METALWARE

Metal that works

Industrial shelving solutions since 1954

2020 Installation Guide – E-Series Widespan

Strength • Support • Integrity

**A minimum of two persons is recommended to carry out the assembly*

2020-07

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NOTICE

Use caution when handling and assembling metal parts. The metal may have sharp edges or corners. The use of protective gloves is recommended. Do not use this unit for anything that is outside the designed function of storage. Do not store loose or heavy items on the top shelves or on the top of the unit, for they create a falling hazard that can injure yourself or others. Always remember to use proper lifting techniques when moving either the boxed or assembled unit. Shelving should be periodically inspected for loose bolts, for damaged “T” uprights or shelves, for proper seating of shelf and clip. Check loading to assure it is not being overloaded. If any damage is detected, units should be unloaded immediately and repaired or replaced before returning to service.

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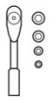
Tools for Assembly

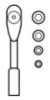
Below is a list of recommended tools to assemble a standard E-Series Widespan Shelving Unit.

1. Large, flat head screwdriver to bend the locking tabs on the frame connectors

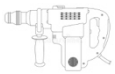
2. $^{1}/_{2}$" key and socket wrench to attach the footplates to the posts



3. $^{7}/_{16}$" key and socket wrench to secure the metal shelves together



4. Hammer drill with $^{3}/_{8}$" cement drill bit for anchoring the shelving unit to the floor



5. A level, 36" wide minimum

6. Work gloves

7. Safety glasses

8. Mask for protection

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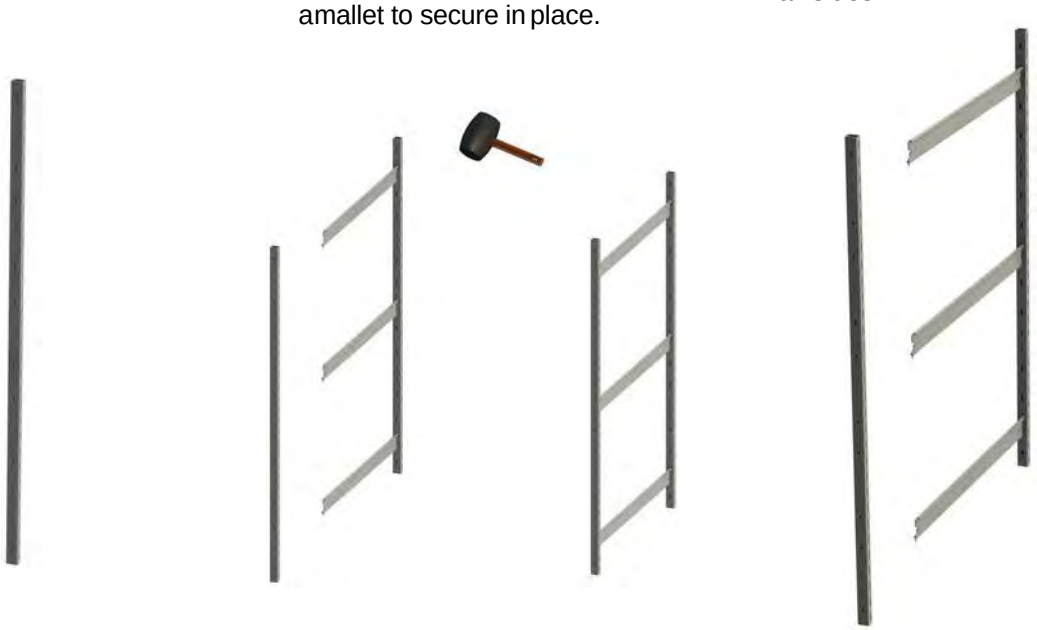
E-Series Widespan Installation Guide

