GARANT Master Steel MICRO solid carbide drill, plain shank DIN 6535 HA 12×D, AlCrN, Ø DC h6: 1,15 mm

Order data

Order number	121226 1,15
GTIN	4062406580575
Item class	10F

Description

Version:
High-performance micro-drill for universal material use, focussing on steel processing. Maximum process reliability due to **exactly matched tools within the overall system** and **expanded guide chamfers.** Drilling of very small diameters down to the maximum depth after creating a pilot hole. **Optimum compromise between core diameter and flute size for optimum chip evacuation** – even with long-chipping materials. The **increased metal removal rates and longer tool life** ensure an economical drilling process, even with very small hole diameters combined with a large L/D ratio.
Note:
For process reliability when using micro-drills from 8×D, a **pilot hole** of **at least 4×D** is required using the micro-pilot drill 121223. For vertical machining and flat workpiece surfaces, a pilot hole can be dispensed with from D_C = Ø 1 mm up to a length of 12×D. Please always ensure that the **pilot hole is free from chips** before using the subsequent drilling tool. We recommend setting a 90° counterbore with a suitable NC spotting drill after the pilot hole has been completed.
For **through holes**, reduce the feed rate of the tool by 50% before exiting the hole. Long-chipping materials may require **chips to be evacuated** in steps of 3×D each by moving the drill back slightly at pilot hole depth. Please make sure that you use a suitable **tool clamping device** (shrink-fit chuck, hydraulic clamping chuck) with a radial run-out of less than 0.003 mm, a sufficiently high **coolant pressure** (at least 30 bar), as well as sufficiently fine **filtration** of the cooling medium (D_C <Ø 2 mm with filter ≤ 0.010 mm; D_C <Ø 3 mm filter ≤ 0.020 mm). The specified L/D ratio gives the **minimum achievable depth of hole** with the respective micro-drill.
Flute length $L_C = L_2 + 1.5 \times D_C$.
Standard: Manufacturer's standard
Tolerance nominal Ø: h6
Number of cutting edges Z: 2
Tolerance nominal Ø: h6
recommended maximum drilling depth L_2: 15 mm

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Overall length L: 50 mm
Shank ∅ D_s: 3 mm
Feed f in steel < 1100 N/mm^2: 0.034 mm/rev.
Feed f in stainless steel < 900 N/mm^2: 0.018 mm/rev.

Technical description

Feed f in steel < 1100 N/mm^2	0.034 mm/rev.
Tolerance nominal ∅	h6
Shank ∅ D_s	3 mm
Flute length L_c	16.8 mm
Feed f in stainless steel < 900 N/mm^2	0.018 mm/rev.
recommended maximum drilling depth L_2	15 mm
Nominal ∅ D_C	1.15 mm
Standard	Manufacturer’s standard
Overall length L	50 mm
Number of cutting edges Z	2
Series	GARANT Master Steel
Coating	AlCrN
Tool material	Solid carbide
Drill depth up to	12×D
Point angle	128 degrees
Shank	Parallel shank to h6
Through-coolant	yes, with 25 bar
Machining strategy	HPC
Pilot drill required	yes, pilot drill
Semi-Standard	yes
Colour ring	green
Type of product	Jobber drill