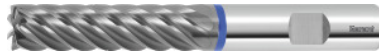


Garant
Solid carbide milling cutter with chip separators TPC, TiAlN, Ø f8 DC: 20mm

Order data

Order number	203104 20
GTIN	4045197814708
Item class	11X

Description
Version:

High-performance milling cutter with **irregular cutter spacing** and **irregular helical pitch**.
Optimised bending strength due to the use of ultra-fine grain substrates.
Offset chip separators.

Note:

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

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

Tolerance nominal Ø: f8

No. of teeth Z: 7

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: 7

Flute length L_c : 80 mm

Overall length L: 140 mm

Shank Ø D_s : 20 mm

Corner chamfer width at 45°: 0.4 mm

Average chip thickness h_{max} for TPC milling in INOX < 900 N/mm²: 0.088 mm

Technical description

No. of teeth Z	7
Shank Ø D_s	20 mm
Flute length L_c	80 mm

Corner chamfer width at 45°	0.4 mm
Direction of infeed	horizontal and oblique
Cutting edge $\varnothing D_c$	20 mm
Overall length L	140 mm
Tolerance nominal \varnothing	f8
Shank	DIN 6535 HB to h6
Balance quality with shank	G 2.5 with HB
Helix angle	40°
Average chip thickness h_{max} for TPC milling in INOX < 900 N/mm ²	0.088 mm
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	blue
Type of product	End / face mill

User data

	Suitability	V_c	ISO code
Steel < 500 N/mm ²	suitable	320 m/min	P
Steel < 750 N/mm ²	suitable	290 m/min	P
Steel < 900 N/mm ²	suitable	260 m/min	P
Steel < 1100 N/mm ²	suitable	200 m/min	P

INOX < 900 N/mm ²	suitable	220 m/min	M
INOX > 900 N/mm ²	suitable	160 m/min	M
wet maximum	Suitable		
wet minimum	Suitable only under restricted conditions		
Air	suitable		

Services

Shank clamping flats for shrink-fit chucks, with retainer function Shank Ø tool 20 mm

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