

HDSC Header Bracket

For use with the RedHeader PRO™ Rough Opening System.

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 (33mil)

Design Thickness: 0.0346 inches

Yield Strength: 33ksi

Gauge: 14 gauge (68mil)

Design Thickness: 0.0713 inches

Yield Strength: 50ksi

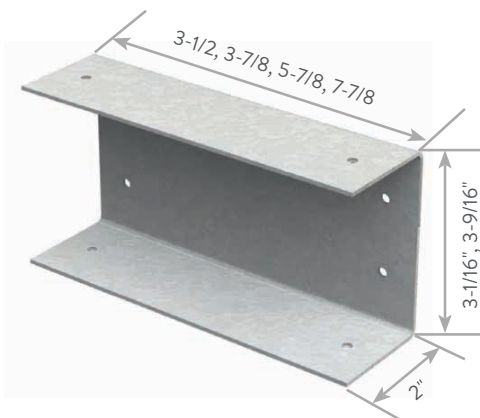
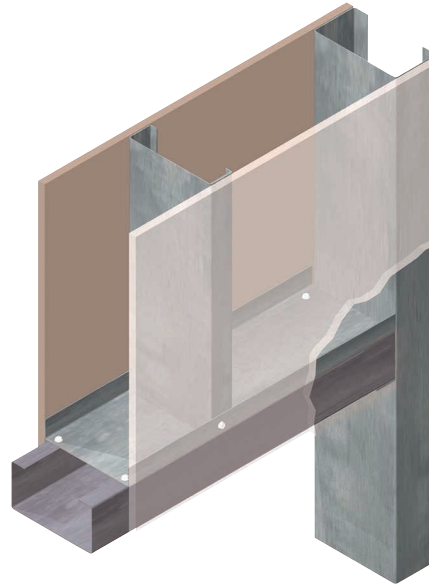
Gauge: 12 gauge (97mil)

Design Thickness: 0.1017 inches

Yield Strength: 50ksi

Coating: G90

ASTM: A653/A653M, A1003/A1003M

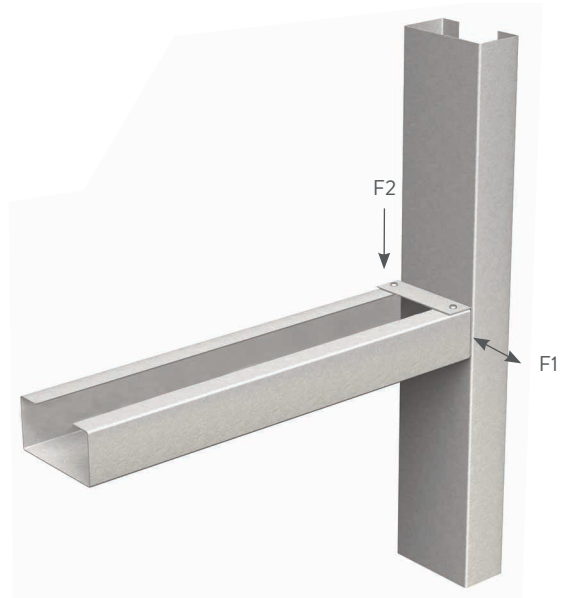


HDSC 33mil (20ga) Header Brackets (3" & 3-1/2" Flange)

HDSC Header Bracket

Product code	Thickness		ksi	Size (in)	Fits RedHeader PRO system size (in)
	Mils (Gauge)	Design thickness (in)			
HDSC-33	33mil (20ga)	0.0346	33	3-1/2 x 3-1/16 x 2 3-1/2 x 3-9/16 x 2	3-5/8 with 3" Flange 3-5/8 with 3-1/2" Flange
HDSC-33	33mil (20ga)	0.0346	33	3-7/8 x 3-1/16 x 2 3-7/8 x 3-9/16 x 2	4 with 3" Flange 4 with 3-1/2" Flange
HDSC-33	33mil (20ga)	0.0346	33	5-7/8 x 3-1/16 x 2 5-7/8 x 3-9/16 x 2	6 with 3" Flange 6 with 3-1/2" Flange
HDSC-33	33mil (20ga)	0.0346	33	7-7/8 x 3-1/16 x 2 7-7/8 x 3-9/16 x 2	8 with 3" Flange 8 with 3-1/2" Flange

All material G90. Sold in pairs.



