

Garant
Solid carbide milling cutter with chip separators TPC, TiAlN, Ø f8 DC: 16mm

Order data

| | |
|--------------|---------------|
| Order number | 203090 16 |
| GTIN | 4045197814388 |
| Item class | 11X |

Description
Version:

High-performance end mills for general-purpose machining, **specially designed for TPC applications.**

Strengthened core. Offset chip breaker. **Optimised bending strength** due to the use of ultra-fine grain substrates.

Note:

$a_{e\max} = 0.05 \times D$ for TPC machining.

h_{\max} : The values stated in the table are maximum values.

Tolerance nominal Ø: f8

No. of teeth Z: 5

Helix angle: 40 °

Direction of infeed: horizontal and oblique

Shank: DIN 6535 HB to h6

Balance quality with shank: G 2.5 with HB

No. of teeth Z: 5

Flute length L_c : 64 mm

Overall length L: 123 mm

Shank Ø D_s : 16 mm

Corner chamfer width at 45°: 0.32 mm

Average chip thickness h_{\max} for TPC milling in Toolox 44 HRC: 0.071 mm

Technical description

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|---------------------|----|
| No. of teeth Z | 5 |
| Tolerance nominal Ø | f8 |

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|--|-------------------------|
| Average chip thickness h_{\max} for TPC milling in Toolox 44 HRC | 0.071 mm |
| Direction of infeed | horizontal and oblique |
| Balance quality with shank | G 2.5 with HB |
| Corner chamfer width at 45° | 0.32 mm |
| Flute length L_c | 64 mm |
| Shank | DIN 6535 HB to h6 |
| Shank $\varnothing D_s$ | 16 mm |
| Overall length L | 123 mm |
| Cutting edge $\varnothing D_c$ | 16 mm |
| Helix angle | 40° |
| Corner chamfer angle | 45° |
| Coating | TiAlN |
| Tool material | Solid carbide |
| Standard | Manufacturer's standard |
| Type | N |
| Helix angle characteristic | unequal spacing |
| Spacing of the cutters | unequal spacing |
| Cutting width a_e for milling operation | 0.05×D |
| Through-coolant | no |
| Machining strategy | TPC |
| Colour ring | green |
| Type of product | End / face mill |

User data

| | Suitability | V_c | ISO code |
|-------------------------------|-------------|-----------|----------|
| Steel < 500 N/mm ² | suitable | 380 m/min | P |
| Steel < 750 N/mm ² | suitable | 340 m/min | P |
| Steel < 900 N/mm ² | suitable | 300 m/min | P |

| | | | |
|-------------------------------------|---|-----------|---|
| Steel < 1100 N/mm ² | suitable | 230 m/min | P |
| Steel < 1400 N/mm ² | suitable | 150 m/min | P |
| TOOLOX 33 | suitable | 60 m/min | H |
| TOOLOX 44 | suitable | 40 m/min | H |
| HARDOX 500 < 1600 N/mm ² | suitable | 25 m/min | H |
| INOX < 900 N/mm ² | suitable | 220 m/min | M |
| INOX > 900 N/mm ² | suitable only under restricted conditions | 150 m/min | M |
| Uni | suitable | | |
| wet maximum | Suitable | | |
| dry | Suitable only under restricted conditions | | |
| Air | suitable | | |

Services

Shank clamping flats for shrink-fit chucks, with retainer function Shank Ø tool 16 mm

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