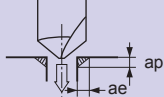
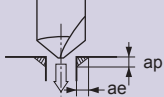


RECOMMENDED CUTTING CONDITIONS

Chamfering (Hole circumference)

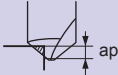
Work material		Carbon steel, Alloy steel, Gray Cast Iron						Alloy tool steel, Carbon steel, Alloy steel, Pre-hardened steel						Austenitic stainless steel, Alloy steel					
		S45C, SCM440, SS400, S10C						SKD, SKT, SNCM439, NAK, PX5						SUS304, SUS316, Ti-6Al-4V					
Dia. DC (mm)	No. of Flutes	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)	Depth of Cut ae (mm)	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)	Depth of Cut ae (mm)	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)	Depth of Cut ae (mm)
10	3	40	1300	0.04	160	1.8	1.8	40	1300	0.03	120	1.8	1.8	30	950	0.03	86	1.8	1.8
12	3	40	1100	0.04	130	2.2	2.2	40	1100	0.03	99	2.2	2.2	30	800	0.03	72	2.2	2.2
16	3	40	800	0.04	96	2.4	2.4	40	800	0.03	72	2.4	2.4	30	600	0.03	54	2.4	2.4
20	3	40	640	0.04	77	2.6	2.6	40	640	0.03	58	2.6	2.6	30	480	0.03	43	2.6	2.6
Depth of cut																			

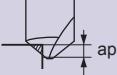
Work material		Hardened steel (45—55HRC)						Heat resistant alloys											
		SKD61, SKT4						Inconel718											
Dia. DC (mm)	No. of Flutes	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)	Depth of Cut ae (mm)	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)	Depth of Cut ae (mm)	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)	Depth of Cut ae (mm)
10	3	30	950	0.02	57	1.8	1.8	30	950	0.04	110	1.8	1.8	30	950	0.04	110	1.8	1.8
12	3	30	800	0.02	48	2.2	2.2	30	800	0.04	96	2.2	2.2	30	800	0.04	96	2.2	2.2
16	3	30	600	0.02	36	2.4	2.4	30	600	0.04	72	2.4	2.4	30	600	0.04	72	2.4	2.4
20	3	30	480	0.02	29	2.6	2.6	30	480	0.04	58	2.6	2.6	30	480	0.04	58	2.6	2.6
Depth of cut																			

- 1) For stainless steel, titanium alloy and heat resistant alloy, the use of water-soluble coolant is recommended.
- 2) Vibration may occur if the rigidity of machine or workpiece is low.
In this case, please reduce the revolution and feed rate proportionately.

RECOMMENDED CUTTING CONDITIONS

Chamfering (Shape circumference)

Work material		Carbon steel, Alloy steel, Gray Cast Iron					Alloy tool steel, Carbon steel, Alloy steel, Pre-hardened steel					Austenitic stainless steel, Alloy steel,				
		S45C, SCM440, SS400, S10C					SKD, SKT, SNCM439, NAK, PX5					SUS304, SUS316, Ti-6Al-4V				
Dia. DC (mm)	No. of Flutes	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)
10	3	100	3200	0.04	480	2.0	70	2200	0.03	300	2.0	60	1900	0.03	230	2.0
12	3	100	2700	0.04	410	2.4	70	1900	0.03	260	2.4	60	1600	0.03	190	2.4
16	3	100	2000	0.04	300	2.7	70	1400	0.03	190	2.7	60	1200	0.03	140	2.7
20	3	100	1600	0.04	240	3.2	70	1100	0.03	150	3.2	60	950	0.03	110	3.2
Depth of cut																

Work material		Hardened steel (45—55HRC)					Heat resistant alloys				
		SKD61, SKT4					Inconel718				
Dia. DC (mm)	No. of Flutes	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)	Cutting Speed (m/min)	Main Spindle Revolution (min ⁻¹)	Feed per Tooth (mm/t.)	Table Feed (mm/min)	Depth of Cut ap (mm)
10	3	50	1600	0.02	140	2.0	30	950	0.04	110	2.0
12	3	50	1300	0.02	120	2.4	30	800	0.04	96	2.4
16	3	50	990	0.02	89	2.7	30	600	0.04	72	2.7
20	3	50	800	0.02	72	3.2	30	480	0.04	58	3.2
Depth of cut											

- 1) For stainless steel, titanium alloy and heat resistant alloy, the use of water-soluble coolant is recommended.
- 2) Vibration may occur if the rigidity of machine or workpiece is low.
In this case, please reduce the revolution and feed rate proportionately.