

## Technical data sheet

**SIMPSON**

**Strong-Tie**

ABR-S

### Stainless Steel Bracket

The ABR angle brackets with rib can be used in high loaded timber structures. These brackets are made of stainless steel and are recommended in aggressive atmospheres

## Features

### Material

#### Steel quality:

- **Stainless Steel 1.4401 or 1.4404 in accordance with EN10088 standards.**
- **Class III corrosion resistance**

### Benefits

- **Reinforcing ribs provide enhanced performance**

## Applications

### When to use

- **ABR angle bracket are particularly suitable for connections of crossed beams, e. g. for connections rafters on purlins and purlins on timber beams.**

## Applications

#### Supporting member:

- Solid wood, engineered wood

#### Supported member:

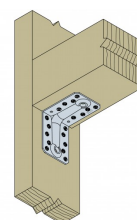
- Solid wood, engineered wood



ABR9020S



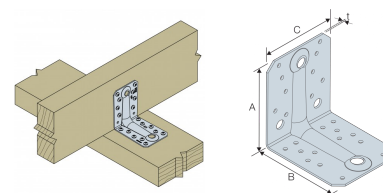
ABR10525S



ABR-S

Stainless Steel Bracket

## Technical Data



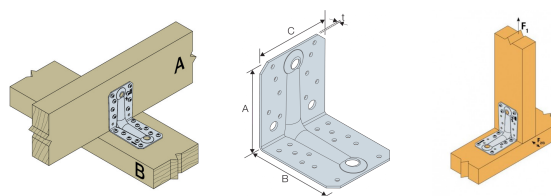
### Product Dimensions

References	Tun / DB nr.	NOB nr.	Dimensions and drill holes [mm]				Holes flange A				Holes flange B				Box Quantity	Weight [kg]
			A	B	C	t	Ø5	Ø7	Ø11	Ø14	Ø5	Ø9	Ø13	Ø14		
ABR7015S	1901749	51738657	70	70	55	1.5	8	1	-	-	8	1	-	-	25	0.081
ABR9020S	1901752	51738680	88	88	65	2	10	-	1	-	10	-	1	-	25	0.17
ABR10525S	1901755	51738714	105	105	90	2.5	10	-	2	1	14	-	-	1	25	0.34

Combined load:

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

### Capacities wood-wood connection - Full Nailing



References	Product capacities - Timber to timber - Maximum nailing											
	Number of Fasteners		Characteristic capacity - 2 angle brackets per connection - full nailing [kN]									
	Joist	Flange B	R <sub>1,k</sub>				R <sub>2/3,k</sub>				R <sub>4/5,k</sub>	
	Qty	Qty	CNA4.0x35	CNA4.0x40S	CNA4.0x50	CNA4.0x60	CNA4.0x35	CNA4.0x40S	CNA4.0x50	CNA4.0x60	CNA4.0x35	CNA4.0x40S
ABR7015S	6	8	5.2	6.1	-	-	6.7	7.3	-	-	4.2 /kmod <sup>0,3</sup>	4.2 /kmod <sup>0,3</sup>
ABR9020S	8	10	9.7	10.8	12.9	14.9	9.4	10.3	11.7	13	4.6 /kmod <sup>0,7</sup>	4.6 /kmod <sup>0,7</sup>
ABR10525S	10	14	12.7	17.2	23.3	29.5	10.7	12.2	15.9	19.7	10.6 /kmod <sup>0,2</sup>	11 /kmod <sup>0,2</sup>

R<sub>4/5,k</sub> with b=75mm and e=130mm

For simplified R<sub>4/5,k</sub>, the published characteristic capacity is based on short term load duration and service class according to EC5 (EN 1995) – kmod = 0.9. For other load duration and service class, please refer to the ETA.

Combined load:

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

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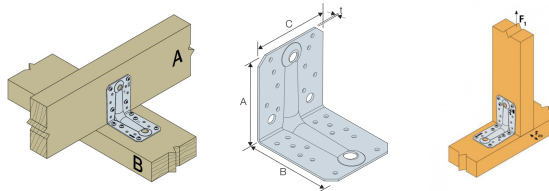
**SIMPSON**

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Capacities wood-wood connection /  
partialnailing



## Product capacities - Timber to timber - Partial nailing

References	Number of Fasteners		Characteristic capacity - 2 angle brackets per connection - partial nailing [kN]								
	Joist	Flange B	$R_{1,k}$			$R_{2/3,k}$			$R_{4/5,k}$		
	Qty	Qty	CNA4.0x35	CNA4.0x40S	CNA4.0x60	CNA4.0x35	CNA4.0x40S	CNA4.0x60	CNA4.0x35	CNA4.0x40S	CNA4.0x60
ABR9020S	4	6	4.9	5.9	9.8	5.9	6.4	8.1	4.6 /kmod <sup>0,6</sup>	4.8 /kmod <sup>0,7</sup>	5.8/kmod <sup>0.6</sup>
ABR10525S	6	6	4.8	5.7	9.5	9.7	10.6	14.3	Refer to ETA-06/0106	Refer to ETA-06/0106	Refer to ETA-06/0106

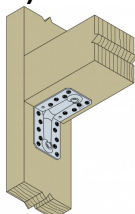
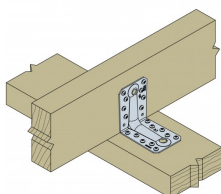
R 4/5 with b=75mm and e=130mm

## ABR-S Stainless Steel Bracket

### Installation

#### Fixings

- **Fixings must be stainless steel nails (CNA-S) or screws (CSA-S) to avoid bi-metallic corrosion.**



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