

The Hurricane Frame

Engineered for the worst conditions



Assembly Instructions

Standard Version

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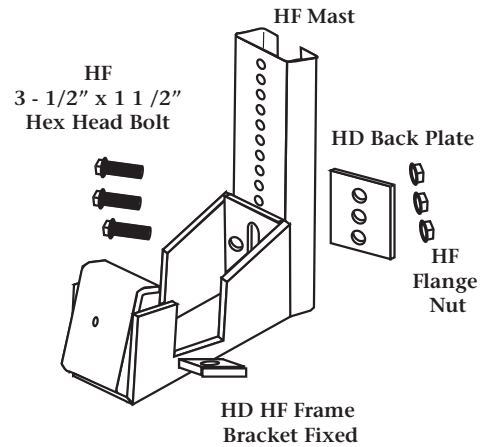
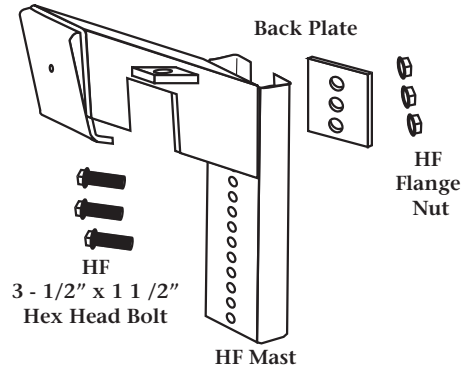
HF Frame Components

HF Frame Bracket Fixed - Mounted to top and bottom of the interior HF Masts and to the HF Side Masts to support the HF Frame.

HF Backing Plate - Mounted inside Masts behind the HF Frame Mounting Brackets.

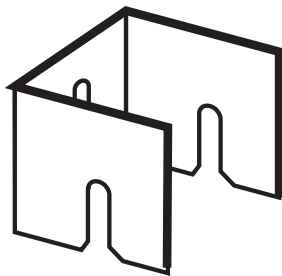
HF Frame Bracket Fixed and HF Backing Plate mounted using two 1/2" x 1 1/2" Flange Bolts and Flange Nuts.

HF Mast - The HF Mast come cut to length for your face size.

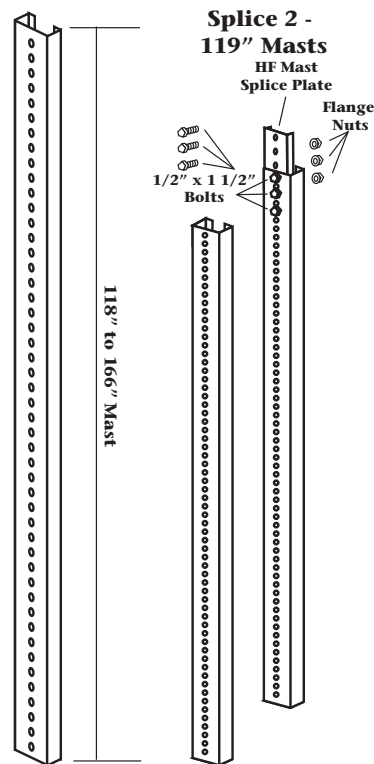


Face Size	HF Mast Length
10'	9' 10" (118")
10' 6"	10' 4" (124")
12'	11' 10" (142")
14'	13' 10" (166")
20'	2 - 119" Mast And Mast Splice Plate

HF Double Sided Hanger Plate - Mounted on Masts at stringer locations to easily hang on angle iron stringers. Attach to Mast with two 1/2" x 1 1/2" Carriage Bolts and Flange Nuts.



HF Double Sided Hanger Plate



HF Frame Components

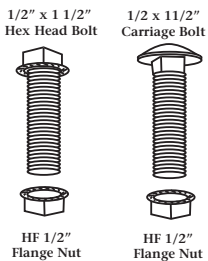
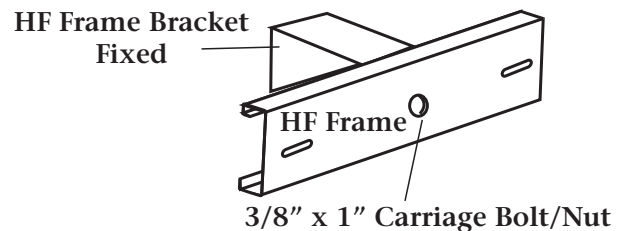
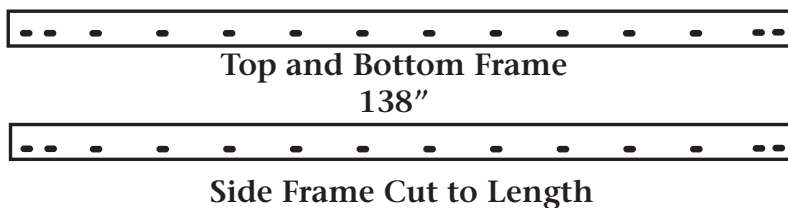
HF Frame - The HF Frame Top and Bottom comes in 138" lengths and is pre-punched for fast and easy installation. Depending on the face size you may get a pre-cut length shorter than 138". Example: a 10' 6" x 36' face would have 4 - 138" lengths and 2 - 132' lengths whereas a 14' x 48' would have 8 - 138" lengths.

The HF Side Frame would be pre-cut to length. Splice plates included where needed.

HF Frame Corner is made to fit perfectly with the Top, Bottom and Side Frames. HF Corners are 12" x 12".

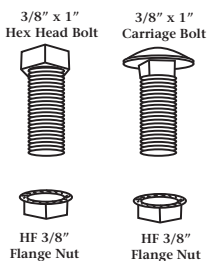
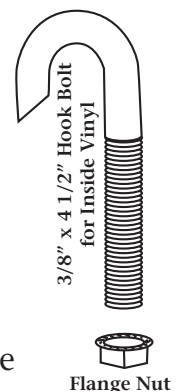
HF Frame Splice Plate - The HF Frame Splice Plates come in two sizes. The 12" Splice is to attach the HF Corners to the Top, Bottom and Side Frames. The 24" Splice is to attach the Top, Bottom or Side Frames end to end.

Use 3/8" x 1" Carriage Bolts to attach the HF Frame to the HF Bracket and to the outside edge and front of the Splice Plates. Use the 3/8" x 1" Bolt on the inside leg.

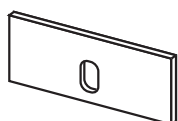


HF Bolts & Nuts - The HF 1/2" x 1 1/2" Flange Bolt is used to attach the HF Frame Bracket Fixed and HF Backing Plate to the Mast. The 1/2" x 1 1/2" Carriage Bolts is used to attached the HF Double Hanger Plates to the Mast.

