

UTILITY CLIP (UA) - 16 GAUGE

Utility Clips are used in a variety of framing applications including floors, walls and roofs. UA clips are pre-cut with pre-drilled holes for easy installation.

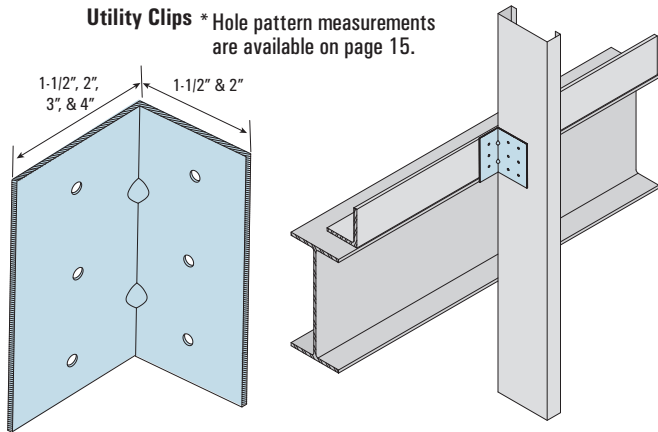
- Leg lengths available from 3-1/4" through 15-3/4". (See table for exact sizes)
- Leg widths available in 1-1/2", 2", 3" and 4".
- Available in 16, 14 and 12 gauge.
- Pre-punched for faster and more accurate fastener attachment.
- 3"x 3" Clips available (do not have embossments) See page 12

MATERIAL: See Table for sizes – 50ksi

FINISH: Galvanized – G90

INSTALLATION:

- Utility Clips are attached to the cold formed steel (CFS) framing members using #10 - 16 self-drilling screws; using pre-punched holes.



UA Clips - 16 Gauge					Allowable Load (lbs)											
Model No.	Thickness (mil/ga)	Size (in.)	Box Qty	Screws	20ga (33 mil) 33 ksi		18ga (43 mil) 33 ksi		16ga (54 mil) 33 ksi		16ga (54 mil) 50 ksi		14ga (68 mil) 50 ksi		12ga (97 mil) 50 ksi	
					F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
					UA-113-16	54 (16 ga)	1-1/2 x 1-1/2 x 3-1/4	100	3-#10	686	380	907	462	907	546	1313
UA-223-16	54 (16 ga)	2 x 2 x 3-1/4	100	3-#10	686	380	907	462	907	546	1313	546	1589	644	1589	644
UA-133-16	54 (16 ga)	1-1/2 x 3 x 3-1/4	100	3-#10	562	380	562	462	562	546	722	546	722	644	722	644
UA-143-16	54 (16 ga)	1-1/2 x 4 x 3-1/4	100	3-#10	495	380	489	462	489	546	489	546	489	644	489	644
UA-115-16	54 (16 ga)	1-1/2 x 1-1/2 x 5-1/4	100	3-#10	686	435	907	645	907	882	1313	882	1589	1040	1589	1040
UA-225-16	54 (16 ga)	2 x 2 x 5-1/4	50	3-#10	686	435	907	645	907	882	1313	882	1589	1040	1589	1040
UA-135-16	54 (16 ga)	1-1/2 x 3 x 5-1/4	50	3-#10	562	435	562	645	562	882	722	882	722	1040	722	1040
UA-145-16	54 (16 ga)	1-1/2 x 4 x 5-1/4	50	3-#10	495	435	489	645	489	882	489	882	489	1040	489	1040
UA-118-16	54 (16 ga)	1-1/2 x 1-1/2 x 7-3/4	50	5-#10	1143	725	1512	1075	1512	1302	2188	1302	2649	1535	2649	1535
UA-228-16	54 (16 ga)	2 x 2 x 7-3/4	50	5-#10	1143	725	1512	1075	1512	1302	2188	1302	2649	1535	2649	1535
UA-138-16	54 (16 ga)	1-1/2 x 3 x 7-3/4	25	5-#10	1143	725	1512	1075	1512	1302	2188	1302	2562	1535	2562	1535
UA-148-16	54 (16 ga)	1-1/2 x 4 x 7-3/4	25	5-#10	1143	725	1468	1075	1468	1302	1468	1302	1468	1535	1468	1535
UA-119-16	54 (16 ga)	1-1/2 x 1-1/2 x 9	50	5-#10	1143	725	1512	1075	1512	1512	2188	1512	2649	1782	2649	1782
UA-229-16	54 (16 ga)	2 x 2 x 9	50	5-#10	1143	725	1512	1075	1512	1512	2188	1512	2649	1782	2649	1782
UA-139-16	54 (16 ga)	1-1/2 x 3 x 9	25	5-#10	1143	725	1512	1075	1512	1512	2188	1512	2562	1782	2562	1782
UA-149-16	54 (16 ga)	1-1/2 x 4 x 9	25	5-#10	1143	725	1512	1075	1512	1512	2188	1512	2377	1782	2377	1782
UA-1110-16	54 (16 ga)	1-1/2 x 1-1/2 x 9-3/4	50	5-#10	1143	725	1512	1075	1512	1515	2188	1638	2649	1795	2649	1795
UA-2210-16	54 (16 ga)	2 x 2 x 9-3/4	50	5-#10	1143	725	1512	1075	1512	1515	2188	1638	2649	1795	2649	1795
UA-1310-16	54 (16 ga)	1-1/2 x 3 x 9-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	1638	2562	1795	2562	1795
UA-1410-16	54 (16 ga)	1-1/2 x 4 x 9-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	1638	2377	1795	2377	1795
UA-1112-16	54 (16 ga)	1-1/2 x 1-1/2 x 11-3/4	50	7-#10	1600	1015	2116	1505	2116	1974	3063	1974	3709	2327	3709	2327
UA-2212-16	54 (16 ga)	2 x 2 x 11-3/4	50	7-#10	1600	1015	2116	1505	2116	1974	3063	1974	3709	2327	3709	2327
UA-1312-16	54 (16 ga)	1-1/2 x 3 x 11-3/4	25	7-#10	1600	1015	2116	1505	2116	1974	3063	1974	3586	2327	3586	2327
UA-1412-16	54 (16 ga)	1-1/2 x 4 x 11-3/4	25	7-#10	1600	1015	2116	1505	2116	1974	3063	1974	3328	2327	3328	2327
UA-1114-16	54 (16 ga)	1-1/2 x 1-1/2 x 13-3/4	50	9-#10	2057	1305	2721	1935	2721	2310	3938	2310	4768	2723	4768	2723
UA-2214-16	54 (16 ga)	2 x 2 x 13-3/4	50	9-#10	2057	1305	2721	1935	2721	2310	3938	2310	4768	2723	4768	2723
UA-1314-16	54 (16 ga)	1-1/2 x 3 x 13-3/4	25	9-#10	2057	1305	2721	1935	2721	2310	3938	2310	4611	2723	4611	3231
UA-1414-16	54 (16 ga)	1-1/2 x 4 x 13-3/4	25	9-#10	2057	1305	2721	1935	2721	2310	3938	2310	4279	2723	4279	3231
UA-1116-16	54 (16 ga)	1-1/2 x 1-1/2 x 15-3/4	50	9-#10	2057	1305	2721	1935	2721	2646	3938	2646	4768	3119	4768	3119
UA-2216-16	54 (16 ga)	2 x 2 x 15-3/4	25	9-#10	2057	1305	2721	1935	2721	2646	3938	2646	4768	3119	4768	3119
UA-1316-16	54 (16 ga)	1-1/2 x 3 x 15-3/4	25	9-#10	2057	1305	2721	1935	2721	2646	3938	2646	4611	3119	4611	3119
UA-1416-16	54 (16 ga)	1-1/2 x 4 x 15-3/4	25	9-#10	2057	1305	2721	1935	2721	2646	3938	2646	4279	3119	4279	3119

