

UV-T



Concealed hook connector TIMBER - TIMBER

Aluminum three dimensional perforated plate



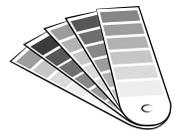
FIELD OF USE

Timber to timber shear joints and application requiring strength in all directions

- Solid timber
- glulam (Glued Laminated Timber)
- CLT (Cross Laminated Timber)
- LVL (Laminated Veneer Lumber)

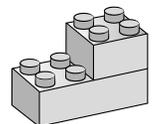
COMPLETE RANGE

Available in 5 versions, to work with the secondary beam and load applied. Resistance over 60 kN



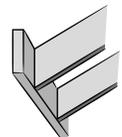
CAN BE DISASSEMBLED

The hook system makes for quick installation and can easily be removed. Ideal for use in temporary structures



SLENDER STRUCTURES

The UVT3070 version is ideal for joining secondary beams of smaller width, starting from a base of 1.772 in.





ALL DIRECTIONS

The inclined screws inserted in the secondary beam guarantee resistance in all directions: vertical, horizontal and axial. The joint is secure even in the case of wind and earthquake forces

INSTALLATION

Completely concealed, meets fire resistance requirements. Installed without cutting, it creates a vent that is also an attractive architectural detail

QUICK ASSEMBLY

Installation is intuitive, easy and fast. The locking screw impedes unthreading, guaranteeing resistance even in the direction opposite to insertion



APPLICATIONS

Secondary beam joint
1 3/4" x 4" with UVT3070

Creation of a temporary pergola

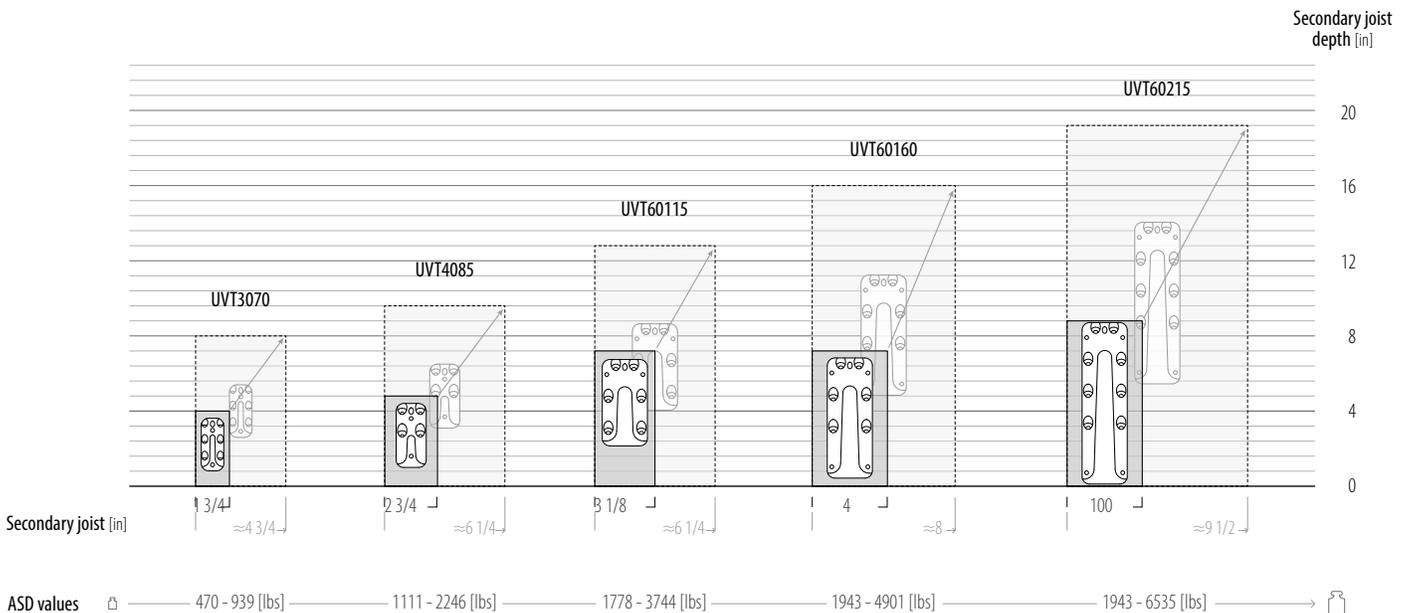
Large structure joints with
UVT60215



RANGE

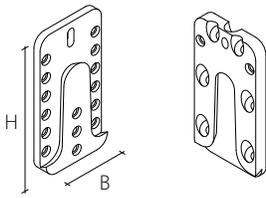
The range of UV-T concealed connectors for wood-wood joints consists of 5 items, to be selected based on the load acting on the joint and the dimensions of the secondary beam. Every connector offers different resistance, based on the length of the screws used.

