



## Online Information

[www.heule.com/en/countersinking-tool/gh-k](http://www.heule.com/en/countersinking-tool/gh-k)

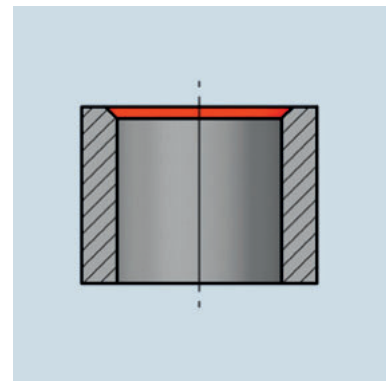
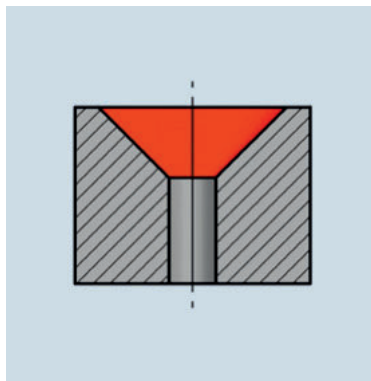
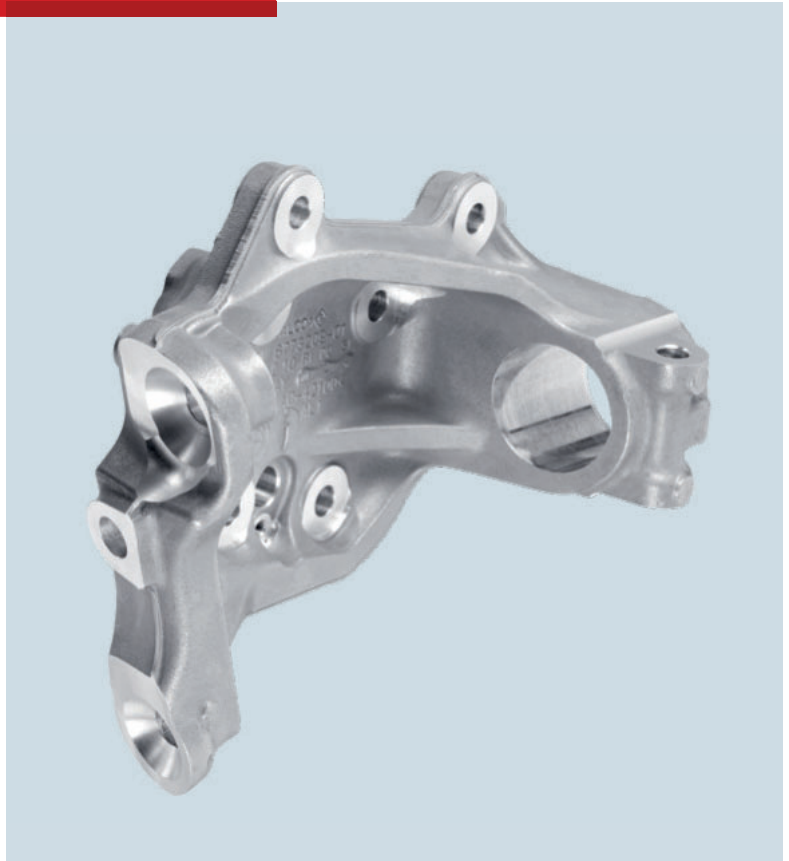
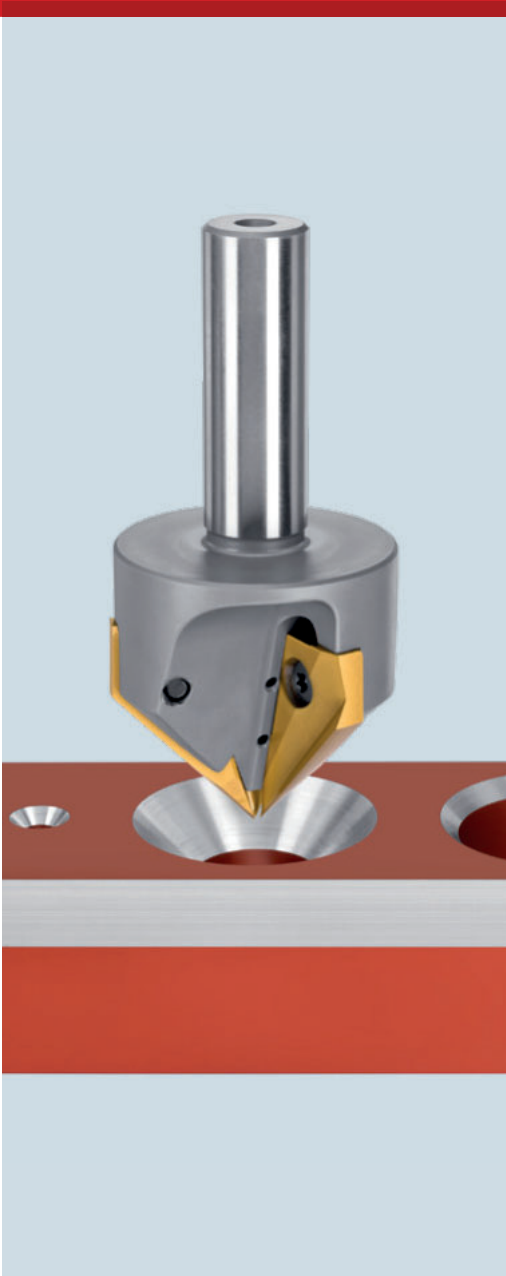


