

Garant**GARANT Steel solid carbide milling cutter HPC, TiAlN, Ø f8 DC: 12mm****Order data**

Order number	203053 12
GTIN	4069515028394
Item class	11Z

Description**Version:**

For **roughing and finishing**. For use in unstable machining processes and for machining complex components.

Up to 1xD into solid material **at very high feed rates** with smooth cutting action.

At maximum machining depths, ensure compliance with the ratio dimension L_c (cutting length) / $\varnothing D_c$ (cutting $\varnothing$)!

Advantage:

Optimised flute form, eccentric relief ground, wide chip space.

Note:

Successor product to No. 203031.

Technical description

Overall length L	73 mm
Cutting edge $\varnothing D_c$	12 mm
Feed f_z for slot milling in steel < 900 N/mm ²	0.07 mm
Tolerance nominal $\varnothing$	f8
Direction of infeed	horizontal, oblique and vertical
Feed f_z for side milling in steel < 900 N/mm ²	0.09 mm
Shank	DIN 6535 HB
Flute length L_c	16 mm
Helix angle	38 degrees

Data sheet

No. of teeth Z	4
Corner chamfer width at 45°	0.24 mm
Shank Ø D _s	12 mm
Corner chamfer angle	45 degrees
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Standard	DIN 6527
Type	N
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Cutting width a _e for milling operation	Full slot cutting depth 1×D
Cutting width a _e for milling operation	0.5×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 N/mm ²	suitable	250 m/min	P
Steel < 750 N/mm ²	suitable	200 m/min	P
Steel < 900 N/mm ²	suitable	180 m/min	P
Steel < 1100 N/mm ²	suitable	160 m/min	P
INOX < 900 N/mm ²	suitable	70 m/min	M
INOX > 900 N/mm ²	suitable	50 m/min	M
GG(G)	suitable	120 m/min	K
Uni	suitable		
wet maximum	suitable		

wet minimum	suitable only under restricted conditions
dry	suitable
Air	suitable