The smallest connector can be used for beams with minimum dimensions of 1 3/4" x 4". The largest connector offers characteristic resistance exceeding 6500 lbs.



CODES AND DIMENSIONS

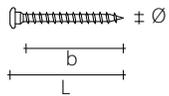
UV-T



code	B [in]	H [in]	s [in]	Ø _{90°} [in]	Ø _{45°} [in]	pcs/box
UVT3070	1.181	2.756	0.630	0.197	0.157	25
UVT4085	1.575	3.346	0.630	0.197	0.236	25
UVT60115	2.362	4.528	0.630	0.197	0.236	25
UVT60160	2.362	6.299	0.630	0.197	0.236	10
UVT60215	2.362	8.465	0.630	0.197	0.236	10

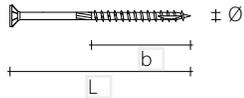
Screws not included in the box

LBS: 90° SCREWS



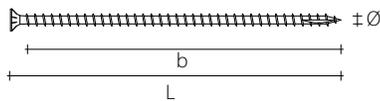
code	Ø [in]	L [in]	b [in]	TX	pcs/box
PF603550	0.197	1.969	1.811	TX20	200
PF603560	0.197	2.362	2.205	TX20	200
PF603570	0.197	2.756	2.598	TX20	200

HBS: 45° SCREWS for UVT3070



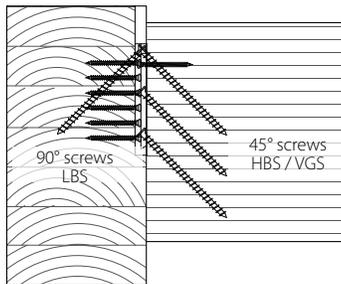
code	Ø [in]	L [in]	b [in]	TX	pcs/box
HBS450	0.157	1.969	1.181	TX20	200
HBS470	0.157	2.755	1.574	TX20	200

VGS: 45° SCREWS for UVT4085 / UVT60115 / UVT60160 / UVT60215



code	Ø [in]	L [in]	b [in]	TX	pcs/box
VGS6100	0.236	3.937	3.465	TX30	100
VGS6160	0.236	6.299	5.827	TX30	100

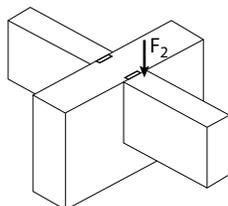
FASTENERS



MAXIMUM NUMBER OF FASTENERS PER INDIVIDUAL CONNECTOR (total nailing)

code	n _{90°} [pcs - Ø]	n _{45°} [pcs - Ø]
UVT3070	8 - LBS Ø5	6 (+1) - HBS Ø4
UVT4085	11 - LBS Ø5	4 (+1) - VGS Ø6
UVT60115	17 - LBS Ø5	6 (+1) - VGS Ø6
UVT60160	25 - LBS Ø5	6 (+1) - VGS Ø6
UVT60215	34 - LBS Ø5	8 (+1) - VGS Ø6

EXTERNAL LOADS



MATERIAL AND DURABILITY

UV: aluminum alloy.

To be used in Service class 1 and 2 (EN 1995:2008)

FIELD OF USE

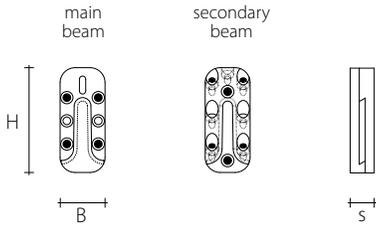
Timber to timber joints

Secondary beam on main beam or column



UVT3070

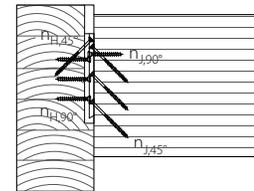
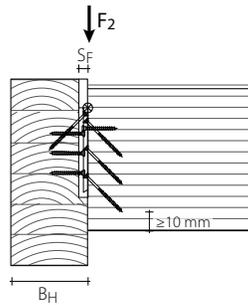
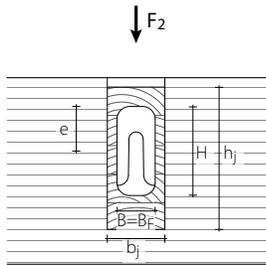
MINIMUM DIMENSIONS, WOOD ELEMENTS