Notes:

1. Allowable loads have not been increased for wind or seismic.
2. Allowable strength shown is the lowest value from the four failure modes: screw tilting/bearing, screw shear, screw pull-over and the serviceability limit state of 1/8" deflection of CFS members.
3. It is the responsibility of design professional to design the connection of UA connectors to the supporting structure. In the test program, this connection was made with cap screws with a head diameter of 0.29". The allowable loads should be conservative for any fastener with a head diameter equal to or greater than 0.29".
4. F1 = Shear, F2 = Tension

RIGID CONNECTORS

UTILITY CLIP (UA) - 14 GAUGE

Utility Clips are used in a variety of framing applications including floors, walls and roofs. UA clips are pre-cut with pre-drilled holes for easy installation.

- Leg lengths available from 3-1/4" through 15-3/4". (See table for exact sizes)
- Leg widths available in 1-1/2", 2", 3" and 4".
- Available in 16, 14 and 12 gauge.
- Pre-punched for faster and more accurate fastener attachment.
- 3" x 3" Clips available (do not have embossments) See page 12

MATERIAL: See Table for sizes – 50ksi

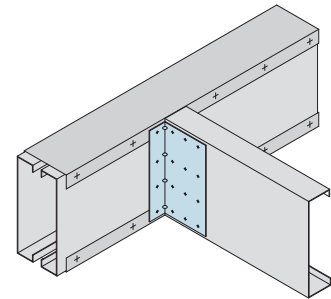
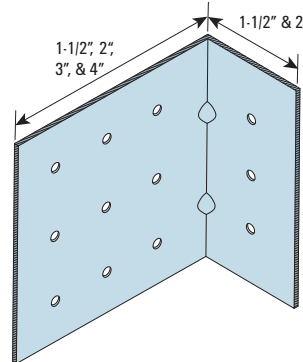
FINISH: Galvanized – G90

INSTALLATION:

- Utility Clips are attached to the cold formed steel (CFS) framing members using #10 - 16 self-drilling screws; using pre-punched holes.

Utility Clips

* Hole pattern measurements are available on page 15.



UA Clips - 14 Gauge					Allowable Load (lbs)											
Model No.	Thickness (mil/ga)	Size (in.)	Box Qty	Screws	20ga (33 mil) 33 ksi		18ga (43 mil) 33 ksi		16ga (54 mil) 33 ksi		16ga (54 mil) 50 ksi		14ga (68 mil) 50 ksi		12ga (97 mil) 50 ksi	
					F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
UA-113-14	68 (14 ga)	1-1/2 x 1-1/2 x 3-1/4	100	3-#10	686	435	907	645	907	861	1313	861	1589	920	1589	920
UA-223-14	68 (14 ga)	2 x 2 x 3-1/4	100	3-#10	686	435	907	645	907	861	1313	861	1589	920	1589	920
UA-133-14	68 (14 ga)	1-1/2 x 3 x 3-1/4	100	3-#10	562	435	562	645	562	861	722	861	722	920	722	920
UA-143-14	68 (14 ga)	1-1/2 x 4 x 3-1/4	100	3-#10	495	435	489	645	489	861	489	861	489	920	489	920
UA-115-14	68 (14 ga)	1-1/2 x 1-1/2 x 5-1/4	100	3-#10	686	435	907	645	907	909	1313	1290	1589	1290	1589	1290
UA-225-14	68 (14 ga)	2 x 2 x 5-1/4	50	3-#10	686	435	907	645	907	909	1313	1290	1589	1290	1589	1290
UA-135-14	68 (14 ga)	1-1/2 x 3 x 5-1/4	50	3-#10	562	435	562	645	562	909	722	1290	722	1290	722	1290
UA-145-14	68 (14 ga)	1-1/2 x 4 x 5-1/4	50	3-#10	495	435	489	645	489	909	489	1290	489	1290	489	1290
UA-118-14	68 (14 ga)	1-1/2 x 1-1/2 x 7-3/4	50	5-#10	1143	725	1512	1075	1512	1515	2188	2054	2649	2150	2649	2150
UA-228-14	68 (14 ga)	2 x 2 x 7-3/4	50	5-#10	1143	725	1512	1075	1512	1515	2188	2054	2649	2150	2649	2150
UA-138-14	68 (14 ga)	1-1/2 x 3 x 7-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	2054	2562	2150	2562	2150
UA-148-14	68 (14 ga)	1-1/2 x 4 x 7-3/4	25	5-#10	1143	725	1468	1075	1468	1515	1468	2054	1468	2150	1468	2150
UA-119-14	68 (14 ga)	1-1/2 x 1-1/2 x 9	50	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-229-14	68 (14 ga)	2 x 2 x 9	50	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-139-14	68 (14 ga)	1-1/2 x 3 x 9	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2562	2150	2562	2150
UA-149-14	68 (14 ga)	1-1/2 x 4 x 9	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2377	2150	2377	2150
UA-1110-14	68 (14 ga)	1-1/2 x 1-1/2 x 9-3/4	50	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-2210-14	68 (14 ga)	2 x 2 x 9-3/4	50	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-1310-14	68 (14 ga)	1-1/2 x 3 x 9-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2562	2150	2562	2150
UA-1410-14	68 (14 ga)	1-1/2 x 4 x 9-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2377	2150	2377	2150
UA-1112-14	68 (14 ga)	1-1/2 x 1-1/2 x 11-3/4	50	7-#10	1600	1015	2116	1505	2116	2121	3063	3010	3709	3010	3709	3010
UA-2212-14	68 (14 ga)	2 x 2 x 11-3/4	50	7-#10	1600	1015	2116	1505	2116	2121	3063	3010	3709	3010	3709	3010
UA-1312-14	68 (14 ga)	1-1/2 x 3 x 11-3/4	25	7-#10	1600	1015	2116	1505	2116	2121	3063	3010	3586	3010	3586	3010
UA-1412-14	68 (14 ga)	1-1/2 x 4 x 11-3/4	25	7-#10	1600	1015	2116	1505	2116	2121	3063	3010	3328	3010	3328	3010
UA-1114-14	68 (14 ga)	1-1/2 x 11/2 x 13-3/4	50	9-#10	2057	1305	2721	1935	2721	2727	3938	3644	4768	3870	4768	3870
UA-2214-14	68 (14 ga)	2 x 2 x 13-3/4	50	9-#10	2057	1305	2721	1935	2721	2727	3938	3644	4768	3870	4768	3870
UA-1314-14	68 (14 ga)	1-1/2 x 3 x 13-3/4	25	9-#10	2057	1305	2721	1935	2721	2727	3938	3644	4611	3870	4611	3870
UA-1414-14	68 (14 ga)	1-1/2 x 4 x 13-3/4	25	9-#10	2057	1305	2721	1935	2721	2727	3938	3644	4279	3870	4279	3870
UA-1116-14	68 (14 ga)	1-1/2 x 1-1/2 x 15-3/4	50	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4768	3870	4768	3870
UA-2216-14	68 (14 ga)	2 x 2 x 15-3/4	25	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4768	3870	4768	3870
UA-1316-14	68 (14 ga)	1-1/2 x 3 x 15-3/4	25	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4611	3870	4611	3870
UA-1416-14	68 (14 ga)	1-1/2 x 4 x 15-3/4	25	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4279	3870	4279	3870

