

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**
- **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
$\beta$	$1 - (x_o / r_o)^2$

## 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:

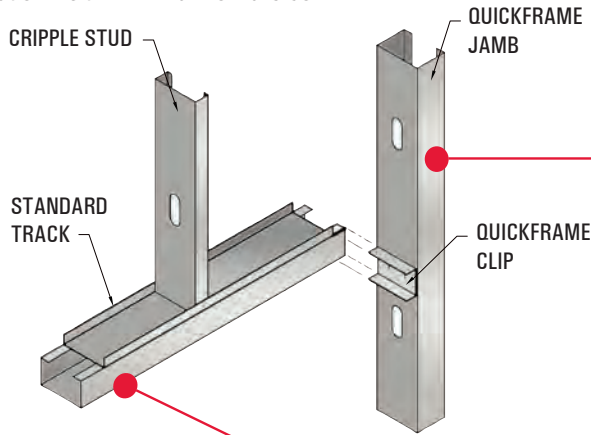
- Available Thickness’s:  
33 mils (20 Gauge)  
43 mils (18 Gauge)  
54 mils (16 Gauge)  
68 mils (14 Gauge)  
97 mils (12 Gauge)  
118 mils (10 Gauge)
- Yield Strength:  
50 ksi
- Coating:  
G60 standard  
G90 available upon request

### QuickFrame Clip:

- Available Gauge:  
68 mils (14 Gauge)
- Yield Strength:  
50 ksi
- Coating:  
G90 standard

## 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](http://www.MarinoWare.com).



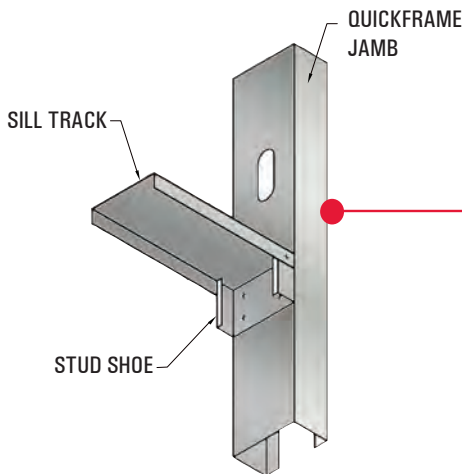
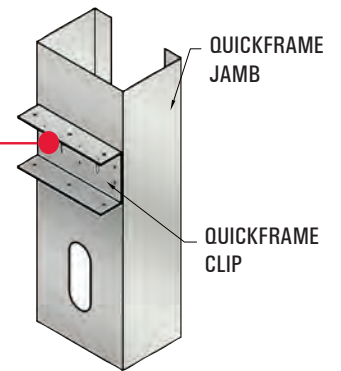
### QUICKFRAME JAMB

- Replaces built-up headers & jamb
- 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

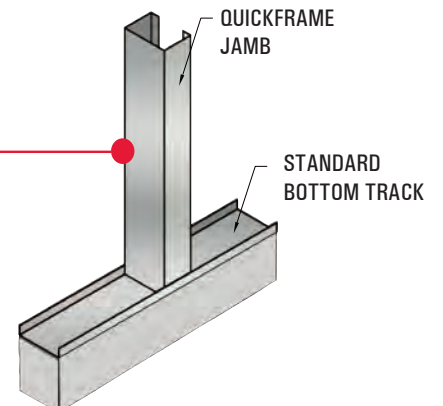


### SILL & QUICKFRAME JAMB

- 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 JAMB PROPERTIES

Member Physical Properties			Gross Section Properties					Effective Section Properties					Torsional Properties				
Members	Design Thickness (in.)	Weight (plf.)	Area (in. <sup>2</sup> )	Ix (in. <sup>4</sup> )	Rx (in.)	Iy (in. <sup>4</sup> )	Ry (in.)	Punched - Jamb Section (Strong Axis)					J x1000 (in. <sup>4</sup> )	Cw (in. <sup>6</sup> )	Xo (in.)	Ro (in.)	Beta
								Ixe (in. <sup>4</sup> )	Sxe (in. <sup>3</sup> )	Ma (in.-k.)	Vag (k.)	Vanet (k.)					
<b>3 5/8" Members</b>																	
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
<b>4" Members</b>																	
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
<b>6" Members</b>																	
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
<b>8" Members</b>																	
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)

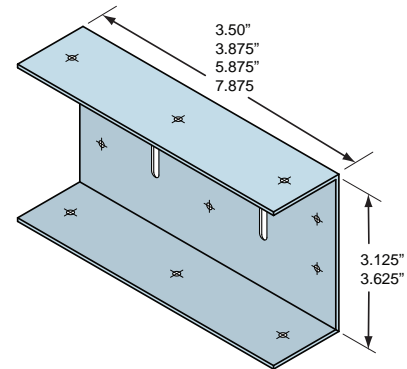
The QuickFrame Clip (QFC) is a 14 gauge (68 mil) U-shaped clip is designed to attach the QuickFrame Header to the QuickFrame Jamb.

