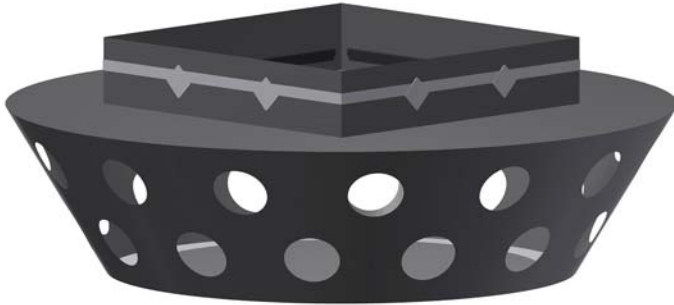
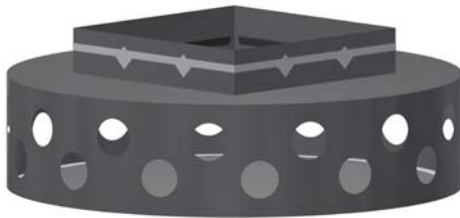


Installation Guide



30° Angle Diffusion



Flat Diffusion

COMPONENT DETAILS3

INSTALLATION

Prepare metal inlet collar for fabric connection 4

Prepare overhead attachment points 6

Ring assembly 5

Attach top and bottom ring unit 8

Start up AHU 13

OVERVIEW

Thank you for selecting the DuctSox C-Series Fabric Diffuser. The key to a successful installation is using the Internal Framework System to bring the fabric into complete tension.

Inventory

Read through this guide thoroughly. Review the components that need to be installed.

Shipping/Receiving

The internal framework and fabric components may arrive in different shipments.

Each diffuser will be packaged in individual plastic bags and labeled according to model size. Be sure you have determined all boxes are accounted for.

Unpacking

Inspect shipment carefully and make sure all components are accounted for by emptying packaging and examining all contents. Note any missing or damaged pieces listed on the Bill of Lading and contact your carrier and DuctSox Representative.

READ INSTRUCTIONS THOROUGHLY BEFORE BEGINNING.

