

Garant
GARANT Master Steel SlotMachine solid carbide roughing end mill HPC / TPC, TiAlN, Ø d11 DC: 20mm

Order data

Order number	205554 20
GTIN	4045197959997
Item class	11X

Description
Version:

With a new-type knurled 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.

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.

Plunge angle of up to 10° possible thanks to generous recess on the front face.

Application:

For roughing machining.

Problem-solver for TPC machining.

Technical description

Tolerance nominal Ø	d11
Overall length L	126 mm
Overhang length L ₁ incl. recess	70 mm
Corner chamfer width at 45°	1 mm
Feed f _z for side milling in steel < 900 N/mm ²	0.1 mm
Recess Ø D ₁	18.5 mm
No. of teeth Z	5
Helix angle	42 degrees

Direction of infeed	horizontal, oblique and vertical
Flute length L_c	60 mm
Shank $\varnothing D_s$	20 mm
Cutting edge $\varnothing D_c$	20 mm
Shank	DIN 6535 HB to h6
Feed f_z for slot milling in steel < 900 N/mm ²	0.08 mm
Corner chamfer angle	45 degrees
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Milling profile	NR
Spacing of the cutters	unequal spacing
Cutting width a_e for milling operation	Full slot cutting depth $1 \times D$
Cutting width a_e for milling operation	$0.4 \times D$ for side milling
Through-coolant	no
Machining strategy	HPC
Machining strategy	TPC
Colour ring	green
Type of product	End / face mill

User data

	Suitability	V_c	ISO code
Steel < 500 N/mm ²	suitable	200 m/min	P
Steel < 750 N/mm ²	suitable	180 m/min	P
Steel < 900 N/mm ²	suitable	160 m/min	P
Steel < 1100 N/mm ²	suitable	140 m/min	P
Steel < 1400 N/mm ²	suitable	110 m/min	P
INOX < 900 N/mm ²	suitable	50 m/min	M

INOX > 900 N/mm ²	suitable	35 m/min	M
GG(G)	suitable	200 m/min	K
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		