RedHeader PRO™ PRODUCT CATALOG

ClarkDietrich

INTERIOR AND EXTERIOR FRAMING

IN CONFORMANCE WITH: IBC 2021 • AISI S100

RedHeader PRO™

RedHeader PRO™ can cut your labor time in half. It's designed to replace conventional boxed headers and built-up jambs and provide better results in half the time. One-piece headers and jambs eliminate the additional studs, track and screws required to frame conventional rough openings. Headers and jambs are also pre-cut to specified lengths to eliminate field cutting.

CONSTRUCTION ADVANTAGES:

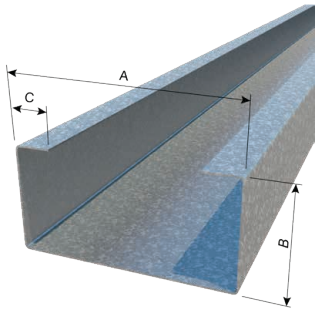
- Reduces material pieces and screws by up to 50%.
- The header easily slides into the HDSC Clip.
- Eliminates "capped" members, allowing drywall screws to drive through only one thickness of material.
- Header stud allows for easier fit of rigid insulation without additional cutting.
- Opened jamb stud does not require pre-insulating.
- SAVES LABOR in installation and handling!

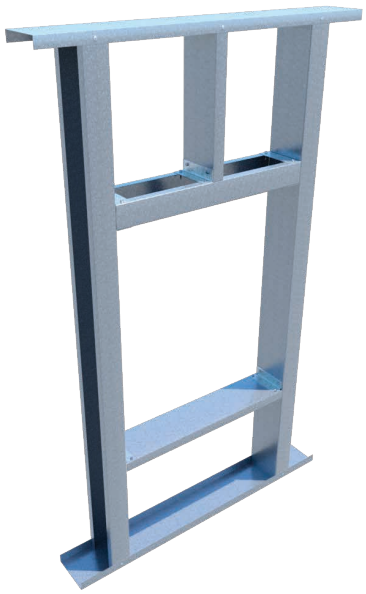
ORDERING INFORMATION:

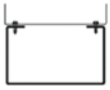
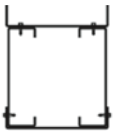
- Pre-cut headers (4'-0" and over) available standard, based on minimum quantity orders.
- Minimum quantity orders of 30 headers required.
- HEADER LENGTHS SHOULD BE ORDERED 1/2" SHORTER THAN OPENING WIDTH TO FIT INSIDE CLIPS (header length = inside of jamb to inside of jamb minus 1/2") Listed capacities are based on a maximum gap between the clip and the end of the header of 1/4".
- **All RedHeader PRO studs are unpunched.** Standard material coating is CP60 per ASTM C955; G90 available.

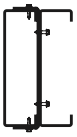
ReadHeader PRO® Profile Information

Product Code	Web Size (A)	Flange (B)	Return Lip (C)	Thickness		Fy (ksi)
				Mils (Gauge)	Design Thickness (in)	
362PRO300-33	3-5/8"	3.00"	1.00"	33 (20)	0.0346	33
362PRO300-43		3.00"		43 (18)	0.0451	33
362PRO300-54		3.00"		54 (16)	0.0566	50
362PRO300-68		3.00"		68 (14)	0.0713	50
362PRO300-97		3.00"		97 (12)	0.1017	50
362PRO350-54		3.50"		54 (16)	0.0566	50
362PRO350-68		3.50"		68 (14)	0.0713	50
362PRO350-97		3.50"		97 (12)	0.1017	50
400PRO300-33	4"	3.00"	1.00"	33 (20)	0.0346	33
400PRO300-43		3.00"		43 (18)	0.0451	33
400PRO300-54		3.00"		54 (16)	0.0566	50
400PRO300-68		3.00"		68 (14)	0.0713	50
400PRO300-97		3.00"		97 (12)	0.1017	50
400PRO350-54		3.50"		54 (16)	0.0566	50
400PRO350-68		3.50"		68 (14)	0.0713	50
400PRO350-97		3.50"		97 (12)	0.1017	50
600PRO300-33	6"	3.00"	1.00"	33 (20)	0.0346	33
600PRO300-43		3.00"		43 (18)	0.0451	33
600PRO300-54		3.00"		54 (16)	0.0566	50
600PRO300-68		3.00"		68 (14)	0.0713	50
600PRO300-97		3.00"		97 (12)	0.1017	50
600PRO350-54		3.50"		54 (16)	0.0566	50
600PRO350-68		3.50"		68 (14)	0.0713	50
600PRO350-97		3.50"		97 (12)	0.1017	50
800PRO300-43	8"	3.00"	1.00"	43 (18)	0.0451	33
800PRO300-54		3.00"		54 (16)	0.0566	33
800PRO300-68		3.00"		68 (14)	0.0713	50
800PRO300-97		3.00"		97 (12)	0.1017	50
800PRO350-54		3.50"		54 (16)	0.0566	50
800PRO350-68		3.50"		68 (14)	0.0713	50
800PRO350-97		3.50"		97 (12)	0.1017	50





One RedHeader PRO	Replaces	
		
(1) RedHeader with: (1) track for cripple attachments w/ (2) screws at 16" o.c.	Typical lay-in header with: (1) 1-5/8" flange stud & (2) tracks w/ (4) screws at 16" o.c.	Typical boxed header with: (2) 1-5/8" flange studs & (2) tracks w/ (4) screws at 16" o.c.

One RedHeader PRO jamb stud	Replaces
	
(1) RedHeader jamb stud: No track or screws required to build up sections	Typical jamb with: (2) 1-5/8" flange studs & (1) track w/ (4) screws at 16" o.c.

