

**Garant**
**HSS jobber drill N, uncoated, Ø DC h8 (mm or inch): 19,5**

**Order data**

Order number	114150 19,5
GTIN	4045197013910
Item class	11B

**Description**
**Version:**

Profile ground: Jobber drill with high pitch accuracy and concentricity as well as precision ground point.

Steam tempered from Ø 2.4 mm.

With point geometry shape C from size 4 mm

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

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

**Note:**

Size 16 - 20: Drills with shank Ø 16 mm.

Through-coolant: no

Standard: DIN 338

Tolerance nominal Ø: h8

Point angle: 118 °

Shank: Plain shank

Number of cutting edges Z: 2

recommended maximum drilling depth  $L_2$ : 110.8 mm

Flute length  $L_c$ : 140 mm

Overall length L: 205 mm

Shank Ø  $D_s$ : 16 mm

Feed f in steel < 750 N/mm<sup>2</sup>: 0.2 mm/rev.

**Technical description**

Nominal Ø $D_c$	19.5 mm
Feed f in steel < 750 N/mm <sup>2</sup>	0.2 mm/rev.
Flute length $L_c$	140 mm

Number of cutting edges Z	2
Tolerance nominal $\varnothing$	h8
Shank $\varnothing D_s$	16 mm
Overall length L	205 mm
Standard	DIN 338
recommended maximum drilling depth $L_2$	110.8 mm
Point angle	118°
Shank	Plain shank
Coating	uncoated
Tool material	HSS
Type	N
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	80 m/min	N
Aluminium (short chipping)	suitable only under restricted conditions	45 m/min	N
Alu > 10% Si	suitable only under restricted conditions	50 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	25 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable only under restricted conditions	10 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable only under restricted conditions	8 m/min	P
GG(G)	suitable	25 m/min	K

CuZn	suitable	80 m/min	N
Oil	suitable		
wet maximum	suitable		