

**NOTICE TO USER**

Thank you for purchasing a DuctSox product.

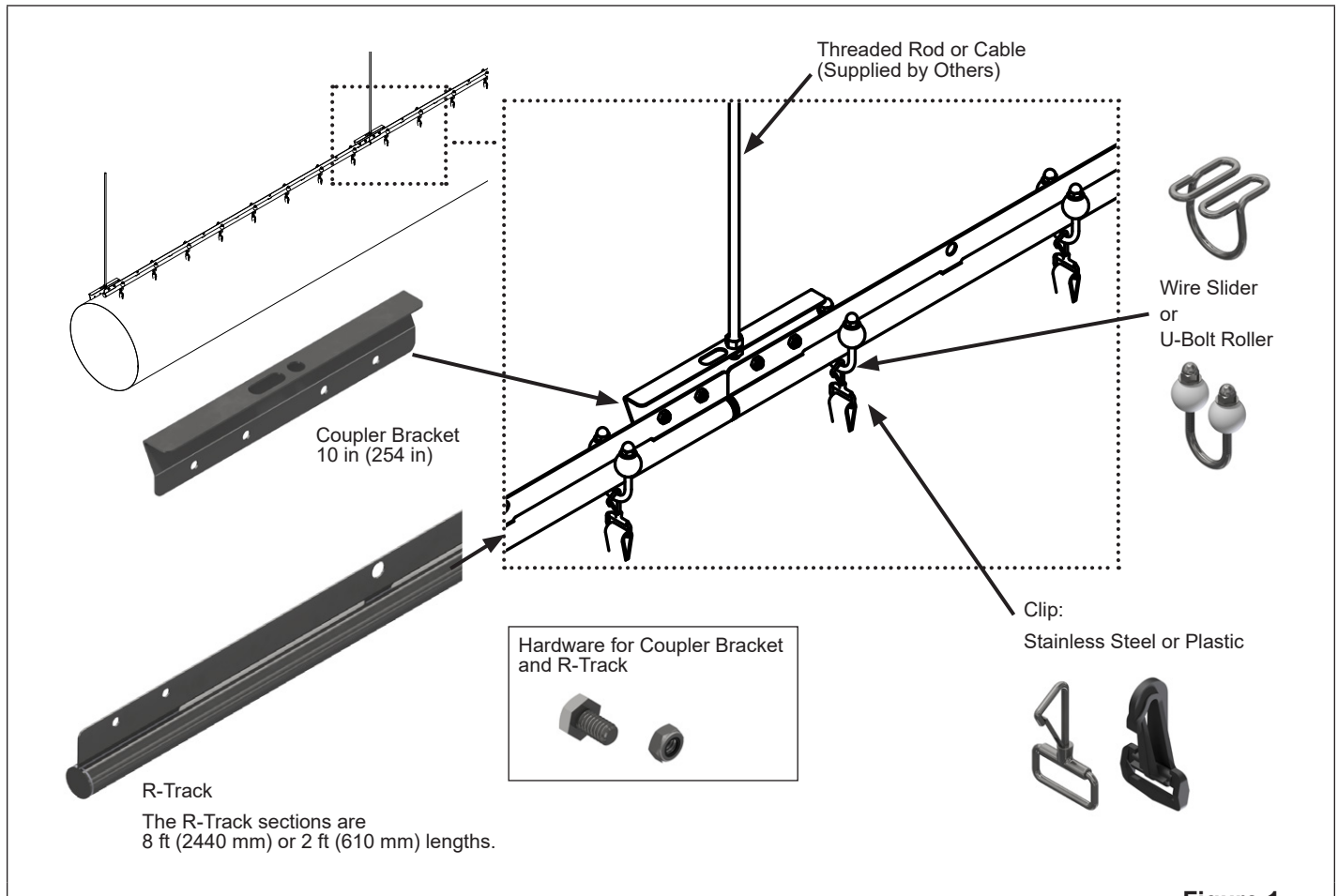
Review materials in box(es). Read and understand all instructions before beginning the installation. Failure to install the DuctSox product properly may void warranty.