RedHeader PRO™ Header Studs (3" or 3-1/2" Flange) — Section Properties

Product Code	Mils (Gauge)	Fy (ksi)	Gross Section Properties								Effective Section Properties (Header without Punchout)											Torsional Properties				
			Area (in²)	Wt. (lbs/ft)	I_x (in⁴)	S_x (in³)	R_x (in)	I_y (in⁴)	S_y (in³)	R_y (in)	A_e (in²)	I_{xe} (in⁴)	I_{ye} (in⁴)	S_{xe} (in³)	S_{ye} (in³)	M_{ax_local} (in-k)	M_{ay_local} (in-k)	M_{ax_dist} (in-k)	M_{ay_dist} (in-k)	$V_{ax\text{-}g}$ (lbs)	$V_{ay\text{-}g}$ (lbs)	J*1000 (in⁴)	C_w (in⁶)	X_o (in)	m	R_o (in)	ß
362PRO300-33	33 (20)	33	0.392	1.33	0.898	0.495	1.514	0.543	0.317	1.177	0.225	0.790	0.496	0.357	0.257	7.06	5.09	8.07	5.17	1024	638	0.156	2.437	-2.979	1.709	3.543	0.293
362PRO300-43	43 (18)	33	0.509	1.73	1.159	0.640	1.509	0.700	0.408	1.173	0.357	1.092	0.676	0.521	0.360	10.30	7.11	11.41	7.29	1739	1416	0.345	3.116	-2.967	1.702	3.529	0.293
362PRO300-54	54 (16)	50	0.634	2.16	1.433	0.791	1.503	0.863	0.504	1.167	0.458	1.361	0.842	0.656	0.451	19.64	13.51	20.20	12.86	3372	2823	0.677	3.829	-2.953	1.695	3.513	0.293
362PRO300-68	68 (14)	50	0.791	2.69	1.770	0.977	1.496	1.062	0.619	1.159	0.664	1.768	1.062	0.884	0.601	26.48	17.98	26.97	17.10	4370	5350	1.341	4.695	-2.935	1.685	3.492	0.294
362PRO300-97	97 (12)	50	1.105	3.76	2.420	1.335	1.480	1.441	0.839	1.142	1.082	2.420	1.441	1.306	0.839	43.16	27.73	39.98	25.13	5943	10472	3.811	6.329	-2.897	1.665	3.448	0.294
362PRO350-54	54 (16)	50	0.691	2.35	1.614	0.890	1.528	1.240	0.627	1.340	0.474	1.482	1.212	0.691	0.566	20.69	16.95	21.31	15.00	3372	2403	0.738	5.430	-3.447	1.954	4.001	0.258
362PRO350-68	68 (14)	50	0.862	2.93	1.995	1.101	1.521	1.529	0.772	1.332	0.670	1.939	1.529	0.922	0.751	27.60	22.48	28.62	20.08	4370	4856	1.461	6.669	-3.428	1.944	3.980	0.258
362PRO350-97	97 (12)	50	1.207	4.11	2.736	1.510	1.506	2.085	1.052	1.314	1.057	2.736	2.085	1.365	1.052	40.86	34.30	44.07	30.71	5943	10885	4.162	9.022	-3.391	1.924	3.936	0.258
400PRO300-33	33 (20)	33	0.405	1.38	1.121	0.561	1.664	0.563	0.321	1.179	0.226	0.989	0.514	0.407	0.261	8.04	5.16	8.98	5.14	976	638	0.162	2.835	-2.912	1.683	3.555	0.329
400PRO300-43	43 (18)	33	0.526	1.79	1.448	0.724	1.660	0.726	0.414	1.175	0.359	1.367	0.701	0.592	0.365	11.70	7.21	12.72	7.27	1739	1416	0.356	3.628	-2.900	1.676	3.542	0.330
400PRO300-54	54 (16)	50	0.655	2.23	1.793	0.896	1.654	0.895	0.510	1.169	0.461	1.705	0.873	0.746	0.458	22.33	13.70	22.52	12.82	3372	2823	0.700	4.461	-2.886	1.668	3.526	0.330
400PRO300-68	68 (14)	50	0.818	2.78	2.216	1.108	1.646	1.102	0.628	1.161	0.669	2.213	1.102	1.005	0.609	30.10	18.23	30.15	17.09	4871	5350	1.386	5.475	-2.868	1.659	3.504	0.330
400PRO300-97	97 (12)	50	1.144	3.89	3.037	1.518	1.630	1.497	0.852	1.144	1.101	3.037	1.497	1.482	0.852	48.97	28.14	45.46	25.49	6658	10472	3.942	7.395	-2.830	1.638	3.460	0.331
400PRO350-54	54 (16)	50	0.712	2.42	2.013	1.006	1.681	1.286	0.636	1.344	0.477	1.852	1.256	0.785	0.574	23.50	17.20	23.68	14.95	3372	2403	0.760	6.333	-3.375	1.927	4.003	0.289
400PRO350-68	68 (14)	50	0.889	3.03	2.491	1.245	1.674	1.587	0.783	1.336	0.675	2.422	1.587	1.046	0.762	31.31	22.81	31.89	20.06	4871	4856	1.507	7.786	-3.357	1.917	3.982	0.289
400PRO350-97	97 (12)	50	1.245	4.24	3.423	1.712	1.658	2.165	1.068	1.319	1.076	3.423	2.165	1.545	1.068	46.25	34.82	49.34	30.78	6658	10885	4.293	10.555	-3.319	1.897	3.937	0.290
600PRO300-33	33 (20)	33	0.474	1.61	2.816	0.939	2.437	0.652	0.337	1.173	0.229	2.504	0.593	0.653	0.275	12.89	5.43	13.92	5.01	638	638	0.189	5.749	-2.598	1.548	3.750	0.520
600PRO300-43	43 (18)	33	0.616	2.10	3.645	1.215	2.433	0.841	0.435	1.169	0.365	3.457	0.811	1.009	0.384	19.95	7.59	19.90	7.13	1416	1416	0.418	7.375	-2.586	1.541	3.738	0.521
600PRO300-54	54 (16)	50	0.769	2.62	4.523	1.508	2.426	1.039	0.537	1.162	0.469	4.324	1.011	1.274	0.482	38.13	14.43	35.21	12.54	2823	2823	0.821	9.094	-2.572	1.534	3.722	0.522
600PRO300-68	68 (14)	50	0.960	3.27	5.611	1.870	2.417	1.280	0.661	1.154	0.686	5.604	1.280	1.712	0.642	51.27	19.21	47.65	16.85	5350	5350	1.627	11.200	-2.554	1.524	3.701	0.524
600PRO300-97	97 (12)	50	1.347	4.58	7.748	2.583	2.398	1.742	0.899	1.137	1.153	7.747	1.742	2.508	0.899	82.87	29.70	74.41	25.90	10472	10472	4.644	15.243	-2.516	1.504	3.657	0.527
600PRO350-54	54 (16)	50	0.825	2.81	5.023	1.674	2.467	1.491	0.671	1.344	0.485	4.660	1.455	1.335	0.607	39.97	18.18	36.57	14.65	2823	2403	0.881	12.942	-3.037	1.787	4.137	0.461
600PRO350-68	68 (14)	50	1.032	3.51	6.238	2.079	2.459	1.841	0.828	1.336	0.692	6.077	1.841	1.771	0.805	53.02	24.11	49.70	19.79	5350	4856	1.748	15.968	-3.018	1.777	4.116	0.462
600PRO350-97	97 (12)	50	1.449	4.93	8.633	2.878	2.441	2.518	1.131	1.318	1.128	8.632	2.518	2.593	1.131	77.65	36.88	78.37	30.79	10472	10885	4.994	21.811	-2.979	1.757	4.071	0.464
800PRO300-43	43 (18)	33	0.706	2.40	7.074	1.769	3.165	0.927	0.449	1.146	0.368	6.729	0.892	1.414	0.396	27.94	7.83	27.25	6.91	1051	1416	0.479	13.021	-2.340	1.428	4.099	0.674
800PRO300-54	54 (16)	50	0.882	3.00	8.792	2.198	3.158	1.145	0.554	1.139	0.473	8.429	1.114	1.814	0.497	54.32	14.89	48.21	12.15	2091	2823	0.942	16.083	-2.326	1.421	4.084	0.676
800PRO300-68	68 (14)	50	1.103	3.75	10.928	2.732	3.148	1.411	0.682	1.131	0.694	10.915	1.411	2.519	0.662	75.41	19.83	65.73	16.42	4221	5350	1.869	19.850	-2.308	1.412	4.064	0.677
800PRO300-97	97 (12)	50	1.550	5.28	15.155	3.789	3.127	1.923	0.929	1.114	1.177	15.152	1.923	3.675	0.929	121.44	30.69	104.16	25.53	10885	10472	5.345	27.132	-2.271	1.392	4.022	0.681
800PRO350-54	54 (16)	50	0.938	3.19	9.685	2.421	3.213	1.646	0.694	1.325	0.488	9.030	1.605	1.869	0.628	55.97	18.81	49.75	14.26	2091	2403	1.002	22.897	-2.766	1.668	4.442	0.612
800PRO350-68	68 (14)	50	1.174	4.00	12.048	3.012	3.203	2.034	0.857	1.316	0.700	11.758	2.034	2.596	0.833	77.74	24.95	68.06	19.35	4221	4856	1.990	28.308	-2.748	1.658	4.421	0.614
800PRO350-97	97 (12)	50	1.652	5.62	16.741	4.185	3.183	2.784	1.171	1.298	1.152	16.738	2.784	3.786	1.171	113.35	38.20	108.69	30.42	10885	10885	5.696	38.834	-2.710	1.639	4.378	0.617

Notes:
- Section properties are based on using AISI S100-16 (2020) /S2-20.
- Axial load capacities are based on full-braced condition (structural elements that are installed to provide full restraint or support, i.e. KL=0)

I_x = Gross Moment inertia about x-axis
S_x = Gross Section Modulus about x-axis
R_x = Gross Radius of gyration about x-axis
I_y = Gross moment of inerita about y-axis
S_y = Gross Section modulus about y-axis
R_y = Gross radius of gyration about y-axis
A_e = Effective area
I_{xe} = Effective Moment of Intertia about x-axis
I_{ye} = Effective Moment of Intertia about y-axis

S_{xe} = Effective Section Modulus about x-axis
S_{ye} = Effective Section Modulus about y-axis
M_{ax_local} = Allowable local moment capacity about x-axis
M_{ay_local} = Allowable local moment capacity about y-axis
M_{ax_dist} = Allowable distortional moment capacity about x-axis
M_{ay_dist} = Allowable distortional moment capacity about y-axis
V_{ax} = Shear strength capacity of section about x-axis
V_{ay} = Shear strength capacity of section about y-axis
J = St. Venant torsional constant (J x 1000)

C_w = Warping constant
X_o = Distance from shear center to the centroid along the principal axis
m = Distance from shear center to web center line
R_o = Radii of gyration
Beta = Torsional Flexural constant
L_u = Maximum unbraced length
P_Solid = Allowable Axial load for section without punchout.
P_Punchout = Allowable Axial load for section with punchout.

RedHeader PRO™ Jamb Studs (3" or 3-1/2" Flange)