The 3/8" x 1" Carriage Bolt is used to attach the HF Frame to the HF Frame Bracket Fixed and to attach the HF Frame Splice Plates on the front of the HF Frame and on the outside edges. The 3/8" x 1 1/2" Hex Bolt is used to attach the HF Frame to the HF Frame Splice Plate on the inside edge. The HF Flange Nut is used on all bolts.



HF Flat Washer - Used between the HF Frame Bracket Fixed and the Mast when the HF Double Hanger Plate has to be mounted where it is located near the top or bottom of the mast.



HF Flat Washer

The HF Inside Vinyl Hook - Attach the inside vinyl in the HF Frame.



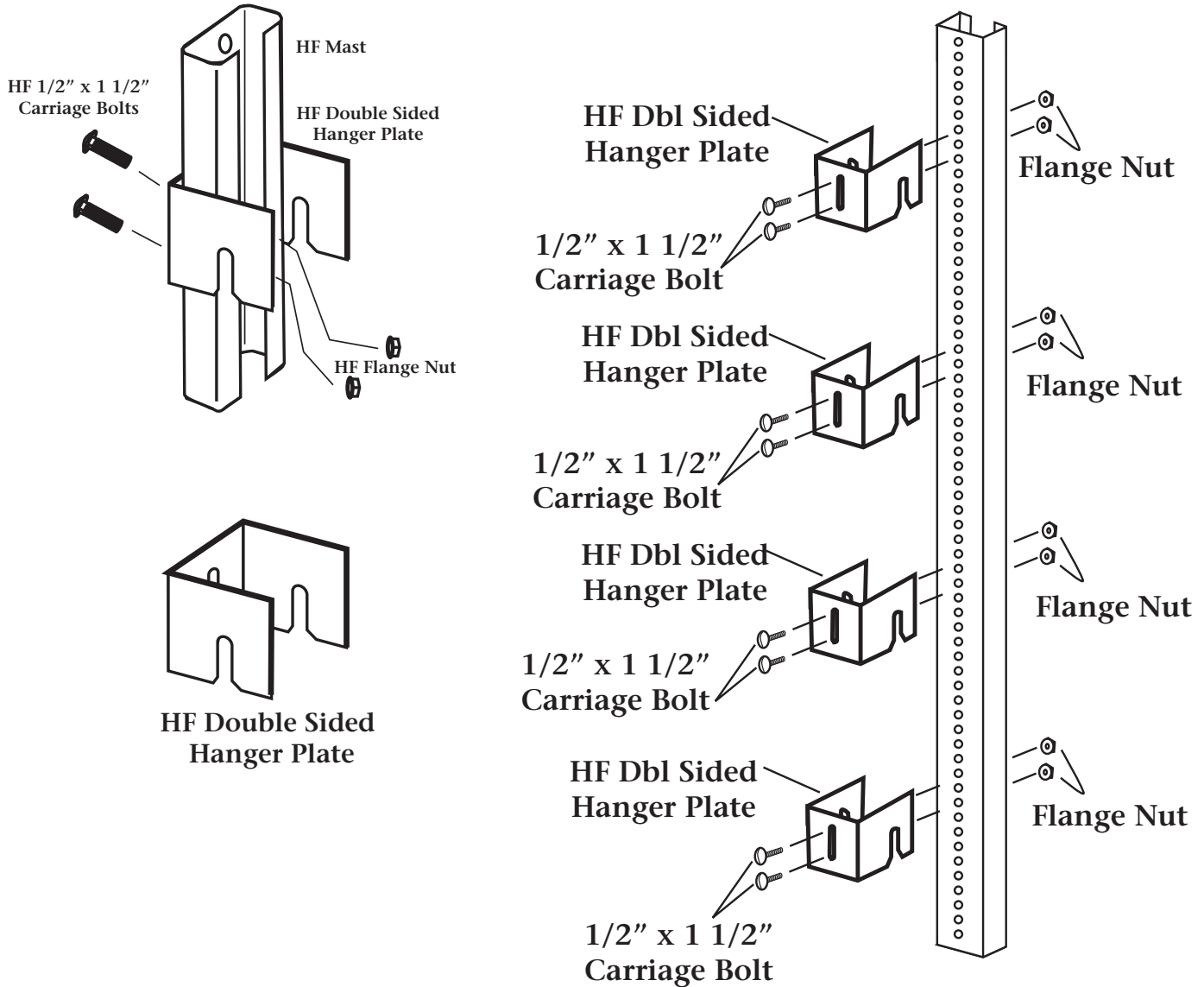
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HF Frame Assembly

