

# Solid carbide slot drill HPC, TiAIN, Ø DC: 4 mm



### **Order data**

Order number	201648 4
GTIN	4045197641472
Item class	11X

# **Description**

#### **Version:**

#### **GARANT Diabolo 70:**

Special solid carbide substrate with extremely high tensile strength combined with outstanding wear resistance for optimum process reliability. Newly developed nanocrystalline high-tech coating for hard milling up to 70 HRC. Very suitable for continuous use in tool and mould making.

Sizes 0.5 - 5: Recess angle  $\alpha = 15^{\circ}$ .

### **Application:**

Due to the **special hard geometry** ideal for use on hardened materials from 60 HRC to 70 HRC.

## Note:

 $f_7$  for  $a_p = 0.05 \times D$ .

Tolerance nominal Ø: 0 / -0.02

No. of teeth Z: 2

Helix angle: 35 degrees

Direction of infeed: horizontal, oblique and vertical

Shank: DIN 6535 HA to h6

No. of teeth Z: 2 Flute length L<sub>c</sub>: 10 mm Overall length L: 50 mm Shank Ø D<sub>c</sub>: 6 mm

Feed  $f_z$  for slot milling in steel < 70 HRC: 0.008 mm Feed  $f_z$  for side milling in steel < 70 HRC: 0.01 mm

