

**Garant**
**Solid carbide torus cutter HPC, TiAlN, Ø DC / R1: 4/0,5 mm**

**Order data**

Order number	206323 4/0,5
GTIN	4045197640857
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.

No. of teeth Z: 4

Helix angle: 30 degrees

Shank: DIN 6535 HA to h6

No. of teeth Z: 4

Flute length  $L_c$ : 4 mm

Corner radius  $R_1$ : 0.5 mm

Overhang length  $L_1$  incl. recess: 16 mm

Recess  $\varnothing D_1$ : 3.9 mm

Overall length L: 58 mm

**Technical description**

Recess $\varnothing D_1$	3.9 mm
No. of teeth Z	4
Feed $f_z$ for copy milling in steel < 70 HRC	0.019 mm

Feed $f_z$ for side milling in steel < 70 HRC	0.019 mm
Overhang length $L_1$ incl. recess	16 mm
Cutting edge $\varnothing D_c$	4 mm
Corner radius $R_1$	0.5 mm
Shank $\varnothing D_s$	6 mm
Flute length $L_c$	4 mm
Overall length $L$	58 mm
Shank	DIN 6535 HA to h6
Helix angle	30 degrees
Series	Diabolo
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	End mill

## Services

Shank recess Type FRST	209900 FRST
Shank grinding Type HB	129100 HB