

**Garant**
**Stub drill HSS-E N, TiN, Ø DC h8: 19,5mm**

**Order data**

Order number	113230 19,5
GTIN	4045197006295
Item class	11B

**Description**
**Version:**

Particularly robust and strong due to strengthened core.  
Ground flutes, with high concentricity.

**Advantage:**

**Ideal for drilling shallow holes (approx. 2 - 4×D)** on NC machines and automatic machines.

**Recommendation:**
**Maximum drilling depth:**

$$L_2 = L_c - 1.5 \times D_c.$$

**Technical description**

Feed f in steel < 900 N/mm <sup>2</sup>	0.2 mm/rev.
Number of cutting edges Z	2
Nominal Ø D <sub>c</sub>	19.5 mm
Flute length L <sub>c</sub>	66 mm
Tolerance nominal Ø	h8
Shank Ø D <sub>s</sub>	19.5 mm
Overall length L	131 mm
Standard	DIN 1897
recommended maximum drilling depth L <sub>2</sub>	36.8 mm
Point angle	130 degrees
Shank	Plain shank

Coating	TiN
Tool material	HSS E
Type	N
Through-coolant	no
Colour ring	without
Type of product	Jobber drill

### User data

	Suitability	V <sub>c</sub>	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	50 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	37 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	31 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	12 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	10 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	15 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	10 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	6 m/min	S
GG(G)	suitable	31 m/min	K
CuZn	suitable only under restricted conditions	100 m/min	N
Uni	suitable		
Oil	suitable		
wet maximum	suitable		