

## LS and S/LS Skewable Angles

LS and S/LS angles are load rated and provide the correct thickness and number of fasteners the specifier is looking for compared with field fabricated clip angles. These angles also have well-defined fastener locations, and testing ensures that the tabulated load values account for connection eccentricities. The connectors are general utility reinforcing angles with multiple uses. LS and S/LS connectors are skewable and can be used to attach members intersecting at angles.

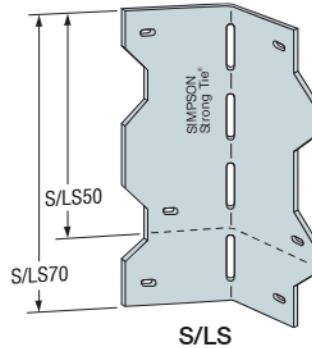
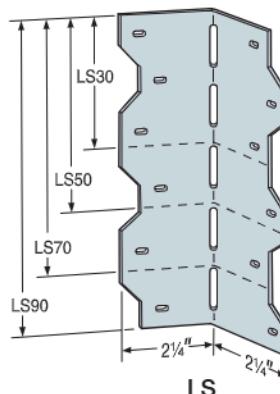
**Material:** LS — 43 mil (18 ga.); S/LS — 43 mil (18 ga.)

**Finish:** Galvanized (G90)

### Installation:

- Use all specified fasteners
- Field-skewable; bend one time only
- CFS framing must be constrained against rotation when using a single connection

**Codes:** See p. 15 for Code Reference Key Chart

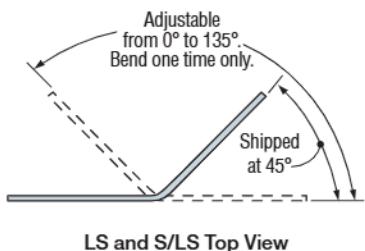


### LS and S/LS Allowable Loads (lb.)

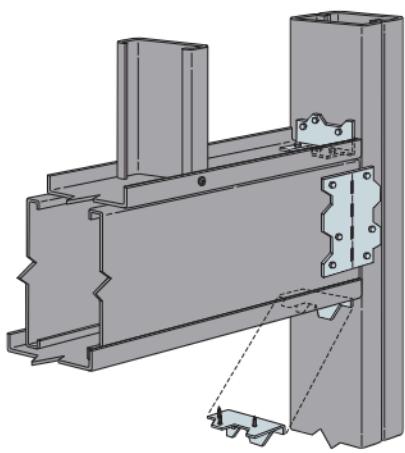
Model No.	Length (in.)	Fasteners	Allowable Load (lb.)						Code Ref.	
			33 mil (20 ga.)		43 mil (18 ga.)		54 mil (16 ga.)			
			F <sub>4</sub>	F <sub>2</sub>	F <sub>4</sub>	F <sub>2</sub>	F <sub>4</sub>	F <sub>2</sub>		
LS30	3 5/8	(6) #10	200	—	370	—	500	—		
S/LS50	4 7/8	(4) #10	200	—	370	—	500	—		
S/LS70	6 5/8	(6) #10	465	—	575	—	715	—		
LS90	7 7/8	(12) #10	465	—	895	—	915	—		

1. Loads are for one part only.

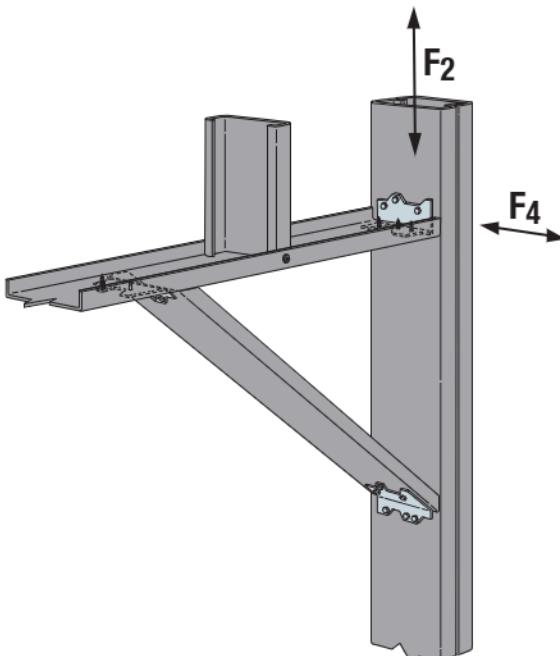
2. See the current *Fastening Systems* catalog at [strongtie.com](http://strongtie.com) for more information on Simpson Strong-Tie fasteners.