***Please refer to Overview of E-Series Widespan Components on page 18 before assembly**

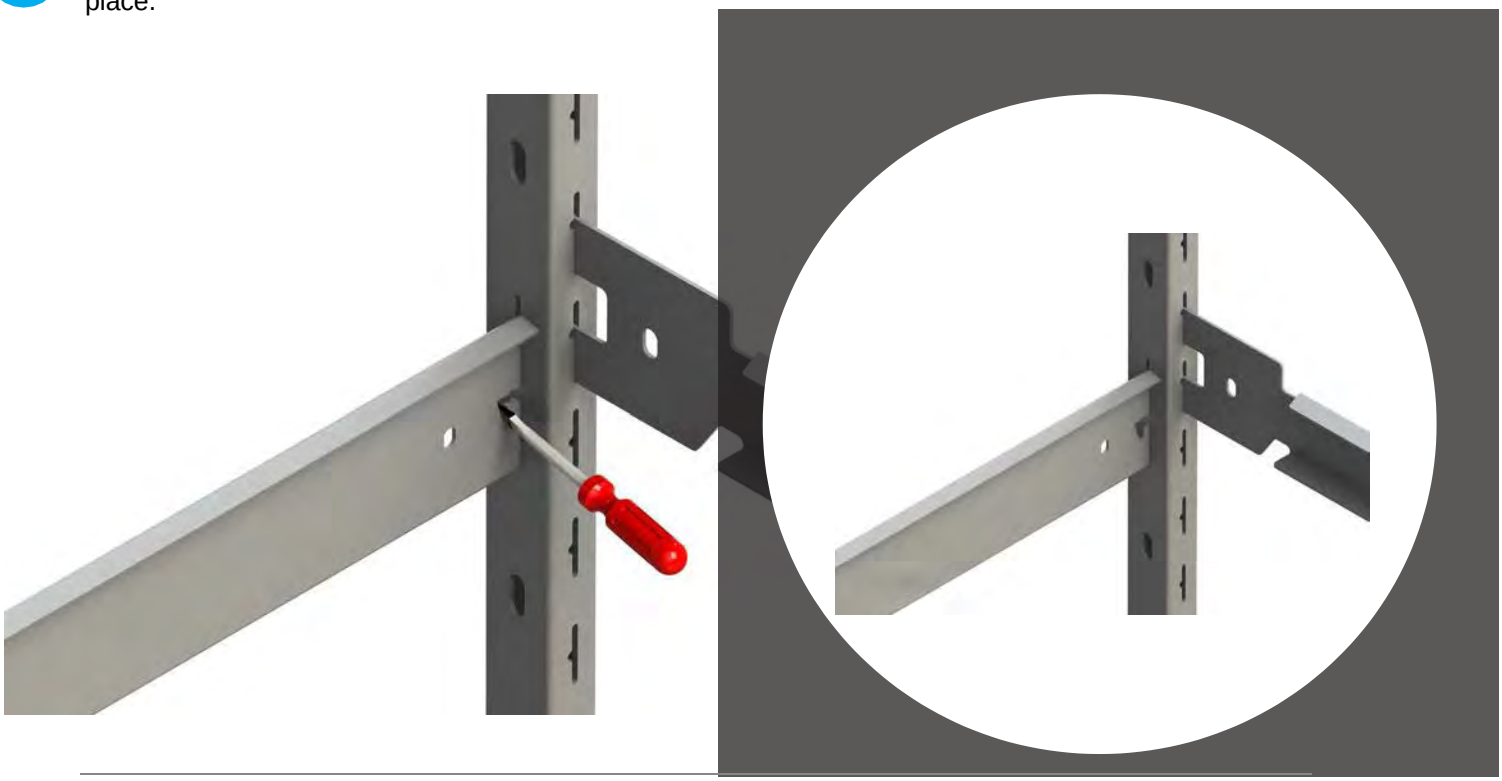
1 Begin with the post held upright on the ground.

2 Insert the frame connectors on the side of the post with the seam and, one at a time, use a mallet to secure in place.

3 Connect the 2 posts. Repeat step 2. Do this for all sides.



4 Note the frame connector's locking mechanism. Using a screwdriver, bend the tab into the post to lock it in place.



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5 To install the footplates, bolt to the bottom of the posts as show below.

6 Install the beams.

To install the beams, insert one end of the beam past the notices in order to leave enough space for the other end to clear the post and slide into place. Align the notches once both sides are in the slots of the post. Use a rubber mallet to secure the beam in place.

