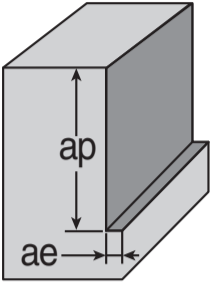


Recommended Cutting Conditions

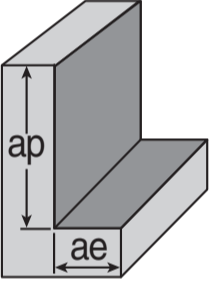
Machining data for UHP 4 (...R)

Finishing

Application	ISO	Material	Cutting Conditions	Diameter (mm)												
				Ø2	Ø3	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø18	Ø20	Ø25
 $ap \leq 1.0xD$ $ae \leq 0.05xD$	P	Carbon & alloy steel (\leq HRC30)	rpm (S) Feed (F)	11,900 290	9,000 330	7,600 580	6,300 600	5,600 670	4,250 700	3,400 650	2,800 530	2,500 470	2,200 420	1,950 390	1,750 350	1,400 280
		Pre-harden steel (HRC30-40)	rpm (S) Feed (F)	7,650 190	5,850 210	4,780 370	3,820 390	3,450 420	2,590 370	2,070 320	1,730 280	1,590 270	1,390 235	1,240 210	1,110 190	890 155
	M	Stainless steel	rpm (S) Feed (F)	6,360 155	4,770 175	3,980 290	3,180 305	2,920 350	2,190 370	1,750 315	1,460 265	1,250 225	1,100 205	980 185	880 180	700 150
	K	Cast iron	rpm (S) Feed (F)	10,020 240	7,430 295	6,200 490	5,100 510	4,510 550	3,390 530	2,710 450	2,260 400	2,050 370	1,790 320	1,600 300	1,440 270	1,150 220

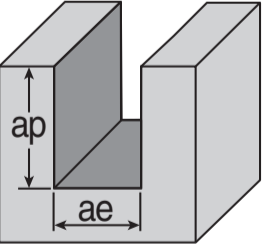
S: rev/min, F: mm/min

Medium machining

Application	ISO	Material	Cutting Conditions	Diameter (mm)												
				Ø2	Ø3	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø18	Ø20	Ø25
 $ap \leq 1.0xD$ $ae \leq 0.2xD$	P	Carbon & alloy steel (\leq HRC30)	rpm (S) Feed (F)	10,900 240	8,200 300	6,800 500	5,750 530	5,050 560	3,800 580	3,050 500	2,520 440	2,280 410	2,000 370	1,770 330	1,600 300	1,280 250
		Pre-harden steel (HRC30-40)	rpm (S) Feed (F)	7,160 155	5,250 170	4,300 300	3,440 310	3,110 340	2,330 295	1,870 255	1,550 225	1,440 220	1,260 190	1,120 170	1,010 155	810 135
	M	Stainless steel	rpm (S) Feed (F)	6,360 140	4,350 140	3,600 240	2,900 250	2,650 290	1,990 300	1,590 260	1,330 220	1,140 190	1,000 170	890 155	800 150	640 125
	K	Cast iron	rpm (S) Feed (F)	9,000 200	6,370 220	5,570 400	4,600 420	4,060 450	3,050 430	2,420 370	2,050 330	1,850 300	1,620 270	1,440 245	1,290 225	1,040 180

S: rev/min, F: mm/min

Slotting

Application	ISO	Material	Cutting Conditions	Diameter (mm)												
				Ø2	Ø3	Ø4	Ø5	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø18	Ø20	Ø25
 $ap \leq 1.0xD$ $ae = 1.0xD$	P	Carbon & alloy steel (\leq HRC30)	rpm (S) Feed (F)	8,450 145	6,400 185	5,350 310	4,500 330	3,900 340	2,950 360	2,360 310	1,960 270	1,760 240	1,550 220	1,380 200	1,250 185	1,000 155
		Pre-harden steel (HRC30-40)	rpm (S) Feed (F)	5,600 95	4,100 105	3,350 180	2,680 190	2,420 210	1,810 180	1,450 155	1,210 140	1,120 135	980 120	870 110	780 100	630 85
	M	Stainless steel	rpm (S) Feed (F)	4,450 80	3,400 85	2,790 140	2,230 150	2,070 180	1,550 190	1,240 160	1,040 135	890 120	780 105	690 95	620 90	500 80
	K	Cast iron	rpm (S) Feed (F)	7,000 120	5,300 150	4,380 250	3,600 260	3,180 280	2,400 270	1,910 230	1,600 200	1,440 190	1,260 170	1,120 160	1,010 140	810 120

S: rev/min, F: mm/min

■ Steel
 ■ Stainless steel
 ■ Cast iron