

Garant
GARANT Master Steel solid carbide roughing end mill HPC, TiAlN, Ø f8 DC: 12mm

Order data

Order number	203038 12
GTIN	4045197718945
Item class	11X

Description
Version:

For **roughing and finishing** up to $0.7 \times D$ into solid material **at very high feed rates** with smooth cutting action.

Advantage:

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

Technical description

Feed f_z for slot milling in steel $< 900 \text{ N/mm}^2$	0.07 mm
Corner chamfer width at 45°	0.24 mm
Recess $\varnothing D_1$	11.6 mm
Cutting edge $\varnothing D_c$	12 mm
Feed f_z for side milling in steel $< 900 \text{ N/mm}^2$	0.09 mm
Overhang length L_1 incl. recess	73 mm
No. of teeth Z	4
Shank $\varnothing D_s$	12 mm
Overall length L	120 mm
Flute length L_c	26 mm
Direction of infeed	horizontal, oblique and vertical
Shank	DIN 6535 HB to h6

Tolerance nominal Ø	f8
Helix angle	38 degrees
Corner chamfer angle	45 degrees
Series	Master Steel
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	N
Helix angle characteristic	unequal spacing
Spacing of the cutters	unequal spacing
Cutting width a_e for milling operation	0.1×D for side milling
Cutting width a_e for milling operation	Full slot cutting depth 1×D
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	125 m/min	P
Steel < 750 N/mm ²	suitable	95 m/min	P
Steel < 900 N/mm ²	suitable	85 m/min	P
Steel < 1100 N/mm ²	suitable	80 m/min	P
Steel < 1400 N/mm ²	suitable only under restricted conditions	70 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	85 m/min	K
Uni	suitable		

wet maximum	suitable
wet minimum	suitable only under restricted conditions
dry	suitable
Air	suitable