	UV CONNECTOR	45° SCREWS	MAIN BEAM	SECONDARY BEAM ⁽¹⁾	
type	B x H x s [in]	Ø x L [in]	B _{H,MIN} [in]	b _{J,MIN} [in]	h _{J,MIN} [in]
UVT3070	1 1/8" x 2 3/4" x 5/8"	HBS 5/32" x 2" HBS 5/32" x 2 3/4"	1 3/4" 2 3/8"	1 3/4" 1 3/4"	4" 4 1/2"

FASTENERS

type	nailing	MAIN BEAM		SECONDARY BEAM	
		n _{H,90°} [pcs - Ø]	n _{H,45°} [pcs - Ø]	n _{J,90°} [pcs - Ø]	n _{J,45°} [pcs - Ø]
UVT3070	total ● + ○	6 - LBS Ø5	1 - HBS Ø4	2 - LBS Ø5	6 - HBS Ø4

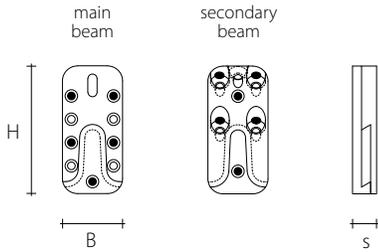


STATIC CHARACTERISTIC VALUES - TIMBER TO TIMBER JOINT

UVT3070			G=0.42		G=0.49	
			TOTAL NAILING ● + ○			
			45° SCREWS			
			HBS 5/32" x 2"	HBS 5/32" x 2 3/4"	HBS 5/32" x 2"	HBS 5/32" x 2 3/4"
			[lbs]		[lbs]	
90° SCREWS	LBS Ø 6/32" x 2"	R _{2,Rk}	711	948	896	1195
	LBS Ø 6/32" x 2 3/8"	R _{2,Rk}	711	948	896	1195
	LBS Ø 6/32" x 2 3/4"	R _{2,Rk}	711	948	896	1195

UVT4085

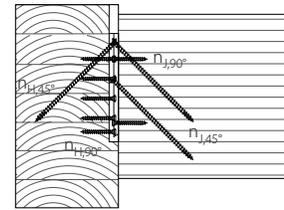
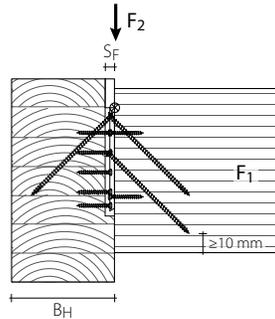
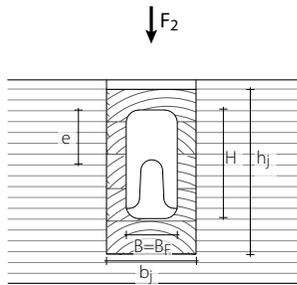
MINIMUM DIMENSIONS, WOOD ELEMENTS



	UV CONNECTOR	45° SCREWS	MAIN BEAM	SECONDARY BEAM ⁽¹⁾	
type	B x H x s [in]	Ø x L [in]	B_{H,MIN} [in]	b_{J,MIN} [in]	h_{J,MIN} [in]
UVT4085	1 5/8 " x 3 3/8 " x 5/8 "	VGS Ø 1/4 " x 4 " VGS Ø 1/4 " x 6 1/4 "	3 1/8 " 4 3/4 "	2 3/4 " 2 3/4 "	4 3/4 " 6 1/4 "

FASTENERS

type	nailing	MAIN BEAM		SECONDARY BEAM	
		n _{H,90°} [pcs - Ø]	n _{H,45°} [pcs - Ø]	n _{J,90°} [pcs - Ø]	n _{J,45°} [pcs - Ø]
UVT4085	total ● + ○	9 - LBS 6/32 "	1 - VGS 1/4 "	2 - LBS 6/32 "	4 - VGS 1/4 "
	partial ●	5 - LBS 6/32 "	1 - VGS 1/4 "	2 - LBS 6/32 "	4 - VGS 1/4 "

