

Garant

GARANT Master Steel SlotMachine solid carbide roughing end mill with through-coolant HPC, TiAlN, Ø d11 DC: 20mm



Order data

Order number	205551 20
GTIN	4062406111205
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.

Feed rate per tooth up to 0.1 mm up to a depth of 2×D (in the slot milled from solid).

With **internal coolant supply** for reliable swarf evacuation.

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

Shank Ø D _s	20 mm
Recess Ø D ₁	18.5 mm
Helix angle	42 degrees
Tolerance nominal Ø	d11
Flute length L _c	38 mm
Shank	DIN 6535 HB to h6
Feed f _z for slot milling in steel < 900 N/mm ²	0.09 mm

Overhang length L_1 incl. recess	52 mm
Feed f_z for side milling in steel $< 900 \text{ N/mm}^2$	0.13 mm
Overall length L	104 mm
Cutting edge $\varnothing D_c$	20 mm
Corner chamfer width at 45°	1 mm
No. of teeth Z	5
Direction of infeed	horizontal and oblique
Corner chamfer angle	45 degrees
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Standard	DIN 6527
Milling profile	NR
Spacing of the cutters	unequal spacing
Cutting width a_e for milling operation	$0.4 \times D$ for side milling
Cutting width a_e for milling operation	$0.05 \times D$ for copy milling
Through-coolant	yes
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 N/mm ²	suitable	35 m/min	M
GG(G)	suitable	200 m/min	K
Uni	suitable		
wet maximum	suitable		
Air	suitable		