

**Garant**
**Solid carbide drill plain shank DIN 6535 HA 180°, TiAlN, Ø DC m7: 13,8mm**

**Order data**

Order number	122793 13,8
GTIN	4062406092351
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 15° 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 1×D using pilot drill No. 122736.**
- **When spot drilling on sloping surfaces up to max. 15° : 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. 122793 + 129100HB**.

Form **HE**: order with **No. 122793 + 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**

Standard	Manufacturer's standard
Overall length L	122 mm
Number of cutting edges Z	2
Tolerance nominal Ø	m7

Shank tolerance	h6
Nominal $\varnothing D_c$	13.8 mm
Shank $\varnothing D_s$	14 mm
recommended maximum drilling depth $L_2$	54.3 mm
Feed $f$ in steel $< 900 \text{ N/mm}^2$	0.16 mm/rev.
Flute length $L_c$	75 mm
Coating	TiAlN
Tool material	Solid carbide
Version	5xD
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