

## HDSC Header Bracket

For use with the RedHeader PRO™ and HDS® Rough Opening Systems.

The HDSC Header Bracket is the perfect complement to the RedHeader PRO™ Framing system and HDS® Framing System. This simple, yet innovative header bracket turns curtain-wall header installation from a two-person job into a one-person job. This unique, pre-punched clip also eliminates surface head fastener buildup that can create finishing challenges. The HDSC is sized to be used with either 3" or 3-1/2" flanged member.

### PRODUCT DIMENSIONS

3-1/2" x 3-1/16" x 2"	3-1/2" x 3-9/16" x 2"
3-7/8" x 3-1/16" x 2"	3-7/8" x 3-9/16" x 2"
5-7/8" x 3-1/16" x 2"	5-7/8" x 3-9/16" x 2"
7-7/8" x 3-1/16" x 2"	7-7/8" x 3-9/16" x 2"

### MATERIAL SPECIFICATIONS

**Gauge:** 20 gauge (33mils)

**Design Thickness:** 0.0346 inches

**Yield Strength:** 33ksi

**Gauge:** 14 gauge (68mils)

**Design Thickness:** 0.0713 inches

**Yield Strength:** 50ksi

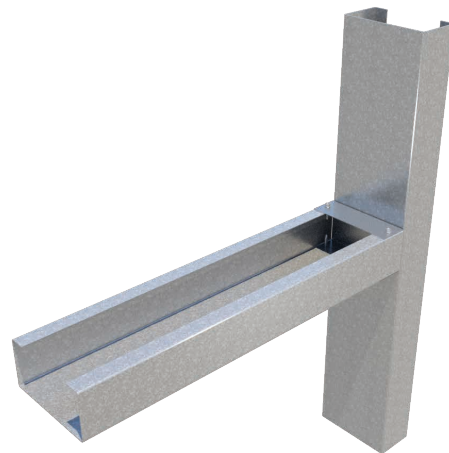
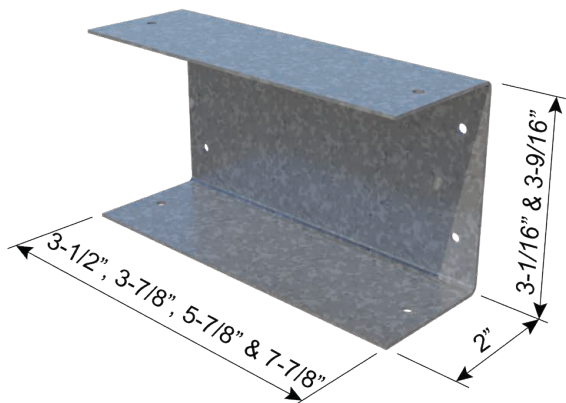
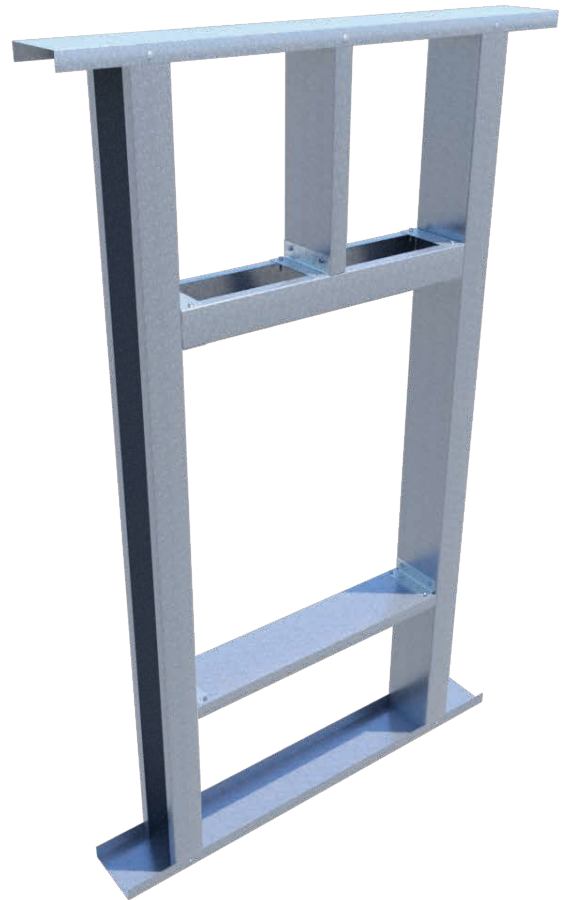
**Gauge:** 12 gauge (97mils)