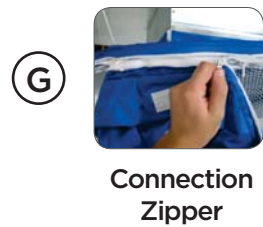
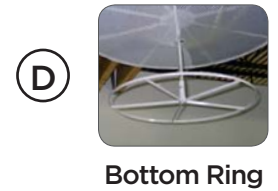
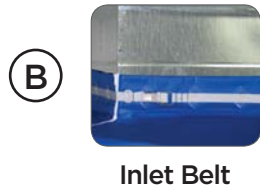
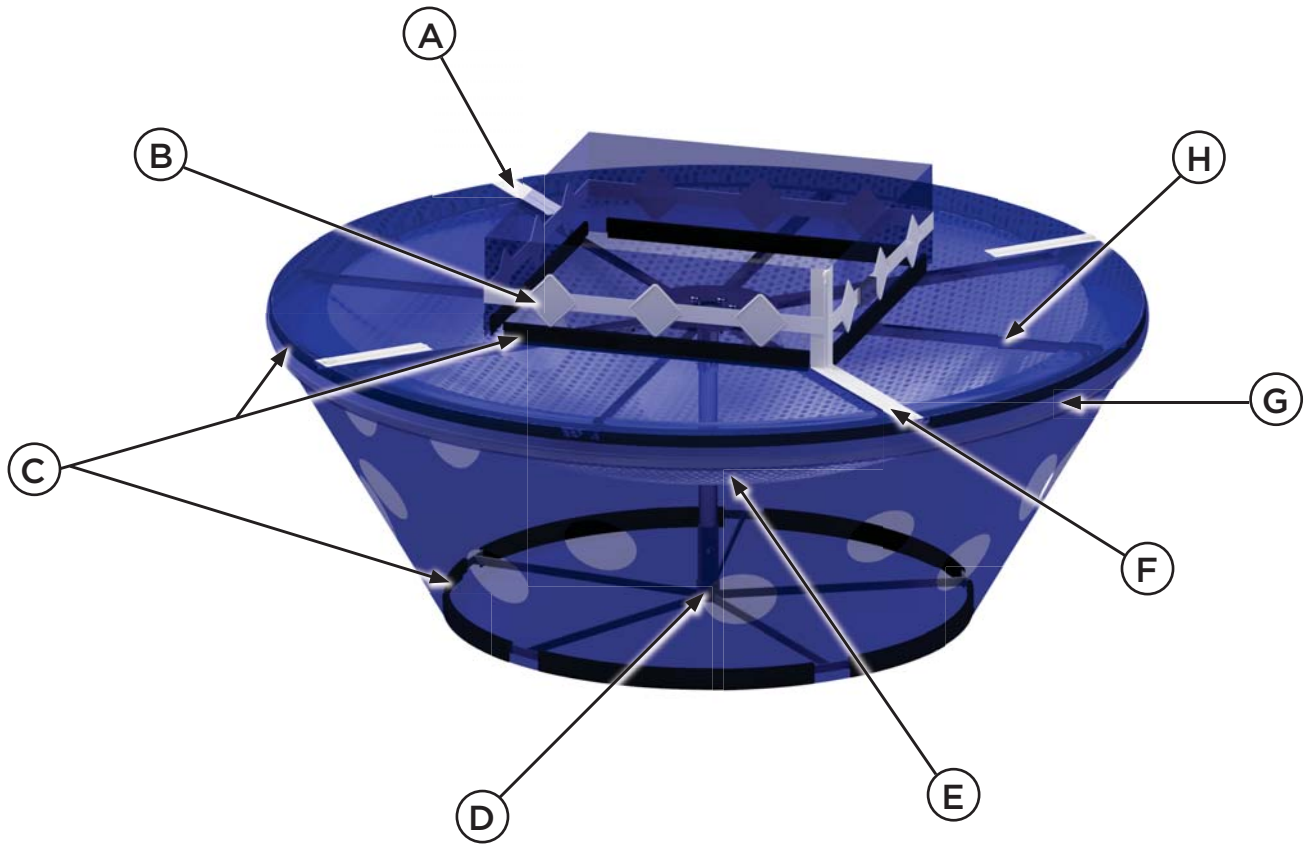
Labeling

Each fabric section will have a tag near any zipper. The tag will include job number, ship date, and diameter.

Equipment Required:

- Standard Screwdriver
- Level
- Tape Measure
- Marker or Pencil
- Cable Cutter
- Rivet Gun
- Hammer
- 7/16 Wrench or 7/16 Socket

COMPONENT DETAILS



INSTALLATION STEPS

1. Prepare metal inlet collar for fabric connection
2. Prepare overhead attachment points
3. Ring assembly
4. Attach top and bottom ring to unit
5. Start up AHU

Step 1

PREPARE METAL INLET COLLAR FOR FABRIC CONNECTION

1. Confirm inlet air supply location.
2. Confirm inlet air supply size. Use Table 1.1 and Figure 1.1 to find the correct square dimensions per model size.
3. Hem metal inlet according to Figure 1.2.
4. Metal collar length should be at least 6”-10” for securing fabric attachment.

| MODEL SIZE | DIMENSIONS | |
|------------|------------|--|
| | A (inches) | |
| 5 Ton | 18 | |
| 10 Ton | 24 | |
| 15 Ton | 30 | |
| 20 Ton | 34 | |
| 25 Ton | 38 | |
| 30 Ton | 42 | |