Notes:

1. Allowable loads have not been increased for wind or seismic.
2. Allowable strength shown is the lowest value from the four failure modes: screw tilting/bearing, screw shear, screw pull-over and the serviceability limit state of 1/8" deflection of CFS members.
3. It is the responsibility of design professional to design the connection of UA connectors to the supporting structure. In the test program, this connection was made with cap screws with a head diameter of 0.29". The allowable loads should be conservative for any fastener with a head diameter equal to or greater than 0.29".
4. F1 = Shear, F2 = Tension

UTILITY CLIP (UA) - 12 GAUGE

Utility Clips are used in a variety of framing applications including floors, walls and roofs. UA clips are pre-cut with pre-drilled holes for easy installation.

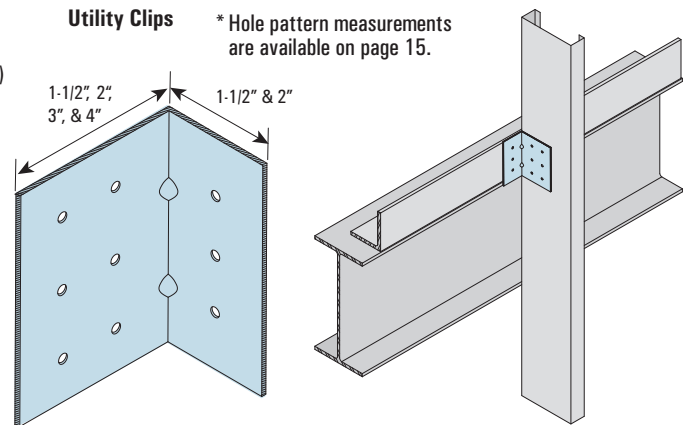
- Leg lengths available from 3-1/4" through 15-3/4". (See table for exact sizes)
- Leg widths available in 1-1/2", 2", 3" and 4".
- Available in 16, 14 and 12 gauge.
- Pre-punched for faster and more accurate fastener attachment.
- 3"x 3" Clips available (do not have embossments) See page 12

MATERIAL: See Table for sizes – 50ksi

FINISH: Galvanized – G90

INSTALLATION:

- Utility Clips are attached to the cold formed steel (CFS) framing members using #10 - 16 self-drilling screws; using pre-punched holes.



UA Clips - 12 Gauge					Allowable Load (lbs)											
Model No.	Thickness (mil/ga)	Size (in.)	Box Qty	Screws	20ga (33 mil) 33 ksi		18ga (43 mil) 33 ksi		16ga (54 mil) 33 ksi		16ga (54 mil) 50 ksi		14ga (68 mil) 50 ksi		12ga (97 mil) 50 ksi	
					F1	F2	F1	F2	F1	F2	F1	F2	F1	F2	F1	F2
UA-113-12	97 (12 ga)	1-1/2 x 1-1/2 x 3-1/4	100	3-#10	686	435	907	645	907	909	1313	1290	1589	1290	1589	1290
UA-223-12	97 (12 ga)	2 x 2 x 3-1/4	100	3-#10	686	435	907	645	907	909	1313	1290	1589	1290	1589	1290
UA-133-12	97 (12 ga)	1-1/2 x 3 x 3-1/4	100	3-#10	686	435	907	645	907	909	1313	1290	1537	1290	1537	1290
UA-143-12	97 (12 ga)	1-1/2 x 4 x 3-1/4	50	3-#10	686	435	907	645	907	909	1313	1290	1426	1290	1426	1290
UA-115-12	97 (12 ga)	1-1/2 x 1-1/2 x 5-1/4	100	3-#10	686	435	907	645	907	909	1313	1290	1589	1290	1589	1290
UA-225-12	97 (12 ga)	2 x 2 x 5-1/4	50	3-#10	686	435	907	645	907	909	1313	1290	1589	1290	1589	1290
UA-135-12	97 (12 ga)	1-1/2 x 3 x 5-1/4	50	3-#10	686	435	907	645	907	909	1313	1290	1537	1290	1537	1290
UA-145-12	97 (12 ga)	1-1/2 x 4 x 5-1/4	50	3-#10	686	435	907	645	907	909	1313	1290	1426	1290	1426	1290
UA-118-12	97 (12 ga)	1-1/2 x 1-1/2 x 7-3/4	50	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-228-12	97 (12 ga)	2 x 2 x 7-3/4	50	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-138-12	97 (12 ga)	1-1/2 x 3 x 7-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2562	2150	2562	2150
UA-148-12	97 (12 ga)	1-1/2 x 4 x 7-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2377	2150	2377	2150
UA-119-12	97 (12 ga)	1-1/2 x 1-1/2 x 9	50	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-229-12	97 (12 ga)	2 x 2 x 9	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-139-12	97 (12 ga)	1-1/2 x 3 x 9	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2562	2150	2562	2150
UA-149-12	97 (12 ga)	1-1/2 x 4 x 9	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2377	2150	2377	2150
UA-1110-12	97 (12 ga)	1-1/2 x 1-1/2 x 9-3/4	50	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-2210-12	97 (12 ga)	2 x 2 x 9-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2649	2150	2649	2150
UA-1310-12	97 (12 ga)	1-1/2 x 3 x 9-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2562	2150	2562	2150
UA-1410-12	97 (12 ga)	1-1/2 x 4 x 9-3/4	25	5-#10	1143	725	1512	1075	1512	1515	2188	2150	2377	2150	2377	2150
UA-1112-12	97 (12 ga)	1-1/2 x 1-1/2 x 1-13/4	25	7-#10	1600	1015	2116	1505	2116	2121	3063	3010	3709	3010	3709	3010
UA-2212-12	97 (12 ga)	2 x 2 x 11-3/4	25	7-#10	1600	1015	2116	1505	2116	2121	3063	3010	3709	3010	3709	3010
UA-1312-12	97 (12 ga)	1-1/2 x 3 x 11-3/4	25	7-#10	1600	1015	2116	1505	2116	2121	3063	3010	3586	3010	3586	3010
UA-1412-12	97 (12 ga)	1-1/2 x 4 x 11-3/4	25	7-#10	1600	1015	2116	1505	2116	2121	3063	3010	3328	3010	3328	3010
UA-1114-12	97 (12 ga)	1-1/2 x 1-1/2 x 13-3/4	25	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4768	3870	4768	3870
UA-2214-12	97 (12 ga)	2 x 2 x 13-3/4	25	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4768	3870	4768	3870
UA-1314-12	97 (12 ga)	1-1/2 x 3 x 13-3/4	15	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4611	3870	4611	3870
UA-1414-12	97 (12 ga)	1-1/2 x 4 x 13-3/4	15	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4279	3870	4279	3870
UA-1116-12	97 (12 ga)	1-1/2 x 1-1/2 x 15-3/4	25	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4768	3870	4768	3870
UA-2216-12	97 (12 ga)	2 x 2 x 15-3/4	15	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4768	3870	4768	3870
UA-1316-12	97 (12 ga)	1-1/2 x 3 x 15-3/4	15	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4611	3870	4611	3870
UA-1416-12	97 (12 ga)	1-1/2 x 4 x 15-3/4	15	9-#10	2057	1305	2721	1935	2721	2727	3938	3870	4279	3870	4279	3870