**Design Thickness:** 0.1017 inches

**Yield Strength:** 50ksi

**Coating:** G90

**ASTM:** A653/A653M, A1003/A1003M

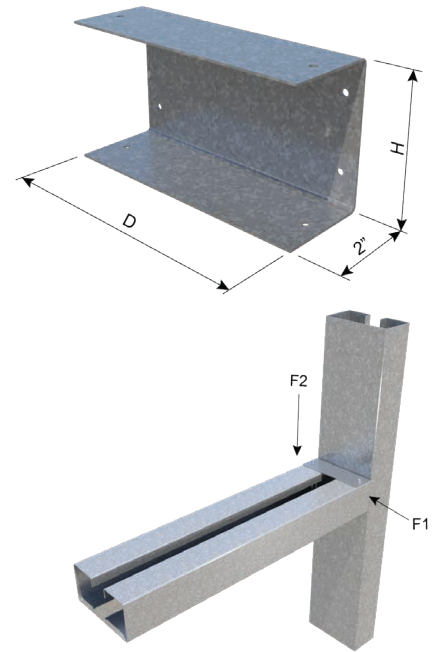




### HDSC 33mils (20ga) Header Brackets (3" & 3-1/2" Flange)

Product Code	Bracket Specs		Framing Member Specs		Designed to Support
	Depth (D)	Height (H)	Thickness Mils (Gauge)	Yield Strength, Fy (ksi)	
350HDSC300-33	3-1/2"	3"	33 (20)	33	3-5/8" RedHeader or HDS with 3" Flange
350HDSC350-33		3-1/2"			3-5/8" RedHeader with 3-1/2" Flange
387HDSC300-33	3-7/8"	3"	33 (20)	33	4" RedHeader or HDS with 3" Flange
387HDSC350-33		3-1/2"			4" RedHeader with 3-1/2" Flange
587HDSC300-33	5-7/8"	3"	33 (20)	33	6" RedHeader or HDS with 3" Flange
587HDSC350-33		3-1/2"			6" RedHeader with 3-1/2" Flange
787HDSC300-33	7-7/8"	3"	33 (20)	33	8" RedHeader or HDS with 3" Flange
787HDSC350-33		3-1/2"			8" RedHeader with 3-1/2" Flange

All material G90. Sold in pairs.