# **Technical description**

Cutting edge $\emptyset$ D <sub>c</sub>	4 mm
No. of teeth Z	2



Feed f₂ for slot milling in steel < 70 HRC  Shank Ø D₂  Overall length L  Flute length L  Flute length L  Flute length L  Direction of infeed  Shank  DIN 6535 HA to h6  Tolerance nominal Ø  Helix angle  Corner chamfer angle  Series  Diabolo  Coating  TiAlN  Tool material  Solid carbide  Standard  Manufacturer's standard  Type  H  Helix angle characteristic  unequal spacing  Cutting width a₂ for milling operation  Through-coolant  Machining strategy  Colour ring  Tied  Melix angle  Full slot cutting depth 1×D  Through-coolant  Nachining strategy  Ted  Type of product  End mill	Feed $f_z$ for side milling in steel < 70 HRC	0.01 mm
Overall length L       50 mm         Flute length Lc       10 mm         Direction of infeed       horizontal, oblique and vertical         Shank       DIN 6535 HA to h6         Tolerance nominal Ø       0 / -0.02         Helix angle       35 degrees         Corner chamfer angle       90 degrees         Series       Diabolo         Coating       TiAIN         Tool material       Solid carbide         Standard       Manufacturer's standard         Type       H         Helix angle characteristic       unequal spacing         Cutting width ae for milling operation       0.05×D for side milling         Cutting width ae for milling operation       Full slot cutting depth 1×D         Through-coolant       no         Machining strategy       HPC         Colour ring       red	Feed $f_z$ for slot milling in steel < 70 HRC	0.008 mm
Flute length L <sub>c</sub> Direction of infeed horizontal, oblique and vertical Shank DIN 6535 HA to h6 Tolerance nominal Ø 0 / -0.02 Helix angle 35 degrees  Corner chamfer angle 90 degrees Series Diabolo Coating TiAIN Tool material Solid carbide Standard Manufacturer's standard Type Helix angle characteristic unequal spacing Cutting width a <sub>e</sub> for milling operation Cutting width a <sub>e</sub> for milling operation Through-coolant Nachining strategy HPC Colour ring Tol Manufacturer's HPC Tod manufacturer's HPC Through-coolant Recommendation Horizontal, oblique and vertical	Shank Ø D <sub>s</sub>	6 mm
Direction of infeed  Shank  DIN 6535 HA to h6  Tolerance nominal Ø  Helix angle  Corner chamfer angle  Series  Diabolo  Coating  TiAIN  Tool material  Solid carbide  Standard  Manufacturer's standard  Type  H  Helix angle characteristic  unequal spacing  Cutting width a₀ for milling operation  Through-coolant  Machining strategy  HPC  Colour ring  DIN 6535 HA to h6  DIN 6535 HA to h6  O/ -0.02  All to he  O/ -0.02  Diabolo  TiAIN  Solid carbide  HH  Helix angle characteristic  unequal spacing  Cutting width a₀ for milling operation  Full slot cutting depth 1×D  Through-coolant  no  Machining strategy  HPC  Colour ring	Overall length L	50 mm
Shank  DIN 6535 HA to h6  Tolerance nominal Ø  0 / -0.02  Helix angle  35 degrees  Corner chamfer angle  90 degrees  Series  Diabolo  Coating  TiAIN  Tool material  Solid carbide  Standard  Manufacturer's standard  Type  H  Helix angle characteristic  unequal spacing  Cutting width ae for milling operation  Cutting width ae for milling operation  Full slot cutting depth 1×D  Through-coolant  no  Machining strategy  HPC  Colour ring	Flute length L <sub>c</sub>	10 mm
Tolerance nominal Ø 0 / -0.02  Helix angle 35 degrees  Corner chamfer angle 90 degrees  Series Diabolo  Coating TiAIN  Tool material Solid carbide  Standard Manufacturer's standard  Type H  Helix angle characteristic unequal spacing  Cutting width ae for milling operation 0.05×D for side milling  Cutting width ae for milling operation Full slot cutting depth 1×D  Through-coolant no  Machining strategy HPC  Colour ring mind to the standard of	Direction of infeed	horizontal, oblique and vertical
Helix angle  Corner chamfer angle  Series  Diabolo  Coating  TiAIN  Tool material  Solid carbide  Standard  Manufacturer's standard  Type  Helix angle characteristic  unequal spacing  Cutting width ae for milling operation  Cutting width ae for milling operation  Through-coolant  Machining strategy  HPC  Colour ring  35 degrees  90 degrees  90 degrees  90 degrees  90 degrees  10 Diabolo  Anufacturer's standard  Manufacturer's standard  Manufacturer's standard  Full spacing  Full slot cutting depth 1×D  Through-coolant  no	Shank	DIN 6535 HA to h6
Corner chamfer angle  Series  Diabolo  Coating  TiAIN  Tool material  Solid carbide  Standard  Manufacturer's standard  Type  H  Helix angle characteristic  unequal spacing  Cutting width a <sub>e</sub> for milling operation  Cutting width a <sub>e</sub> for milling operation  Full slot cutting depth 1×D  Through-coolant  no  Machining strategy  HPC  Colour ring	Tolerance nominal Ø	0 / -0.02
Series  Diabolo  Coating  TiAIN  Tool material  Solid carbide  Standard  Manufacturer's standard  Type  H  Helix angle characteristic  unequal spacing  Cutting width ae for milling operation  Cutting width ae for milling operation  Full slot cutting depth 1×D  Through-coolant  no  Machining strategy  HPC  Colour ring	Helix angle	35 degrees
Coating TiAIN  Tool material Solid carbide  Standard Manufacturer's standard  Type H  Helix angle characteristic unequal spacing  Cutting width a <sub>e</sub> for milling operation 0.05×D for side milling  Cutting width a <sub>e</sub> for milling operation Full slot cutting depth 1×D  Through-coolant no  Machining strategy HPC  Colour ring red	Corner chamfer angle	90 degrees
Tool material  Solid carbide  Standard  Manufacturer's standard  Type  H  Helix angle characteristic  unequal spacing  Cutting width a <sub>e</sub> for milling operation  Cutting width a <sub>e</sub> for milling operation  Full slot cutting depth 1×D  Through-coolant  no  Machining strategy  HPC  Colour ring  Solid carbide  Manufacturer's standard  H  H  H  H  H  H  H  H  H  H  H  H  H	Series	Diabolo
Standard  Type  H  Helix angle characteristic  Cutting width a <sub>e</sub> for milling operation  Cutting width a <sub>e</sub> for milling operation  Cutting width a <sub>e</sub> for milling operation  Full slot cutting depth 1×D  Through-coolant  no  Machining strategy  HPC  Colour ring	Coating	TiAIN
Type $H$ Helix angle characteristic $unequal spacing$ Cutting width $a_e$ for milling operation $0.05 \times D$ for side milling  Cutting width $a_e$ for milling operation $f$ Full slot cutting depth $1 \times D$ Through-coolant $f$ Machining strategy $f$ Colour ring $f$ The strategy $f$ HPC	Tool material	Solid carbide
Helix angle characteristic  Cutting width a <sub>e</sub> for milling operation  Cutting width a <sub>e</sub> for milling operation  Full slot cutting depth 1×D  Through-coolant  Machining strategy  HPC  Colour ring  red	Standard	Manufacturer's standard
Cutting width $a_e$ for milling operation $0.05 \times D$ for side millingCutting width $a_e$ for milling operationFull slot cutting depth $1 \times D$ Through-coolantnoMachining strategyHPCColour ringred	Туре	Н
Cutting width a <sub>e</sub> for milling operation  Full slot cutting depth 1×D  no  Machining strategy  HPC  Colour ring  red	Helix angle characteristic	unequal spacing
Through-coolant no Machining strategy HPC Colour ring red	Cutting width $a_e$ for milling operation	0.05×D for side milling
Machining strategy HPC Colour ring red	Cutting width a <sub>e</sub> for milling operation	Full slot cutting depth 1×D
Colour ring red	Through-coolant	no
-	Machining strategy	HPC
Type of product End mill	Colour ring	red
	Type of product	End mill

# **Services**

Shank grinding Type HB 129100 HB