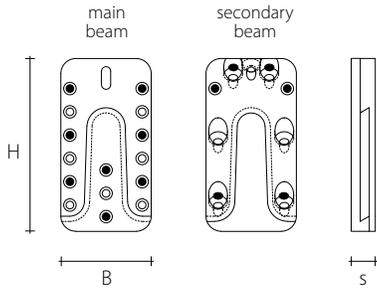


STATIC CHARACTERISTIC VALUES - TIMBER TO TIMBER JOINT

UVT4085			G=0.42		G=0.49	
			TOTAL NAILING ● + ○			
			45° SCREWS			
			VGS Ø 1/4 " x 4 "	VGS Ø 1/4 " x 6 1/4 "	VGS Ø 1/4 " x 4 "	VGS Ø 1/4 " x 6 1/4 "
			[lbs]		[lbs]	
90° SCREWS	LBS Ø 6/32 " x 2 "	R _{2,Rk}	1555	1555	1845	1845
	LBS Ø 6/32 " x 2 3/8 "	R _{2,Rk}	1683	1683	2007	2007
	LBS Ø 6/32 " x 2 3/4 "	R _{2,Rk}	1812	1812	2168	2168

UVT60115

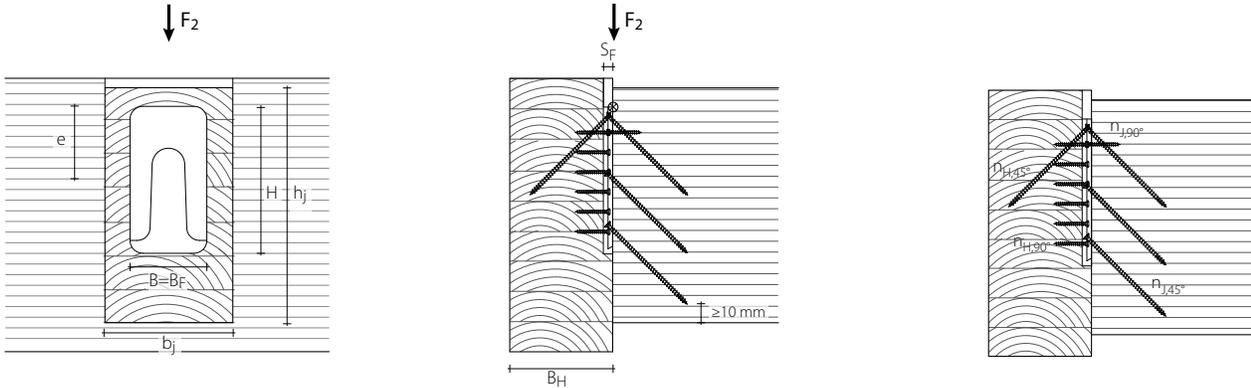
MINIMUM DIMENSIONS, WOOD ELEMENTS



	UV CONNECTOR	45° SCREWS	MAIN BEAM	SECONDARY BEAM ⁽¹⁾	
type	B x H x s [in]	Ø x L [in]	B _{H,MIN} [in]	b _{J,MIN} [in]	h _{J,MIN} [in]
UVT60115	2 3/8" x 4 4/8" x 5/8"	VGS Ø 1/4" x 4" VGS Ø 1/4" x 6 1/4"	3 1/8" 4 3/4"	3 1/8" 3 1/8"	7 1/8" 5 5/8"

FASTENERS

type	nailing	MAIN BEAM		SECONDARY BEAM	
		n _{H,90°} [pcs - Ø]	n _{H,45°} [pcs - Ø]	n _{J,90°} [pcs - Ø]	n _{J,45°} [pcs - Ø]
UVT60115	total ● + ○	15 - LBS 6/32"	1 - VGS 1/4"	2 - LBS 6/32"	6 - VGS 1/4"
	partial ●	8 - LBS 6/32"	1 - VGS 1/4"	2 - LBS 6/32"	4 - VGS 1/4"