### Allowable Loads (lbs) for 3" & 3-1/2" Flange Header Systems

Product Code	Bracket Specs		Framing Member Specs		Fasteners		Capacities (lbs)					
	Depth (D)	Height (H)	Thickness Mils (Gauge)	Yield Strength, Fy (ksi)	Jamb	Header	F1 Load (Lateral)			F2 Load (Vertical)		
							Nominal (lbs)	ASD Load (lbs)	LRFD Load (lbs)	Nominal (lbs)	ASD Load (lbs)	LRFD Load (lbs)
350HDSC300-33	3-1/2"	3"	33 (20)	33	4 x #10	4 x #10	1200	615	985	895	190	190
			43 (18)	33			1435	735	1180	1555	245	245
			54 (16)	50			2000	1025	1595	2540	300	300
			68 (14)	50			2290	1060	1595	1435	425	425
			97 (12)	50			2875	1060	1595	1750	450	450
350HDSC350-33	3-1/2"	3-1/2"	54 (16)	50	4 x #10	4 x #10	2095	1060	1595	1020	380	380
			68 (14)	50			2460	1060	1595	1280	395	395
			97 (12)	50			2675	1060	1595	1765	460	460
			33 (20)	33			1090	560	895	1110	220	220
387HDSC300-33	3-7/8"	3"	43 (18)	33	4 x #10	4 x #10	1420	730	1165	1585	280	280
			54 (16)	50			2085	1060	1595	2130	310	310
			68 (14)	50			2290	1060	1595	1435	425	425
			97 (12)	50			2875	1060	1595	1750	450	450
			54 (16)	50			2095	1060	1595	1020	380	380
387HDSC350-33	3-7/8"	3-1/2"	68 (14)	50	4 x #10	4 x #10	2460	1060	1595	1280	395	395
			97 (12)	50			2560	1060	1595	1935	455	455
			33 (20)	33			1150	590	945	1050	205	205
			43 (18)	33			1410	720	1155	1765	320	320
587HDSC300-33	5-7/8"	3"	54 (16)	50	4 x #10	4 x #10	2085	1060	1595	2130	320	320
			68 (14)	50			2290	1060	1595	1435	425	425
			97 (12)	50			2875	1060	1595	1750	450	450
			54 (16)	50			2095	1060	1595	1020	380	380
			68 (14)	50			2460	1060	1595	1280	395	395
587HDSC350-33	5-7/8"	3-1/2"	97 (12)	50	4 x #10	4 x #10	2560	1060	1595	1935	455	455
			33 (20)	33			1210	620	995	990	190	190
			43 (18)	33			1540	790	1265	1630	270	270
			54 (16)	50			2045	1050	1595	2130	310	310
787HDSC300-33	7-7/8"	3"	68 (14)	50	4 x #10	4 x #10	2195	1060	1595	1395	385	385
			97 (12)	50			2875	1060	1595	1750	450	450
			54 (16)	50			2030	1040	1595	1075	320	320
			68 (14)	50			2460	1060	1595	1280	395	395
			97 (12)	50			2450	1060	1595	2105	455	455

**Notes:**

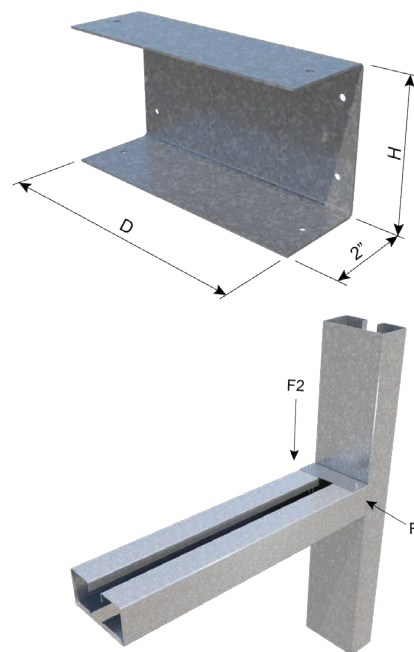
- Listed Capacities were derived from calculations and structural tests in accordance with provisions of AISI S100 and ICC-ES AC261.
- The safety factor for ASD loads and resistance factor for LRFD loads are calculated in accordance with Chapter K.
- The capacity of a given HDSC connection is the minimum of the corresponding jamb and the header values. For example, for a 3-1/2" HDSC-33 bracket (3" Flange) used with a 54mils (16ga) 50 ksi jamb and a 97mils (12ga) 50 ksi header, the F2 allowable design load shall be the capacity corresponding to framing member with lesser thickness i.e., 16ga member. Thus, the ASD capacity is 300 lbs.
- #10-16 HWH Screws by ITW Buildex were used to attach Brackets to Jamb and Header. The screws shall have a minimum shear capacity of 1400 lbs and minimum tension capacity of 1158 lbs. Evidence shall be provided to the building official for approval that defines the fasteners meet the performance requirements of this report, ASTM C1513 and are for use with cold-formed steel.
- For simultaneous F1 and F2 loading, use the following interaction equation:  $(F1/F1)^2 + (F2/F2)^2 \leq 1.0$  Where f1 and f2 are the applied loads and F1 and F2 are the appropriate allowable loads.
- It is the responsibility of the design professional to detail the project drawings for proper HDSC bracket installation.

