




















TTD2030190





















Type: Short drill with reinforced shank

d1	d2	l1	l2
1,90	3,00	45	8,10

Coolant holes	Cut	Point angle	Spiral angle	Cutting edges Z
No	Right	140°	30°	2

Coated	Coating type	Material	Material type	Norm
Yes	TiAlN	MD	SMG SP	TUSA

Machinable Materials				
Cod.	Material type	Machinability	Cutting speed Vc	Advancement per revolution fn
		Recommended Part. recommended Not recommended	(m/min)	(mm/rev)
P01	Unalloyed steels up to 800 N/mm2		80 : 120	0,220
P02	Low alloy steels from 800 N/mm2 to 1100 N/mm2		60 : 100	0,220
P03	Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2		40 : 80	0,175
M01	Ferritic stainless steels		20 : 40	0,060
M02	Martensitic stainless steels		25 : 50	0,085
M03	Martensitic stainless steels - PH		20 : 30	0,060
M04	Austenitic stainless steels		20 : 30	0,060
K01	Gray/lamellar cast iron		80 : 120	0,310
K02	Nodular/nodular cast iron		80 : 120	0,310
N01	Drawn aluminum alloys		150 : 200	0,130
N02	Die-cast aluminum alloys		150 : 200	0,115
N03	Copper		80 : 120	0,085
N04	Brass - Bronze		60 : 100	0,105
N05	Lead-free brass		100 : 140	0,085
S01	Super alloys (Inconel - Hastelloy - Nimonic)		20 : 40	0,009
S02	Pure titanium (Grade 2 - Grade 4)		20 : 40	0,055
S03	Titanium alloys (Grade 5)		15 : 30	0,065
S04	Cobalt Chrome Alloys		20 : 40	0,025
H01	Hardened steels up to 55 HRC		20 : 40	0,010

Machinable Materials				
Cod.	Material type	Machinability	Cutting speed Vc	Advancement per revolution fn
		Recommended Part. recommended Not recommended	(m/min)	(mm/rev)
P01	Unalloyed steels up to 800 N/mm2		80 : 120	0,220
P02	Low alloy steels from 800 N/mm2 to 1100 N/mm2		60 : 100	0,220
P03	Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2		40 : 80	0,175
M01	Ferritic stainless steels		20 : 40	0,060
M02	Martensitic stainless steels		25 : 50	0,085
M03	Martensitic stainless steels - PH		20 : 30	0,060
M04	Austenitic stainless steels		20 : 30	0,060
K01	Gray/lamellar cast iron		80 : 120	0,310
K02	Nodular/nodular cast iron		80 : 120	0,310
N01	Drawn aluminum alloys		150 : 200	0,130
N02	Die-cast aluminum alloys		150 : 200	0,115
N03	Copper		80 : 120	0,085
N04	Brass - Bronze		60 : 100	0,105
N05	Lead-free brass		100 : 140	0,085
S01	Super alloys (Inconel - Hastelloy - Nimonic)		20 : 40	0,009
S02	Pure titanium (Grade 2 - Grade 4)		20 : 40	0,055
S03	Titanium alloys (Grade 5)		15 : 30	0,065
S04	Cobalt Chrome Alloys		20 : 40	0,025
H01	Hardened steels up to 55 HRC		20 : 40	0,010
H02	Hardened steels from 55 HRC		15 : 30	0,009



SWISS HIGH PRECISION TOOLS
