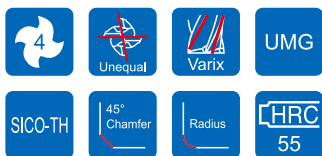
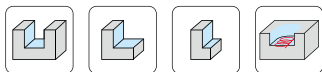
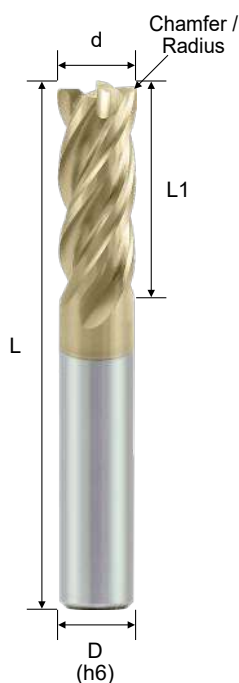


V530 - Variable Helix 35° ~ 38° · Square · 4F

- Unequal Flute Spacing and variable lead design.
- High removal rate for Difficult-to-cut materials and Stainless steel.
- Outstanding Anti-vibrations design.
- Low cutting force and burr prevention.

ESSSVB



d Tolerance	
d ≤ 6	0 ~ -0.02
6 < d ≤ 12	0 ~ -0.03
d > 12	0 ~ -0.04

Order No.	Dia. (d)	CL (L1)	OAL (L)	Shank (D)	Chamfer/ Radius	Flutes (F)
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Helix angle : 35° ~ 38°

ESSSVB4040000S	4	10	50	6	-	4
ESSSVB4040011S	4	10	50	6	0.10C	4
ESSSVB4040022S	4	8	50	6	0.20R	4
ESSSVB4040032S	4	8	50	6	0.30R	4
ESSSVB4040052S	4	8	50	6	0.50R	4
ESSSVB4060000S	6	13	50	6	-	4
ESSSVB4060011S	6	13	50	6	0.15C	4
ESSSVB4060022S	6	12	50	6	0.20R	4
ESSSVB4060052S	6	12	50	6	0.50R	4
ESSSVB4080000S	8	20	60	8	-	4
ESSSVB4080011S	8	20	60	8	0.15C	4
ESSSVB4080022S	8	16	60	8	0.20R	4
ESSSVB4080052S	8	16	60	8	0.50R	4
ESSSVB4100000S	10	25	75	10	-	4
ESSSVB4100021S	10	25	75	10	0.20C	4
ESSSVB4100032S	10	20	75	10	0.30R	4
ESSSVB4100052S	10	20	75	10	0.50R	4
ESSSVB4120000S	12	30	75	12	-	4
ESSSVB4120021S	12	30	75	12	0.20C	4
ESSSVB4120032S	12	24	75	12	0.30R	4
ESSSVB4120052S	12	24	75	12	0.50R	4
ESSSVB4120102S	12	24	75	12	1.00R	4
ESSSVB4120302S	12	24	75	12	3.00R	4
ESSSVB4160000S	16	35	100	16	-	4
ESSSVB4160031S	16	35	100	16	0.32C	4
ESSSVB4160102S	16	32	100	16	1.00R	4
ESSSVB4160302S	16	32	100	16	3.00R	4
ESSSVB4200000S	20	45	100	20	-	4

Cutting conditions : Table 061

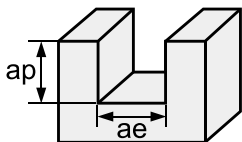
Recommended Cutting Conditions

Table 061

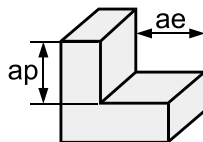
V530 Seires ESSVA4, ESSVB4, ESSVC4, ESSVC5, ESSVD4

※If the machine not stable, please reduce the feed about 20%.

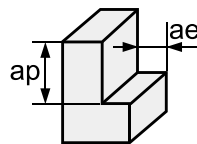
Working Material	Cutting Application	ae (mm)	ap (mm)	Vc (m/min)	fz (mm/z)				
					6mm	8mm	10mm	12mm	16mm
Carbon Steel (S45C)	Slot milling	1×d	0.5 ~ 1.0×d	100 ~ 180	0.035	0.045	0.060	0.070	0.090
	Side roughing	0.4 ~ 0.9×d	0.7 ~ 1.0×d	110 ~ 200	0.040	0.055	0.070	0.085	0.100
	Side finishing	0.1 ~ 0.3×d	0.7 ~ 1.5×d	160 ~ 280	0.030	0.040	0.055	0.065	0.080
Carbon Steel (S50C)	Slot milling	1×d	0.5 ~ 1.0×d	90 ~ 160	0.035	0.045	0.060	0.070	0.090
	Side roughing	0.4 ~ 0.9×d	0.7 ~ 1.0×d	100 ~ 180	0.040	0.055	0.070	0.085	0.100
	Side finishing	0.1 ~ 0.3×d	0.7 ~ 1.5×d	120 ~ 220	0.030	0.040	0.055	0.065	0.080
Tool Steel (SKD)	Slot milling	1×d	0.5 ~ 1.0×d	80 ~ 135	0.030	0.040	0.055	0.065	0.080
	Side roughing	0.4 ~ 0.9×d	0.7 ~ 1.0×d	90 ~ 160	0.040	0.050	0.065	0.080	0.095
	Side finishing	0.1 ~ 0.3×d	0.7 ~ 1.5×d	110 ~ 200	0.030	0.040	0.050	0.060	0.070
Hardened Steel (HRC < 55)	Slot milling	1×d	0.5 ~ 1.0×d	40 ~ 70	0.025	0.030	0.040	0.045	0.070
	Side roughing	0.4 ~ 0.9×d	0.7 ~ 1.0×d	65 ~ 110	0.025	0.035	0.045	0.050	0.080
	Side finishing	0.1 ~ 0.3×d	0.7 ~ 1.5×d	80 ~ 150	0.030	0.040	0.050	0.060	0.090
Stainless Steel (SUS304, SUS316)	Slot milling	1×d	0.5 ~ 1.0×d	60 ~ 80	0.025	0.035	0.045	0.050	0.065
	Side roughing	0.4 ~ 0.9×d	0.7 ~ 1.0×d	80 ~ 120	0.030	0.040	0.055	0.065	0.080
	Side finishing	0.1 ~ 0.3×d	0.7 ~ 1.5×d	100 ~ 140	0.030	0.040	0.050	0.060	0.070
Superalloy, Inconel	Slot milling	1×d	0.5 ~ 1.0×d	20 ~ 30	0.015	0.020	0.025	0.030	0.040
	Side roughing	0.4 ~ 0.9×d	0.7 ~ 1.0×d	25 ~ 35	0.020	0.030	0.035	0.040	0.055
	Side finishing	0.1 ~ 0.3×d	0.7 ~ 1.5×d	30 ~ 45	0.020	0.030	0.035	0.040	0.055
Titanium	Slot milling	1×d	0.5 ~ 1.0×d	40 ~ 60	0.025	0.035	0.045	0.050	0.065
	Side roughing	0.4 ~ 0.9×d	0.7 ~ 1.0×d	60 ~ 90	0.030	0.040	0.055	0.065	0.080
	Side finishing	0.1 ~ 0.3×d	0.7 ~ 1.5×d	90 ~ 130	0.030	0.040	0.055	0.065	0.080



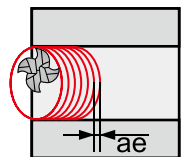
Slot milling



Side roughing



Side finishing



Trochoidal