



MARINO + WARE
QUICKFRAME™
Rough Opening System

A Better Way to
Build Rough Openings

TECHNICAL GUIDE

MARINO + WARE®

GENERAL INFORMATION

The QuickFrame™ Rough Opening System streamlines installation by reducing the number of components required to frame windows and doors. The QuickFrame™ system comes in extra wide flanges and extra long returns and can be used for exterior or interior framing around any non-load bearing opening. Simply attach the header and jamb with our QuickFrame™ Clip for “quick” and easy installation.

- INCREASED PERFORMANCE
- LESS MATERIAL WEIGHT AND PIECES
- UP TO 50% REDUCTION IN ASSEMBLY TIME
- ELIMINATING BUILT-UP JAMBS AND HEADERS
- PREDRILLED HOLES IN THE CLIP FOR EASY INSTALLATION

QuickFrame Identification System (in compliance with SSMA)

600-QFH-300-54

600-QFJ-300-54

- Member Width 6”=600 x 1/100 in.
- Style: QF = QuickFrame Header/Jamb
- Flange Width: 3”= 3.00”=300x1/100 in.
- Material Thickness: Minimum Base Metal Thickness: 0.054 in.=54 mils (1 mil=1/1000 in.)

SYMBOLS AND DEFINITIONS

Gross Properties

I_x	Moment of inertia about x-axis
S_x	Section modulus about x-axis
r_x	Radius about x-axis
I_y	Moment of inertia about y-axis
r_y	Radius about y-axis

Effective Properties

I_{xe}	Moment of inertia about x-axis
S_{xe}	Section modulus about x-axis
M_a	Allowable moment for track and channel sections based on local buckling
V_{ag}	Allowable strong axis shear away from punchout, per AISI Section C3.2.1
V_{anet}	Allowable strong axis shear at punchout, per AISI Section 3.2.2

Torsional and other Properties

J	Saint-Venant torsion constant. The values shown in the tables have been multiplied by 1,000. To obtain the actual values, divide table values by 1,000
C_w	Torsional warping constant
x_o	Distance from shear center to centroid along principal x-axis
r_o	Polar radius of gyration about shear center
β	$1 - (x_o / r_o)^2$

APPLICATIONS

QuickFrame Header and Jamb:

- Exterior Curtain-Wall Headers and Jambs.
- Interior Non-Load Bearing Headers and Jambs.
- Load Bearing Jambs.

Notes:

1. Header must be ordered ½” shorter to accommodate the QuickFrame Clip.
2. For header application use unpunched material.

CODES AND STANDARDS

- ASTM A1003 and A653 – Material Specification
- ASTM C955 – Product and Coating Specification

PRODUCT DATA

QuickFrame Header and Jamb:

- Available Widths:
3-5/8”, 4”, 6” and 8”
- Available Flanges:
3” and 3-1/2”
- Return Lip:
1”

QuickFrame Clip:

- Available Lengths:
3-1/2” (for 3-5/8” stud)
3-7/8” (for 4” stud)
5-7/8” (for 6” stud)
7-7/8” (for 8” stud)
- Available Heights:
3-1/8” (for 3” flange header)
3-5/8” (for 3-1/2” flange header)

MATERIAL SPECIFICATIONS

QuickFrame Header and Jamb:

- Available Gauges:
33 mils (20 Gauge)
43 mils (18 Gauge)
54 mils (16 Gauge)
68 mils (14 Gauge)
97 mils (12 Gauge)
118 mils (10 Gauge)
- Yield Strength:
50 ksi
- Coating:
G60 standard
G90 available upon request

QuickFrame Clip:

- Available Gauge:
68 mils (14 Gauge)
- Yield Strength:
50 ksi
- Coating:
G60 standard

Warranty & Limitations

All products presented herein are warranted to the buyer to be free from defects in material and workmanship. The foregoing warranty is non-assignable and in lieu of and excludes all other warranties not expressly set forth herein, whether express or implied by operation of law or otherwise, including but not limited to any implied warranties of merchantability or fitness for a particular purpose. All details and specifications presented herein are intended as a general guide for the use of MarinoWARE® framing systems. These products should not be used without evaluation by a qualified engineer or architect to determine their suitability for a specific use.

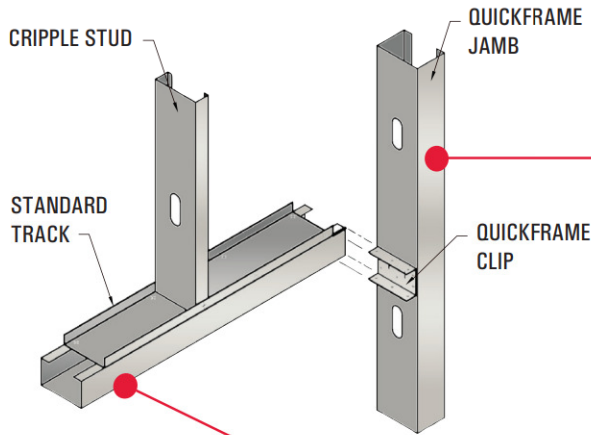
MarinoWARE® assumes no responsibility for failure resulting from use of its details or specifications, or for failure resulting from improper application or installation of these products.