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7 Install the tie bars across the beams.

For all 96” beams, please ensure to use the triangular tie bars.

8 Install the shelves.

The unit is now complete.

Wood shelves (in one piece) are placed on the beams. Steel shelves (usually multiple pieces) are placed on the beams and screwed together.
*A minimum of 5/8” industrial grade particle wood, cut to nominal dimensions, is recommended.

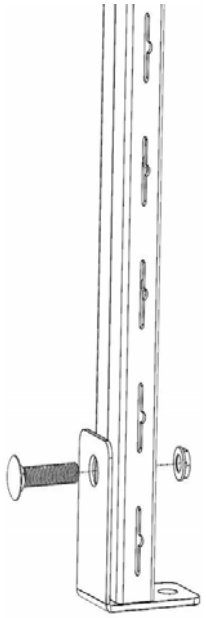
Make sure the unit is level. Drill a hole into the floor. Secure the footplate to the floor using the anchors (not included).

To join 2 posts vertically, bolt a splice bracket to either side of the posts at the joint. When splicing back-to-back units, only 1 more splice bracket is required.

Sub-Assembly Component Reference Guide

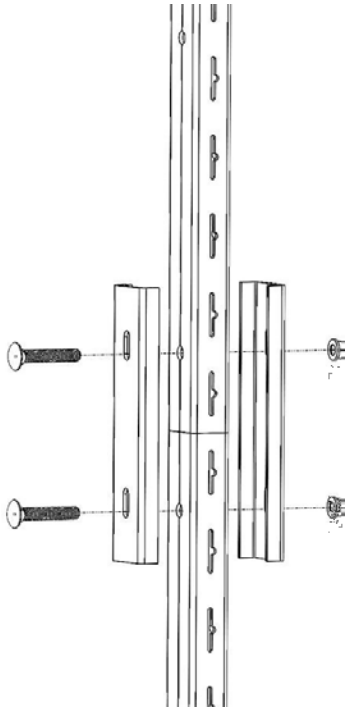
a. Footplate

- (1x) footplate per post
- The L-shaped footplates are 1-5/8” x 2-3/4” x 2-3/4” in size and made of 12ga steel
- They are bolted through the post with (1x) 5/16”-18UNC x 1-3/4” carriage bolt and nut
- (1x) ⅜” x 3” anchor is required per footplate



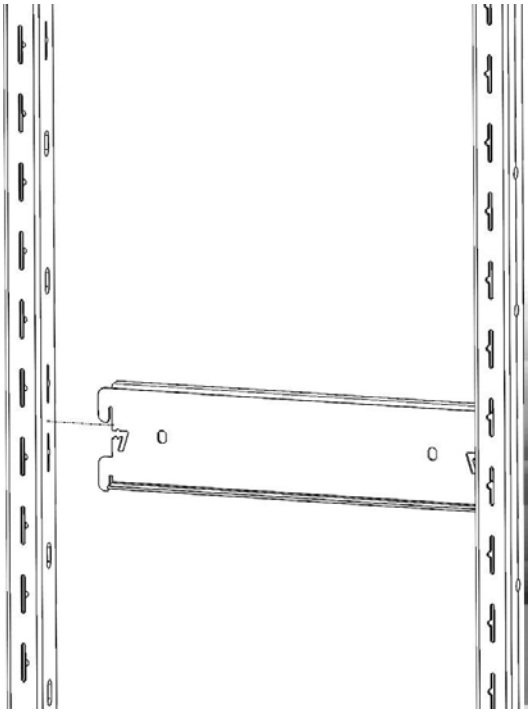
b. Splice bracket

- Splice brackets are used to connect two posts vertically
- The C-shaped splice brackets are made of 7” long, 12ga steel
- They clamp onto the post with (2x) 5/16”-18UNC x 1-3/4” carriage bolts and nuts