HDSC Header Brackets Allowable Loads (lbs) For 3" & 3-1/2" Flange Header Systems

Product code	Size (in)	Jamb/Head Gauge		F1 (lbs)		F2 (lbs)	
		Mils (Gauge)	Fy	Jamb	Head	Jamb	Head
HDSC3-33	3-1/2	33mil (20ga)	33	705	570	705	235
		43mil (18ga)	33	1055	720	1055	305
		54mil (16ga)	50	1065	795	1065	380
		68mil (14ga)	50	1065	860	1065	485
		97mil (12ga)	50	1065	860	1065	775
HDSC4-33	3-7/8	33mil (20ga)	33	705	595	705	270
		43mil (18ga)	33	1055	865	1055	350
		54mil (16ga)	50	1065	895	1065	430
		68mil (14ga)	50	1065	895	1065	485
		97mil (12ga)	50	1065	895	1065	775
HDSC6-33	5-7/8	33mil (20ga)	33	705	660	705	270
		43mil (18ga)	33	1055	865	1055	390
		54mil (16ga)	50	1065	955	1065	430
		68mil (14ga)	50	1065	990	1065	485
		97mil (12ga)	50	1065	990	1065	775
HDSC8-33	7-7/8	33mil (20ga)	33	705	680	705	325
		43mil (18ga)	33	1055	865	1055	390
		54mil (16ga)	50	1065	955	1065	430
		68mil (14ga)	50	1065	1025	1065	485
		97mil (12ga)	50	1065	1025	1065	775

Notes:

- Listed Capacities were derived from calculations and tests in accordance with provisions of AISI S100-16 North American Specification for Cold-Formed Steel Structural Members.
- #10-16 self-drilling HWH screws shall have minimum ultimate shear capacity of 1645 lbs.
- #10-16 self-drilling HWH screws shall have minimum ultimate tension capacity of 1160 lbs.
- 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 used with a 54mil (16ga) 50ksi jamb and a 97mil (12ga) 50ksi header, the F2 allowable design load is the minimum of 1065 lbs for the jamb and 775 lbs for the header. The allowable design value is thus 775 lbs.
- For simultaneous F1 and F2 loading, use the following interaction equation: $\left(\frac{f_1}{F_1}\right)^2 + \left(\frac{f_2}{F_2}\right)^2 \leq 1.0$
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 clip installation.

HDSC Header Bracket

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

HDSC Header Bracket

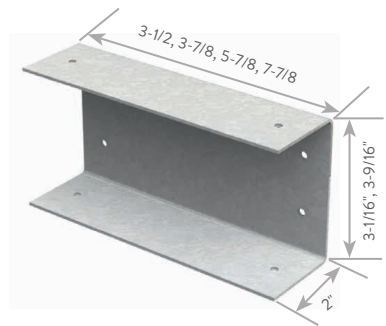
Product code	Thickness		ksi	Size (in)	Fits RedHeader PRO system size (in)
	Mils (Gauge)	Design thickness (in)			
HDSC-68	68mil (14ga)	0.0713	50	3-1/2 x 3-1/16 x 2 3-1/2 x 3-9/16 x 2	3-5/8 with 3" Flange 3-5/8 with 3-1/2" Flange
HDSC-68	68mil (14ga)	0.0713	50	3-7/8 x 3-1/16 x 2 3-7/8 x 3-9/16 x 2	4 with 3" Flange 4 with 3-1/2" Flange
HDSC-68	68mil (14ga)	0.0713	50	5-7/8 x 3-1/16 x 2 5-7/8 x 3-9/16 x 2	6 with 3" Flange 6 with 3-1/2" Flange
HDSC-68	68mil (14ga)	0.0713	50	7-7/8 x 3-1/16 x 2 7-7/8 x 3-9/16 x 2	8 with 3" Flange 8 with 3-1/2" Flange

All material G90. Sold in pairs.



HDSC Header Brackets Allowable Loads (lbs) For 3" & 3-1/2" Flange Header Systems

Product code	Size (in)	Jamb/Head Gauge		F1 (lbs)		F2 (lbs)	
		Mils (Gauge)	Fy	Jamb	Head	Jamb	Head
HDSC3-68	3-1/2	33mil (20ga)	33	705	570	705	340
		43mil (18ga)	33	1050	850	1050	500
		54mil (16ga)	50	2135	1245	2135	710
		68mil (14ga)	50	2190	1435	2190	1015
		97mil (12ga)	50	2190	1775	2190	1795
HDSC4-68	3-7/8	33mil (20ga)	33	705	595	705	375
		43mil (18ga)	33	1050	885	1050	520
		54mil (16ga)	50	2135	1245	2135	740
		68mil (14ga)	50	2190	1435	2190	1060
		97mil (12ga)	50	2190	1800	2190	1795
HDSC6-68	5-7/8	33mil (20ga)	33	705	660	705	415
		43mil (18ga)	33	1050	980	1050	520
		54mil (16ga)	50	2135	1385	2135	1005
		68mil (14ga)	50	2190	1475	2190	1490
		97mil (12ga)	50	2190	1920	2190	1795
HDSC8-68	7-7/8	33mil (20ga)	33	705	680	705	445
		43mil (18ga)	33	1050	1015	1050	540
		54mil (16ga)	50	2135	1460	2135	1075
		68mil (14ga)	50	2190	1625	2190	1540
		97mil (12ga)	50	2190	1920	2190	1795



Notes:

- Listed Capacities were derived from calculations and structural tests in accordance with provisions of AISI S100-16 North American Specification for Cold-Formed Steel Structural Members.
- #10-16 self-drilling HWH screws shall have minimum ultimate shear capacity of 1645 lbs.
- #10-16 self-drilling HWH screws shall have minimum ultimate tension capacity of 1160 lbs.
- The capacity of a given HDSC connection is the minimum of the corresponding jamb and header values. For example, for a 3-1/2" HDSC-68 bracket used with a 54mil (16ga) 50ksi jamb and a 97mil (12ga) 50ksi header, the F2 allowable design load is the minimum of 2135 lbs for the jamb and 1795 lbs for the header. The allowable design value is thus 1795 lbs.
- For simultaneous F1 and F2 loading, use the following interaction equation: $\left(\frac{F1}{F1}\right)^2 + \left(\frac{F2}{F2}\right)^2 \leq 1.0$
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 clip installation.

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

HDSC Header Bracket

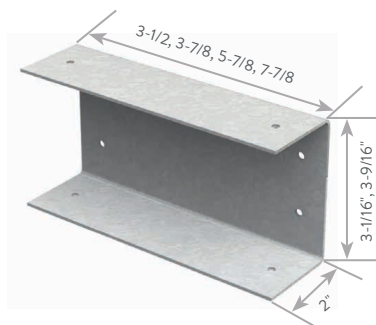
Product code	Thickness		ksi	Size (in)	Fits RedHeader PRO system size (in)
	Mils (Gauge)	Design thickness (in)			
HDSC-97	97mil (12ga)	0.1017	50	3-1/2 x 3-1/16 x 2 3-1/2 x 3-9/16 x 2	3-5/8 with 3" Flange 3-5/8 with 3-1/2" Flange
HDSC-97	97mil (12ga)	0.1017	50	3-7/8 x 3-1/16 x 2 3-7/8 x 3-9/16 x 2	4 with 3" Flange 4 with 3-1/2" Flange
HDSC-97	97mil (12ga)	0.1017	50	5-7/8 x 3-1/16 x 2 5-7/8 x 3-9/16 x 2	6 with 3" Flange 6 with 3-1/2" Flange
HDSC-97	97mil (12ga)	0.1017	50	7-7/8 x 3-1/16 x 2 7-7/8 x 3-9/16 x 2	8 with 3" Flange 8 with 3-1/2" Flange

All material G90. Sold in pairs.



HDSC Header Brackets Allowable Loads (lbs) For 3" & 3-1/2" Flange Header Systems

Product code	Size (in)	Jamb/Head Gauge		F1 (lbs)		F2 (lbs)	
		Mils (Gauge)	Fy	Jamb	Head	Jamb	Head
HDSC3-97	3-1/2	33mil (20ga)	33	755	610	755	455
		43mil (18ga)	33	1120	905	1120	590
		54mil (16ga)	50	2280	1310	2280	865
		68mil (14ga)	50	3105	1665	3105	1270
		97mil (12ga)	50	3105	1900	3105	2430
HDSC4-97	3-7/8	33mil (20ga)	33	755	635	755	455
		43mil (18ga)	33	1120	945	1120	590
		54mil (16ga)	50	2280	1485	2280	880
		68mil (14ga)	50	3105	1735	3105	1275
		97mil (12ga)	50	3105	1900	3105	2430
HDSC6-97	5-7/8	33mil (20ga)	33	755	700	755	480
		43mil (18ga)	33	1120	1045	1120	590
		54mil (16ga)	50	2280	1485	2280	1025
		68mil (14ga)	50	3105	1735	3105	1440
		97mil (12ga)	50	3105	1900	3105	2430
HDSC8-97	7-7/8	33mil (20ga)	33	755	725	755	490
		43mil (18ga)	33	1120	1080	1120	590
		54mil (16ga)	50	2280	1760	2280	1100
		68mil (14ga)	50	3105	2075	3105	1590
		97mil (12ga)	50	3105	2220	3105	2430



Notes:

- 1 Listed Capacities were derived from calculations and structural tests in accordance with provisions of AISI S100-16 North American Specification for Cold-Formed Steel Structural Members.
- 2 #12-14 self-drilling HWH screws shall have minimum ultimate shear capacity of 2330 lbs.
- 3 #12-14 self-drilling HWH screws shall have minimum ultimate tension capacity of 2325 lbs.
- 5 The capacity of a given HDSC connection is the minimum of the corresponding jamb and header capacities. For example, for a 3-1/2" HDSC-97 bracket used with a 54mil (16ga) 50ksi jamb and a 97mil (12ga) 50ksi header, the F2 allowable design load is the minimum of 2280 lbs for the jamb and 2430 lbs for the header. The allowable design value is thus 2280 lbs.
- 6 For simultaneous F1 and F2 loading, use the following interaction equation: $\left(\frac{F1}{F1}\right)^2 + \left(\frac{F1}{F1}\right)^2 \leq 1.0$
Where f1 and f2 are the applied loads and F1 and F2 are the appropriate allowable loads.
- 7 It is the responsibility of the design professional to detail the project drawings for proper HDSC clip installation.