Step 1

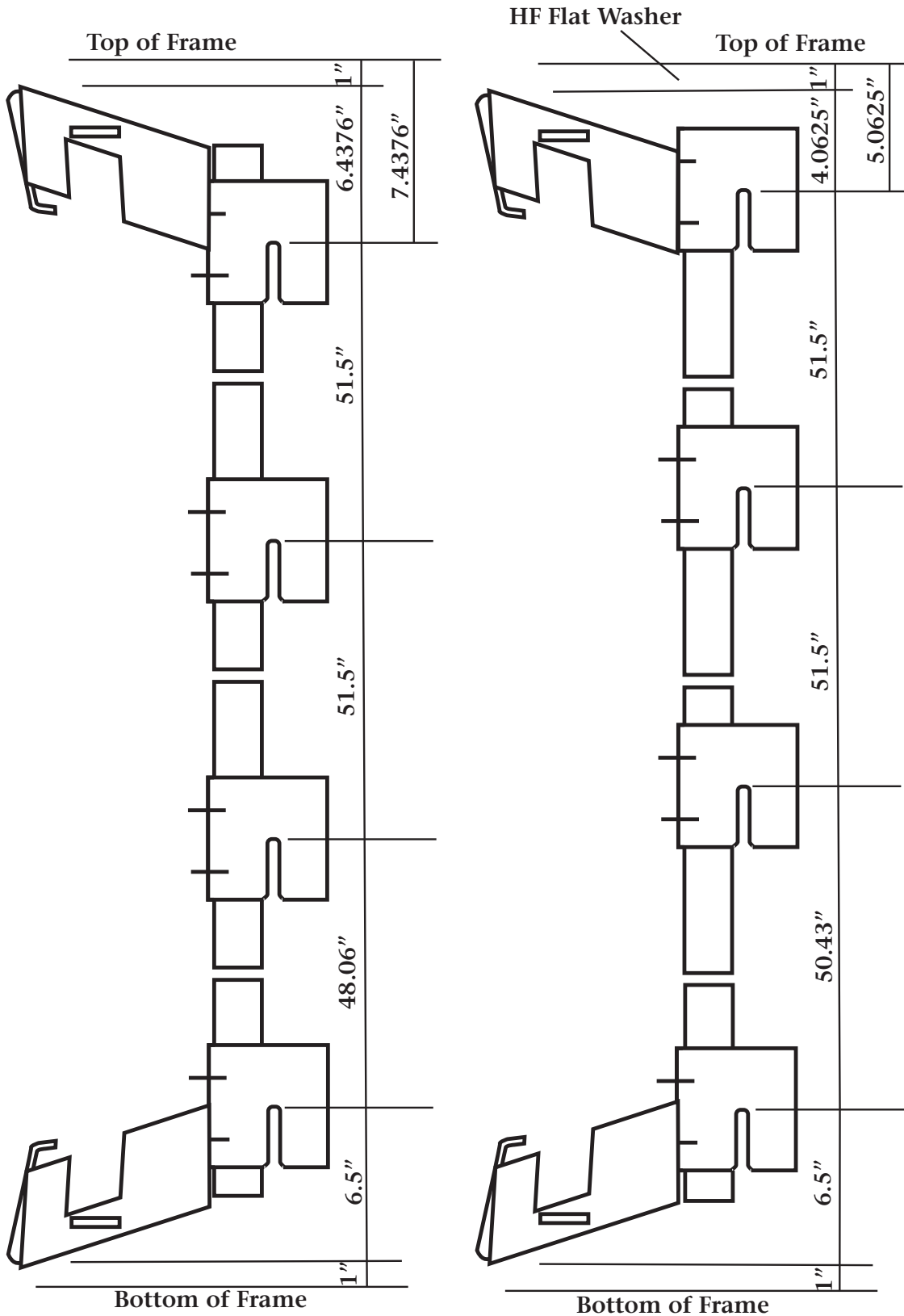
Mark Your stringer spacing for each HF Mast. (See page 5)

Attach the HF Double Hanger Plates to each HF Mast with the 1/2" x 1 1/2" Carriage Bolts and Flange Nuts.

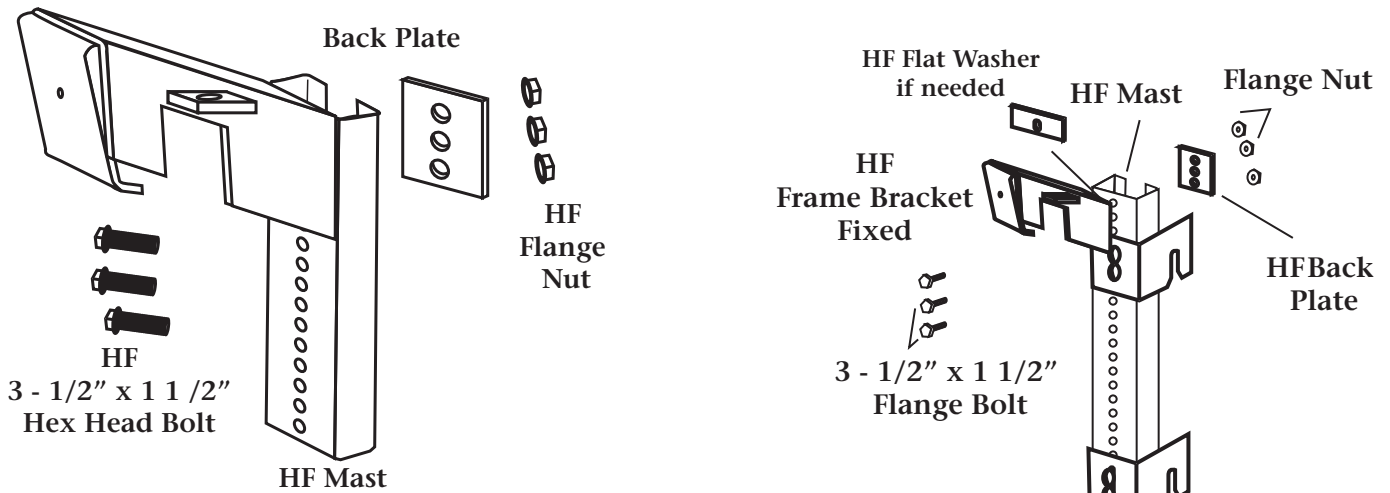


HF Frame Assembly

Optional Hanger Spacing for 14' Mast



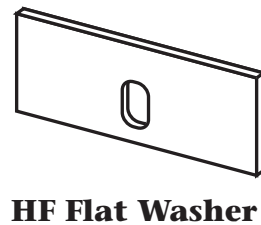
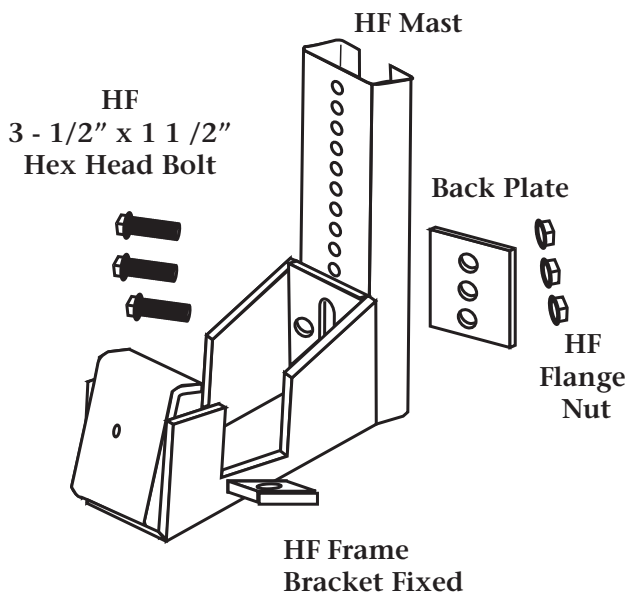
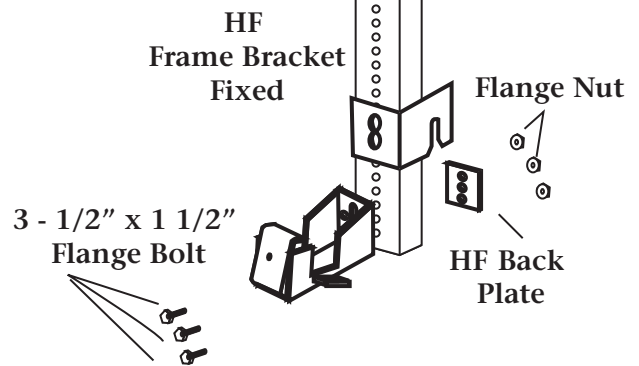
HF Frame Assembly



Step 2

Attach the HF Frame Bracket Fixed with a HF Backing Support at the top and bottom of each interior HF Mast using 3 - 1/2" x 1 1/2" Flange Bolts and Flange Nuts.