Perforated Section Properties

Product Code	Mils (Gauge)	Fy (ksi)	Gross Section Properties								Effective Section Properties (Jamb without Punchout)							Torsional Properties						Lu (in)	Axial Load	
			Area (in^2)	Wt. (lbs/ft)	I_x (in^4)	S_x (in^3)	R_x (in)	I_y (in^4)	S_y (in^3)	R_y (in)	A_e (in^2)	I_{xe} (in^4)	S_{xe} (in^3)	M_{ax_local} (in-k)	M_{ax_dist} (in-k)	V_{ax} (lbs)	V_{ay} (in-k)	J*1000 (in^4)	C_w (in^6)	Xo (in)	m	R_o (in)	ß		P_solid (kips)	P_Punchout (kips)
362PRO300-33	33 (20)	33	0.392	1.33	0.898	0.495	1.514	0.543	0.317	1.177	0.204	0.791	0.324	6.39	7.92	521	638	0.156	2.437	-2.979	1.709	3.543	0.293	86.3	4.1	3.7
362PRO300-43	43 (18)	33	0.509	1.73	1.159	0.640	1.509	0.700	0.408	1.173	0.322	1.092	0.492	9.73	11.18	676	1416	0.345	3.116	-2.967	1.702	3.529	0.293	86.3	6.5	5.9
362PRO300-54	54 (16)	50	0.634	2.16	1.433	0.791	1.503	0.863	0.504	1.167	0.413	1.361	0.624	18.67	19.72	1016	2823	0.677	3.829	-2.953	1.695	3.513	0.293	70.0	12.7	11.5
362PRO300-68	68 (14)	50	0.791	2.69	1.770	0.977	1.496	1.062	0.619	1.159	0.594	1.768	0.863	25.83	26.31	1004	5350	1.341	4.695	-2.935	1.685	3.492	0.294	70.1	18.4	16.5
362PRO300-97	97 (12)	50	1.105	3.76	2.420	1.335	1.480	1.441	0.839	1.142	0.930	2.420	1.288	42.56	39.26	875	10472	3.811	6.329	-2.897	1.665	3.448	0.294	70.8	30.1	25.8
362PRO350-54	54 (16)	50	0.691	2.35	1.614	0.890	1.528	1.240	0.627	1.340	0.429	1.482	0.655	19.62	20.82	1016	2403	0.738	5.430	-3.447	1.954	4.001	0.258	78.8	13.2	11.9
362PRO350-68	68 (14)	50	0.862	2.93	1.995	1.101	1.521	1.529	0.772	1.332	0.600	1.940	0.895	26.80	27.94	1004	4856	1.461	6.669	-3.428	1.944	3.980	0.258	79.0	18.6	16.7
362PRO350-97	97 (12)	50	1.207	4.11	2.736	1.510	1.506	2.085	1.052	1.314	0.904	2.736	1.340	40.11	43.00	875	10885	4.162	9.022	-3.391	1.924	3.936	0.258	79.7	29.4	25.1
400PRO300-33	33 (20)	33	0.405	1.38	1.121	0.561	1.664	0.563	0.321	1.179	0.205	0.990	0.361	7.14	8.81	595	638	0.162	2.835	-2.912	1.683	3.555	0.329	84.9	4.1	3.8
400PRO300-43	43 (18)	33	0.526	1.79	1.448	0.724	1.660	0.726	0.414	1.175	0.324	1.367	0.552	10.91	12.47	810	1416	0.356	3.628	-2.900	1.676	3.542	0.330	84.9	6.6	5.9
400PRO300-54	54 (16)	50	0.655	2.23	1.793	0.896	1.654	0.895	0.510	1.169	0.416	1.705	0.700	20.97	21.99	1223	2823	0.700	4.461	-2.886	1.668	3.526	0.330	68.8	12.8	11.6
400PRO300-68	68 (14)	50	0.818	2.78	2.216	1.108	1.646	1.102	0.628	1.161	0.601	2.213	0.973	29.13	29.42	1356	5350	1.386	5.475	-2.868	1.659	3.504	0.330	68.9	18.6	16.7
400PRO300-97	97 (12)	50	1.144	3.89	3.037	1.518	1.630	1.497	0.852	1.144	0.968	3.037	1.465	48.41	44.63	1207	10472	3.942	7.395	-2.830	1.638	3.460	0.331	69.4	30.6	26.9
400PRO350-54	54 (16)	50	0.712	2.42	2.013	1.006	1.681	1.286	0.636	1.344	0.432	1.852	0.735	22.01	23.15	1223	2403	0.760	6.333	-3.375	1.927	4.003	0.289	77.6	13.2	12.0
400PRO350-68	68 (14)	50	0.889	3.03	2.491	1.245	1.674	1.587	0.783	1.336	0.607	2.423	1.007	30.16	31.13	1356	4856	1.507	7.786	-3.357	1.917	3.982	0.289	77.8	18.8	16.9
400PRO350-97	97 (12)	50	1.245	4.24	3.423	1.712	1.658	2.165	1.068	1.319	0.942	3.423	1.520	45.51	48.14	1207	10885	4.293	10.555	-3.319	1.897	3.937	0.290	78.3	29.9	26.2
600PRO300-33	33 (20)	33	0.474	1.61	2.816	0.939	2.437	0.652	0.337	1.173	0.208	2.506	0.652	12.89	13.68	638	638	0.189	5.749	-2.598	1.548	3.750	0.520	81.1	4.2	3.8
600PRO300-43	43 (18)	33	0.616	2.10	3.645	1.215	2.433	0.841	0.435	1.169	0.330	3.457	1.009	19.95	19.53	1240	1416	0.418	7.375	-2.586	1.541	3.738	0.521	81.0	6.7	6.0
600PRO300-54	54 (16)	50	0.769	2.62	4.523	1.508	2.426	1.039	0.537	1.162	0.424	4.324	1.274	38.13	34.44	1947	2823	0.821	9.094	-2.572	1.534	3.722	0.522	65.6	13.0	11.8
600PRO300-68	68 (14)	50	0.960	3.27	5.611	1.870	2.417	1.280	0.661	1.154	0.617	5.604	1.712	51.27	46.55	2879	5350	1.627	11.200	-2.554	1.524	3.701	0.524	65.5	19.0	17.1
600PRO300-97	97 (12)	50	1.347	4.58	7.748	2.583	2.398	1.742	0.899	1.137	1.025	7.747	2.508	82.87	72.65	3805	10472	4.644	15.243	-2.516	1.504	3.657	0.527	65.5	32.0	28.5
600PRO350-54	54 (16)	50	0.825	2.81	5.023	1.674	2.467	1.491	0.671	1.344	0.440	4.660	1.335	39.97	35.80	1947	2403	0.881	12.942	-3.037	1.787	4.137	0.461	74.4	13.5	12.2
600PRO350-68	68 (14)	50	1.032	3.51	6.238	2.079	2.459	1.841	0.828	1.336	0.623	6.084	1.771	53.02	48.60	2879	4856	1.748	15.968	-3.018	1.777	4.116	0.462	74.4	19.2	17.3
600PRO350-97	97 (12)	50	1.449	4.93	8.633	2.878	2.441	2.518	1.131	1.318	1.000	8.632	2.593	77.65	76.53	3805	10885	4.994	21.811	-2.979	1.757	4.071	0.464	74.4	31.3	27.8
800PRO300-43	43 (18)	33	0.706	2.40	7.074	1.769	3.165	0.927	0.449	1.146	0.332	6.730	1.414	27.94	26.77	1051	1416	0.479	13.021	-2.340	1.428	4.099	0.674	79.2	6.7	6.1
800PRO300-54	54 (16)	50	0.882	3.00	8.792	2.198	3.158	1.145	0.554	1.139	0.427	8.429	1.814	54.32	47.22	2091	2823	0.942	16.083	-2.326	1.421	4.084	0.676	64.1	13.1	11.9
800PRO300-68	68 (14)	50	1.103	3.75	10.928	2.732	3.148	1.411	0.682	1.131	0.623	10.915	2.519	75.41	64.29	3367	5350	1.869	19.850	-2.308	1.412	4.064	0.677	64.0	19.3	17.3
800PRO300-97	97 (12)	50	1.550	5.28	15.155	3.789	3.127	1.923	0.929	1.114	1.043	15.152	3.675	121.44	101.77	5938	10472	5.345	27.132	-2.271	1.392	4.022	0.681	63.7	32.7	29.0
800PRO350-54	54 (16)	50	0.938	3.19	9.685	2.421	3.213	1.646	0.694	1.325	0.443	9.031	1.869	55.97	48.77	2091	2403	1.002	22.897	-2.766	1.668	4.442	0.612	73.1	13.6	12.3
800PRO350-68	68 (14)	50	1.174	4.00	12.048	3.012	3.203	2.034	0.857	1.316	0.629	11.773	2.596	77.74	66.63	3367	4856	1.990	28.308	-2.748	1.658	4.421	0.614	72.9	19.4	17.5
800PRO350-97	97 (12)	50	1.652	5.62	16.741	4.185	3.183	2.784	1.171	1.298	1.018	16.738	3.786	113.35	106.24	5938	10885	5.696	38.834	-2.710	1.639	4.378	0.617	72.7	32.0	28.3

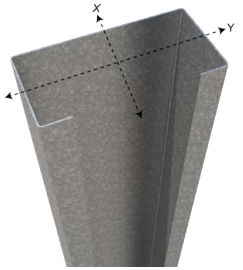
Notes:

- Section properties are based on using AISI S100-16 (2020) /S2-20.
- Axial load capacities are based on full-braced condition (structural elements that are installed to provide full restraint or support, i.e. KL=0)
- Jamb stud section properties are based on a punched jamb stud.

I_x = Gross Moment inertia about x-axis
S_x = Gross Section Modulus about x-axis
R_x = Gross Radius of gyration about x-axis
I_y = Gross moment of inerita about y-axis
S_y = Gross Section modulus about y-axis
R_y = Gross radius of gyration about y-axis
A_e = Effective area
I_{xe} = Effective Moment of Intertia about x-axis
I_{ye} = Effective Moment of Intertia about y-axis

S_{xe} = Effective Section Modulus about x-axis
S_{ye} = Effective Section Modulus about y-axis
M_{ax_local} = Allowable local moment capcity about x-axis
M_{ay_local} = Allowable local moment capacity about y-axis
M_{ax_dist} = Allowable distortional moment capacity about x-axis
M_{ay_dist} = Allowable distortional moment capacity about y-axis
V_{ax} = Shear strength capacity of section about x-axis
V_{ay} = Shear strength capacity of section about y-axis
J = St. Venant torsional constant (J x 1000)

C_w = Warping constant
Xo = Distance from shear center to the centroid along the principal axis
m = Distance from shear center to web center line
R_o = Radii of gyration
Beta = Torsional flexural constant
L_u = Maximum unbraced length
P_Solid = Allowable Axial load for section without punchout.
P_Punchout = Allowable Axial load for section with punchout.

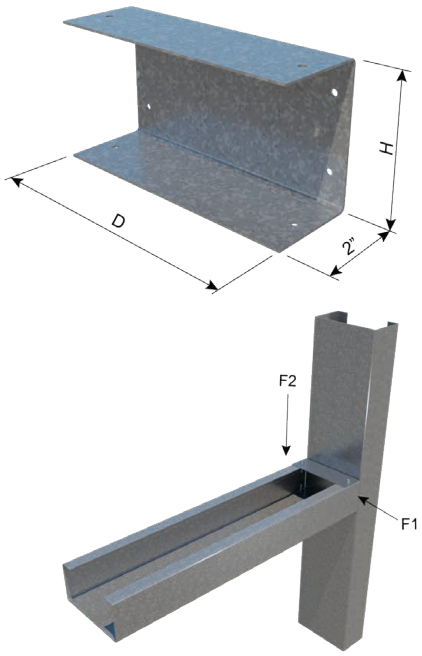


HDSC 33mil (20ga) Header Brackets (3" & 3-1/2" Flange)

CLIP EXPRESS

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)					
							F1 Load (Lateral)			F2 Load (Vertical)		
	Depth (D)	Height (H)	Thickness Mils (Gauge)	Yield Strength, Fy (ksi)	Jamb	Header	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
387HDSC300-33	3-7/8"	3"	33 (20)	33	4 x #10	4 x #10	1090	560	895	1110	220	220
			43 (18)	33			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
387HDSC350-33	3-7/8"	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			2560	1060	1595	1935	455	455
587HDSC300-33	5-7/8"	3"	33 (20)	33	4 x #10	4 x #10	1150	590	945	1050	205	205
			43 (18)	33			1410	720	1155	1765	320	320
			54 (16)	50			2085	1060	1595	2130	320	320
			68 (14)	50			2290	1060	1595	1435	425	425
			97 (12)	50			2875	1060	1595	1750	450	450
587HDSC350-33	5-7/8"	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			2560	1060	1595	1935	455	455
787HDSC300-33	7-7/8"	3"	33 (20)	33	4 x #10	4 x #10	1210	620	995	990	190	190
			43 (18)	33			1540	790	1265	1630	270	270
			54 (16)	50			2045	1050	1595	2130	310	310
			68 (14)	50			2195	1060	1595	1395	385	385
			97 (12)	50			2875	1060	1595	1750	450	450
787HDSC350-33	7-7/8"	3-1/2"	54 (16)	50	4 x #10	4 x #10	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:

1 Listed Capacities were derived from calculations and structural tests in accordance with provisions of AISI S100 and ICC-ES AC261.

2 The safety factor for ASD loads and resistance factor for LRFD loads are calculated in accordance with Chapter K.

3 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 54mil (16ga) 50 ksi jamb and a 97mil (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.

4 #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.

5 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.

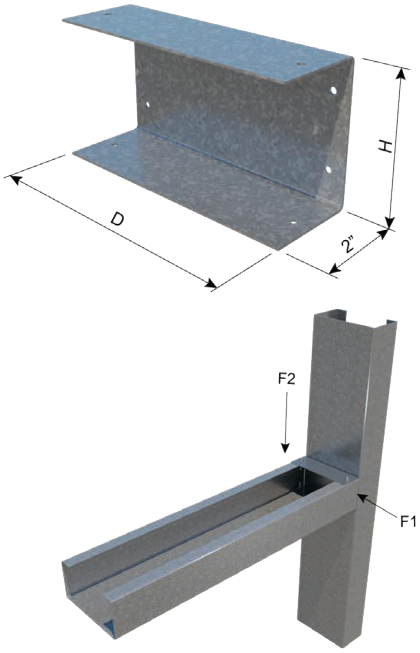
6 It is the responsibility of the design professional to detail the project drawings for proper HDSC bracket installation.

