

## Garant

### Jobber drill, long, HSS-E N, uncoated, Ø DC h8: 1,9mm



#### Order data

Order number	116065 1,9
GTIN	4045197363961
Item class	11B

#### Description

##### Version:

Profile ground. Standard core thickness and core taper. Bright finish.  
With point geometry shape AC from 2 mm.

##### Advantage:

For drilling with drill bushes or long reach applications.  
For high-tensile tempered steels, **including TOOLOX**.

##### Recommendation:

##### Maximum drilling depth:

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

##### Note:

Suitable NC spotting drills No. 112103, 112110 and 112160 with **120° tip angle** for enhanced process reliability

#### Technical description

Nominal Ø D <sub>c</sub>	1.9 mm
Feed f in steel < 1100 N/mm <sup>2</sup>	0.01 mm/rev.
Flute length L <sub>c</sub>	53 mm
Number of cutting edges Z	2
Tolerance nominal Ø	h8
Shank Ø D <sub>s</sub>	1.9 mm
Overall length L	80 mm
Standard	DIN 340
recommended maximum drilling depth L <sub>2</sub>	50.2 mm

Point angle	118 degrees
Shank	Plain shank
Coating	uncoated
Tool material	HSS E
Type	N
Helix angle	35-40 degrees
Through-coolant	no
Colour ring	red
Type of product	Jobber drill

### User data

	Suitability	V <sub>c</sub>	ISO code
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	10 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	8 m/min	P
TOOLOX 33	suitable	8 m/min	H
TOOLOX 44	suitable	5 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable only under restricted conditions	12 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	8 m/min	M
CuZn	suitable only under restricted conditions	80 m/min	N
Oil	suitable		
wet maximum	suitable		