

Z-PURLIN MOUNTING

⚠ WARNING: Big Ass Fans 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 Big Ass Fans hereby expressly disclaims any liability arising therefrom, or arising from the use of any materials or hardware other than those supplied by Big Ass Fans or otherwise specified in these installation instructions.

Pre-Installation

Select the proper purlins and angle irons before beginning installation.

Purlin Requirements

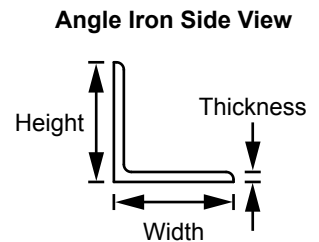
- Length is ≤ 30 ft (9.14 m)
- ≤ 5 ft spacing
- Minimum of 14 gauge steel

Angle Iron Requirements

- Length is ≤ 5 ft (1.5 m)
- Length is 1" (2.5 cm) less than the distance between purlins
- Dimensions (WxHxT) are 3" x 3" x 1/4" (7.6 cm x 7.6 cm x 0.6 cm). Refer to the diagram on the right.

		Purlin Height		
		8" (20.3 cm)	9" (22.9 cm)	10" (25.4 cm)
Purlin Length	<20 ft (6.1 m)	Intended use	Intended use	Intended use
	<25 ft (7.6 m)	N/A	Intended use	Intended use
	<30 ft (9.1 m)	N/A	N/A	Intended use

The Z-purlin brackets accommodate up to a 5:12 roof pitch. Consult a structural engineer prior to fan installation.

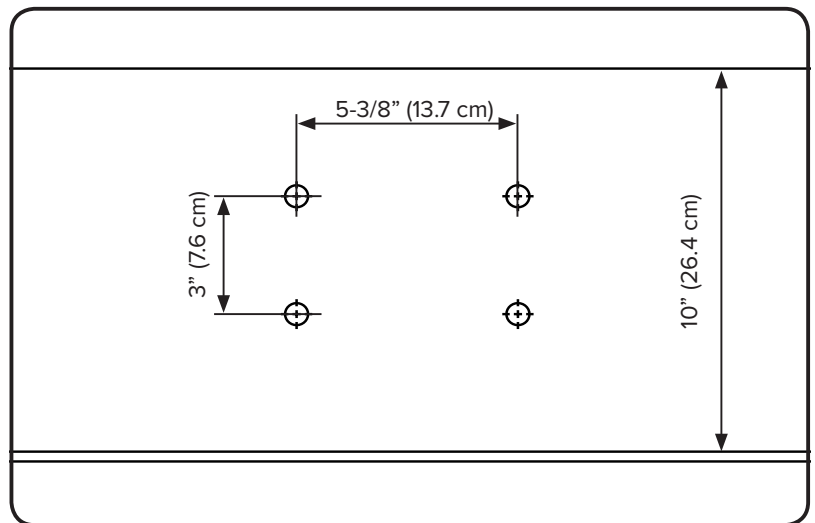


Installation

1. Pre-drill purlins

Drill four (4) $\varnothing 9/16$ " (1.4 cm) holes exactly mid-height in the centers of two purlins. See the diagram below for distances between holes.

Note: Purlin height may vary from that shown.

