

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

Order data

Order number	205552 20
GTIN	4045197959911
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, particularly suitable for full-slot machining.

Technical description

Overall length L	126 mm
Flute length L _c	41 mm
Tolerance nominal Ø	d11
Shank Ø D _s	20 mm
Feed f _z for side milling in steel < 900 N/mm ²	0.13 mm
Direction of infeed	horizontal, oblique and vertical
Overhang length L ₁ incl. recess	74 mm
Cutting edge Ø D _c	20 mm
No. of teeth Z	5

Shank	DIN 6535 HB to h6
Recess $\varnothing D_1$	18.5 mm
Feed f_z for slot milling in steel $< 900 \text{ N/mm}^2$	0.09 mm
Helix angle	42 degrees
Corner chamfer width at 45°	1 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
Colour ring	green
Type of product	End / face mill

User data

	Suitability	V_c	ISO code
Steel $< 500 \text{ N/mm}^2$	suitable	200 m/min	P
Steel $< 750 \text{ N/mm}^2$	suitable	180 m/min	P
Steel $< 900 \text{ N/mm}^2$	suitable	160 m/min	P
Steel $< 1100 \text{ N/mm}^2$	suitable	140 m/min	P
Steel $< 1400 \text{ N/mm}^2$	suitable	110 m/min	P
INOX $< 900 \text{ N/mm}^2$	suitable	50 m/min	M
INOX $> 900 \text{ N/mm}^2$	suitable	35 m/min	M
GG(G)	suitable	200 m/min	K

Uni	suitable
wet maximum	suitable
Air	suitable