

Technical data sheet

SIMPSON
Strong-Tie

SPF Purlin Anchor

The SPF can be used to connect two timbers that cross over at 90 degrees to each other and can be used with a number of timber dimensions. The SPF are handed, left and right, and are sold separately.

Note: The brackets are manufactured in right and left versions and are sold individually.

Features

Material

Steel quality:

S250GD + Z275 according to DIN EN10346

Corrosion protection:

275 g / m galvanized on both sides 20mm

Benefits

- Designed to withstand tensile loads, loads more possible in horizontal directions.
- Installation maybe 2 or 4 connectors for connection.
- Low number of nails, 1-hole line every foot.
- Variable installation

Applications

Applicatons

Wood, wood products

Scope

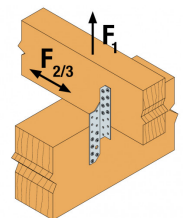
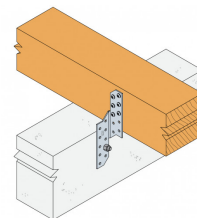
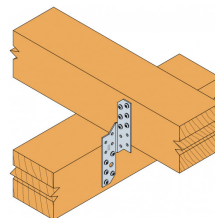
- Wood / wood joints, especially in the intersecting roof structures

Note:

Clutch purlins and rafters in pairs

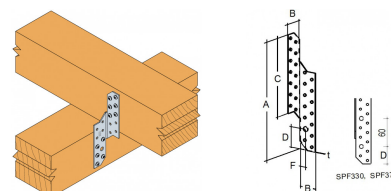
SPF ... R - coupling purlins and rafters - right

SPF ... L - coupling purlins and rafters – left



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Product Dimensions

References	NOB nr.	Tun / DB nr.	Product Dimensions [mm]						Holes Flange B		Holes Flange E		Box Quantity	Weight [kg]
			A	B	C	D	F	t	Ø5 [mm]	Ø5 [mm]	Ø9 [mm]			
SPF170L	21594346	8978157	170	32.5	100	37.5	14	2	10	9	1	100	0.096	
SPF170R	21594353	8978165	170	32.5	100	37.5	14	2	10	9	1	100	0.096	
SPF210L	21594361	8978173	210	32.5	140	37.5	14	2	14	13	1	100	0.13	
SPF210R	21594379	8978181	210	32.5	140	37.5	14	2	14	13	1	100	0.13	
SPF250L	21594387	8978199	250	32.5	180	37.5	14	2	18	17	1	100	0.17	
SPF250R	21594395	8978207	250	32.5	180	37.5	14	2	18	17	1	100	0.17	
SPF290L	21594403	8978215	290	32.5	220	37.5	14	2	22	21	1	100	0.21	
SPF290R	21594411	8978223	290	32.5	220	37.5	14	2	22	21	1	100	0.21	
SPF330L	22998660	7742596	330	32.5	260	37.5	14	2	26	25	2	50	0.24	
SPF330R	22998678	7742604	330	32.5	260	37.5	14	2	26	25	2	50	0.24	
SPF370L	42289940	7742612	370	32.5	300	37.5	14	2	30	29	2	50	0.28	
SPF370R	43899285	7742620	370	32.5	300	37.5	14	2	30	29	2	50	0.28	

The types "SPF ...LR" is a pair of left and right version

The Type "SPF...L" is the left version

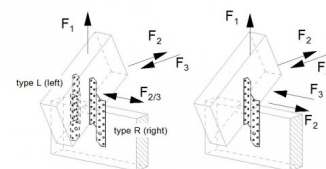
The type "SPF...R" is the right version

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Wood/wood fastening- Characteristic values in kn