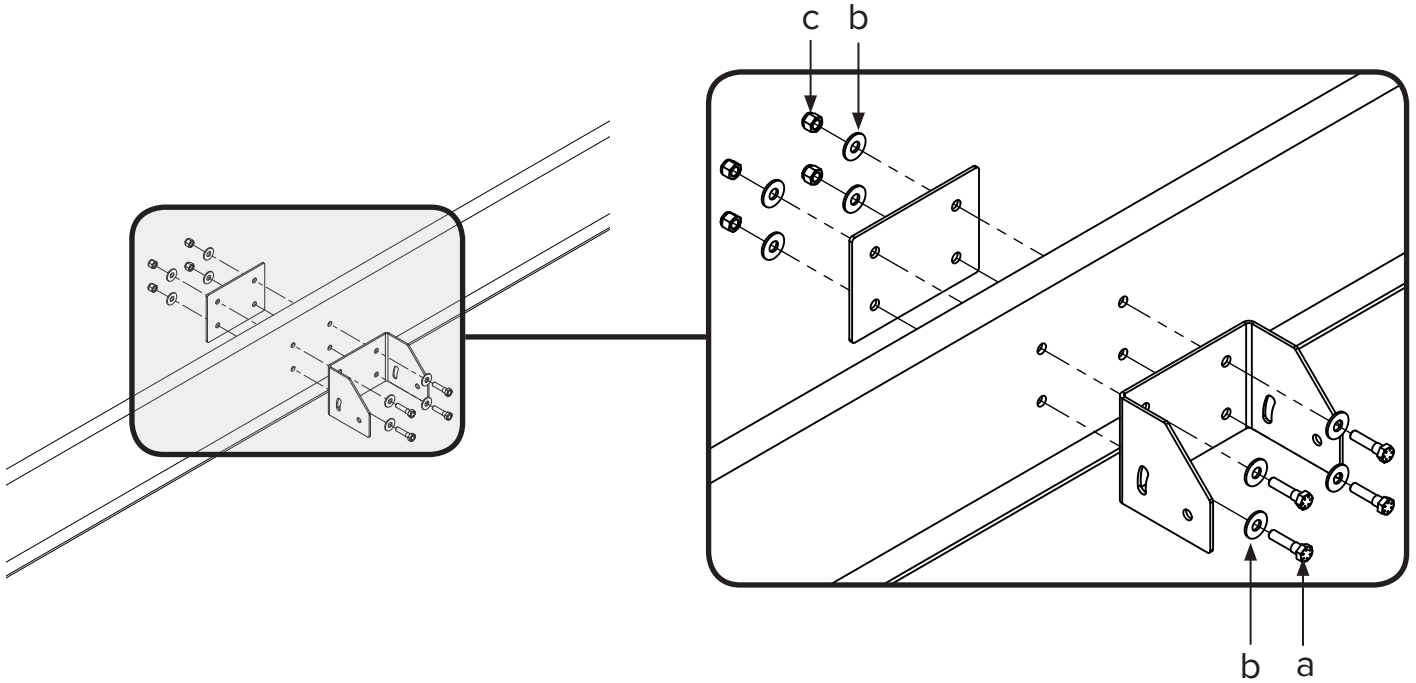


2. Attach brackets and backing plates

Attach the brackets and backing plates to the pre-drilled purlins using the Mounting Hardware.

