

PCT Purlin Cross Ties

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

MATERIAL: 1½" 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.

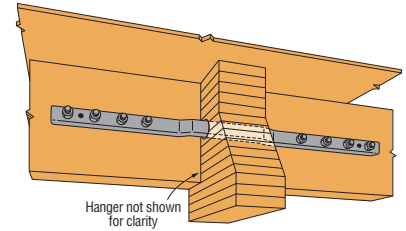
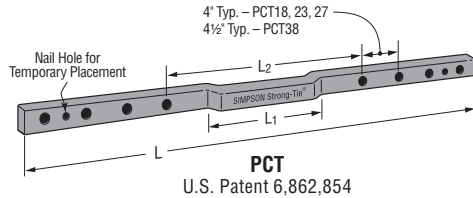
• Offset angle to allow drilling access through glulam.

• 2½" or a 2⅞" diameter hole required.

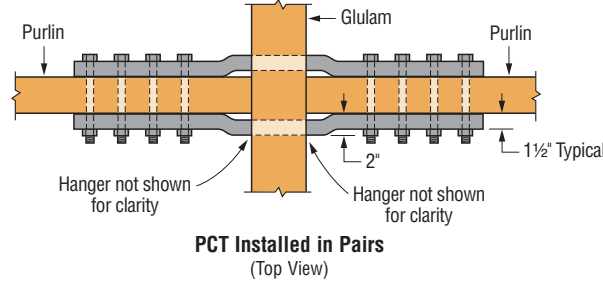
• Install in pairs.

OPTIONS: Contact Simpson Strong-Tie for other lengths.

CODES: See page 12 for Code Reference Key Chart.



Typical PCT Installation



PCT Installed in Pairs (Top View)

Model No.	Tube Thickness	Total Length L	L ₁	L ₂	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)					
								3⅞"	3½"	5⅞"		5½"	6¾"
PCT18	⅝"	44¾"	14"	17¾"	8-⅝ MB	24665	19165	17235	19110	19110	19090	19050	I15, L23, F14
PCT23	⅝"	52¾"	14"	17¾"	10-⅝ MB	24665	19165	21390	23645	23645	23620	23525	
PCT27	¾"	66¾"	19½"	23½"	12-⅝ MB	39665	28665	24855	27705	28400	28430	28255	
PCT38	¾"	71¾"	19½"	23½"	12-¾ 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 10½" 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 ⅛" (minimum) and ¼" (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

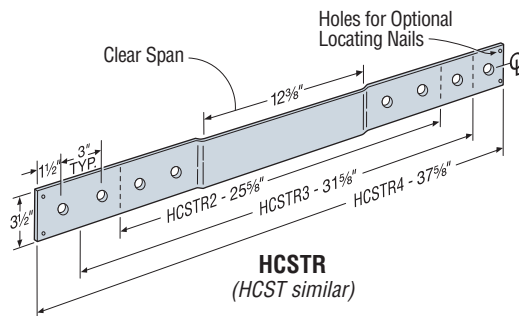
OPTIONS: • Where wood is subject to shrinkage, order an HCSTR2, HCSTR3 or HCSTR4 for straps with obround holes.

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

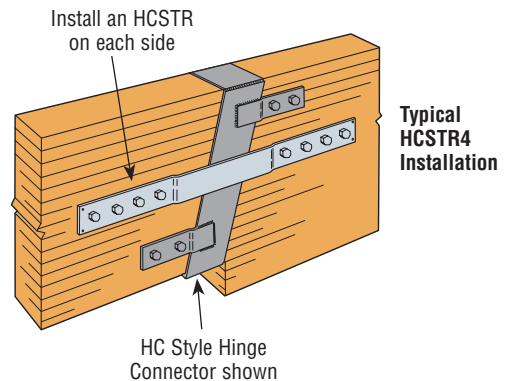
CODES: See page 12 for Code Reference Key Chart.

Model No.	Fasteners (Total)		Allowable Loads (160)	Code Ref.
	Qty	Dia		
HCSTR2	4	¾"	9725	170
HCSTR3	6	¾"	14170	
HCSTR4	8	¾"	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 5⅞" 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.



HCSTR (HCST similar)



Typical HCSTR4 Installation

HC Style Hinge Connector shown