## GH-K

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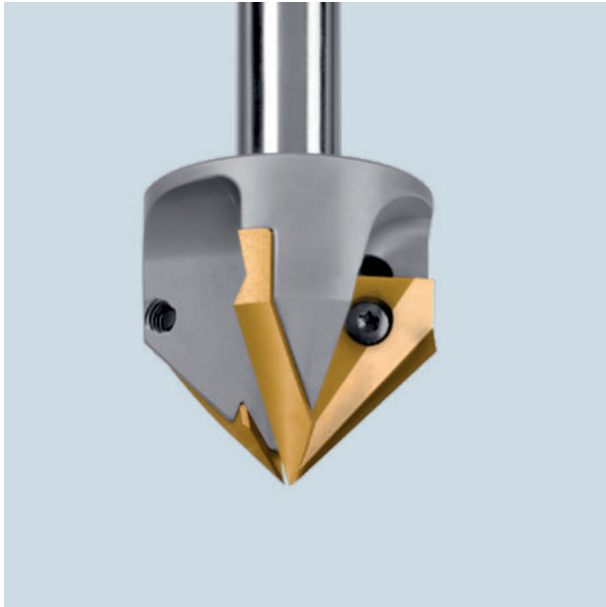
## GH-K

Wide range of chatter-free front countersinks with one single tool.





## GH-K – The Chatter-free Countersinking Tool

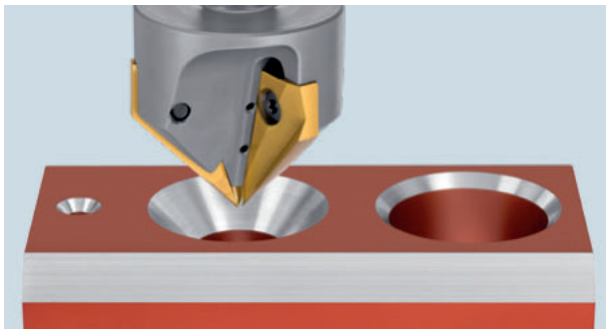


### Chatter-free front countersinking of a wide countersink range with one single tool

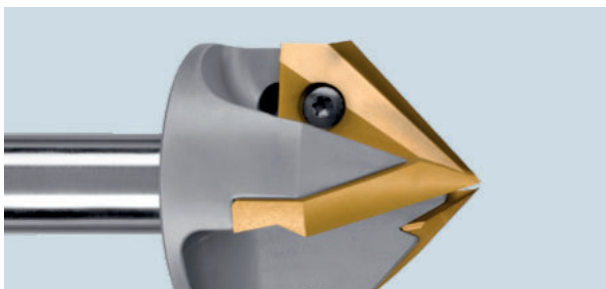
The GH-K has three exchangeable countersink blades which are precision-ground as a set to achieve unmatched countersink finishes. The tool feeds the coolant through an inner supply duct directly to the blade.