Mounting Hardware:

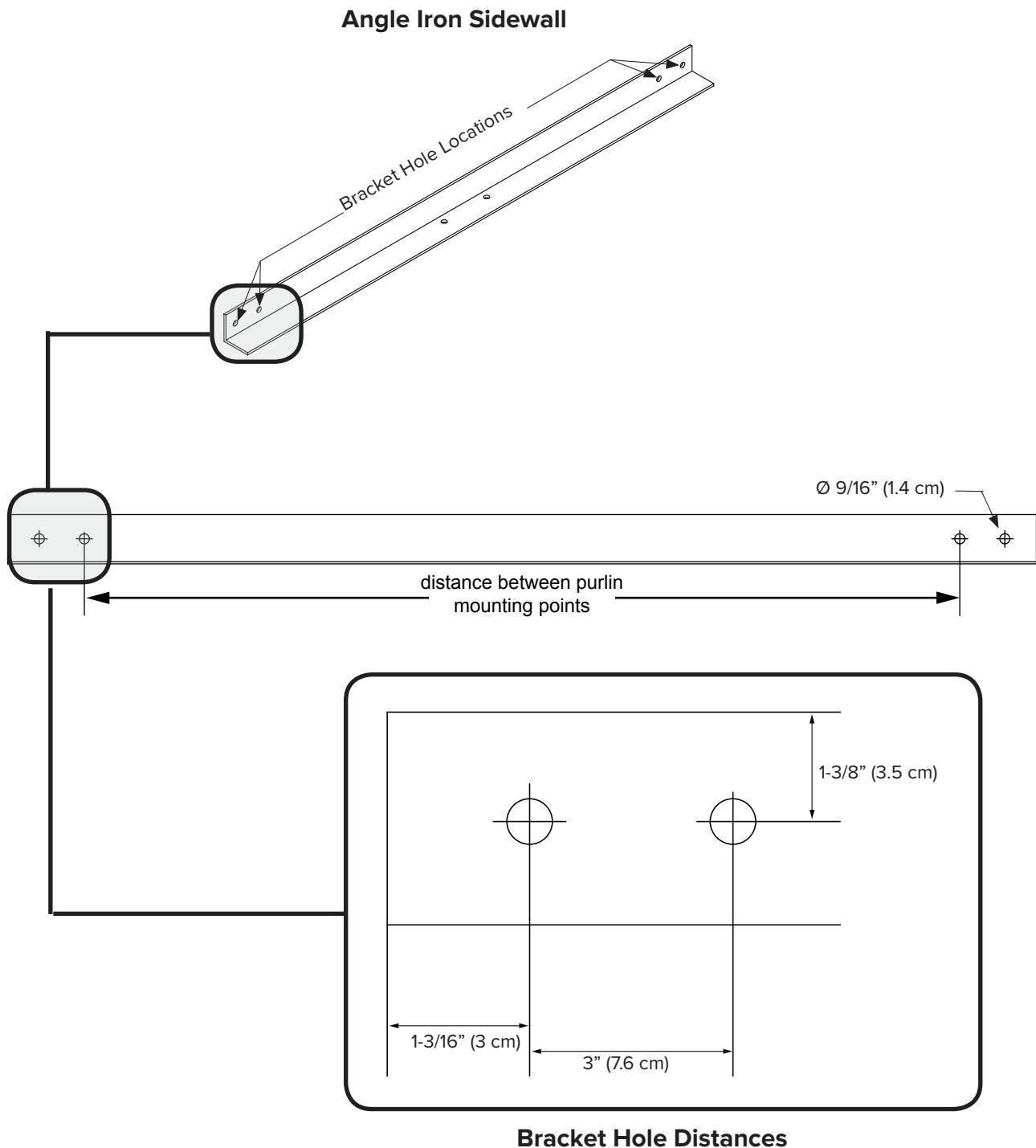
- a. (4) 1/2"-13 x 2" GR 8 Bolt (1/2" Shoulder)
- b. (8) 1/2" Washer
- c. (4) 1/2-13 Nylock Nut