Table 1.1

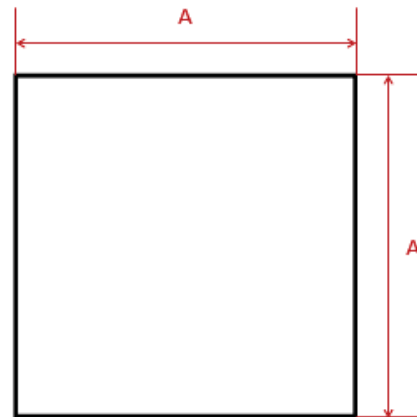


Figure 1.1

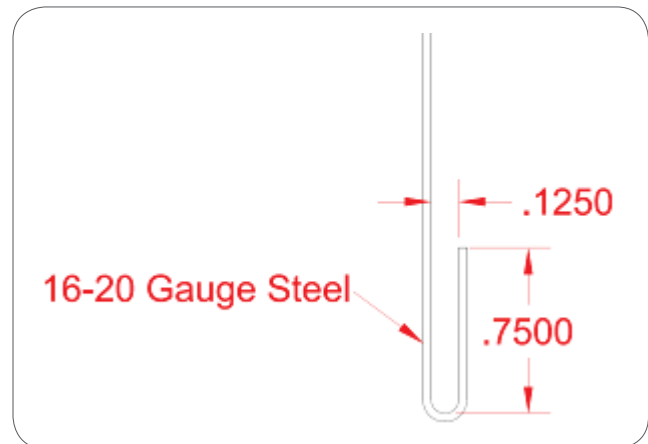


Figure 1.2

STEP 2 PREPARE OVERHEAD ATTACHMENT POINTS

Four overhead attachments are needed to fully support the C-Series Fabric Diffuser. All supports should be attached 9 inches from each corner of the inlet. See Figure 2.1 below.

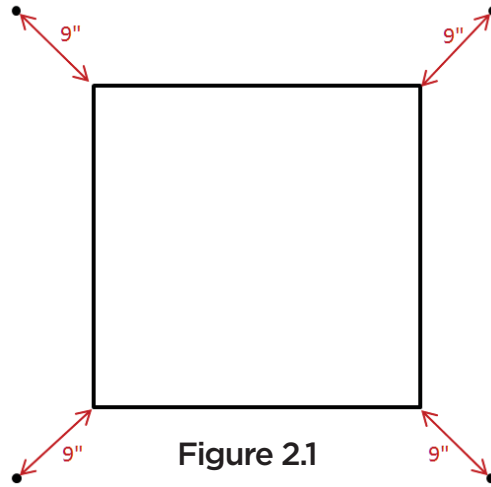


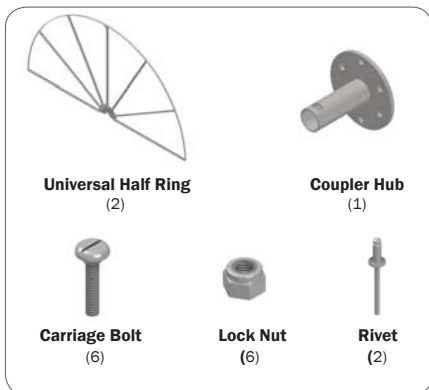
Figure 2.1

STEP 3 ASSEMBLY OF ALL RINGS AND RING HUBS

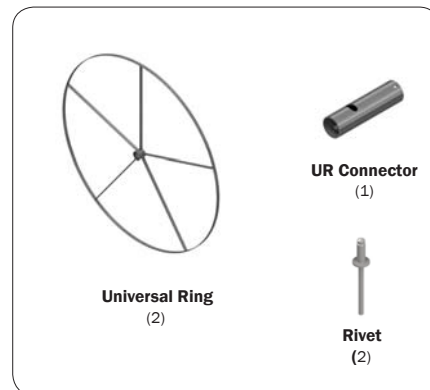
OVERVIEW OF STEP 3:

- A. Main Components List: Before assembling rings gather components needed for each type of ring according to the components list below.
- B. Instructions for all rings. Repeat Step (B) until all ring hubs have been assembled.

A1. Main Component list for Rings (44"-78")



A2. Main Component list for Rings (26"-42")



B1. RING ASSEMBLY FOR RINGS (44"-78")

1. Pound one bolt into the center hole of one of the universal half rings
2. Line up the top hole of the hub with the bolt and slide the hub into place
3. Place a nut on the bolt. Don't over tighten; the hub will need to be able to move to get the other bolts to line up properly
4. Line up the holes on the universal half ring and hub. Pound bolts into the remaining two holes
5. Place nuts on the remaining bolts and tighten all three nuts
6. Line up the holes on the second universal half ring with the remaining holes on the hub
7. Pound a bolt through the center hole
8. Place a nut on the bolt. Once again, don't over tighten; the hub will need to be able to move to get the other bolts to line up properly
9. Pound bolts into the remaining holes
10. Place nuts on the remaining bolts and tighten all three nuts