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

CLIP EXPRESS

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)					
							F1 Load (Lateral)			F2 Load (Vertical)		
	Depth (D)	Height (H)	Thickness Mils (Gauge)	Yield Strength, Fy (ksi)	Jamb	Header	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:

1 Listed Capacities were derived from calculations and structural tests in accordance with provisions of AISI S100 and ICC-ES AC261.

2 The safety factor for ASD loads and resistance factor for LRFD loads are calculated in accordance with Chapter K.

3 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 54mil (16ga) 50 ksi jamb and a 97mil (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.

4 #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.

5 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.

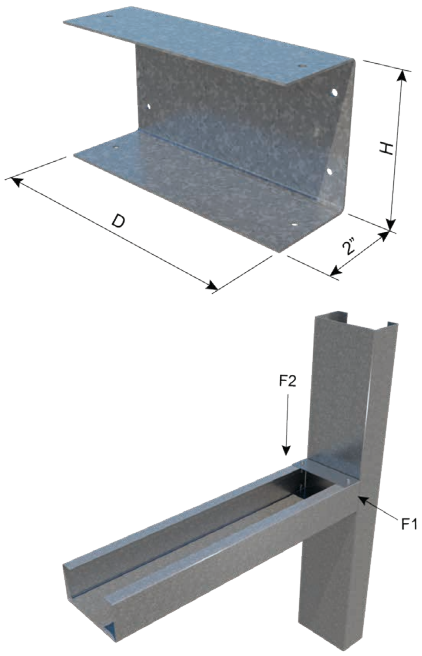
6 It is the responsibility of the design professional to detail the project drawings for proper HDSC bracket installation.

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

CLIP EXPRESS

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)					
							F1 Load (Lateral)			F2 Load (Vertical)		
	Depth (D)	Height (H)	Thickness Mils (Gauge)	Yield Strength, Fy (ksi)	Jamb	Header	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
387HDSC300-97	3-7/8"	3"	33 (20)	33	4 x #12	4 x #12	1405	720	1130	885	305	550
			43 (18)	33			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
387HDSC350-97	3-7/8"	3-1/2"	54 (16)	50	4 x #12	4 x #12	3975	1365	2185	2230	765	1620
			68 (14)	50			4195	1445	2310	3630	1250	2080
			97 (12)	50			6185	2130	3405	5500	1890	2455
587HDSC300-97	5-7/8"	3"	33 (20)	33	4 x #12	4 x #12	1370	700	1125	895	305	610
			43 (18)	33			2345	1120	1680	1400	480	820
			54 (16)	50			4340	1475	2390	2615	900	1500
			68 (14)	50			4340	1490	2390	3465	1190	2000
			97 (12)	50			5930	2040	3265	6065	2085	2740
587HDSC350-97	5-7/8"	3-1/2"	54 (16)	50	4 x #12	4 x #12	3870	1330	2130	2310	795	1690
			68 (14)	50			4195	1445	2310	3630	1250	2080
			97 (12)	50			6060	2085	3335	5840	2010	2400
787HDSC300-97	7-7/8"	3"	33 (20)	33	4 x #12	4 x #12	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
			97 (12)	50			5770	1985	3175	6085	2090	2710
787HDSC350-97	7-7/8"	3-1/2"	54 (16)	50	4 x #12	4 x #12	4070	1400	2240	2625	905	1505
			68 (14)	50			4125	1420	2270	3685	1265	2070
			97 (12)	50			5935	2040	3265	6180	2125	2350

Notes:

1 Listed Capacities were derived from calculations and structural tests in accordance with provisions of AISI S100 and ICC-ES AC261.

2 The safety factor for ASD loads and resistance factor for LRFD loads are calculated in accordance with Chapter K.

3 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 54mil (16ga) 50 ksi jamb and a 97mil (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.

4 #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.

5 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.

6 It is the responsibility of the design professional to detail the project drawings for proper HDSC bracket installation.

Allowable RedHeader PRO™ Header Spans for Window and Door Openings — Interior Span Chart

Wall Height (ft)	Wall Size (in)	Member	Mils (Gauge)	Yield Strength, Fy (ksi)	Flange (in)	Interior Allowable Spans: Lateral Load (psf) = 5, Dead Load (psf) = 10 — Strong Axis Deflection Targets — L/120 — Opening Heights 7		8		9		L/240 — 7		8		9		L/360 — 7		8		9	
9	3-5/8	362PRO300-33	33 (20)	33	3	10'-0"	1	11'-10"	1	—		10'-0"	1	11'-10"	1	—		10'-0"	1	11'-6"	1	—	
		362PRO300-43	43 (18)	33	3	11'-9"	2	14'-0"	2	—		11'-9"	2	14'-0"	2	—		11'-9"	2	12'-10"	2	—	
		362PRO300-54	54 (16)	50	3	12'-10"	2	15'-3"	2	—		12'-10"	2	15'-3"	2	—		12'-10"	2	13'-9"	2	—	
		362PRO300-68	68 (14)	50	3	13'-7"	2	16'-0"	2	—		13'-7"	2	16'-2"	2	—		13'-7"	2	15'-1"	2	—	
		362PRO300-97	97 (12)	50	3	14'-8"	3	16'-0"	3	—		14'-8"	3	17'-6"	3	—		14'-8"	3	16'-9"	3	—	
	6	600PRO300-33	33 (20)	33	3	10'-11"	1	13'-8"	1	—		10'-11"	1	13'-8"	1	—		10'-11"	1	13'-8"	1	—	
		600PRO300-43	43 (18)	33	3	12'-9"	2	15'-2"	2	—		12'-9"	2	15'-2"	2	—		12'-9"	2	15'-2"	2	—	
		600PRO300-54	54 (16)	50	3	13'-5"	2	16'-0"	2	—		13'-5"	2	16'-0"	2	—		13'-5"	2	16'-0"	2	—	
		600PRO300-68	68 (14)	50	3	14'-3"	2	16'-0"	2	—		14'-3"	2	17'-0"	2	—		14'-3"	2	17'-0"	2	—	
		600PRO300-97	97 (12)	50	3	15'-5"	3	16'-0"	3	—		15'-5"	3	18'-4"	3	—		15'-5"	3	18'-4"	3	—	
11	3-5/8	362PRO300-33	33 (20)	33	3	7'-9"	1	8'-7"	1	9'-9"	1	7'-9"	1	8'-7"	1	9'-9"	1	7'-9"	1	8'-7"	1	9'-9"	1
		362PRO300-43	43 (18)	33	3	9'-1"	2	10'-1"	2	11'-6"	2	9'-1"	2	10'-1"	2	11'-6"	2	9'-1"	2	10'-1"	2	11'-6"	2
		362PRO300-54	54 (16)	50	3	10'-10"	2	11'-7"	2	12'-10"	2	10'-10"	2	11'-7"	2	12'-10"	2	10'-10"	2	11'-7"	2	12'-10"	2
		362PRO300-68	68 (14)	50	3	11'-5"	2	12'-4"	2	13'-7"	2	11'-5"	2	12'-4"	2	13'-7"	2	11'-5"	2	12'-4"	2	13'-7"	2
		362PRO300-97	97 (12)	50	3	12'-4"	3	13'-3"	3	14'-8"	3	12'-4"	3	13'-3"	3	14'-8"	3	12'-4"	3	13'-3"	3	14'-8"	3
	6	600PRO300-33	33 (20)	33	3	8'-2"	1	9'-3"	1	10'-9"	1	8'-2"	1	9'-3"	1	10'-9"	1	8'-2"	1	9'-3"	1	10'-9"	1
		600PRO300-43	43 (18)	33	3	9'-10"	2	11'-1"	2	12'-9"	2	9'-10"	2	11'-1"	2	12'-9"	2	9'-10"	2	11'-1"	2	12'-9"	2
		600PRO300-54	54 (16)	50	3	11'-4"	2	12'-2"	2	13'-5"	2	11'-4"	2	12'-2"	2	13'-5"	2	11'-4"	2	12'-2"	2	13'-5"	2
		600PRO300-68	68 (14)	50	3	12'-0"	2	12'-11"	2	14'-3"	2	12'-0"	2	12'-11"	2	14'-3"	2	12'-0"	2	12'-11"	2	14'-3"	2
		600PRO300-97	97 (12)	50	3	13'-0"	3	14'-0"	3	15'-5"	3	13'-0"	3	14'-0"	3	15'-5"	3	13'-0"	3	14'-0"	3	15'-5"	3
13	3-5/8	362PRO300-33	33 (20)	33	3	6'-6"	2	7'-1"	1	7'-9"	1	6'-6"	2	7'-1"	1	7'-9"	1	6'-6"	2	7'-1"	1	7'-9"	1
		362PRO300-43	43 (18)	33	3	7'-8"	2	8'-4"	2	9'-1"	2	7'-8"	2	8'-4"	2	9'-1"	2	7'-8"	2	8'-4"	2	9'-1"	2
		362PRO300-54	54 (16)	50	3	9'-8"	2	10'-2"	2	10'-10"	2	9'-8"	2	10'-2"	2	10'-10"	2	9'-8"	2	10'-2"	2	10'-10"	2
		362PRO300-68	68 (14)	50	3	10'-4"	2	10'-10"	2	11'-5"	2	10'-4"	2	10'-10"	2	11'-5"	2	10'-4"	2	10'-10"	2	11'-5"	2
		362PRO300-97	97 (12)	50	3	11'-2"	3	11'-8"	3	12'-4"	3	11'-2"	3	11'-8"	3	12'-4"	3	11'-2"	3	11'-8"	3	12'-4"	3
	6	600PRO300-33	33 (20)	33	3	6'-10"	2	7'-5"	1	8'-2"	1	6'-10"	2	7'-5"	1	8'-2"	1	6'-10"	2	7'-5"	1	8'-2"	1
		600PRO300-43	43 (18)	33	3	8'-2"	2	8'-11"	2	9'-9"	2	8'-2"	2	8'-11"	2	9'-9"	2	8'-2"	2	8'-11"	2	9'-9"	2
		600PRO300-54	54 (16)	50	3	10'-3"	2	10'-8"	2	11'-4"	2	10'-3"	2	10'-8"	2	11'-4"	2	10'-3"	2	10'-8"	2	11'-4"	2
		600PRO300-68	68 (14)	50	3	10'-10"	2	11'-4"	2	12'-0"	2	10'-10"	2	11'-4"	2	12'-0"	2	10'-10"	2	11'-4"	2	12'-0"	2
		600PRO300-97	97 (12)	50	3	11'-8"	3	12'-3"	3	13'-0"	3	11'-8"	3	12'-3"	3	13'-0"	3	11'-8"	3	12'-3"	3	13'-0"	3
15	3-5/8	362PRO300-33	33 (20)	33	3	5'-9"	2	6'-1"	2	6'-6"	2	5'-9"	2	6'-1"	2	6'-6"	2	5'-9"	2	6'-1"	2	6'-6"	2
		362PRO300-43	43 (18)	33	3	6'-9"	2	7'-2"	2	7'-8"	2	6'-9"	2	7'-2"	2	7'-8"	2	6'-9"	2	7'-2"	2	7'-8"	2
		362PRO300-54	54 (16)	50	3	8'-10"	2	9'-2"	2	9'-8"	2	8'-10"	2	9'-2"	2	9'-8"	2	8'-10"	2	9'-2"	2	9'-8"	2
		362PRO300-68	68 (14)	50	3	9'-6"	2	10'-0"	2	10'-4"	2	9'-6"	2	10'-0"	2	10'-4"	2	9'-6"	2	10'-0"	2	10'-4"	2
		362PRO300-97	97 (12)	50	3	10'-5"	3	10'-9"	3	11'-2"	3	10'-5"	3	10'-9"	3	11'-2"	3	10'-5"	3	10'-9"	3	11'-2"	3
	6	600PRO300-33	33 (20)	33	3	6'-0"	2	6'-5"	2	6'-10"	2	6'-0"	2	6'-5"	2	6'-10"	2	6'-0"	2	6'-5"	2	6'-10"	2
		600PRO300-43	43 (18)	33	3	7'-2"	2	7'-8"	2	8'-2"	2	7'-2"	2	7'-8"	2	8'-2"	2	7'-2"	2	7'-8"	2	8'-2"	2
		600PRO300-54	54 (16)	50	3	9'-4"	2	9'-9"	2	10'-3"	2	9'-4"	2	9'-9"	2	10'-3"	2	9'-4"	2	9'-9"	2	10'-3"	2
		600PRO300-68	68 (14)	50	3	10'-1"	2	10'-5"	2	10'-10"	2	10'-1"	2	10'-5"	2	10'-10"	2	10'-1"	2	10'-5"	2	10'-10"	2
		600PRO300-97	97 (12)	50	3	10'-11"	3	11'-3"	3	11'-8"	3	10'-11"	3	11'-3"	3	11'-8"	3	10'-11"	3	11'-3"	3	11'-8"	3