3. Pre-drill angle iron bracket holes

Drill one $\text{Ø } 9/16''$ (1.4 cm) hole exactly $1\text{-}3/16''$ (3 cm) from the short edge and $1\text{-}3/8''$ (3.5 cm) from the long edge on both ends of the vertical walls of the angle iron. Drill a second hole exactly $3''$ (7.6 cm) inward from the first hole on both ends. Repeat for second angle iron. These holes will attach the angle iron to the purlin brackets.

If mounting the fan using an upper yoke or upper mount and an extension tube, continue to step 4a. If mounting the fan directly to the angle irons, continue to step 4b.

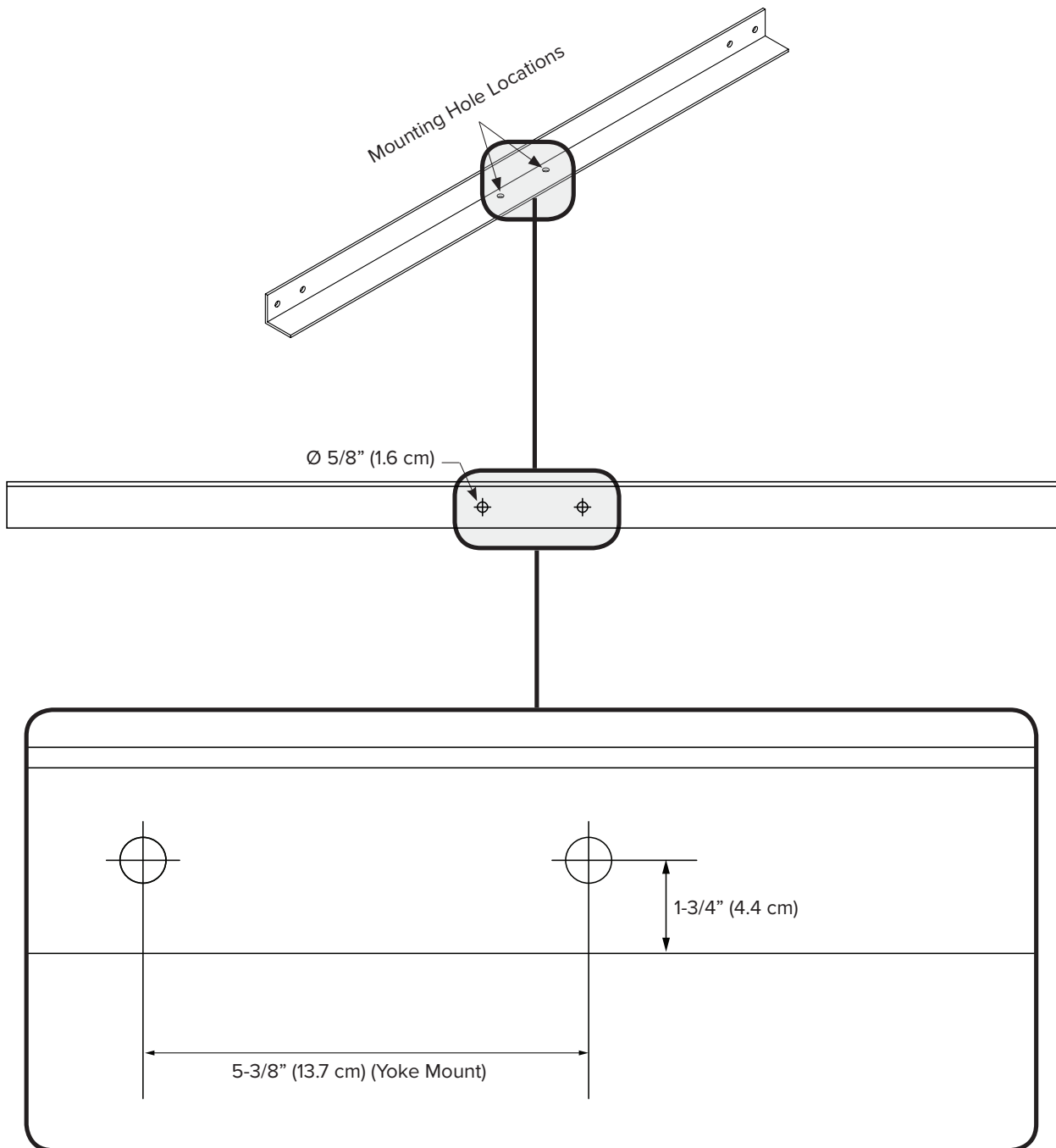


4a. Pre-drill angle iron mounting holes (yoke mounts)

Measure the distance between the mounting points that each angle iron will span. Drill two (2) $\text{\O} 5/8''$ (1.6 cm) holes through the centers of the bottom walls of each angle iron. The holes should be drilled $5\text{-}3/8''$ (13.7 cm) apart and $1\text{-}3/4''$ (4.4 cm) from the end of the angle iron wall. These holes will attach the upper yoke or upper mount to the angle iron.

Continue to step 5a.

Angle Iron Bottom Wall (Yoke Mount)



