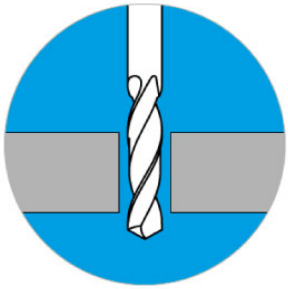

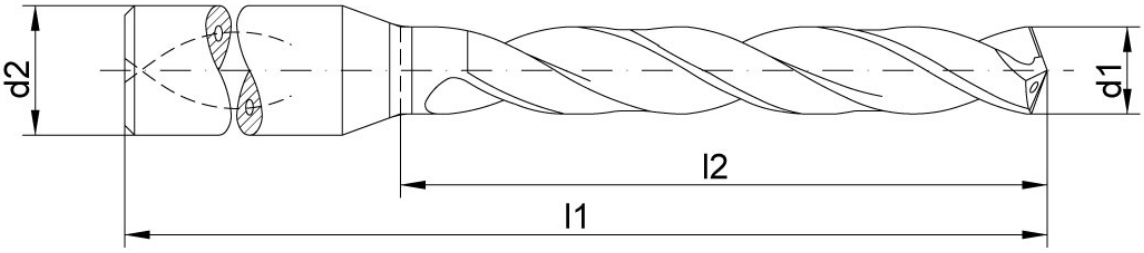

TTD2090150

Type: Lange Hochleistungs-Spiralbohrer mit Kühlmittelloch

d1	d2	l1	l2
1,50	3,00	48	16,90

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)
P01	Unalloyed steels up to 800 N/mm2		45 : 75	0.135
P02	Low alloy steels from 800 N/mm2 to 1100 N/mm2		40 : 70	0.125
P03	Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2		35 : 70	0.115
M01	Ferritic stainless steels		30 : 50	0.045
M02	Martensitic stainless steels		30 : 50	0.07
M03	Martensitic stainless steels - PH		30 : 50	0.025
M04	Austenitic stainless steels		20 : 40	0.025
K01	Gray/lamellar cast iron		20 : 60	0.225
K02	Nodular/nodular cast iron		15 : 40	0.225
N01	Drawn aluminum alloys		100 : 300	0.08
N02	Die-cast aluminum alloys		80 : 250	0.1
N03	Copper		60 : 120	0.08
N04	Brass - Bronze		80 : 140	0.1
N05	Lead-free brass		80 : 140	0.115
S01	Super alloys (Inconel - Hastelloy - Nimonic)		15 : 25	0.015
S02	Pure titanium (Grade 2 - Grade 4)		15 : 25	0.055
S03	Titanium alloys (Grade 5)		15 : 30	0.055
S04	Cobalt Chrome Alloys		15 : 30	0.02
H01	Hardened steels up to 55 HRC		20 : 40	0.015

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		45 : 75	0.135
P02	Low alloy steels from 800 N/mm2 to 1100 N/mm2		40 : 70	0.125
P03	Highly alloyed steels from 1100 N/mm2 to 1400 N/mm2		35 : 70	0.115
M01	Ferritic stainless steels		30 : 50	0.045
M02	Martensitic stainless steels		30 : 50	0.07
M03	Martensitic stainless steels - PH		30 : 50	0.025
M04	Austenitic stainless steels		20 : 40	0.025
K01	Gray/lamellar cast iron		20 : 60	0.225
K02	Nodular/nodular cast iron		15 : 40	0.225
N01	Drawn aluminum alloys		100 : 300	0.08
N02	Die-cast aluminum alloys		80 : 250	0.1
N03	Copper		60 : 120	0.08
N04	Brass - Bronze		80 : 140	0.1
N05	Lead-free brass		80 : 140	0.115
S01	Super alloys (Inconel - Hastelloy - Nimonic)		15 : 25	0.015
S02	Pure titanium (Grade 2 - Grade 4)		15 : 25	0.055
S03	Titanium alloys (Grade 5)		15 : 30	0.055
S04	Cobalt Chrome Alloys		15 : 30	0.02
H01	Hardened steels up to 55 HRC		20 : 40	0.015
H02	Hardened steels from 55 HRC		15 : 30	-