GH-K is unique because of its large countersinking range from diameter  $\text{Ø}3.0$  mm to  $\text{Ø}25.0$  mm or from diameter  $\text{Ø}4.0$  mm to  $\text{Ø}45.0$  mm.

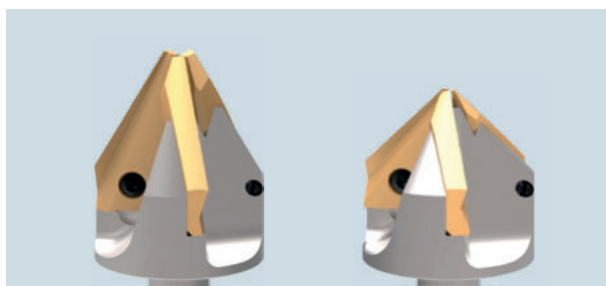
### Characteristics and Advantages



- High-performance countersink tool with three blades for chatter-free countersinking as well as circular cutting.
- Wide countersink range from diameter  $\text{Ø}3.0$  mm to  $\text{Ø}25.0$  mm or  $\text{Ø}4.0$  mm to  $\text{Ø}45.0$  mm with one single tool.

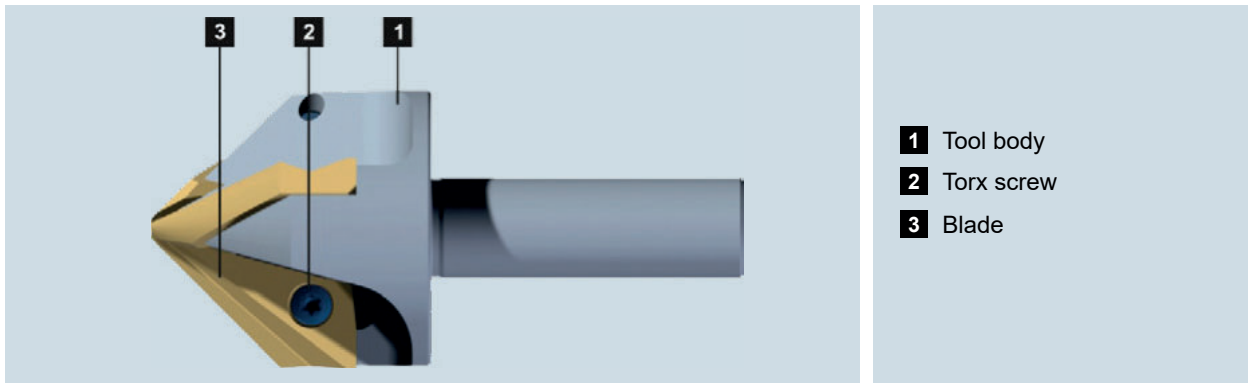


- Exchangeable blades that can be re-sharpened, made of carbide provided with a coating.
- Tool body of rugged and high-precision design with coolant.
- Blades that reach to the very tool tip: large countersink range.



- Tools available for  $60^\circ$  and  $90^\circ$  countersinks (screw head counter sinking, rivet head countersinking as per DIN standard).

