

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

**Order data**

Order number	203019 20
GTIN	4045197609786
Item class	11X

**Description**
**Version:**

High-performance mills for machining stainless steels, **specially designed for TPC applications**. Strengthened core.

**Note:**

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

$a_{e \max} = 0.08 \times D$  for TPC machining.

**NEW GENERATION AVAILABLE!**

**Recommended successor product is No. 203103**

Tolerance nominal Ø: f8

No. of teeth Z: 5

Helix angle: 45 degrees

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  $L_c$ : 60 mm

Overhang length  $L_1$  incl. recess: 70 mm

Recess Ø  $D_1$ : 19.8 mm

Overall length L: 126 mm

Shank Ø  $D_s$ : 20 mm

**Technical description**

Corner chamfer width at 45°	0.4 mm
Average chip thickness $h_{\max}$ for TPC milling in INOX > 900 N/mm <sup>2</sup>	0.105 mm

Average chip thickness $h_{\max}$ for TPC milling in INOX < 900 N/mm <sup>2</sup>	0.125 mm
No. of teeth Z	5
Cutting edge $\varnothing D_c$	20 mm
Recess $\varnothing D_1$	19.8 mm
Overhang length $L_1$ incl. recess	70 mm
Shank $\varnothing D_s$	20 mm
Overall length L	126 mm
Flute length $L_c$	60 mm
Direction of infeed	horizontal and oblique
Shank	DIN 6535 HB to h6
Tolerance nominal $\varnothing$	f8
Balance quality with shank	G 2.5 with HB
Helix angle	45 degrees
Corner chamfer angle	45 degrees
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	0.08×D
Through-coolant	no
Machining strategy	TPC
Colour ring	blue
Type of product	End mill

## Services

Shank recess Type FRST	209900 FRST
	SZ2025 20

Shank clamping flats for shrink-fit chucks, with retainer  
function Shank  $\varnothing$  tool 20 mm

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