Note: The HF Double Hanger Plate may be required to be attached under the HF Frame Bracket Fixed because of stringer spacing. In this case, use the HF Flat Washer to fill in behind the HF Frame Bracket.

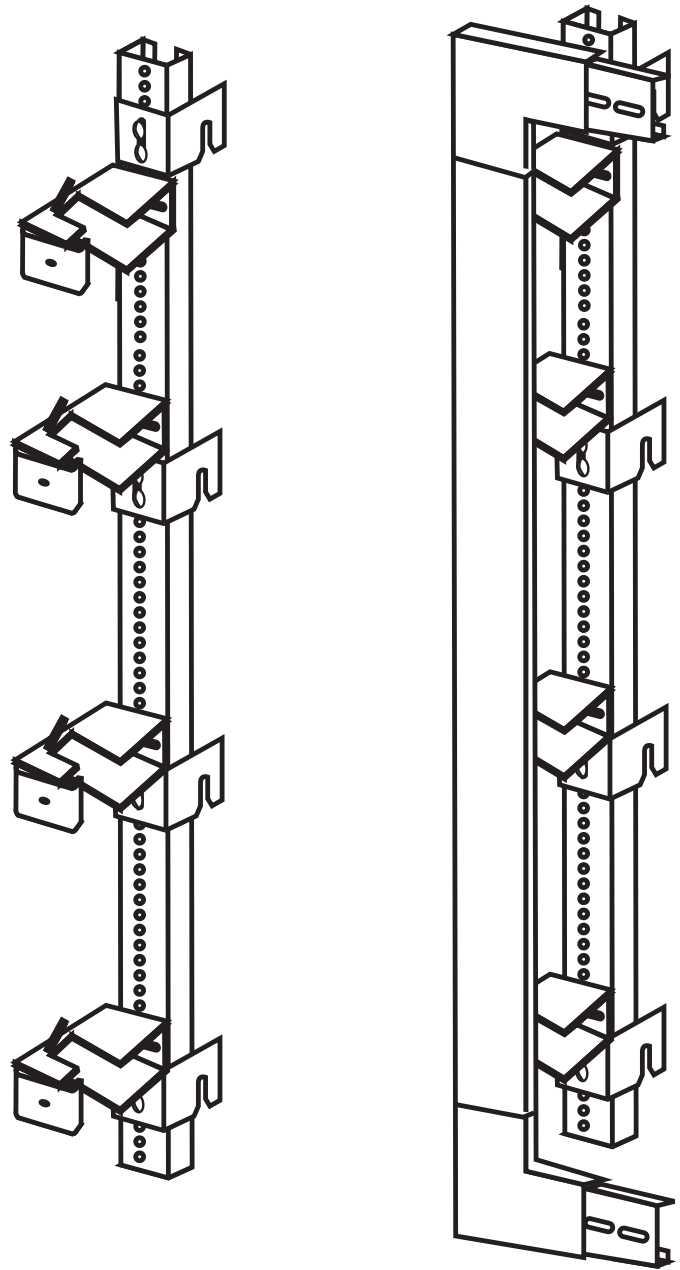
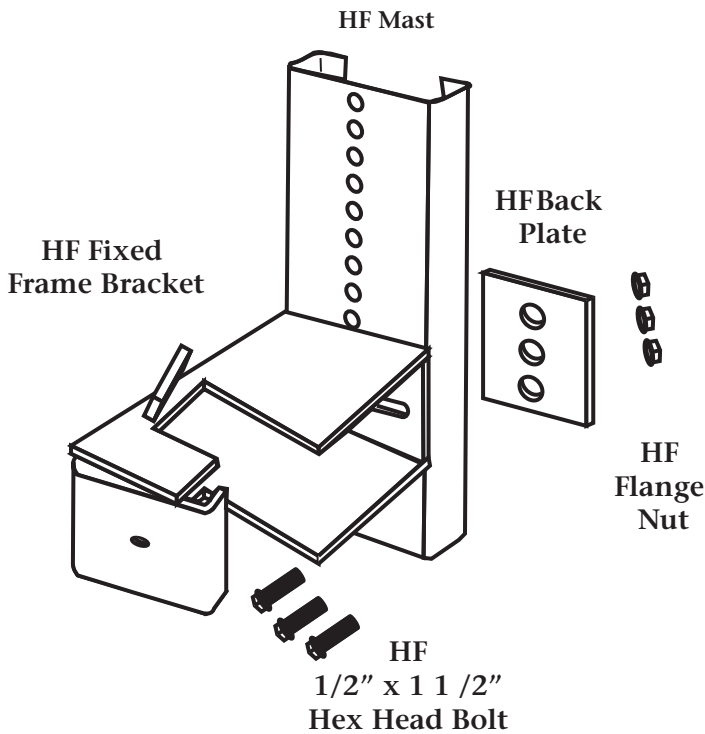


HF Frame Assembly

Step 3

Attach the HF Frame Bracket Fixed and HF Backing Plates to the HF Side masts using HF Flange Bolts and Flange Nuts. One HF Frame Bracket for each stringer.

Note: The side HF Frames and the HF Frame Corners with Splice can be attached to the side frames at this time.



Note: Top and/or Bottom Side HF Frame Support Bracket on 4 stringer structures may need to be mounted below the top HF Double Hanger Plate and above the bottom HF Double Hanger Plate so as to not interfere with the Frame Corner.

HF Frame Assembly



**Top and Bottom Frame
138"**



**Side Frame Cut to Length
Except on 20' sides**

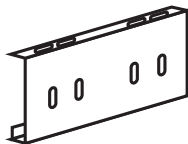
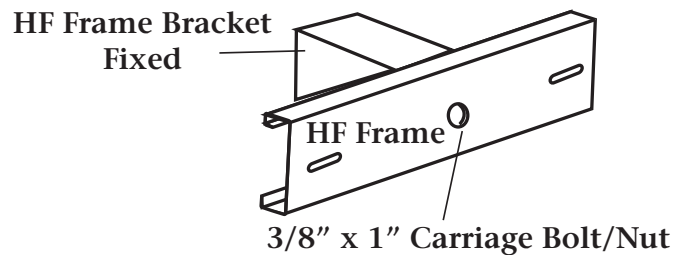
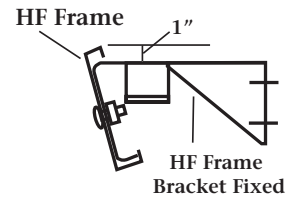
Step 4

Attach the HF Frame to the HF Frame Bracket Fixed with the 3/8" x 1 1/2" Carriage Bolts.