Governing Law

All issues arising in connection with your order and all transactions associated with it shall be interpreted according to the laws of the State of New Jersey, and all actions or other proceedings arising out of such issues shall be brought only in Superior Court, State of New Jersey, County of Essex, or United States District Court for the District of New Jersey. No action may be brought more than one year after accrual of the cause of action therefore.

ILLUSTRATION DETAILS

The complete QuickFrame System is available through all MarinoWARE suppliers and components can be used separately or together with all MarinoWARE framing solutions. For more information visit www.MarinoWare.com.



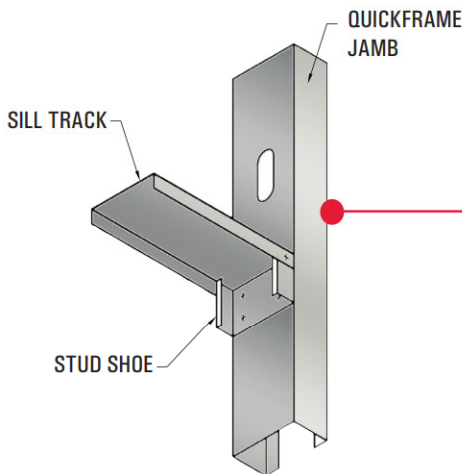
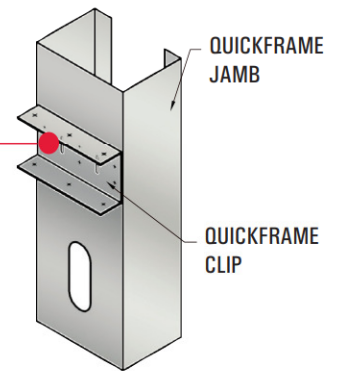
QUICKFRAME JAMB

- Replaces built-up headers & jamps
- One header eliminates multiple pieces
- Pre-cut to length
- Equal or greater in strength than traditional multiple piece assemblies
- Reduced assembly time by 50%

QUICKFRAME HEADER

QUICKFRAME CLIP

- Simple one piece clip
- Predrilled holes for easy installation
- Available in 14 gauge with 3" and 3 1/2" flange
- Prefabricated slots to ease adjustments

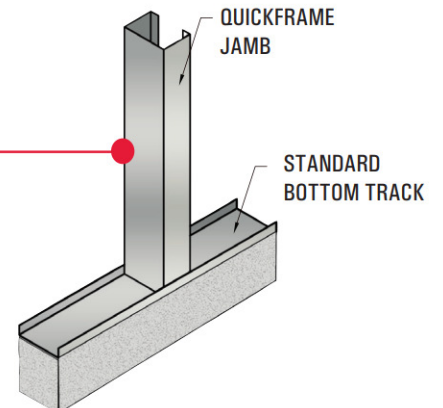


SILL & QUICKFRAME JAMB

- One sill track eliminates multiple pieces
- Pre-cut to length
- Works with larger openings
- Reduced assembly time by 50%

QUICKFRAME JAMB

- Replaces built-up jamb
- Pre-cut to length
- Equal or greater in strength than traditional multiple piece assemblies
- Reduced assembly time by 50%