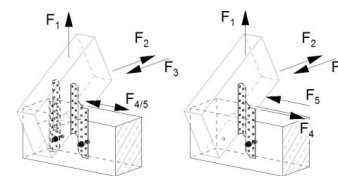


References	Product characteristic capacities - Timber C24 [kN]												Cha
	Number of Fasteners												
	Header	Purlin	R _{1,k}				R _{2,k}				R _{3,k}		
	Qty	Qty	CNA4,0x35	CNA4,0x40	CNA4,0x50	CNA4,0x60	CNA4,0x35	CNA4,0x40	CNA4,0x50	CNA4,0x60	CNA4,0x35	CNA4,0x40	
SPF170L	5	5	5.2	5.8	6.7	6.7	2	2.2	2.7	2.8	1.2	1.4	
SPF170R	5	5	5.2	5.8	6.7	6.7	2	2.2	2.7	2.8	1.2	1.4	
SPF210L	7	7	8.9	9.3	9.3	9.3	3.1	3.3	4.1	4.3	1.2	1.4	
SPF210R	7	7	8.9	9.3	9.3	9.3	3.1	3.3	4.1	4.3	1.2	1.4	
SPF250L	9	9	12	12	12	12	4	4.2	4.7	5.1	1.2	1.4	
SPF250R	9	9	12	12	12	12	4	4.2	4.7	5.1	1.2	1.4	
SPF290L	11	11	14.7	14.7	14.7	14.7	4	4.2	4.7	5.1	1.2	1.4	
SPF290R	11	11	14.7	14.7	14.7	14.7	4	4.2	4.7	5.1	1.2	1.4	
SPF330L	13	13	14.9	14.9	14.9	14.9	4	4.2	4.7	5.1	1.2	1.4	
SPF330R	13	13	14.9	14.9	14.9	14.9	4	4.2	4.7	5.1	1.2	1.4	
SPF370L	15	15	14.9	14.9	14.9	14.9	4	4.2	4.7	5.1	1.2	1.4	
SPF370R	15	15	14.9	14.9	14.9	14.9	4	4.2	4.7	5.1	1.2	1.4	

The capacities are given for one SPF, where the header and purlin are prevented against rotation
 The published characteristic capacity is based on short term load duration and service class 2 according to EC5
 The capacity for connection with 2 SPF is the sum of the single capacities.

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Product capacities - Timber to concrete

References	Number of Fasteners		Product characteristic capacity										
	Header		Purlin	$R_{1,k}$				$R_{2,k}$				F	
	Qty	Type	Qty	CNA4,0x35	CNA4,0x40	CNA4,0x50	CNA4,0x60	CNA4,0x35	CNA4,0x40	CNA4,0x50	CNA4,0x60	CNA4,0x35	CNA4,0x40
SPF170L	1	M8	5	5.2	5.8	6.7	6.7	2.2	2.4	2.9	2.9	1	1
SPF170R	1	M8	5	5.2	5.8	6.7	6.7	2.2	2.4	2.9	2.9	1	1
SPF210L	1	M8	7	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1
SPF210R	1	M8	7	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1
SPF250L	1	M8	9	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1
SPF250R	1	M8	9	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1
SPF290L	1	M8	11	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1
SPF290R	1	M8	11	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1
SPF330L	1	M8	13	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1
SPF330R	1	M8	13	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1
SPF370L	1	M8	15	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1
SPF370R	1	M8	15	6.7	6.7	6.7	6.7	2.9	2.9	2.9	2.9	1	1

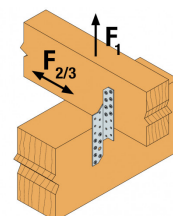
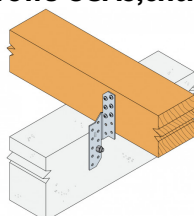
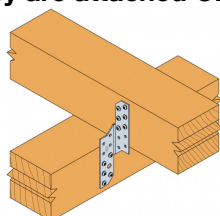
The capacities are given for one SPF, where the header and purlin are prevented against rotation.
 The capacity for load direction $F_{2/3}$ and for $F_{4/5}$ is the sum of the single capacities.
 The anchorage has to be checked separately. The middle of SPF has to be placed in line between purlin and concrete.
 The published characteristic capacity is based on short term load duration and service class 2 according to EC5.

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Installation

Fasteners

- They are attached **CNA4,0xℓ** nails or screws **CSA5,0xℓ**.



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