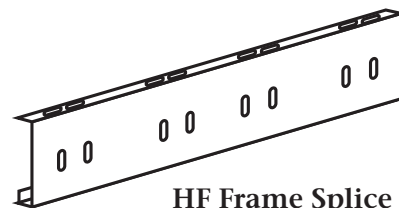
Attach the 24" HF Frame Splice Plates to the HF Frame and the 12" HF Splice Plates to the HF Corners with the 3/8" Carriage Bolts on the front and outside edge. The Carriage Bolt allows the vinyl to slide easily over the HF Frame. Use the 3/8" Hex Head Bolt on the inside edge of the HF Frame.

Use the Flange Nuts on all bolts.

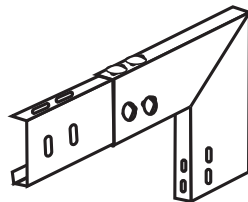
Note: You can completely assemble the HF Hurricane Frame on the ground and lift in place using a Spreader Bar. Do not lift without a spreader bar.



**HF Corner Splice Plate
12"**

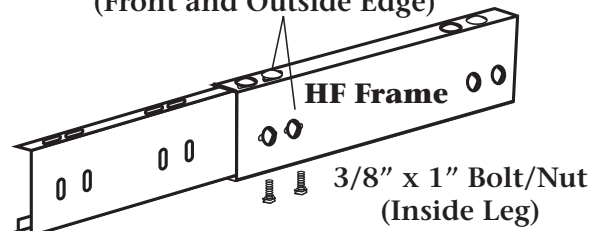