Sections of fabric will be labeled, assembled, bagged, and boxed for shipping. Complex systems will include a CAD detail of the system identifying what is in each package.

Products may be covered by one or more patents:  
[www.ductsox.com/patents](http://www.ductsox.com/patents)

Manufactured by DuctSox Corporation.

**COMPONENTS**



**Figure 1**

## INSTALLATION

### Steps Overview

1. Preparation.
2. Prepare metal inlet collar for fabric connection.
3. Mark placement of R-Track. Install R-Track with brackets connected to threaded rod or cable (supplied by others).
4. Install and assemble fabric.
5. Turn on AHU.
6. Balance airflow.

### Step 1 – Preparation

#### Required Tools

Drill/driver and magnetic #2 Phillips driver bit
Level
Tape measure
Marker or pencil
(2) 7/16 in Wrenches

#### Shipping/Receiving

The DuctSox support system could be delivered to the job site ahead of the DuctSox fabric sections. Depending on the size of a project or order, a DuctSox system will be shipped by common courier in a single brown box or several boxes. Larger orders will be shipped in crates by a common freight courier. Each DuctSox length should be packaged into individual plastic bags and labeled according to size and number of pieces. Complex systems may use other markings or labeling.

Verify all boxes are accounted for.

#### Unpacking

Empty the box(s), examine contents, and verify all pieces are accounted for. Note any missing or damaged pieces listed on the bill of lading.

#### Labeling

Each DuctSox section will be marked with the size and section number inside the belt of the inlet or on a tag inside the DuctSox (near the zipper). The marking shall be the diameter, section length and total length. If custom labeling has been used, locate an identification sheet that will be included with the delivery.

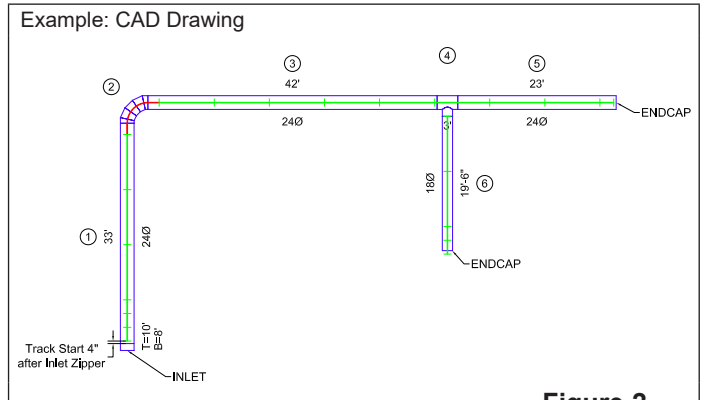


Figure 2

The CAD drawings (supplied) show where the R-Track needs to be hung for the DuctSox system to be installed properly.

**NOTE:** In order for systems with fittings and/or ends of runs to line up correctly, the starting piece of R-Track must be installed in the correct location and the R-Track piece lengths must match what is shown in the drawings.

