

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

**Order data**

Order number	203019 20
GTIN	4045197609786
Item class	11X

**Description**
**Version:**

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

**Note:**

$h_{max}$ : 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**

**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 Ø D <sub>c</sub>	20 mm
Recess Ø D <sub>1</sub>	19.8 mm
Overhang length L <sub>1</sub> incl. recess	70 mm
Shank Ø D <sub>s</sub>	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	$0.08 \times D$
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 <sup>2</sup>	suitable	380 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	340 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	300 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	230 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	240 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	170 m/min	M
wet maximum	Suitable		

wet minimum	Suitable only under restricted conditions
Air	suitable