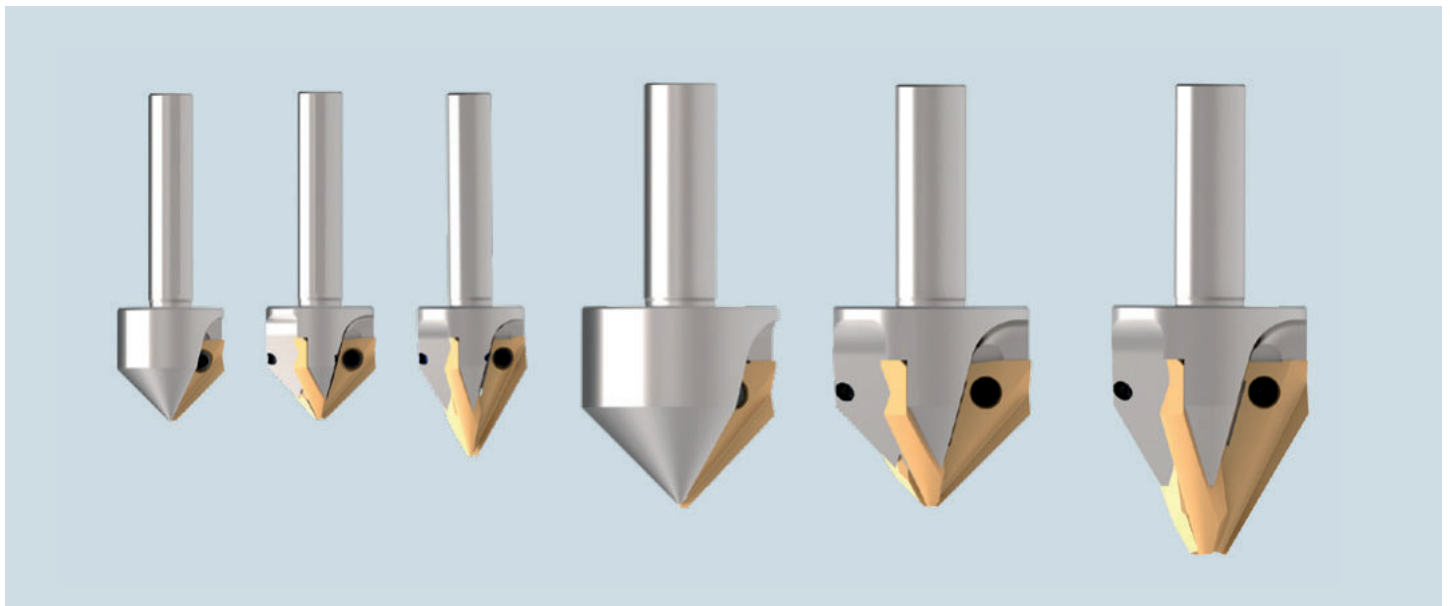
## Tool Description



The toolbody made of alloyed heat treated steel together with the carbide blade enable the chatter-free production of countersinks on bores and chamfers on workpiece edges.

