Quality People. Building Solutions.

Comfort Systems USA (Arkansas), Inc.
P.O. Box 16620
Little Rock, AR 72231
Phone 501-834-3320
Fax 501-834-5416

Date: 2/21/2024
Return Request: 3/28/2024
Project: Little Rock West High School
Supplier: A/C Specialties
Manufacturer: Duct Sox
Submittal: Fabric Air Distribution
Submittal Number: 23 37 16-01
Drawing # and Installation: Mechanical Drawings

ARCHITECT
Lewis Architects Engineers
11225 Huron Lane, Suite 104
Little Rock, AR 72211
501-223-9302

ENGINEER
Lewis Architects Engineers
11225 Huron Lane, Suite 104
Little Rock, AR 72211
501-223-9302

GENERAL CONTRACTOR
Baldwin & Shell
1000 W. Capitol Ave.
Little Rock, AR 72201
501-374-8677

MECHANICAL SUBCONTRACTOR
Comfort Systems USA (Arkansas), Inc.
9924 Landers Rd.
N. Little Rock, AR 72117
501-834-3320

Notes:

chowell@comfortar.com

DUCTSOX®
Textile Air Dispersion Products

WARRANTY REGISTRATION SHEET

Please fill out the information below regarding where the DuctSox product will be installed. Fax the completed form to 866-398-1646 or 563-588-5330.

All information is REQUIRED and needed for Warranty purposes.

End User Information:

Date:

Project/Reference:

End User Name:

Street Address:

City:

State/Country:

Zip:

Rep Name:

Additional Information (Optional):

DUCTSOX®
Textile Air Dispersion Products

SUBMITTAL DOCUMENTS

Little Rock West High School
12.26.23

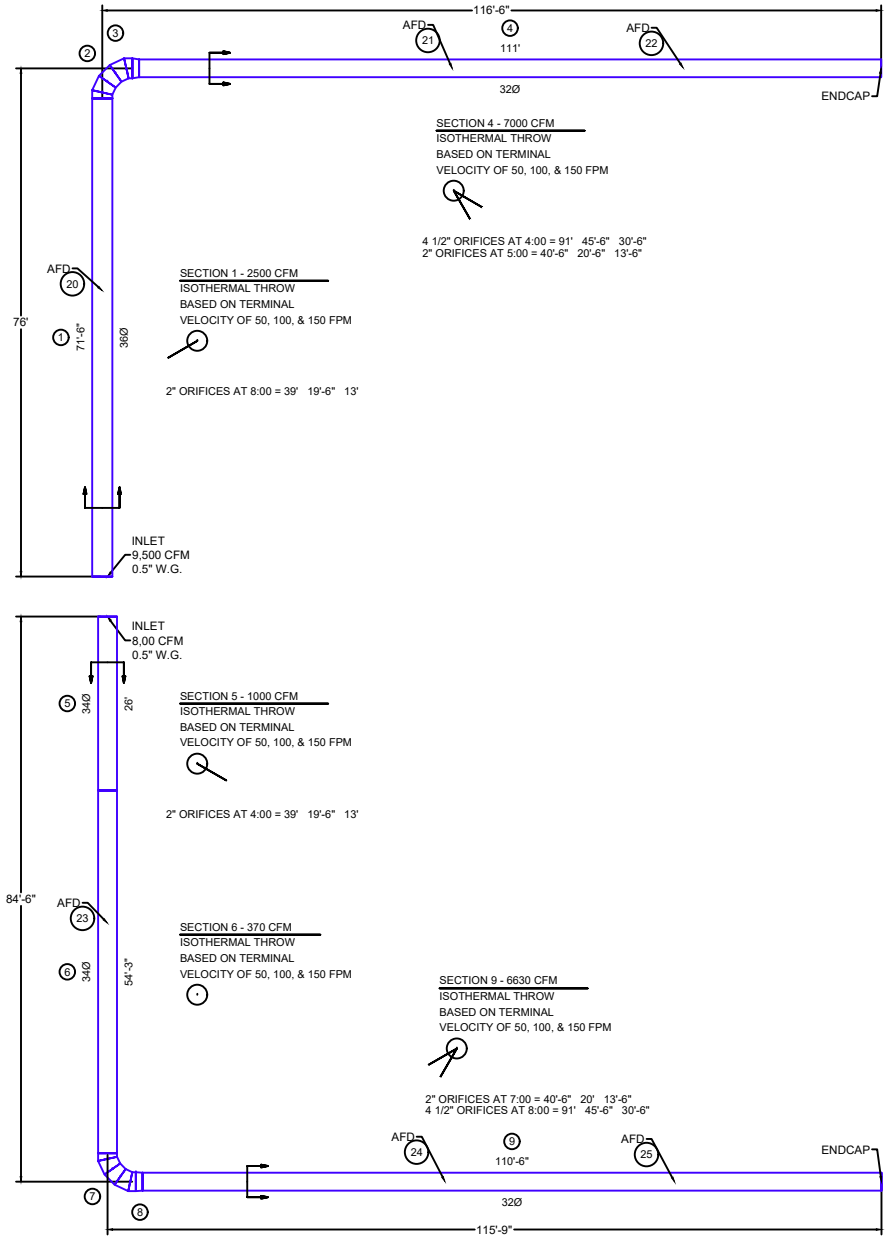
This document includes details on proposed products supplied by:

DuctSox Corporation
9866 Kapp Court
Peosta, IA 52068

Ph: 563-588-5300 or 866-382-8769
Fx: 563-588-5330 or 866-398-1646

sales@ductsox.com
www.ductsox.com

Airetech Corp



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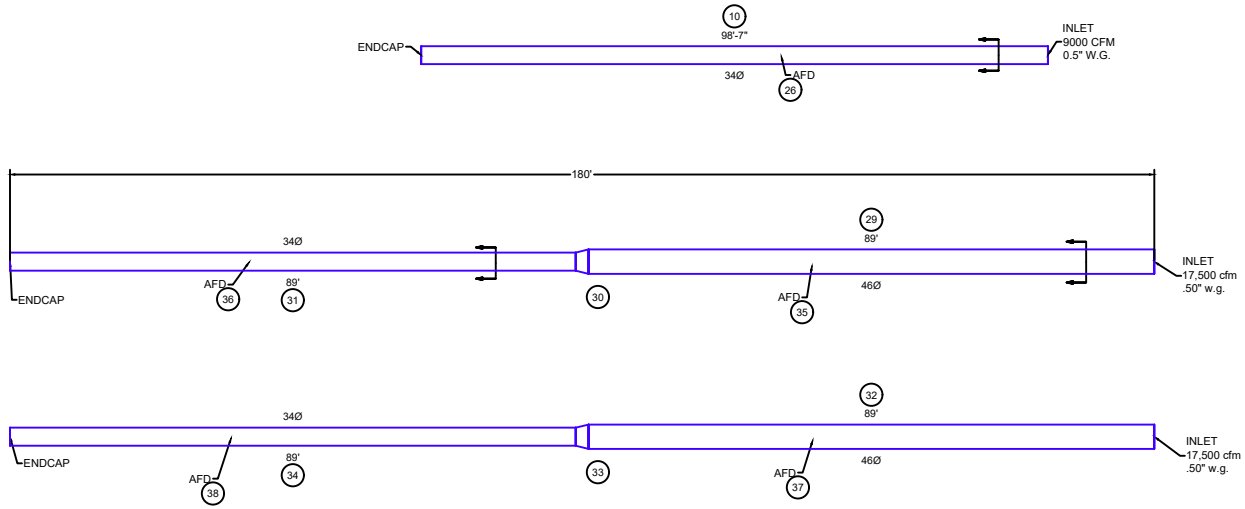
Dubuque, IA 52002 www.ductsox.com

UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN FEET AND INCHES
LENGTH TOLERANCES: (+/-) 3" PER INITIAL 10'. (+/-) 1" EVERY 10' AFTER

DRAWING TITLE	DUCTSOX PLAN VIEW - INDOOR PRACTICE
PROJECT NAME	LITTLE ROCK WEST HIGH SCHOOL
REPRESENTATIVE	AIRETECH CORP.
DRAWING NUMBER	DS23-1000
DRAWN BY	KCS
DATE	15 MAY 2023

FABRIC	VERONA NP	COLOR	NOT SPECIFIED
HANG HEIGHT	COD = 34'		
SUSPENSION	INTERNAL HOOP SYSTEM	FITTING ALIGNMENT	ALL ALIGN TOP OF DUCT
HARDWARE	GALVANIZED CABLE	SCALE	NTS
REVISION	2	PAGE NUMBER	1 OF 5