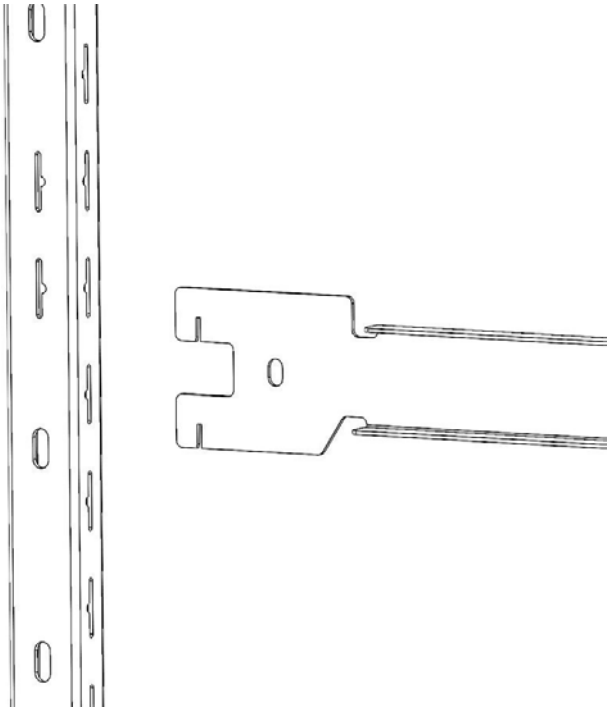
c. Frame connector

- Frame connectors are used to connect two posts together to create a frame
- They are made of 14ga painted steel



d. Beams

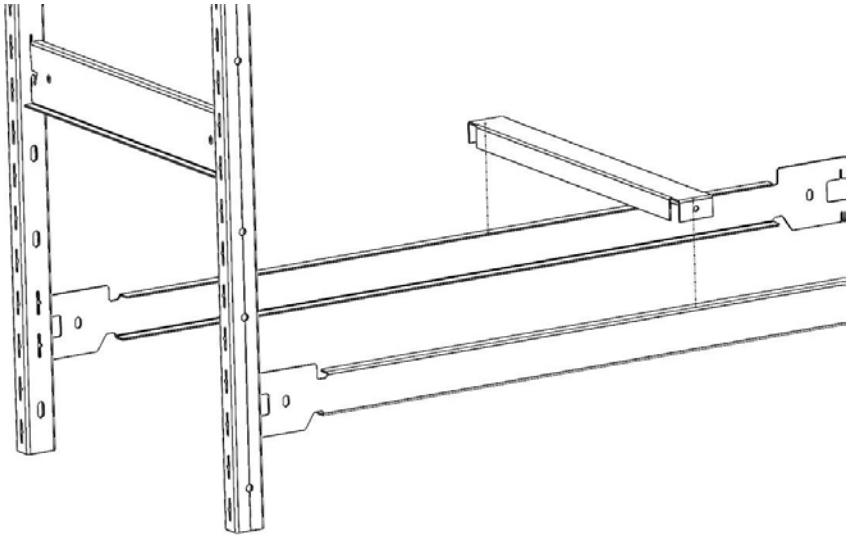
- Beams are used to support the shelf level
- They are made of 14ga painted steel



e. Tie bars

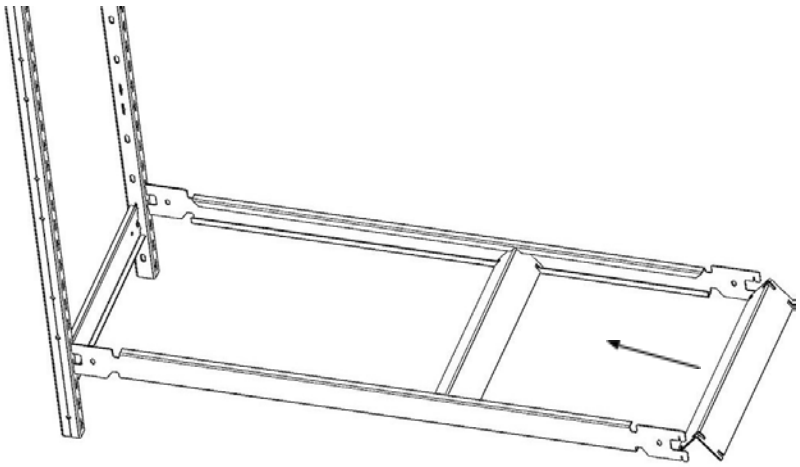
i. Regular tie bar

- Tie bars add integrity to the beam level
- They are made of 14ga painted steel
- Up to 4 tie bars can be used on the same beam level



