

DIXI 7001 - 7002 - 7003 - 7009 - 7013

CUTTING CONDITIONS

Materials to be machined			CARBIDE	DINAC	$\emptyset D_1$ 0.05 - 0.10		$\emptyset D_1$ 0.15 - 0.40	
			n [tr/min]	n [tr/min]	Vf [mm/min]	ap [mm]	Vf [mm/min]	ap [mm]
P	Unalloyed steel / Low alloyed steel	< 600 N/mm ²	20 - 35'000	20 - 35'000	50 - 250	0.05 - 0.30	100 - 300	0.10 - 0.40
P	Unalloyed steel / Low alloyed steel	600 - 1500 N/mm ²		20 - 35'000	50 - 200	0.05 - 0.25	80 - 250	0.10 - 0.35
P	Lead alloyed cutting steel			20 - 35'000	50 - 250	0.05 - 0.30	100 - 300	0.10 - 0.40
P	High alloyed steel	700 - 1500 N/mm ²		20 - 35'000	50 - 150	0.05 - 0.15	80 - 250	0.10 - 0.30
M	Stainless steel	400 - 700 N/mm ²		20 - 35'000	50 - 150	0.05 - 0.20	80 - 250	0.10 - 0.30
M	DUPLEX stainless steel	> 800 N/mm ²		20 - 35'000	50 - 150	0.05 - 0.15	80 - 250	0.10 - 0.30
H	Tool steel and cast iron	> 1500 N/mm ² (45 - 55 HRC)		20 - 35'000			80 - 250	0.02 - 0.05
K	Grey cast iron / Nodular pearlitic iron	< 250 HB	20 - 35'000	20 - 35'000	50 - 250	0.05 - 0.30	100 - 300	0.10 - 0.40
K	Alloyed cast iron / Nodular pearlitic iron	> 250 HB	20 - 35'000	20 - 35'000	50 - 200	0.05 - 0.25	80 - 250	0.10 - 0.35
K	Nodular ferritic cast iron / Malleable cast iron		20 - 35'000	20 - 35'000	50 - 200	0.05 - 0.25	80 - 250	0.10 - 0.35
S	Special alloys / Heat resistant stainless steel	Inconel Nimonic Hastelloy		15 - 25'000			80 - 200	0.03 - 0.10
S	Titanium, titanium alloys		20 - 35'000	20 - 35'000	50 - 200	0.05 - 0.25	100 - 250	0.10 - 0.35
N	Copper alloys - easy to machine (brass - bronze)		20 - 35'000	20 - 35'000	50 - 300	0.05 - 0.30	150 - 450	0.10 - 0.40
N	Copper alloys - difficult to machine / Aluminium bronze (CuAlFe) (Ampco)		20 - 35'000	20 - 35'000	50 - 200	0.05 - 0.30	100 - 300	0.10 - 0.45
N	Aluminium alloys	Si < 8%	20 - 35'000	20 - 35'000	50 - 300	0.05 - 0.30	150 - 450	0.10 - 0.45
N	Cast aluminium	Si > 8%	20 - 35'000	20 - 35'000	50 - 300	0.05 - 0.30	150 - 450	0.10 - 0.45
N	Graphite		20 - 35'000	20 - 35'000	50 - 300	0.05 - 0.30	150 - 450	0.10 - 0.45
N	Plastic		20 - 35'000	20 - 35'000	50 - 300	0.05 - 0.30	150 - 450	0.10 - 0.45
N	Gold, silver		20 - 35'000	20 - 35'000	50 - 300	0.05 - 0.30	150 - 450	0.10 - 0.45