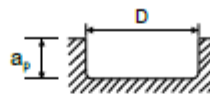




MATERIAL GROUP	HARDNESS HRC		Size (mm)								
			0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2	
<b>P</b>	13 14	< 35	$a_p$ (mm)	0.016	0.024	0.032	0.07	0.03	0.064	0.05	0.06
			$v_c$ (m/min)	28	42	57	68	62	82	94	101
			$n$	45000	45000	45000	43000	32760	32760	29790	26780
			$f_z$	0.002	0.002	0.002	0.003	0.003	0.003	0.004	0.004
			$f$ (mm/min)	140	160	160	220	205	205	225	235
<b>H</b>	15 16	35-45	$a_p$ (mm)	0.012	0.018	0.024	0.053	0.023	0.048	0.038	0.045
			$v_c$ (m/min)	20	27	36	44	41	54	61	64
			$n$	31050	28800	28800	28000	21600	21600	19440	17010
			$f_z$	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003
			$f$ (mm/min)	60	70	70	95	90	90	95	100
	16 16	45-55	$a_p$ (mm)	0.01	0.014	0.019	0.042	0.018	0.038	0.03	0.036
			$v_c$ (m/min)	12	17	23	27	25	33	37	40
			$n$	19040	18000	18000	17100	13050	13050	11880	10530
			$f_z$	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.003
			$f$ (mm/min)	35	40	40	60	55	55	55	55
<b>K</b>	31 32 33 34		$a_p$ (mm)	0.016	0.024	0.032	0.07	0.03	0.064	0.05	0.06
			$v_c$ (m/min)	28	42	57	68	62	82	94	101
			$n$	45000	45000	45000	43000	32760	32760	29790	26780
			$f_z$	0.002	0.002	0.002	0.003	0.003	0.003	0.004	0.004
			$f$ (mm/min)	140	160	160	220	205	205	225	235



► The data shown is based on medial length tools. Please adjust machining conditions according to length.

$v_c$  - cutting speed (m/min)  
 $n$  - RPM (rev/min)  
 $f_z$  - feed rate (mm/tooth)  
 $f$  - feed rate (mm/rev)  
 $z$  - No. of teeth  
 $a_p$  - axial depth of cut  
 $a_r$  - radial depth of cut

$$\text{To calculate RPM from cutting speed: } n = \frac{v_c \times 1000}{\pi \times \phi}$$

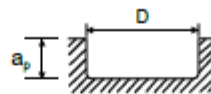
$$\text{To calculate cutting speed from RPM: } v_c = \frac{n \times \pi \times \phi}{1000}$$

All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up. The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.

110365 (2 Flute Extended Neck, Corner Radius)



MATERIAL GROUP	HARDNESS HRC		Size (mm)							
			1.5	2.0	3.0	4.0	6.0	8.0	10.0	
<b>P</b>	13 14	< 35	$a_p$ (mm)	0.075	0.16	0.24	0.32	0.84	1.12	1.4
			$v_c$ (m/min)	112	122	135	145	179	181	188
			$n$	23760	19440	14310	11520	9500	7200	6000
			$f_z$	0.005	0.006	0.009	0.014	0.032	0.044	0.053
			$f$ (mm/min)	245	250	265	325	600	640	640
<b>H</b>	15 16	35-45	$a_p$ (mm)	0.056	0.12	0.18	0.24	0.63	0.84	1.05
			$v_c$ (m/min)	69	78	87	93	113	114	126
			$n$	14580	12450	9270	7380	6000	4550	4000
			$f_z$	0.004	0.005	0.007	0.011	0.025	0.033	0.038
			$f$ (mm/min)	105	115	130	160	300	300	300
	16 16	45-55	$a_p$ (mm)	0.045	0.096	0.144	0.192	0.504	0.672	0.84
			$v_c$ (m/min)	43	49	53	58	75	76	76
			$n$	9180	7780	5670	4640	3930	3020	2420
			$f_z$	0.003	0.004	0.006	0.008	0.018	0.023	0.029
			$f$ (mm/min)	55	65	65	75	140	140	140
<b>K</b>	31 32 33 34		$a_p$ (mm)	0.075	0.16	0.24	0.32	0.84	1.12	1.4
			$v_c$ (m/min)	112	122	135	145	179	181	188
			$n$	23760	19440	14310	11520	9500	7200	6000
			$f_z$	0.005	0.006	0.009	0.014	0.032	0.044	0.053
			$f$ (mm/min)	245	250	265	325	600	640	640



► The data shown is based on medial length tools. Please adjust machining conditions according to length.

$v_c$  - cutting speed (m/min)  
 $n$  - RPM (rev/min)  
 $f_z$  - feed rate (mm/tooth)  
 $f$  - feed rate (mm/rev)  
 $z$  - No. of teeth  
 $a_p$  - axial depth of cut  
 $a_r$  - radial depth of cut

To calculate RPM from cutting speed:  $n = \frac{v_c \times 1000}{\pi \times \phi}$

To calculate cutting speed from RPM:  $v_c = \frac{n \times \pi \times \phi}{1000}$

All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your set-up. The recommendations for speeds, feeds and other parameters presented in this chart are nominal recommendations and should be considered only as good starting points.