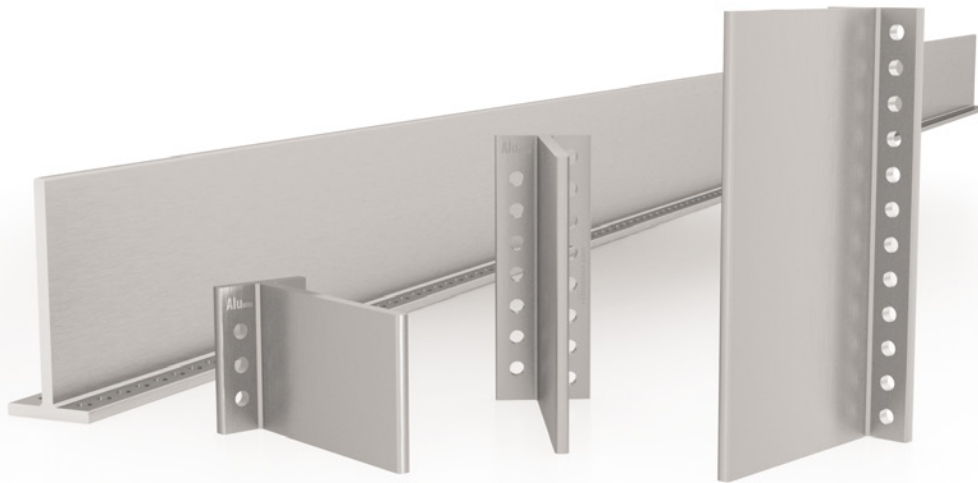


ALUMINI

Concealed beam hanger without holes

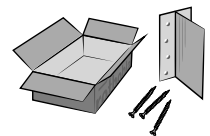
Aluminum alloy tridimensional perforated plate

CE
ETA 09/0361



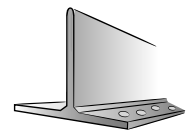
PACKAGING

Screws HBS+evo included in the box.



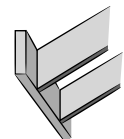
STEEL-ALUMINUM

EN AW-6060 aluminum alloy bracket obtained by extrusion and therefore weld-free.



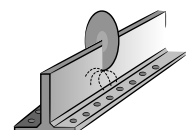
SLENDER STRUCTURES

The small dimensions of the side allows to connect secondary joists with limited width (starting from 1.772 in.).



ADJUSTABLE

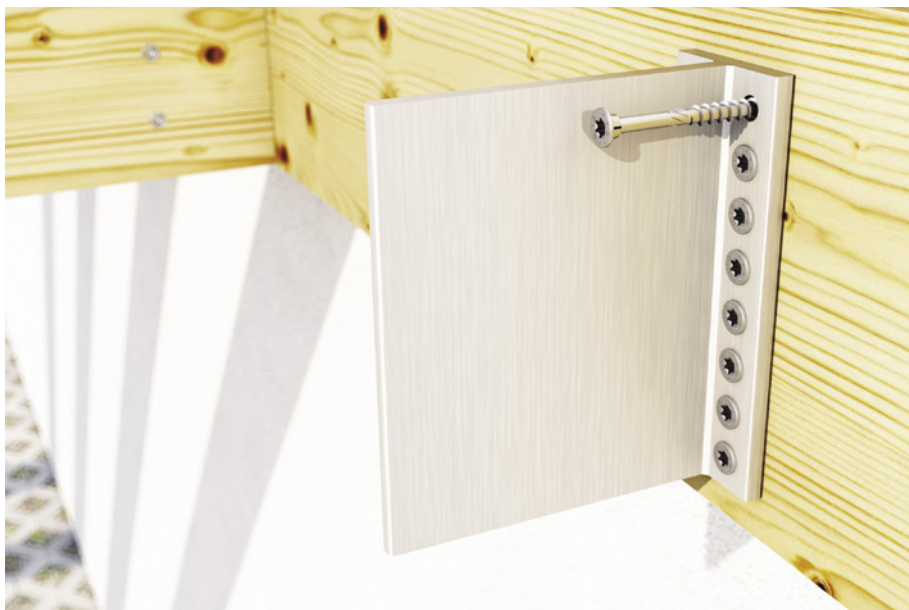
Available in 85.236 in. long pieces, to be cut according to the worksite needs.



