

Technical data sheet

SIMPSON

Strong-Tie

ABR-S

Stainless steel frame bracket (100S)

The ABR100S is reinforced bracket which responds to structural applications on a wooden support or concrete. This bracket is recommended in aggressive atmospheres.

Features

Material

Steel quality:

- Stainless steel 1.4401 or 1.4404 (V4A) in accordance with EN10088.
- The types of stainless steel that we use are the corrosion resistance class III

Benefits

- High rigidity through double-sided splash back
- High load values
- Optimized nail image
- ABR-S (100): Ø12mm holes for M10 bolts
- ABR-S (100): concrete connection possible with just one bolt
- ABR-S (9015): Less Weight- thus better handling in the warehouse
- ABR-S (9015): Ø13 mm bolt holes for constructive fixings

Applications

Applicatons

In Stock:

- wood, concrete, steel

Component:

- wood, suitable wooden construction

Scope

- for fixing wood to concrete



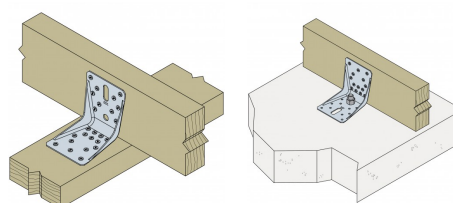
Équerre de structure Inox
ABR100S



Wood to wood connection.



Timber to masonry
connection

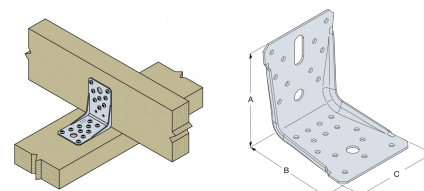


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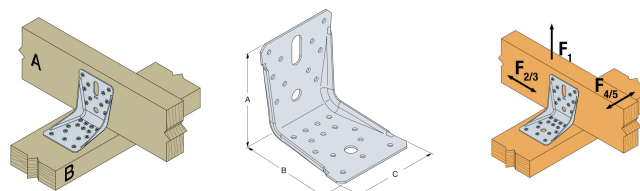
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Product Dimensions



References	Product Dimensions [mm]				Joist				Holes flange B			Box Quantity	Weight [kg]
	A	B	C	t	Ø5	Ø12	Ø13	Ø12x32	Ø5	Ø12	Ø13		
ABR100S	100	100	90	2	10	1	-	1	14	1	-	50	0.26

Product capacities - Beam to beam - Full nailing



References	Product capacities - Timber to timber - Full nailing									
	Number of Fasteners		Characteristic capacities - Timber C24 - 2 angle brackets per connection [kN]							
	Joist	Flange B	R _{1,k}			R _{2,k} = R _{3,k}			R _{4,k} = R _{5,k} ⁽¹⁾	
	Qty	Qty	CNA4.0x35S	CNA4.0x50S	CSA5.0x40S	CNA4.0x35S	CNA4.0x50S	CSA5.0x40S	CNA4.0x50S	CSA5.0x40S
ABR100S	10	14	9.7	15.4	min (25.6 ; 25.1/kmod)	9.6	14.2	20.3	4.2	4.2

1) b = 75 mm ; e = 130 mm

Combined load:

$$\sqrt{\left(\frac{F_{1,d}}{R_{1,d}} + \frac{F_{4/5,d}}{R_{4/5,d}}\right)^2 + \left(\frac{F_{2/3,d}}{R_{2/3,d}}\right)^2} \leq 1$$

To obtain the resistance values for a single bracket, the values in the above table should be divided by two, provided that the supported beam is locked in rotation. Please consult our ETA-06/0106 if the beam is free to rotate.

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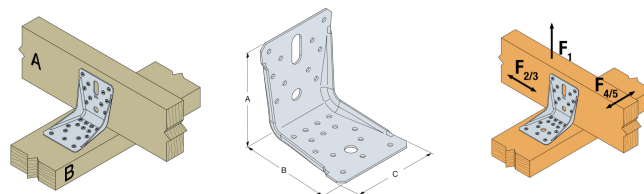
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Product capacities - Timber to Concrete



References	Product capacities - Timber to Concrete								
	Number of Fasteners				Characteristic capacities - Timber C24 - 2 angle brackets per connection [kN]				
	Joist		Flange B		$R_{1,k}$		$R_{2,k} = R_{3,k}$		$R_{4,k} = R_{5,k}^{(1)}$
	Qty	Type	Qty	Type	CNA4.0x35S	CNA4.0x50S	CNA4.0x35S	CNA4.0x50S	CNA4.0x50S
ABR100S	1	Ø10	10	CNA*	16.7	min (26.6 ; 21.6/kmod)	7.3	10.8	10.4

* Refer to Characteristic Capacity table columns for type of fasteners that can be used in Flange A. Capacities vary depending on fastener type used.

1) b = 75 mm ; e = 130 mm

Refer to the Simpson Strong-Tie anchor product range for suitable anchors. Typical anchor solutions are BOAXII, SET-XP, WA, AT-HP, depending on the concrete type, spacing and edge distances.

Combiend load :

$$\sqrt{\left(\frac{F_{1,d}}{R_{1,d}} + \frac{F_{4/5,d}}{R_{4/5,d}}\right)^2 + \left(\frac{F_{2/3,d}}{R_{2/3,d}}\right)^2} \leq 1$$

To obtain the resistance values for a single bracket, the values in the above table should be divided by two, provided that the supported beam is locked in rotation. Please consult our ETA-06/0106 if the beam is free to rotate.

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Installation

Fasteners

- connections using screws or nails CSA5,0xI CNA4,0xI

Installation

- For fixing stainless comb nails, screws or bolts of comparable steel quality must be used to prevent contact corrosion



Wood to wood connection.



Timber to masonry connection

