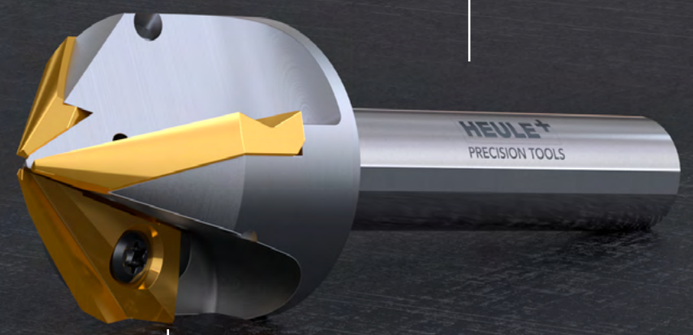
GH-K

Chatter-free forward countersinking for extra large chamfers.

The advantages – Your benefit

Wide range of applications:
Large countersink range from bore Ø3.0 to 45.0 mm.

Long service life:
Tool body made of alloyed heat-treated steel in a robust and precise design with internal cooling.



High-performance countersinking tool and circular milling cutter with three cutting edges for perfectly machined surfaces without chatter marks.

Replaceable carbide blades that can be re-sharpened, with coating.

THE RANGE

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

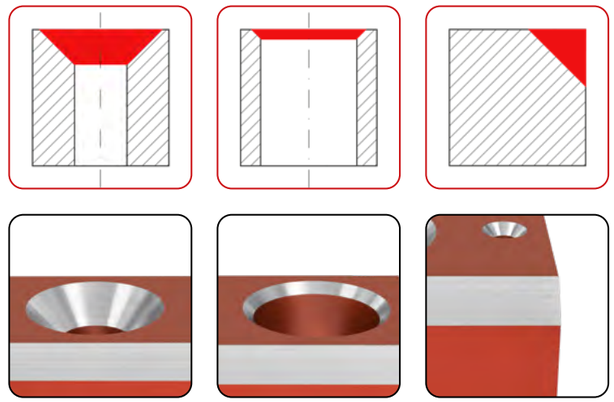
If the required tool is not included in the range above, the **INDIVIDUAL** range can offer a possible solution. If required, we can also develop custom solutions that are fully tailored to your application.

Tool Selector

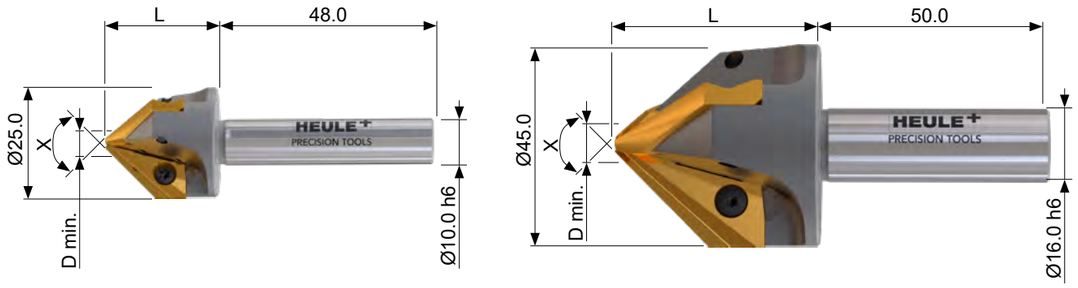
> Step-by-step guide to find the right solution

heule.com/en/tool-selector/gh-k

FIELD OF APPLICATION



GH-K 3 blades – 60° and 90°



Tool

Standard tool **without** blades
• The blades must always be ordered separately.

Series	C-sink angle X	Max. C-sink Ø mm	Min. bore Ø D min. / mm	Dimension L mm	Tool w/o blade Part no.
GH-K 25	90°	25.0	3.0	26.0	GH-K-B-0001
	60°	25.0	3.0	34.0	GH-K-B-0601
GH-K 45	90°	45.0	4.0	45.0	GH-K-B-0012
	60°	45.0	9.0	56.0	GH-K-B-0612

Blades and spare parts

C-sink angle X	Max. C-sink Ø mm	Blade set Steel, titanium, Inconel Part no.	Shim Part no.	Torx screw Part no.	Screwdriver Part no.
60°	25.0	GH-K-M-0617	GH-K-U-0004	GH-H-S-0008	GH-H-S-2014
60°	45.0	GH-K-M-0618	GH-K-U-0005	GH-H-S-0009	GH-H-S-2016
90°	25.0	GH-K-M-0017	GH-K-U-0001	GH-H-S-0008	GH-H-S-2014
90°	45.0	GH-K-M-0018	GH-K-U-0002	GH-H-S-0009	GH-H-S-2016

