

## Garant

**Solid carbide barrel milling cutter, short conical form  $\alpha/2 = 63^\circ$  PPC, TiAlN,  $\emptyset$  f8 DC / R2: 12/220mm**



### Order data

Order number	207543 12/220
GTIN	4045197938213
Item class	11X

### Description

#### Version:

High-performance tool for **exceptionally efficient finish machining of free-form surfaces**. For outstanding surface qualities in a **very short machining time**. For use on modern 5-axis milling machines with CAD / CAM support.

#### Recommendation:

We recommend 0.05 to 0.2mm as an allowance for finishing operations.

#### Note:

$R_2$  represents the effective radius on the tool.

Cannot be reground!

For surface machining and avoidance of interferences.

### Technical description

Effective radius $R_2$	220 mm
Cutting edge $\emptyset D_c$	12 mm
Corner radius $R_1$	2 mm
No. of teeth Z	5
Feed $f_z$ for side milling in steel $< 900 \text{ N/mm}^2$	0.07 mm
Flute length $L_c$	3.5 mm
Feed $f_z$ for copy milling in steel $< 900 \text{ N/mm}^2$	0.09 mm
Helix angle	30 degrees
Overall length L	120 mm

Shank $\varnothing D_s$	12 mm
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	N
Tolerance nominal $\varnothing$	f8
Direction of infeed	horizontal
Cutting width $a_e$ for milling operation	0.05×D for side milling
Cutting width $a_e$ for milling operation	0.05×D for copy milling
Shank	DIN 6535 HA to h6
Machining strategy	PPC
Colour ring	green
Type of product	Ball-nosed slot drill

## User data

	Suitability	$V_c$	ISO code
Aluminium (short chipping)	suitable only under restricted conditions	200 m/min	N
Alu > 10% Si	suitable only under restricted conditions	200 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	250 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	200 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	180 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	150 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	130 m/min	P
Steel < 55 HRC	suitable only under restricted conditions	90 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	130 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	120 m/min	M

Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	60 m/min	S
GG(G)	suitable	300 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		
<b>Services</b>			

Shank grinding Type HB	129100 HB
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