

**Garant**
**Solid carbide HPC micro-drill, TiAlN, Ø DC +0.004: 2,2-Xmm**

**Order data**

Order number	121220 2,2-X
GTIN	4062406228828
Item class	11E

**Description**
**Version:**

High performance miniature drill **with extra long flutes**.

Shank Ø 3 h6 for shrink-fit chucks.

High concentricity, precision ground for **HPC applications in steel**.

**Note:**

Flute length  $L_c = L_2 + 1.5 \times D_c$ . Delivery time: 8 working weeks.

Minimum order quantity: 15 pieces.

Items made to order for a specific customer:

Cancellation only up to a maximum of 3 working days after receipt of order acknowledgement.

Items cannot be returned.

We reserve the right to overdeliver by up to 3 items.

**Technical description**

Standard	Manufacturer's standard
Number of cutting edges Z	2
Shank Ø $D_s$	3 mm
Overall length L	46 mm
Ø range	2.2 - 3 mm
Shank tolerance	h6
Tolerance nominal Ø	0 / 0.004
Flute length $L_c$	15 mm
Coating	TiAlN

Tool material	Solid carbide
Type	N
Point angle	130 degrees
Shank	Parallel shank to h6
Through-coolant	no
Machining strategy	HPC
Semi-Standard	yes
Colour ring	without
Type of product	Jobber drill

### User data

	Suitability	V <sub>c</sub>	ISO code
Alu plastics	suitable only under restricted conditions	200 m/min	N
Aluminium (short chipping)	suitable	140 m/min	N
Alu > 10% Si	suitable only under restricted conditions	140 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	70 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	70 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	70 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	55 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	35 m/min	P
Steel < 55 HRC	suitable only under restricted conditions	25 m/min	H
INOX < 900 N/mm <sup>2</sup>	suitable	35 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable	30 m/min	M
Ti > 850 N/mm <sup>2</sup>	suitable	20 m/min	S
GG(G)	suitable	90 m/min	K
CuZn	suitable	140 m/min	N

Uni	suitable
wet maximum	suitable
dry	suitable only under restricted conditions