

**Garant**
**Stub drill HSS-E FS, uncoated, Ø DC h8: 19,5 mm**

**Order data**

Order number	113020 19,5
GTIN	4045197003133
Item class	11B

**Description**
**Version:**

Particularly **robust and strong** due to **strengthened core**.

Ground flutes, with high concentricity.

Bright finish flutes, nitrided lands.

With point geometry shape C up to 3.9 mm; shape S (special) from 4 mm.

**Advantage:**

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

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

flute length (see table) less 1.5×nominal Ø.

Through-coolant: no

Standard: DIN 1897

Tolerance nominal Ø: h8

Point angle: 135 degrees

Number of cutting edges Z: 2

recommended maximum drilling depth L<sub>2</sub>: 36.8 mm

Flute length L<sub>c</sub>: 66 mm

Overall length L: 131 mm

Shank Ø D<sub>s</sub>: 19.5 mm

Feed f in steel < 750 N/mm<sup>2</sup>: 0.2 mm/rev.

**Technical description**

Feed f in steel < 750 N/mm <sup>2</sup>	0.2 mm/rev.
Flute length L <sub>c</sub>	66 mm
Nominal Ø D <sub>c</sub>	19.5 mm

Number of cutting edges Z	2
Tolerance nominal $\varnothing$	h8
Shank $\varnothing D_s$	19.5 mm
Overall length L	131 mm
Standard	DIN 1897
recommended maximum drilling depth $L_2$	36.8 mm
Point angle	135 degrees
Coating	uncoated
Tool material	HSS E
Type	FS
Helix angle	38 degrees
Shank	Plain shank
Through-coolant	no
Colour ring	without
Type of product	Jobber drill