

**Garant**
**Solid carbide torus cutter HPC, TiAlN, Ø DC / R1: 6/1,0mm**

**Order data**

Order number	206323 6/1,0
GTIN	4045197640888
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.

Sizes 2 – 5: **Recess angle  $\alpha = 15^\circ$** .

Tolerances:

- **Corner radius:  $R_1 = \pm 0.01$  mm.**

**Application:**

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

**Technical description**

Feed $f_z$ for copy milling in steel < 70 HRC	0.048 mm
Corner radius $R_1$	1 mm
No. of teeth Z	4
Cutting edge $\varnothing D_c$	6 mm
Overhang length $L_1$ incl. recess	18 mm
Recess $\varnothing D_1$	5.85 mm
Feed $f_z$ for side milling in steel < 70 HRC	0.048 mm
Shank $\varnothing D_s$	6 mm
Flute length $L_c$	6 mm

Overall length L	58 mm
Shank	DIN 6535 HA to h6
Helix angle	30 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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