

Cutting data recommendations for solid carbide drills

Feed and cutting speed

Tritan-Drill-Uni-Plus | SCD631

MMG*	Workpiece material	Strength/hardness [N/mm ²] [HRC]
P	P1.1 Structural, free-cutting, case hardened and heat-treated steels, non-alloy	< 700
	P1.2 Structural, free-cutting, case hardened and heat-treated steels, non-alloy	< 1,200
	P2.1 Nitrided, case hardened and heat-treated steels, alloy	< 900
	P2.2 Nitrided, case hardened and heat-treated steels, alloy	< 1,400
	P3.1 Tool, bearing, spring and high-speed steels**	< 800
	P3.2 Tool, bearing, spring and high-speed steels**	< 1,000
	P3.3 Tool, bearing, spring and high-speed steels**	< 1,500
	P5.1 Cast steel	
M	M1.1 Stainless steels, austenitic	< 700
	M1.2 Stainless steels, ferritic/austenitic (duplex)	< 1,000
K	K1.1 Cast iron with lamellar graphite (grey cast iron), GJL	< 300
	K2.1 Cast iron with spheroidal graphite, GJS	< 500
	K2.2 Cast iron with spheroidal graphite, GJS	≤ 800
	K2.3 Cast iron with spheroidal graphite, GJS	> 800
	K3.1 Cast iron with spheroidal graphite, GJV; malleable cast iron, GJM	< 500
	K3.2 Cast iron with spheroidal graphite, GJV; malleable cast iron, GJM	> 500
N	N1.1 Aluminium, non-alloy and alloy < 3 % Si	
	N1.2 Aluminium, alloy ≤ 7 % Si	
	N1.3 Aluminium, alloy > 7-12 % Si	
	N1.4 Aluminium, alloy > 12 % Si	
	N2.1 Copper, non-alloy and low-alloy	< 300
	N2.2 Copper, alloy	> 300
	N2.3 Brass, bronze, gunmetal	< 1,200

MEGA-Speed-Drill-Uni | SCD221

MMG*	Workpiece material	Strength/hardness [N/mm ²] [HRC]
P	P1.1 Structural, free-cutting, case hardened and heat-treated steels, non-alloy	< 700
	P1.2 Structural, free-cutting, case hardened and heat-treated steels, non-alloy	< 1,200
	P2.1 Nitrided, case hardened and heat-treated steels, alloy	< 900
	P2.2 Nitrided, case hardened and heat-treated steels, alloy	< 1,400
	P3.1 Tool, bearing, spring and high-speed steels**	< 800
	P3.2 Tool, bearing, spring and high-speed steels**	< 1,000
	P3.3 Tool, bearing, spring and high-speed steels**	< 1,500
	P4.1 Stainless steels, ferritic and martensitic	
	P5.1 Cast steel	
	P6.1 Stainless cast steel, ferritic and martensitic	
K	K1.1 Cast iron with lamellar graphite (grey cast iron), GJL	< 300
	K2.1 Cast iron with spheroidal graphite, GJS	< 500
	K2.2 Cast iron with spheroidal graphite, GJS	≤ 800
	K2.3 Cast iron with spheroidal graphite, GJS	> 800
	K3.1 Cast iron with spheroidal graphite, GJV; malleable cast iron, GJM	< 500
	K3.2 Cast iron with spheroidal graphite, GJV; malleable cast iron, GJM	> 500

* MAPAL machining groups

** If the alloy parts Cr, Mo, Ni, V, W in total > 8% then select the next highest MAPAL machining group.