QUICKFRAME HEADER PROPERTIES

Member Physical Properties			Gross Section Properties					Effective Section Properties								Torsional Properties				
Members	Design Thickness (in.)	Weight (p/f.)	Area (in. ²)	Ix (in. ⁴)	Rx (in.)	Iy (in. ⁴)	Ry (in.)	Unpunched - Header Section (Strong Axis)				Unpunched - Header Section (Weak Axis)				J x1000 (in. ⁴)	Cw (in. ⁶)	Xo (in.)	Ro (in.)	Beta
								Ixe (in. ⁴)	Sxe (in. ²)	Ma (in.-k.)	Vag (k.)	Iye (in. ⁴)	Sye (in. ²)	Ma (in.-k.)	Vag (k.)					
3 5/8" Members																				
362QFH300-33 (33 ksi)	0.0346	1.33	0.392	0.90	1.51	0.54	1.18	0.56	0.31	5.10	1.02	0.40	0.24	3.88	2.047	0.156	2.392	-2.982	3.545	0.292
362QFH300-43 (33 ksi)	0.0451	1.73	0.509	1.16	1.51	0.70	1.17	0.89	0.49	8.10	1.74	0.63	0.37	6.04	3.089	0.345	3.059	-2.970	3.532	0.293
362QFH300-54 (50 ksi)	0.0566	2.16	0.634	1.43	1.50	0.86	1.17	1.28	0.66	19.70	3.37	0.80	0.45	13.55	5.767	0.677	3.742	-2.956	3.516	0.293
362QFH300-68 (50 ksi)	0.0713	2.69	0.791	1.77	1.50	1.06	1.16	1.67	0.89	26.61	4.37	1.04	0.60	18.04	7.068	1.340	4.554	-2.938	3.495	0.293
362QFH300-97 (50 ksi)	0.1017	3.76	1.105	2.42	1.48	1.44	1.14	2.40	1.31	43.35	5.94	1.44	0.84	28.98	9.502	3.810	6.038	-2.899	3.450	0.294
362QFH300-118 (50 ksi)	0.1242	4.52	1.329	2.87	1.47	1.70	1.13	2.87	1.58	53.28	7.00	1.70	0.99	34.99	11.080	6.830	6.971	-2.870	3.416	0.294
362QFH350-33 (33 ksi)	0.0346	1.45	0.426	1.01	1.54	0.78	1.35	0.56	0.31	5.06	1.02	0.57	0.29	4.75	2.047	0.170	3.387	-3.476	4.034	0.258
362QFH350-43 (33 ksi)	0.0451	1.88	0.554	1.30	1.53	1.00	1.35	0.89	0.49	8.13	1.74	0.89	0.45	7.40	3.478	0.376	4.336	-3.463	4.020	0.258
362QFH350-54 (50 ksi)	0.0566	2.35	0.691	1.61	1.53	1.24	1.34	1.39	0.69	20.76	3.37	1.16	0.57	16.99	6.743	0.738	5.312	-3.449	4.004	0.258
362QFH350-68 (50 ksi)	0.0713	2.93	0.862	2.00	1.52	1.53	1.33	1.80	0.93	27.74	4.37	1.50	0.75	22.53	8.405	1.461	6.481	-3.431	3.982	0.258
362QFH350-97 (50 ksi)	0.1017	4.10	1.207	2.74	1.51	2.09	1.31	2.61	1.38	41.31	5.94	2.09	1.05	36.31	11.409	4.162	8.636	-3.392	3.937	0.258
362QFH350-118 (50 ksi)	0.1242	4.94	1.453	3.25	1.49	2.46	1.30	3.19	1.73	57.27	7.00	2.46	1.24	43.99	13.409	7.473	10.012	-3.362	3.903	0.258
4" Members																				
400QFH300-33 (33 ksi)	0.0346	1.38	0.405	1.12	1.66	0.56	1.18	0.70	0.35	5.75	0.98	0.42	0.24	3.93	2.047	0.162	2.781	-2.915	3.557	0.329
400QFH300-43 (33 ksi)	0.0451	1.79	0.526	1.45	1.66	0.73	1.18	1.11	0.55	9.14	1.74	0.65	0.37	6.11	3.089	0.357	3.559	-2.902	3.544	0.329
400QFH300-54 (50 ksi)	0.0566	2.23	0.655	1.79	1.65	0.90	1.17	1.61	0.75	22.38	3.37	0.83	0.46	13.73	5.767	0.700	4.356	-2.883	3.528	0.332
400QFH300-68 (50 ksi)	0.0713	2.78	0.818	2.22	1.65	1.10	1.16	2.10	1.01	30.23	4.87	1.08	0.61	18.29	7.068	1.386	5.306	-2.870	3.506	0.330
400QFH300-97 (50 ksi)	0.1017	3.89	1.144	3.04	1.63	1.50	1.14	3.01	1.49	49.18	6.66	1.50	0.85	29.41	9.502	3.942	7.047	-2.831	3.461	0.331
400QFH300-118 (50 ksi)	0.1242	4.68	1.376	3.60	1.62	1.76	1.13	3.60	1.80	60.67	7.87	1.76	1.00	35.51	11.080	7.074	8.147	-2.801	3.427	0.332
400QFH350-33 (33 ksi)	0.0346	1.49	0.439	1.26	1.69	0.81	1.35	0.69	0.35	5.69	0.98	0.59	0.29	4.80	2.047	0.175	3.943	-3.404	4.035	0.288
400QFH350-43 (33 ksi)	0.0451	1.94	0.571	1.62	1.69	1.04	1.35	1.11	0.55	9.15	1.74	0.92	0.45	7.49	3.478	0.387	5.050	-3.391	4.021	0.289
400QFH350-54 (50 ksi)	0.0566	2.42	0.712	2.01	1.68	1.29	1.34	1.73	0.79	23.56	3.37	1.20	0.58	17.23	6.743	0.760	6.192	-3.377	4.005	0.289
400QFH350-68 (50 ksi)	0.0713	3.02	0.889	2.49	1.67	1.59	1.34	2.25	1.05	31.46	4.87	1.56	0.76	22.86	8.405	1.507	7.580	-3.359	3.984	0.289