Notes:

1. Allowable loads have not been increased for wind or seismic.
2. Allowable strength shown is the lowest value from the four failure modes: screw tilting/bearing, screw shear, screw pull-over and the serviceability limit state of 1/8" deflection of CFS members.
3. It is the responsibility of design professional to design the connection of UA connectors to the supporting structure. In the test program, this connection was made with cap screws with a head diameter of 0.29". The allowable loads should be conservative for any fastener with a header diameter equal to or greater than 0.29".
4. F1=Shear, F2= Tension

LA CLIP (LARGE UTILITY CLIP)

NEW

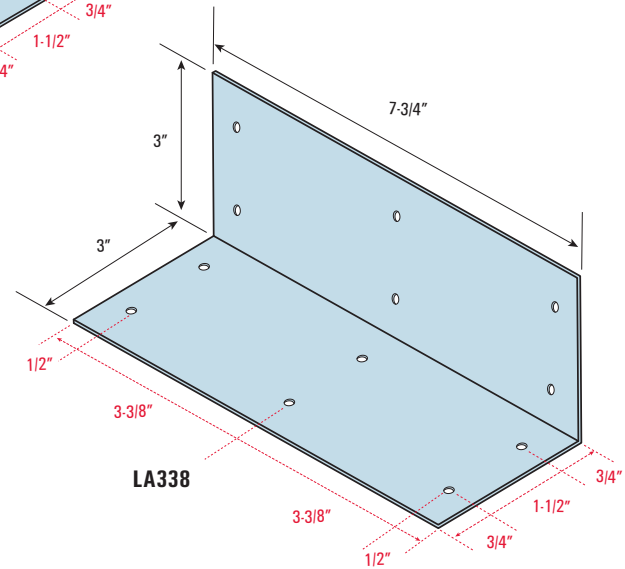
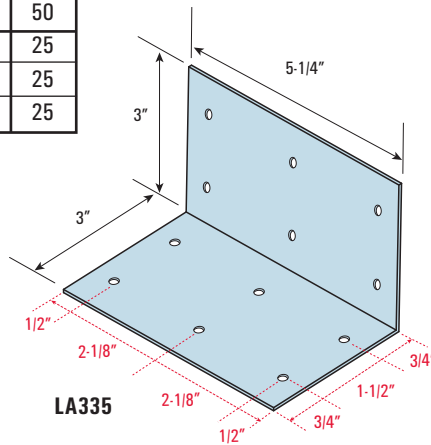
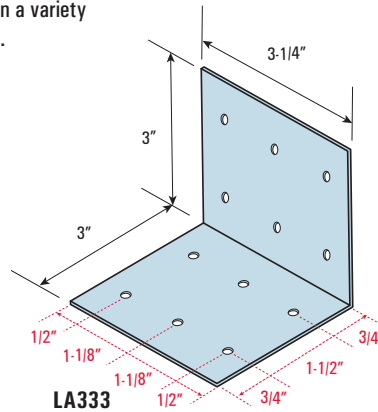
The LA series of clip angles is a series of rigid clips used in a variety of framing applications. Pre-drilled for ease of installation.

MATERIAL: See table for sizes – 50ksi

FINISH: Galvanized – G90

3" x 3" LA Clips

Model No.	Size (in.)	Box Qty
LA333-16	3 x 3 x 3-1/4	100
LA333-14	3 x 3 x 3-1/4	100
LA333-12	3 x 3 x 3-1/4	50
LA335-16	3 x 3 x 5-1/4	50
LA335-14	3 x 3 x 5-1/4	50
LA335-12	3 x 3 x 5-1/4	50
LA338-16	3 x 3 x 7-3/4	25
LA338-14	3 x 3 x 7-3/4	25
LA338-12	3 x 3 x 7-3/4	25



LA Clips				Allowable Load (lbs)											
Model No.	Thickness (mil/ga)	Size (in.)	Screws	20ga (33 mil) 33 ksi		18ga (43 mil) 33 ksi		16ga (54 mil) 33 ksi		16ga (54 mil) 50 ksi		14ga (68 mil) 50 ksi		12ga (97 mil) 50 ksi	
				Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension	Shear	Tension
LA-333-16	54 (16 GA)	3" x 3" x 3-1/4"	6 - #10	562	380	562	462	562	546	722	546	722	644	722	644
LA-333-14	68 (14 GA)	3" x 3" x 3-1/4"	6 - #10	562	602	562	689	562	861	722	861	722	920	722	920
LA-333-12	97 (12 GA)	3" x 3" x 3-1/4"	6 - #10	562	870	562	1160	562	1515	722	1515	722	1495	722	1495
LA-335-16	54 (16 GA)	3" x 3" x 5-1/4"	6 - #10	562	614	562	746	562	882	722	882	722	1040	722	1040
LA-335-14	68 (14 GA)	3" x 3" x 5-1/4"	6 - #10	562	870	562	1113	562	1391	722	1391	722	1486	722	1486
LA-335-12	97 (12 GA)	3" x 3" x 5-1/4"	6 - #10	562	870	562	1290	562	1818	722	2447	722	2415	722	2415
LA-338-16	54 (16 GA)	3" x 3" x 7-3/4"	6 - #10	1372	870	1814	1077	1814	1077	2625	1077	3074	1077	3074	1077
LA-338-14	68 (14 GA)	3" x 3" x 7-3/4"	6 - #10	1372	870	1814	1290	1814	1818	2625	2054	3074	2193	3074	2193
LA-338-12	97 (12 GA)	3" x 3" x 7-3/4"	6 - #10	1372	870	1814	1290	1814	1818	2625	2580	3074	2580	3074	2580

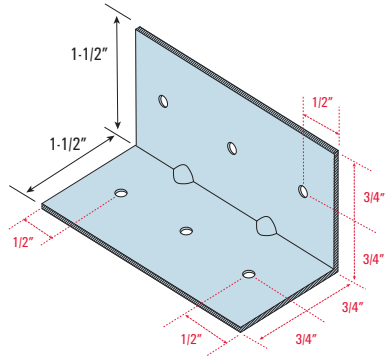
Notes:

1. Allowable loads have not been increased for wind or seismic.
2. Allowable strength shown is the lowest value from the four failure modes: screw tilting/bearing, screw shear, screw pull-over and the serviceability limit state of 1/8" deflection of CFS members.
3. It is the responsibility of design professional to design the connection of UA connectors to the supporting structure. In the test program, this connection was made with cap screws with a head diameter of 0.29". The allowable loads should be conservative for any fastener with a header diameter equal to or greater than 0.29".

