













## TTD2150190





















**Type:** Extra Long high-performance twist drill with coolant holes

d1	d2	l1	l2
1,90	3,00	70	32,80

Coolant holes	Cut	Point angle	Spiral angle	Cutting edges Z
Yes	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		45 : 75	0.18
<b>P02</b>	Low alloy steels from 800 N/mm2 to 1100 N/mm2		40 : 70	0.17
<b>P03</b>	Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2		35 : 70	0.145
<b>M01</b>	Ferritic stainless steels		30 : 50	0.065
<b>M02</b>	Martensitic stainless steels		30 : 50	0.1
<b>M03</b>	Martensitic stainless steels - PH		30 : 50	0.04
<b>M04</b>	Austenitic stainless steels		20 : 40	0.04
<b>K01</b>	Gray/lamellar cast iron		20 : 60	0.26
<b>K02</b>	Nodular/nodular cast iron		15 : 40	0.26
<b>N01</b>	Drawn aluminum alloys		100 : 300	0.1
<b>N02</b>	Die-cast aluminum alloys		80 : 250	0.115
<b>N03</b>	Copper		60 : 120	0.11
<b>N04</b>	Brass - Bronze		80 : 140	0.115
<b>N05</b>	Lead-free brass		80 : 140	0.13
<b>S01</b>	Super alloys (Inconel - Hastelloy - Nimonic)		15 : 25	0.02
<b>S02</b>	Pure titanium (Grade 2 - Grade 4)		15 : 25	0.07
<b>S03</b>	Titanium alloys (Grade 5)		15 : 30	0.07
<b>S04</b>	Cobalt Chrome Alloys		15 : 30	0.025
<b>H01</b>	Hardened steels up to 55 HRC		20 : 40	0.02

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<b>H02</b>	Hardened steels from 55 HRC		15 : 30	-



SWISS HIGH PRECISION TOOLS

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