3SUE

- Endmills for alloy steel, SUS, Ti/Ni base alloy, Inconel and hard to cut materials.
- JCRO coating provides wear resistance improvement as well as avoid edge stress in various applications.
- Excellent work surface finish by 3 flute and deep chip pocket.
- 45°degree helix design for high speed, feed condition.
- Minimize fracturing at high feed by high TRS fine WC grade.

| 3 | WC | JCRO Coating | D +0 −0.01 Ø0.5 ~ 5 | D −0.01 −0.025 Ø6 ~ 12 | D −0.015 −0.03 Ø16 ~ 20 | 45° Helix Angle | Shield Edge |

D Size	D Tolerance
Ø0.5 ~ 5	+0 ~ − 0.01 mm
Ø6 ~ 12	− 0.01 ~ − 0.025 mm
Ø16 ~ 20	− 0.015 ~ − 0.03 mm

3SUE   Cutting Condition

• RPM : rev./min   • Feed : mm/min

Material	Stainless Steels / Titanium Alloy Steels				Hardened Steels				Heat Resistant Alloy / Inconel			
Hardness						45 ~ 55HRC						
Outside Diameter	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth	RPM	FEED	Ap Axial Depth	Ae Radial Depth
Ø 0.8	6,400	60	1.2	0.16	3,900	30	0.8	0.04	2,000	10	0.8	0.04
Ø 1	5,600	70	1.5	0.20	3,500	30	1.0	0.05	1,700	15	1.0	0.05
Ø 2	4,800	80	3.0	0.40	2,900	34	1.5	0.08	1,400	20	1.5	0.08
Ø 3	4,000	90	4.5	0.60	2,200	45	2.5	0.13	1,400	25	2.5	0.13
Ø 4	3,300	140	6.0	0.80	1,800	70	3.0	0.15	1,200	35	3.0	0.15
Ø 5	2,700	170	7.5	1.00	1,500	90	4.0	0.20	1,000	45	4.0	0.20
Ø 6	2,400	180	9.0	1.20	1,400	90	5.0	0.25	900	45	5.0	0.25
Ø 8	1,800	190	12.0	1.50	1,000	100	7.0	0.35	720	40	7.0	0.35
Ø 10	1,400	190	14.0	1.80	900	110	9.0	0.45	600	40	9.0	0.45
Ø 12	1,200	150	17.0	2.00	700	90	10.0	0.50	500	35	10.0	0.50
Ø 16	900	120	23.0	2.50	550	60	15.0	0.75	360	30	15.0	0.75

Depth of Cut	

AP ≦0.5D (D ≦ Ø18)
AP ≦0.3D (D ＞ Ø18)

- If the effective length is long, reduce the RPM and feed in the same proportion.
- If the diameter or effective length of your tool are not on the table, adjust it compared similarity value on the table.
- The edge of the flute precisely grinded. If you want to measure the tool, and to avoid damaging on the flutes, use non-contact   measuring method.
- Use this table for your reference. Adjust the parameters depending on your machining geometry, machining purpose and CNC.
- If the table over the maximum RPM and feed of your machine, or found red heat on the material, adjust RPM and feed in the same   proportion.
- Use a machine with low vibration and good rigidity (Ø1 or less, the vibration tolerance management should be within 5   μm).
- If the table over the maximum RPM and feed of your machine, or found red heat on the material, adjust RPM and feed in the same   proportion.