

**Garant**
**Stub drill HSS-E FS, uncoated, Ø DC h8: 16,5mm**

**Order data**

Order number	113020 16,5
GTIN	4045197003065
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**

Flute length $L_c$	60 mm
Nominal $\varnothing D_c$	16.5 mm
Number of cutting edges Z	2
Feed f in steel < 750 N/mm <sup>2</sup>	0.2 mm/rev.
Tolerance nominal $\varnothing$	h8
Shank $\varnothing D_s$	16.5 mm
Overall length L	119 mm
Standard	DIN 1897
recommended maximum drilling depth $L_2$	35.3 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		