### Step 2 – Metal Inlet

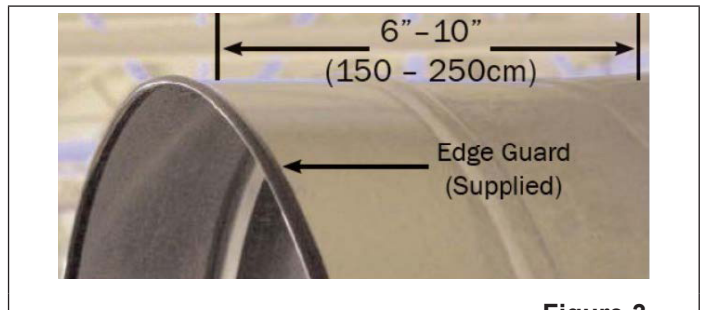


Figure 3

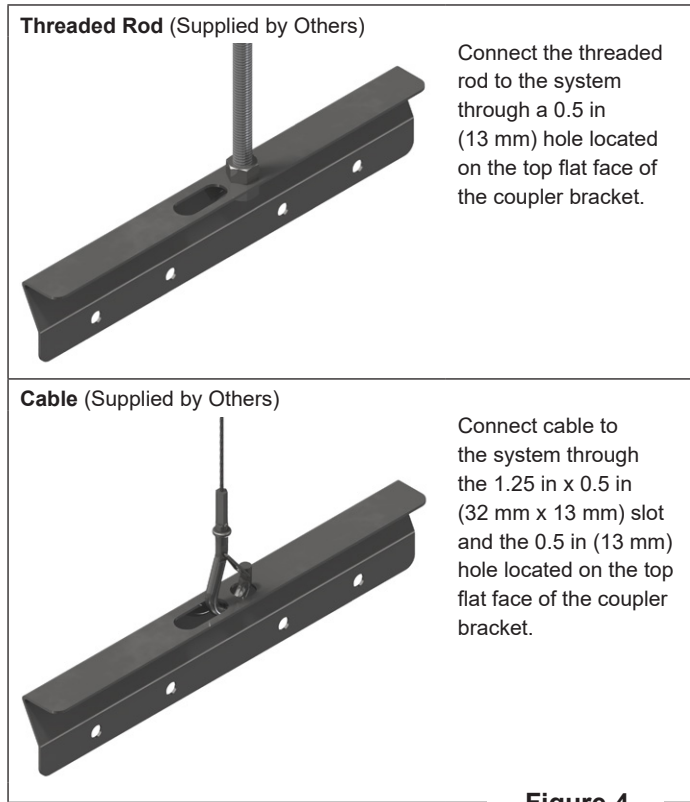
Prepare metal inlet collar for fabric connection:

- Confirm inlet air supply size.
- DuctSox inlets are manufactured 1/2 in (12 mm) larger than specified to fit over metal inlet collar.
- Metal collar length should be 6 in - 10 in (150 cm - 250 cm) for secure fabric attachment.
- Install edge guard (supplied) on the edge of the metal collar to reduce fabric wear from the metal edge.

