

**Garant**
**Stub drill HSS-E FS, uncoated, Ø DC h8: 3,1 mm**

**Order data**

Order number	113020 3,1
GTIN	4045197002075
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:**

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

Through-coolant: no

Standard: DIN 1897

Tolerance nominal Ø: h8

Point angle: 135 degrees

Number of cutting edges Z: 2

recommended maximum drilling depth  $L_2$ : 13.4 mm

Flute length  $L_c$ : 18 mm

Overall length L: 49 mm

Shank Ø  $D_s$ : 3.1 mm

Feed f in steel < 750 N/mm<sup>2</sup>: 0.03 mm/rev.

**Technical description**

Nominal Ø $D_c$	3.1 mm
Number of cutting edges Z	2
Flute length $L_c$	18 mm

Feed f in steel < 750 N/mm <sup>2</sup>	0.03 mm/rev.
Tolerance nominal Ø	h8
Shank Ø D <sub>s</sub>	3.1 mm
Overall length L	49 mm
Standard	DIN 1897
recommended maximum drilling depth L <sub>2</sub>	13.4 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