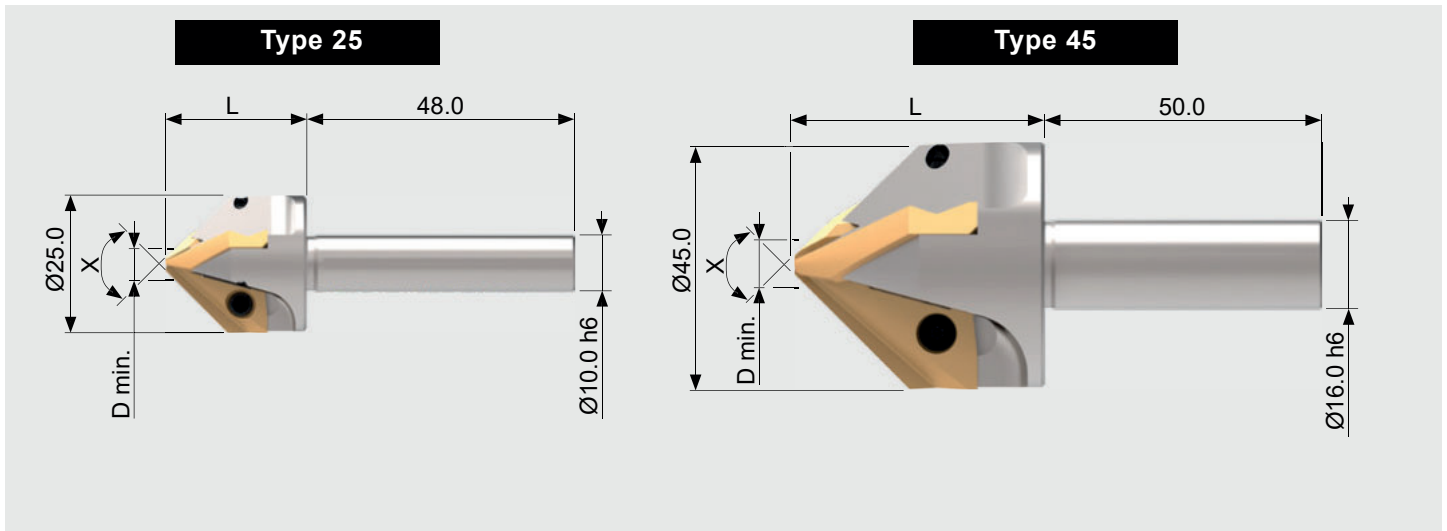
## Product Selection

### GH-K Range Summary



Series	Countersink Angle	Number of blades	Min. bore Ø	Max. countersink Ø
GH-K 25	90°	3	Ø3.0	Ø25.0
	90°	1	Ø3.0	Ø25.0
	60°	3	Ø3.0	Ø25.0
GH-K 45	90°	3	Ø4.0	Ø45.0
	90°	1	Ø4.0	Ø45.0
	60°	3	Ø9.0	Ø45.0

# GH-K Tool with 3 Blades



## Tool Table

Series	Angle X	D min.	L	Tool without Blade	Spare Parts		
				Part No.	Shim <sup>1</sup>	Torx Screw	Torx Driver
25	90°	3.0	26.0	GH-K-B-0001	GH-K-U 0001	GH-H-S-0008 (T9)	GH-H-S-2014
	60°	3.0	34.0	GH-K-B-0601	GH-K-U 0004	GH-H-S-0008 (T9)	GH-H-S-2014
45	90°	4.0	45.0	GH-K-B-0012	GH-K-U 0002	GH-H-S-0009 (T15)	GH-H-S-2016
	60°	9.0	56.0	GH-K-B-0612	GH-K-U 0005	GH-H-S-0009 (T15)	GH-H-S-2016

<sup>1)</sup> Shim to change the cutting geometry 0.05 mm thick. With this geometry change you are able to tune the tool for different materials. These shims have to be placed between blade and tool body.

## Blades

Set of Three		Blades
Series	Angle X	Coating T Part No.
25	90°	GH-K-M-0017
	60°	GH-K-M-0617
45	90°	GH-K-M-0018
	60°	GH-K-M-0618