## INSTALLATION

### Step 3 – R-Track Suspension

#### R-Track Support Types

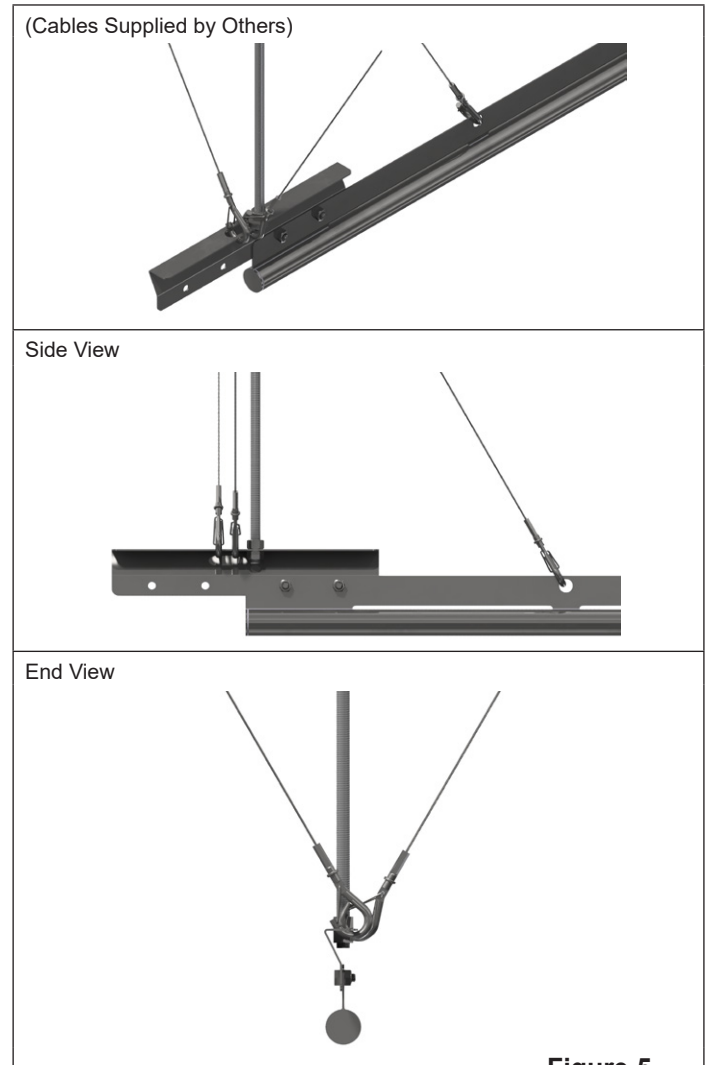


**Figure 4**

The R-Track can be supported using threaded rod, cable, or a combination of both. Threaded rod is recommended, it makes a more stable connection.

Support the R-Track at every coupler bracket 2 ft (610 mm) or 8 ft (2440 mm).

#### Cable Bracing



**Figure 5**

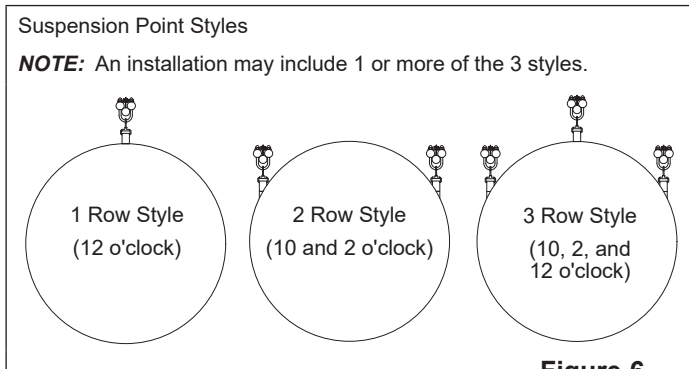
If there is any sway of the system, brace the R-Track with support cables.

Install support cables from the coupler bracket or the mounting holes on the R-Track. The R-Track support cables must be mounted at 30°- 60° angles away from the sides of the R-Track and at 30°- 60° in-line with the R-Track.

