




















## TTD2070210





















**Type:** Long drill with reinforced shank

d1	d2	l1	l2
2,10	3,00	53	15,20

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)
<b>P01</b>	Unalloyed steels up to 800 N/mm2		80 : 120	0,200
<b>P02</b>	Low alloy steels from 800 N/mm2 to 1100 N/mm2		60 : 100	0,200
<b>P03</b>	Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2		40 : 80	0,155
<b>M01</b>	Ferritic stainless steels		20 : 40	0,055
<b>M02</b>	Martensitic stainless steels		25 : 50	0,075
<b>M03</b>	Martensitic stainless steels - PH		20 : 30	0,055
<b>M04</b>	Austenitic stainless steels		20 : 30	0,055
<b>K01</b>	Gray/lamellar cast iron		80 : 120	0,280
<b>K02</b>	Nodular/nodular cast iron		80 : 120	0,280
<b>N01</b>	Drawn aluminum alloys		150 : 200	0,115
<b>N02</b>	Die-cast aluminum alloys		150 : 200	0,105
<b>N03</b>	Copper		80 : 120	0,075
<b>N04</b>	Brass - Bronze		60 : 100	0,095
<b>N05</b>	Lead-free brass		100 : 140	0,075
<b>S01</b>	Super alloys (Inconel - Hastelloy - Nimonic)		20 : 40	0,009
<b>S02</b>	Pure titanium (Grade 2 - Grade 4)		20 : 40	0,050
<b>S03</b>	Titanium alloys (Grade 5)		15 : 30	0,060
<b>S04</b>	Cobalt Chrome Alloys		20 : 40	0,025
<b>H01</b>	Hardened steels up to 55 HRC		20 : 40	0,013

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<b>H02</b>	Hardened steels from 55 HRC		15 : 30	0,009



SWISS HIGH PRECISION TOOLS

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