

Garant

Solid carbide torus cutter HPC, TiAlN, Ø DC / R1: 12/1,0mm



Order data

Order number	206324 12/1,0
GTIN	4045197641403
Item class	11X

Description

Version:

GARANT Diabolo 70:

Special solid carbide substrate with extremely high tensile strength combined with **outstanding wear resistance** for optimum process reliability.

Newly developed **nano-crystalline high-tech coating for hard milling up to 70 HRC**. Very suitable **for continuous use** in tool and mould making.

Tolerances:

- **Corner radius: $R_1 = \pm 0.02$ mm.**

Application:

Due to the **special hard geometry** ideal for use on hardened materials from 60 HRC to 70 HRC.

For profile milling as a finishing operation.

(Plunge milling only to shallow depths).

Technical description

Corner radius R_1	1 mm
Overhang length L_1 incl. recess	36 mm
Feed f_z for copy milling in steel < 70 HRC	0.08 mm
Cutting edge $\varnothing D_c$	12 mm
Feed f_z for side milling in steel < 70 HRC	0.08 mm
No. of teeth Z	6
Recess $\varnothing D_1$	11.7 mm
Shank $\varnothing D_s$	12 mm

Flute length L_c	12 mm
Overall length L	75 mm
Shank	DIN 6535 HA to h6
Helix angle	45 degrees
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Tolerance nominal \varnothing	0 / -0.02
Direction of infeed	horizontal, oblique and vertical
Cutting width a_e for milling operation	0.05×D for copy milling
Cutting width a_e for milling operation	0.05×D for side milling
Through-coolant	no
Machining strategy	HPC
Shank tolerance	h6
Colour ring	red
Type of product	Torus cutter

User data

	Suitability	V_c	ISO code
Steel < 60 HRC	suitable only under restricted conditions	150 m/min	H
Steel < 65 HRC	suitable	110 m/min	H
Steel < 67 HRC	suitable	90 m/min	H
Steel < 70 HRC	suitable	80 m/min	H
dry	suitable		
Air	suitable		

Services

Shank grinding Type HB	129100 HB
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