## HDSC Header Bracket

### HDSC 68mils (14ga) Header Brackets (3" & 3-1/2" Flange)

Product Code	Bracket Specs		Framing Member Specs		Designed to Support
	Depth (D)	Height (H)	Thickness Mils (Gauge)	Yield Strength, Fy (ksi)	
350HDSC300-68	3-1/2"	3"	68 (14)	50	3-5/8" RedHeader or HDS with 3" Flange
350HDSC350-68		3-1/2"			3-5/8" RedHeader with 3-1/2" Flange
387HDSC300-68	3-7/8"	3"	68 (14)	50	4" RedHeader or HDS with 3" Flange
387HDSC350-68		3-1/2"			4" RedHeader with 3-1/2" Flange
587HDSC300-68	5-7/8"	3"	68 (14)	50	6" RedHeader or HDS with 3" Flange
587HDSC350-68		3-1/2"			6" RedHeader with 3-1/2" Flange
787HDSC300-68	7-7/8"	3"	68 (14)	50	8" RedHeader or HDS with 3" Flange
787HDSC350-68		3-1/2"			8" RedHeader with 3-1/2" Flange

All material G90. Sold in pairs.



### Allowable Loads (lbs) for 3" & 3-1/2" Flange Header Systems

Product Code	Bracket Specs		Framing Member Specs		Fasteners		Capacities (lbs)					
	Depth (D)	Height (H)	Thickness Mils (Gauge)	Yield Strength, Fy (ksi)	Jamb	Header	F1 Load (Lateral)			F2 Load (Vertical)		
							Nominal (lbs)	ASD Load (lbs)	LRFD Load (lbs)	Nominal (lbs)	ASD Load (lbs)	LRFD Load (lbs)
350HDSC300-68	3-1/2"	3"	33 (20)	33	4 x #10	4 x #10	1435	705	1060	880	300	480
			43 (18)	33			2365	1050	1575	1130	390	620
			54 (16)	50			3185	1095	1755	2380	820	940
			68 (14)	50			3415	1175	1880	2920	1005	1385
			97 (12)	50			3940	1355	2170	3645	1255	1875
350HDSC350-68	3-1/2"	3-1/2"	54 (16)	50	4 x #10	4 x #10	2975	1025	1640	2150	740	1145
			68 (14)	50			3375	1160	1855	2925	1005	1555
			97 (12)	50			3810	1310	2100	3555	1225	1730
387HDSC300-68	3-7/8"	3"	33 (20)	33	4 x #10	4 x #10	1405	705	1060	885	305	485
			43 (18)	33			2210	1050	1575	1225	420	670
			54 (16)	50			3185	1095	1755	2380	820	940
			68 (14)	50			3475	1195	1910	3130	1075	1450
			97 (12)	50			4000	1375	2200	3815	1310	1700
387HDSC350-68	3-7/8"	3-1/2"	54 (16)	50	4 x #10	4 x #10	3070	1055	1690	2300	790	1145
			68 (14)	50			3395	1165	1870	3065	1055	1490
			97 (12)	50			4365	1500	2400	3825	1315	1850
587HDSC300-68	5-7/8"	3"	33 (20)	33	4 x #10	4 x #10	1370	700	1060	895	305	490
			43 (18)	33			2055	1050	1575	1315	450	725
			54 (16)	50			3265	1120	1795	2460	845	1045
			68 (14)	50			3535	1215	1945	3345	1150	1515
			97 (12)	50			4000	1375	2200	3815	1310	1700
587HDSC350-68	5-7/8"	3-1/2"	54 (16)	50	4 x #10	4 x #10	3070	1055	1690	2300	790	1145
			68 (14)	50			3415	1175	1880	3210	1105	1430
			97 (12)	50			4110	1415	2265	3955	1360	1820
787HDSC300-68	7-7/8"	3"	33 (20)	33	4 x #10	4 x #10	1370	700	1060	895	305	490
			43 (18)	33			2115	1050	1575	1245	425	670
			54 (16)	50			3340	1150	1840	2535	870	1145
			68 (14)	50			3440	1180	1895	3425	1180	1575
			97 (12)	50			4060	1395	2235	3985	1370	1525
787HDSC350-68	7-7/8"	3-1/2"	54 (16)	50	4 x #10	4 x #10	3165	1090	1745	2455	845	1145
			68 (14)	50			3420	1175	1880	3360	1155	1370
			97 (12)	50			3860	1330	2125	4090	1405	1785