UTILITY CLIP (UA & LA)

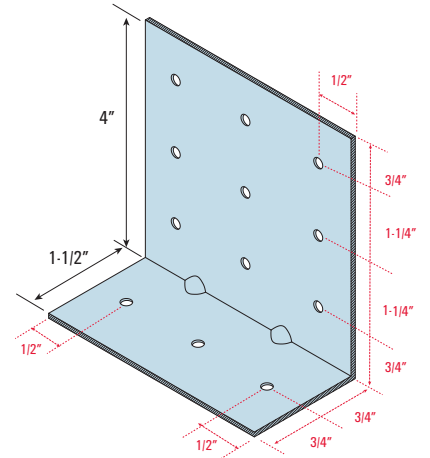
1-1/2" x 1-1/2" Angle

Length	No. of Holes
3-1/4"	6
5-1/4"	6
7-3/4"	10
9"	10
9-3/4"	10
11-3/4"	14
13-3/4"	18
15-3/4"	18



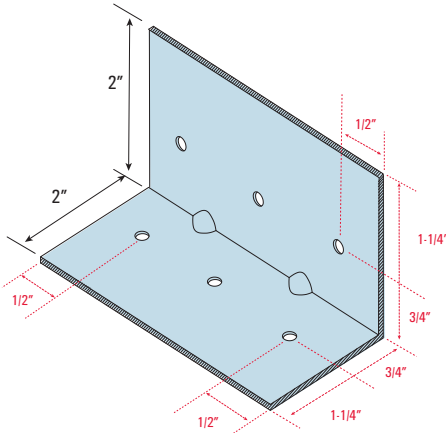
1-1/2" x 4" Angle

Length	No. of Holes
3-1/4"	12
5-1/4"	12
7-3/4"	20
9"	20
9-3/4"	20
11-3/4"	28
13-3/4"	36
15-3/4"	36



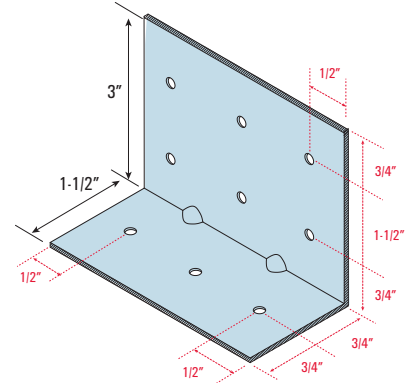
2" x 2" Angle

Length	No. of Holes
3-1/4"	6
5-1/4"	6
7-3/4"	10
9"	10
9-3/4"	10
11-3/4"	14
13-3/4"	18
15-3/4"	18



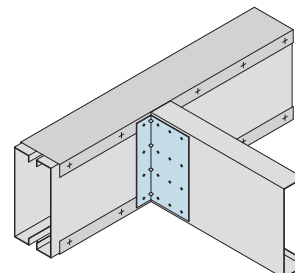
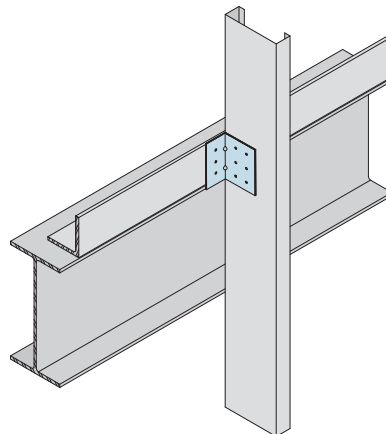
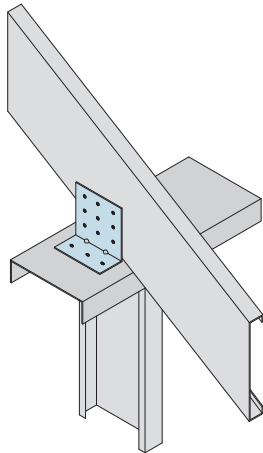
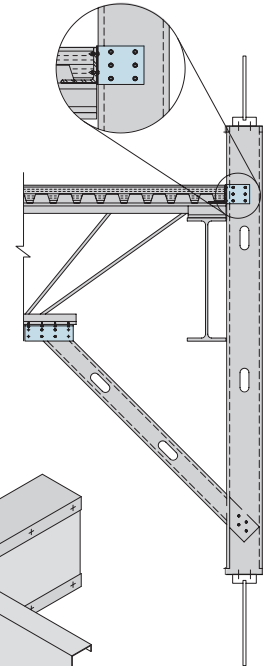
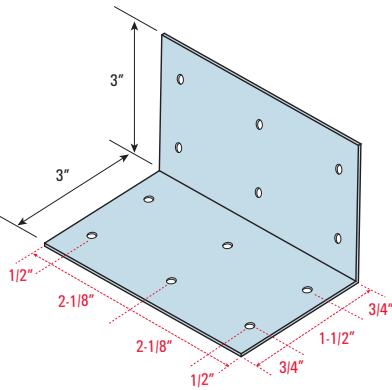
1-1/2" x 3" Angle

Length	No. of Holes
3-1/4"	9
5-1/4"	9
7-3/4"	15
9"	15
9-3/4"	15
11-3/4"	21
13-3/4"	27
15-3/4"	27



3" x 3" Angle

Length	No. of Holes
3-1/4"	12
5-1/4"	12
7-3/4"	12



RIGID CLIP CONNECTOR (RCC)

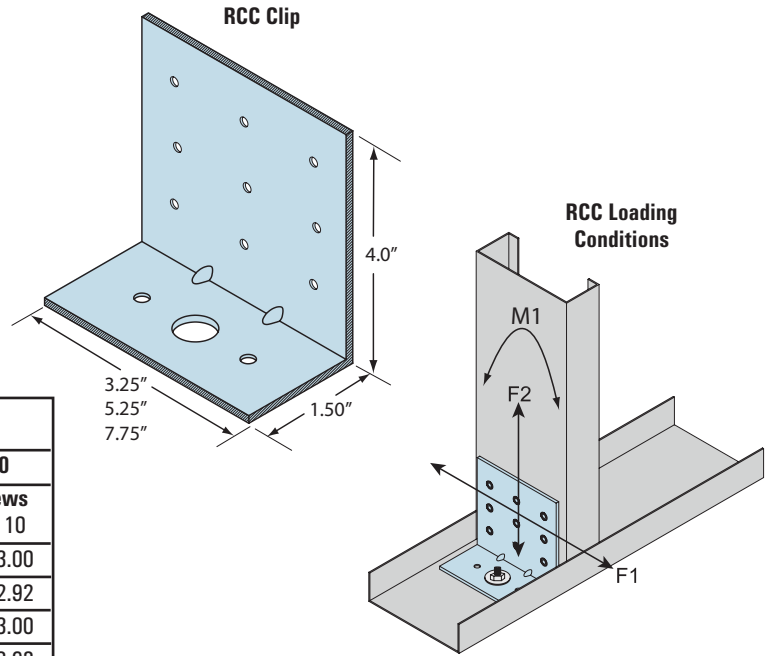
Rigid Clip Connectors (RCC) are used to rigidly attach the bottom of a parapet stud to the structure, or where high tension or rotational restraint is required.

MATERIAL: 12ga (97 mil), 50 ksi

FINISH: Galvanized G90

INSTALLATION:

- Attach long leg of Rigid Clip Connector to web of stud with #10–16 screws through pre-punched holes.
- Attach short leg of Rigid Clip Connector to structure with a 1/2" anchor bolt per Project Engineer's design.



