# Garant

# GARANT Master Steel DEEP solid carbide deep hole drill, plain shank DIN 6535 HA 16×D, TiAIN, Ø DC: 6,5mm

# Order data

Order number	123888 6,5
GTIN	4062406267766
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:

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

# **Technical description**

Tolerance nominal Ø	јб		
Standard	Manufacturer's standard		
Overall length L	162 mm		
Shank Ø D <sub>s</sub>	8 mm		
Number of cutting edges Z	2		
Feed f in steel < 900 N/mm <sup>2</sup>	0.16 mm/rev.		

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# Data sheet

Flute length L <sub>c</sub>	120 mm		
recommended maximum drilling depth $L_2$	110.3 mm		
Nominal Ø D <sub>c</sub>	6.5 mm		
Series	Master Steel		
Coating	TiAIN		
Tool material	Solid carbide		
Version	16×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	V <sub>c</sub>	ISO code
Steel < 500 N/mm²	suitable only under restricted conditions	125 m/min	Ρ
Steel < 750 N/mm <sup>2</sup>	suitable	115 m/min	Р
Steel < 900 N/mm²	suitable only under restricted conditions	110 m/min	Ρ
Steel < 1100 N/mm <sup>2</sup>	suitable	110 m/min	Р
Steel < 1400 N/mm <sup>2</sup>	suitable	90 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	30 m/min	S

GG(G)	suitable only under restricted conditions	115 m/min	К
Uni	suitable		
wet maximum	suitable only under restricted conditions		
wet minimum	suitable only under restricted conditions		