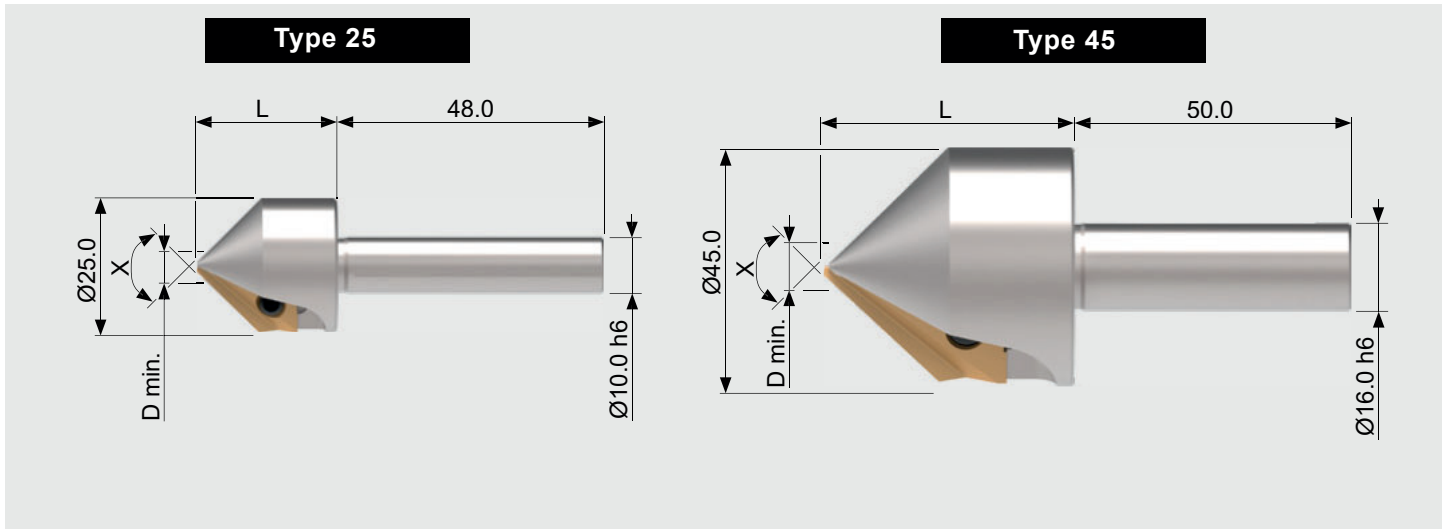
### Explanation to coatings

T: Coating for steel, titanium and Inconel

### ORDERING INFORMATION:

Other coatings for other materials and/or for increased requirements upon request.

# GH-K Tool with 1 Blade



## Tool Table

1-Blade-Version				Tool without Blade	Spare Parts			
Series	Angle X	D min.	L	Part No.	Shim <sup>1</sup>	Torx Screw	Torx Driver	
25	90°	3.0	26.0	GH-K-B-0010	GH-K-U 0007	GH-H-S-0008 (T9)	GH-H-S-2014	
45	90°	4.0	45.0	GH-K-B-0011	GH-K-U 0008	GH-H-S-0009 (T15)	GH-H-S-2016	

<sup>1</sup>Shim to change the cutting geometry 0.05 mm thick. With this geometry change you are able to tune the tool for different materials. The shims have to be placed between blade and tool body.

**NOTE:**

Use the single blade design only with power feed and stable spindle as well as with a rigid set up.

## GH-K Blades overview

Single bladed		Blade
Series	Angle	Coating T Part No.
25	90°	GH-K-M-0024
45	90°	GH-K-M-0030

**Explanation to coatings**

T: Coating for steel, titanium and Inconel

**ORDERING INFORMATION:**

Other coatings for other materials and/or for increased requirements upon request.

# Technical Data and Settings

## Cutting Data GH-K

Material	Condition	Tensile stren.	Hardness	Cutting Speed (m/min.)	Feed (mm/rev.)
		(N/mm <sup>2</sup> )	HB		
Unalloyed steel		<500	<150	30-50	0.05/Blade
Cast steel		500 - 850	150 - 250	30-50	0.05/Blade
Grey cast iron		<500	<150	30-70	0.05/Blade
Ductile cast iron		300 - 800	90 - 240	30-50	0.05/Blade
Low alloy steel	annealed	<850	<250	30-50	0.05/Blade
	tempered	850 - 1000	250 - 300	20-30	0.05/Blade
	tempered	>1000 - 1200	>300 - 350	15-25	0.05/Blade
High alloy steel	annealed	<850	<250	20-30	0.05/Blade
	tempered	850 - 1100	250 - 320	15-25	0.05/Blade
Stainless steel	ferritic	450 - 650	130 - 190	15-25	0.05/Blade
	austenitic	650 - 900	190 - 270	10-20	0.05/Blade
	martensitic	500 - 700	150 - 200	15-25	0.05/Blade
Special alloy (Inconel, titanium, ...)		<1200	<350	10-20	0.05/Blade
Wrought or cast aluminium alloys				30-120	0.05/Blade
Copper alloy	Brass			30-50	0.05/Blade
	Bronze short-chipping			20-30	0.05/Blade
	Bronze long-chipping			15-25	0.05/Blade

### WARNING NOTICE

All listed cutting data are standard values only! The cutting values depend on the amount of slope of the uneven bore edge. (i.e. high slope ► low cutting value). The feed also depends on the sloping ratio. In case of hard to machine materials or uneven bore edges, we recommend to apply cutting speeds that are at the lower end of the range for uneven bore edges.

## Accessories

Size / Series	Angle	Re-Sharpening Device
		Part No.
GH-K 25	90°	GH-K-V-0020
GH-K 25	60°	GH-K-V-0023
GH-K 45	90°	GH-K-V-0021
GH-K 45	60°	GH-K-V-0024