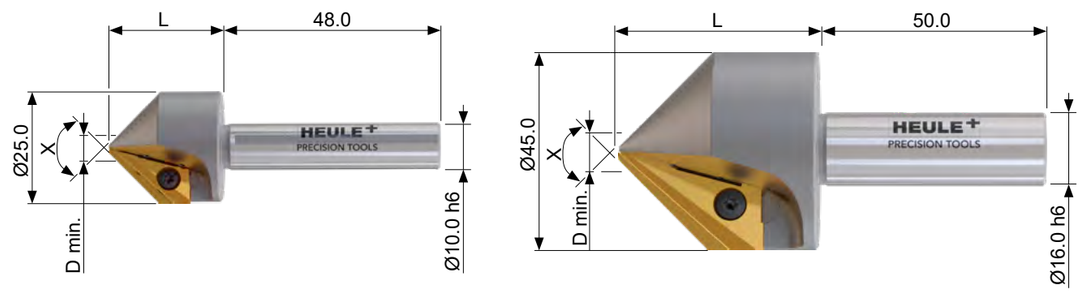
Adapting the tool to different materials
To optimise cutting geometry, 0.05 mm thick shims can be inserted between the blade and the tool body.

Parts in stock highlighted in green

Cutting data and re-sharpening device Page 124

Tool Selector – Product selection made easy heule.com/en/tool-selector/gh-k

GH-K 1 blade – 60° and 90°



Tool

Standard tool **without** blade
• The blades must always be ordered separately.

Series	C-sink angle X	Max. C-sink Ø mm	Min. bore Ø D min / mm.	Dimension L mm	Tool w/o blade Part no.
GH-K 25	90°	25.0	3.0	26.0	GH-K-B-0010
GH-K 45	90°	45.0	4.0	45.0	GH-K-B-0011

Blades and spare parts

C-sink angle X	Max. C-sink Ø mm	Blades Steel, titanium, Inconel Part no.	Shim Part no.	Torx screw Part no.	Screwdriver Part no.
90°	25.0	GH-K-M-0024	GH-K-U-0007	GH-H-S-0008	GH-H-S-2014
90°	45.0	GH-K-M-0030	GH-K-U-0008	GH-H-S-0009	GH-H-S-2016

Adapting the tool to different materials
To optimise cutting geometry, 0.05 mm thick shims can be inserted between the blade and the tool body.

Only use the single-blade tool with an automatic working feed and stable spindle as well as rigid workpiece clamping.

CUTTING DATA

	Description	Tensile str. RM (MPa)	Hardness (HB)	Hardn. (HRC)	GH-K	
					VC	FZ
P0	Low-carbon steel, long-chipping, C <0.25%	<530	<125	–	30–50	0.05 / blade
P1	Low-carbon steel, short-chipping, C <0.25%	<530	<125	–	30–50	0.05 / blade
P2	Steel with carbon content C >0.25%	>530	<220	<25	30–50	0.05 / blade
P3	Alloy steel and tool steel, C >0.25%	600–850	<330	<35	30–50	0.05 / blade
P4	Alloy steel and tool steel, C >0.25%	850–1400	340–450	35–48	15–25	0.05 / blade
P5	Ferritic, martensitic and stainless PH steel	600–900	<330	<35	15–25	0.05 / blade
P6	High-strength ferritic, martensitic and PH stainless steel	900–1350	350–450	35–48	15–25	0.05 / blade
M1	Austenitic stainless steel	<600	130–200	–	10–20	0.05 / blade
M2	High-strength austenitic stainless steel	600–800	150–230	<25	10–20	0.05 / blade
M3	Duplex stainless steel	<800	135–275	<30	20–30	0.05 / blade
K1	Cast iron	125–500	120–290	<32	30–70	0.05 / blade
K2	Ductile cast iron with up to medium strength	<600	130–260	<28	30–50	0.05 / blade
K3	High-strength cast iron and bainitic cast iron	>600	180–350	<43	30–50	0.05 / blade
N1	Wrought aluminium alloys	–	–	–	30–120	0.05 / blade
N2	Aluminium alloys with low Si content	–	–	–	30–120	0.05 / blade
N3	Aluminium alloys with high Si content	–	–	–	30–120	0.05 / blade
N4	Copper, brass and zinc base	–	–	–	30–50	0.05 / blade
S1	Iron-based heat-resistant alloys	500–1200	160–260	25–48	10–20	0.05 / blade
S2	Cobalt-based heat-resistant alloys	1000–1450	250–450	25–48	10–20	0.05 / blade
S3	Nickel-based heat-resistant alloys	600–1700	160–450	<48	10–20	0.05 / blade
S4	Titanium and titanium alloys	900–1600	300–400	33–48	10–20	0.05 / blade

The cutting data listed are guidelines! They depend on the unevenness of the bore edges (e.g. high slope > low cutting value). The working feed also depends on the sloping ratio.
For materials that are difficult to machine or uneven bore edges, we recommend using cutting speeds that are at the lower end of the range.

RE-SHARPENING FIXTURE

			Blade re-sharpening fixture
Series	C-sink angle	Max. C-sink Ø	Part no.
GH-K 25	90°	25.0	GH-K-V-0020
	60°	25.0	GH-K-V-0023
GH-K 45	90°	45.0	GH-K-V-0021
	60°	45.0	GH-K-V-0024

GH-K