

**Garant**
**GARANT Master Steel solid carbide torus cutter HPC, TiAlN, Ø e8 DC / R1: 5/1,0mm**

**Order data**

Order number	206335 5/1,0
GTIN	4062406276751
Item class	11X

**Description**
**Version:**

HPC milling cutter with **newly developed high-performance coating**. For **outstanding tool life** and **optimum metal removal rates** in a range of materials.

With **double relief ground side clearance angle**.

Tolerance: Corner radius  $R_1$

Radius size 0.1 mm – 1 mm:  $R_1 = \pm 0.003$  mm.

Radius size > 1.0 mm:  $R_1 = \pm 0.005$  mm.

**Application:**

Especially for **high speed machining** in **mould and tool making** for **copy milling**. Excellent results for **dry milling**.

**Note:**

**Successor product to No. 206300.**

**Technical description**

Shank $\varnothing D_s$	5 mm
Feed $f_z$ for copy milling in steel < 1100 N/mm <sup>2</sup>	0.02 mm
Overall length L	75 mm
Cutting edge $\varnothing D_c$	5 mm
Helix angle	30 degrees
No. of teeth Z	5
Overhang length $L_1$ incl. recess	40 mm

Corner radius $R_1$	1 mm
Shank	DIN 6535 HA to h6
Flute length $L_c$	6 mm
Feed $f_z$ for side milling in steel < 1100 N/mm <sup>2</sup>	0.018 mm
maximum shank recess dia. $D_6$	4.9 mm
minimum shank recess dia. $D_5$	4.6 mm
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	H
Tolerance nominal $\varnothing$	e8
Direction of infeed	horizontal, oblique and vertical
Cutting width $a_e$ for milling operation	0.05×D for side milling
Cutting width $a_e$ for milling operation	Full slot cutting depth 0,2×D
Through-coolant	no
Machining strategy	HPC
Colour ring	green
Type of product	Torus cutter

## User data

	Suitability	$V_c$	ISO code
Steel < 500 N/mm <sup>2</sup>	suitable only under restricted conditions	180 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	150 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	110 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	75 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	65 m/min	P
Steel < 55 HRC	suitable	35 m/min	H

INOX < 900 N/mm <sup>2</sup>	suitable	90 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	80 m/min	M
GG(G)	suitable	100 m/min	K
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		