REV	DESCRIPTION	BY	DATE
-		-	-
-		-	-
-		-	-



SECTION 10 - 9000 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

1" ORIFICES AT 6:00 = 20'-6" 10'-6" 7'
1 1/2" ORIFICES AT 7:30 = 31' 15'-6" 10'-6"
4" ORIFICES AT 8:30 = 82'-6" 41' 27'-6"

SECTION 29 - 8750 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

3" ORIFICES AT 4:00 = 60' 30' 20'
3" ORIFICES AT 8:00 = 60' 30' 20'

SECTION 31 - 8750 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

3" ORIFICES AT 4:00 = 61'-6" 31' 20'-6"
3" ORIFICES AT 8:00 = 61'-6" 31' 20'-6"

SECTION 32 - 8750 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

3" ORIFICES AT 4:00 = 60' 30' 20'
3" ORIFICES AT 8:00 = 60' 30' 20'

SECTION 34 - 8750 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

3" ORIFICES AT 4:00 = 61'-6" 31' 20'-6"
3" ORIFICES AT 8:00 = 61'-6" 31' 20'-6"

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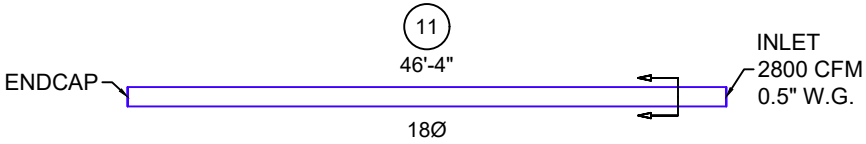
ALL DIMENSIONS ARE IN FEET AND INCHES
LENGTH TOLERANCES: (+/-) 3" PER INITIAL 10'. (+/-) 1" EVERY 10' AFTER

DRAWING TITLE	DUCTSOX PLAN VIEW - AUX & MAIN GYM
PROJECT NAME	LITTLE ROCK WEST HIGH SCHOOL
REPRESENTATIVE	AIRETECH CORP.
DRAWING NUMBER	DS23-1000
DRAWN BY	KCS
DATE	15 MAY 2023

FABRIC	VERONA	COLOR	NOT SPECIFIED
HANG HEIGHT	COD = 37'		
SUSPENSION	INTERNAL HOOP SYSTEM	FITTING ALIGNMENT	N/A
HARDWARE	GALVANIZED CABLE	SCALE	NTS
REVISION	2	PAGE NUMBER	2 OF 5

REV	DESCRIPTION	BY	DATE
1	ADDED MAIN GYM	MW	16 MAY 2023
-		-	-
-		-	-

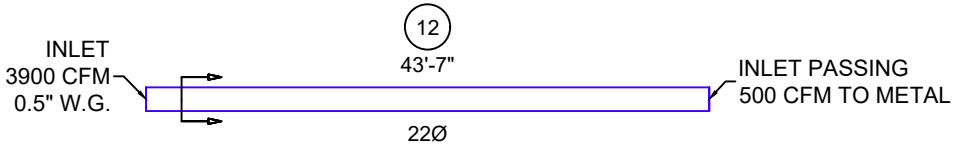


SECTION 11 - 2800 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

3/4" ORIFICES AT 7:00 = 15'-6" 8' 5'
1 1/2" ORIFICES AT 8:00 = 31'-6" 15'-6" 10'-6"

SECTION 12 - 3400 CFM
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

1" ORIFICES AT 7:00 = 20'-6" 10'-6" 7'
2" ORIFICES AT 8:00 = 41' 20'-6" 13'-6"



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UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN FEET AND INCHES
LENGTH TOLERANCES: (+/-) 3" PER INITIAL 10'. (+/-) 1" EVERY 10' AFTER

DRAWING TITLE	DUCTSOX PLAN VIEW - WRESTLING / CHEER
PROJECT NAME	LITTLE ROCK WEST HIGH SCHOOL
REPRESENTATIVE	AIRETECH CORP.
DRAWING NUMBER	DS23-1000
DRAWN BY	KCS
DATE	15 MAY 2023

FABRIC	VERONA	COLOR	NOT SPECIFIED
SUSPENSION	INTERNAL HOOP SYSTEM	FITTING ALIGNMENT	N/A
HANG HEIGHT	COD = TAG 11 - 15', TAG 12 - 22'		
HARDWARE	GALVANIZED CABLE	SCALE	NTS
REVISION	2	PAGE NUMBER	3 OF 5