**HF Frame Splice Plate
24"**



**HF Frame Corner
with 12" Splice**

**3/8" x 1" Carriage Bolt/Nut
(Front and Outside Edge)**



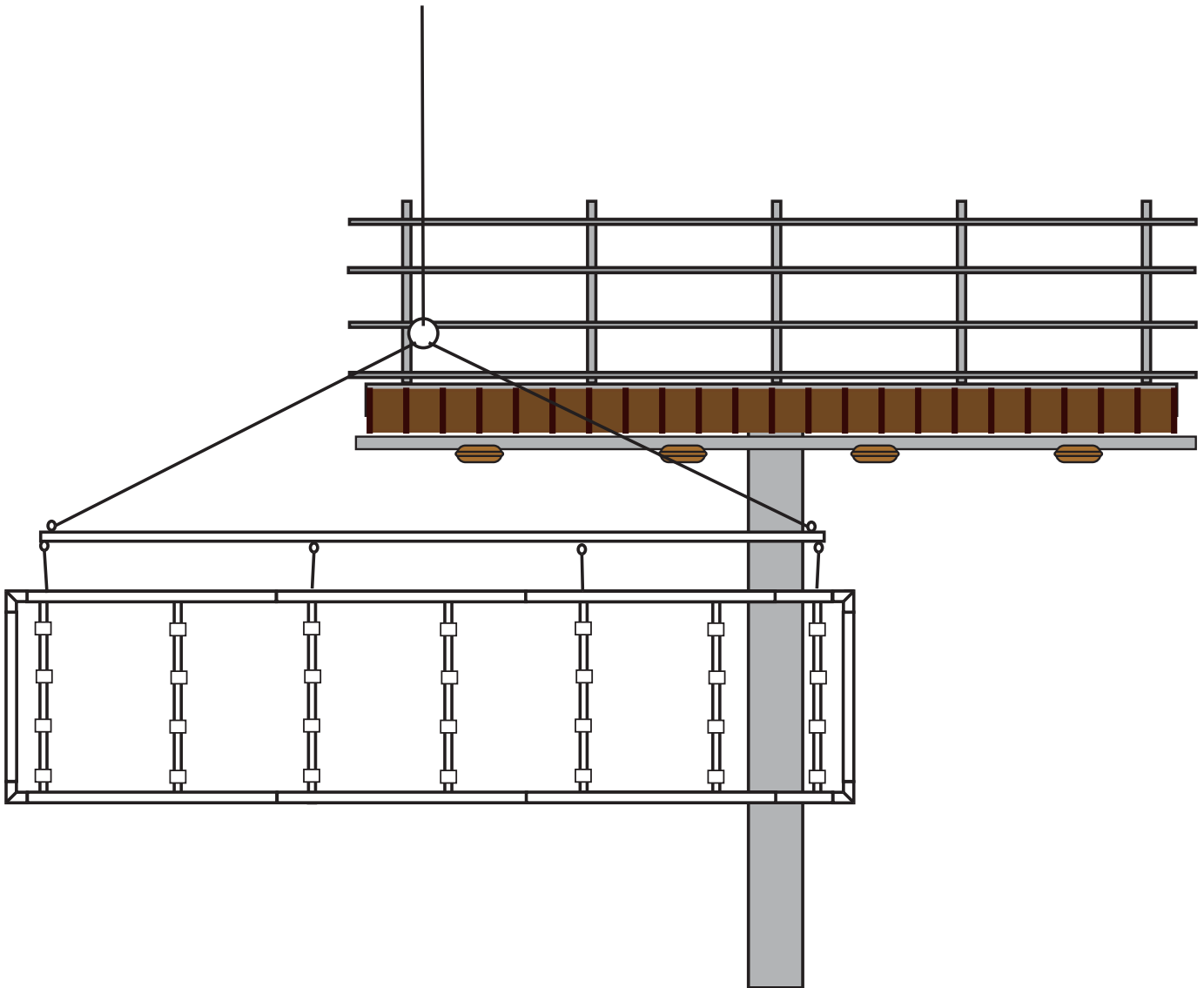
HF Frame with 24" Splice



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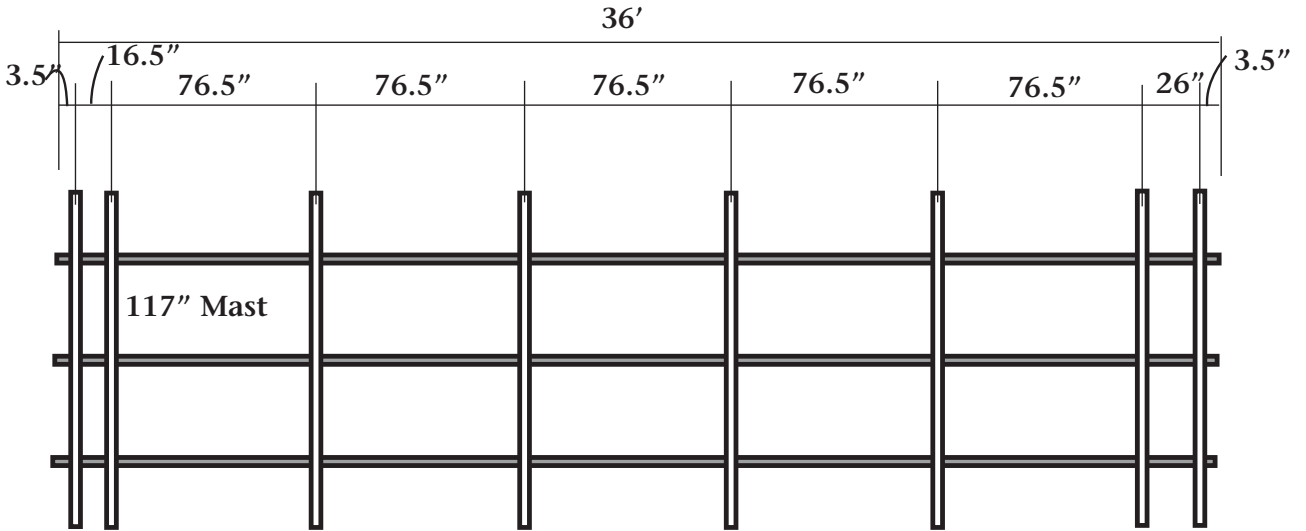
HF Frame Installation

The Formetco HF Hurricane Frames can be assembled on the ground at the site and installed on the structure with a crane and spreader bar.

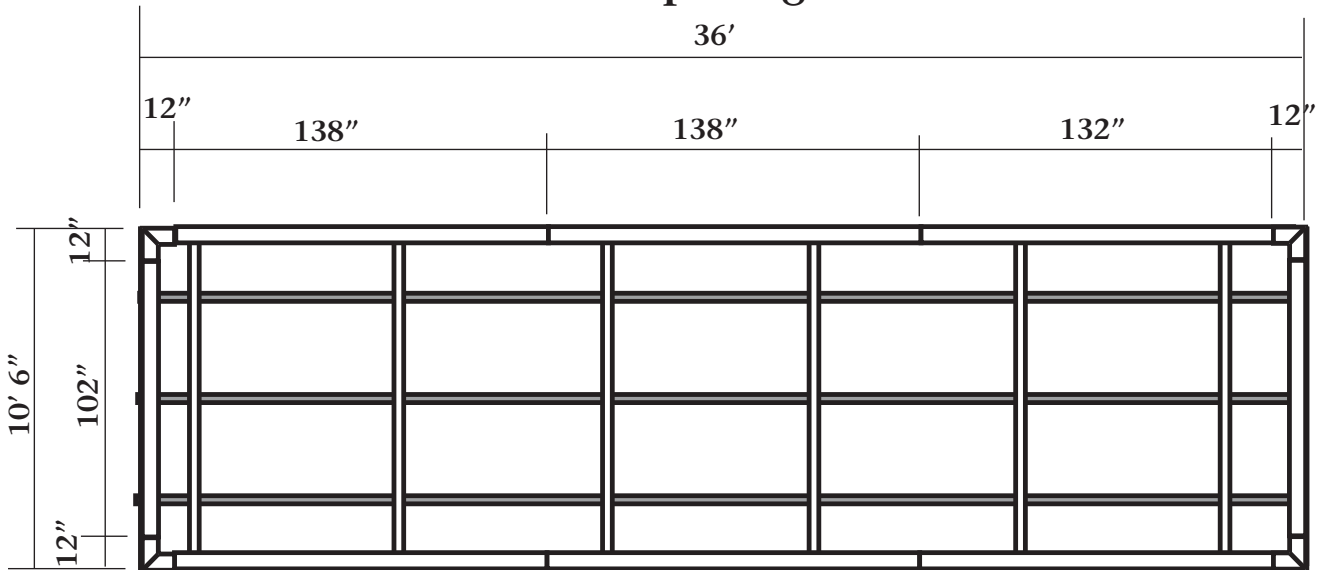


Mast Spacing 10' 6" x 36' HF

HF Mast Spacing 10' 6" x 36'

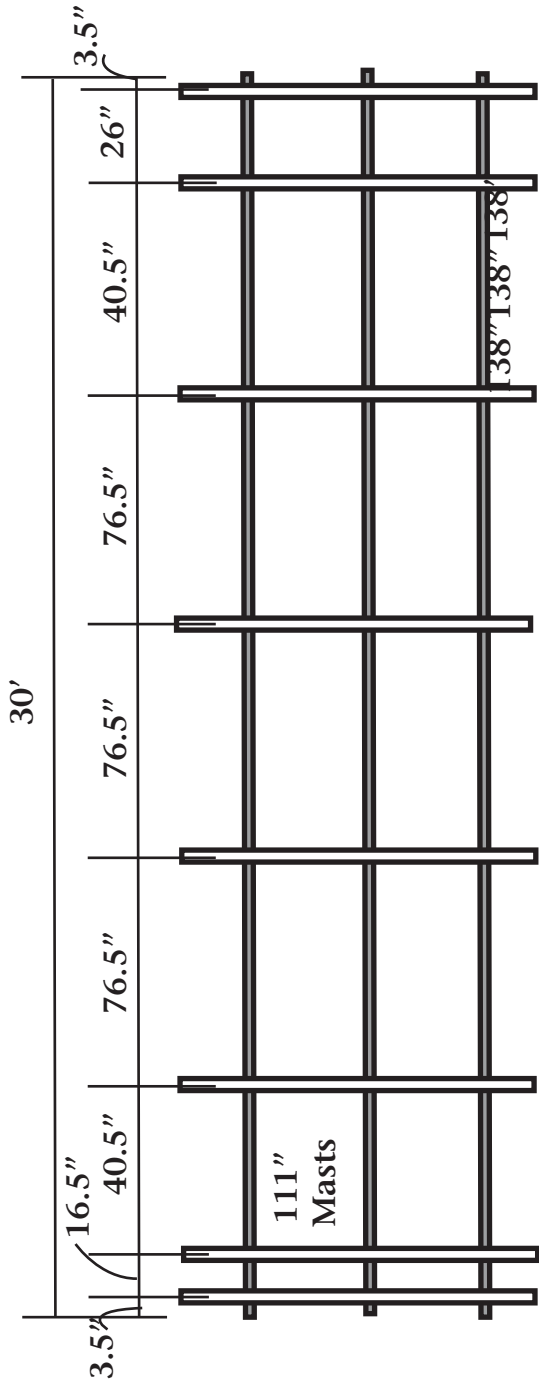


HF Frame Spacing 10' 6" x 36'

