

Keep Your Post-Frame Roof Purlins and Costs in Line



Introducing the Simpson Strong-Tie® PFPS24™ Purlin Splice for Post-Frame Construction

The PFPS24 purlin splice connector is the latest innovation in our expanding line of post-frame construction solutions. Designed to simplify roof purlin connections, the PFPS24 eliminates the need to offset and overlap purlins, keeping them in-line along the entire length of a gable roof. This design enhances purlin and roof panel installation efficiency, improves fastener alignment and reduces material costs by allowing the use of shorter, more economical purlin stock. For example, using 16' purlin stock instead of 18' results in both lower board-foot cost and reduced material use.

Key Benefits

Saves Labor and Material Costs

- Eliminates overlapped purlins, allowing the use of shorter, lower-cost purlin stock
- Reduces installation time by maintaining continuous alignment of purlins
- Minimum and maximum fastener options provide value engineering opportunities depending on load requirements
- A minimum fastener pattern can reduce installed fasteners by up to four per connector, helping lower labor costs without compromising code-compliance

Enhances Fastener Installation and Performance

- Keeping purlins aligned eliminates staggered roof panel fasteners, reducing misinstallation risks
- Provides tested load values for both nail and screw fastening options

Accommodates High-Load Applications:

- Unique design allows connectors to be doubled up for increased capacity where needed

Code Listed for Performance and Reliability

- Fully tested and code listed to ensure strength, durability and peace of mind for specifiers and builders

With the PFPS24, post-frame construction is stronger, faster and more efficient.

Material: 18 ga.

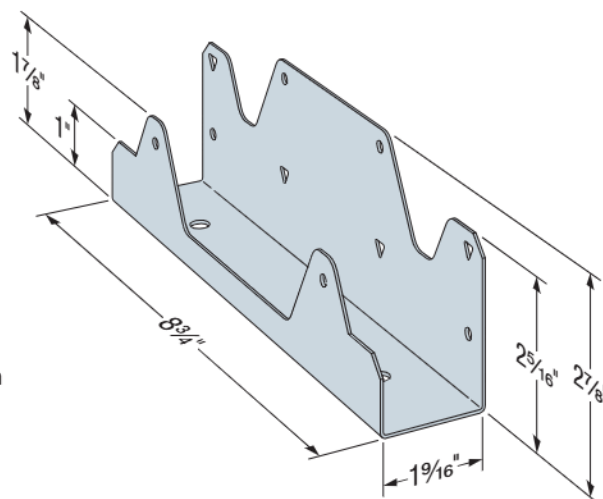
Finish: Galvanized

Codes: Visit strongtie.com for the latest load values and testing information

Packaging: Packaged in boxes of 50 (fasteners sold separately)

Installation

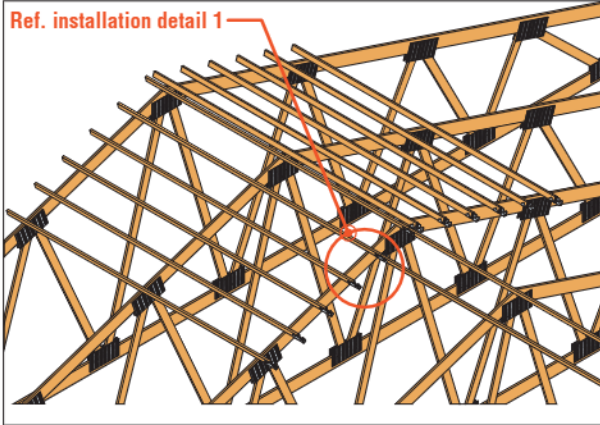
- Use all specified fasteners
- Min. purlin size = 2x4, max. purlin size = 2x6
- The PFPS24 may be installed individually or in pairs for increased load values
- The larger 2 7/8" flange can be used on the downslope or upslope purlin face
- PFPS to be installed centered about splice location +/- 1/8"



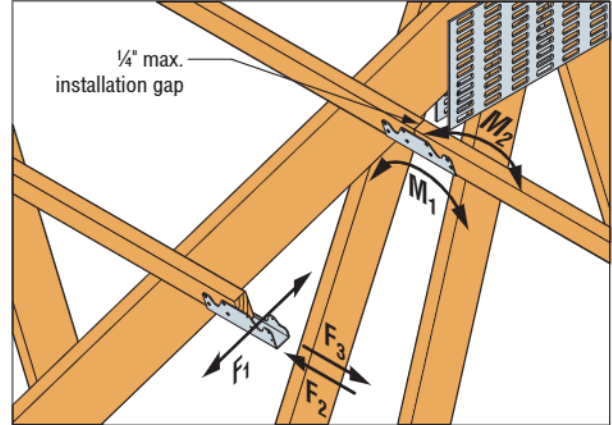
PFPS24

Patent/Patents pending,
strongtie.com/patents

Post Frame Purlin Splice (PFPS24™)



