

Garant
Diabolo solid carbide micro slot drill, TiAlN, Ø DC × L1: 3X12 mm

Order data

Order number	201631 3X12
GTIN	4045197933362
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. $vf = 18000 \text{ [rpm]} \times fz \text{ [mm/Z]} \times z$

Through-coolant: no

Tolerance nominal Ø: $0 / -0,005$

No. of teeth Z: 2

Helix angle: 30 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HA to h5

No. of teeth Z: 2

Flute length L_c : 4.6 mm

Overhang length L_1 incl. recess: 12 mm

Recess Ø D_1 : 2.91 mm

Overall length L: 45 mm

Shank Ø D_s : 4 mm

Technical description

Direction of infeed	horizontal, oblique and vertical
Overhang length L_1 incl. recess	12 mm
Tolerance nominal \varnothing	0 / -0,005
Helix angle	30 degrees
Feed f_z for slot milling in steel < 65 HRC	0.025 mm
Cutting speed v_c in steel < 65 HRC	50 m/min
Correction factor $a_{p,corr}$	1
Overall length L	45 mm
Feed f_z for side milling in steel < 65 HRC	0.03 mm
No. of teeth Z	2
Flute length L_c	4.6 mm
Cutting edge $\varnothing D_c$	3 mm
Shank	DIN 6535 HA to h5
Recess $\varnothing D_1$	2.91 mm
Shank $\varnothing D_s$	4 mm
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	Full slot cutting depth $1 \times D$
Cutting width a_e for milling operation	$0.1 \times D$ for side milling
Through-coolant	no
Colour ring	red
Type of product	End mill

