

Garant
GARANT Diabolo solid carbide torus cutter HPC, TiAlN, Ø e8 DC / R1: 4/1,0mm

Order data

Order number	206162 4/1,0
GTIN	4045197597762
Item class	11X

Description
Version:
GARANT Diabolo:

Special geometry, coating and carbide, specially for hard machining.

For copy milling with **angle α : 1° 30'**. Double relief ground side clearance angle.

Tolerances:

- **Corner radius: $R_1 = \pm 0.005$ mm.**
- **Angle $\alpha = \pm 20'$.**

Note:

Standard application values: f_z for $a_p = 0.1 \times D$.

Technical description

Overhang length L_1 incl. recess	16 mm
Recess Ø D_1	3.8 mm
Feed f_z for side milling in steel < 65 HRC	0.019 mm
Cutting edge Ø D_c	4 mm
No. of teeth Z	2
L_2	40 mm
Feed f_z for copy milling in steel < 65 HRC	0.019 mm
Corner radius R_1	1 mm
Shank Ø D_s	6 mm
Flute length L_c	3 mm

Overall length L	80 mm
Shank	DIN 6535 HA to h6
Helix angle	30 degrees
maximum shank recess dia. D ₆	5.1 mm
Series	Diabolo
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Tolerance nominal Ø	e8
Direction of infeed	horizontal, oblique and vertical
Cutting width a _e for milling operation	0.2×D for side milling
Cutting width a _e for milling operation	0.05×D for copy 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 < 1400 N/mm ²	suitable	180 m/min	P
Steel < 50 HRC	suitable	170 m/min	H
Steel < 55 HRC	suitable	140 m/min	H
Steel < 60 HRC	suitable	135 m/min	H
Steel < 65 HRC	suitable	100 m/min	H
wet maximum	suitable only under restricted conditions		

wet minimum	suitable only under restricted conditions
dry	suitable
Air	suitable
Services	
Shank grinding Type HB	129100 HB