# C-CHANNEL MOUNTING

MARNING: The fan should not be installed unless the structure on which the fan is to be mounted is of sound construction, undamaged, and capable of supporting the loads of the fan and its method of attachment. A structural engineer should verify that the structure is adequate prior to fan installation. Verifying the stability of the mounting structure is the sole responsibility of the customer and/or end user, and the manufacturer hereby expressly disclaims any liability arising therefrom, or arising from the use of any materials or hardware other than those supplied by the manufacturer or otherwise specified in these installation instructions.

#### **ATTENTION**

The following installation method is to be followed only when mounting to an open web steel joist structure with a corrugated metal roof deck.

# Installation

## 1. Install angle irons

**↑** CAUTION: The angle irons must be fastened to the roof structure at each end.

Drill two Ø 1/2" clearance holes in the center of each angle iron 3.5" apart.

Fasten the angle irons to the roof structure mounting points at each end. Determine spacing between angle irons based on setup shown below, allowing proper spacing for C-channel mounting. Distance between angle irons should not exceed the length of the C-channel. Fully tighten hardware.

#### Grade 8 Hardware:

- a. (4) 1/2-13 or M12 Bolt
- b. (4) 1/2" or M12 Washer
- c. (4) 1/2" or M12 Nut

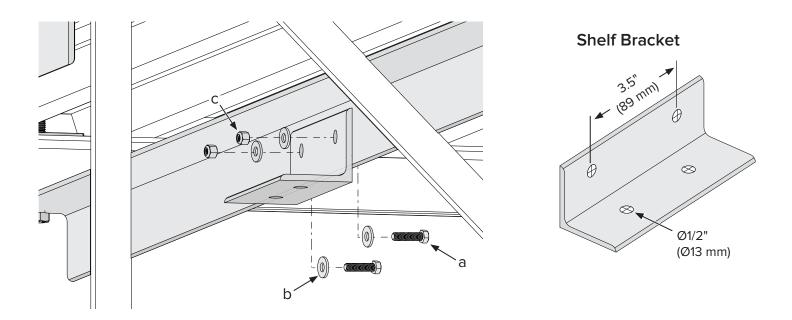
Measure the width of the chord member to select proper bolt length. Drill clearance holes prior to hanging angle irons.

## 2. Fasten shelf brackets to angle irons

Drill four  $\emptyset$  1/2" clearance holes into each shelf bracket 3.5" apart as shown in the diagram below. Fasten the shelf brackets directly to both angle irons. **Fully torque hardware.** 

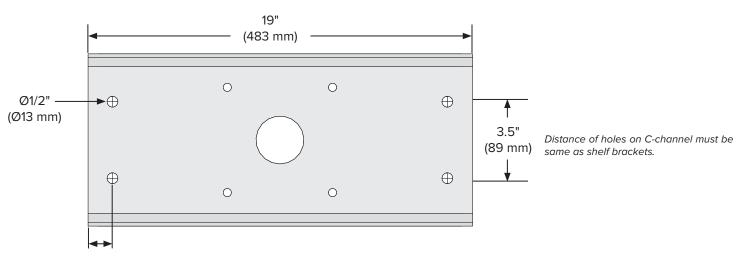
#### Grade 8 Hardware:

- a. (4) 1/2-13 or M12 Bolt
- b. (8) 1/2" or M12 Washer
- c. (4) 1/2" or M12 Nut



#### 3. Cut and drill C-channel

Drill two  $\emptyset$ 1/2" clearance holes 3.5" apart in both ends of the C-channel so that they align with the holes on the shelf brackets. If the C-channel needs to be cut, ensure that equal amounts are cut from both sides to keep fan centered.

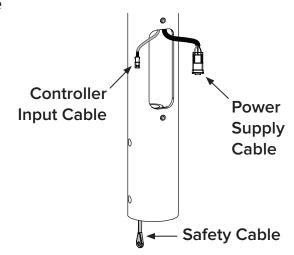


Minimum 3/4" (20 mm) from edge of C-channel to hole center

## 4. Route wiring and safety cable into extension tube

To facilitate installation during this step, we recommend that the extension tube is horizontal with the rectangular access hole facing upward.

Route the power supply wiring harnesses and the controller input cable down into the top of the extension tube and out the rectangular access hole. Route the end of the safety cable with the lug on it into the top of the extension tube and out the bottom of the tube.