(Instructions Continue to Page 6)



Step 1



Step 2



Step 3



Step 4



Step 5



Step 6



Step 7



Step 8



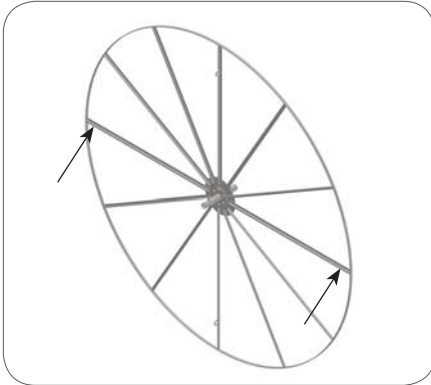
Step 9



Step 10

B1. RING ASSEMBLY RINGS (44"-78") CONTINUED

11. Locate the rivet hole near the outer edge of the ring
12. Place a rivet through the hole
13. Pop the rivet into place then repeats steps 11-13 for the other side of the ring



Step 11



Step 12



Step 13

B2. RING ASSEMBLY RINGS (26"-42")

1. To assemble, insert the UR Connector into the center of the UR. Align the holes
2. Using a rivet gun, rivet the UR Connector to the Universal Ring



Step 1



Step 2

Step 4 ATTACHING TOP AND BOTTOM RING TO UNIT

OVERVIEW OF STEP 4:

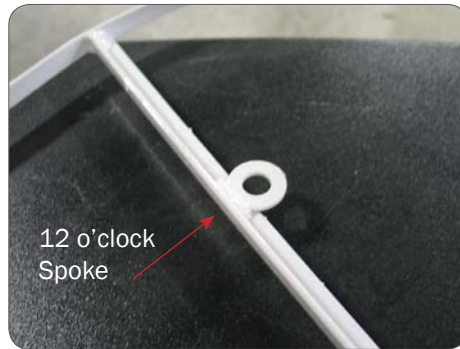
- A. Attaching inlet fabric to top ring.
- B. Attaching support cables to overhead structure.
- C. Attaching support cables to top ring.
- D. Attaching top ring to metal inlet.
- E. Attaching spacer tube
- F. Place Mesh Panel
- G. Attaching bottom ring and zip fabric into place

A. ATTACH INLET FABRIC TO TOP RING

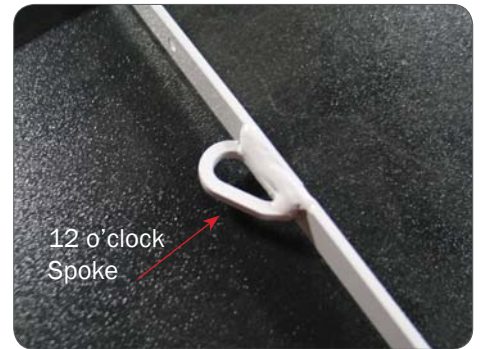
1. Locate the inlet fabric piece. Place the fabric inlet side down and place the top ring on the fabric with the washers and hub pointed away from the fabric. Next find the 12 o'clock spoke, it will be identified by a washer or metal loop welded to the spoke.
2. Line up the longer inlet zipper so that it is aligned with the 12 o'clock spoke.
3. Secure the top ring into fabric using the black tension clips. Note the location of the cinch band. The ring will be positioned between the black clips and the cinch band.
4. Continue around the ring until each black clip has been attached.



Step 1



12 o'clock Ring Washer Identification



12 o'clock Ring Loop Identification



Step 2



Step 3

A. ATTACH INLET FABRIC TO TOP RING CONTINUED

Tighten the cinch band, making sure the rope lock is tightly engaged.



B. ATTACH SUPPORT CABLES TO OVERHEAD STRUCTURE

Attach the hook end of the support cables to the overhead structure using the attachment points made previously in Step 2 on page 4.



