		1000 ~ 1300N/mm ²	
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED
1/4	3850	7.9	2500	5.3	1900	3.5
5/16	3050	7.9	2100	6.3	1700	3.5
3/8	2700	8.5	1700	6.3	1450	3.8
1/2	1850	9.7	1200	6.3	960	4.1
5/8	1300	11.0	845	8.5	690	5.4
3/4	895	14.6	580	11.9	475	7.9
7/8	720	16.6	475	14.0	380	8.8
1	630	19.0	415	16.0	335	10.0



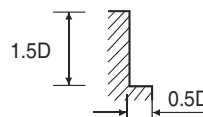
※ The Feed, in long & extra long types, should be reduced by around 50%.

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

PREMIUM HSS-PM, MULTI FLUTE ROUGHING - SIDE CUTTING

E9990, E9991, E9A86, E9A87, E9921 SERIES

MATERIAL	STRUCTURAL STEELS, CARBON STEELS		STRUCTURAL STEELS, CARBON STEELS, CAST IRONS		CARBON STEELS, ALLOY STEELS, TOOL STEELS		PREHARDENED STEELS, ALLOY STEELS, TOOL STEELS		STAINLESS STEELS	
HARDNESS	~HRc20		HRc20 ~ HRc30		HRc30 ~ HRc35		HRc35 ~ HRc40			
STRENGTH	~800N/mm ²		800 ~ 1000N/mm ²		1000 ~ 1100N/mm ²		1100 ~ 1300N/mm ²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1/4	2650	7.8	2050	6.3	1450	4.4	1200	3.4	1900	5.6
3/8	1900	13.1	1500	10.1	1050	6.4	885	5.2	1270	8.6
1/2	1450	14.2	1100	11.4	805	7.9	665	6.1	950	9.3
5/8	1150	14.2	905	11.4	630	7.9	525	6.1	760	9.7
3/4	960	14.4	780	11.4	540	7.9	445	6.1	630	9.5
7/8	845	14.5	615	11.4	445	7.8	375	6.1	540	9.3
1	740	14.0	560	10.6	395	7.4	315	6.0	470	9.0



※ The Feed, in long & extra long types, should be reduced by around 50%.

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