FIELD OF USE

Timber-to-timber shear connections, both perpendicular and inclined to the vertical plane

- solid timber
- glulam (Glued Laminated Timber)
- CLT (Cross Laminated Timber)
- LVL (Laminated Veneer Lumber)
- wood-based panels



QUICK ASSEMBLING

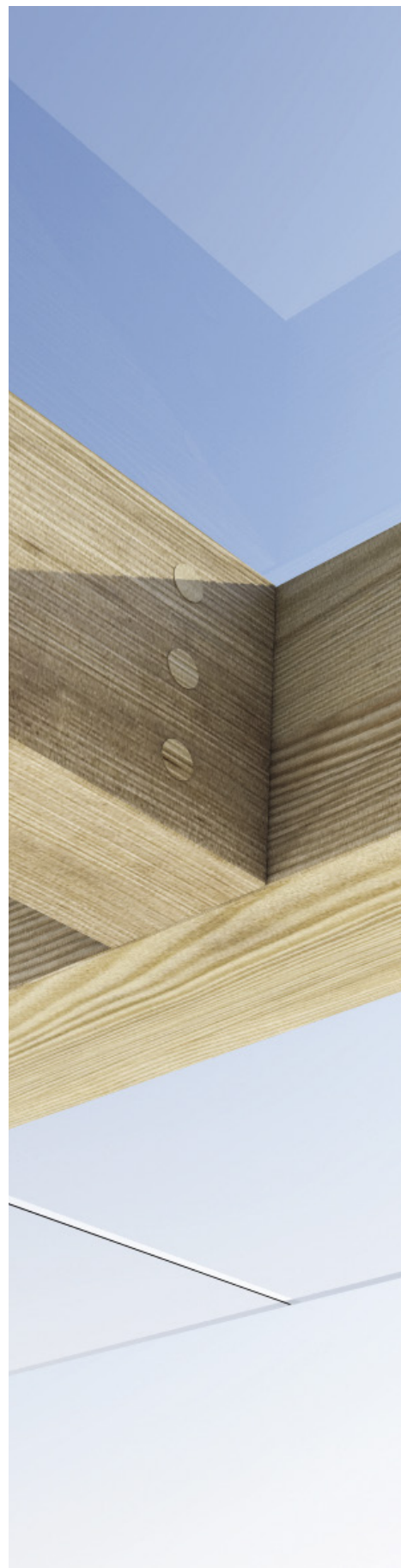
The fixing, simple and fast, is realized through screws HBS PLATE EVO on the main beam and self drilling or smooth dowels on the secondary beam

SUITABLE FOR ARBORS

Limited dimensions and aluminum higher corrosion resistance, when compared to steel, make the bracket an optimal solution for any kind of outdoor structure

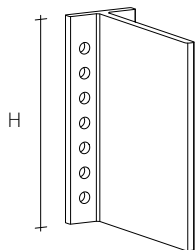
INVISIBLE

The hidden connection provides a satisfying appearance to the joint and fulfills the fire safety requirements. When adequately protected by timber, it is suitable for outdoor use



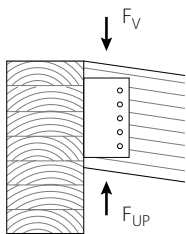
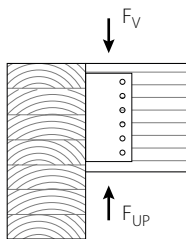
CODES AND DIMENSIONS

ALUMINI



code	type	H [in]	pcs/box
ALUMINI65	without holes	2.559	25
ALUMINI95	without holes	3.740	25
ALUMINI125	without holes	4.921	25
ALUMINI155	without holes	6.102	15
ALUMINI185	without holes	7.283	15
ALUMINI2165	without holes	85.236	1

EXTERNAL LOADS



MATERIAL AND DURABILITY

ALUMINI: EN AW-6060 aluminum alloy.
To be used in Service Class 1 and 2 (EN 1995:2008).

FIELD OF USE

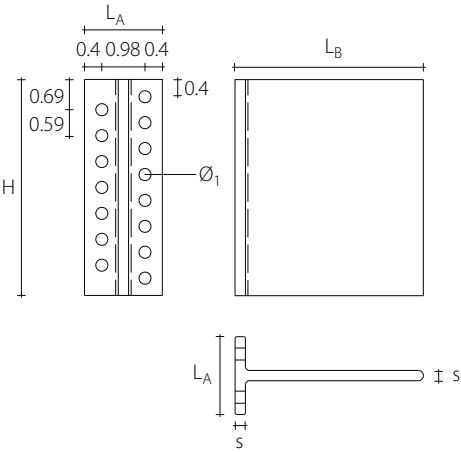
Timber to timber joints



ADDITIONAL PRODUCTS - FIXINGS

type	description		d [mm]	d [in]	support
HBS PLATE EVO	screw for timber		5	0.197	
SBD	self-drilling dowel		7.5	0.295	
STA	smooth dowel		8	0.315	

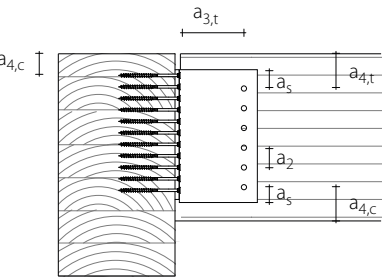
GEOMETRY



AluMINI			
Thickness	s	[in]	0.236
Flange width	L_A	[in]	1.772
Web length	L_B	[in]	4.327
Small flange-holes	$\varnothing_1$	[in]	0.276