## 5. Attach upper mount to extension tube

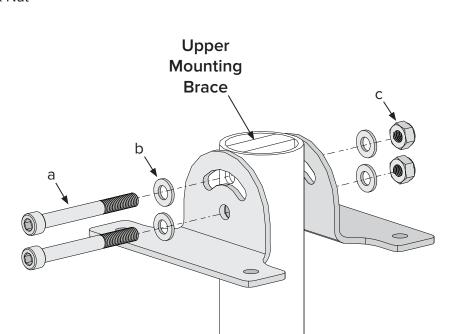
Note: Power wiring and the safety cable are not shown in the illustrations.

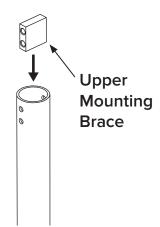
Insert the upper mounting brace into the top of the extension tube. Align the four mounting holes in the brace with the four mounting holes at the top of the tube as shown on the right.

Attach the upper mounting brace and the upper mount to the extension tube as shown below. Do not fully tighten hardware until the fan is installed and hanging freely to allow for centering.

#### Hardware:

- a. (2) M10 x 90 mm Socket Head Cap Screw
- b. (4) M10 Flat Washer
- c. (2) M10 Nylock Nut



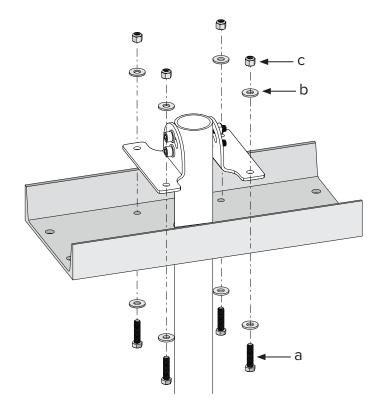


## 6. Attach upper mount to C-channel

Secure upper mount and extension tube assembly to the C-channel. Align holes on the upper mount to the predrilled holes on the C-channel. **Fully torque hardware**.

#### Grade 8 Hardware:

- a. (4) M10 x 40 mm Hex Head Cap Screw
- b. (8) M10 Flat Washer
- c. (4) M10 Nylock Nut

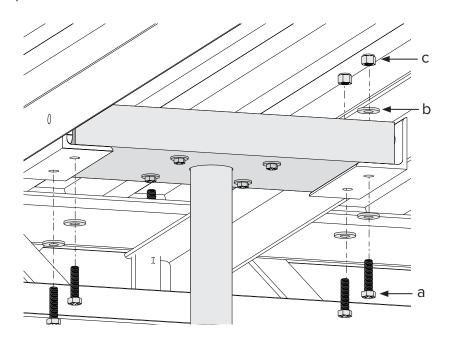


## 7. Mount C-channel to shelf brackets

Secure C-channel and upper mount assembly to the shelf brackets. Align holes on the C-channel to the holes on the shelf brackets. **Fully torque hardware.** 

#### Grade 8 Hardware:

- a. (4) M10 x 40 mm Hex Head Cap Screw
- b. (8) M10 Flat Washer
- c. (4) M10 Nylock Nut

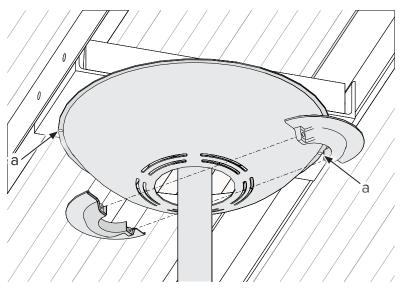


## 8. Secure canopy to extension tube

Raise the canopy to the C-channel. Secure the canopy in place as shown below.

## **Mounting Hardware:**

a. (2) TEK Screw #8-18 x 3/9" (McMaster-Carr PN# 90106A105)

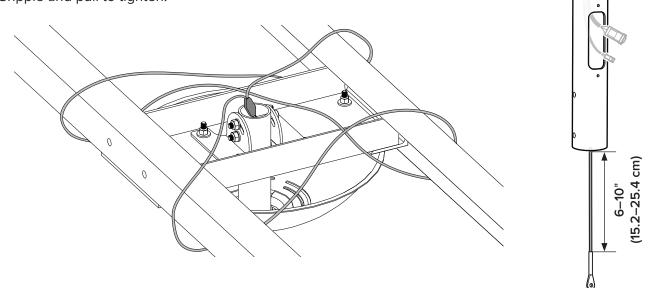


## 9. Secure safety cable to angle irons

#### **ATTENTION**

Confirm all hardware has been fully tightened prior to this step.

Route the free end of the safety cable into one of the two holes in the Gripple®, and then pull the cable through the Gripple until the Gripple rests at the top of the extension tube. Wrap the safety cable around the angle irons, leaving 6–10 in. (15.2–25.4 cm) of slack. Route the loose end of the safety cable through the remaining hole in the Gripple and pull to tighten.



# 10. Complete fan installation

Follow the remaining steps in the fan installation guide.

