

## Garant

### Solid carbide drill plain shank DIN 6535 HA 180°, TiAlN, Ø DC m7: 14mm



#### Order data

Order number	122506 14
GTIN	4045197744500
Item class	11E

#### Description

##### Version:

Special point geometry for generating **180° flat-bottomed holes**. Low radial forces even when spot drilling on faces with up to 45° slope. Flute geometry for optimum chip evacuation. With 4 guide chamfers to stabilise the drill in the hole.

##### Advantage:

**The 180° point angle** permits drilling and counterboring in a single operation.

##### Recommendation:

When using the solid carbide 180° drill it is absolutely essential for process reliability:

- **when spot drilling on flat surfaces to drill a pilot hole 1xD using pilot drill No. 122736.**
- **when spot drilling on sloping surfaces up to 15° : reduce the feed rate f to 50 %, up to 30°: reduce the feed rate f to 40 % and up to 45°: reduce the feed rate f to 25 % of the stated value. After spot drilling, the normal feed rate value can be used.**

##### Note:

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

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

Form **HB**: order with **No. 122506 + 129100HB** .

Form **HE**: order with **No. 122506 + 129100HE**.

180° solid carbide drills for machining aluminium available on request.

**Not** suitable for generating counterbores for socket-head screws to DIN974-1.

#### Technical description

Overall length L	105 mm
Shank Ø D <sub>s</sub>	14 mm
Shank tolerance	h6
Standard	Manufacturer's standard

Nominal $\varnothing D_c$	14 mm
Flute length $L_c$	58 mm
Feed $f$ in steel $< 900 \text{ N/mm}^2$	0.16 mm/rev.
Number of cutting edges $Z$	2
Tolerance nominal $\varnothing$	m7
recommended maximum drilling depth $L_2$	37 mm
Coating	TiAlN
Tool material	Solid carbide
Version	3xD
Point angle	180 degrees
Shank	DIN 6535 HA to h6
Use for drilling	limited convexity
Use for drilling	limited cross-drilling
Use for drilling	limited oblique spot drilling
Through-coolant	yes, with 25 bar
Pilot drill required	yes, pilot drill
Semi-Standard	yes
Colour ring	green
Type of product	Jobber drill

## User data

	Suitability	$V_c$	ISO code
Steel $< 500 \text{ N/mm}^2$	suitable	85 m/min	P
Steel $< 750 \text{ N/mm}^2$	suitable	75 m/min	P
Steel $< 900 \text{ N/mm}^2$	suitable	60 m/min	P
Steel $< 1100 \text{ N/mm}^2$	suitable	50 m/min	P
INOX $< 900 \text{ N/mm}^2$	suitable only under restricted conditions	45 m/min	M
GG(G)	suitable	90 m/min	K

Uni	suitable
wet maximum	suitable
wet minimum	suitable
Air	suitable
<b>Services</b>	

Shank grinding Type HB	129100 HB
Shank grinding Type HE	129100 HE