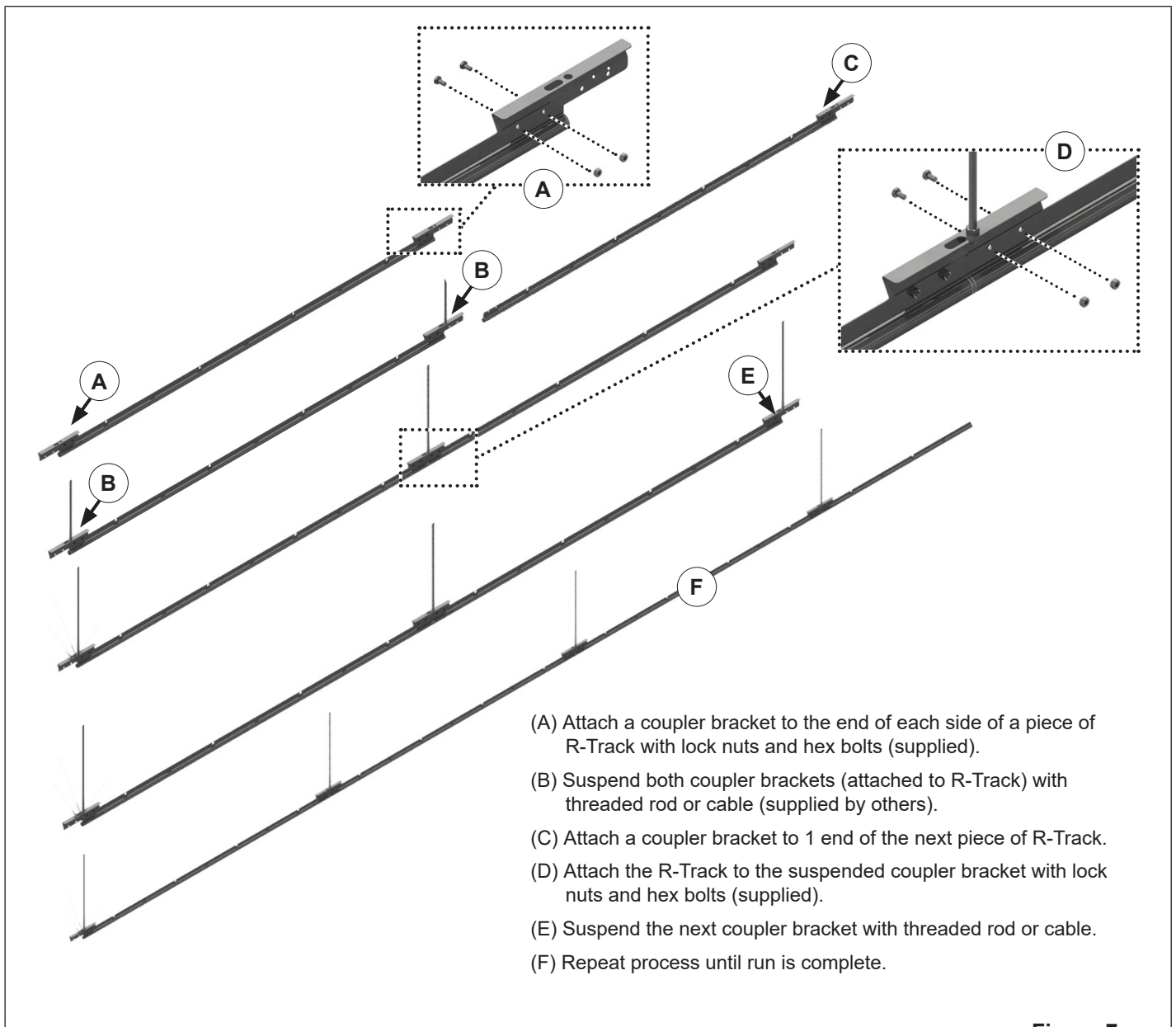
## INSTALLATION

### Step 3– R-Track Suspension *Continued*

#### R-Track Suspension Process



1. Identify the suspension style (1 row, 2 row, or 3 row) and mark placement of R-Track on ceiling/support structure. The CAD drawing (supplied) shows where to suspend the first piece of track R-Track in relation to the metal inlet.
2. Install R-Track, coupler brackets and supports (threaded rod or cable/supplied by others) according to **"Figure 7"**. Depending on your application use the information for **"Ts"** (page 6), **"R-Track Path, Elevation"** (page 5), and **"Elbows"** (page 7).



# INSTALLATION

## Step 3 – R-Track Suspension *Continued*

R-Track supports are placed at every coupler bracket 2 ft (610 mm) or 8 ft (2440 mm).

