

# HL

## Heavy Angle and Gusset

Versatile angle gussets and heavy angles promote standardization and construction economy, and are compatible with Simpson Strong-Tie structural hardware.

**Finish:** 7 ga. models — galvanized; 3 ga. models — Simpson Strong-Tie gray paint. May be ordered HDG or black powder coat (add HDG or PC to model no.); contact Simpson Strong-Tie.

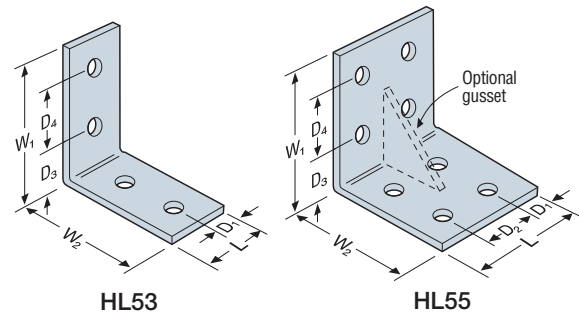
### Options:

- Gussets may be added to HL models when  $L \geq 5"$  (specify G after model number, as in HL46G).

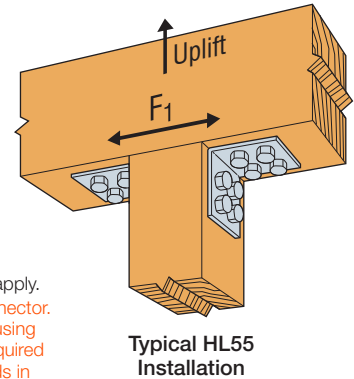
**Codes:** See p. 11 for Code Reference Key Chart

These products are available with additional corrosion protection. For more information, see p. 14.

Model No.	Ga.	Dimensions (in.)						Bolts (Total)		DF/SP Allowable Loads		Code Ref.	
		W <sub>1</sub> and W <sub>2</sub>	L	D <sub>1</sub>	D <sub>2</sub>	D <sub>3</sub>	D <sub>4</sub>	Qty.	Dia.	Uplift (160)	F <sub>1</sub> (160)		
Single Row Angles													
HL33	7	3¼	2½	1¼	—	2	—	2	½	740	1,040	—	
HL35	7	3¼	5	1¼	2½	2	—	4	½	740	1,310		
HL37	7	3¼	7½	1¼	2½	2	—	6	½	740	1,310		
HL43	3	4¼	3	1½	—	2¾	—	2	¾	1,275	1,445		
HL46	3	4¼	6	1½	3	2¾	—	4	¾	1,275	1,680		
HL49	3	4¼	9	1½	3	2¾	—	6	¾	1,275	1,680	—	
Double Row Angles													
HL53	7	5¾	2½	1¼	—	2	2½	4	½	740	1,310		
HL55	7	5¾	5	1¼	2½	2	2½	8	½	740	1,310		
HL57	7	5¾	7½	1¼	2½	2	2½	12	½	740	1,310		
HL73	3	7¼	3	1½	—	2¾	3	4	¾	2,445	2,885		
HL76	3	7¼	6	1½	3	2¾	3	8	¾	2,445	4,310		
HL79	3	7¼	9	1½	3	2¾	3	12	¾	2,445	4,310		



- See pp. 266–267 for Straps and Ties General Notes.
- For SPF/HF lumber, use 0.85 x DF/SP allowable loads.
- Parts should be centered on the face of the member, **which is at least as wide as the angle**, to which they are attached.
- Wood members for the “3” and “5” series must have a minimum thickness of 3 1/2” for table loads to apply.
- Wood members for the “4” and “7” series must have a minimum thickness of 5 1/8” for table loads to apply.
- Allowable loads are for a single connector. Uplift loads may be doubled when using two connectors. Connectors are required on both sides to achieve lateral loads in both directions. Lateral loads may not be doubled.
- Lag screws of equal diameter (minimum 5” long) may be substituted for bolts in the beam with no reduction in load.



## Z

### Clip

The Z clip secures 2x4 flat blocking between joists or trusses to support sheathing.

**Material:** See table

**Finish:** Galvanized

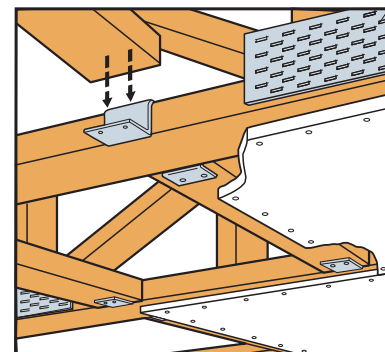
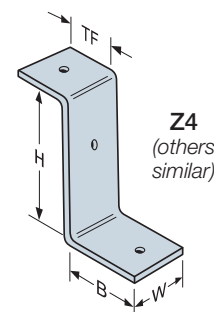
### Installation:

- Use all specified fasteners; see General Notes.
- Z clips do not provide lateral stability. Do not walk on stiffeners or apply load until diaphragm is installed and nailed to stiffeners.

**Codes:** See p. 11 for Code Reference Key Chart

Model No.	Ga.	Dimensions (in.)				Fasteners <sup>1</sup> (Total) (in.)	DF/SP Allowable Download (100/115/125/160)	Code Ref.
		W	H	B	TF			
Z2	20	2 5/8	1 1/2	1 3/8	1 3/8	(4) 0.148 x 1 1/2	420	IBC, FL, LA
Z4	12	1 1/2	3 1/2	2 1/8	1 3/4	(2) 0.162 x 3 1/2	420	
Z28	28	2 5/8	1 1/2	1 3/8	1 3/8	0.148 x 1 1/2 <sup>1</sup>	—	—
Z38	28	2 5/8	2 1/2	1 3/8	1 3/8	0.148 x 1 1/2 <sup>1</sup>	—	
Z44	12	2 1/2	3 1/2	2	1 3/8	(4) 0.162 x 3 1/2	775	IBC, FL, LA

- Z28 and Z38 do not have nail holes. Fastener quantity and type shall be per designer.
- Z4 loads apply with a nail in the top and a nail in the seat.
- For SPF/HF lumber, use 0.86 x DF/SP allowable loads.
- Fasteners:** Nail dimensions are listed diameter by length. See pp. 21–22 for fastener information.



Typical Z2 Installation