

## Garant

### Solid carbide barrel milling cutter, straight form PPC, TiAlN, Ø f8 DC / R2: 12/70mm



#### Order data

Order number	207520 12/70
GTIN	4045197922625
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:

As an oversize for finishing operations we recommend 0.05 to 0.2 mm.

##### Note:

$R_2$  represents the effective radius on the tool.  
Cannot be reground!

#### Technical description

Overhang length $L_1$ incl. recess	36 mm
Recess $\varnothing D_1$	10 mm
No. of teeth $Z$	5
Feed $f_z$ for copy milling in steel < 900 N/mm <sup>2</sup>	0.09 mm
Shank $\varnothing D_s$	12 mm
Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup>	0.07 mm
Flute length $L_c$	23 mm
Overall length $L$	83 mm
Effective radius $R_2$	70 mm

Corner radius $R_1$	1 mm
Helix angle	30 degrees
Coating	TiAlN
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	N
Tolerance nominal $\varnothing$	f8
Spacing of the cutters	unequal spacing
Direction of infeed	horizontal
Cutting width $a_e$ for milling operation	0.05×D for copy milling
Cutting width $a_e$ for milling operation	0.05×D for side 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