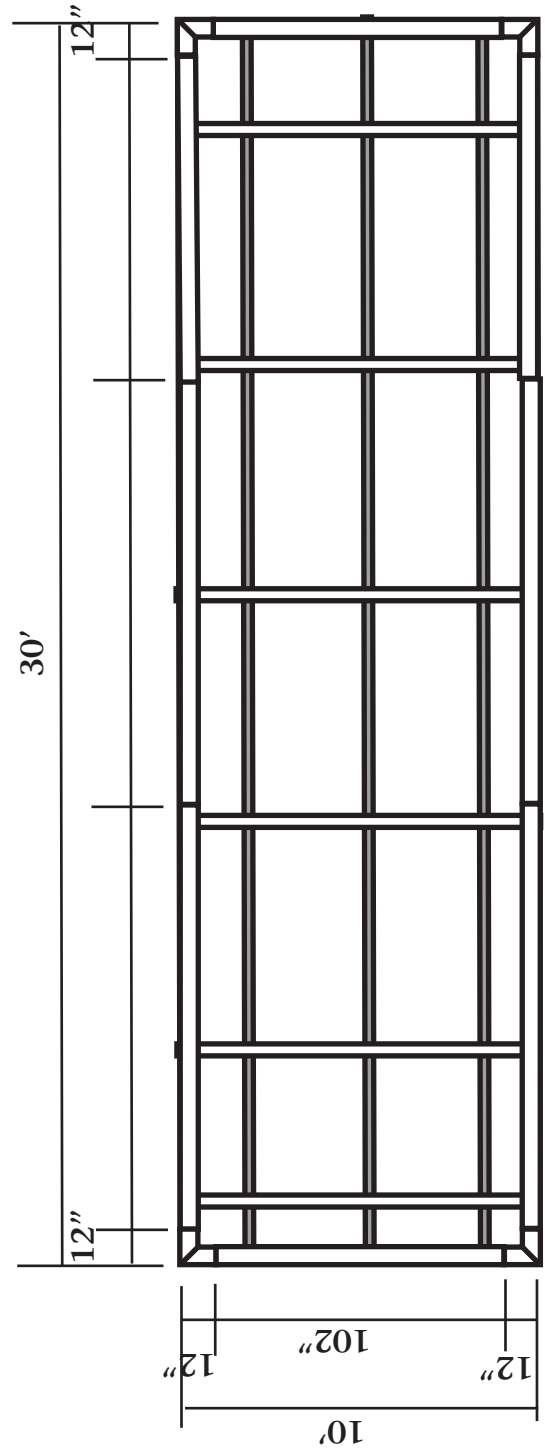


Mast Spacing 10' x 30' HF Frame

HF Mast Spacing 10' x 30'

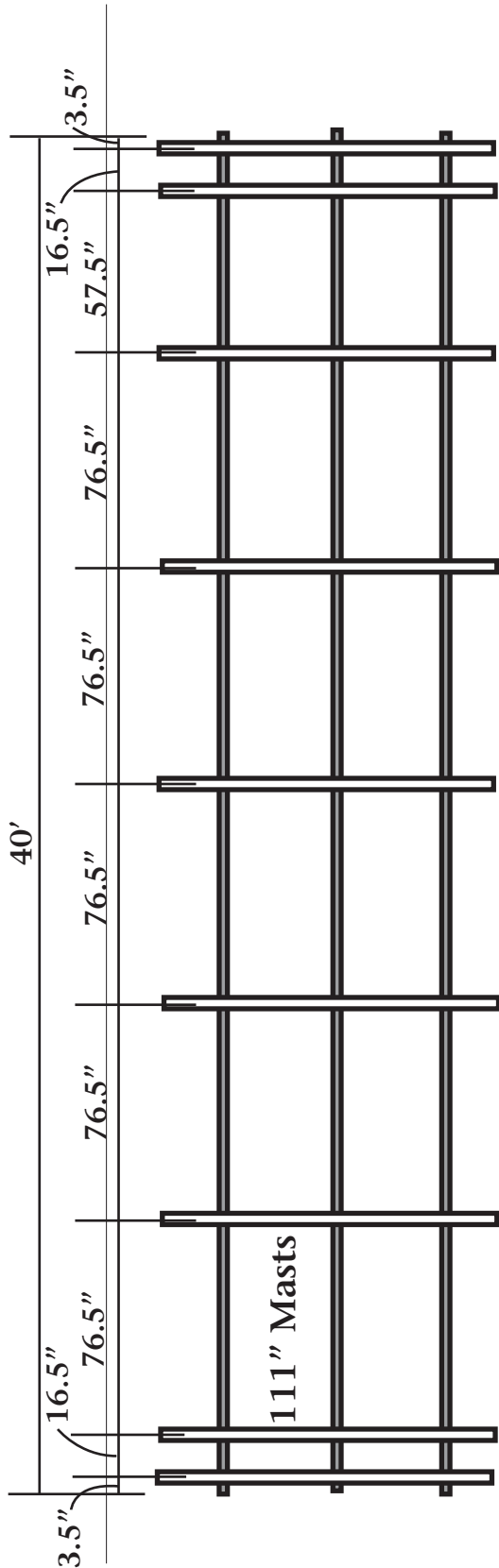


HF Frame Spacing 10' x 30'