**Notes:**

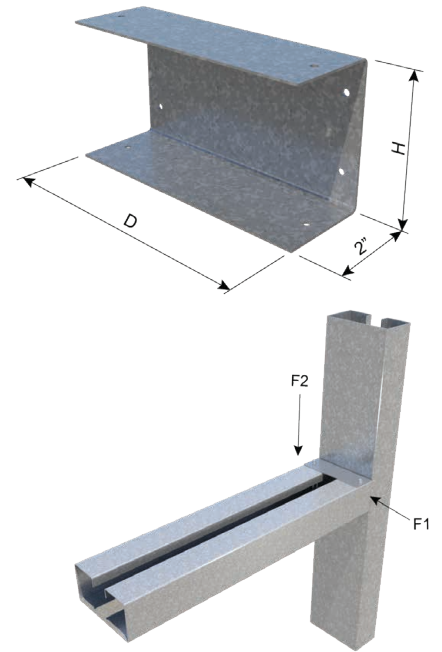
- Listed Capacities were derived from calculations and structural tests in accordance with provisions of AISI S100 and ICC-ES AC261.
- The safety factor for ASD loads and resistance factor for LRFD loads are calculated in accordance with Chapter K.
- The capacity of a given HDSC connection is the minimum of the corresponding jamb and the header values. For example, for a 3-1/2" HDSC-68 bracket (3" Flange) used with a 54mils (16ga) 50 ksi jamb and a 97mils (12ga) 50 ksi header, the F2 allowable design load shall be the capacity corresponding to framing member with lesser thickness i.e., 16ga member. Thus, the ASD capacity is 820 lbs.
- #10-16 HWH Screws by ITW Buildex were used to attach Brackets to Jamb and Header. The screws shall have a minimum shear capacity of 1400 lbs and minimum tension capacity of 1158 lbs. Evidence shall be provided to the building official for approval that defines the fasteners meet the performance requirements of this report, ASTM C1513 and are for use with cold-formed steel.
- For simultaneous F1 and F2 loading, use the following interaction equation:  $(F1/F1)^2 + (F2/F2)^2 \leq 1.0$  Where f1 and f2 are the applied loads and F1 and F2 are the appropriate allowable loads.
- It is the responsibility of the design professional to detail the project drawings for proper HDSC bracket installation.



### HDSC 97mils (12ga) Header Brackets (3" & 3-1/2" Flange)

Product Code	Bracket Specs		Framing Member Specs		Designed to Support
	Depth (D)	Height (H)	Thickness Mils (Gauge)	Yield Strength, Fy (ksi)	
350HDSC300-97	3-1/2"	3"	97 (12)	50	3-5/8" RedHeader or HDS with 3" Flange
350HDSC350-97		3-1/2"			3-5/8" RedHeader with 3-1/2" Flange
387HDSC300-97	3-7/8"	3"	97 (12)	50	4" RedHeader or HDS with 3" Flange
387HDSC350-97		3-1/2"			4" RedHeader with 3-1/2" Flange
587HDSC300-97	5-7/8"	3"	97 (12)	50	6" RedHeader or HDS with 3" Flange
587HDSC350-97		3-1/2"			6" RedHeader with 3-1/2" Flange
787HDSC300-97	7-7/8"	3"	97 (12)	50	8" RedHeader or HDS with 3" Flange
787HDSC350-97		3-1/2"			8" RedHeader with 3-1/2" Flange

All material G90. Sold in pairs.