ii. Triangular tie bar

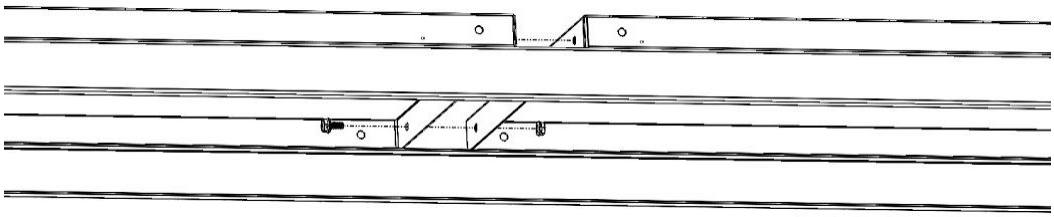
- Triangular tie bars are used to add integrity to the beam support
- They are made of 14ga painted steel
- Triangular tie bars can only be used with heavy duty beams
- They slide in between the beams



f. Shelves

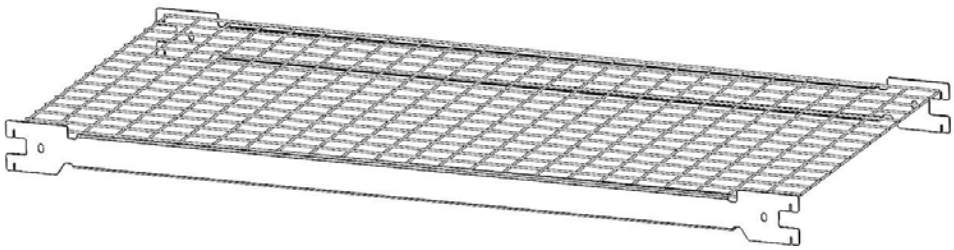
i. Steel shelves

- Steel shelves sit on the beam
- Beams longer than 48” require multiple shelves. Shelves must be bolted together using ¼-20” UNC x ⅝” bolts and nuts.



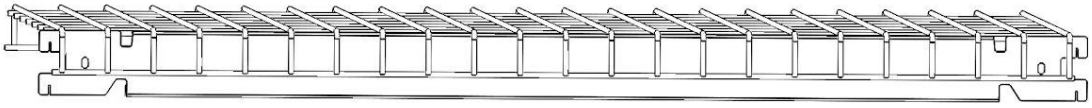
ii. Flat wire mesh

- Flat wire meshes sit on the beam, tightening with the handle on the beam
- They are made of 2” x 2” x 1/8” steel wire



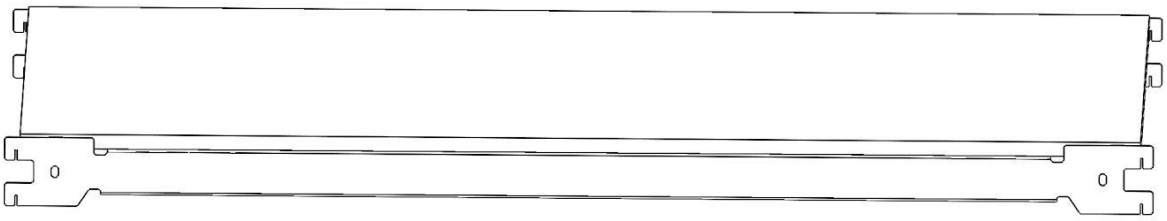
iii. Waterfall wire mesh

- Waterfall wire meshes sit on the beam, and cascade over the front and back beams
- They are made of 2” x 2” x 1/8” steel wire