400QFH350-97 (50 ksi)	0.1017	4.23	1.245	3.43	1.66	2.17	1.32	3.26	1.56	46.70	6.66	2.17	1.07	36.86	11.409	4.293	10.092	-3.319	3.938	0.290
400QFH350-118 (50 ksi)	0.1242	5.10	1.500	4.07	1.65	2.56	1.31	3.99	1.95	64.84	7.87	2.56	1.26	44.68	13.409	7.713	11.716	-3.289	3.903	0.290
6" Members																				
600QFH300-33 (33 ksi)	0.0346	1.61	0.474	2.82	2.44	0.65	1.17	1.71	0.57	9.40	0.64	0.47	0.24	4.04	2.047	0.189	5.632	-2.598	3.750	0.520
600QFH300-43 (33 ksi)	0.0451	2.09	0.616	3.64	2.43	0.84	1.17	2.73	0.91	14.99	1.42	0.74	0.38	6.35	3.089	0.418	7.224	-2.586	3.738	0.521
600QFH300-54 (50 ksi)	0.0566	2.61	0.769	4.52	2.43	1.04	1.16	4.08	1.28	38.19	2.82	0.96	0.48	14.47	5.767	0.821	8.866	-2.572	3.722	0.522
600QFH300-68 (50 ksi)	0.0713	3.27	0.960	5.61	2.42	1.28	1.15	5.33	1.72	51.41	5.35	1.25	0.64	19.27	7.068	1.628	10.837	-2.553	3.700	0.524
600QFH300-97 (50 ksi)	0.1017	4.58	1.347	7.75	2.40	1.74	1.14	7.64	2.52	83.12	10.47	1.74	0.90	31.04	9.502	4.644	14.498	-2.513	3.656	0.528
600QFH300-118 (50 ksi)	0.1242	5.52	1.624	9.24	2.35	2.06	1.13	9.24	3.08	103.75	12.53	2.06	1.06	37.56	11.080	8.351	16.860	-2.483	3.622	0.530
600QFH350-33 (33 ksi)	0.0346	1.73	0.509	3.12	2.48	0.93	1.36	1.69	0.56	9.28	0.64	0.67	0.30	4.95	2.047	0.203	8.003	-3.063	4.166	0.459
600QFH350-43 (33 ksi)	0.0451	2.25	0.661	4.05	2.44	1.21	1.35	2.72	0.91	14.96	1.42	1.05	0.47	7.78	3.478	0.448	10.278	-3.051	4.153	0.460
600QFH350-54 (50 ksi)	0.0566	2.81	0.825	5.02	2.47	1.49	1.34	4.37	1.34	40.04	2.82	1.39	0.61	18.21	6.743	0.881	12.634	-3.036	4.137	0.461
600QFH350-68 (50 ksi)	0.0713	3.51	1.032	6.24	2.46	1.84	1.34	5.67	1.78	53.17	5.35	1.81	0.81	24.16	8.405	1.748	15.477	-3.017	4.115	0.462
600QFH350-97 (50 ksi)	0.1017	4.93	1.449	8.63	2.44	2.52	1.32	8.16	2.61	78.10	10.47	2.52	1.13	39.04	11.409	4.994	20.809	-2.977	4.070	0.465
600QFH350-118 (50 ksi)	0.1242	5.94	1.748	10.31	2.43	2.98	1.31	10.05	3.28	108.70	12.53	2.98	1.34	47.39	13.409	8.990	24.294	-2.946	4.035	0.467
8" Members																				
800QFH300-33 (33 ksi)	0.0346	1.85	0.543	5.46	3.17	0.72	1.15	3.05	0.76	12.56	0.47	0.52	0.25	4.14	2.047	0.217	9.930	-2.350	4.110	0.673
800QFH300-43 (33 ksi)	0.0451	2.40	0.706	7.07	3.16	0.93	1.15	4.90	1.23	20.22	1.05	0.82	0.39	6.52	3.089	0.479	12.756	-2.338	4.098	0.674
800QFH300-54 (50 ksi)	0.0566	3.00	0.882	8.79	3.16	1.15	1.14	7.83	1.82	54.39	2.09	1.06	0.50	14.93	5.767	0.942	15.681	-2.324	4.083	0.676
800QFH300-68 (50 ksi)	0.0713	3.75	1.103	10.93	3.15	1.41	1.13	10.41	2.52	75.55	4.22	1.38	0.66	19.88	7.068	1.869	19.210	-2.305	4.062	0.678
800QFH300-97 (50 ksi)	0.1017	5.27	1.550	15.16	3.13	1.92	1.11	15.07	3.75	112.24	10.89	1.92	0.93	27.83	9.502	5.345	25.824	-2.266	4.019	0.682
800QFH300-118 (50 ksi)	0.1242	6.37	1.873	18.12	3.11	2.27	1.10	18.12	4.53	152.65	16.24	2.27	1.10	38.83	11.080	9.628	30.144	-2.236	3.986	0.685
800QFH350-33 (33 ksi)	0.0346	1.96	0.578	6.01	3.22	1.03	1.34	3.13	0.78	12.91	0.47	0.73	0.31	5.05	2.047	0.231	14.115	-2.791	4.469	0.610
800QFH350-43 (33 ksi)	0.0451	2.55	0.751	7.79	3.22	1.33	1.33	6.53	1.46	28.81	1.05	1.22	0.50	9.90	3.478	0.509	18.153	-2.779	4.456	0.611
800QFH350-54 (50 ksi)	0.0566	3.19	0.938	9.68	3.21	1.65	1.32	8.28	1.87	56.06	2.09	1.53	0.63	18.84	6.743	1.005	22.352	-2.765	4.440	0.612
800QFH350-68 (50 ksi)	0.0713	3.99	1.174	12.05	3.20	2.04	1.32	11.01	2.60	77.89	4.22	2.00	0.83	25.00	8.405	1.990	27.443	-2.745	4.419	0.614
800QFH350-97 (50 ksi)	0.1017	5.62	1.652	16.74	3.18	2.79	1.30	15.81	3.80	113.80	10.89	2.79	1.17	40.43	11.409	5.696	37.069	-2.705	4.375	0.618
800QFH350-118 (50 ksi)	0.1242	6.79	2.00	20.05	3.17	3.30	1.29	19.49	4.77	158.30	16.24	3.30	1.39	49.13	13.409	10.267	43.434	-2.675	4.314	0.616

