

## Garant

### GARANT Diabolo solid carbide micro slot drill, TiAlN, Ø DC × L1: 0,9X4mm



## Order data

Order number	201631 0,9X4
GTIN	4062406089658
Item class	11X

## Description

### Version:

#### GARANT Diabolo:

Special geometry, coating and carbide **for hard machining in the high-performance field.** Suitable even for **machining electrolytic copper.** Double-relief ground 2 chamfers hollow ground for high-precision hard machining.

Recess angle  $\alpha = 16^\circ$ .

Tolerances:

· **Neck Ø:  $D_1 = 0 / -0.01$  mm.**

#### Note:

At greater tool overhang lengths, use a reduced value for  $a_p$ !

Values for:

slots milled from solid:  $a_p = 0.05 \times D \times a_{p \text{ korr}}$

side milling:  $a_p = 0.1 \times D \times a_{p \text{ korr}}$

**To calculate the feed rate  $vf$  please use the actual speed of the machine (the maximum possible speed)! e.g:  $vf = 18000 \text{ [rpm]} \times fz \text{ [mm/Z]} \times z$**

## Technical description

Overall length L	45 mm
Recess Ø $D_1$	0.88 mm
Cutting edge Ø $D_c$	0.9 mm
Feed $f_z$ for slot milling in steel < 65 HRC	0.012 mm
Direction of infeed	horizontal, oblique and vertical
Correction factor $a_{p \text{ corr}}$	1

No. of teeth Z	2
Overhang length L <sub>1</sub> incl. recess	4 mm
Shank Ø D <sub>s</sub>	4 mm
Shank	DIN 6535 HA to h5
Tolerance nominal Ø	0 / -0.005
Helix angle	30 degrees
Flute length L <sub>c</sub>	1.3 mm
Feed f <sub>z</sub> for side milling in steel < 65 HRC	0.015 mm
Corner chamfer angle	90 degrees
Series	Diabolo
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Cutting width a <sub>e</sub> for milling operation	Full slot cutting depth 1×D
Cutting width a <sub>e</sub> for milling operation	0.1×D for side milling
Through-coolant	no
Colour ring	red
Type of product	End / face mill

## User data

	Suitability	V <sub>c</sub>	ISO code
Steel < 750 N/mm <sup>2</sup>	suitable only under restricted conditions	200 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable only under restricted conditions	200 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	190 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	170 m/min	P
Steel < 50 HRC	suitable	120 m/min	H

Steel < 55 HRC	suitable	100 m/min	H
Steel < 60 HRC	suitable	72 m/min	H
Steel < 65 HRC	suitable	55 m/min	H
Steel < 67 HRC	suitable	50 m/min	H
Steel < 70 HRC	suitable	45 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	90 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	80 m/min	M
CuZn	suitable only under restricted conditions	140 m/min	N
wet maximum	suitable only under restricted conditions		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		