Allowable Strength of RCC in Moment (M1)

CFS Member		Allowable Strength (in-kips) Flexibility (Rad/in-lb x10 ⁶)					
Thickness (mils/ga)	Fy (ksi)	RCC358		RCC600		RCC800	
		No. of Screws 3	No. of Screws 6	No. of Screws 3	No. of Screws 6	No. of Screws 5	No. of Screws 10
33 (20)	33	0.82	1.51	1.79	2.29	2.78	3.00
		29.3	17.4	7.28	5.9	8.21	2.92
43 (18)	33	0.82	1.51	1.79	2.29	2.78	3.00
		29.3	17.4	7.28	5.9	8.21	2.92
54 (16)	50	1.43	1.51	3.23	3.23	3.46	5.91
		29.3	17.4	7.28	5.9	8.21	2.92
68 (14)	50	1.43	2.32	3.22	3.22	3.46	5.71
		29.3	17.4	7.28	5.9	8.21	2.92
97 (12)	50	1.43	2.32	3.22	3.22	3.46	5.71
		29.3	17.4	7.28	5.9	8.21	2.92

Rigid Clip Connector (RCC)

Model No.	Stud Size	Dimensions (in.)	Box Quantity
RCC358	3-5/8"	1-1/2 x 4 x 3-1/4	50
RCC600	6"	1-1/2 x 4 x 5-1/4	50
RCC800	8"	1-1/2 x 4 x 7-3/4	25

Allowable Strength of RCC in Tension/Compression (F2)

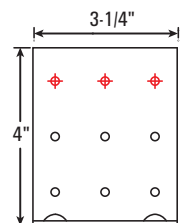
CFS Member		Allowable Strength (lbs)					
Thickness (mils/ga)	Fy (ksi)	RCC358		RCC600		RCC800	
		No. of Screws 3	No. of Screws 6	No. of Screws 3	No. of Screws 6	No. of Screws 5	No. of Screws 10
33 (20)	33	530	1,060	530	1,060	884	1,767
43 (18)	33	789	1,578	789	1,578	1,315	2,116
54 (16)	50	1,602	2,116	1,602	2,116	2,116	2,116
68 (14)	50	1,640	2,116	1,640	2,116	2,116	2,116
97 (12)	50	1,640	2,116	1,640	2,116	2,116	2,116

Allowable Strength of RCC in Shear (F1)

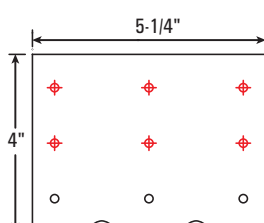
CFS Member		Allowable Strength (lbs)					
Thickness (mils/ga)	Fy (ksi)	RCC358		RCC600		RCC800	
		No. of Screws 3	No. of Screws 6	No. of Screws 3	No. of Screws 6	No. of Screws 5	No. of Screws 10
33 (20)	33	450	450	600	710	850	850
43 (18)	33	450	450	600	710	850	850
54 (16)	50	840	1,000	1,250	1,500	1,860	1,990
68 (14)	50	840	1,000	1,250	1,500	1,860	1,990
97 (12)	50	840	1,000	1,250	1,500	1,860	1,990

Notes:

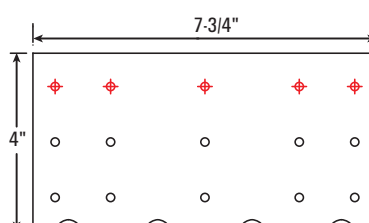
1. Tabulated values are based on #10-16 screws with ultimate shear capacity of 1,600 lbs per screw.
2. Allowable loads have not been increased for wind or seismic.
3. Tabulated loads are based on 1/2" diameter bolt with 1/2" Type A plain washer with a nominal outside diameter of 1.062" & nominal thickness of 0.095".
4. It is the responsibility of the design professional to design the connection of the RCC to the supporting structure.
5. Use linear interaction for combination of F1, F2, and M1.
6. The 1/4" thick Heavy Duty Washer (HDW) meets ASTM A36 Standard Specification for Carbon Structural Steel and is made from hot rolled flat bar and painted gray for corrosion resistance.



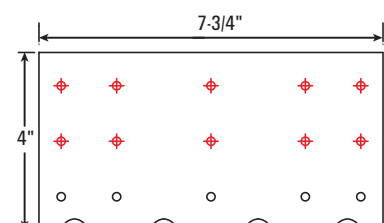
RCC358 & RCC600 with 3 screws pattern



RCC358 & RCC600 with 6 screws pattern



RCC800 with 5 screws pattern



RCC800 with 10 screws pattern

RIGID CLIP CONNECTOR WITH HDW WASHER

NEW

Rigid Clip Connectors (RCC) are used to rigidly attach the bottom of a parapet stud to the structure, or where high tension or rotational restraint is required.

MATERIAL: 1/4" Carbon Structural Steel Hot Rolled Heavy Duty Washer (HDW), 36 ksi

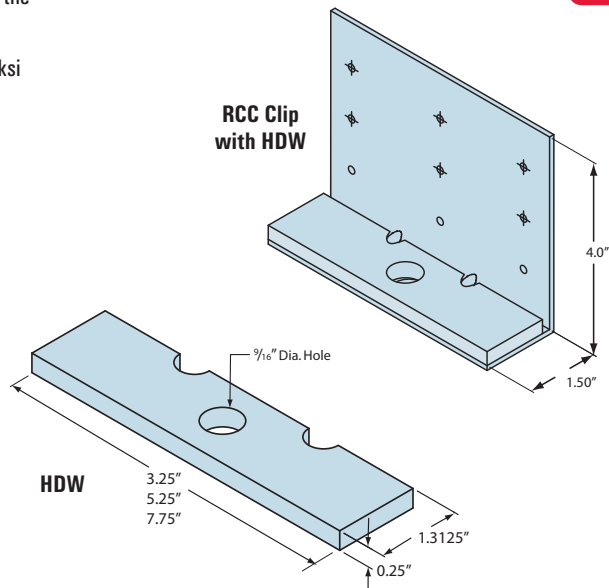
FINISH: HDW washer is painted gray for corrosion resistance.

INSTALLATION:

- Attach long leg of Rigid Clip Connector to web of stud with #10-16 screws through pre-punched holes.
- Attach short leg of Rigid Clip Connector to structure with a 1/2" anchor bolt per Project Engineer's design.

Allowable Strength of RCC with HDW (Washer) in Moment (M1)

CFS Member		Allowable Strength (in-kips) Flexibility (Rad/in-lb x10 ⁶)					
Thickness (mil/ga)	Fy (ksi)	RCC358		RCC600		RCC800	
		No. of Screws 3	No. of Screws 6	No. of Screws 3	No. of Screws 6	No. of Screws 5	No. of Screws 10
33 (20)	33	0.99	1.94	2.15	2.35	3.37	3.82
		28.4	8.07	4.06	4.06	6.39	1.7
43 (18)	33	0.99	1.94	2.15	2.35	3.37	3.82
		28.4	8.07	4.06	4.06	6.39	1.7
54 (16)	50	2.10	3.99	4.38	4.69	8.06	8.03
		28.4	8.07	4.06	4.06	6.39	1.7
68 (14)	50	2.10	3.99	4.38	4.69	8.06	8.03
		28.4	8.07	4.06	4.06	6.39	1.7
97 (12)	50	2.10	3.99	4.38	4.69	8.06	8.03
		28.4	8.07	4.06	4.06	6.39	1.7



Heavy Duty Washer (HDW)