LS and S/LS Top View



Typical Installation for Gravity Headers



Typical Installation for Curtain-Wall Head

## L/LS/GA

## Reinforcing and Skewable Angles

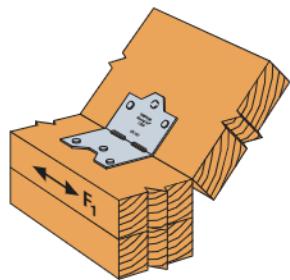
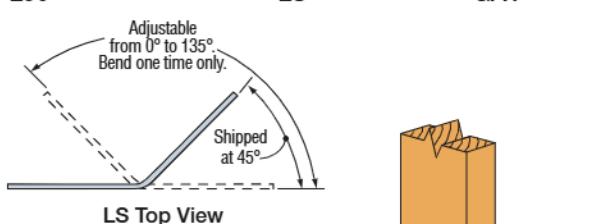
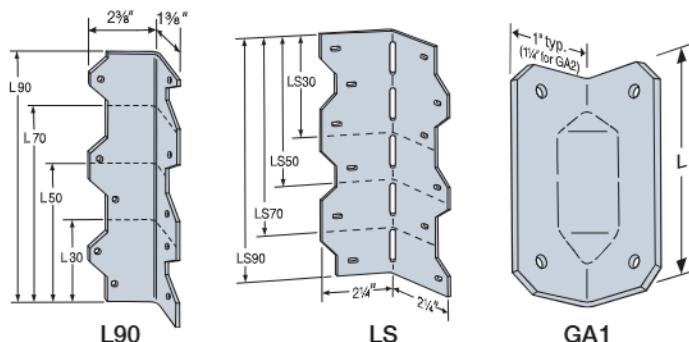
L — Staggered nail pattern reduces the possibility for splitting.

LS — Field-adjustable 0° to 135° angles.

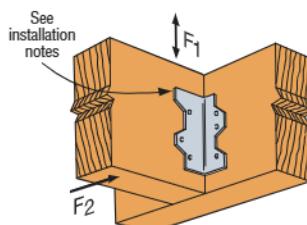
GA — Gusset angles' embossed bend section provides added strength.

**Material:** L — 16 gauge; GA and LS — 18 gauge**Finish:** Galvanized. Some products available in stainless steel or ZMAX® coating; **L70 and L90 available (in Spring 2026) in black powder coat (L70PC, L90PC)****Installation:**

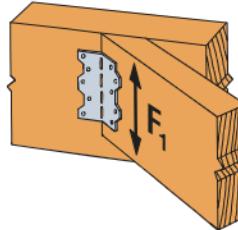
- Use all specified fasteners; see General Notes
- LS — Field skewable; bend one time only
- Joist must be constrained against rotation (for example, with solid blocking) when using a single LS per connection
- Nail the L angle's wider leg into the joist to ensure table loads and allow correct nailing

**Codes:** See p. 12 for Code Reference Key Chart**Web Applications:** Visit [app.strongtie.com/rws](http://app.strongtie.com/rws) to access our Roof-to-Wall Selector web application.