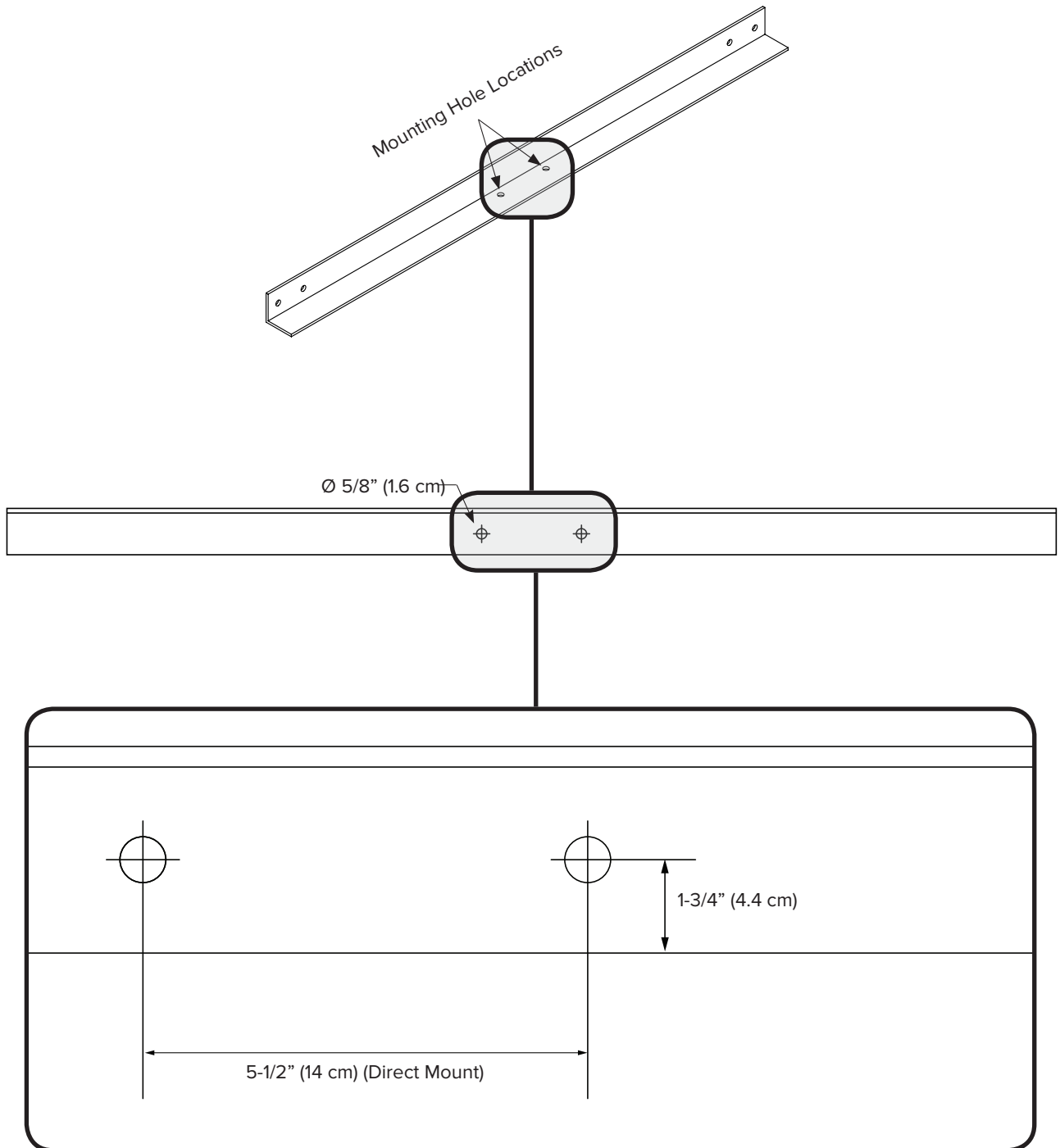
Mounting Hole Distances

4b. Pre-drill angle iron mounting holes (direct mount)

Measure the distance between the mounting points that each angle iron will span. Drill two (2) $\text{\O} 5/8''$ (1.6 cm) holes through the centers of the bottom walls of each angle iron. The holes should be drilled $5\text{-}1/2''$ (14 cm) apart and $1\text{-}3/4''$ (4.4 cm) from the end of the angle iron wall. These holes will attach the main fan unit to the angle iron.

Continue to step 5b.

Angle Iron Bottom Wall (Direct Mount)



