



TECHNICAL INFORMATION

Speed, materials and lubricant

Material Group	Material	Rake Angle	Cutting Speed m/min.	Coolants and Lubricant
Steel	unalloyed steel			
	up to 500 N/mm ²	12-15°	10-15	Cutting Oil/Emulsion
	up to 700 N/mm ²	8-12°	8-12	Cutting Oil/Emulsion
	up to 900 N/mm ²	6-10°	5-10	Cutting Oil/Emulsion
	alloyed steel			
	700-900 N/mm ²	6-10°	5-10	Cutting Oil/Emulsion
	over 900 N/mm ²	6-8°	3-8	Cutting Oil/Rapeseed oil
	Stainless steel			
	free-cutting varieties	8-12°	3-6	Cutting Oil/Molykote
	difficult to process varieties	6-8°	3-6	Cutting Oil/Molykote
Cast steel	Cast steel	8-10°	5-8	Cutting Oil/Emulsion
Cast iron	Cast iron	2-3°	8-10	Dry
	Malleable	6-8°	8-12	Emulsion
Light metals	Alu, hard	20-25°	25-30	Emulsion/Kerosene
	Alu, brittle	12-15°	20-25	Emulsion/Kerosene
	Silumin	10-15°	10-15	Emulsion/Kerosene and rapeseed oil
	Elektron	10-20°	25-40	Dry
Metal	Messing, hard	3-8°	12-20	Cutting Oil/Emulsion
	Messing, brittle	0-5°	20-30	Dry/Cutting Oil
	Bronze	5-8°	8-12	Dry/Cutting Oil
	Copper	15-20°	8-15	Dry/Cutting Oil
	Zinc	15-20°	15-20	Emulsion/Cutting Oil
Non-metals	Hard rubber	8-12°	12-20	Dry/Compressed air
	Bakelite	0-3°	10-15	Dry/Compressed air
	Plastics	15-20°	12-20	Dry/Compressed air

