

Garant

Solid carbide milling cutter HPC / TPC, TiAlN, Ø DC: 12mm



Order data

| | |
|--------------|---------------|
| Order number | 203373 12 |
| GTIN | 4045197641335 |
| Item class | 11X |

Description

Version:

GARANT Diabolo 70:

Special solid carbide substrate with extremely high tensile strength combined with **outstanding wear resistance** for optimum process reliability. Newly developed **nano-crystalline high-tech coating for hard milling up to 70 HRC**. Very suitable for **continuous use** in tool and mould making.

Sizes 2 – 5: **Recess angle $\alpha = 15^\circ$** .

Tolerance:

- **Size nominal \varnothing : $D_c \leq$ size 12: 0 / -0.02 mm;**
- **Size nominal \varnothing : D_c from size 16: 0 / -0.03 mm.**

Application:

Due to the **special hard geometry** ideal for use on hardened materials from 60 HRC to 70 HRC.

For profile milling as a finishing operation.

(Plunge milling only to shallow depths).

Note:

For materials > 65 HRC: $a_e = 0.02 \times D$.

Technical description

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|---|----------|
| Feed f_z for side milling in steel < 70 HRC | 0.136 mm |
| No. of teeth Z | 6 |
| Cutting edge $\varnothing D_c$ | 12 mm |
| Shank $\varnothing D_s$ | 12 mm |
| Overall length L | 110 mm |
| Flute length L_c | 56 mm |

| | |
|---|-------------------------|
| Direction of infeed | horizontal and oblique |
| Shank | DIN 6535 HA to h6 |
| Tolerance nominal \varnothing | 0 / -0.02 |
| Helix angle | 45 degrees |
| Corner chamfer angle | 90 degrees |
| Coating | TiAlN |
| Tool material | Solid carbide |
| Standard | Manufacturer's standard |
| Type | H |
| Cutting width a_e for milling operation | 0.02×D |
| Through-coolant | no |
| Machining strategy | TPC |
| Machining strategy | HPC |
| Colour ring | red |
| Type of product | End / face mill |

User data

| | Suitability | V_c | ISO code |
|----------------|---|----------|----------|
| Steel < 60 HRC | suitable only under restricted conditions | 90 m/min | H |
| Steel < 65 HRC | suitable | 60 m/min | H |
| Steel < 67 HRC | suitable | 50 m/min | H |
| Steel < 70 HRC | suitable | 45 m/min | H |
| wet minimum | suitable only under restricted conditions | | |
| dry | suitable | | |
| Air | suitable | | |

Services

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|------------------------|-----------|
| Shank grinding Type HB | 129100 HB |
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