

Garant**Jobber drill extra long HSS FS, uncoated, Ø DC h8 × overall length L:
3X190mm****Order data**

Order number	116240 3X190
GTIN	4045197028631
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

Number of cutting edges Z	2
Flute length L_c	130 mm
Feed f in steel < 750 N/mm ²	0.05 mm/rev.
Nominal Ø D_c	3 mm
Tolerance nominal Ø	h8
Shank Ø D_s	3 mm
Overall length L	190 mm

Standard	DIN 1869
recommended maximum drilling depth L ₂	125.5 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 _c	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 ²	suitable	28 m/min	P
Steel < 750 N/mm ²	suitable	21 m/min	P
GG(G)	suitable	18 m/min	K
Oil	suitable		
wet maximum	suitable		