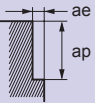


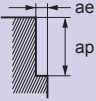
IMX-S3HV

Square head, 3 flute, Illegar helix

RECOMMENDED CUTTING CONDITIONS

Side milling

Work material	Carbon steel, Alloy steel, Mild Steel, Copper, Copper alloys						Pre-hardened steel, Carbon steel, Alloy steel, Alloy tool steel						Austenitic stainless steel, Ferritic, Precipitation hardening stainless steel, Titanium alloy					
Dia. (mm)	Cutting speed (m/min)	Revolution (min ⁻¹)	Feed (mm/tooth)	Feed rate (mm/min)	Depth of cut ap (mm)	Depth of cut ae (mm)	Cutting speed (m/min)	Revolution (min ⁻¹)	Feed (mm/tooth)	Feed rate (mm/min)	Depth of cut ap (mm)	Depth of cut ae (mm)	Cutting speed (m/min)	Revolution (min ⁻¹)	Feed (mm/tooth)	Feed rate (mm/min)	Depth of cut ap (mm)	Depth of cut ae (mm)
10	150	4800	0.09	1300	8	2	120	3800	0.06	680	8	2	100	3200	0.075	720	8	2
12	150	4000	0.09	1100	9.6	2.4	120	3200	0.065	620	9.6	2.4	100	2700	0.08	650	9.6	2.4
16	150	3000	0.1	900	12.8	3.2	120	2400	0.075	540	12.8	3.2	100	2000	0.09	540	12.8	3.2
20	150	2400	0.1	720	16	4	120	1900	0.075	430	16	4	100	1600	0.09	430	16	4
25	150	1900	0.12	680	20	5	120	1500	0.075	340	20	5	100	1300	0.09	350	20	5
Depth of cut																		

Work material	Precipitation hardening stainless steel, Cobalt chromium alloy						Heat resistant alloys Inconel718					
Dia. (mm)	Cutting speed (m/min)	Revolution (min ⁻¹)	Feed (mm/tooth)	Feed rate (mm/min)	Depth of cut ap (mm)	Depth of cut ae (mm)	Cutting speed (m/min)	Revolution (min ⁻¹)	Feed (mm/tooth)	Feed rate (mm/min)	Depth of cut ap (mm)	Depth of cut ae (mm)
10	75	2400	0.06	430	8	2	40	1300	0.04	160	8	1
12	75	2000	0.065	390	9.6	2.4	40	1100	0.045	150	9.6	1.2
16	75	1500	0.075	340	12.8	3.2	40	800	0.05	120	12.8	1.6
20	75	1200	0.075	270	16	4	40	640	0.05	96	16	2
25	75	950	0.075	210	20	5	40	510	0.05	77	20	2.5
Depth of cut												

- 1) For stainless steel, titanium alloy and heat resistant alloy, the use of water-soluble coolant is effective.
- 2) If the depth of cut is shallow, the revolution and feed rate can be increased.
- 3) The irregular helix flute end mill has a large effect on controlling vibration when compared to standard end mills. However, if the rigidity of the machine or the workpiece installation is poor, vibration or abnormal sound can occur. In this case, please reduce the revolution and feed rate proportionately, or set a lower depth of cut.

SQUARE

BALL

RADIUS

INDEXABLE HEAD END MILLS