DIXI 72310 ND

CUTTING CONDITIONS

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

$$Vf\ [mm/min] = n\ [tr/min] \times fz\ [mm] \times z$$

Feed per revolution **fz [mm]**

Material to be machined			ND		Ø D_1 0.10 - 1.00	Ø D_1 1.00 - 2.00
			Vc [m/min]			
N	Copper alloys - easy to machine (brass - bronze)		**400**	800	**0.0005** - 0.005	**0.005** - 0.03
N	Copper alloys - difficult to machine / Aluminium bronze	(CuAlFe) (Ampco)	**300**	700	**0.0005** - 0.005	**0.005** - 0.03
N	Aluminium alloys / Magnesium alloy		**500**	2000	**0.0005** - 0.005	**0.005** - 0.03
N	Aluminium alloys	Si < 3 - 8%	**400**	1800	**0.0005** - 0.005	**0.005** - 0.03
N	Cast aluminium	Si > 8 - 13%	**400**	1500	**0.0005** - 0.005	**0.005** - 0.03
N	Plastic		**500**	1500	**0.0005** - 0.005	**0.005** - 0.03
N	Gold, silver		**200**	750	**0.0005** - 0.005	**0.005** - 0.03

DIXI 72420 - 70520 - 70320 - 72421

CUTTING CONDITIONS

Material to be machined			PCD		CVD		ND / MDC		CBN		PCD -CVD-CBN		PCD -CVD-CBN		DIA ND / MDC
			Vc [m/min]		Vc [m/min]		Vc [m/min]		Vc [m/min]		fz [mm]	ap [mm]	ae [mm]	ap [mm]	ae [mm]	ap + ae [mm]
H	Tool steel and cast iron								**160**	280	**0.10** - 0.15	≤ **0.5 x D**	≤ **0.5 x D**	**0.10** - 0.30	**0.10** - 0.30	**max. = 0.05**
K	Cast iron	> 350 HB							**160**	280	**0.10** - 0.20	≤ **0.6 x D**	≤ **0.6 x D**	**0.10** - 0.30	**0.10** - 0.30	
N	Copper alloys - easy to machine (brass - bronze)		**200**	1000	**400**	1200	**400**	800			**0.05** - 0.25	≤ **1 x D**	≤ **1 x D**	**0.10** - 0.30	**0.10** - 0.30	
N	Copper alloys - difficult to machine / Aluminium bronze	(CuAlFe) (Ampco)	**100**	1500	**200**	1700	**300**	700			**0.05** - 0.20	≤ **0.6 x D**	≤ **0.6 x D**	**0.10** - 0.30	**0.10** - 0.30	
N	Aluminium alloys / Magnesium alloy		**700**	3000	**400**	1200	**500**	2000			**0.05** - 0.25	≤ **1 x D**	≤ **1 x D**	**0.10** - 0.30	**0.10** - 0.30	
N	Aluminium alloys	Si < 3 - 8%	**300**	3500	**400**	1200	**400**	1800			**0.05** - 0.20	≤ **1 x D**	≤ **1 x D**	**0.10** - 0.30	**0.10** - 0.40	
N	Cast aluminium	Si > 8 - 13%	**100**	3000	**200**	900	**400**	1200			**0.05** - 0.20	≤ **1 x D**	≤ **1 x D**	**0.10** - 0.30	**0.10** - 0.30	
N	Graphite		**200**	1000	**400**	1200					**0.05** - 0.20	≤ **1 x D**	≤ **1 x D**	**0.10** - 0.30	**0.10** - 0.30	
N	Unsitered carbide and ceramics		**200**	1000	**400**	1200					**0.025** - 0.125	≤ **1 x D**	≤ **1 x D**	**0.10** - 0.30	**0.10** - 0.30	
N	Plastic		**500**	2000	**400**	1200	**500**	1500			**0.05** - 0.30	≤ **1 x D**	≤ **1 x D**	**0.10** - 0.30	**0.10** - 0.30	
N	Carbon fibres		**1000**	3000	**400**	1200					**0.05** - 0.30	≤ **1 x D**	≤ **1 x D**	**0.10** - 0.30	**0.10** - 0.30	
N	Gold, silver		**300**	1000	**400**	1200	**200**	750			**0.05** - 0.25	≤ **0.6 x D**	≤ **0.6 x D**	**0.10** - 0.30	**0.10** - 0.30	