### R-Track Path, Elevation

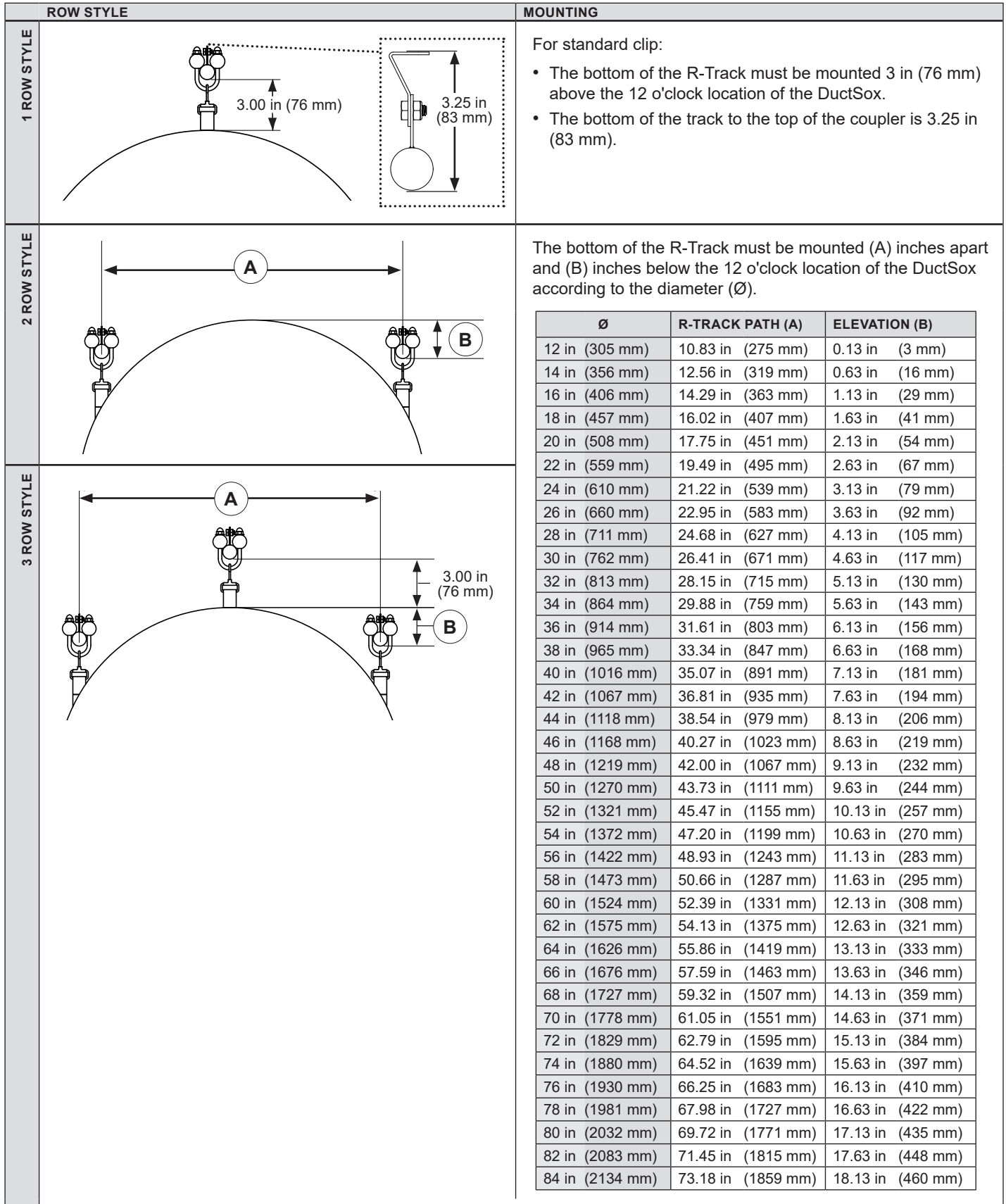


Figure 8

# INSTALLATION

## Step 3– R-Track Suspension *Continued*

Ts

### NOTICE

R-Tracks on the branch that are too close to the main run may cause the unit to fail prematurely due to abrasion from the track.

Support around fabric fittings may require additional R-Track supports.

Offset distance from the sidewall of the DuctSox main trunk to the branch R-Track is approximately half of the main trunk diameter plus 12 in (305 mm).

