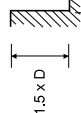


Cutting Conditions 171323, 172323, 173323, 174323 (5 Flute VX5)

MATERIAL GROUP	Type of cut	Diameter (mm)								
		6.0	8.0	10.0	12.0	16.0	20.0	25.0		
<b>P</b>		<b>144 (115-173)</b>								
		$v_c$ (m/min)	n	7639	4584	3620		2865	1833	
		$f_z$	$f_z$	0.034	0.038	0.050		0.063	0.076	0.089
		$f$ (mm/min)	$f$ (mm/min)	1299	1089	1146		1203	1089	926
<b>H</b>		<b>101 (81-121)</b>								
		$v_c$ (m/min)	n	5358	4019	3215		2679	2009	1607
		$f_z$	$f_z$	0.034	0.038	0.050		0.063	0.076	0.089
		$f$ (mm/min)	$f$ (mm/min)	911	764	804		844	764	715
<b>M</b>		<b>60 (48-72)</b>								
		$v_c$ (m/min)	n	3183	2387	1910		1592	1194	955
		$f_z$	$f_z$	0.024	0.027	0.035		0.044	0.054	0.062
		$f$ (mm/min)	$f$ (mm/min)	382	322	334		350	322	296
<b>S</b>		<b>117 (94-140)</b>								
		$v_c$ (m/min)	n	6207	4655	3724		3104	2328	1862
		$f_z$	$f_z$	0.024	0.025	0.030		0.046	0.054	0.061
		$f$ (mm/min)	$f$ (mm/min)	745	582	559		714	628	568
<b>K</b>		<b>82 (66-98)</b>								
		$v_c$ (m/min)	n	4350	3263	2610		2175	1631	1305
		$f_z$	$f_z$	0.030	0.032	0.038		0.063	0.069	0.076
		$f$ (mm/min)	$f$ (mm/min)	653	522	496		685	563	496
<b>S</b>		<b>59 (47-71)</b>								
		$v_c$ (m/min)	n	3130	2348	1878		1565	1174	939
		$f_z$	$f_z$	0.030	0.032	0.038		0.063	0.069	0.076
		$f$ (mm/min)	$f$ (mm/min)	470	376	354		493	405	357
<b>S</b>		<b>106 (85-127)</b>								
		$v_c$ (m/min)	n	5823	4218	3374		2812	2109	1687
		$f_z$	$f_z$	0.043	0.048	0.063		0.079	0.096	0.111
		$f$ (mm/min)	$f$ (mm/min)	1209	1012	1063		1111	1012	936
<b>S</b>		<b>69 (55-83)</b>								
		$v_c$ (m/min)	n	3661	2745	2196		1830	1373	1098
		$f_z$	$f_z$	0.027	0.029	0.034		0.057	0.062	0.069
		$f$ (mm/min)	$f$ (mm/min)	494	398	373		522	426	379
<b>S</b>		<b>31 (25-37)</b>								
		$v_c$ (m/min)	n	1645	1233	987		822	617	493
		$f_z$	$f_z$	0.021	0.022	0.027		0.044	0.048	0.053
		$f$ (mm/min)	$f$ (mm/min)	173	136	133		181	148	131



SIDE CUTTING

Recommended cutting depths are **maximum** depths, and **speeds and feeds are a starting point** based on these depths.  
 All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your setup.  
 Finishing cuts typically require reduced feed rates and/or higher spindle speed, with  $a_e$  of 2% x D; please adjust parameters accordingly.

$v_c$  - cutting speed (m/min)  
 $n$  - RPM (rev/min)  
 $f_z$  - feed per tooth (mm)  
 $f$  - feed rate (mm/min)  
 $a_e$  - axial depth of cut  
 $a_r$  - radial depth of cut

Cutting Conditions 175323 (5 Flute VX5 Roughing)

MATERIAL GROUP	Type of cut	Diameter (mm)							
		6.0	8.0	10.0	14.0	16.0	20.0	25.0	
<b>M</b>		<b>80 (64-96)</b>							
		$v_c$ (m/min)	n	4244	3183	2546		2122	1819
		$f_z$	$f_z$	0.025	0.034	0.041		0.051	0.057
		$f$ (mm/min)	$f$ (mm/min)	531	541	522		541	518
<b>S</b>		<b>65 (52-78)</b>							
		$v_c$ (m/min)	n	3448	2566	2069		1724	1478
		$f_z$	$f_z$	0.022	0.031	0.038		0.046	0.052
		$f$ (mm/min)	$f$ (mm/min)	379	401	393		397	384
<b>S</b>		<b>40 (32-48)</b>							
		$v_c$ (m/min)	n	2122	1592	1273		1061	909
		$f_z$	$f_z$	0.020	0.025	0.037		0.040	0.046
		$f$ (mm/min)	$f$ (mm/min)	212	199	236		212	209

SIDE CUTTING - STAINLESS & TITANIUM

SIDE CUTTING - NICKEL



Recommended cutting depths are **maximum** depths, and **speeds and feeds are a starting point** based on these depths.  
 All recommendations are based on ideal machining conditions. Adjustments may need to be made according to your setup.  
 Finishing cuts typically require reduced feed rates and/or higher spindle speed, with  $a_e$  of 2% x D; please adjust parameters accordingly.

$v_c$  - cutting speed (m/min)  
 $n$  - RPM (rev/min)  
 $f_z$  - feed per tooth (mm)  
 $f$  - feed rate (mm/min)  
 $a_e$  - axial depth of cut  
 $a_r$  - radial depth of cut