Span notes: (Reference number shown to the right of spans)

1 Use 20ga (33mil) HDSC™ Clip with a 4/4 screw pattern.

2 Use 14ga (68mil) HDSC™ Clip with a 4/4 screw pattern

3 Use 12ga (97mil) HDSC™ Clip with a 4/4 screw pattern.

Notes:

1 All headers require the attachment of the HDSC™ Clip at each end with headers installed open side up.

2 Recommended HDSC™ Clip attachments above are based on the jamb stud thickness being equal to or greater than header thickness.

3 Header framing was calculated with a sill height of 0" for worst case design.

4 Section properties are based on the AISI S100-16 (2020) w/S2-20.

5 Increase strength in cold work of forming was used per AISI S100 section A3.3.2.

6 For deflection calculations, the effective moment of inertia was used. Reference the AISI S100 commentary B5.

7 On interior framing, lateral deflection calculations are based on using 1.0 times the interior lateral load.

8 Dead load deflection calculations are limited to L/240 or 0.5" max. deflection.

9 For Wall Dead Load calculations, 10psf is used for interior framing and 12psf is used for exterior framing.

10 Header lengths should be ordered 1/2" shorter to fit inside clips. Listed capacities are based on a maximum gap between the clip and the end of the header of 1/4".

11 Spans listed are based on unpunched members.

12 Span tables are based on ASD load capacities for the HDSC clip.

Allowable RedHeader PRO™ Header Spans for Window and Door Openings

Exterior Span Chart

Wall Height (ft)	Wall Size (in)	Member	Mils (Gauge)	Yield Strength, Fy (ksi)	Flange (in)	Exterior Allowable Spans: Lateral Load (psf) = 25, Dead Load (psf) = 12 — Strong Axis Deflection Targets — L/240 — Opening Heights: 7		8		9		L/360 — 7		8		9		L/600 — 7		8		9	
9	3-5/8	362PRO300-33	33 (20)	33	3	6'-5"	1	7'-3"	1	—		6'-5"	1	7'-3"	1	—		6'-4"	1	6'-4"	1	—	
		362PRO300-43	43 (18)	33	3	7'-6"	2	8'-3"	2	—		7'-6"	2	8'-3"	2	—		7'-1"	2	7'-1"	2	—	
		362PRO300-54	54 (16)	50	3	9'-10"	2	10'-5"	2	—		9'-1"	2	9'-1"	2	—		7'-8"	2	7'-8"	2	—	
		362PRO300-68	68 (14)	50	3	11'-3"	2	11'-4"	2	—		9'-11"	2	9'-11"	2	—		8'-4"	2	8'-4"	2	—	
		362PRO300-97	97 (12)	50	3	12'-7"	3	12'-7"	3	—		11'-0"	3	11'-0"	3	—		9'-3"	3	9'-3"	3	—	
	6	600PRO300-33	33 (20)	33	3	7'-7"	1	8'-7"	1	—		7'-7"	1	8'-7"	1	—		7'-7"	1	8'-7"	1	—	
		600PRO300-43	43 (18)	33	3	9'-0"	2	10'-3"	2	—		9'-0"	2	10'-3"	2	—		9'-0"	2	10'-3"	2	—	
		600PRO300-54	54 (16)	50	3	11'-9"	2	13'-2"	2	—		11'-9"	2	13'-2"	2	—		11'-3"	2	11'-3"	2	—	
		600PRO300-68	68 (14)	50	3	13'-6"	2	15'-2"	2	—		13'-6"	2	14'-7"	2	—		12'-3"	2	12'-3"	2	—	
		600PRO300-97	97 (12)	50	3	14'-9"	3	16'-0"	3	—		14'-9"	3	16'-3"	3	—		13'-8"	3	13'-8"	3	—	
11	3-5/8	362PRO300-33	33 (20)	33	3	5'-4"	1	5'-10"	1	6'-5"	1	5'-4"	1	5'-10"	1	6'-5"	1	5'-4"	1	5'-10"	1	6'-0"	1
		362PRO300-43	43 (18)	33	3	6'-3"	2	6'-10"	2	7'-5"	2	6'-3"	2	6'-10"	2	7'-5"	2	6'-3"	2	6'-8"	2	6'-8"	2
		362PRO300-54	54 (16)	50	3	8'-3"	2	8'-10"	2	9'-7"	2	8'-3"	2	8'-6"	2	8'-6"	2	7'-2"	2	7'-2"	2	7'-2"	2
		362PRO300-68	68 (14)	50	3	9'-5"	2	10'-1"	2	10'-7"	2	9'-3"	2	9'-3"	2	9'-3"	2	7'-10"	2	7'-10"	2	7'-10"	2
		362PRO300-97	97 (12)	50	3	11'-5"	3	11'-9"	3	11'-9"	3	10'-3"	3	10'-3"	3	10'-3"	3	8'-8"	3	8'-8"	3	8'-8"	3
	6	600PRO300-33	33 (20)	33	3	6'-2"	2	6'-9"	1	7'-6"	1	6'-2"	2	6'-9"	1	7'-6"	1	6'-2"	2	6'-9"	1	7'-6"	1
		600PRO300-43	43 (18)	33	3	7'-4"	2	8'-0"	2	8'-11"	2	7'-4"	2	8'-0"	2	8'-11"	2	7'-4"	2	8'-0"	2	8'-11"	2
		600PRO300-54	54 (16)	50	3	9'-6"	2	10'-4"	2	11'-4"	2	9'-6"	2	10'-4"	2	11'-4"	2	9'-6"	2	10'-4"	2	10'-6"	2
		600PRO300-68	68 (14)	50	3	11'-0"	2	11'-10"	2	13'-0"	2	11'-0"	2	11'-10"	2	13'-0"	2	11'-0"	2	11'-6"	2	11'-6"	2
		600PRO300-97	97 (12)	50	3	12'-5"	3	13'-4"	3	14'-9"	3	12'-5"	3	13'-4"	3	14'-9"	3	12'-5"	3	12'-9"	3	12'-9"	3
13	3-5/8	362PRO300-33	33 (20)	33	3	4'-8"	2	5'-0"	2	5'-4"	1	4'-8"	2	5'-0"	2	5'-4"	1	4'-8"	2	5'-0"	2	5'-4"	1
		362PRO300-43	43 (18)	33	3	5'-6"	2	5'-10"	2	6'-3"	2	5'-6"	2	5'-10"	2	6'-3"	2	5'-6"	2	5'-10"	2	6'-3"	2
		362PRO300-54	54 (16)	50	3	7'-3"	2	7'-8"	2	8'-3"	2	7'-3"	2	7'-8"	2	8'-0"	2	6'-9"	2	6'-9"	2	6'-9"	2
		362PRO300-68	68 (14)	50	3	8'-4"	2	8'-9"	2	9'-4"	2	8'-4"	2	8'-9"	2	8'-9"	2	7'-4"	2	7'-4"	2	7'-4"	2
		362PRO300-97	97 (12)	50	3	10'-0"	3	10'-6"	3	11'-1"	3	9'-9"	3	9'-9"	3	9'-9"	3	8'-2"	3	8'-2"	3	8'-2"	3
	6	600PRO300-33	33 (20)	33	3	5'-3"	2	5'-8"	2	6'-2"	2	5'-3"	2	5'-8"	2	6'-2"	2	5'-3"	2	5'-8"	2	6'-2"	2
		600PRO300-43	43 (18)	33	3	6'-4"	2	6'-9"	2	7'-4"	2	6'-4"	2	6'-9"	2	7'-4"	2	6'-4"	2	6'-9"	2	7'-4"	2
		600PRO300-54	54 (16)	50	3	8'-3"	2	8'-9"	2	9'-5"	2	8'-3"	2	8'-9"	2	9'-5"	2	8'-3"	2	8'-9"	2	9'-5"	2
		600PRO300-68	68 (14)	50	3	9'-6"	2	10'-1"	2	10'-9"	2	9'-6"	2	10'-1"	2	10'-9"	2	9'-6"	2	10'-1"	2	10'-9"	2
		600PRO300-97	97 (12)	50	3	11'-2"	3	11'-8"	3	12'-5"	3	11'-2"	3	11'-8"	3	12'-5"	3	11'-2"	3	11'-8"	3	12'-1"	3
15	3-5/8	362PRO300-33	33 (20)	33	3	4'-2"	2	4'-5"	2	4'-8"	2	4'-2"	2	4'-5"	2	4'-8"	2	4'-2"	2	4'-5"	2	4'-8"	2
		362PRO300-43	43 (18)	33	3	4'-11"	2	5'-2"	2	5'-6"	2	4'-11"	2	5'-2"	2	5'-6"	2	4'-11"	2	5'-2"	2	5'-6"	2
		362PRO300-54	54 (16)	50	3	6'-7"	2	6'-11"	2	7'-3"	2	6'-7"	2	6'-11"	2	7'-3"	2	6'-5"	2	6'-5"	2	6'-5"	2
		362PRO300-68	68 (14)	50	3	7'-6"	2	7'-10"	2	8'-3"	2	7'-6"	2	7'-10"	2	8'-3"	2	7'-0"	2	7'-0"	2	7'-0"	2
		362PRO300-97	97 (12)	50	3	9'-1"	3	9'-5"	3	9'-10"	3	9'-1"	3	9'-3"	3	9'-3"	3	7'-10"	3	7'-10"	3	7'-10"	3
	6	600PRO300-33	33 (20)	33	3	4'-8"	2	5'-0"	2	5'-3"	2	4'-8"	2	5'-0"	2	5'-3"	2	4'-8"	2	5'-0"	2	5'-3"	2
		600PRO300-43	43 (18)	33	3	5'-7"	2	6'-0"	2	6'-4"	2	5'-7"	2	6'-0"	2	6'-4"	2	5'-7"	2	6'-0"	2	6'-4"	2
		600PRO300-54	54 (16)	50	3	7'-4"	2	7'-9"	2	8'-2"	2	7'-4"	2	7'-9"	2	8'-2"	2	7'-4"	2	7'-9"	2	8'-2"	2
		600PRO300-68	68 (14)	50	3	8'-6"	2	8'-11"	2	9'-5"	2	8'-6"	2	8'-11"	2	9'-5"	2	8'-6"	2	8'-11"	2	9'-5"	2
		600PRO300-97	97 (12)	50	3	10'-5"	3	10'-9"	3	11'-2"	3	10'-5"	3	10'-9"	3	11'-2"	3	10'-5"	3	10'-9"	3	11'-2"	3

