

Garant**HiPer-Drill base body, 8×D, Ø DC: 9 mm****Order data**

Order number	231615 9
GTIN	4045197716248
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.**

Created by an additive procedure.

Application:

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

Recommendation:

Drill the pilot hole.

Note:

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 v_f values by 20 %.

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.

For process reliability when using the drill, initial pilot drilling to 1.5×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.**

Number of cutting edges Z: 2

Dia. range D_c : 9 - 9.49 mm

Reach L_1 : 76 mm

Shank Ø D_s : 12 mm

Shank length L_s : 45 mm

Clamping screw: 231999_5IP1 (0.2 Nm)

Technical description

Clamping screw	231999_5IP1 (0.2 Nm)
Reach L_1	76 mm
Dia. range D_c	9 - 9.49 mm
Shank $\varnothing D_s$	12 mm
Shank length L_s	45 mm
Number of cutting edges Z	2
Drill depth up to	8×D
Shank	ISO 9766
Use for drilling	limited drilling with oblique exit
Use for drilling	limited drilling through a stack
Use for drilling	limited oblique spot drilling
Use for drilling	limited cross-drilling
Through-coolant	yes
Type of product	Indexable drill

Accessories

Torx Plus® screw Drive 5IP1	231999 5IP1
Torque screwdriver, fixed setting set torque 0,2 Nm	211750 0,2
PrecisionBit for Torx Plus®, shank E 6.3 Torx Plus® profile 5IP	674252 5IP