

**Garant****Solid carbide forward / reverse deburring tool with helix angle, TiSiN, Ø DC: 3mm****Order data**

Order number	208181 3
GTIN	4067263107408
Item class	11X

**Description****Version:****Extra-long shank.**

Double ground head with **45° angle**.

The **helix angle ground into the head on both sides** produces a **much softer cut** and thus an **excellent surface quality**. For **universal application** in virtually all materials. The newly developed coating **effectively prevents the formation of built-up edges** – even in aluminium and corrosion-resistant steels (INOX). Pointed version

**Application:**

For **forward** and **reverse deburring** and **chamfering** even where access is difficult. Particularly suitable for **contouring applications**.

**Note:**

**Successor product to No. 208180.**

**Technical description**

Corner chamfer angle	45 degrees
Ø D <sub>1</sub> +0.05	2.2 mm
Overall length L	75 mm
Cutting edge Ø D <sub>c</sub>	3 mm
Chamfer mill	backwards and forwards 45
Shape	Pointed
L <sub>2</sub> +0.5	2 mm
L <sub>4</sub> +0.5	10 mm

Feed $f_z$ for side milling in steel < 900 N/mm <sup>2</sup>	0.025 mm
Shank Ø $D_s$	4 mm
No. of teeth $Z$	4
Helix angle	5 degrees
Coating	TiSiN
Tool material	Solid carbide
Standard	Works standard
Type	N
Tolerance nominal Ø	±0.05
Countersink tip angle	90 degrees
Cutting width $a_e$ for milling operation	0.25×L2 for side milling
Shank	DIN 6535 HA to h6
Through-coolant	no
Shank tolerance	h6
Colour ring	without
Type of product	Deburrers

## User data

	Suitability	$V_c$	ISO code
Aluminium (short chipping)	suitable	130 m/min	N
Alu > 10% Si	suitable	80 m/min	N
Steel < 500 N/mm <sup>2</sup>	suitable	75 m/min	P
Steel < 750 N/mm <sup>2</sup>	suitable	75 m/min	P
Steel < 900 N/mm <sup>2</sup>	suitable	50 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable	45 m/min	P
INOX < 900 N/mm <sup>2</sup>	suitable	40 m/min	M
INOX > 900 N/mm <sup>2</sup>	suitable only under restricted conditions	30 m/min	M

Ti > 850 N/mm <sup>2</sup>	suitable only under restricted conditions	20 m/min	S
GG(G)	suitable	50 m/min	K
Uni	suitable		
wet maximum	suitable		
wet minimum	suitable only under restricted conditions		
dry	suitable		
Air	suitable		