Span notes: (Reference number shown to the right of spans)

1 Use 20ga (33mil) HDSC™ Clip with a 4/4 screw pattern.

2 Use 14ga (68mil) HDSC™ Clip with a 4/4 screw pattern.

3 Use 12ga (97mil) HDSC™ Clip with a 4/4 screw pattern.

Notes:

1 All headers require the attachment of the HDSC™ Clip at each end with headers installed open side up.

2 Recommended HDSC™ Clip attachments above are based on the jamb stud thickness being equal to or greater than header thickness.

3 Header framing was calculated with a sill height of 0" for worst case design.

4 Section properties are based on the AISI S100-16 (2020) w/S2-20.

5 Increase strength in cold work of forming was used per AISI S100 section A3.3.2.

6 For deflection calculations, the effective moment of inertia was used. Reference the AISI S100 commentary B5.

7 On exterior framing, lateral deflection calculations are using 0.7 times the wind load.

8 Dead load deflection calculations are limited to L/240 or 0.5" max. deflection.

9 For Wall Dead Load calculations, 10psf is used for interior framing and 12psf is used for exterior framing.

10 Header lengths should be ordered 1/2" shorter to fit inside clips. Listed capacities are based on a maximum gap between the clip and the end of the header of 1/4".

11 Spans listed are based on unpunched members.

12 Span tables are based on ASD load capacities for the HDSC clip.

Allowable Opening Width for Single RedHeader Pro™ Framing Used As Jamb Studs For Window Opening

Windows: Interior and Exterior Span Chart

Wall Height (ft)	Wall Size (in)	Member	Mils (Gauge)	Yield Strength, Fy (ksi)	Flange (in)	Interior: Lateral Load (psf) = 5, Dead Load (psf) = 10						Exterior: Lateral Load (psf) = 25, Dead Load (psf) = 12					
						Strong Axis Deflection Targets						Strong Axis Deflection Targets					
						L/120		L/240		L/360		L/240		L/360		L/600	
						Sill Height (ft)						Sill Height (ft)					
						2	3	2	3	2	3	2	3	2	3	2	3
9	3-5/8	362PRO300-33	33 (20)	33	3	7'-8"	8'-6"	7'-8"	8'-6"	7'-8"	8'-6"	—	—	—	—	—	—
		362PRO300-43	43 (18)	33	3	14'-1"	16'-0"	14'-1"	16'-0"	14'-1"	16'-0"	—	—	—	—	—	—
		362PRO300-54	54 (16)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	5'-0"	5'-5"	5'-0"	5'-5"	4'-3"	3'-10"
		362PRO300-68	68 (14)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	8'-8"	9'-9"	8'-8"	9'-9"	6'-5"	5'-8"
		362PRO300-97	97 (12)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	15'-11"	9'-10"	8'-8"
	6	600PRO300-33	33 (20)	33	3	7'-4"	8'-2"	7'-4"	8'-2"	7'-4"	8'-2"	—	—	—	—	—	—
		600PRO300-43	43 (18)	33	3	13'-7"	15'-5"	13'-7"	15'-5"	13'-7"	15'-5"	—	—	—	—	—	—
		600PRO300-54	54 (16)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	4'-10"	5'-2"	4'-10"	5'-2"	4'-10"	5'-2"
		600PRO300-68	68 (14)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	8'-5"	9'-5"	8'-5"	9'-5"	8'-5"	9'-5"
		600PRO300-97	97 (12)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	18'-0"	20'-0"	18'-0"	20'-0"	18'-0"	20'-0"
11	3-5/8	362PRO300-33	33 (20)	33	3	5'-8"	6'-1"	5'-8"	6'-1"	5'-8"	6'-1"	—	—	—	—	—	—
		362PRO300-43	43 (18)	33	3	10'-8"	11'-8"	10'-8"	11'-8"	10'-8"	11'-8"	—	—	—	—	—	—
		362PRO300-54	54 (16)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	3'-7"	3'-8"	3'-7"	3'-6"	—	—
		362PRO300-68	68 (14)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	6'-6"	6'-11"	5'-6"	5'-2"	—	—
		362PRO300-97	97 (12)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	12'-6"	12'-5"	9'-0"	8'-1"	4'-1"	3'-10"
	6	600PRO300-33	33 (20)	33	3	5'-5"	5'-9"	5'-5"	5'-9"	5'-5"	5'-9"	—	—	—	—	—	—
		600PRO300-43	43 (18)	33	3	10'-3"	11'-3"	10'-3"	11'-3"	10'-3"	11'-3"	—	—	—	—	—	—
		600PRO300-54	54 (16)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	3'-5"	3'-6"	3'-5"	3'-6"	3'-5"	3'-6"
		600PRO300-68	68 (14)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	6'-3"	6'-9"	6'-3"	6'-9"	6'-3"	6'-9"
		600PRO300-97	97 (12)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	13'-8"	15'-1"	13'-8"	15'-1"	13'-8"	15'-1"
13	3-5/8	362PRO300-33	33 (20)	33	3	4'-5"	4'-7"	4'-5"	4'-7"	4'-5"	4'-7"	—	—	—	—	—	—
		362PRO300-43	43 (18)	33	3	8'-6"	9'-1"	8'-6"	9'-1"	8'-3"	7'-9"	—	—	—	—	—	—
		362PRO300-54	54 (16)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	11'-9"	10'-6"	—	—	—	—	—	—
		362PRO300-68	68 (14)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	14'-7"	4'-9"	4'-7"	—	—	—	—
		362PRO300-97	97 (12)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	7'-7"	7'-2"	4'-2"	4'-0"	—	—
	6	600PRO300-33	33 (20)	33	3	4'-2"	4'-4"	4'-2"	4'-4"	4'-2"	4'-4"	—	—	—	—	—	—
		600PRO300-43	43 (18)	33	3	8'-2"	8'-9"	8'-2"	8'-9"	8'-2"	8'-9"	—	—	—	—	—	—
		600PRO300-54	54 (16)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	—	—	—	—	—	—
		600PRO300-68	68 (14)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	4'-11"	5'-1"	4'-11"	5'-1"	4'-11"	5'-1"
		600PRO300-97	97 (12)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	11'-0"	11'-10"	11'-0"	11'-10"	11'-0"	10'-2"
15	3-5/8	362PRO300-33	33 (20)	33	3	3'-6"	3'-7"	3'-6"	3'-7"	—	—	—	—	—	—	—	—
		362PRO300-43	43 (18)	33	3	7'-0"	7'-4"	7'-0"	7'-4"	4'-4"	4'-2"	—	—	—	—	—	—
		362PRO300-54	54 (16)	50	3	16'-0"	16'-0"	11'-0"	10'-3"	5'-11"	5'-9"	—	—	—	—	—	—
		362PRO300-68	68 (14)	50	3	16'-0"	16'-0"	16'-0"	14'-7"	8'-8"	8'-4"	—	—	—	—	—	—
		362PRO300-97	97 (12)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	14'-7"	13'-0"	4'-0"	3'-11"	—	—	—	—
	6	600PRO300-33	33 (20)	33	3	3'-4"	3'-5"	3'-4"	3'-5"	3'-4"	3'-5"	—	—	—	—	—	—
		600PRO300-43	43 (18)	33	3	6'-9"	7'-1"	6'-9"	7'-1"	6'-9"	7'-1"	—	—	—	—	—	—
		600PRO300-54	54 (16)	50	3	17'-8"	18'-11"	17'-8"	18'-11"	17'-8"	18'-11"	—	—	—	—	—	—
		600PRO300-68	68 (14)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	3'-11"	4'-0"	3'-11"	4'-0"	3'-7"	3'-6"
		600PRO300-97	97 (12)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	9'-1"	9'-7"	9'-1"	9'-7"	5'-9"	5'-7"

Notes:

1 This table is based on the sill heights listed in the table and the condition where the opening is centered in the jamb span. Other conditions may result in differing results. Contact Technical Service for analysis of other conditions.