Mounting Hole Distances

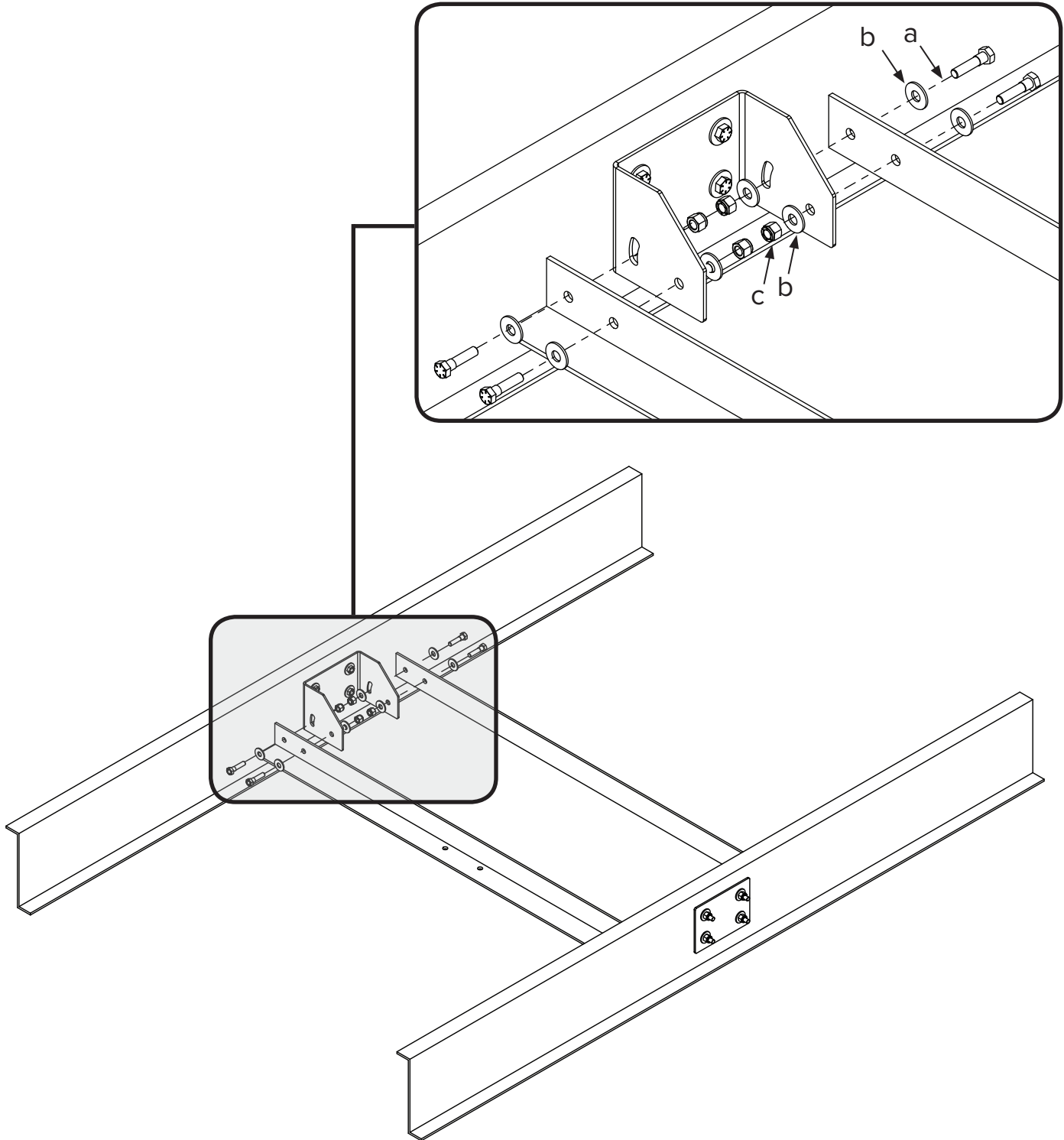
5a. Mount angle irons (yoke mount)

Attach the angle irons to the brackets using the Mounting Hardware. The angle irons must be facing outward and must not touch the purlin. There should be a small gap between the purlin and the end of the angle iron.

Continue to step 6a.

Mounting Hardware:

