

Garant**GARANT Diabolo solid carbide micro slot drill, TiAlN, Ø DC×L4: 0,4X2mm****Order data**

Order number	201641 0,4X2
GTIN	4045197358240
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 with 2 chamfers hollow ground for high-precision hard machining.

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

Tolerances:

· **recess Ø: $D_4 = 0 / -0.02$ mm.**

Note:

Correction factor for v_c dependent on dimension L_4

f_z for $a_p = 0.05 \times D$.

f_z for $a_p = 0.1 \times D$.

Technical description

Overhang length L_1 incl. recess	2 mm
Cutting speed v_c in steel < 65 HRC	50 m/min
Feed f_z for slot milling in steel < 65 HRC	0.0023 mm
No. of teeth Z	2
Feed f_z for side milling in steel < 65 HRC	0.0029 mm
Recess Ø D_1	0.38 mm
Cutting edge Ø D_c	0.4 mm
Shank Ø D_s	4 mm

Data sheet

Overall length L	45 mm
Flute length L _c	0.6 mm
Direction of infeed	horizontal, oblique and vertical
Correction factor for v _c	1.25
Shank	DIN 6535 HA to h5
Tolerance nominal Ø	0 / -0.01
Helix angle	30 degrees
Corner chamfer angle	90 degrees
Series	Diabolo
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Cutting width a _e for milling operation	0.1×D for side milling
Cutting width a _e for milling operation	Full slot cutting depth 1×D
Colour ring	red
Type of product	End / face mill

User data

	Suitability	V _c	ISO code
Steel < 750 N/mm ²	suitable only under restricted conditions	220 m/min	P
Steel < 900 N/mm ²	suitable only under restricted conditions	220 m/min	P
Steel < 1100 N/mm ²	suitable	210 m/min	P
Steel < 1400 N/mm ²	suitable	190 m/min	P
Steel < 50 HRC	suitable	180 m/min	H
Steel < 55 HRC	suitable	120 m/min	H
Steel < 60 HRC	suitable	72 m/min	H

Data sheet

Steel < 65 HRC	suitable	55 m/min	H
INOX < 900 N/mm ²	suitable only under restricted conditions	95 m/min	M
INOX > 900 N/mm ²	suitable only under restricted conditions	75 m/min	M
CuZn	suitable	140 m/min	N
Uni	suitable only under restricted conditions		
wet maximum	suitable only under restricted conditions		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		