2 Opening widths are limited to 16'-0" for 3-5/8" & 4" members and 20'-0" for 6" & 8" members.

3 On interior framing, lateral deflection calculations are based on using 1.0 times the interior lateral load.

4 On exterior framing, lateral deflection calculations are using 0.7 times the wind load.

5 Physical properties and this table have been calculated in conformance with the AISI S100-2016 (2020) w/S2-20.

6 Effective properties incorporate the strength increase from the Cold Work of Forming as applicable per AISI S100-2016 (2020) w/S2-20 section A3.3.2.

7 The strength analysis included separate bending and shear checks plus the combined interaction of bending and shear effects per section H2 of AISI S100-2016 (2020) w/S2-20.

8 The strength analysis included separate bending and axial load checks plus the combined interaction of bending and axial load effects per section H1 of AISI S100-2016 (2020) w/S2-20.

9 Web crippling strength check includes both single stud per section G5 of AISI S100-2016 (2020) w/S2-20 and stud-to-track connection per section B3.2.5.1 of AISI S240-20.

10 Single stud web crippling strength is based on minimum of all conditions and load cases in Table G5-2 of AISI S100-2016 (2020) w/S2-20.

11 The tabulated values for flexural stress were based upon a fully braced side jamb.

12 This table is not applicable for axial load bearing walls but is applicable for non-axial load bearing walls.

13 Tables were prepared using a 16" o.c. spacing from the jamb stud to the first adjacent typical wall stud.

14 Wall base track is assumed to be 18ga (43mils) minimum thickness with one screw per stud flange. Wall top connection is assumed to have a minimum 1.25" bearing on the top track.

Allowable Opening Width for Single RedHeader PRO™ Framing Used As Jamb Studs For Door Opening

Door Jamb: Interior Span Chart

Wall Height (ft)	Wall Size (in)	Member	Mils (Gauge)	Yield Strength, Fy (ksi)	Flange (in)	Interior Allowable Spans: Lateral Load (psf) = 5, Dead Load (psf) = 10								
						Strong Axis Deflection Targets								
						L/120			L/240			L/360		
						Opening Heights								
						7	8	9	7	8	9	7	8	9
9	3-5/8	362PRO300-33	33 (20)	33	3	6'-6"	6'-7"	—	6'-6"	6'-7"	—	6'-6"	6'-7"	—
		362PRO300-43	43 (18)	33	3	11'-6"	11'-6"	—	11'-6"	11'-6"	—	11'-6"	11'-6"	—
		362PRO300-54	54 (16)	50	3	16'-0"	16'-0"	—	16'-0"	16'-0"	—	16'-0"	16'-0"	—
		362PRO300-68	68 (14)	50	3	16'-0"	16'-0"	—	16'-0"	16'-0"	—	16'-0"	16'-0"	—
		362PRO300-97	97 (12)	50	3	16'-0"	16'-0"	—	16'-0"	16'-0"	—	16'-0"	16'-0"	—
	6	600PRO300-33	33 (20)	33	3	6'-3"	6'-4"	—	6'-3"	6'-4"	—	6'-3"	6'-4"	—
		600PRO300-43	43 (18)	33	3	11'-1"	11'-2"	—	11'-1"	11'-2"	—	11'-1"	11'-2"	—
		600PRO300-54	54 (16)	50	3	20'-0"	20'-0"	—	20'-0"	20'-0"	—	20'-0"	20'-0"	—
		600PRO300-68	68 (14)	50	3	20'-0"	20'-0"	—	20'-0"	20'-0"	—	20'-0"	20'-0"	—
		600PRO300-97	97 (12)	50	3	20'-0"	20'-0"	—	20'-0"	20'-0"	—	20'-0"	20'-0"	—
11	3-5/8	362PRO300-33	33 (20)	33	3	5'-0"	5'-0"	5'-1"	5'-0"	5'-0"	5'-1"	5'-0"	5'-0"	5'-1"
		362PRO300-43	43 (18)	33	3	9'-0"	9'-1"	9'-2"	9'-0"	9'-1"	9'-2"	9'-0"	9'-1"	9'-2"
		362PRO300-54	54 (16)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"
		362PRO300-68	68 (14)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"
		362PRO300-97	97 (12)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"
	6	600PRO300-33	33 (20)	33	3	4'-9"	4'-10"	4'-11"	4'-9"	4'-10"	4'-11"	4'-9"	4'-10"	4'-11"
		600PRO300-43	43 (18)	33	3	8'-9"	8'-10"	8'-10"	8'-9"	8'-10"	8'-10"	8'-9"	8'-10"	8'-10"
		600PRO300-54	54 (16)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"
		600PRO300-68	68 (14)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"
		600PRO300-97	97 (12)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"
13	3-5/8	362PRO300-33	33 (20)	33	3	3'-10"	3'-11"	4'-0"	3'-10"	3'-11"	4'-0"	3'-10"	3'-11"	4'-0"
		362PRO300-43	43 (18)	33	3	7'-4"	7'-5"	7'-6"	7'-4"	7'-5"	7'-6"	7'-4"	7'-2"	7'-2"
		362PRO300-54	54 (16)	50	3	16'-0"	16'-0"	16'-0"	15'-5"	15'-0"	14'-10"	9'-7"	9'-5"	9'-4"
		362PRO300-68	68 (14)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	13'-1"	12'-9"	12'-8"
		362PRO300-97	97 (12)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"
	6	600PRO300-33	33 (20)	33	3	3'-8"	3'-9"	3'-10"	3'-8"	3'-9"	3'-10"	3'-8"	3'-9"	3'-10"
		600PRO300-43	43 (18)	33	3	7'-0"	7'-2"	7'-2"	7'-0"	7'-2"	7'-2"	7'-0"	7'-2"	7'-2"
		600PRO300-54	54 (16)	50	3	18'-0"	18'-1"	18'-2"	18'-0"	18'-1"	18'-2"	18'-0"	18'-1"	18'-2"
		600PRO300-68	68 (14)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"
		600PRO300-97	97 (12)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"
15	3-5/8	362PRO300-33	33 (20)	33	3	3'-0"	3'-1"	3'-2"	3'-0"	3'-1"	3'-2"	—	—	—
		362PRO300-43	43 (18)	33	3	6'-0"	6'-1"	6'-2"	6'-0"	6'-1"	6'-2"	4'-1"	4'-0"	4'-0"
		362PRO300-54	54 (16)	50	3	12'-0"	12'-9"	13'-6"	9'-9"	9'-4"	9'-2"	5'-9"	5'-6"	5'-6"
		362PRO300-68	68 (14)	50	3	16'-0"	16'-0"	16'-0"	13'-4"	12'-9"	12'-5"	8'-1"	7'-10"	7'-8"
		362PRO300-97	97 (12)	50	3	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	16'-0"	12'-0"	11'-6"	11'-2"
	6	600PRO300-33	33 (20)	33	3	—	—	3'-0"	—	—	3'-0"	—	—	3'-0"
		600PRO300-43	43 (18)	33	3	5'-9"	5'-11"	6'-0"	5'-9"	5'-11"	6'-0"	5'-9"	5'-11"	6'-0"
		600PRO300-54	54 (16)	50	3	15'-3"	15'-4"	15'-5"	15'-3"	15'-4"	15'-5"	15'-3"	15'-4"	15'-5"
		600PRO300-68	68 (14)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"
		600PRO300-97	97 (12)	50	3	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"	20'-0"

Notes:

1 This table is based on the 0' sill heights and listed opening heights. Other conditions may result in differing results. Contact Technical Service for analysis of other conditions.
2 Opening widths are limited to 16'-0" for 3-5/8" & 4" members and 20'-0" for 6" & 8" members.
3 On interior framing, lateral deflection calculations are based on using 1.0 times the interior lateral load.
4 Physical properties and this table have been calculated in conformance with the AISI S100-2016 (2020) w/S2-20.
5 Effective properties incorporate the strength increase from the Cold Work of Forming as applicable per AISI S100-2016 (2020) w/S2-20 section A3.3.2.
6 The strength analysis included separate bending and shear checks plus the combined interaction of bending and shear effects per section H2 of AISI S100-2016 (2020) w/S2-20.
7 The strength analysis included separate bending and axial load checks plus the combined interaction of bending and axial load effects per section H1 of AISI S100-2016 (2020) w/S2-20.
8 Web crippling strength check includes both single stud per section G5 of AISI S100-2016 (2020) w/S2-20 and stud-to-track connection per section B3.2.5.1 of AISI S240-20.
9 Single stud web crippling strength is based on minimum of all conditions and load cases in Table G5-2 of AISI S100-2016 (2020) w/S2-20.
10 The tabulated values for flexural stress were based upon a fully braced side jamb.
11 This table is not applicable for axial load bearing walls but is applicable for non-axial load bearing walls.
12 Tables were prepared using a 16" o.c. spacing from the jamb stud to the first adjacent typical wall stud.
13 Wall base track is assumed to be 18ga (43mils) minimum thickness with one screw per stud flange. Wall top connection is assumed to have a minimum 1.25" bearing on the top track.

