

**Garant**
**Countersink solid carbide 90°, uncoated, External Ø Dc: 31mm**

**Order data**

Order number	150386 31
GTIN	4045197086662
Item class	11M

**Description**
**Version:**

Very **sturdy version**, multi-flute, **special geometry** for **very heavy duty use**. For **chatter-free countersinking** and **deburring**. For **difficult to machine materials**. Solid carbide head with brazed shank.

**Suitable even for Hardox 500.**

**Note:**

Ensure stable conditions during operation!

**Technical description**

Shank tolerance	h9
Feed f in steel < 60 HRC	0.1 mm/rev.
Pre-drill Ø	6 mm
smallest countersink Ø for holes from	6 mm
External Ø	31 mm
Shank Ø D <sub>s</sub>	12 mm
Overall length L	71 mm
Number of cutting edges Z	5
Coating	uncoated
Countersink tip angle	90 degrees
Tool material	Solid carbide

Standard	Manufacturer's standard
Type	H
Shank	Plain shank with h9
Through-coolant	no
Colour ring	red
Type of product	Stepped drill and countersink

### User data

	Suitability	V <sub>c</sub>	ISO code
Steel < 900 N/mm <sup>2</sup>	suitable only under restricted conditions	30 m/min	P
Steel < 1100 N/mm <sup>2</sup>	suitable only under restricted conditions	18 m/min	P
Steel < 1400 N/mm <sup>2</sup>	suitable	8 m/min	P
Steel < 55 HRC	suitable	8 m/min	H
Steel < 60 HRC	suitable	8 m/min	H
TOOLOX 33	suitable	8 m/min	H
TOOLOX 44	suitable	8 m/min	H
HARDOX 500 < 1600 N/mm <sup>2</sup>	suitable	6 m/min	H
Ti > 850 N/mm <sup>2</sup>	suitable	6 m/min	S
Graphite, GRP, CRP	suitable	5 m/min	N
wet maximum	suitable		
Air	suitable		