# Garant

# High-precision countersink with unequal spacing 90°, AlTiCN, External Ø Dc: 16,5mm



## Order data

Order number	150389 16,5
GTIN	4062406073312
Item class	11M

## Description

#### Version:

All countersinks have 3 cutting edges, radially relieved.

Flutes are ground from solid.

High-precision countersink, produced with tight manufacturing tolerances similar to DIN 335-C. Special geometry with **unequal spacing** and matching cutting edge preparation.

Newly developed AlTiCN coating especially for stainless steels.

#### **Application:**

High-precision countersinks for chatter-free production of **precise**, **round 90° countersunk surfaces**.

## **Technical description**

Overall length L	60 mm	
Number of cutting edges Z	3	
Shank tolerance	h9	
smallest countersink Ø for holes from	3.2 mm	
External Ø	16.5 mm	
Feed f in stainless steel < 900 N/mm <sup>2</sup>	0.12 mm/rev.	
Shank Ø D <sub>s</sub>	10 mm	
Pre-drill Ø	3.2 mm	

for countersunk screws DIN 7991	M8		
Coating	AITiCN		
Countersink tip angle	90 degrees		
bol material HSS E			
cing of the countersink cutting edges unequal spacing			
Standard	DIN 335 C		
Shank	Parallel shank to h9		
Through-coolant	no		
Colour ring	blue		
Type of product	Stepped drill and countersink		

## User data

	Suitability	Vc	ISO code
Alu plastics	suitable only under restricted conditions	53 m/min	Ν
Aluminium (short chipping)	suitable only under restricted conditions	40 m/min	Ν
Alu > 10% Si	suitable only under restricted conditions	35 m/min	Ν
Steel < 500 N/mm <sup>2</sup>	suitable	55 m/min	Р
Steel < 750 N/mm <sup>2</sup>	suitable	30 m/min	Р
Steel < 900 N/mm <sup>2</sup>	suitable	25 m/min	Р
Steel < 1100 N/mm <sup>2</sup>	suitable	15 m/min	Р
Steel < 1400 N/mm <sup>2</sup>	suitable	12 m/min	Р
INOX < 900 N/mm <sup>2</sup>	suitable	18 m/min	М
INOX > 900 N/mm <sup>2</sup>	suitable	13 m/min	М
Ti > 850 N/mm²	suitable	13 m/min	S
GG(G)	suitable only under restricted conditions	30 m/min	К

CuZn	suitable only under restricted conditions	42 m/min	Ν
wet maximum	suitable		
wet minimum	suitable		
dry	suitable only under restricted conditions		