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



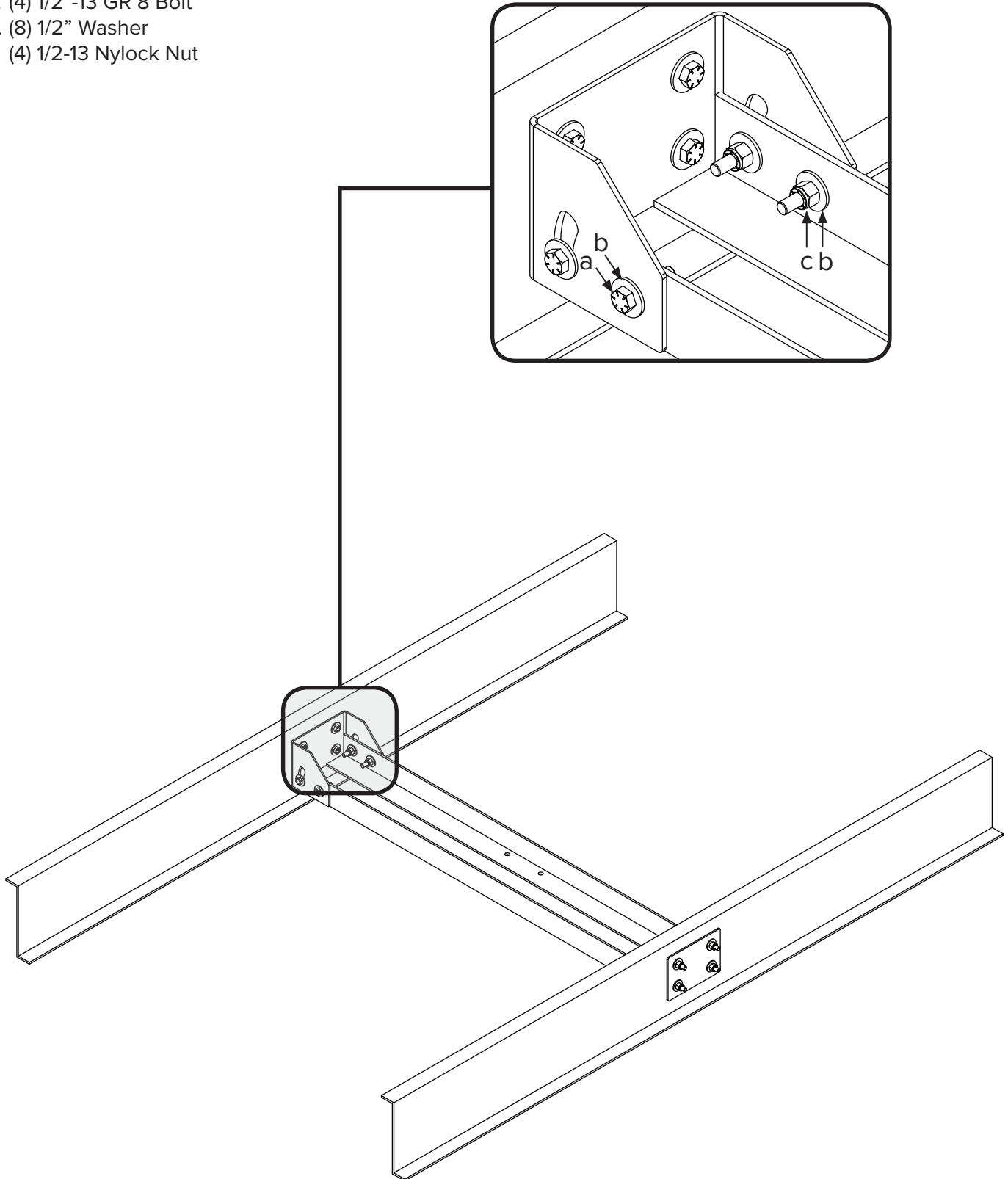
5b. Mount angle irons (direct mount)

Attach the angle irons to the brackets using the Mounting Hardware. The angle irons must be facing inward and must not touch the purlin. There should be a small gap between the bracket and the end of the angle iron.

Continue to step 6b.

Mounting Hardware:

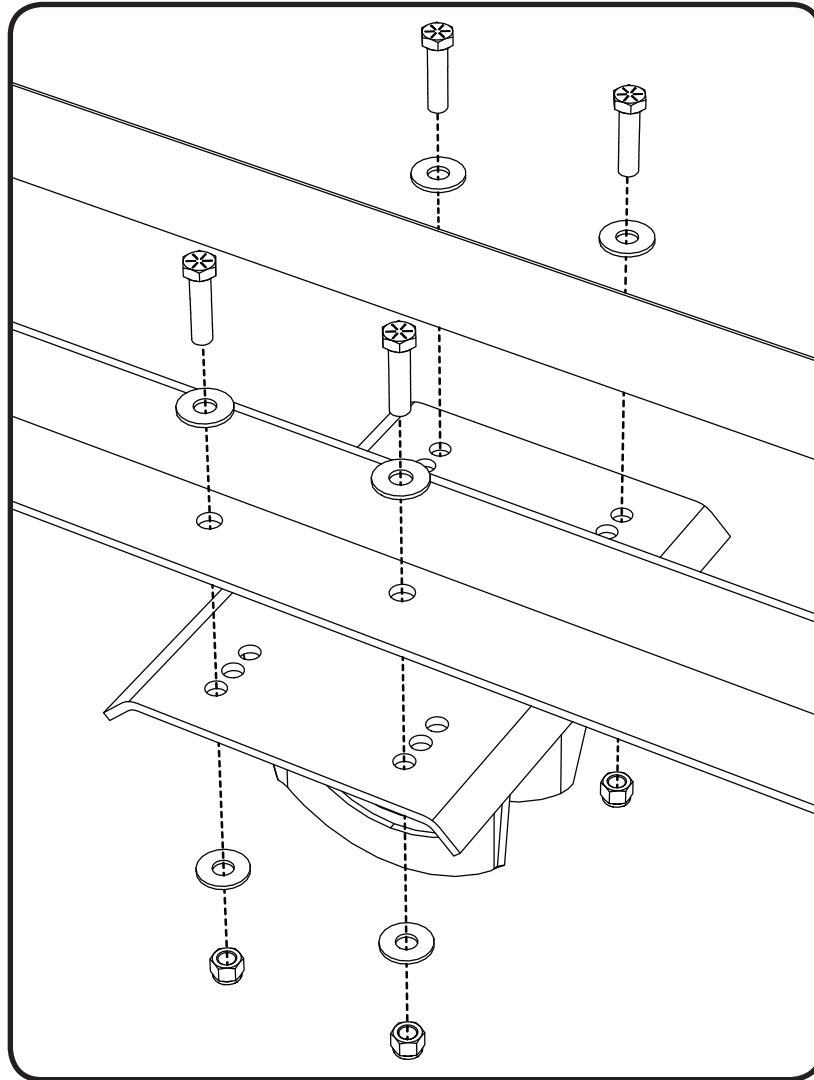
- a. (4) 1/2"-13 GR 8 Bolt
- b. (8) 1/2" Washer
- c. (4) 1/2-13 Nylock Nut