Allowable Opening Width for Single RedHeader PRO™ Framing Used As Jamb Studs For Door Opening

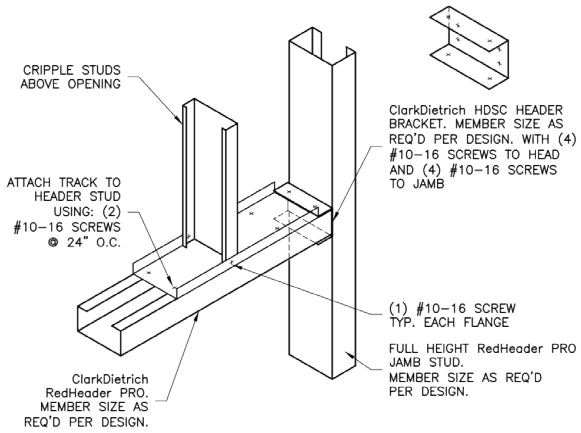
Door Jamb: Exterior Span Chart

Wall Height (ft)	Wall Size (in)	Member	Mils (Gauge)	Yield Strength, Fy (ksi)	Flange (in)	Exterior Allowable Spans: Lateral Load (psf) = 25, Dead Load (psf) = 12									
						Strong Axis Deflection Targets									
						L/240			L360				L/600		
						Opening Heights									
						7	8	9	7	8	9	12	7	8	9
9	3-5/8	362PRO300-33	33 (20)	33	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-43	43 (18)	33	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-54	54 (16)	50	3	4'-5"	4'-6"	—	4'-5"	4'-6"	—	—	4'-2"	4'-3"	—
		362PRO300-68	68 (14)	50	3	7'-4"	7'-4"	—	7'-4"	7'-4"	—	—	5'-10"	5'-11"	—
		362PRO300-97	97 (12)	50	3	14'-2"	14'-2"	—	14'-2"	14'-2"	—	—	8'-6"	8'-7"	—
	6	600PRO300-33	33 (20)	33	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-43	43 (18)	33	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-54	54 (16)	50	3	4'-3"	4'-4"	—	4'-3"	4'-4"	—	—	4'-3"	4'-4"	—
		600PRO300-68	68 (14)	50	3	7'-1"	7'-2"	—	7'-1"	7'-2"	—	—	7'-1"	7'-2"	—
		600PRO300-97	97 (12)	50	3	14'-6"	14'-7"	—	14'-6"	14'-7"	—	—	14'-6"	14'-7"	—
11	3-5/8	362PRO300-33	33 (20)	33	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-43	43 (18)	33	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-54	54 (16)	50	3	3'-3"	3'-4"	3'-5"	3'-3"	3'-4"	3'-5"	—	—	—	—
		362PRO300-68	68 (14)	50	3	5'-7"	5'-8"	5'-9"	5'-1"	5'-1"	5'-3"	—	—	—	—
		362PRO300-97	97 (12)	50	3	11'-3"	11'-3"	11'-4"	7'-7"	7'-7"	7'-8"	—	3'-10"	3'-11"	4'-0"
	6	600PRO300-33	33 (20)	33	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-43	43 (18)	33	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-54	54 (16)	50	3	3'-1"	3'-2"	3'-3"	3'-1"	3'-2"	3'-3"	—	3'-1"	3'-2"	3'-3"
		600PRO300-68	68 (14)	50	3	5'-5"	5'-6"	5'-7"	5'-5"	5'-6"	5'-7"	—	5'-5"	5'-6"	5'-7"
		600PRO300-97	97 (12)	50	3	11'-6"	11'-7"	11'-8"	11'-6"	11'-7"	11'-8"	—	11'-6"	11'-7"	11'-8"
13	3-5/8	362PRO300-33	33 (20)	33	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-43	43 (18)	33	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-54	54 (16)	50	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-68	68 (14)	50	3	4'-5"	4'-5"	4'-6"	—	—	—	—	—	—	—
		362PRO300-97	97 (12)	50	3	6'-10"	6'-9"	6'-9"	3'-10"	3'-11"	3'-11"	4'-2"	—	—	—
	6	600PRO300-33	33 (20)	33	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-43	43 (18)	33	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-54	54 (16)	50	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-68	68 (14)	50	3	4'-3"	4'-4"	4'-5"	4'-3"	4'-4"	4'-5"	4'-6"	4'-3"	4'-4"	4'-5"
		600PRO300-97	97 (12)	50	3	9'-5"	9'-6"	9'-7"	9'-5"	9'-6"	9'-7"	9'-8"	9'-4"	9'-2"	9'-1"
15	3-5/8	362PRO300-33	33 (20)	33	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-43	43 (18)	33	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-54	54 (16)	50	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-68	68 (14)	50	3	—	—	—	—	—	—	—	—	—	—
		362PRO300-97	97 (12)	50	3	3'-9"	3'-9"	3'-9"	—	—	—	—	—	—	—
	6	600PRO300-33	33 (20)	33	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-43	43 (18)	33	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-54	54 (16)	50	3	—	—	—	—	—	—	—	—	—	—
		600PRO300-68	68 (14)	50	3	3'-5"	3'-6"	3'-7"	3'-5"	3'-6"	3'-7"	3'-9"	3'-4"	3'-4"	3'-4"
		600PRO300-97	97 (12)	50	3	7'-10"	7'-11"	8'-0"	7'-10"	7'-11"	8'-0"	8'-2"	5'-6"	5'-4"	5'-4"

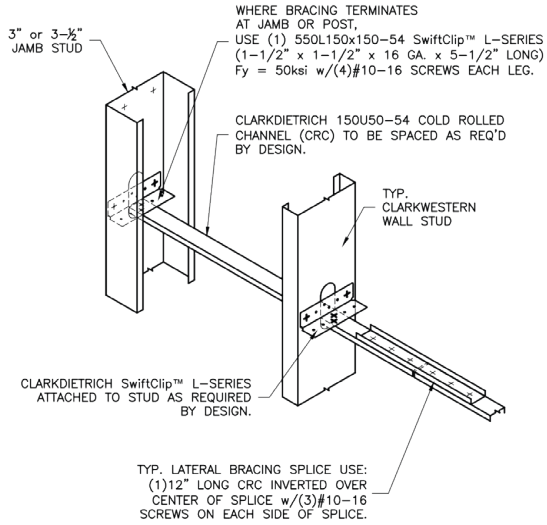
Notes:

1 This table is based on the 0' sill heights and listed opening heights. Other conditions may result in differing results. Contact Technical Service for analysis of other conditions.
2 Opening widths are limited to 16'-0" for 3-5/8" & 4" members and 20'-0" for 6" & 8" members.
3 On exterior framing, lateral deflection calculations are based on using 0.7 times the Components and Cladding wind load.
4 Physical properties and this table have been calculated in conformance with the AISI S100-2016 (2020) w/S2-20.
5 Effective properties incorporate the strength increase from the Cold Work of Forming as applicable per AISI S100-2016 (2020) w/S2-20 section A3.3.2.
6 The strength analysis included separate bending and shear checks plus the combined interaction of bending and shear effects per section H2 of AISI S100-2016 (2020) w/S2-20.
7 The strength analysis included separate bending and axial load checks plus the combined interaction of bending and axial load effects per section H1 of AISI S100-2016 (2020) w/S2-20.
8 Web crippling strength check includes both single stud per section G5 of AISI S100-2016 (2020) w/S2-20 and stud-to-track connection per section B3.2.5.1 of AISI S240-20.
9 Single stud web crippling strength is based on minimum of all conditions and load cases in Table G5-2 of AISI S100-2016 (2020) w/S2-20.
10 The tabulated values for flexural stress were based upon a fully braced side jamb.
11 This table is not applicable for axial load bearing walls but is applicable for non-axial load bearing walls.
12 Tables were prepared using a 16" o.c. spacing from the jamb stud to the first adjacent typical wall stud.
13 Wall base track is assumed to be 18ga (43mils) minimum thickness with one screw per stud flange. Wall top connection is assumed to have a minimum 1.25" bearing on the top track.

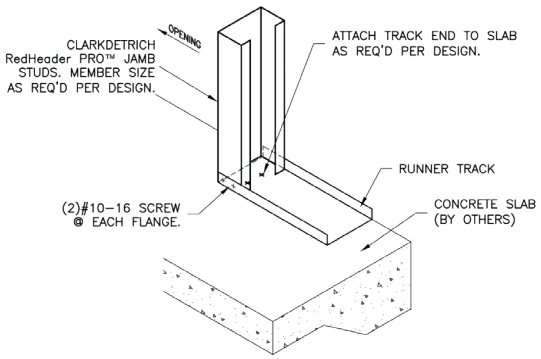
RedHeader PRO™ Framing Details



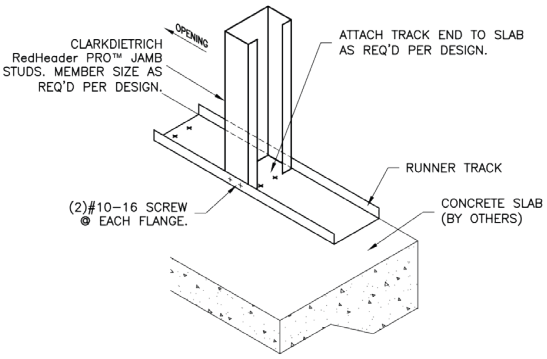
RedHeader PRO CONNECTION
w/ HDSC HEADER BRACKET



JAMB LATERAL BRACING
CRC LATERAL BRACING w/SwiftClips



DOOR JAMB ANCHORAGE



WINDOW JAMB ANCHORAGE

REDHEADER PRO DESIGN ADVANTAGES:

ClarkDietrich's Design and Technical Services are here to support you

- Use our RedHeader PRO sizing sheet (on page 14 or www.clarkdietrich.com) for quick preliminary sizing from ClarkDietrich's technical services team allowing you to see the advantages of using the opening system compared to the typical systems.
- Contact ClarkDietrich Technical Services at support@clarkdietrich.com.

ClarkDietrich's Engineering Services

- Engineering Services offers a complete shop drawing package using the RedHeader PRO framing system to simplify the submittal process.
- For additional information, contact ClarkDietrich Engineering Services at 877.832.3206.

The technical content of this literature is effective 12/04/23 and supersedes all previous information. Pub. No. CD-RoughOpenings 12/23

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Code approvals and performance standards

ClarkDietrich products meet or exceed these applicable performance standards.

RedHeader PRO™ Rough Opening System Standards

AISI S100-16 (2020) w/S2-20 - North American Specification for the Design of Cold-Formed Steel Structural Members
AISI S240-20 - North American Standard for Cold-Formed Steel Structural Framing
(Compliant to ASTM C955, but IBC replaced with AISI S220 in IBC 2015)
Section A3 Material - Chemical & mechanical requirements (Referencing ASTM A1003/A1003M)
Section A4 Corrosion Protection (Referencing ASTM A653/A653M)
Section C Installation (Referencing ASTM C1007)

ClarkDietrich Structural Framing comply with:
IBC-2021 - International Building Code
IAPMO ES ER-723 HDS® Framing System & RedHeader PRO™

LEED® Services

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ClarkDietrich is an active member of the U.S. Green Building Council and is committed to supplying quality products that are environmentally responsible. We are continually working to develop greener building products and sustainable business practices. ClarkDietrich steel framing helps contribute points toward LEED® certification. For more details contact Technical Services at 888-437-3244 or visit www.clarkdietrich.com/LEED.

SustainabilityPro

Quickly access the product-specific information and certifications needed to calculate contributions to LEED® and other green building certification and rating systems - all in one platform. Find out more at www.clarkdietrich.com/LEED.

ClarkDietrich is a proud member of the Steel Framing Industry Association (SFIA). Check the updated list of Certified Production Facilities at Intertek's website at www.intertek.com. Additional code approvals SFIA (Steel Framing Industry Association) Intertek CCRR0207.

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