

Garant
GARANT Master UNI solid carbide torus cutter, TiSiN, Ø DC / R1: 10/2,0mm


Order data

| | |
|--------------|---------------|
| Order number | 206367 10/2,0 |
| GTIN | 4067263047018 |
| 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

| | |
|-------------------------------------------------------------|-------------------|
| Overhang length L_1 incl. recess | 32 mm |
| Overall length L | 72 mm |
| Recess $\varnothing D_1$ | 9.7 mm |
| Helix angle | 42 degrees |
| No. of teeth Z | 4 |
| Shank | DIN 6535 HB to h6 |
| Shank $\varnothing D_s$ | 10 mm |
| Feed f_z for copy milling in steel $< 900 \text{ N/mm}^2$ | 0.09 mm |

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|-----------------------------------------------------------------------|----------------------------------|
| Feed f_z for copy milling in stainless steel $> 900 \text{ N/mm}^2$ | 0.058 mm |
| Feed f_z for side milling in steel $< 900 \text{ N/mm}^2$ | 0.08 mm |
| Flute length L_c | 22 mm |
| Feed f_z for side milling in INOX $> 900 \text{ N/mm}^2$ | 0.05 mm |
| Corner radius R_1 | 2 mm |
| Cutting edge $\varnothing D_c$ | 10 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 | $0.3 \times D$ for side milling |
| Cutting width a_e for milling operation | $0.3 \times D$ for side milling |
| Cutting width a_e for milling operation | $0.05 \times D$ 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 $< 500 \text{ N/mm}^2$ | suitable | 260 m/min | P |
| Steel $< 750 \text{ N/mm}^2$ | suitable | 240 m/min | P |
| Steel $< 900 \text{ N/mm}^2$ | 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 | | |