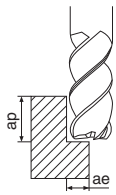
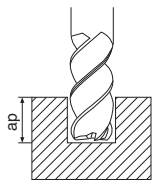
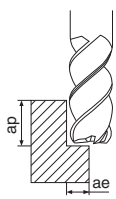
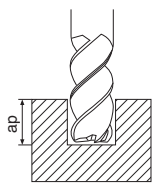
Recommended Cutting Conditions

2FESS

Application	Workpiece Material	Application	Outside Dia.Dc (mm)	ø1	ø2	ø4	ø6	ø8	ø12	ø16
 Shouldering Depth of Cut (ap×ae) (mm) 1.2Dc×0.05Dc (Dc<ø3) 1.2Dc×0.1Dc (Dc≧ø3)	Carbon Steel SxxC	Shouldering	Spindle Revolution (min^{-1})	25,500	13,200	6,600	4,500	3,300	2,200	1,700
			Feed Rate (mm/min)	225	230	375	415	420	410	410
		Slotting	Spindle Revolution (min^{-1})	15,300	8,000	4,000	2,700	2,000	1,300	1,000
			Feed Rate (mm/min)	135	140	225	250	250	245	245
	Alloy Steel SCM, SNCM	Shouldering	Spindle Revolution (min^{-1})	22,000	11,000	5,600	3,700	2,800	1,900	1,400
			Feed Rate (mm/min)	195	220	285	315	310	310	310
		Slotting	Spindle Revolution (min^{-1})	13,000	6,600	3,400	2,200	1,700	1,200	900
			Feed Rate (mm/min)	115	130	170	190	185	185	185
 Slotting Depth of Cut (ap) (mm) 0.1Dc (Dc<ø1) 0.3Dc (ø1≦Dc<ø3) 0.5Dc (Dc≧ø3)	Pre-hardened steel NAK, 30~45HRC	Shouldering	Spindle Revolution (min^{-1})	12,700	7,200	4,200	3,000	2,200	1,500	1,100
			Feed Rate (mm/min)	55	80	100	105	105	110	110
		Slotting	Spindle Revolution (min^{-1})	7,600	4,300	2,500	1,800	1,300	900	700
			Feed Rate (mm/min)	35	50	60	63	63	65	65
	Stainless steel SUS	Shouldering	Spindle Revolution (min^{-1})	22,000	11,000	5,600	3,700	2,800	1,900	1,400
			Feed Rate (mm/min)	95	95	110	115	115	115	115
		Slotting	Spindle Revolution (min^{-1})	13,000	6,600	3,400	2,200	1,700	1,200	900
			Feed Rate (mm/min)	60	60	65	70	70	70	70

* Cutting with coolant is recommended for stainless steel.

2FESM

Application	Workpiece Material	Application	Outside Dia.Dc (mm)	ø0.5	ø1	ø2	ø4	ø6	ø8	ø12	ø16
 Shouldering Depth of Cut (ap×ae) (mm) 1.5Dc×0.05Dc (Dc<ø3) 1.5Dc×0.1Dc (Dc≧ø3)	Carbon Steel SxxC	Shouldering	Spindle Revolution (min^{-1})	32,000	25,500	13,200	6,600	4,500	3,300	2,200	1,700
			Feed Rate (mm/min)	210	225	230	375	415	420	410	410
		Slotting	Spindle Revolution (min^{-1})	19,000	15,300	8,000	4,000	2,700	2,000	1,300	1,000
			Feed Rate (mm/min)	130	135	140	225	250	250	245	245
	Alloy Steel SCM, SNCM	Shouldering	Spindle Revolution (min^{-1})	27,000	22,000	11,000	5,600	3,700	2,800	1,900	1,400
			Feed Rate (mm/min)	180	195	220	285	315	310	310	310
		Slotting	Spindle Revolution (min^{-1})	16,000	13,000	6,600	3,400	2,200	1,700	1,200	900
			Feed Rate (mm/min)	105	115	130	170	190	185	185	185
 Slotting Depth of Cut (ap) (mm) 0.1Dc (Dc<ø1) 0.3Dc (ø1≦Dc<ø3) 0.5Dc (Dc≧ø3)	Pre-hardened steel NAK, 30~45HRC	Shouldering	Spindle Revolution (min^{-1})	22,500	12,700	7,200	4,200	3,000	2,200	1,500	1,100
			Feed Rate (mm/min)	50	55	80	100	105	105	110	110
		Slotting	Spindle Revolution (min^{-1})	13,500	7,600	4,300	2,500	1,800	1,300	900	700
			Feed Rate (mm/min)	30	35	50	60	63	63	65	65
	Stainless steel SUS	Shouldering	Spindle Revolution (min^{-1})	27,000	22,000	11,000	5,600	3,700	2,800	1,900	1,400
			Feed Rate (mm/min)	60	95	95	110	115	115	115	115
		Slotting	Spindle Revolution (min^{-1})	16,000	13,000	6,600	3,400	2,200	1,700	1,200	900
			Feed Rate (mm/min)	35	60	60	65	70	70	70	70

* Cutting with coolant is recommended for stainless steel.