NOTES:

- a.) Tables are based on using 2007 AISI NASPEC Code (ASD).
- b.) 33 and 43 mil we use Direct Strength Method (DSM).

QUICKFRAME JAMB PROPERTIES

Member Physical Properties			Gross Section Properties					Effective Section Properties					Torsional Properties				
Members	Design Thickness (in.)	Weight (plf.)	Area (in. ²)	Ix (in. ⁴)	Rx (in.)	Iy (in. ⁴)	Ry (in.)	Punched - Jamb Section (Strong Axis)					J x1000 (in. ⁴)	Cw (in. ⁶)	Xo (in.)	Ro (in.)	Beta
								Ixe (in. ⁴)	Sxe (in. ³)	Ma (in.-k.)	Vag (k.)	Vanet (k.)					
3 5/8" Members																	
362QFJ300-33 (33 ksi)	0.0346	1.33	0.392	0.90	1.51	0.54	1.18	0.56	0.31	5.10	1.02	0.52	0.156	2.392	-2.982	3.545	0.292
362QFJ300-43 (33 ksi)	0.0451	1.73	0.509	1.16	1.51	0.70	1.17	0.89	0.49	8.10	1.74	0.68	0.345	3.059	-2.970	3.532	0.293
362QFJ300-54 (50 ksi)	0.0566	2.16	0.634	1.43	1.50	0.86	1.17	1.26	0.63	19.01	3.37	1.02	0.677	3.742	-2.956	3.516	0.293
362QFJ300-68 (50 ksi)	0.0713	2.69	0.791	1.77	1.50	1.06	1.16	1.65	0.87	26.12	4.37	1.00	1.340	4.554	-2.938	3.495	0.293
362QFJ300-97 (50 ksi)	0.1017	3.76	1.105	2.42	1.48	1.44	1.14	2.37	1.29	42.76	5.94	0.88	3.810	6.038	-2.899	3.450	0.294
362QFJ300-118 (50 ksi)	0.1242	4.52	1.329	2.87	1.47	1.70	1.13	2.83	1.56	52.63	7.00	0.78	6.830	6.971	-2.870	3.416	0.294
362QFJ350-33 (33 ksi)	0.0346	1.45	0.426	1.01	1.54	0.78	1.35	0.56	0.31	5.06	1.02	0.52	0.170	3.387	-3.476	4.034	0.258
362QFJ350-43 (33 ksi)	0.0451	1.88	0.554	1.30	1.53	1.00	1.35	0.89	0.49	8.13	1.74	0.68	0.376	4.336	-3.463	4.020	0.258
362QFJ350-54 (50 ksi)	0.0566	2.35	0.691	1.61	1.53	1.24	1.34	1.36	0.67	19.96	3.37	1.02	0.738	5.312	-3.449	4.004	0.258
362QFJ350-68 (50 ksi)	0.0713	2.93	0.862	2.00	1.52	1.53	1.33	1.78	0.91	27.11	4.37	1.00	1.461	6.481	-3.431	3.982	0.258
362QFJ350-97 (50 ksi)	0.1017	4.10	1.207	2.74	1.51	2.09	1.31	2.58	1.36	40.58	5.94	0.88	4.162	8.636	-3.392	3.937	0.258
362QFJ350-118 (50 ksi)	0.1242	4.94	1.453	3.25	1.49	2.46	1.30	3.16	1.70	56.47	7.00	0.78	7.473	10.012	-3.362	3.903	0.258
4" Members																	
400QFJ300-33 (33 ksi)	0.0346	1.38	0.405	1.12	1.66	0.56	1.18	0.70	0.35	5.75	0.98	0.59	0.162	2.781	-2.915	3.557	0.329
400QFJ300-43 (33 ksi)	0.0451	1.79	0.526	1.45	1.66	0.73	1.18	1.11	0.55	9.14	1.74	0.81	0.357	3.559	-2.902	3.544	0.329
400QFJ300-54 (50 ksi)	0.0566	2.23	0.655	1.79	1.65	0.90	1.17	1.57	0.72	21.44	3.37	1.22	0.700	4.356	-2.883	3.528	0.332
400QFJ300-68 (50 ksi)	0.0713	2.78	0.818	2.22	1.65	1.10	1.16	2.07	0.99	29.67	4.87	1.36	1.386	5.306	-2.870	3.506	0.330
400QFJ300-97 (50 ksi)	0.1017	3.89	1.144	3.04	1.63	1.50	1.14	2.98	1.47	48.63	6.66	1.21	3.942	7.047	-2.831	3.461	0.331
400QFJ300-118 (50 ksi)	0.1242	4.68	1.376	3.60	1.62	1.76	1.13	3.57	1.78	60.08	7.87	1.10	7.074	8.147	-2.801	3.427	0.332
400QFJ350-33 (33 ksi)	0.0346	1.49	0.439	1.26	1.69	0.81	1.35	0.69	0.35	5.69	0.98	0.60	0.175	3.943	-3.404	4.035	0.288
400QFJ350-43 (33 ksi)	0.0451	1.94	0.571	1.62	1.69	1.04	1.35	1.11	0.55	9.15	1.74	0.81	0.387	5.050	-3.391	4.021	0.289
400QFJ350-54 (50 ksi)	0.0566	2.42	0.712	2.01	1.68	1.29	1.34	1.70	0.75	22.48	3.37	1.22	0.760	6.192	-3.377	4.005	0.289
400QFJ350-68 (50 ksi)	0.0713	3.02	0.889	2.49	1.67	1.59	1.34	2.23	1.03	30.72	4.87	1.36	1.507	7.580	-3.359	3.984	0.289
