

**Garant**
**Jobber drill extra long HSS FS, uncoated, Ø DC h8 × overall length L:  
4,5X235mm**

**Order data**

Order number	116240 4,5X235
GTIN	4045197028709
Item class	11B

**Description**
**Version:**

With precision ground point.

Significantly strengthened core without core taper. Bright finish flutes, nitrided chamfers.

With point geometry shape C.

**Advantage:**

**Special deep hole drills. For particularly deep or recessed holes.** Good chip evacuation due to parabolic flutes, resulting in fewer chip evacuations even in particularly deep holes.

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

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

**Note:**

Suitable NC spotting drills No. 112120, 112140 and 112170 with **142° tip angle** for enhanced process reliability

**Technical description**

Flute length $L_c$	160 mm
Number of cutting edges $Z$	2
Feed $f$ in steel $< 750 \text{ N/mm}^2$	0.05 mm/rev.
Nominal $\varnothing D_c$	4.5 mm
Tolerance nominal $\varnothing$	h8
Shank $\varnothing D_s$	4.5 mm
Overall length $L$	235 mm

Standard	DIN 1869
recommended maximum drilling depth L <sub>2</sub>	153.3 mm
Point angle	130 degrees
Shank	Plain shank
Coating	uncoated
Tool material	HSS
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 only under restricted conditions	50 m/min	N
Aluminium (short chipping)	suitable only under restricted conditions	32 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	28 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	21 m/min	P
GG(G)	suitable	18 m/min	K
Oil	suitable		
wet maximum	suitable		