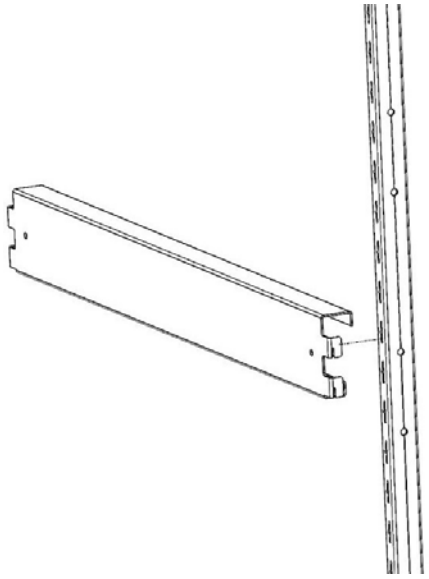
iv. Wood

- Wood shelves are sized to sit on the beam. tightening with the handle on the beam
- *A minimum of 5/8” industrial grade particle wood, cut to nominal dimensions, is recommended



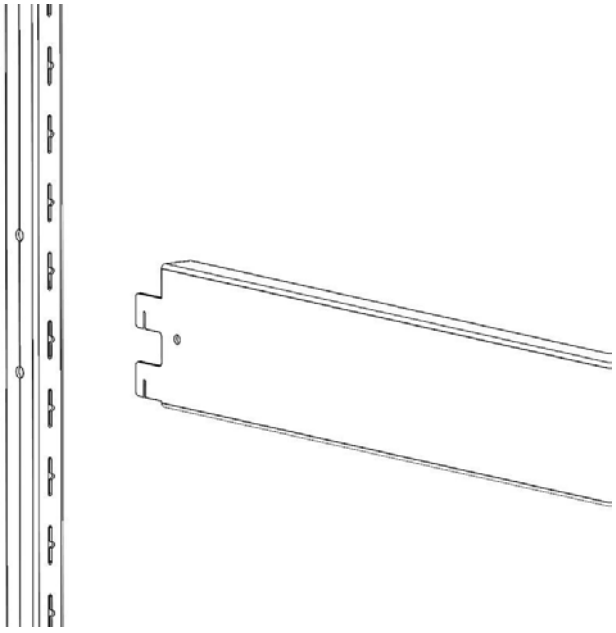
g. Floor channel

- Floor channels are used to support the flooring by connecting onto the post through the aisle
- They are made of 12ga steel C channel with two tabs at both ends
- The tabs slide into the slots on the side of the post
- The tabs cannot be placed at the same level as the beam as they use the same slots