INSTALLATION

MINIMUM DISTANCES

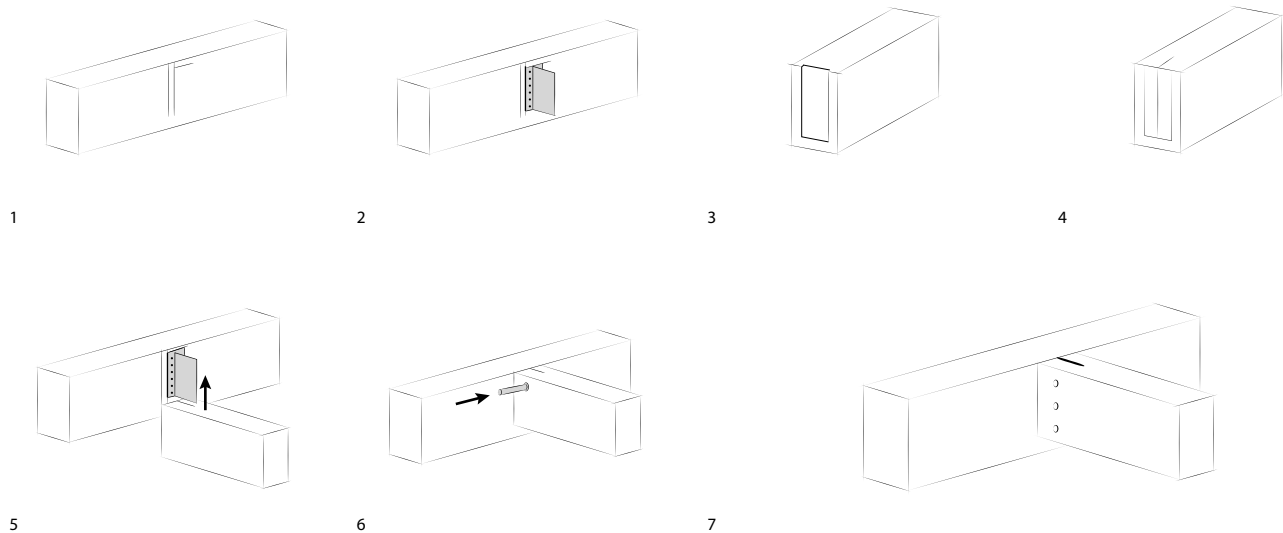


SECONDARY BEAM - TIMBER				self-drilling dowel WS Ø7	smooth dowel STA Ø8
Dowel - Dowel	a_2	[in]	$\geq 3 d$	≥ 0.906	≥ 0.945
Dowel - Beam extrados	$a_{4,t}$	[in]	$\geq 4 d$	≥ 1.181	≥ 1.260
Dowel - Beam intrados	$a_{4,c}$	[in]	$\geq 3 d$	≥ 0.906	≥ 0.945
Dowel - Beam end	$a_{3,t}$	[in]	$\geq \{7 d; 80\}$	≥ 3.150	≥ 3.150
Dowel - Bracket edge	a_s	[in]	$\geq 1.2 d_o^{(1)}$	≥ 0.394	≥ 0.472

(1) hole diameter

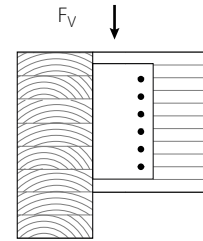
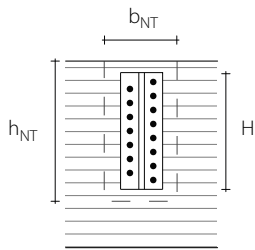
MAIN BEAM - TIMBER				screw HBS PLATE EVO Ø5	
First fastener - Beam extrados	$a_{4,c}$	[in]	$\geq 5 d$	≥ 0.984	

ASSEMBLY



STATIC VALUES - TIMBER-TO-TIMBER JOINT - RIGHT ANGLE

AluMINI



ASD Values

AluMINI		Secondary beam		Dowel	Screws	
H		b_{NT}	h_{NT}	SBD Ø7.5	HBS PLATE EVO Ø5 x 70	R_{vk}
[mm]	[in]	[in]	[in]	[pcs. - Ø x L]	[pcs.]	[lbs]
65	2.559	3.150	3.543	2 - Ø7.5 x 75	7	319.0
95	3.740	3.150	4.724	3 - Ø7.5 x 75	11	764.0
125	4.921	3.150	5.906	4 - Ø7.5 x 75	15	1333.0
155	6.102	3.150	7.087	5 - Ø7.5 x 75	19	1979.0
185	7.283	3.150	8.268	6 - Ø7.5 x 75	23	2665.0

$$C_D = 1. C_M = 1. C_T = 1$$

Specific Gravity: 0.49

NOTES

- Values based on the "Technical Design Guide USA", download from www.rothoblaas.com
- Download the latest version of this document from www.rothoblaas.com

GENERAL PRINCIPLES

- For different configurations or service conditions, please refer to the analytical model in ETA-09/0361 or contact Rothoblaas technical office for more information
- Dimensioning and verification of the timber elements must be carried out separately
- Strength values of the connection system are valid under the calculation hypotheses listed in the table.
- All reference lateral design values are calculated in accordance with the NDS. The analytical model is outlined in ETA-09/0361

