

**Garant**
**GARANT Master Steel solid carbide ball nose milling cutter HPC, TiAlN, Ø f8  
DC: 3mm**

**Order data**

Order number	207490 3
GTIN	4062406285326
Item class	11X

**Description**
**Version:**

**Precision ground for very high accuracy requirements.**

Tolerance: Radius contour =  $\pm 0.005$  mm.

Improved cutting edge protection thanks to slight edge honing. Tremendous bending strength due to the use of ultra-fine grain substrate.

**Technical description**

Shank $\varnothing D_s$	4 mm
Overall length L	50 mm
Flute length $L_c$	5 mm
Overhang length $L_1$ incl. recess	12 mm
No. of teeth Z	4
Cutting edge $\varnothing D_c$	3 mm
Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup>	0.02 mm
Helix angle	30 degrees
Recess $\varnothing D_1$	2.8 mm
Feed $f_z$ for copy milling in steel < 900 N/mm <sup>2</sup>	0.025 mm
Radius R	1.5 mm
Series	Master Steel

Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	N
Tolerance nominal $\varnothing$	f8
Direction of infeed	horizontal, oblique and vertical
Cutting width $a_e$ for milling operation	0.03×D for copy milling
Cutting width $a_e$ for milling operation	Full slot cutting depth 1×D
Shank	DIN 6535 HA to h6
Through-coolant	no
Machining strategy	HPC
Colour ring	green
Type of product	Ball-nosed slot drill

## User data

	Suitability	$V_c$	ISO code
Steel < 500 N/mm <sup>2</sup>	Suitable	270 m/min	P
Steel < 750 N/mm <sup>2</sup>	Suitable	240 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	220 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	190 m/min	P
Steel < 1400 N/mm <sup>2</sup>	Suitable	170 m/min	P
Steel < 55 HRC	suitable only under restricted conditions	140 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	90 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	80 m/min	M
GG(G)	Suitable	400 m/min	K
Uni	Suitable		
wet maximum	Suitable		

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