CONDITIONS DE COUPE

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

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

Matières à usiner			CARBURE Vc [m/min]		CUTINOX Vc [m/min]		Avance par dent f [mm] Ø D_1 0.60 - 1.00	Ø D_1 1.00 -1.50	Ø D_1 1.50 - 2.00	Ø D_1 2.00 - 3.00	Ø D_1 3.00 - 5.00	Ø D_1 5.00 - 9.00
P	Acier non allié / faiblement allié	< 600 N/mm²	**100**	150	**120**	180	**0.008** - 0.015	**0.010** - 0.025	**0.015** - 0.030	**0.020** - 0.050	**0.030** - 0.070	**0.040** - 0.080
P	Acier non allié / faiblement allié	600 – 1500 N/mm²	**90**	130	**110**	150	**0.005** - 0.012	**0.008** - 0.020	**0.013** - 0.025	**0.020** - 0.045	**0.025** - 0.060	**0.035** - 0.075
P	Acier de décolletage au plomb		**100**	180	**120**	200	**0.012** - 0.030	**0.020** - 0.040	**0.025** - 0.055	**0.030** - 0.070	**0.035** -0.080	**0.050** - 0.100
P	Acier fortement allié	700 – 1500 N/mm²	**40**	70	**50**	80	**0.002** - 0.011	**0.008** - 0.015	**0.012** - 0.023	**0.015** - 0.038	**0.023** - 0.060	**0.038** -0.060
M	Acier inoxydable	400 – 700 N/mm²	**50**	80	**60**	110	**0.003** - 0.016	**0.011** - 0.023	**0.018** - 0.034	**0.023** - 0.056	**0.034** - 0.090	**0.056** -0.090
M	Acier inox. DUPLEX, acier austénitique inox. sans nickel	> 800 N/mm²	**35**	60	**45**	75	**0.002** - 0.009	**0.007** - 0.014	**0.011** - 0.020	**0.014** - 0.034	**0.020** - 0.054	**0.034** - 0.054
K	Fonte grise / Fonte à graphite sphéroïdal perlitique	< 250 HB	**100**	200	**150**	250	**0.012** - 0.030	**0.020** - 0.040	**0.025** - 0.055	**0.030** - 0.070	**0.050** - 0.100	**0.080** - 0.150
K	Fonte alliée / Fonte à graphite sphéroïdal perlitique	> 250 HB	**100**	140	**120**	160	**0.005** - 0.012	**0.008** - 0.020	**0.013** - 0.025	**0.020** - 0.045	**0.025** -0.060	**0.035** - 0.075
K	Fonte à graphite sphéroïdal ferritique / Fonte malléable		**70**	110	**80**	140	**0.005** - 0.012	**0.008** - 0.020	**0.013** - 0.025	**0.020** - 0.045	**0.025** - 0.060	**0.035** - 0.075
S	Super alliages / Acier inox. réfractaire	Inconel Nimonic Hastelloy	**20**	45	**30**	60	**0.001** - 0.007	**0.005** - 0.010	**0.008** - 0.015	**0.010** - 0.025	**0.015** - 0.040	**0.025** - 0.040
S	Titane, alliage de titane		**40**	65	**40**	65	**0.008** - 0.015	**0.010** - 0.020	**0.015** - 0.040	**0.030** - 0.060	**0.040** - 0.080	**0.060** - 0.100
N	Alliage de cuivre / bonne usinabilité (laiton – bronze)		**100**	200	**100**	200	**0.015** - 0.035	**0.020** - 0.040	**0.025** - 0.050	**0.030** - 0.070	**0.050** - 0.100	**0.080** - 0.150
N	Alliage de cuivre / usinabilité difficile / Bronze à l'aluminium	(CuAlFe) (Ampco)	**80**	150	**80**	150	**0.012** - 0.030	**0.020** - 0.040	**0.025** - 0.055	**0.030** - 0.070	**0.050** - 0.100	**0.080** - 0.150
N	Alliage d'aluminium	Si < 8%	**100**	250	**100**	250	**0.015** - 0.035	**0.020** - 0.040	**0.025** - 0.055	**0.030** - 0.070	**0.050** - 0.100	**0.080** - 0.150
N	Fonte d'aluminium	Si > 8%	**100**	200	**100**	200	**0.015** - 0.035	**0.020** - 0.040	**0.025** - 0.055	**0.030** - 0.070	**0.050** - 0.100	**0.080** - 0.150
N	Graphite		**100**	200	**100**	200	**0.015** - 0.035	**0.020** - 0.040	**0.025** - 0.055	**0.030** - 0.070	**0.050** - 0.100	**0.080** - 0.150
N	Plastique		**100**	250	**100**	250	**0.015** - 0.035	**0.020** - 0.040	**0.025** - 0.055	**0.030** - 0.070	**0.050** - 0.100	**0.080** - 0.150
N	Or, argent		**100**	200	**100**	200	**0.015** - 0.035	**0.020** - 0.040	**0.025** - 0.055	**0.030** - 0.070	**0.050** - 0.100	**0.080** - 0.150