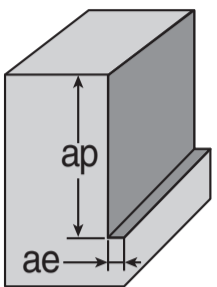


# Recommended Cutting Conditions

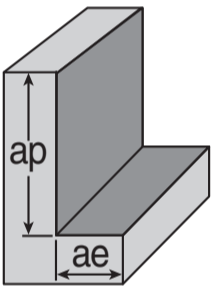
## Machining data for UHP 5 / UHP 5...R

### Finishing

Application	ISO	Material	Cutting Conditions	Diameter (mm)									
				Ø4	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø18	Ø20	Ø25
 $ap \leq 1.0xD$ $ae \leq 0.05xD$	<b>P</b>	Carbon & alloy steel ( $\leq$ HRC30)	rpm (S) Feed (F)	7,600 720	5,600 835	4,250 870	3,400 800	2,800 660	2,500 590	2,200 520	1,950 490	1,750 440	1,400 350
		Pre-harden steel (HRC30-40)	rpm (S) Feed (F)	4,780 460	3,450 525	2,590 460	2,070 400	1,730 350	1,590 335	1,390 300	1,240 270	1,110 240	890 195
	<b>M</b>	Stainless steel	rpm (S) Feed (F)	3,980 360	2,920 435	2,190 460	1,750 393	1,460 330	1,250 280	1,100 255	980 230	880 225	700 185
	<b>K</b>	Cast iron	rpm (S) Feed (F)	6,200 610	4,510 685	3,390 660	2,710 560	2,260 500	2,050 460	1,790 400	1,600 375	1,440 335	1,150 275

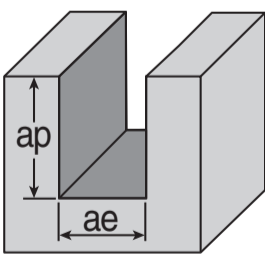
S: rev/min, F: mm/min

### Medium machining

Application	ISO	Material	Cutting Conditions	Diameter (mm)									
				Ø4	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø18	Ø20	Ø25
 $ap \leq 1.0xD$ $ae \leq 0.2xD$	<b>P</b>	Carbon & alloy steel ( $\leq$ HRC30)	rpm (S) Feed (F)	6,800 620	5,050 700	3,800 720	3,050 620	2,520 550	2,280 510	2,000 460	1,770 410	1,600 375	1,280 310
		Pre-harden steel (HRC30-40)	rpm (S) Feed (F)	4,300 370	3,110 425	2,330 365	1,870 315	1,550 280	1,440 275	1,260 240	1,120 215	1,010 195	810 170
	<b>M</b>	Stainless steel	rpm (S) Feed (F)	3,600 300	2,650 360	1,990 375	1,590 325	1,330 275	1,140 235	1,000 210	890 190	800 185	640 155
	<b>K</b>	Cast iron	rpm (S) Feed (F)	5,570 500	4,060 560	3,050 535	2,420 460	2,050 410	1,850 375	1,620 335	1,440 305	1,290 280	1,040 225

S: rev/min, F: mm/min

### Slotting

Application	ISO	Material	Cutting Conditions	Diameter (mm)									
				Ø4	Ø6	Ø8	Ø10	Ø12	Ø14	Ø16	Ø18	Ø20	Ø25
 $ap \leq 1.0xD$ $ae = 1.0xD$	<b>P</b>	Carbon & alloy steel ( $\leq$ HRC30)	rpm (S) Feed (F)	5,350 335	3,900 390	2,950 390	2,360 350	1,960 305	1,760 290	1,550 275	1,380 250	1,250 230	1,000 200
		Pre-harden steel (HRC30-40)	rpm (S) Feed (F)	3,350 205	2,420 245	1,810 210	1,450 180	1,210 160	1,120 160	980 150	870 135	780 125	630 105
	<b>M</b>	Stainless steel	rpm (S) Feed (F)	2,790 155	2,070 200	1,550 210	1,240 185	1,040 165	890 150	780 130	690 115	620 110	500 100
	<b>K</b>	Cast iron	rpm (S) Feed (F)	4,380 280	3,180 325	2,400 300	1,910 260	1,600 230	1,440 215	1,260 210	1,120 200	1,010 175	810 150

S: rev/min, F: mm/min

■ Steel    
 ■ Stainless steel    
 ■ Cast iron