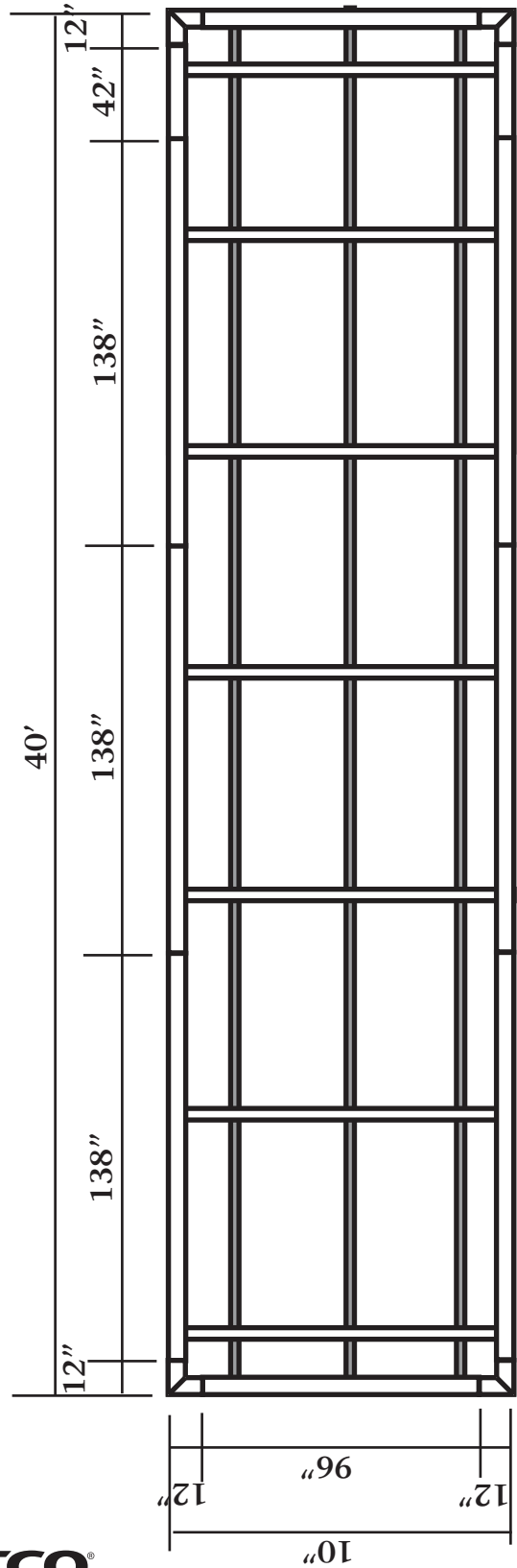


Mast Spacing 10' x 40' HF Frame

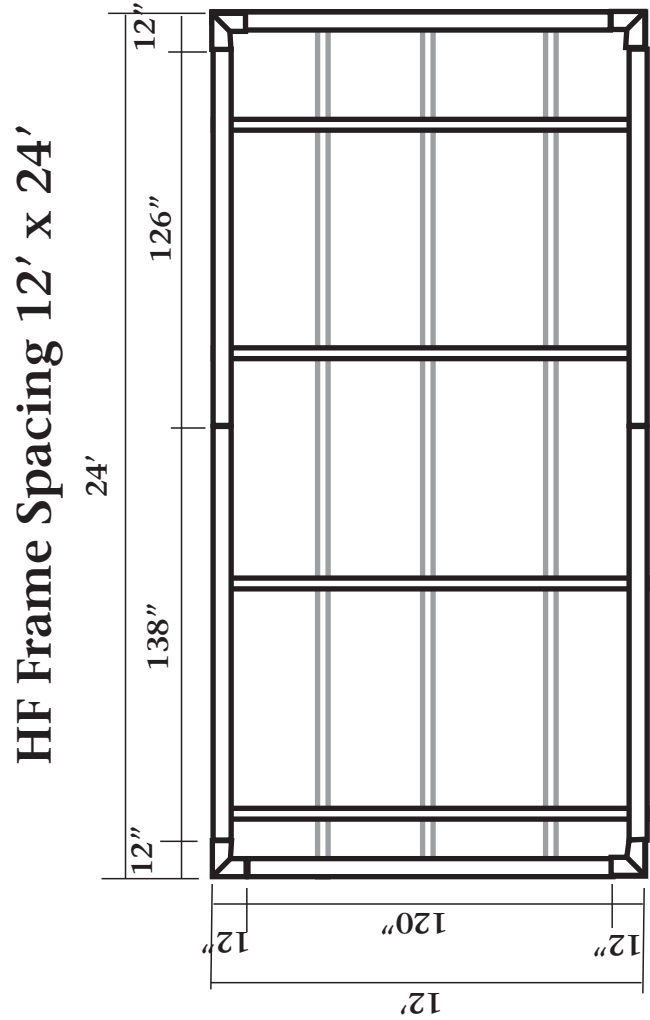
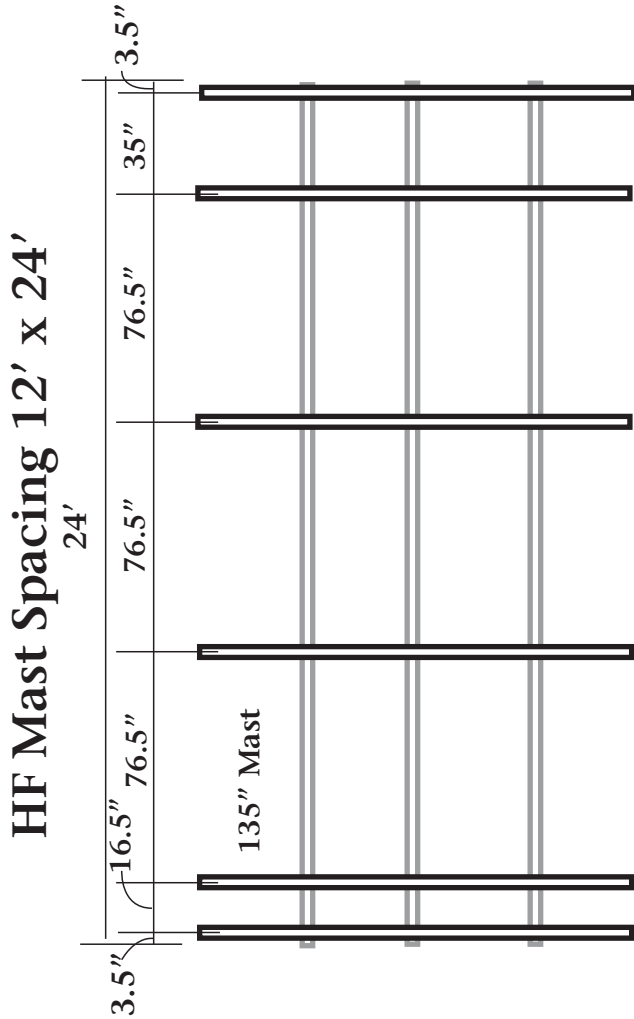
HF Mast Spacing 10' x 40'



HF Frame Spacing 10' x 40'



Mast Spacing 12' x 24' HF Frame



HF Clip-It Cut-Out System

Install the Extension and Cut-Out Masts on the structure. The match lines on the face vinyl and the extension should be aligned.

Position the HF Adjustable Cut-Out Brackets to make sure the extension face is flat with the vinyl face.

Install the hook bolts from the Universal Retainer to each of the Cut-Out Masts. Tighten to pull the extension flush with the vinyl face.

The extension is now secured to the Masts at the top and bottom of the extension. The Cut-Out Masts are secured to the top two stringers, making the extension a part of the structure.

