

**PCT** Purlin Cross Ties

Designed using a section that works in both tension and compression.

**MATERIAL:** 1 1/2" square tube steel

ASTM A500 Grade B

**FINISH:** Simpson Strong-Tie® gray paint

**INSTALLATION:** • Use all specified fasteners.

See General Notes.

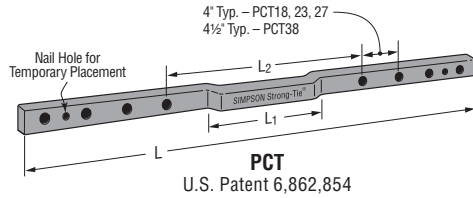
- PCT18 and 23 are sized to span a maximum hanger seat depth ("B" dimension) of 4".

PCT27 and 38 are sized to span a maximum hanger seat depth ("B" dimension) of 6".

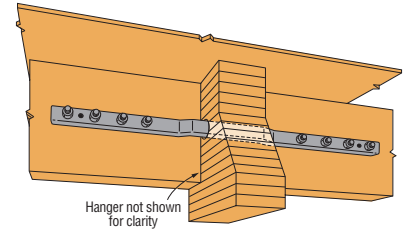
- Tube section helps with drilling alignment, through the purlin.
- Offset angle to allow drilling access through glulam.
- 2 1/2" or a 2 3/16" diameter hole required.
- Install in pairs.

**OPTIONS:** Contact Simpson Strong-Tie for other lengths.

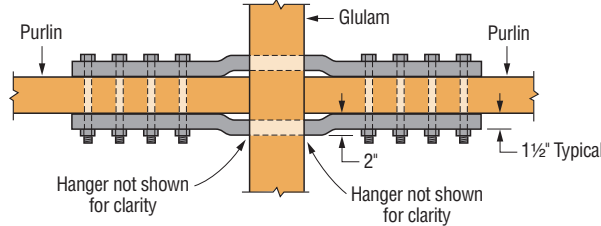
**CODES:** See page 20 for Code Reference Key Chart.



**PCT**  
U.S. Patent 6,862,854



**Typical PCT Installation**



**PCT Installed in Pairs**  
(Top View)

Model No.	Tube Thickness	Total Length L	L <sub>1</sub>	L <sub>2</sub>	No. and Size of Fasteners	Allowable Loads per Pair of PCTs						Code Ref.	
						Steel Tension	Steel Compression	Capacity Based on Double Shear Application and Length of Bolt in Purlin - DF/SP (160)					
								3 1/8"	3 1/2"	5 1/8"	5 1/2"		6 3/4"
PCT18	1/8"	44 3/4"	14"	17 3/4"	8-5/8" MB	24665	19165	17235	19110	19110	19090	19050	115, L7
PCT23	1/8"	52 3/4"	14"	17 3/4"	10-5/8" MB	24665	19165	21390	23645	23645	23620	23525	
PCT27	3/16"	66 5/8"	19 1/2"	23 1/2"	12-9/8" MB	39665	28665	24855	27705	28400	28430	28255	
PCT38	3/16"	71 5/8"	19 1/2"	23 1/2"	12-3/4" MB	39665	26030	29105	33020	40485	40570	40190	

1. Allowable loads have been increased 60% for wind or earthquake loading with no further increase allowed; reduce where other loads govern.
2. Install in pairs.

3. Minimum bolt length is (Purlin width + 3" (PCT) + 1" (nut)).
4. Bolt value assume minimum 10 1/2" deep purlin.
5. Engineer of record is responsible for evaluating the glulam.

**HCSTR** Hinge Connector Straps

Use Hinge Connector Straps for retrofit applications to strap horizontal wood members together where a hinge connector interferes.

All bolt holes shall be 1/32" (minimum) and 1/16" (maximum) larger than the bolt diameter (2005 NDS 11.1.2).

**MATERIAL:** HCSTR2, HCSTR3—7 gauge; HCSTR4—3 gauge

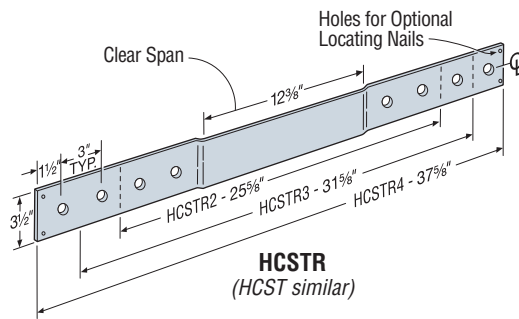
**FINISH:** HCSTR4—Simpson Strong-Tie gray paint.

All others—Galvanized

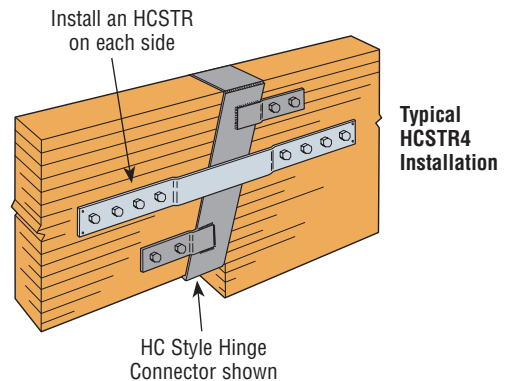
**OPTIONS:** • Where wood is subject to shrinkage, order an HCSTR2, HCSTR3 or HCSTR4 for straps with obround holes.

- Contact Simpson Strong-Tie for longer lengths. For use with Simpson Strong-Tie® hinge connectors.

**CODES:** See page 20 for Code Reference Key Chart.



**HCSTR**  
(HCST similar)



**Typical HCSTR4 Installation**

Model No.	Fasteners (Total)		Allowable Loads (160)	Code Ref.
	Qty	Dia		
HCSTR2	4	3/4"	9725	170
HCSTR3	6	3/4"	14170	
HCSTR4	8	3/4"	18770	

1. Allowable loads are for straps used in pairs and include a 60% increase for wind or earthquake loading with no further increase allowed; reduce where other loads govern.
2. Allowable loads assume a carrying member of 5 1/8" minimum thickness with bolts in double shear.
3. Designed for HC style hinge connectors; contact Simpson Strong-Tie for lengths for HCA and HC3A (only) style hinge connectors.