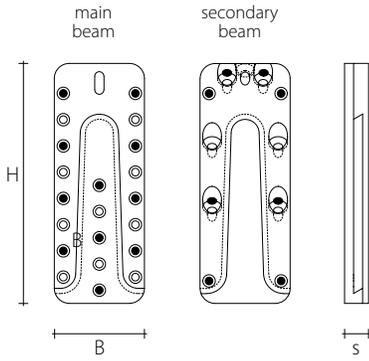


STATIC CHARACTERISTIC VALUES - TIMBER TO TIMBER JOINT

UVT60115			G=0.42		G=0.49	
			TOTAL NAILING ● + ○			
			45° SCREWS			
			VGS Ø 1/4" x 4"	VGS Ø 1/4" x 6 1/4"	VGS Ø 1/4" x 4"	VGS Ø 1/4" x 6 1/4"
			[lbs]	[lbs]	[lbs]	[lbs]
90° SCREWS	LBS Ø 6/32" x 2"	R _{2,Rk}	2592	2592	3075	3075
	LBS Ø 6/32" x 2 3/8"	R _{2,Rk}	2806	2806	3345	3345
	LBS Ø 6/32" x 2 3/4"	R _{2,Rk}	2827	3019	3562	3614

UVT60160

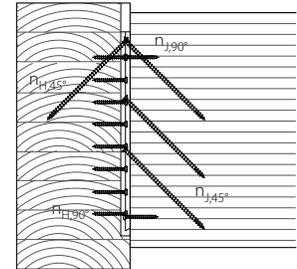
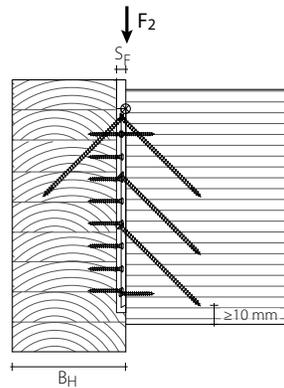
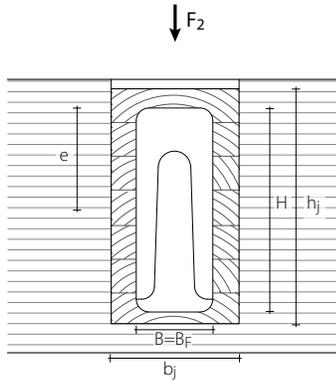
MINIMUM DIMENSIONS, WOOD ELEMENTS



UV CONNECTOR		45° SCREWS	MAIN BEAM	SECONDARY BEAM ⁽¹⁾	
type	B x H x s [in]	Ø x L [in]	B _{H,MIN} [in]	b _{J,MIN} [in]	h _{J,MIN} [in]
UVT60160	2 3/8 " x 6 1/4 " x 5/8 "	VGS Ø 1/4 " x 4 "	3 1/8 "	4 "	7 1/8 "
		VGS Ø 1/4 " x 6 1/4 "	4 3/4 "	4 "	8 5/8 "

FASTENERS

		MAIN BEAM		SECONDARY BEAM		
type	nailing	n _{H,90°} [pcs - Ø]	n _{H,45°} [pcs - Ø]	n _{J,90°} [pcs - Ø]	n _{J,45°} [pcs - Ø]	
UVT60160	total	● + ○	21 - LBS 6/32 "	1 - VGS 1/4 "	4 - LBS 6/32 "	6 - VGS 1/4 "
	partial	●	11 - LBS 6/32 "	1 - VGS 1/4 "	4 - LBS 6/32 "	4 - VGS 1/4 "

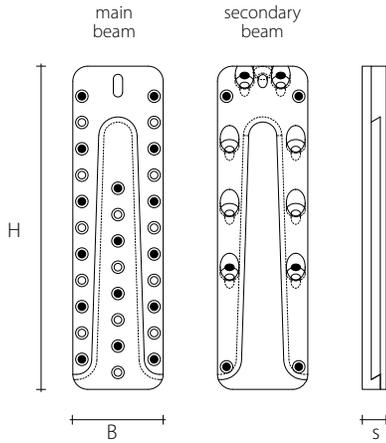


STATIC CHARACTERISTIC VALUES - TIMBER TO TIMBER JOINT

UVT60160			G=0.42		G=0.49	
			TOTAL NAILING ● + ○			
			45° SCREWS			
			VGS Ø 1/4 " x 4 "	VGS Ø 1/4 " x 6 1/4 "	VGS Ø 1/4 " x 4 "	VGS Ø 1/4 " x 6 1/4 "
			[lbs]		[lbs]	
90° SCREWS	LBS Ø5x50	R _{2,Rk}	2827	3629	3562	4305
	LBS Ø5x60	R _{2,Rk}	2827	3928	3562	4682
	LBS Ø5x70	R _{2,Rk}	2827	4227	3562	5060

