

Garant**HiPer-Drill base body, 10×D, Ø DC: 13mm****Order data**

Order number	231617 13
GTIN	4045197868121
Item class	21S

Description**Version:**

- **Very high feed rates and maximum performance due to optimally matched geometries and materials.**
- **Precise positioning of the cutter insert due to Vee insert seating and secure clamping by the centre bore.**
- **High concentricity when assembled.**
- **Shank support for optimum stability in operation.**

Polished flutes.

Application:

For stationary and rotating use. For holes up to IT9 accuracy.

Note:

Clamp in a hydraulic chuck (such as No. 302026 size 20) for optimum radial run-out.

For optimum stability, clamp the drill so the overhang is as short as possible.

Further sizes up to Ø 50.99 mm available on request.

The insert screw must be replaced after every fifth change of cutter insert.

Reduce feed rates f by 10 % and v_c values by 30 %.

For process reliability when using the drill, initial pilot drilling to $1.5 \times D$ with the drill No. 231600 with the same cutter insert size and type is necessary. **The generation of a pilot hole improves process reliability.**

Technical description

Clamping screw	231999 7IP (0.6 Nm)
Dia. range D_c	13 - 13.49 mm
Shank Ø D_s	16 mm
Shank length L_s	48 mm

Reach L ₁	135 mm
Series	HiPer-Drill
Number of cutting edges Z	2
Overall length L	205 mm
Version	10xD
Shank	ISO 9766
Use for drilling	limited drilling through a stack
Use for drilling	limited drilling with oblique exit
Use for drilling	limited cross-drilling
Use for drilling	limited oblique spot drilling
Through-coolant	yes
Type of product	Indexable drill

Accessories

Torx Plus® screw Drive 7IP	231999 7IP
PrecisionBit for Torx Plus®, 1/4 inch E 6.3 Torx Plus® profile 7IP	674252 7IP
Torque screwdriver, fixed setting set torque 0,6 N·m	211750 0,6