	T – 1 ROW STYLE	T – 2 ROW STYLE	T – 3 ROW STYLE
STYLE ON MAIN TRUNK			
FLAT ON TOP			
CENTER ALIGNED			
FLAT ON BOTTOM			

Figure 9

# INSTALLATION

## Step 3– R-Track Suspension *Continued*

### Elbows

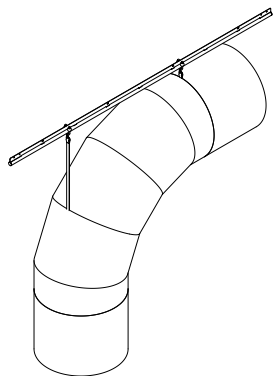
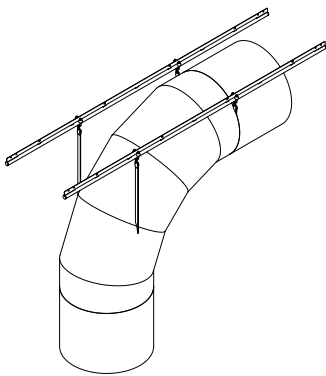
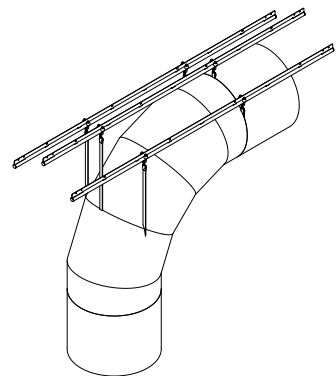
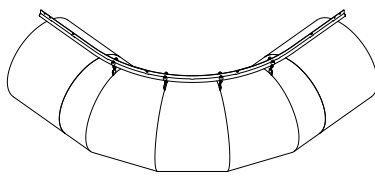
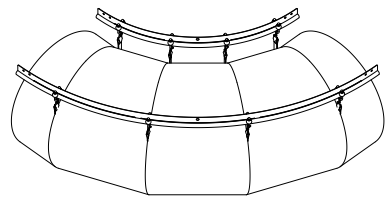
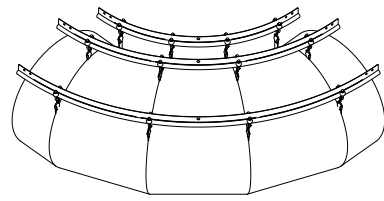
	1 ROW STYLE	2 ROW STYLE	3 ROW STYLE
<b>VERTICAL</b>			
Support vertical elbows by extended straps, not the radius R-Track.			
<b>RADIUS</b>			
The radius R-Track only works with DuctSox that are installed in a true horizontal plane.			
Install at least 1 cable or threaded rod per radius section (centered when possible).			
<p>The radius R-Track is manufactured at the same radius of the DuctSox. (1.5 times the diameter of the DuctSox, unless otherwise specified).</p> <p>Example: A 24 in diameter DuctSox would have a radius R-Track with a radius of 36 in. <math>24 \text{ in} \times 1.5 = 36 \text{ in}</math></p> <p>The radius R-Track will have a minimum of 6 in (152 mm) of straight R-Track on either side to attach to the R-Track sections around it. It attaches to the R-Track with a coupler bracket, the same way straight sections are connected.</p>	<p>Radius tracks are manufactured to match the radius of the DuctSox:</p> <p>The radii of the R-Tracks are 1.07 and 1.93 times the diameter of the DuctSox (unless otherwise specified).</p> <p>Example:</p> <ul style="list-style-type: none"> <li>The inside radius R-Track of a 24 in diameter DuctSox would have a radius of 25.6 in. <math>24 \text{ in} \times 1.07 = 25.6 \text{ in}</math></li> <li>The outside radius R-Track of a 24 in diameter DuctSox would have a radius of 46.4 in. <math>24 \text{ in} \times 1.93 = 46.4 \text{ in}</math></li> </ul>	<p>The radii of the R-Tracks are 1.07, 1.5, and 1.93 times the diameter of the DuctSox (unless otherwise specified).</p> <p>Example:</p> <ul style="list-style-type: none"> <li>The inside radius R-Track of a 74 in diameter DuctSox would have a radius of 79.2 in. <math>74 \text{ in} \times 1.07 = 79.2 \text{ in}</math></li> <li>The center 12 o'clock radius R-Track would have a radius of 111 in. <math>74 \text{ in} \times 1.5 = 111 \text{ in}</math></li> <li>The outside radius R-Track of a 74 in diameter DuctSox would have a radius of 142.8 in. <math>74 \text{ in} \times 1.93 = 142.8 \text{ in}</math></li> </ul>	