Typical Post Frame Roof Purlin System



Installation Detail 1 — Typical PFPS24 Installation

PFPS Allowable Loads

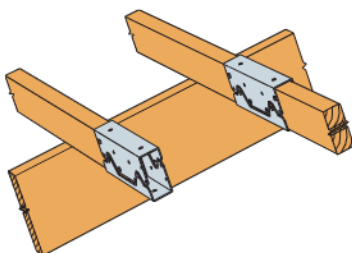
Model No.	Qty. PFPS	Min./Max.	Fasteners		Allowable Loads (lbF)										Moment Capacity (in-lbF)			
					DFL/SP					SPF/HF					DFL/SP		SPF/HF	
			Qty. per Member	Type	Vertical	F ₁	F ₂ & F ₃			Vertical	F ₁	F ₂ & F ₃						
					(115/125/160)	(115)	(125)	(160)	(115/125/160)	(115)	(125)	(160)	M ₁	M ₂	M ₁	M ₂		
PFPS24	1	Min.	3	0.148" x 1½"	335	215	365	365	365	260	205	325	325	325	—	965	—	860
				SD9112	445	215	590	630	630	340	215	385	420	540	—	1,290	—	1,128
		Max.	5	0.148" x 1½"	455	230	675	725	775	340	230	580	625	670	1,055	1,095	970	1,010
				SD9112	620	270	985	1,070	1,155	480	270	645	700	895	1,380	1,440	1,225	1,290
	2	Max.	10	0.148" x 1½"	665	365	1,230	1,230	1,230	515	365	1,060	1,060	1,060	2,815	2,195	2,517	2,000
				SD9112	710	450	1,965	2,010	2,010	555	450	1,290	1,400	1,730	2,940	2,590	2,560	2,230

1. Moment loads have been increased for wind or earthquake loading, with no further increase allowed. Reduce where other loads govern.
2. Table load capacities apply only to 2x4 and 2x6 purlins.
3. Table Download & Uplift allowable loads apply when the purlin is oriented vertically and roof download and uplift forces are normal the roof plane. For roof purlin applications with the purlin long axis rotated axially due to roof pitch, see Table 2 for allowable downloads considering roof pitch.
4. Table Moment Capacities are based on lowest tested ultimate load with a safety factor of 3.
5. **Fasteners:** Nail dimensions in the table are listed diameter by length. SD screws are Simpson Strong-Tie® Strong-Drive® SD Connector screws.

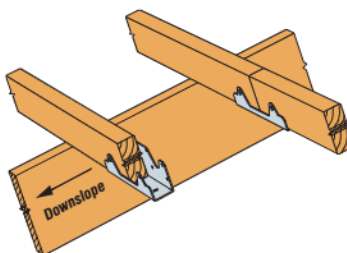
PFPS Allowable Roof Download Considering Roof Pitch

Roof Pitch X:12	Allowable Download (lbf)											
	DFL/SP (115/125/160)						SPF/HF (115/125/160)					
	Single PFPS Min.		Single PFPS Max.		Double PFPS Max.		Single PFPS Min.		Single PFPS Max.		Double PFPS Max.	
	0.148" x 1 1/2"	SD9112	0.148" x 1 1/2"	SD9112	0.148" x 1 1/2"	SD9112	0.148" x 1 1/2"	SD9112	0.148" x 1 1/2"	SD9112	0.148" x 1 1/2"	SD9112
1 to <3	350	460	475	640	695	745	275	355	355	500	545	590
3 to <5	375	480	500	665	735	800	300	380	385	530	585	645
5 to <7	390	490	510	675	755	830	320	395	400	545	615	685
7 to <9	400	485	510	665	755	840	325	400	410	550	630	705
9 to <11	395	475	500	650	745	835	330	395	405	540	630	715
11 to 12	390	465	485	630	730	820	325	390	400	530	620	710

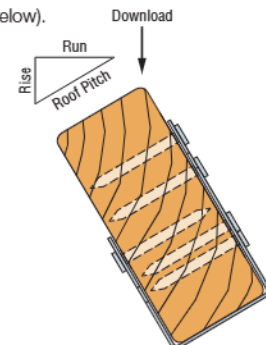
1. Table load capacities apply only to 2x4 and 2x6 purlins.
2. Table loads assume roof purlin is perpendicular to the direction of slope (reference Roof Purlin Download Based on Roof Pitch below).



Typical Double PFPS24 Installation



Alternate PFPS24 Installation with Smaller Flange on Downslope Purlin Face



Roof Purlin Download Based on Roof Pitch



Printed on recycled paper with 10% post-consumer waste.

This flier is effective until December 31, 2027, and reflects information available as of August 1, 2025. This information is updated periodically and should not be relied upon after December 31, 2027. Contact Simpson Strong-Tie for current information and limited warranty or see strongtie.com.

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