

**Garant**
**Stub drill HSS-E FS, uncoated, Ø DC h8: 2,9mm**

**Order data**

Order number	113020 2,9
GTIN	4045197002051
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 - 4xD)** 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 < 750 N/mm <sup>2</sup>	0.03 mm/rev.
Flute length L <sub>c</sub>	16 mm
Nominal Ø D <sub>c</sub>	2.9 mm
Number of cutting edges Z	2
Tolerance nominal Ø	h8
Shank Ø D <sub>s</sub>	2.9 mm
Overall length L	46 mm
Standard	DIN 1897
recommended maximum drilling depth L <sub>2</sub>	11.7 mm
Point angle	135 degrees

Shank	Plain shank
Coating	uncoated
Tool material	HSS E
Type	FS
Helix angle	38 degrees
Through-coolant	no
Colour ring	without
Type of product	Jobber drill

### User data

	Suitability	V <sub>c</sub>	ISO code
Alu plastics	suitable	70 m/min	N
Aluminium (short chipping)	suitable	45 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	40 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	30 m/min	P
GG(G)	suitable	25 m/min	K
Oil	suitable		
wet maximum	suitable		