D3

Disciplined Dedicated Determined

DUTCH™

SAX MILLS

Premium 3 Flute Variable Helix Endmills with Corner Radius and Dual Core for Aerospace Machining

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DUTCH TECH TOOLS PVT. LTD.

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SAX MILL

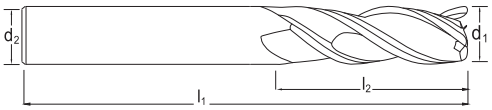
091P

3 Flute Variable Helix Endmill with Dual Core

Medium Length with Corner Radius

Material Group: M S

3 | Variable | Medium | Corner Radius | Alcrona | UMG | Aerospace | RPM | Pg: 3



Tolerances (Metric):

Diameter	d1	d2	l1
3-6	-0.020	0.000/-0.008	± 0.8
6.1-10	-0.030	0.000/-0.009	± 0.8
10.1-18	-0.040	0.000/-0.011	± 0.8
18.1-25	-0.050	0.000/-0.013	± 0.8

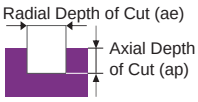
Runout on Cutter : 0.010 mm max
Runout on Shank: 0.005 mm max
Corner Radius: ±0.007 mm

091P- Metric

d_1	d_2	l_2	l_1	r	ap	z	Stock	HA Alcrona	HB Alcrona
mm	mm	mm	mm	mm	mm			Item Code	Item Code
3.0	6	9.0	57	0.30	9	3	●	SMRA 0910P 0300 030	SMRA 0911P 0300 030
4.0	6	12.0	57	0.30	12	3	●	SMRA 0910P 0400 030	SMRA 0911P 0400 030
5.0	6	15.0	57	0.30	15	3	●	SMRA 0910P 0500 030	SMRA 0911P 0500 030
6.0	6	18.0	57	0.50	19	3	●	SMRA 0910P 0600 050	SMRA 0911P 0600 050
8.0	8	20.0	63	0.50	20	3	●	SMRA 0910P 0800 050	SMRA 0911P 0800 050
10.0	10	27.0	72	0.50	27	3	●	SMRA 0910P 1000 050	SMRA 0911P 1000 050
12.0	12	30.0	83	0.50	30	3	●	SMRA 0910P 1200 050	SMRA 0911P 1200 050
16.0	16	38.0	92	1.00	38	3	●	SMRA 0910P 1600 100	SMRA 0911P 1600 100
20.0	20	46.0	104	1.00	46	3	●	SMRA 0910P 2000 100	SMRA 0911P 2000 100

● Inventory Maintained ☐ Non Stock - Made against Order

SAX Mill



MATERIAL	HB	Ap	Ae	Vc	fz (mm/tooth) End Mill Diameter						
					3.00	6.00	8.00	10.00	12.00	16.00	20.00
Stainless Steel (Free Machining) 303, 416, 420F, 430F 440F,	< 250	1.5 1	0.5 1	183	0.008	0.023	0.039	0.049	0.059	0.069	0.077
		1.5 1	0.5 1	146	0.008	0.023	0.039	0.049	0.059	0.069	0.077
Stainless Steel (Difficult to Machine) 304, 304L,316, 316L	< 275	1.5 1	0.5 1	120	0.007	0.018	0.031	0.039	0.047	0.055	0.062
		1.5 1	0.5 1	96	0.007	0.018	0.031	0.039	0.047	0.055	0.062
Stainless Steel (PH) 13-8 PH,15-5PH,17-4 PH,Custom 450	< 325	1.5 1	0.5 1	110	0.007	0.018	0.031	0.039	0.047	0.055	0.062
		1.5 1	0.5 1	88	0.007	0.018	0.031	0.039	0.047	0.055	0.062
Nickel, Cobalt & Iron Superalloys Inconel 601, 617, 625,Incoly 800, Monel 400	< 300	1.5 1	0.5 1	24	0.006	0.02	0.027	0.034	0.04	0.047	0.053
		1.5 1	0.5 1	19	0.006	0.02	0.027	0.034	0.04	0.047	0.053
Nickel, Cobalt & Iron Superalloys Inconel 718, 750X,Incoly 925, Waspaloy,Hastelloy, Rene	< 300	1.5 1	0.5 1	19	0.004	0.011	0.019	0.023	0.028	0.033	0.037
		1.5 1	0.5 1	15	0.004	0.011	0.019	0.023	0.028	0.033	0.037
Titanium Based Alloys Pure Ttanium, Ti6Al4V, Ti6Al2Sn4Zr2Mo	< 300	1.5 1	0.5 1	66	0.007	0.018	0.031	0.039	0.047	0.055	0.062
		1.5 1	0.5 1	52	0.009	0.018	0.025	0.031	0.038	0.045	0.054
Titanium Based Alloys Ti5Al5V5Mo3Cr, Ti7Al4Mo Ti3Al8V6Cr4Zr4Mo	< 300	1.5 1	0.5 1	24	0.007	0.018	0.031	0.039	0.047	0.055	0.062
		1.5 1	0.5 1	18	0.007	0.018	0.031	0.039	0.047	0.055	0.062

Formulae

Milling Formulas - METRIC Values

Symbol	Description	Formula
Vc	Surface Meters / Minute	Vc = (π x Dxn) / 1000
n	Revolutions / Minute	n = (Vc x 1000)/(π x D)
fz	Feed / Tooth	fz = vf / (n x z)
Vf	Millimeters / Minute	Vf = fz x n x z

Milling Formulas - INCH Values

Symbol	Description	Formula
SFM	Surface Feet / Minute	SFM= (RPM x D) / 3.82
RPM	Revolutions / Minute	RPM = (SFM x 3.82)/ D
IPT	Feed / Tooth	IPT= IPM / (RPM x z)
IPM	Inches / Minute	IPM= IPT x RPM x z

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