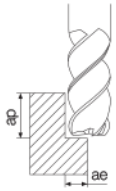


RECOMMENDED CUTTING CONDITIONS

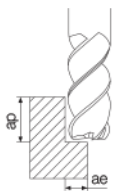
4FESM (Shouldering)

Applications	Workpiece Material	Outside Dia. Dc (mm)	Ø1	Ø2	Ø4	Ø6	Ø8	Ø12	Ø16
 <p>Shouldering (ap x ae) (inch) 0.0591Dc x 0.0020Dc (Dc < Ø3) 0.0591Dc x 0.0039Dc (Dc ≥ Ø3)</p>	Carbon Steel	Spindle RPM	25,500	13,000	6,600	4,400	3,300	2,200	1,700
		Feed Rate (IPM)	13.189	13.583	22.835	24.409	24.606	24.803	23.622
	Alloy Steel	Spindle RPM	22,000	11,000	5,600	3,700	2,800	1,900	1,400
		Feed Rate (IPM)	11.417	11.417	15.551	17.913	17.913	18.504	18.110
	Pre-hardened Steel (30~45HRC)	Spindle RPM	12,000	7,200	4,200	3,000	2,200	1,500	1,100
		Feed Rate (IPM)	4.134	4.921	5.906	6.299	6.299	6.496	5.512
	Stainless Steel	Spindle RPM	22,000	11,000	5,600	3,700	2,800	1,900	1,400
		Feed Rate (IPM)	5.118	5.709	6.496	6.496	6.693	6.890	6.102

* Cutting with coolant is recommended for stainless steel.

Slotting is not recommended.

4FEKM (Tough corner edge) (Shouldering)

Applications	Workpiece Material	Outside Dia. Dc (mm)	Ø3	Ø4	Ø6	Ø8	Ø10	Ø12	Ø16
 <p>Shouldering (ap x ae) (inch) 0.0591Dc x 0.0039Dc</p>	Carbon Steel	Spindle RPM	10,600	8,000	5,300	4,000	3,200	2,700	2,100
		Feed Rate (IPM)	26.772	27.165	30.315	30.315	30.315	30.315	30.315
	Alloy Steel	Spindle RPM	8,800	6,600	4,400	3,300	2,600	2,200	2,000
		Feed Rate (IPM)	19.685	21.654	24.409	24.803	24.803	24.803	24.016
	Pre-hardened Steel (30~45HRC)	Spindle RPM	6,400	4,800	3,200	2,400	1,900	1,600	1,200
		Feed Rate (IPM)	7.087	7.087	7.087	7.480	7.480	7.480	7.480
	Stainless Steel	Spindle RPM	8,000	6,000	4,000	3,000	2,300	2,000	1,500
		Feed Rate (IPM)	7.480	7.874	7.874	7.874	8.268	8.268	8.268

* Cutting with coolant is recommended for stainless steel.

Slotting is not recommended.