UVT60215

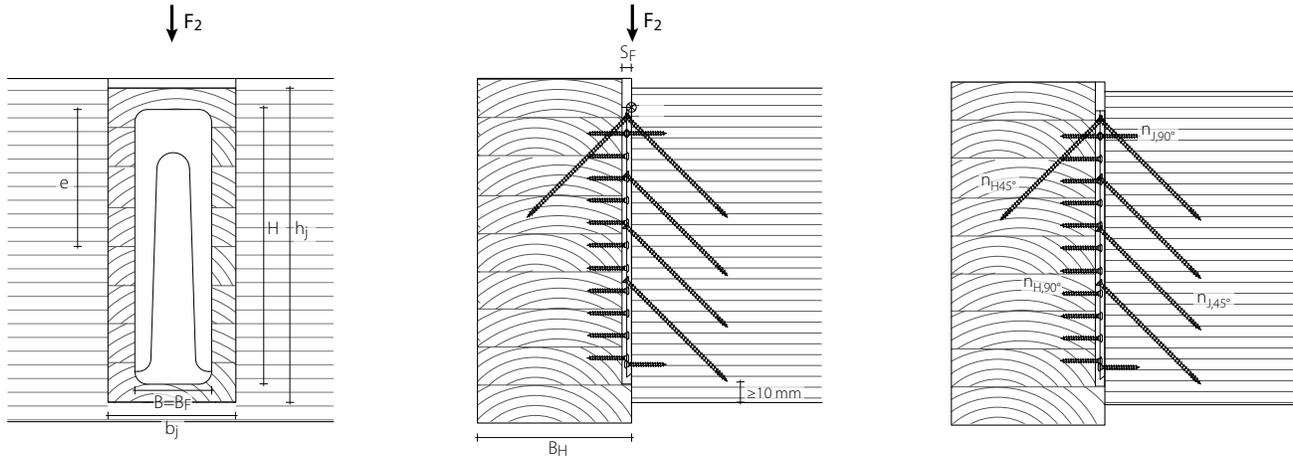
MINIMUM DIMENSIONS, WOOD ELEMENTS



	UV CONNECTOR	45° SCREWS	MAIN BEAM	SECONDARY BEAM ⁽¹⁾	
type	B x H x s [in]	Ø x L [in]	B _{H,MIN} [in]	b _{J,MIN} [in]	h _{J,MIN} [in]
UVT60215	2 3/8" x 8 4/8" x 5/8"	VGS Ø 1/4" x 4"	3 1/8"	4"	8 5/8"
		VGS Ø 1/4" x 6 1/4"	4 3/4"	4"	10 1/4"

FASTENERS

type	nailing	MAIN BEAM		SECONDARY BEAM	
		n _{H,90°} [pcs - Ø]	n _{H,45°} [pcs - Ø]	n _{J,90°} [pcs - Ø]	n _{J,45°} [pcs - Ø]
UVT60215	total ● + ○	30 - LBS 6/32"	1 - VGS 1/4"	4 - LBS 6/32"	8 - VGS 1/4"
	partial ●	16 - LBS 6/32"	1 - VGS 1/4"	4 - LBS 6/32"	4 - VGS 1/4"



STATIC CHARACTERISTIC VALUES - TIMBER TO TIMBER JOINT

UVT60215			G=0.42		G=0.49	
			TOTAL NAILING ● + ○			
			45° SCREWS			
90° SCREWS	LBS Ø5x50	R _{2,Rk}	VGS Ø 1/4" x 4"	VGS Ø 1/4" x 6 1/4"	VGS Ø 1/4" x 4"	VGS Ø 1/4" x 6 1/4"
			[lbs]		[lbs]	
			LBS Ø5x60	R _{2,Rk}	3769	5184
LBS Ø5x70	R _{2,Rk}	3769	5611	4750	6689	
		R _{2,Rk}	3769	6039	4750	7228

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

(1) The minimum dimensions of the wood elements vary based on changes in the direction of the load and must be verified on a case by case basis. The table shows minimum dimensions to guide the designer when selecting the connector. Dimensioning and verification of the timber elements must be carried out separately.

GENERAL PRINCIPLES

- The published design values for this structural timber connector are based on Allowable Stress Design (ASD) methodology. These values have been developed and verified in accordance with the National Design Specification® (NDS®) for Wood Construction and are intended for use within ASD-based structural designs. Users are responsible for ensuring compatibility with applicable building codes and project-specific design requirements.
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