

**Garant**
**Jobber drill HSS-E FS, uncoated, Ø DC h8: 4,5mm**

**Order data**

Order number	114450 4,5
GTIN	4045197018649
Item class	11B

**Description**
**Version:**

**Profile ground:** this ensures high concentricity and pitch accuracy. Precision ground point. Drill for production use.

**Strengthened core.**

Bright finish **parabolic flutes**, from 3 mm nitrided chamfers.

With point geometry shape C up to size 3.9 mm

With point geometry shape S from size 4 mm

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

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

**Technical description**

Flute length $L_c$	47 mm
Feed $f$ in steel $< 750 \text{ N/mm}^2$	0.05 mm/rev.
Nominal $\varnothing D_c$	4.5 mm
Number of cutting edges $Z$	2
Tolerance nominal $\varnothing$	h8
Shank $\varnothing D_s$	4.5 mm
Overall length $L$	80 mm
Standard	DIN 338
recommended maximum drilling depth $L_2$	40.3 mm
Point angle	130 degrees

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

### User data

	Suitability	$V_c$	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
Steel < 900 N/mm <sup>2</sup>	suitable only under restricted conditions	25 m/min	P
GG(G)	suitable	25 m/min	K
Oil	suitable		
wet maximum	suitable		