# Garant

# GARANT Master Steel DEEP solid carbide deep hole drill, plain shank DIN 6535 HA 20×D, TiAIN, Ø DC: 9mm

## Order data

Order number	123890 9	
GTIN	4062406268244	
Item class	10E	

## Description

#### Version:

**Excellent chip evacuation** due to the unequal helical pitch of the flutes, guide rings and additional guide chamfers for very high precision when drilling. **Maximum process reliability** due to exactly matching tools within the overall system. Drilling up to the maximum depth without a pilot drill. **Significantly increased tool stability** due to the substantially strengthened core. **Increased metal removal rates** and **outstanding tool lives** lead to an economical highend drilling process.

#### Note:

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

For process reliability when using the 16×D deep-hole drill, initial centre drilling with No. 121068 – 121121 or a pilot hole of at least 4×D with pilot drill No. 122736 is necessary. For deep holes greater than 20×D, a pilot hole to the maximum drilling depth with pilot drill No. 122736 is absolutely essential. The generation of a pilot hole improves process reliability. **The specified L/ D ratio gives the minimum achievable depth of hole with the respective deep-hole drill.** 

## **Technical description**

Overall length L	249 mm	
Flute length $L_c$	203 mm	
recommended maximum drilling depth $L_2$	189.5 mm	
Shank Ø D <sub>s</sub>	10 mm	
Number of cutting edges Z	2	
Nominal Ø D <sub>c</sub>	9 mm	

Feed f in steel < 900 N/mm <sup>2</sup>	0.19 mm/rev.		
Tolerance nominal $\varnothing$	јб		
Standard	Manufacturer's standard		
Series	Master Steel		
Coating	TiAIN		
Tool material	Solid carbide		
Version	20×D		
Point angle	138 degrees		
Shank	DIN 6535 HA to h6		
Through-coolant	yes, with 40 bar		
Machining strategy	HPC		
Pilot drill required	yes, pilot drill		
Colour ring	green		
Type of product	Jobber drill		

# User data

	Suitability	Vc	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable	120 m/min	Р
Steel < 750 N/mm <sup>2</sup>	suitable	110 m/min	Р
Steel < 900 N/mm <sup>2</sup>	suitable	105 m/min	Р
Steel < 1100 N/mm²	suitable	105 m/min	Р
Steel < 1400 N/mm <sup>2</sup>	suitable	85 m/min	Р
INOX < 900 N/mm <sup>2</sup>	suitable	65 m/min	М
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	60 m/min	М
Ti > 850 N/mm²	suitable only under restricted conditions	25 m/min	S
GG(G)	suitable	110 m/min	К
Uni	suitable		

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suitable

wet minimum

suitable only under restricted conditions