REV	DESCRIPTION	BY	DATE
-		-	-
-		-	-
-		-	-

SECTION 13 - 2000 CFM

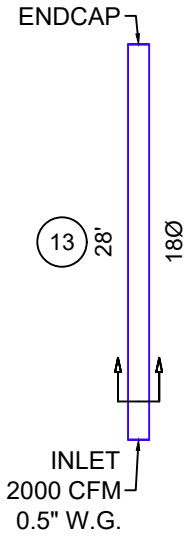
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

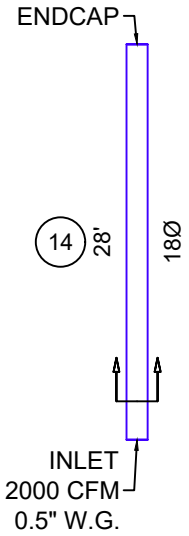
1 1/2" ORIFICES AT 4:00 = 30'-6" 15' 10'
1" ORIFICES AT 5:00 = 20' 10' 6'-6"

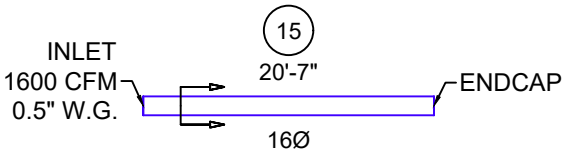
SECTION 14 - 2000 CFM

ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM

1" ORIFICES AT 7:00 = 20' 10' 6'-6"
1 1/2" ORIFICES AT 8:00 = 30'-6" 15' 10'

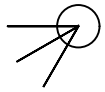






SECTION 15 - 1600 CFM

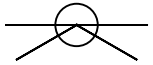
ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM



1/2" ORIFICES AT 7:00 = 10' 5' 3'-6"
3/4" ORIFICES AT 8:00 = 15' 7'-6" 5'
1 1/4" ORIFICES AT 9:00 = 25'-6" 12'-6" 8'-6"

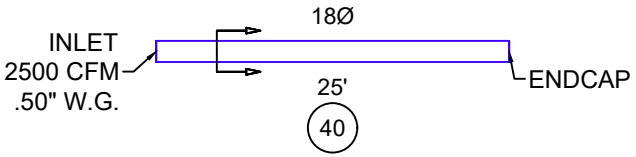
SECTION 40 - 2500 CFM

ISOTHERMAL THROW
BASED ON TERMINAL
VELOCITY OF 50, 100, & 150 FPM



SIZE 25 VENT AT 3:00 = 40' 25' 16'-6"
SIZE 16 VENT AT 4:00 = 29' 18' 12'
SIZE 16 VENT AT 8:00 = 29' 18' 12'
SIZE 25 VENT AT 9:00 = 40' 25' 16'-6"

LOBBY



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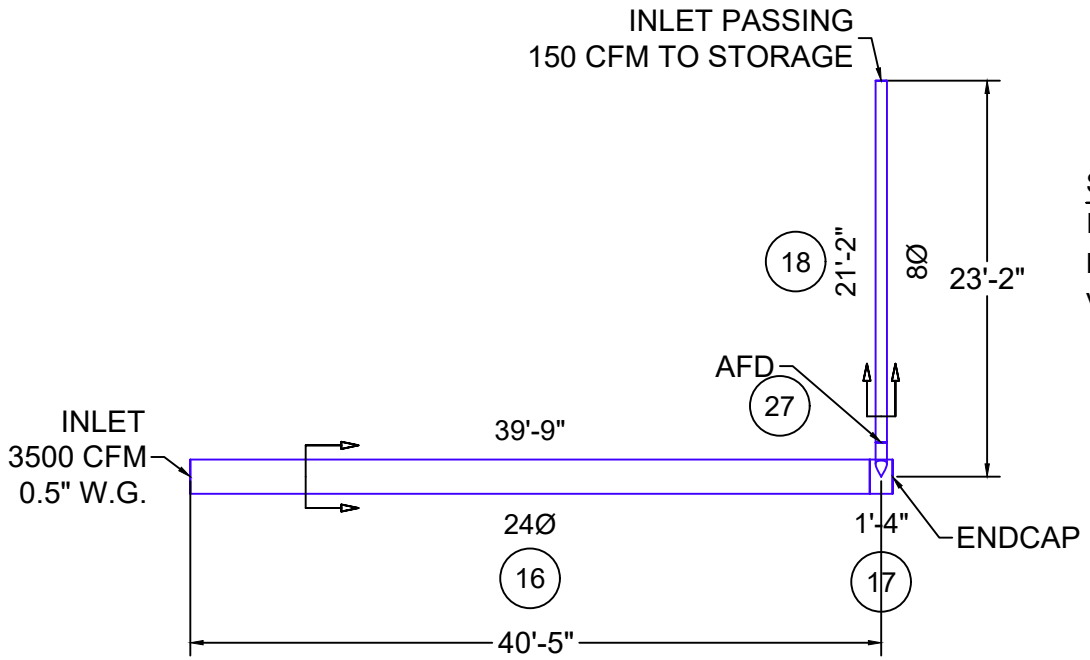
UNLESS OTHERWISE SPECIFIED
ALL DIMENSIONS ARE IN FEET AND INCHES
LENGTH TOLERANCES: (+/-) 3" PER INITIAL 10'. (+/-) 1" EVERY 10' AFTER

