

Garant

GARANT Master INOX M SlotMachine solid carbide roughing end mill TPC, TiAlN, Ø d11 DC: 20mm



Order data

Order number	205453 20
GTIN	4062406380663
Item class	11X

Description

Version:

Problem-solver for **TPC machining**. Ideal for automated production as the risk of chip accumulations in the machine is largely prevented.

With a **new type of knuckle form profile**, optimised for higher feed rates. Improved cutting edge protection thanks to slight edge honing. **Tremendous bending strength** due to the use of **ultra-fine grain substrate**. Number of cutters selected for performance and process reliability.

Advantage:

The tool geometry produces particularly tightly rolled swarf that is discharged via flat chip breaker recesses. As a result, the tool maintains an **extremely stable core**.

Recommendation:

To ensure reliable working, particularly for full slot milling, use arbors with **4 cooling channel bores**.

Note:

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

$ae_{max} = 0.07 \times D$ for TPC machining.

Technical description

No. of teeth Z	5
Cutting edge Ø D _c	20 mm
Helix angle	40 degrees
Tolerance nominal Ø	d11
Corner chamfer width at 45°	0.4 mm

Direction of infeed	horizontal, oblique and vertical
Shank	DIN 6535 HB to h6
Recess $\varnothing D_1$	18.5 mm
Shank $\varnothing D_s$	20 mm
Average chip thickness h_{\max} for TPC milling in INOX < 900 N/mm ²	0.097 mm
Corner chamfer angle	45 degrees
Overall length L	150 mm
Overhang length L_1 incl. recess	74 mm
Flute length L_c	60 mm
Series	Master INOX
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Milling profile	NF
Cutting width a_e for milling operation	0.07×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 only under restricted conditions	140 m/min	P
Steel < 750 N/mm ²	suitable	130 m/min	P
Steel < 900 N/mm ²	suitable	110 m/min	P
Steel < 1100 N/mm ²	suitable only under restricted conditions	100 m/min	P

Steel < 1400 N/mm ²	suitable only under restricted conditions	90 m/min	P
INOX < 900 N/mm ²	suitable	80 m/min	M
INOX > 900 N/mm ²	suitable	75 m/min	M
Uni	suitable only under restricted conditions		
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		
Air	suitable only under restricted conditions		