

## Garant

### Solid carbide torus cutter HPC, TiAlN, Ø DC / R1: 10/1,0mm



## Order data

Order number	206324 10/1,0
GTIN	4045197641397
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
Feed $f_z$ for side milling in steel < 70 HRC	0.07 mm
Overhang length $L_1$ incl. recess	30 mm
Feed $f_z$ for copy milling in steel < 70 HRC	0.07 mm
No. of teeth $Z$	6
Cutting edge $\varnothing D_c$	10 mm
Recess $\varnothing D_1$	9.7 mm
Shank $\varnothing D_s$	10 mm

Flute length $L_c$	10 mm
Overall length $L$	70 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
------------------------	-----------