6a. Attach upper yoke or upper mount to angle irons

Attach the upper yoke or upper mount to the angle irons using the Mounting Hardware.

Note: The Mounting Hardware is provided with the fan. For Mounting Hardware details and continued instructions on hanging the fan, see the complete Installation Guide.

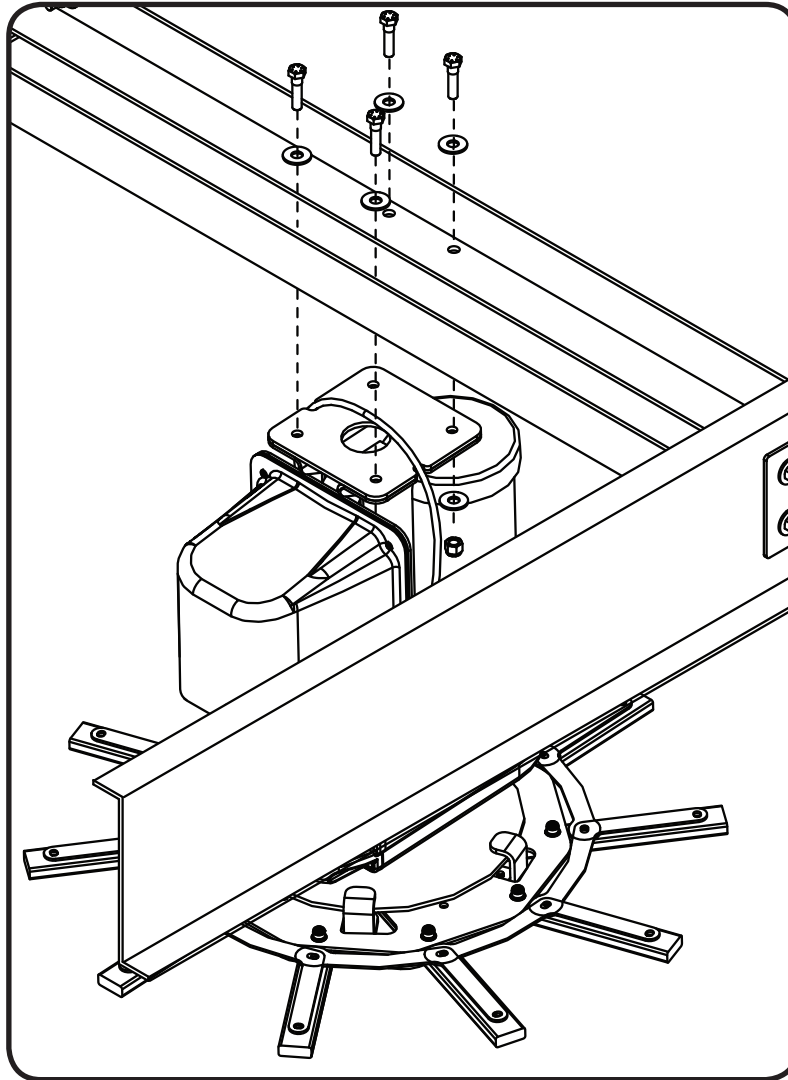


Note: Upper yoke or upper mount may differ from the illustration.

6a. Attach fan to angle irons

Attach the main fan unit to the angle irons using the Mounting Hardware.

Note: The Mounting Hardware is provided with the fan. For Mounting Hardware details and continued instructions on hanging the fan, see the complete Installation Guide.



Note: Powerfoil X fan pictured above.