

## Garant

### GARANT Master Steel SPEED solid carbide drill, plain shank DIN 6535 HA, TiAlN, Ø DC h7: 13mm



#### Order data

Order number	123225 13
GTIN	4045197845733
Item class	11E

#### Description

##### Version:

Developed for use with **very high cutting speeds**. Outstandingly suitable for machines with **low installed power** and high speeds.

- **Clear reduction in cutting forces due to special cutter geometry.**
- **Coating for best wear resistance even at high process temperatures.**
- **Polished flutes for good chip clearance.**

A **slim chisel point** and the **special arrangement of the 4 guide chamfers** ensure **high positioning and alignment accuracy**. Optimised micro-geometry for increased working life and performance capability.

##### Note:

Flute length  $L_c = L_2 + 1.5 \times D_c$ .

For process reliability when using the 12xD drill, an initial centre drilling with NC spotting drills No. 121068 – 121130 is necessary.

Form HB and HE are supplied at the same price as HA.

Order form **HB**: with **No. 123226**.

Order form **HE**: with **No. 123225 + 129100HE**.

#### Technical description

Standard	Manufacturer's standard
Shank Ø D <sub>s</sub>	14 mm
recommended maximum drilling depth L <sub>2</sub>	162.5 mm
Number of cutting edges Z	2
Nominal Ø D <sub>c</sub>	13 mm

Flute length $L_c$	182 mm
Feed $f$ in steel < 1100 N/mm <sup>2</sup>	0.23 mm/rev.
Tolerance nominal $\varnothing$	h7
Overall length $L$	230 mm
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Version	12xD
Point angle	135 degrees
Shank	DIN 6535 HA to h6
Through-coolant	yes, to 25 bar
Machining strategy	HPC
Semi-Standard	yes
Colour ring	green
Type of product	Jobber drill

## User data

	Suitability	$V_c$	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	160 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	125 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	115 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	105 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	65 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable only under restricted conditions	55 m/min	M
GG	suitable	100 m/min	K
GGG	suitable	95 m/min	K
Uni	suitable		
wet maximum	suitable		

wet minimum  
**Services**

suitable

Shank grinding Type HE

129100 HE