C. ATTACH SUPPORT CABLES TO TOP RING

1. Thread the cable through the top zipper of the top ring and attach the cable with a loop.
2. Once the cable has been attached to the ring close the top zipper
3. Repeat steps 1-2 until all cables have been attached to the ring.



Step 1



Step 2



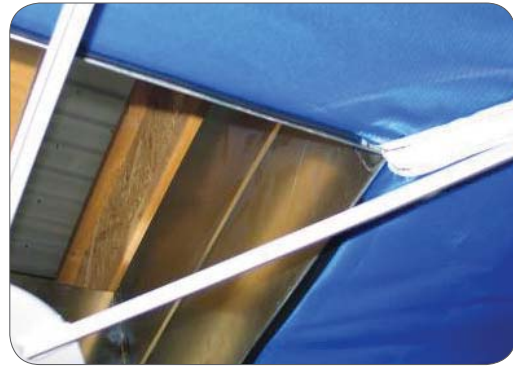
Step 3

D. ATTACH TOP RING TO INLET

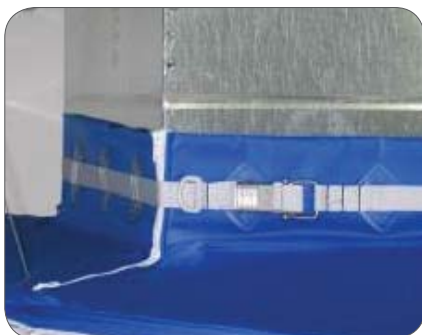
1. Attach the hook and loop ends of the support cables together with Gripples and adjust until the top is level with the termination of the metal inlet. The Top Ring should be suspended 4 inches below the inlet.



2. Hook the black tension clips of the fabric inlet into the hem of the metal duct.



3. Close zipper on the corner of the fabric inlet and adjust the metal belt buckle and webbing so that it is snug around the metal duct.
4. Place a sheet metal screw in each of the plastic patches on the inlet belt.
5. Measure the hanging height at all four cable connections to ensure the diffuser is level.



Step 3

Step 4

Step 5

E. ATTACH SPACER TUBE

Attach the spacer tube to the top ring hub with the push button and sheet metal screw.



F. PLACE MESH PANEL

Find the mesh panel and insert the spacer tube through the center hole of the mesh panel and zip the panel into place using the internal zipper of the inlet fabric.



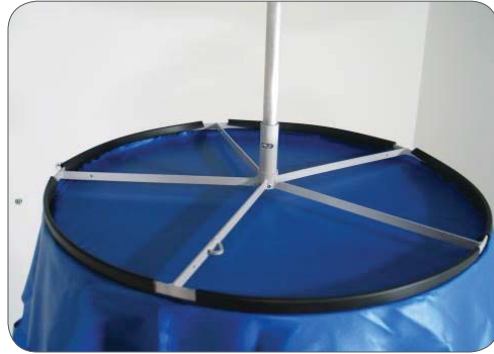
G. ATTACH BOTTOM RING

Attach the bottom ring to the spacer tube with the push button and sheet metal screw. Be sure to line up the 12:00 spoke (identified by a washer or metal loop welded to the spoke) of the bottom ring with the inlet zipper before securing with the sheet metal screw.



G. ATTACH BOTTOM RING CONTINUED

2. Attach the fabric body to the bottom ring using the black tension clips. Be sure to align the body so that the zipper start of the inlet fabric lines up with the zipper start of the body fabric.



3. Once all clips are securely fastened zip the body fabric to the external zipper of the inlet fabric.



4. Cover the zipper by folding the overlap fabric up, and over the zipper.



Step 5

START UP AHU.

- Turn on the AHU. Check all Cable Drops for plumbness. Check that all zippers are closed to ensure there is no extra air escaping

Failure to install DuctSox Systems correctly may void warranty.



If any questions arise regarding the installation of your **C-Series** Fabric Diffuser, contact us.

866-382-8769 or 563-588-5300

DuctSox Corporation
4343 Chavenelle Rd
Dubuque, IA 52002

Phone: 563-588-5300
Toll-free: 866-382-8769
Fax: 563-588-5330

ductsox.com

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