Model No.	Stud Size	Dimensions (in.)	Box Quantity
HDW358	3-5/8"	1/4 x 1-5/16 x 3-1/4	50
HDW600	6"	1/4 x 1-5/16 x 5-1/4	50
HDW800	8"	1/4 x 1-5/16 x 7-3/4	25

Allowable Strength with HDW (Washer) in Shear (F1)

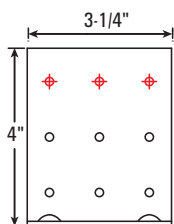
CFS Member		Allowable Strength (lbs)					
Thickness (mils/Ga)	Fy (ksi)	RCC358		RCC600		RCC800	
		No. of Screws 3	No. of Screws 6	No. of Screws 3	No. of Screws 6	No. of Screws 5	No. of Screws 10
33 (20)	33	480	480	660	760	980	980
43 (18)	33	480	480	660	760	980	980
54 (16)	50	1,070	1,100	1,450	1,670	2,160	2,160
68 (14)	50	1,070	1,100	1,450	1,670	2,160	2,160
97 (12)	50	1,070	1,100	1,450	1,670	2,160	2,160

Allowable Strength with HDW (Washer) in Tension/Compression (F2)

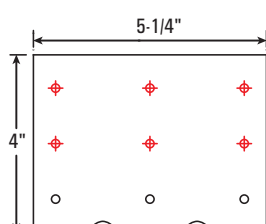
CFS Member		Allowable Strength (lbs)					
Thickness (mils/Ga)	Fy (ksi)	RCC358		RCC600		RCC800	
		No. of Screws 3	No. of Screws 6	No. of Screws 3	No. of Screws 6	No. of Screws 5	No. of Screws 10
33 (20)	33	530	1,060	530	1,060	884	1,767
43 (18)	33	789	1,578	789	1,578	1,315	2,630
54 (16)	50	1,602	3,205	1,602	2,219	2,671	3,244
68 (14)	50	1,640	3,244	1,640	3,205	2,733	3,244
97 (12)	50	1,640	3,244	1,640	3,244	2,733	3,244

Notes:

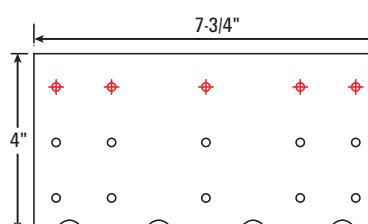
1. Tabulated values are based on #10-16 screws with ultimate shear capacity of 1,600 lbs per screw.
2. Allowable loads have not been increased for wind or seismic.
3. Tabulated loads are based on 1/2" diameter bolt with 1/2" Type A plain washer with a nominal outside diameter of 1.062" & nominal thickness of 0.095".
4. It is the responsibility of the design professional to design the connection of the RCC to the supporting structure.
5. Use linear interaction for combination of F1, F2, and M1.
6. The 1/4" thick Heavy Duty Washer (HDW) meets ASTM A36 Standard Specification for Carbon Structural Steel and is made from hot rolled flat bar and painted gray for corrosion resistance.



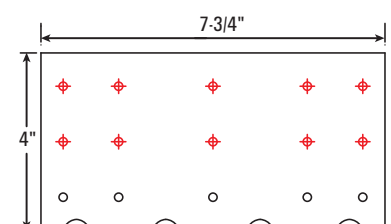
RCC358 & RCC600 with 3 screws pattern



RCC358 & RCC600 with 6 screws pattern



RCC800 with 5 screws pattern



RCC800 with 10 screws pattern

HOLDOWN (S/HD & S/HDS)



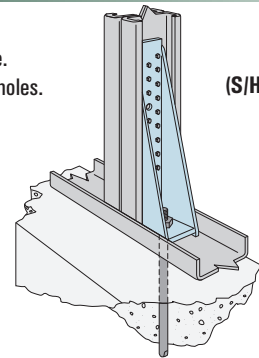
The S/HD series of holdowns is designed for installation with either screws or bolts into the studs or column. The S/HDS series installs with #14 screws and has been designed to utilize fewer fasteners to reduce installation time. The S/HDB series is ideal for bolt-on applications where the cold-formed stud manufacturer can re-punch the bolt holes.

MATERIAL: S/HD8 and S/HD10 – 118 mil (10 ga) with 3/8" plate, S/HD15 – 171 mil (7 ga) with 1/2" plate.

FINISH: Simpson gray paint. Hot-dip galvanized is available.

INSTALLATION:

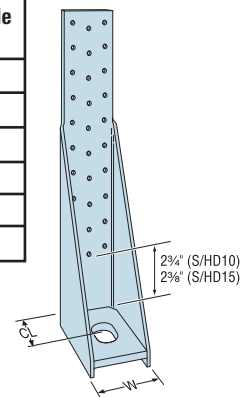
- Use all specified fasteners.
- The design engineer may specify any alternate anchorage calculated to resist the tension load for your specific job.
- Anchor bolt washer is not required.



S/HD10
(S/HD10S similar)

Model No.	Dimensions (in.)			Fasteners		Allowable Tension Loads (133) Back-to-Back Stud			Holdown Deflection at Highest Allowable Design Load
	W	H	CL	Anchor Dia.	Screws	2–33 mil. (2–20 ga.)	2–43 mil (2–18 ga.)	2–54 mil (2–16 ga.)	
S/HD8	2-1/2	13-7/8	1-1/2	7/8	24-#10	7615	8460	8940	0.085
S/HD10	2-1/2	16-1/8	1-1/2	7/8	30-#10	9520	9665	9665	0.093
S/HD15	2-3/4	21-1/2	1-1/2	1	48-#10	–	12200	14405	0.070
S/HD8S	2-5/16	11	1-1/2	7/8	17-#14	8580	11070	11070	0.0695
S/HD10S	2-5/16	13-1/2	1-1/2	7/8	22-#14	8580	11120	12200	0.0960
S/HD15S	2-7/16	17	1-3/8	1	30-#14	8580	11120	13500	0.0970

S/HD15



Notes:

1. For load at (100), multiply table value by 0.75 where the 1/3 increase is not permitted.
2. Values are test limited. For load at (100), no reduction necessary. For load at (133) for 1/3 increase, no further increase allowed.
3. The Designer shall specify the anchor embedment and configuration.
4. Deflection at Highest allowable Design Load: The deflection of a holddown measured between the anchor bolt and the strap portion of the holddown when loaded to the highest allowable load listed in the catalog table. This movement is strictly due to the holddown deformation under a static load test conducted on a steel jig.

TENSION TIE (S/LTT & S/HTT)



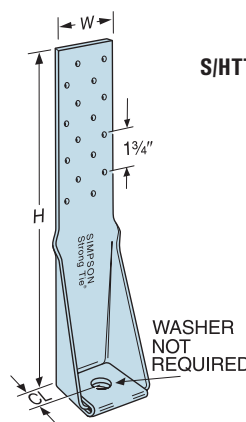
The S/HTT14 is a single-piece formed tension tie—no rivets, and a 4-ply formed seat which won't unfold during loading. No washers are required. The S/LTT and S/HTT Tension Ties are ideal for retrofit or new construction projects. They provide high strength, post-pour, concrete-to-steel connections.

MATERIAL: See table.

