

STANDARD CUTTING CONDITIONS

Parting, Grooving

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)	Feed f (mm/rev)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH725	50 - 200	0.01 - 0.05
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	50 - 200	0.01 - 0.05
	Free cutting steels SUH22, SUH23, etc.	SH725	50 - 200	0.01 - 0.05
M	Stainless steels SUS304, X5CrNi18-9, etc.	SH725	50 - 200	0.01 - 0.05
N	Aluminium alloys A5056, A6061, etc.	SH725	150 - 200	0.01 - 0.05
	Copper alloy C2600, C280C, etc.	SH725	100 - 200	0.01 - 0.05
S	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 80	0.01 - 0.05
	Superalloys Inconel718, etc.	SH725	30 - 80	0.01 - 0.05

For aluminium and non-ferrous metal PCD insert

ISO	Workpiece materials	Grades	Operation	Cutting speed Vc (m/min)	Feed f (mm/rev)	Depth of cut ap (mm)
N	Aluminium alloys A5056, A6061, etc.	DX110	Grooving	100 - 300	0.03 - 0.15	-
		DX110	Turning	100 - 300	0.03 - 0.15	< 6

Threading

ISO	Workpiece materials	Grades	Cutting speed Vc (m/min)
P	Low carbon steels S15C, SS400, etc. C15E4, E275A, etc.	SH725	50 - 200
	Carbon steels, Alloy steels S55C, SCM440, etc. C55, 42CrMo4, etc.	SH725	50 - 200
	Free cutting steels SUH22, SUH23, etc.	SH725	50 - 200
M	Stainless steels SUS304, X5CrNi18-9, etc.	SH725	50 - 200
N	Aluminium alloys A5056, A6061, etc.	SH725	150 - 200
	Copper alloy C2600, C280C, etc.	SH725	100 - 200
S	Titanium alloys Ti-6Al-4V, etc.	SH725	30 - 80
	Superalloys Inconel718, etc.	SH725	30 - 80