Figure 10

## INSTALLATION

### Step 4– Fabric

1. Install DuctSox fabric. The zipper start and seam must be at the 12 o'clock position for proper alignment.

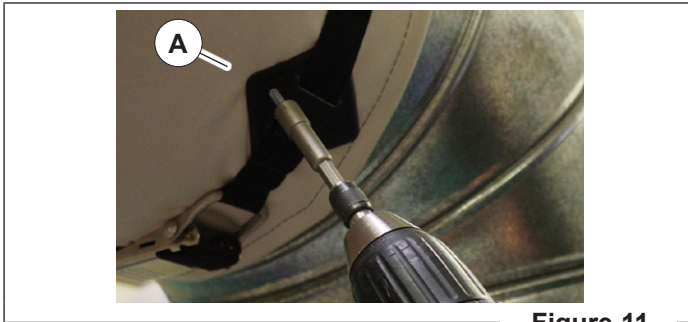


Figure 11

2. Attach the DuctSox inlet to the metal collar using screws (supplied by others) through plastic patches on the inlet belt (A).

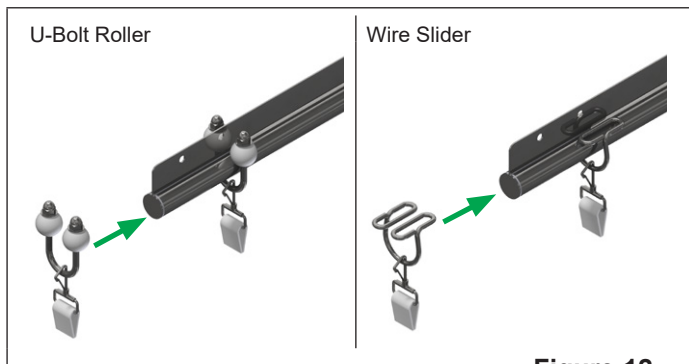


Figure 12

3. Attach clips to sliders/rollers and slide them onto the R-Track.
4. Close all zipper connections before moving to the next step.

### Step 5– Turn on AHU

Turn on the AHU and inflate the DuctSox System.

Check all gliders and sections to ensure system is inflating properly. If required, move gliders to eliminate puckering at binding locations.

If lengths do not fit properly, double check all field measurements and compare to drawings. If all measurements are correct, contact your DuctSox factory rep to discuss options.

### Step 6– Balance Airflow

System must be balanced to design CFM and static pressure immediately after installation.

Most DuctSox Systems include a zipper at the inlet location for easy access to monitor air flow.

If the fabric is fluttering after balancing, contact your DuctSox factory rep for solutions to create a less turbulent airflow (adjusting the Adjustable Flow Device (AFD), adding AFDs, etc).

## MAINTENANCE

Launder fabric (Sedona-Xm, TufTex, Verona, DuraTex, Microbe-X, Rx, and Stat-X):

1. Record where each section that will be laundered is installed.
2. Unzip all sections and remove the DuctSox fabric from your system. Launder with the most soiled side facing out.
3. Soak in cold water for 30 minutes.
4. Wash cold, gentle cycle.
5. Rinse thoroughly. Repeat laundering steps if water/DuctSox is still soiled.
6. Drip dry or no-heat tumble dry.

## CUSTOMER SERVICE

### DUCTSOX WORLD HEADQUARTERS

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