


*„Innovationen im Holzbau“*

## GH - Angle bracket KR round / elongated hole

ETA-09/0324



### Properties

Steel grade	S 250 GD / S 235 JR / DX 51 D
Surface	Z 275 with t=3.0 mm and hot-dipped galvanised with t=4.0 mm

For angle bracket basic principles, see download document

### Fasteners

#### Fixing in concrete, masonry, steel, ...

Concrete screw, stud anchor, chemical anchor, screws and bolts to DIN 601 / ISO 4016

#### Fixing in timber with fasteners to ETA-13/0523

GH connector nails (threaded nails) 4.0 x 35 / 40 / 50 / 60 / 75 / 100 mm

GH screw 5.0 x 25 / 35 / 40 / 50 / 60 / 70 mm

The joint can also be made with an interlayer (e.g. OSB).

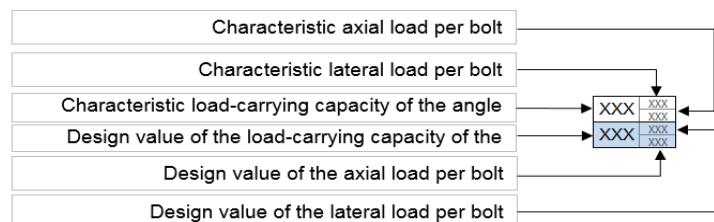
### Nail pattern

Full nailing / partial nailing, see technical drawing or ETA

### Calculation of the design value of the load-carrying capacities to ETA-09/0324

The tables contain characteristic load-carrying capacities (resistances) and design values of the load-carrying capacity (resistance) "short-term" in kN

b =	Purlin / joist width
e =	Distance of the load application point from the bottom of the angle bracket



### Remarks:

Timber strength class 350 kg/m³ char. density.

#### The fastener minimum edge distances to EC 5 shall be satisfied.

All calculations and values are exclusively for GH products and their fasteners.

The load-bearing capacities were determined on the basis of ETA 13/0523. It is not possible to transfer the values to third party makes.

### Disclaimer:

Despite careful calculations and checking, no liability is accepted for the technical data.

Subject to change without notice

For technical drawing, see website [www.holzverbinder.de](http://www.holzverbinder.de)


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## Angle bracket KR Round hole

Art. No. 110285

285 x 88 x 65 x 4.0 mm

## Timber-to-concrete joint with full nailing

Characteristic load-carrying capacity (resistance) and design value of the load-carrying capacity (resistance) ("short-term") in kN,

Load direction F<sub>1</sub> for one angle bracket

	Distance of the load application point f in [mm]																	
	0		20		40		60		80		100		120		140		160	
	4x40	4x50	4x40	4x50	4x40	4x50	4x40	4x50	4x40	4x50	4x40	4x50	4x40	4x50	4x40	4x50	4x40	4x50
char.	9,8 [14,0]	9,8 [14,0]	7,9 [14,0]	7,9 [14,0]	6,6 [14,0]	6,6 [14,0]	5,7 [14,0]	5,7 [14,0]	5,0 [14,0]	5,0 [14,0]	4,5 [14,0]	4,5 [14,0]	4,0 [14,0]	4,0 [14,0]	3,7 [14,0]	3,7 [14,0]	3,4 [14,0]	3,4 [14,0]
short-term	8,9 [12,6]	8,9 [12,7]	7,2 [12,7]	7,2 [12,7]	6,0 [12,7]	6,0 [12,7]	5,2 [12,7]	5,2 [12,7]	4,5 [12,7]	4,5 [12,7]	4,0 [12,7]	4,0 [12,7]	3,7 [12,7]	3,7 [12,7]	3,3 [12,7]	3,3 [12,7]	3,1 [12,7]	3,1 [12,7]

Load direction F<sub>1</sub> for two angle brackets

	Fasteners	
	4x40	4x50
char.	19,6 [27,9]	19,6 [27,9]
short-term	17,7 [25,3]	17,8 [25,4]