### Allowable Loads (lbs) for 3" & 3-1/2" Flange Header Systems

Product Code	Bracket Specs		Framing Member Specs		Fasteners		Capacities (lbs)					
	Depth (D)	Height (H)	Thickness Mils (Gauge)	Yield Strength, Fy (ksi)	Jamb	Header	F1 Load (Lateral)			F2 Load (Vertical)		
							Nominal (lbs)	ASD Load (lbs)	LRFD Load (lbs)	Nominal (lbs)	ASD Load (lbs)	LRFD Load (lbs)
350HDSC300-97	3-1/2"	3"	33 (20)	33	4 x #12	4 x #12	1435	735	1130	880	300	495
			43 (18)	33			2490	1120	1680	1375	470	865
			54 (16)	50			4025	1385	2215	2195	755	1410
			68 (14)	50			4340	1490	2390	3465	1190	2000
			97 (12)	50			6075	2090	3345	5610	1930	2380
350HDSC350-97	3-1/2"	3-1/2"	54 (16)	50	4 x #12	4 x #12	4080	1400	2245	2145	735	1545
			68 (14)	50			4265	1465	2350	3575	1230	2090
			97 (12)	50			6005	2065	3305	5385	1850	2405
			33 (20)	33			1405	720	1130	885	305	550
387HDSC300-97	3-7/8"	3"	43 (18)	33	4 x #12	4 x #12	2490	1120	1680	1375	470	865
			54 (16)	50			4105	1410	2260	2405	825	1455
			68 (14)	50			4105	1410	2260	3360	1155	1530
			97 (12)	50			6000	2065	3305	5840	2010	2560
			54 (16)	50			3975	1365	2185	2230	765	1620
387HDSC350-97	3-7/8"	3-1/2"	68 (14)	50	4 x #12	4 x #12	4195	1445	2310	3630	1250	2080
			97 (12)	50			6185	2130	3405	5500	1890	2455
			33 (20)	33			1370	700	1125	895	305	610
			43 (18)	33			2345	1120	1680	1400	480	820
587HDSC300-97	5-7/8"	3"	54 (16)	50	4 x #12	4 x #12	4340	1475	2390	2615	900	1500
			68 (14)	50			4340	1490	2390	3465	1190	2000
			97 (12)	50			5930	2040	3265	6065	2085	2740
			54 (16)	50			3870	1330	2130	2310	795	1690
			68 (14)	50			4195	1445	2310	3630	1250	2080
587HDSC350-97	5-7/8"	3-1/2"	97 (12)	50	4 x #12	4 x #12	6060	2085	3335	5840	2010	2400
			33 (20)	33			1370	700	1125	895	305	610
			43 (18)	33			2200	1120	1680	1420	485	770
			54 (16)	50			4125	1420	2270	2945	1015	1485
			68 (14)	50			4125	1420	2270	3685	1265	2070
787HDSC300-97	7-7/8"	3"	97 (12)	50	4 x #12	4 x #12	5770	1985	3175	6085	2090	2710
			4070	1400			2240	2625	905	1505		
			4125	1420			2270	3685	1265	2070		
			5935	2040			3265	6180	2125	2350		
			54 (16)	50			4070	1400	2240	2625	905	1505

**Notes:**

- Listed Capacities were derived from calculations and structural tests in accordance with provisions of AISI S100 and ICC-ES AC261.
- The safety factor for ASD loads and resistance factor for LRFD loads are calculated in accordance with Chapter K.
- The capacity of a given HDSC connection is the minimum of the corresponding jamb and the header values. For example, for a 3-1/2" HDSC-97 bracket (3" Flange) used with a 54mils (16ga) 50 ksi jamb and a 97mils (12ga) 50 ksi header, the F2 allowable design load shall be the capacity corresponding to framing member with lesser thickness i.e., 16ga member. Thus, the ASD capacity is 755 lbs.
- #12-14 HWH Screws by ITW Buildex were used to attach Brackets to Jamb and Header. The screws shall have a minimum shear capacity of 2000 lbs and minimum tension capacity of 2325 lbs. Evidence shall be provided to the building official for approval that defines the fasteners meet the performance requirements of this report, ASTM C1513 and are for use with cold-formed steel.
- For simultaneous F1 and F2 loading, use the following interaction equation:  $(F1/F1)^2 + (F2/F2)^2 \leq 1.0$  Where F1 and F2 are the applied loads and F1 and F2 are the appropriate allowable loads.
- It is the responsibility of the design professional to detail the project drawings for proper HDSC bracket installation.