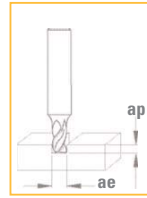


## DIXI 7543

### CUTTING CONDITIONS



#### Materials to be machined

		XIDUR				ap [mm]	ae [mm]
		Vc [m/min]					
<b>P</b>	Unalloyed steel / Low alloyed steel	< 600 N/mm <sup>2</sup>	<b>90</b> 110			< 1.0 x ØD1	1 x ØD1
<b>P</b>	Unalloyed steel / Low alloyed steel	600 – 1500 N/mm <sup>2</sup>	<b>70</b> 90			< 0.6 x ØD1	1 x ØD1
<b>P</b>	Lead alloyed cutting steel		<b>90</b> 110			< 1.0 x ØD1	1 x ØD1
<b>P</b>	High alloyed steel	700 – 1500 N/mm <sup>2</sup>	<b>40</b> 55			< 0.3 x ØD1	1 x ØD1
<b>M</b>	Stainless steel	400 – 700 N/mm <sup>2</sup>	<b>70</b> 90			< 0.8 x ØD1	1 x ØD1
<b>K</b>	Grey cast iron / Nodular pearlitic iron	< 250 HB	<b>90</b> 110			< 0.7 x ØD1	1 x ØD1
<b>K</b>	Alloyed cast iron / Nodular pearlitic iron	> 250 HB	<b>70</b> 90			< 0.4 x ØD1	1 x ØD1
<b>K</b>	Nodular ferritic cast iron / Malleable cast iron		<b>90</b> 110			< 0.4 x ØD1	1 x ØD1
<b>S</b>	Titanium, titanium alloys		<b>40</b> 60			< 0.3 x ØD1	1 x ØD1

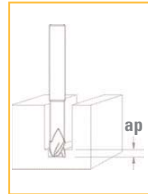
$$n \text{ [tr/min]} = \frac{Vc \text{ [m/min]} \times 1000}{\pi \times D_1 \text{ [mm]}}$$

$$Vf \text{ [mm/min]} = n \text{ [tr/min]} \times fz \text{ [mm]} \times Z$$

Feed per tooth **fz [mm]**

Ø D <sub>1</sub> 1.00 - 1.50	Ø D <sub>1</sub> 1.50 - 3.00	Ø D <sub>1</sub> 3.00 - 5.00	Ø D <sub>1</sub> 5.00 - 7.00	Ø D <sub>1</sub> 7.00 - 10.00	Ø D <sub>1</sub> 10.00 - 12.00	
<b>0.002</b> - 0.01	<b>0.003</b> - 0.01	<b>0.006</b> - 0.02	<b>0.010</b> - 0.02	<b>0.014</b> - 0.04	<b>0.02</b> - 0.05	
<b>0.002</b> - 0.01	<b>0.002</b> - 0.01	<b>0.005</b> - 0.01	<b>0.008</b> - 0.02	<b>0.011</b> - 0.03	<b>0.02</b> - 0.04	
<b>0.003</b> - 0.01	<b>0.004</b> - 0.01	<b>0.008</b> - 0.03	<b>0.013</b> - 0.04	<b>0.018</b> - 0.05	<b>0.03</b> - 0.07	
<b>0.002</b> - 0.01	<b>0.002</b> - 0.01	<b>0.005</b> - 0.01	<b>0.008</b> - 0.02	<b>0.011</b> - 0.03	<b>0.02</b> - 0.04	
<b>0.002</b> - 0.01	<b>0.002</b> - 0.01	<b>0.005</b> - 0.01	<b>0.008</b> - 0.02	<b>0.011</b> - 0.03	<b>0.02</b> - 0.04	
<b>0.002</b> - 0.01	<b>0.003</b> - 0.01	<b>0.006</b> - 0.02	<b>0.010</b> - 0.02	<b>0.014</b> - 0.04	<b>0.02</b> - 0.05	
<b>0.002</b> - 0.01	<b>0.002</b> - 0.01	<b>0.005</b> - 0.01	<b>0.008</b> - 0.02	<b>0.011</b> - 0.03	<b>0.02</b> - 0.04	
<b>0.002</b> - 0.01	<b>0.003</b> - 0.01	<b>0.006</b> - 0.02	<b>0.010</b> - 0.02	<b>0.014</b> - 0.04	<b>0.02</b> - 0.05	
<b>0.002</b> - 0.01	<b>0.002</b> - 0.01	<b>0.005</b> - 0.01	<b>0.008</b> - 0.02	<b>0.011</b> - 0.03	<b>0.02</b> - 0.04	

## DIXI 7593



DIXI 7593 Z = 3-4

**Aluminium**

( Vc 400 - 600 m/min )

D <sub>1</sub>	Z	Vc [m/min]	n [min <sup>-1</sup> ]	Vf [mm/min]	ap [mm]	ae [mm]	fz [mm]
6	3	400	21220	570	3	6	0.009
8	3	400	15920	570	4	8	0.012
10	3	400	12730	760	5	10	0.02
12	3	400	10610	760	6	12	0.024
16	3	400	7960	760	8	16	0.032
18	3	400	7070	760	9	18	0.036
20	4	400	6370	1020	10	20	0.04