**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)	110 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.)

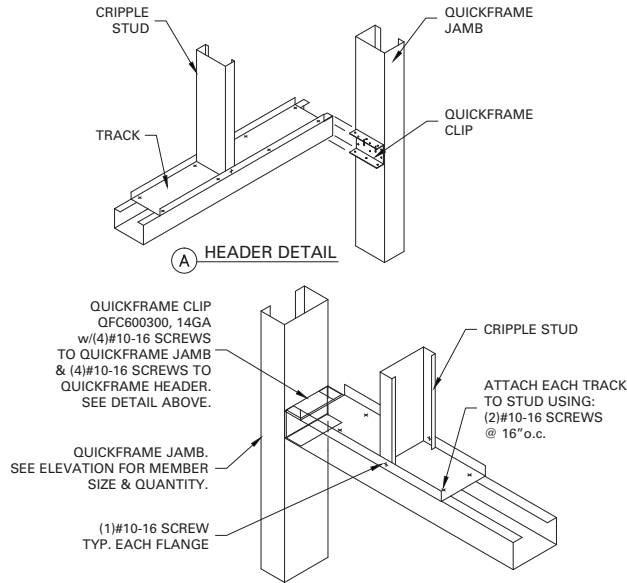
QuickFrame Clip	QuickFrame Member							
	54 mil (16 Gauge)		68 mil (14 Gauge)		97 mil (12 Gauge)		110 mil (10 Gauge)	
	50 ksi		50 ksi		50 ksi		50 ksi	
	0" Gap	1/4" Gap	0" Gap	1/4" Gap	0" Gap	1/4" Gap	0" Gap	1/4" Gap
QFC362300	1,090	948	1,090	948	1,630	1,418	1,630	1,418
QFC400300	1,030	896	1,030	896	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.

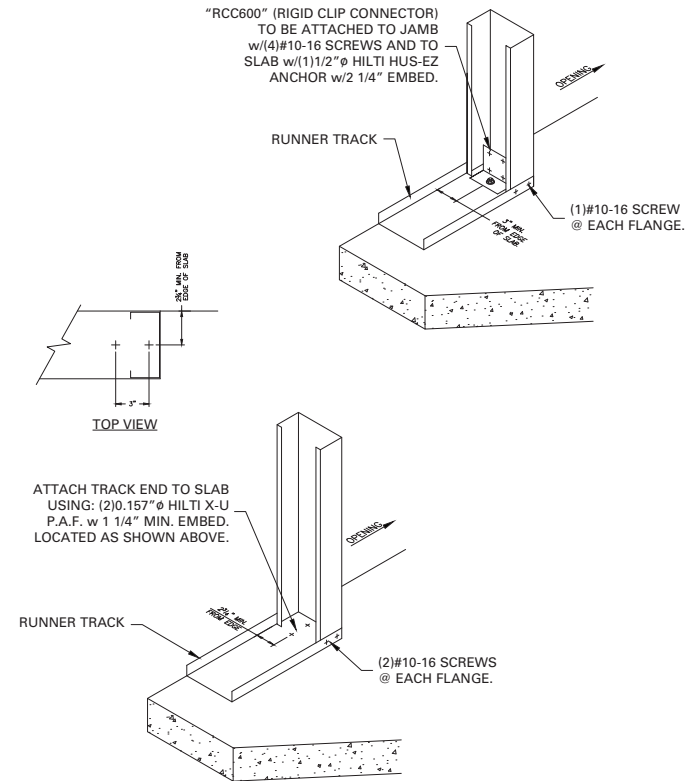
\*1/4" GAP is the distance from the web of the QuickFrame Jamb to the end of the QuickFrame Header  
Use 0" Gap values when the QuickFrame Header is tight against the QuickFrame Clip.

