

HCA Hinge Connectors

HCA's offer single-piece side plates, for fewer welds and higher horizontal loads.

MATERIAL: Side plates—7 gauge; Top and bottom plates—see PT dimensions in table.

FINISH: Simpson Strong-Tie® gray paint

INSTALLATION: • Use all specified fasteners. See General Notes.

- Bolt holes shall be a minimum of 1/32" and a maximum of 1/16" larger than the bolt diameter (per 2005 NDS 11.1.2.2).
- The model number column in the Allowable Download Table gives the basic HCA model with two rotation bolts.
- Contact Simpson Strong-Tie for heights greater than 60".
- Position 3/4" dia. machine bolts in slots away from bearing seat to allow for wood shrinkage.

OPTIONS: The Horizontal Load Table gives other bolt options.

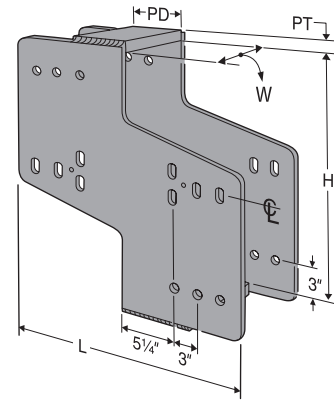
ORDERING: • To order, add the width and bearing plate size designation after the model name. Specify the H dimension. For dapped beams, reduce the H dimension by the PT dimension for each dap.

- Specify Model No., Model Size, and height H.

Ordering Example: HC4C3TA5-6 H = 18".

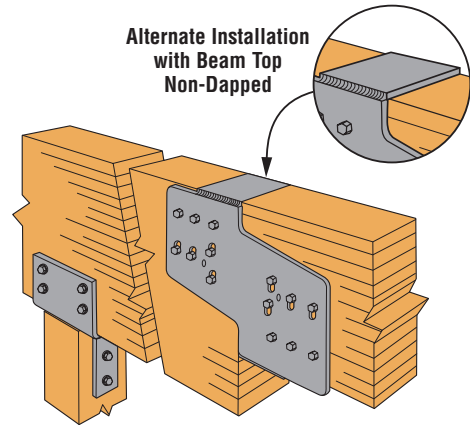
CODES: See page 12 for Code Reference Key Chart.

Refer to technical bulletin T-HCAGUIDE for specification examples and additional information (see page 191 for details).



HC4C3TA
U.S. Patent
5,324,132

Alternate Installation
with Beam Top
Non-Dapped



Typical HC4C3TA Installation
with Beam Top Dapped

HORIZONTAL LOAD TABLE

Model No. (Prefix)	L	H ³ Min	H Max	Rotation Bolts Per Beam	Slotted Tension Bolts	Allowable Horizontal Loads ^{2,3} (160)
HCA	19 1/2	8	60	2	—	—
HC2CTA	19 1/2	14	60	2	2	9920
HCCTA	19 1/2	14	60	2	3	14850
HC4CTA	25 1/2	14	60	2	4	19720
HC3A	25 1/2	8	60	3	—	—
HCC3TA	25 1/2	14	60	3	3	14850
HC4C3TA	25 1/2	14	60	3	4	19720

1. Loads include a 60% increase for wind or earthquake loading with no further increase allowed.
2. Horizontal loads are for Doug Fir-larch glulams minimum W = 3 1/8". For other wood types, adjust the load according to the code.

3. H MIN is the absolute minimum height. Reduce downloads according to footnote 1 in the Allowable Download Table.

ALLOWABLE DOWNLOAD TABLE

Model Size (Suffix)	Dimensions				Bolt Dia.	Two Rotation Bolts Per Beam				Three Rotation Bolts Per Beam ⁴				Code Ref.
	Beam Width	W	PT	PD		H ₁	H ₁ Allowable Roof Loads (125) ^{2,3}	Min H	Min H Allowable Roof Loads (125)	H ₁	H ₁ Allowable Roof Loads (125) ^{2,3}	Min H	Min H Allowable Roof Loads (125)	
3-5	3 1/8	3 1/4	3/4	5	3/4	12	8750	8	3070	10	8750	8	4465	170
3-6	3 1/8	3 1/4	3/4	6	3/4	15	10500	8	2570	12	10500	8	3735	
3-7	3 1/8	3 1/4	3/4	7	3/4	18	12250	8	2210	14	12250	8	3210	
5-5	5 1/8	5 1/4	3/4	5	3/4	16	14350	8	3100	13	14350	8	4560	
5-6	5 1/8	5 1/4	3/4	6	3/4	20	17220	8	2595	16	17220	8	3815	
5-7	5 1/8	5 1/4	3/4	7	3/4	25	20090	8	2230	19	20090	8	3280	
5-9	5 1/8	5 1/4	3/4	9	3/4	36	25830	8	1740	27	25830	8	2560	
7-5	6 3/8	6 7/8	1	5	3/4	19	18900	8	3100	15	18900	8	4605	
7-6	6 3/8	6 7/8	1	6	3/4	24	22680	8	2595	18	22680	8	3855	
7-7	6 3/8	6 7/8	1	7	3/4	30	26460	8	2230	22	26460	8	3315	
7-9	6 3/8	6 7/8	1	9	3/4	40	29615	8	1740	33	34020	8	2585	
9-5	8 3/8	8 7/8	1 1/4	5	3/4	22	24500	8	3100	17	24500	8	4605	
9-6	8 3/8	8 7/8	1 1/4	6	3/4	29	29400	8	2595	22	29400	8	3855	
9-7	8 3/8	8 7/8	1 1/4	7	3/4	37	34300	8	2230	27	34300	8	3315	
9-9	8 3/8	8 7/8	1 1/4	9	3/4	40	29615	8	1740	40	43975	8	2585	
11-5	10 3/8	10 7/8	1 1/2	5	3/4	26	30100	8	3100	20	30100	8	4605	
11-6	10 3/8	10 7/8	1 1/2	6	3/4	34	36120	8	2595	25	36120	8	3855	
11-7	10 3/8	10 7/8	1 1/2	7	3/4	40	37925	8	2230	32	42140	8	3315	
11-9	10 3/8	10 7/8	1 1/2	9	3/4	40	29615	8	1740	40	43975	8	2585	
3.62	3 1/2	3 5/8	3/4			Refer to technical bulletin T-HCAGUIDE for more information on these sizes (see page 191 for details)							170	
4.50	4 3/8	4 1/2	1											
5.37	5 1/4	5 5/8	1 1/4											
7.12	7	7 1/8	1 1/2											

1. For H dimension between H₁ and Minimum H, decrease allowable loads in direct proportion to depth.
2. Loads include a 25% increase for roof live loads; reduce for other load durations according to the code.
3. Loads are for 560 psi wood bearing.
4. See Horizontal Load Table for models with three rotation bolts.
5. Other widths are available for structural composite lumber. Contact Simpson Strong-Tie.
6. Beams must be the same width for both members in the connection. For alternate applications, contact Simpson Strong-Tie.