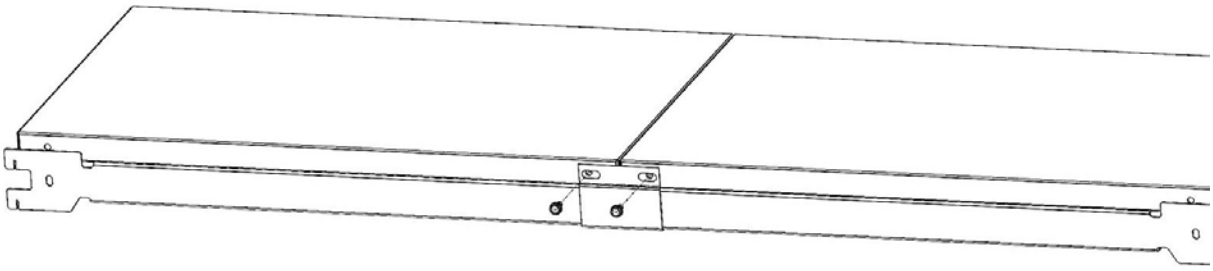
h. Cross channel

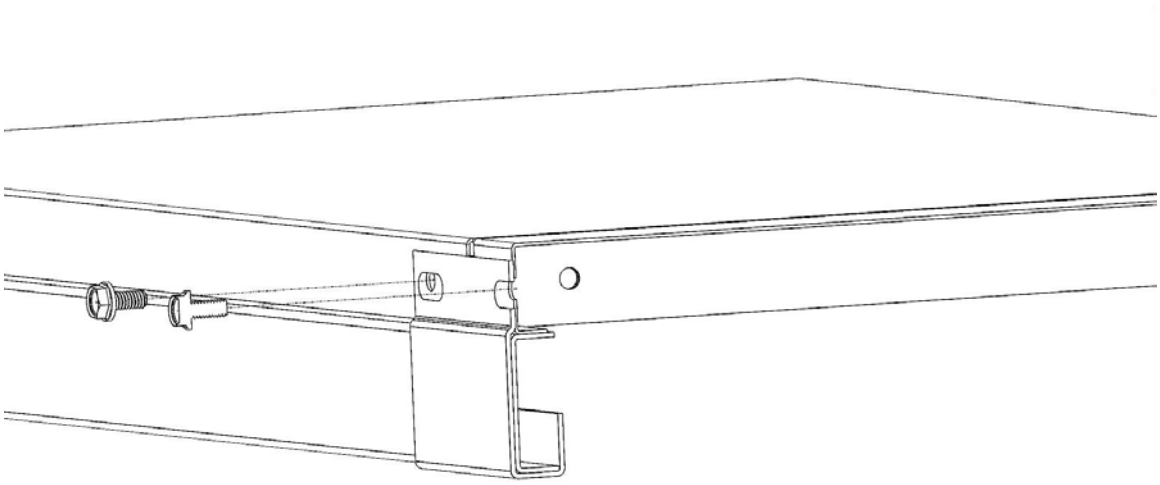
- Cross channels are used tosupport flooring on a cross aisle
- They are made of 12ga C channels with two tabs at both ends
- The tabs slide into the slots on the side of the post
- The tabs cannot be placed at the same level as the beam as they used the same slots



i. Shelf tie connector

- Shelf tie connectors add integrity and rigidity to the beam
- They are made of 14ga steel
- Shelf tie connectors are bolted through the shelf with (2x) 1/4”-20UNC x 5/8” bolts and nuts



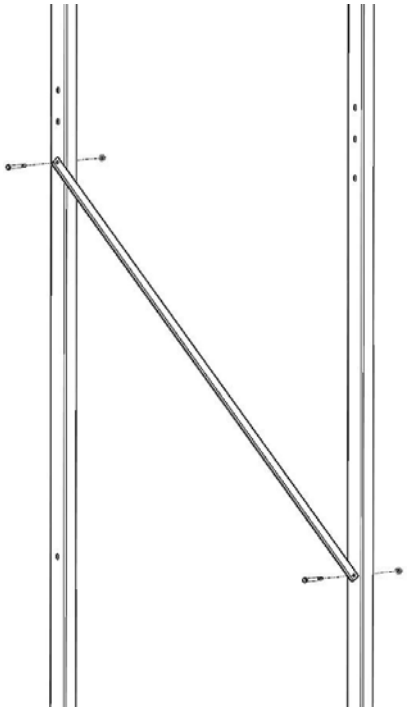


Mezzanine Components

j. Mezzanine posts

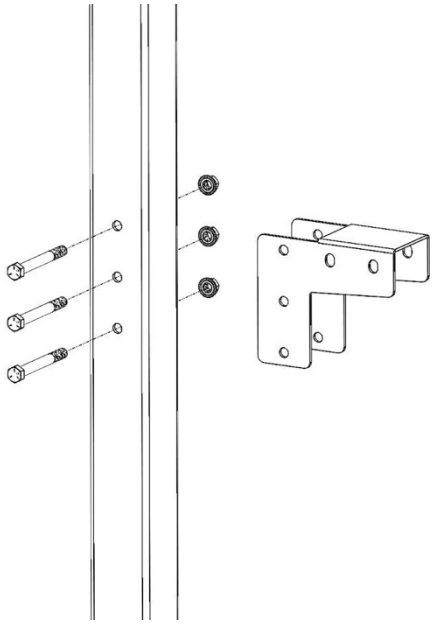
i. Braces

- Braces are used to strengthen the post
- They are made of 12ga iron angle
- Braces are bolted through the post with (2x) 3/8”-16UNC x 3-1/2” bolts and nuts