# SUGGESTED CONNECTION DETAILS

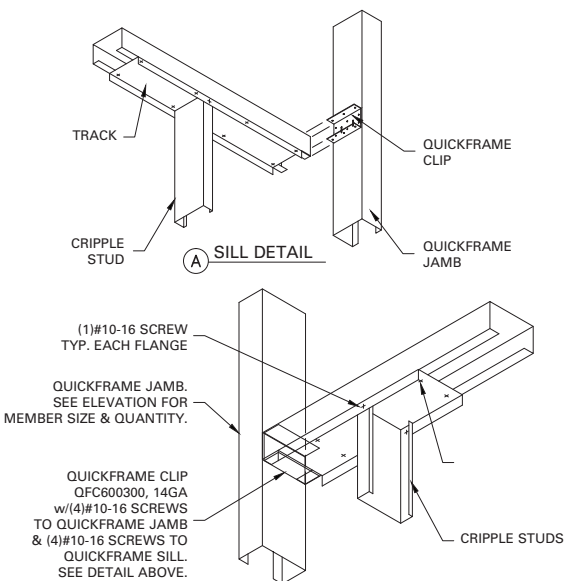
## 1. QUICKFRAME HEADER CONNECTION



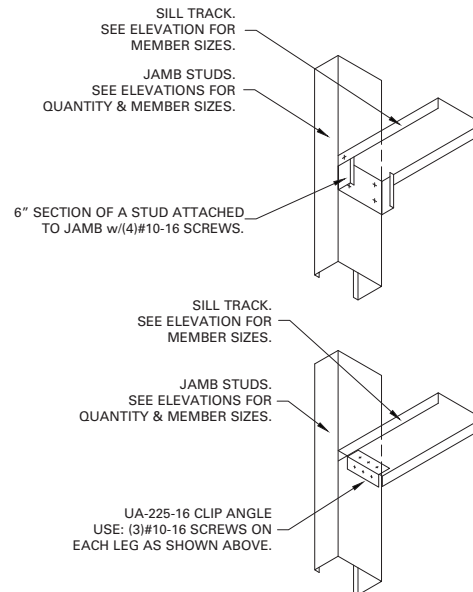
## 2. JAMB ANCHORAGE

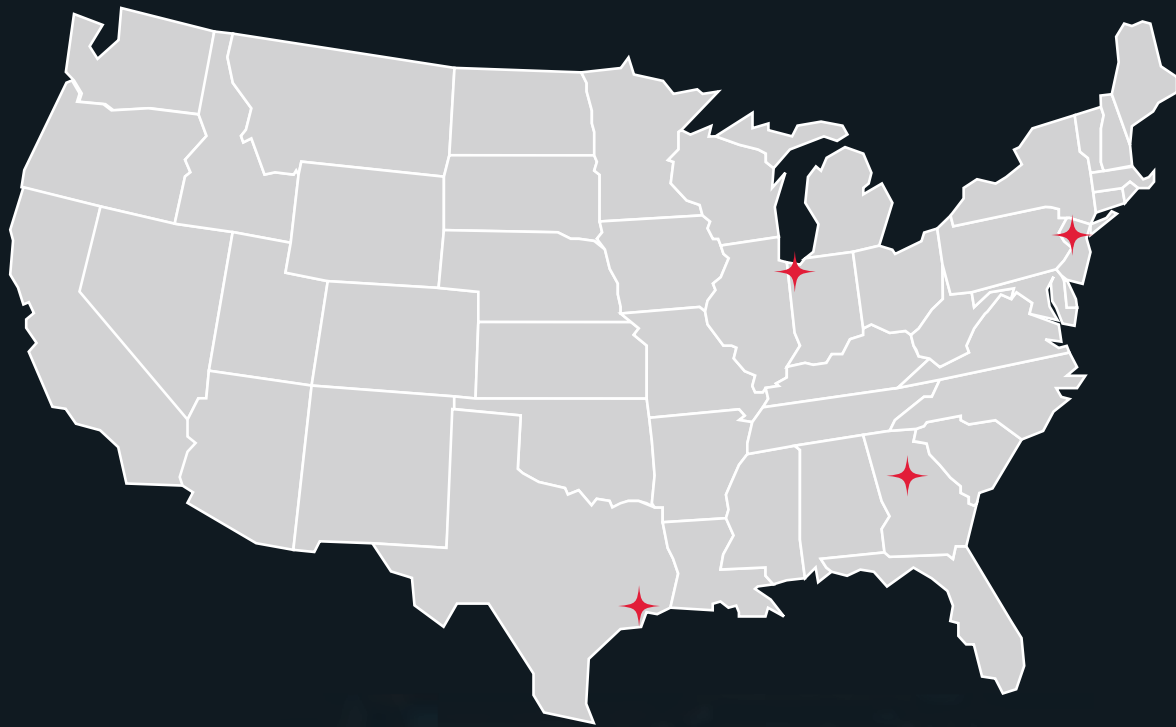


## 3. QUICKFRAME SILL CONNECTION



## 4. SILL TRACK CONNECTION





**MARINO WARE®**

★ **MarinoWARE®**  
**New Jersey Plant**  
400 Metuchen Rd.  
South Plainfield, NJ 07080  
P: 800.627.4661  
F: 908.412.1442

★ **MarinoWARE®**  
**Georgia Plant**  
777 Greenbelt Pkwy.  
Griffin, GA 30223  
P: 800.504.8199  
F: 678.688.1379

★ **MarinoWARE®**  
**Indiana Plant**  
4245 Railroad Ave.  
East Chicago, IN 46312  
P: 219.378.7100  
F: 219.378.7106

★ **MarinoWARE®**  
**Texas Plant**  
10101 Bay Area Blvd.  
Pasadena, TX 77507  
P: 800.504.8199  
F: 281.283.8105

★ **MarinoWARE®**  
**New York Sales Office**  
137 Broadway, Ste. B1  
Amityville, NY 11701  
P: 800.627.4667  
F: 631.691.1492

★ **MarinoWARE®**  
**Engineering Office**  
100 Hendrick Dr., Suite 200  
McDonough, GA 30253  
P: 866-545-1545  
F: 770.507.2605

[www.MarinoWARE.com](http://www.MarinoWARE.com)

For more information, please contact MarinoWARE® Technical Services at 866-545-1545

This technical information reflects the most current information available and supersedes any and all previous publications effective June 10, 2016 #QFRM-0616

© 2016 Ware Industries, Inc. All rights reserved