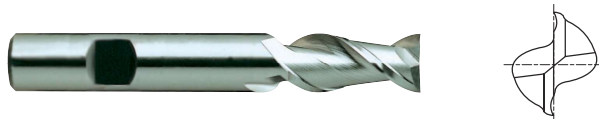


HSS, 2 FLUTE 42° HELIX REGULAR & MEDIUM LENGTH for ALUMINUM

- The two flute end mills for aluminum have High Helix flute design making them well suited for milling aluminum and other non-ferrous materials. Special rake angles and low micro inch finishes on the primary clearance angles and flute faces insure free cutting action, fine finishes and longer tool life for both non-ferrous materials as well as harder alloys. These tools are made from regular HSS(M2), which is good for aluminum cutting.



P.881

REGULAR LENGTH

Unit : Inch

EDP No. HSS (M2)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
17047	1/4	3/8	5/8	2-7/16
17051	5/16	3/8	3/4	2-1/2
17055	3/8	3/8	3/4	2-1/2
17062	7/16	3/8	1	2-11/16
17071	1/2	1/2	1-1/4	3-1/4
17087	5/8	5/8	1-5/8	3-3/4
17109	3/4	3/4	1-5/8	3-7/8
17141	7/8	3/4	1-7/8	4-1/8
17144	7/8	7/8	1-7/8	4-1/8
17172	1	3/4	1-7/8	4-1/8
17176	1	1	2	4-1/2
17195	1-1/4	1-1/4	2	4-1/2
17211	1-1/2	1-1/4	2	4-1/2
17219	1-3/4	1-1/4	2	4-1/2
17227	2	1-1/4	2	4-1/2

MEDIUM LENGTH

Unit : Inch

EDP No. HSS (M2)	Mill Diameter	Shank Diameter	Length of Cut	Overall Length
99089	1	1	3	5-1/2
99090	1-1/4	1-1/4	3	5-1/2
99091	1-1/2	1-1/4	3	5-1/2
99092	1-3/4	1-1/4	3	5-1/2
99093	2	1-1/4	3	5-1/2

- The TiN coated, TiCN coated or TiAlN coated is available on your request.
 ■ Coating Codes for HSS
 Uncoated EDP NO. + HN(TiN), HC(TiCN), HF(TiAlN F), HE(TiAlN E), HH(Hardslick)
 ► Coated Price Shown in Price List. Call for Availability.

Mill Dia. Tolerance (inch)
0~+.0010 * * 0~+.0015

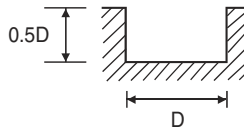
**The shank of end mills is the same diameter as the cutting portion.

◎ : Excellent ○ : Good

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							
○									◎			

HSSCo8 & HSS, 2 FLUTE FINISH - SLOTTING

MATERIAL	CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		CARBON STEELS ALLOY STEELS TOOL STEELS		ALUMINUM ALUMINUM ALLOYS	
HARDNESS			~HRC20		HRC20~HRC30		HRC30~HRC40			
STRENGTH	~ 500N/mm ²		500~800N/mm ²		800~1000N/mm ²		1000~1300N/mm ²			
DIAMETER	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED	RPM	FEED
1/8	3500	2.2	3200	1.8	2500	1.6	1600	0.8	11000	9.8
1/4	1800	3.5	1600	3.1	1200	2.4	800	1.6	5600	12.2
3/8	1100	4.0	900	3.5	800	3.1	450	1.8	3100	15.8
1/2	900	4.3	800	4.0	630	3.1	400	2.0	2500	15.0
5/8	700	4.3	560	3.5	450	2.8	280	1.8	2000	13.8
3/4	630	4.0	500	3.5	400	2.8	250	1.8	1800	13.8
7/8	500	4.0	450	3.5	350	2.8	220	1.8	1400	11.8
1	450	3.5	400	3.1	310	2.4	180	1.4	1200	11.0
1-1/8	400	3.1	350	2.8	280	2.2	160	1.2	1100	10.5
1-3/8	310	2.4	250	2.0	200	1.6	120	1.0	900	8.7
1-1/2	310	2.4	250	2.0	200	1.6	120	1.0	900	8.7
1-3/4	280	2.4	220	2.0	180	1.6	110	1.0	800	7.8
2	250	2.0	190	1.8	110	1.0	80	0.8	630	6.3

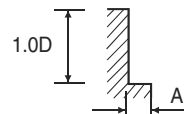
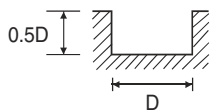


※ The Feed, in long & extra long types, should be reduced by around 50%.

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

HSS, 2 FLUTE, 42° HELIX FINISH for ALUMINUM

MATERIAL	ALUMINUM NONFERROUS METALS		NON-ALLOYED STEELS ALLOY STEELS CAST IRON	
DIAMETER	RPM	FEED	RPM	FEED
1/8	8000	22.5	8000	29.0
3/16	7400	25.0	7400	32.5
1/4	6800	28.5	6800	37.0
5/16	5200	43.5	5200	55.0
7/16	5000	47.0	5000	47.0
1/2	4500	47.0	4500	61.0
9/16	3500	49.0	3500	63.0
5/8	3500	49.0	3500	63.0
3/4	2300	51.0	2300	67.0
13/16	2000	51.0	2000	67.0



A : $\varnothing 1/8 \sim \varnothing 5/16 = 0.25 \times D$
 $\varnothing 7/16 \sim \varnothing 13/16 = 0.5 \times D$

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