400QFJ350-97 (50 ksi)	0.1017	4.23	1.245	3.43	1.66	2.17	1.32	3.23	1.54	45.98	6.66	1.21	4.293	10.092	-3.319	3.938	0.290
400QFJ350-118 (50 ksi)	0.1242	5.10	1.500	4.07	1.65	2.56	1.31	3.96	1.93	64.07	7.87	1.10	7.713	11.716	-3.289	3.903	0.290
6" Members																	
600QFJ300-33 (33 ksi)	0.0346	1.61	0.474	2.82	2.44	0.65	1.17	1.71	0.57	9.40	0.64	0.64	0.189	5.632	-2.598	3.750	0.520
600QFJ300-43 (33 ksi)	0.0451	2.09	0.616	3.64	2.43	0.84	1.17	2.73	0.91	14.99	1.42	1.24	0.418	7.224	-2.586	3.738	0.521
600QFJ300-54 (50 ksi)	0.0566	2.61	0.769	4.52	2.43	1.04	1.16	4.06	1.26	37.68	2.82	1.95	0.821	8.866	-2.572	3.722	0.522
600QFJ300-68 (50 ksi)	0.0713	3.27	0.960	5.61	2.42	1.28	1.15	5.31	1.70	50.98	5.35	2.88	1.628	10.837	-2.553	3.700	0.524
600QFJ300-97 (50 ksi)	0.1017	4.58	1.347	7.75	2.40	1.74	1.14	7.61	2.50	82.67	10.47	3.81	4.644	14.498	-2.513	3.656	0.528
600QFJ300-118 (50 ksi)	0.1242	5.52	1.624	9.24	2.35	2.06	1.13	9.20	3.07	103.36	12.53	3.62	8.351	16.860	-2.483	3.622	0.530
600QFJ350-33 (33 ksi)	0.0346	1.73	0.509	3.12	2.48	0.93	1.36	1.69	0.56	9.28	0.64	0.64	0.203	8.003	-3.063	4.166	0.459
600QFJ350-43 (33 ksi)	0.0451	2.25	0.661	4.05	2.44	1.21	1.35	2.72	0.91	14.96	1.42	1.24	0.448	10.278	-3.051	4.153	0.460
600QFJ350-54 (50 ksi)	0.0566	2.81	0.825	5.02	2.47	1.49	1.34	4.35	1.32	39.41	2.82	1.95	0.881	12.634	-3.036	4.137	0.461
600QFJ350-68 (50 ksi)	0.0713	3.51	1.032	6.24	2.46	1.84	1.34	5.65	1.75	52.54	5.35	2.88	1.748	15.477	-3.017	4.115	0.462
600QFJ350-97 (50 ksi)	0.1017	4.93	1.449	8.63	2.44	2.52	1.32	8.13	2.59	77.40	10.47	3.81	4.994	20.809	-2.977	4.070	0.465
600QFJ350-118 (50 ksi)	0.1242	5.94	1.748	10.31	2.43	2.98	1.31	10.01	3.26	108.02	12.53	3.62	8.990	24.294	-2.946	4.035	0.467
8" Members																	
800QFJ300-33 (33 ksi)	0.0346	1.85	0.543	5.46	3.17	0.72	1.15	3.05	0.76	12.56	0.47	0.47	0.217	9.930	-2.350	4.110	0.673
800QFJ300-43 (33 ksi)	0.0451	2.40	0.706	7.07	3.16	0.93	1.15	4.90	1.23	20.22	1.05	1.05	0.479	12.756	-2.338	4.098	0.674
800QFJ300-54 (50 ksi)	0.0566	3.00	0.882	8.79	3.16	1.15	1.14	7.77	1.78	53.34	2.09	2.09	0.942	15.681	-2.324	4.083	0.676
800QFJ300-68 (50 ksi)	0.0713	3.75	1.103	10.93	3.15	1.41	1.13	10.38	2.51	75.14	4.22	3.37	1.869	19.210	-2.305	4.062	0.678
800QFJ300-97 (50 ksi)	0.1017	5.27	1.550	15.16	3.13	1.92	1.11	15.04	3.74	111.97	10.89	5.94	5.345	25.824	-2.266	4.019	0.682
800QFJ300-118 (50 ksi)	0.1242	6.37	1.873	18.12	3.11	2.27	1.10	18.09	4.52	152.36	16.24	7.12	9.628	30.144	-2.236	3.986	0.685
800QFJ350-33 (33 ksi)	0.0346	1.96	0.578	6.01	3.22	1.03	1.34	3.13	0.78	12.91	0.47	0.47	0.231	14.115	-2.791	4.469	0.610
800QFJ350-43 (33 ksi)	0.0451	2.55	0.751	7.79	3.22	1.33	1.33	5.08	1.27	20.95	1.05	1.05	0.509	18.153	-2.779	4.456	0.611
800QFJ350-54 (50 ksi)	0.0566	3.19	0.938	9.68	3.21	1.65	1.32	8.21	1.83	54.73	2.09	2.09	1.005	22.352	-2.765	4.440	0.612
800QFJ350-68 (50 ksi)	0.0713	3.99	1.174	12.05	3.20	2.04	1.32	10.98	2.58	77.24	4.22	3.37	1.990	27.443	-2.745	4.419	0.614
800QFJ350-97 (50 ksi)	0.1017	5.62	1.652	16.74	3.18	2.79	1.30	15.78	3.78	113.10	10.89	5.94	5.696	37.069	-2.705	4.375	0.618
800QFJ350-118 (50 ksi)	0.1242	6.79	2.00	20.05	3.17	3.30	1.29	19.46	4.75	157.65	16.24	7.12	10.267	43.434	-2.675	4.314	0.616