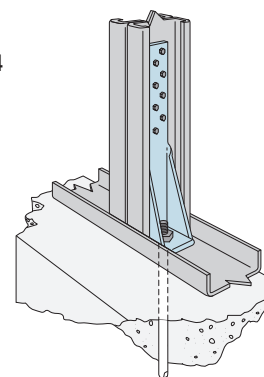
FINISH: Galvanized – G90

INSTALLATION:

- Use all specified fasteners.
- Use the specified number and type of screws to attach the strap portion to the steel stud. Bolt the base to the wall or foundation with a suitable anchor; see table for the required bolt diameter.



S/HTT14

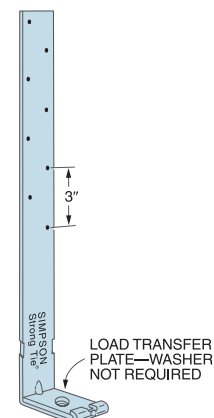


Model No.	Material (mil/ga)		Dimensions (in.)			Fasteners		Allowable Tension Loads (133)	Holdown Deflection at Highest Allowable Design Load
	Strap	Plate	W	H	CL	Anchor Bolts	Screws		
S/LTT20	97 (12 ga)	229 (3 ga)	2	20	1-1/2	1/2	8-#10	1600	0.209
S/HTT14	111 (11 ga)	–	2-1/2	15	1-1/4	5/8	14-#10	4325	0.041

Notes:

1. The Designer shall specify the anchor embedment and configuration.
2. Load at (100), no reduction necessary. Load at (133) for 1/3 increase, no further increase allowed.
3. Loads are based on attachment of CFS members having a minimum thickness of 33 mil (20 ga).
4. Deflection at Highest allowable Design Load: The deflection of a holddown measured between the anchor bolt and the strap portion of the holddown when loaded to the highest allowable load listed in the catalog table. This movement is strictly due to the holddown deformation under a static load test conducted on a steel jig.

S/LTT20

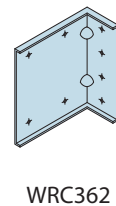
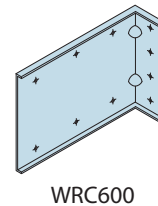
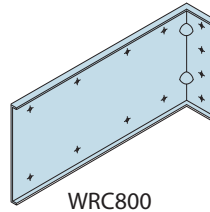
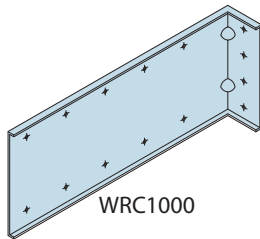
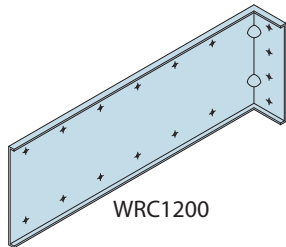
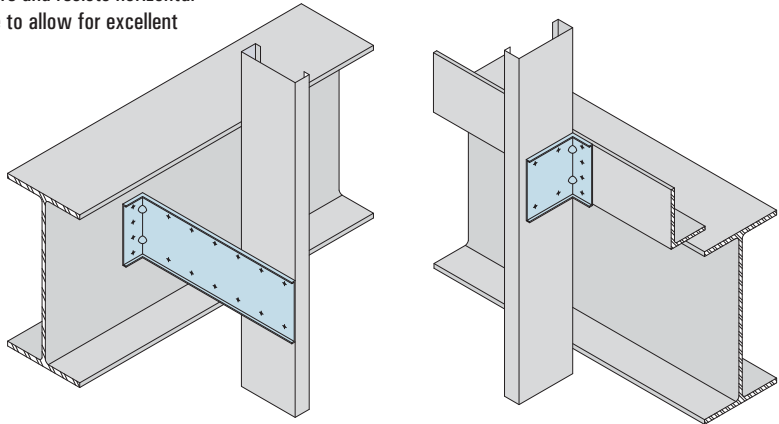


WRC RIGID CLIP

NEW

The WRC series of clips connects exterior studs to the building structure and resists horizontal and lateral loads. The WRC has embossments and a continuous flange to allow for excellent load values. 25 pieces per box.

Part No.	Ga. (Mil)	Material	Finish	Size
WRC362	14ga (68)	50 KSI	G-90	4" x 1.5" x 3.5"
WRC600	14ga (68)	50 KSI	G-90	4" x 1.5" x 5.5"
WRC800	14ga (68)	50 KSI	G-90	4" x 1.5" x 7.5"
WRC1000	14ga (68)	50 KSI	G-90	4" x 1.5" x 9.5"
WRC1200	14ga (68)	50 KSI	G-90	4" x 1.5" x 11.5"



SEISMIC & HURRICANE TIE (S/H1A)

SIMPSON
Strong-Tie

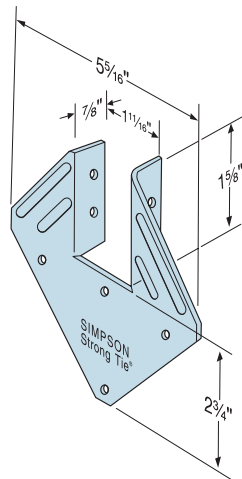
S/H1A was designed to fit within several proprietary truss chords to provide uplift resistance.

MATERIAL: 18 ga (43 mil) 33ksi

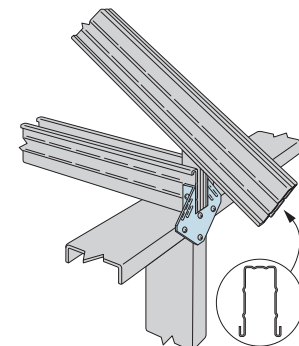
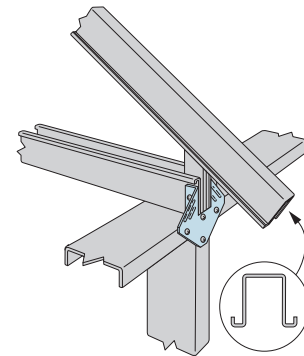
FINISH: Galvanized – G90

INSTALLATION:

- Use all specified fasteners.
- S/H1A can be installed with flanges facing outward (reverse of the illustration) when installed inside a wall for truss applications.
- S/H1A does not replace solid blocking.



S/H1A



Model No.	Fasteners			Truss Thickness mil (ga)	Allowable Loads (100)		
	Truss	Top Track	Studs		Plate/Wall Stud Thickness mil (ga)		
					33 mil (20 ga)	43 mil (18 ga)	54 mil (16 ga)
S/H1A	4-#10	3-#10	1-#10	27 (22 ga)	470	470	470
	4-#10	3-#10	1-#10	33 (20 ga)	510	550	690
	4-#10	3-#10	1-#10	43 (18 ga)	510	550	690
	4-#10	3-#10	1-#10	54 (16 ga)	590	675	850

Notes:

1. Load at (100), no reduction is necessary. Load at (133) for 1/3 increase, no further increase allowed.
2. Loads are based on truss steel properties of $F_y=50$ ksi and $F_u=65$ ksi. Reduce load direct proportionally for lower steel strength. For example: Truss with 43 mil (18 ga) thickness has a steel properties of $F_y=33$ ksi, $F_u=45$ ksi and is connected to 43 mil plate and wall stud. The adjusted allowable load = $550 \text{ lbs} \times \text{minimum } [33/50 \text{ or } 45/65] = 363 \text{ lbs}$.