

Garant
GARANT Master UNI solid carbide torus cutter, TiSiN, Ø DC / R1: 12/2,0mm

Order data

Order number	206367 12/2,0
GTIN	4067263047063
Item class	11Z

Description
Version:

For **roughing and finishing at very high feed rates** with smooth cutting action. **Newly developed geometry and high-performance coating** for outstanding production results and very long tool life with a variety of materials. Unequal spacing gives **high intrinsic stability** and smooth cutting action. Tolerance: corner radius $R_1 = \pm 0.005 \text{ mm}$.

Dimensions similar to **DIN 6527**.

Advantage:

- **Particularly low vibration running.**
- **Special flute profile, large flutes.**
- **Specially matched edge honing.**
- **Optimised substrate for hardness and toughness.**

Technical description

Shank $\varnothing D_s$	12 mm
Shank	DIN 6535 HB to h6
Overall length L	83 mm
Flute length L_c	26 mm
Feed f_z for copy milling in steel $< 900 \text{ N/mm}^2$	0.11 mm
Corner radius R_1	2 mm
Feed f_z for side milling in steel $< 900 \text{ N/mm}^2$	0.09 mm
Overhang length L_1 incl. recess	38 mm

No. of teeth Z	4
Cutting edge $\varnothing D_c$	12 mm
Feed f_z for copy milling in stainless steel > 900 N/mm ²	0.067 mm
Helix angle	42 degrees
Recess $\varnothing D_1$	11.6 mm
Feed f_z for side milling in INOX > 900 N/mm ²	0.055 mm
Series	Master Uni
Coating	TiSiN
Tool material	Solid carbide
Standard	Works standard
Type	N
Tolerance nominal \varnothing	e8
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Direction of infeed	horizontal, oblique and vertical
Cutting width a_e for milling operation	0.3×D for side milling
Cutting width a_e for milling operation	0.3×D for side milling
Cutting width a_e for milling operation	0.05×D for copy milling
Through-coolant	no
Machining strategy	HPC
Type of product	Torus cutter

User data

	Suitability	V_c	ISO code
Aluminium (short chipping)	suitable only under restricted conditions	280 m/min	N
Steel < 500 N/mm ²	suitable	260 m/min	P
Steel < 750 N/mm ²	suitable	240 m/min	P
Steel < 900 N/mm ²	suitable	190 m/min	P

Steel < 1100 N/mm ²	suitable	180 m/min	P
Steel < 1400 N/mm ²	suitable	150 m/min	P
INOX < 900 N/mm ²	suitable	90 m/min	M
INOX > 900 N/mm ²	suitable	80 m/min	M
Ti > 850 N/mm ²	suitable	40 m/min	S
GG(G)	suitable only under restricted conditions	250 m/min	K
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		