NOTES:
a.) Tables are based on using 2007 AISI NASPEC Code (AISI).
b.) 33 and 43 mil we use Direct Strength Method (DSM).

QUICKFRAME™ CLIP (QFC)

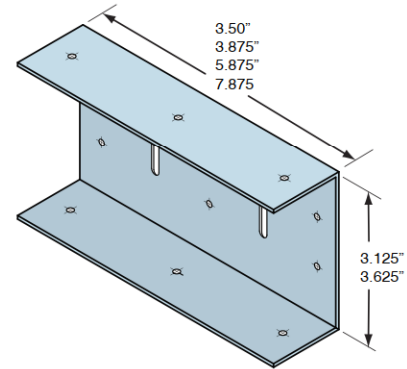
The QuickFrame Clip (QFC) is a 14 gauge (68 mil) U-shaped clip is designed to attach the QuickFrame Header to the QuickFrame Jamb.

Material: 68 mil (14 gauge), 50 ksi

Finish: Galvanized G90

Installation:

- Attach the QuickFrame clip (QFC) with minimum of 4 #10-16 screws to the QuickFrame Jamb (QFJ) and QuickFrame Header (QFH) respectively.



MODEL NO.	GAUGE	DIMENSIONS
QFC362300	14	3 1/2" x 3 1/8"
QFC400300	14	3 7/8" x 3 1/8"
QFC600300	14	5 7/8" x 3 1/8"
QFC800300	14	7 7/8" x 3 1/8"
QFC362350	14	3 1/2" x 3 5/8"
QFC400350	14	3 7/8" x 3 5/8"
QFC600350	14	5 7/8" x 3 5/8"
QFC800350	14	7 7/8" x 3 5/8"

QFC ALLOWABLE LATERAL LOADS (LBS.)

QuickFrame Clip	QuickFrame Member							
	54 mil (16 Gauge)		68 mil (14 Gauge)		97 mil (12 Gauge)		118 mil (10 Gauge)	
	50 ksi		50 ksi		50 ksi		50 ksi	
QFC362300	1,330		1,330		2,160		2,160	
QFC400300	1,330		1,330		2,160		2,160	
QFC600300	1,490		1,490		2,300		2,300	
QFC800300	1,490		1,490		2,300		2,300	
QFC362350	1,500		1,500		2,480		2,480	
QFC400350	1,480		1,480		2,300		2,300	
QFC600350	1,480		1,480		2,300		2,300	
QFC800350	1,480		1,480		2,300		2,300	

QFC ALLOWABLE VERTICAL LOADS (LBS.)

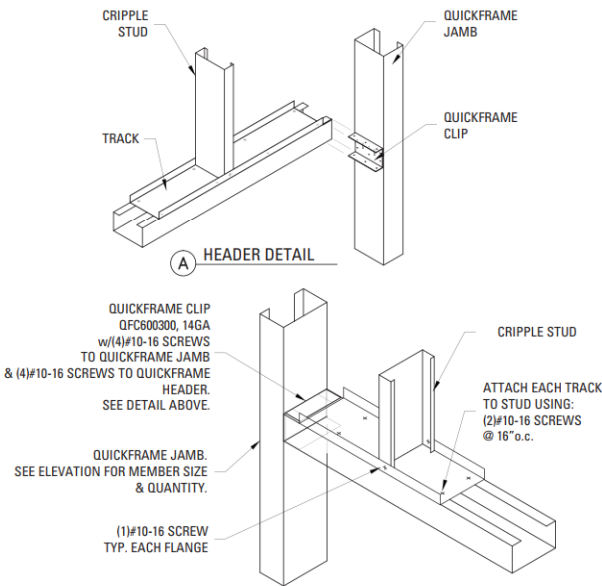
QuickFrame Clip	QuickFrame Member							
	54 mil (16 Gauge)		68 mil (14 Gauge)		97 mil (12 Gauge)		118 mil (10 Gauge)	
	50 ksi		50 ksi		50 ksi		50 ksi	
	0" Gap	1/4" Gap	0" Gap	1/4" Gap	0" Gap	1/4" Gap	0" Gap	1/4" Gap
QFC362300	1,090	948	1,090	948	1,630	1,418	1,630	1,418
QFC400300	1,030	896	1,030	896	1,380	1,200	1,380	1,200
QFC600300	1,030	896	1,030	896	1,380	1,200	1,380	1,200
QFC800300	1,030	896	1,030	896	1,380	1,200	1,380	1,200
QFC362350	940	818	940	818	1,430	1,244	1,430	1,244
QFC400350	940	818	940	818	1,430	1,244	1,430	1,244
QFC600350	1,030	896	1,030	896	1,710	1,488	1,710	1,488
QFC800350	1,030	896	1,030	896	1,710	1,488	1,710	1,488