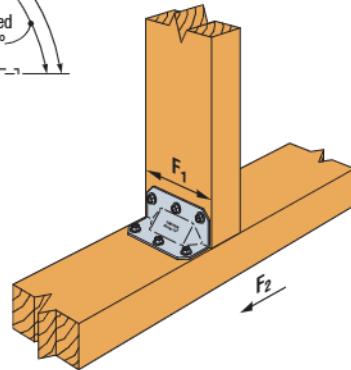
Typical LS30 Installation



Typical L50 Installation



Typical LS70 Installation



Typical GA Installation

► These products are available with additional corrosion protection. For more information, see pp. 13–19.

SS For stainless-steel fasteners, see p. 25.

SD Many of these products are approved for installation with Strong-Drive® SD Connector screws. See pp. 380–382 for more information.

Model No.	Fasteners (in.)	L (in.)	Load Direction	DF/SP Allowable Loads				SPF/HF Allowable Loads				Code Ref.
				Floor (100)	Snow (115)	Roof (125)	Wind/Seismic (160)	Floor (100)	Snow (115)	Roof (125)	Wind/Seismic (160)	
GA1	(4) 0.148 x 1½	2½	F <sub>1</sub> , F <sub>2</sub>	235	270	290	350	200	230	250	300	IBC, FL, LA
	(4) #9 x 1½" SD		F <sub>1</sub>	340	375	375	375	225	260	280	325	IBC, LA
	(4) #9 x 1½" SD		F <sub>2</sub>	340	395	430	435	225	260	280	360	
GA2	(6) 0.148 x 1½	3½	F <sub>1</sub> , F <sub>2</sub>	355	405	435	550	305	350	375	475	IBC, FL, LA
	(6) #9 x 1½" SD		F <sub>1</sub>	515	590	640	695	335	385	420	540	IBC, LA
	(6) #9 x 1½" SD		F <sub>2</sub>	515	590	640	820	335	385	420	540	
L30	(4) 0.148 x 1½	3	F <sub>1</sub>	245	250	250	250	210	215	215	215	
			F <sub>2</sub>	245	275	295	370	210	235	255	320	
L50	(6) 0.148 x 1½	5	F <sub>1</sub>	365	415	445	525	315	355	385	450	
			F <sub>2</sub>	365	415	445	555	315	355	385	475	
L70	(8) 0.148 x 1½	7	F <sub>1</sub> , F <sub>2</sub>	485	550	595	740	415	475	510	635	
L90	(10) 0.148 x 1½	9	F <sub>1</sub> , F <sub>2</sub>	610	690	740	925	525	595	635	795	
LS30	(6) 0.148 x 1½	3¾	F <sub>1</sub>	320	320	320	320	275	275	275	275	IBC, FL, LA
	(6) 0.148 x 3		F <sub>1</sub>	355	395	395	395	305	340	340	340	
SS LS50	(8) 0.148 x 1½	4½	F <sub>1</sub>	475	540	560	560	410	465	480	480	
	(8) 0.148 x 3		F <sub>1</sub>	475	540	580	730	410	465	500	630	
LS70	(10) 0.148 x 1½	6¾	F <sub>1</sub>	590	645	645	645	510	555	555	555	
	(10) 0.148 x 3		F <sub>1</sub>	590	675	725	915	510	580	625	785	
LS90	(12) 0.148 x 1½	7½	F <sub>1</sub>	710	805	870	890	610	690	750	765	
	(12) 0.148 x 3		F <sub>1</sub>	710	805	870	1,040	610	690	750	895	

1. GA angles may be installed with 0.148" x 3" nails.

2. GA1 uplift is 425 lb. for DF and 300 lb. for SPF when installed with Strong-Drive SD Connector screws.

3. GA2 uplift is 370 lb. for DF and 260 lb. for SPF when installed with Strong-Drive SD Connector screws.

4. Connectors are required on both sides to achieve F<sub>2</sub> loads in both directions.5. **Fasteners:** Nail dimensions are listed diameter by length. SD screws are Simpson Strong-Tie Strong-Drive SD Connector screws. See pp. 25–26 for fastener information.

6. Using Strong-Drive SD Connector screw (SD9112) for 0.148" x 1½" and 0.148" x 3" nails will get the same load as nails.