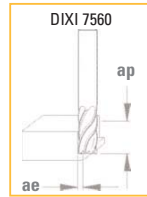


DIXI 7560

CUTTING CONDITIONS



Materials to be machined	Vc [m/min]	CARBIDE	TiAlN	DLC	ap [mm]	ae [mm]
		Vc [m/min]	Vc [m/min]	Vc [m/min]		
P Unalloyed steel / Low alloyed steel < 600 N/mm ²	90 110	110 130			1.50 x ØD1	< 0.10 x ØD1
P Unalloyed steel / Low alloyed steel 600 – 1500 N/mm ²		80 100			1.50 x ØD1	< 0.10 x ØD1
P Lead alloyed cutting steel	80 110				1.50 x ØD1	< 0.30 x ØD1
P High alloyed steel 700 – 1500 N/mm ²		60 80			1.50 x ØD1	< 0.05 x ØD1
M Stainless steel 400 – 700 N/mm ²		80 100			1.50 x ØD1	< 0.05 x ØD1
M DUPLEX stainless steel > 800 N/mm ²		60 80			1.50 x ØD1	< 0.05 x ØD1
K Grey cast iron / Nodular pearlitic iron < 250 HB	80 110	110 140			1.50 x ØD1	< 0.20 x ØD1
K Alloyed cast iron / Nodular pearlitic iron > 250 HB	50 70	80 100			1.50 x ØD1	< 0.05 x ØD1
K Nodular ferritic cast iron / Malleable cast iron	80 110	110 130			1.50 x ØD1	< 0.10 x ØD1
S Special alloys / Heat resistant stainless steel Inconel Nimonic Hastelloy		35 50			1.50 x ØD1	< 0.05 x ØD1
S Titanium, titanium alloys	40 55		50 80		1.50 x ØD1	< 0.10 x ØD1
N Copper alloys - easy to machine (brass - bronze)	160 200		200 300		1.50 x ØD1	< 0.30 x ØD1
N Copper alloys - difficult to machine / Aluminium bronze (CuAlFe) (Ampco)	140 160	170 220	200 270		1.50 x ØD1	< 0.10 x ØD1

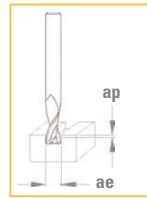
$$n \text{ [tr/min]} = \frac{Vc \text{ [m/min]} \times 1000}{\pi \times D_1 \text{ [mm]}}$$

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

Feed per tooth **fz [mm]**

Ø D ₁ 0.35 - 1.90 (Z = 3)	Ø D ₁ 2.00 - 3.00 (Z = 5)	Ø D ₁ 3.00 - 5.00 (Z = 5)	Ø D ₁ 5.00 - 8.00 (Z = 5)	Ø D ₁ 8.00 - 10.00 (Z = 6)	Ø D ₁ 10.00 - 14.00 (Z = 6)	Ø D ₁ 14.00 - 16.00 (Z = 6)	Ø D ₁ 16.00 - 20.00 (Z = 6)
0.004 - 0.02	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11
0.004 - 0.02	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11
0.004 - 0.02	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.07 - 0.10	0.08 - 0.11
0.002 - 0.015	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11
0.002 - 0.015	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11
0.004 - 0.02	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11
0.004 - 0.02	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11
0.004 - 0.02	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11
0.002 - 0.01	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11
0.002 - 0.01	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11
0.004 - 0.02	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.07 - 0.10	0.08 - 0.11
0.004 - 0.02	0.016 - 0.04	0.02 - 0.06	0.03 - 0.07	0.04 - 0.08	0.05 - 0.09	0.06 - 0.10	0.07 - 0.11

DIXI 7060 - 7232



Materials to be machined	Vc [m/min]	CARBIDE	ap [mm]	ae [mm]
		Vc [m/min]		
K Grey cast iron / Nodular pearlitic iron < 250 HB	100 150		< 1 x ØD1	1 x ØD1
N Copper alloys - easy to machine (brass - bronze)	140 160		< 1 x ØD1	1 x ØD1
N Gold, silver	140 160		< 0.9 x ØD1	1 x ØD1
N Plastic	240 260		< 1.2 x ØD1	1 x ØD1
N	240 300		< 1.2 x ØD1	1 x ØD1

Feed per tooth **fz [mm]**

Ø D ₁ 0.50 - 1.00	Ø D ₁ 1.00 - 1.50	Ø D ₁ 1.50 - 3.00	Ø D ₁ 3.00 - 5.00	Ø D ₁ 5.00 - 7.00	Ø D ₁ 7.00 - 10.00
0.006 - 0.015	0.012 - 0.020	0.016 - 0.04	0.02 - 0.06	0.03 - 0.09	0.04 - 0.11
0.006 - 0.015	0.012 - 0.020	0.016 - 0.04	0.02 - 0.06	0.03 - 0.09	0.04 - 0.11
0.006 - 0.015	0.012 - 0.020	0.016 - 0.04	0.02 - 0.06	0.03 - 0.09	0.04 - 0.11
0.006 - 0.015	0.012 - 0.020	0.016 - 0.04	0.02 - 0.06	0.03 - 0.09	0.04 - 0.11
0.006 - 0.015	0.012 - 0.020	0.016 - 0.04	0.02 - 0.06	0.03 - 0.09	0.04 - 0.11