- Notes:
- A. Tabulated values are based on #10-16 screws with ultimate shear capacity of 1,600 lbs per screw.
 - B. Allowable loads have not been increased for wind or seismic.
 - C. Use the squared interaction equations when QFC subjected to both vertical and lateral loads.
 - D. Tabulated vertical loads are limited to max 1/8" vertical displacement of the clip.
 - E. Up to 1/4" gap is permitted between the end of QF Header and the QF Jamb. Allowable vertical loads are listed for no gap and 1/4" gap. Linear interpolations is permitted for smaller gaps.

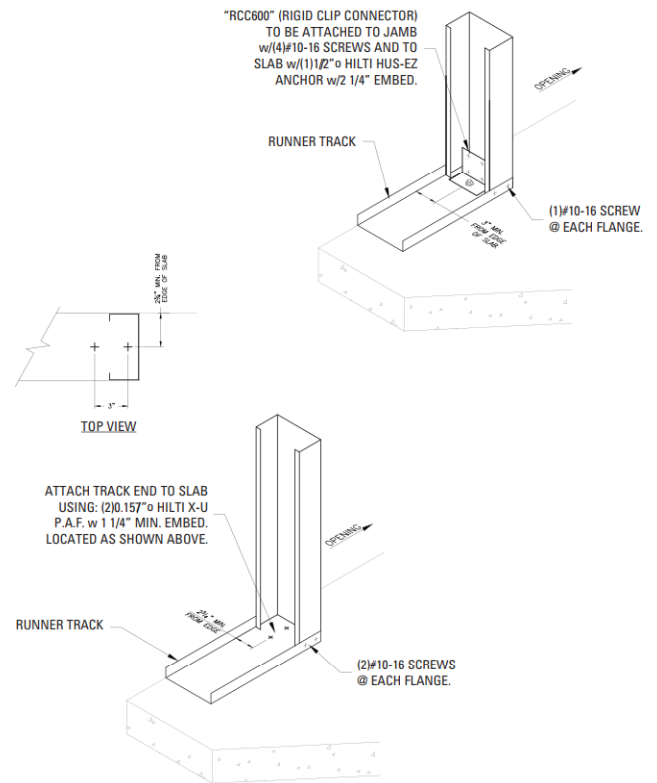
*1/4" GAP is the distance from the web of the QuickFrame Jamb to the end of the QuickFrame Header
Use 0" Gap values when the QuickFrame Header is tight against the QuickFrame Clip.

SUGGESTED CONNECTION DETAILS

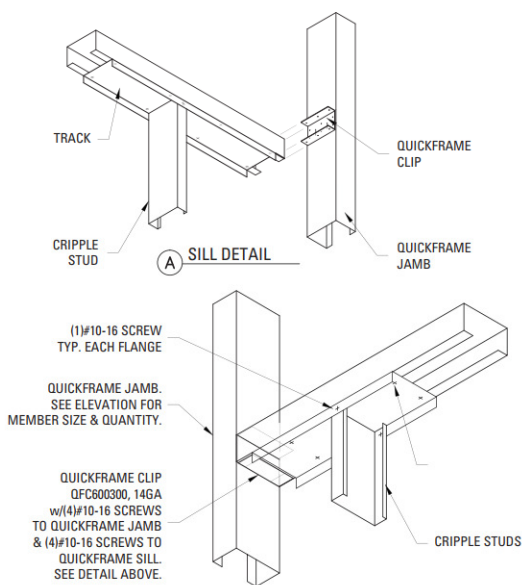
1. QUICKFRAME HEADER CONNECTION



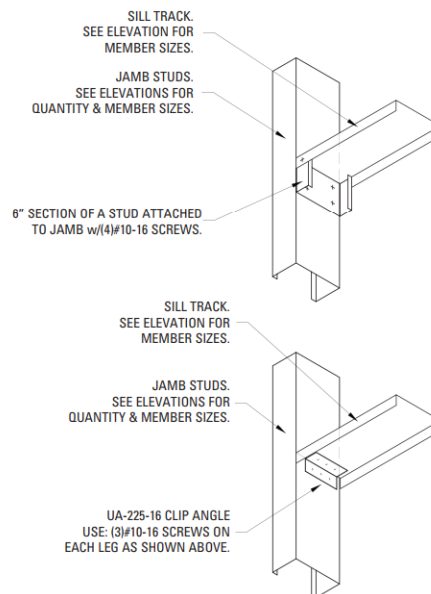
2. JAMB ANCHORAGE



3. QUICKFRAME SILL CONNECTION



4. SILL TRACK CONNECTION





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