

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: $a_e = 0.02 \times D$.

Tolerance nominal \varnothing : 0 / -0.02

No. of teeth Z: 6

Helix angle: 45°

Direction of infeed: horizontal and oblique

Shank: DIN 6535 HA to h6

No. of teeth Z: 6

Flute length L_c : 56 mm

Overall length L: 110 mm

Shank $\varnothing D_s$: 12 mm

Feed f_z for side milling in steel < 70 HRC: 0.136 mm

Technical description

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°
Corner chamfer angle	90°
Series	Diabolo
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

Shank recess Type FRST	209900 FRST
Shank clamping flats for shrink-fit chucks, with retainer function Shank Ø tool 12 mm	SZ2025 12
Shank grinding Type HB	129100 HB