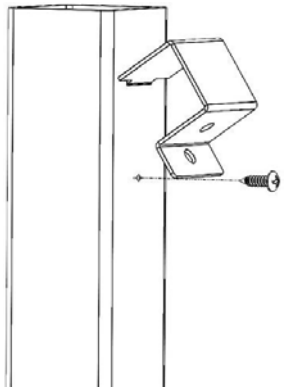


ii. Floor channel supports

- Floor supports are used to support the floor channel
- They are made of 12ga steel
- Floor supports are bolted through the post with (3x) 3/8”-16UNC x 3-1/2” bolts and nuts



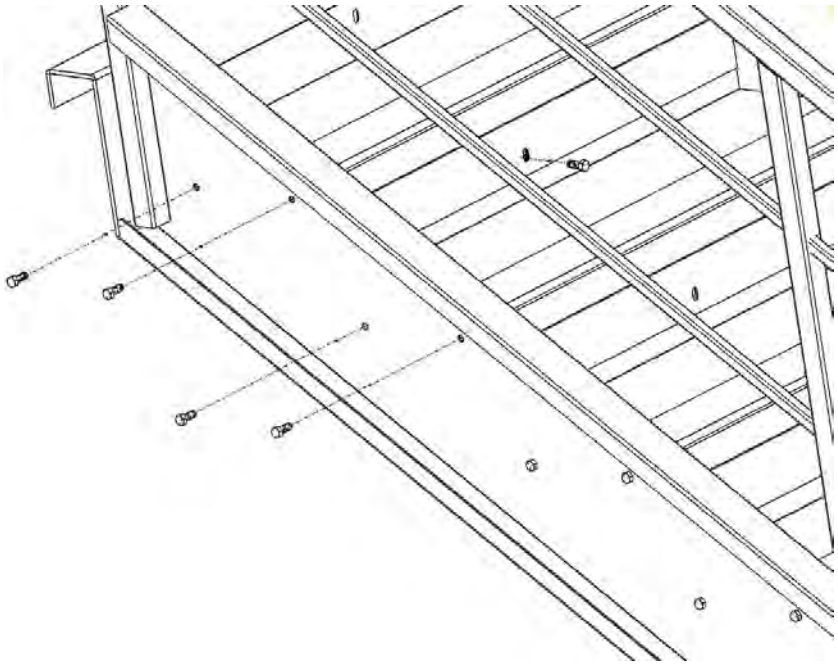
iii. Handrail clips



- Handrail clips are used to support the guard rail
- They are made of 20ga steel
- Guardrail clips slide inside the slot and bolt through the post with (1x) #12 x 3/4” tapping screw

k. Stairs

- The stairs are made of 3 different pieces: the left string, the right string and the steps
- The strings are made of 11ga steel C channel
- The steps are made of 14ga steel
- The step is bolted on the side into the string with (4x) 5/16”-18UNC X 1-1/2” bolts and nuts
- The steps are then bolted together other with (1x) 5/16”-18UNC X 1-1/2” bolt and nut
- The stairs are anchored onto the floor with (2x) 3/8” x 3” bolts and nuts
- On the top end, the stair’s handle attaches onto the floor channel



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*Overview of E-Series Widespan Components

Post Height	# of Frame Connectors/side	
	Under 6000 lbs/unit or 12” to 24” depth	Over 6000 lbs/unit or 30” to 48” depth
0 - 48	2	3
48 - 66	3	4
66 - 100	4	5
100 - 132	5	6

Required # of Tie Bars/shelf

36” beams	48” - 60” beams	66” - 96” beams
1	2	3

Light beam 1”

Heavy beam 2”

Wood shelf size:

Wood shelves are 1/8” smaller on the depth and width.
Example : 24” x 48” unit will take a 23 7/8” x 47 7/8” shelf.

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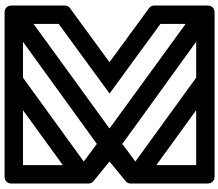

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5735 Place Turcot, Montréal, QC H4C 1V9
1-514-937-9533
1-833-937-9533
info@metalware.ca
www.metalware.ca

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