

**Garant**
**Solid carbide micro slot drill, DLC, Ø Dc×L1: 0,5X4mm**

**Order data**

Order number	201141 0,5X4
GTIN	4062406387150
Item class	11X

**Description**
**Version:**

With **advanced DLC sp<sup>2</sup> coating**. For the **highest demands regarding performance and precision in aluminium materials**. **Extremely tight tolerances** ensure maximum accuracy. Double relief ground with 2 hollow-ground chamfers. **Recess angle  $\alpha = 16^\circ$** .

Tolerances:

· **Neck Ø:  $D_1 = 0 / -0.01$  mm.**

Extra-sturdy shank to reduce the tendency to vibrate.

**Note:**

At greater tool overhang lengths, use a reduced value for  $a_p$ !  
 Values for:  
 slots milled from solid:  $a_p = 0.25 \times D \times a_{p,corr}$   
 side milling:  $a_p = 0.5 \times D \times a_{p,corr}$   
**To calculate the feed rate vf please use the actual speed of the machine (the maximum possible speed)!**  
 e.g:  $vf = 18000 \text{ [rpm]} \times fz \text{ [mm/Z]} \times z$

**Technical description**

Feed $f_z$ for slot milling in cast aluminium	0.018 mm
Shank Ø $D_s$	6 mm
Cutting edge Ø $D_c$	0.5 mm
Helix angle	25 degrees
No. of teeth Z	2
Shank	DIN 6535 HA to h5
Tolerance nominal Ø	0 / -0.005
Direction of infeed	horizontal, oblique and vertical

Recess $\varnothing D_1$	0.48 mm
Correction factor $a_{p\text{corr}}$	0.8
Overall length L	55 mm
Overhang length $L_1$ incl. recess	4 mm
Flute length $L_c$	0.7 mm
Corner chamfer angle	90 degrees
Feed $f_z$ for side milling in cast aluminium	0.022 mm
Coating	DLC
Tool material	Solid carbide
Standard	Manufacturer's standard
Type	W
Cutting width $a_e$ for milling operation	Full slot cutting depth $1 \times D$
Cutting width $a_e$ for milling operation	$0.5 \times D$ for side milling
Through-coolant	no
Colour ring	yellow
Type of product	End / face mill

## User data

	Suitability	$V_c$	ISO code
Aluminium	suitable	480 m/min	N
Aluminium (short chipping)	suitable	440 m/min	N
Alu > 10% Si	suitable	400 m/min	N
PMMA acrylic	Suitable	200 m/min	N
PE-HD	Suitable	160 m/min	N
PA 66	Suitable	200 m/min	N
PEEK	Suitable	150 m/min	N
PF 31	Suitable	130 m/min	N
PVDF GF20	suitable	180 m/min	N

POM GF25	Suitable	160 m/min	N
PA 66 GF30	suitable	150 m/min	N
PEEK GF30	suitable	130 m/min	N
PTFE CF25	suitable	160 m/min	N
Honeycomb sandwich	suitable only under restricted conditions	300 m/min	N
Cu	suitable	160 m/min	N
CuZn	suitable	200 m/min	N
wet maximum	suitable		
wet minimum	suitable		
dry	suitable only under restricted conditions		
Air	suitable		