# **Technical data sheet**

### E9/2.5 Large reinforced angle brackets

Reinforced angle brackets are suitable for structural applications in framing and wood-frame houses.

# Features

### Material

• Pre-galvanised mild steel.

### **Benefits**

- Reinforced.
- Multiple applications. ٠

# Applications

# Suitable On

- Supporting member: solid wood, gluedlaminated wood, concrete, steel, etc.
- Supported member: solid wood, composite lumber, glued-laminated wood, triangular trusses, profiles, etc.

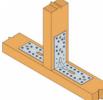
# When to Use

- Fastening of small trusses.
- Cladding plates, cladding uprights. ٠
- Rafter anchors, cantilevers, headers, etc. ٠













Z275

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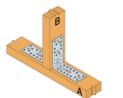


# **Technical Data**

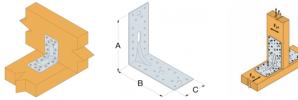
## Product Dimensions

References	Product Dimensions [mm]				Joist			Holes flange B		Box Quantity
	Α	В	C	t	Ø5	Ø11	Ø11x34	Ø5	Ø11	DUN QUAITULY
E9/2.5	154	152.5	65	2.5	14	1	1	14	2	50

Wood/wood connection beam/beam type - assembly with 2 angle brackets



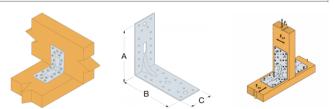




	Product capacities - Timber beam to timber beam - Max nailing								
References	Numbe	er of Fasteners	Characteristic capacities - Timber C24 - 2 angle brackets per connection [kN]						
	Joist	Flange B	R	$R_{2.k} = R_{3.k}$					
	Qty	Qty	CNA4.0x35	CNA4.0x50	CNA4.0x35	CNA4.0x50			
E9/2.5	12	14	5.1 / kmod^(-0.1)	8.5 / kmod^(-0.1)	9.5	13			

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.

# Wood/wood connection post/beam type - assembly with 2 angle brackets



References	Product capacities - Timber post to timber beam									
	Number of Fasteners		Characteristic capacities - Timber C24 - 2 angle brackets per connection [kN]							
	Joist	Flange B	R	1.k	$R_{2,k} = R_{3,k}$					
	Qty	Qty	CNA4.0x35	CNA4.0x50	CNA4.0x35	CNA4.0x50				
E9/2.5	10	14	3.1	5.1	6.7	8.6				

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

Fixing

#### On wood:

- CNA annular ring-shank nails dia. 4.0 x 35 or dia. 4.0 x 50 mm.
- CSA screws dia. 5.0 x 35 mm or CSA screws dia. 5.0 x 40 mm.
- Bolts.
- LAG screws.

# On concrete:

### Concrete substrate

- Mechanical anchor: WA M10-78/5 OR WA M12-104/5 pin.
- Chemical anchor: AT-HP resin + LMAS M10-120/25 or LMAS M12-150/35 threaded rod.

#### Hollow masonry substrate:

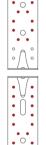
• Chemical anchor: AT-HP or POLY-GP resin + LMAS M12-150/35 threaded rod + SH M16-130 screen.

#### On steel:

• Bolts.

Installation

### Use specified nails.



Fastening on wood support

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# **Technical Notes**

### Informations techniques

#### F1: tensile force in the central axis of the angle-bracket Particular situation of a fastening with only one angle-bracket:

- If the overall structure prevents the rotation of the purlin or the post, the tensile strength is equal to half of the given value for two angle-brackets.
- Otherwise, the connection resistance depends on the « f » distance between the vertical contact surface and the point of load application.

# F2 and F3: shear lateral force

# Particular situation of a connection with only one angle-bracket:

• The resistance value to consider is equal to half of the one given for two angle-brackets.

F4 and F5: transversal force directed towards or opposite the angle-bracket

- The connection resistance depends on the « e » distance between the base of the angle-bracket and the point of load application.
- To consult corresponding loads, contact us.

*Only F1, F2 and F3 forces for connections with 2 angle-brackets are present on this sheet. For more information, contact us.* 

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