DRAWING TITLE	DUCTSOX PLAN VIEW - BACK STAGE / SCENE SHOP		
PROJECT NAME	LITTLE ROCK WEST HIGH SCHOOL		
REPRESENTATIVE	AIRETECH CORP.		
DRAWING NUMBER	DS23-1000	DRAWN BY	KCS
DATE	15 MAY 2023		

FABRIC	VERONA	COLOR	NOT SPECIFIED
HANG HEIGHT	COD = TAGS 13 & 14 - 20', TAG 15 - 12'		
SUSPENSION	INTERNAL HOOP SYSTEM	FITTING ALIGNMENT	N/A
HARDWARE	GALVANIZED CABLE	SCALE	NTS
REVISION	2	PAGE NUMBER	4 OF 5

REV	DESCRIPTION	BY	DATE
2	ADDED RUN FOR THE LOBBY REVISED LENGTHS IN GYM	MW	20 SEP 2023
-		-	-
-		-	-



SECTION 18 - 100 CFM

ISOTHERMAL THROW

BASED ON TERMINAL

VELOCITY OF 50, 100, & 150 FPM

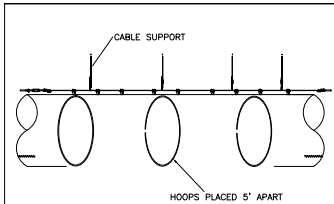
SECTION 16 - 3250 CFM

ISOTHERMAL THROW

BASED ON TERMINAL

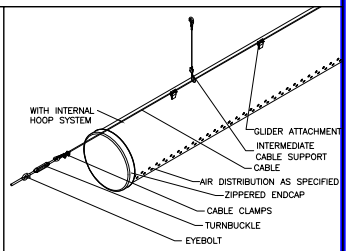
VELOCITY OF 50, 100, & 150 FPM

1 1/2" ORIFICES AT 4:00 = 30' 15' 10'
1 1/2" ORIFICES AT 8:00 = 30' 15' 10'



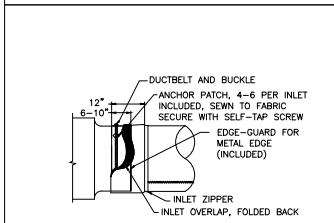
CUT AWAY VIEW OF HOOPS (IHS)

VIEW OF INTERIOR OF DUCTSOX WITH HOOPS (IHS) HANGING

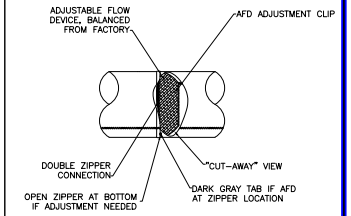


SUSPENSION DETAIL

1 ROW CABLE SUSPENSION AT 12 O'CLOCK HOOPS (IHS) CABLE



INLET ATTACHMENT DETAIL



ADJUSTABLE FLOW DEVICE (AFD)

INSTALLED AT ZIPPER LOCATION AT INLET OR AS SPECIFIED IN OTHER LOCATIONS. ZIPPER TO ZIPPER CONNECTION AS SHOWN. EXTERNAL LABEL IDENTIFIES LOCATION

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ALL DIMENSIONS ARE IN FEET AND INCHES
LENGTH TOLERANCES: (+/-) 3" PER INITIAL 10'. (+/-) 1" EVERY 10' AFTER

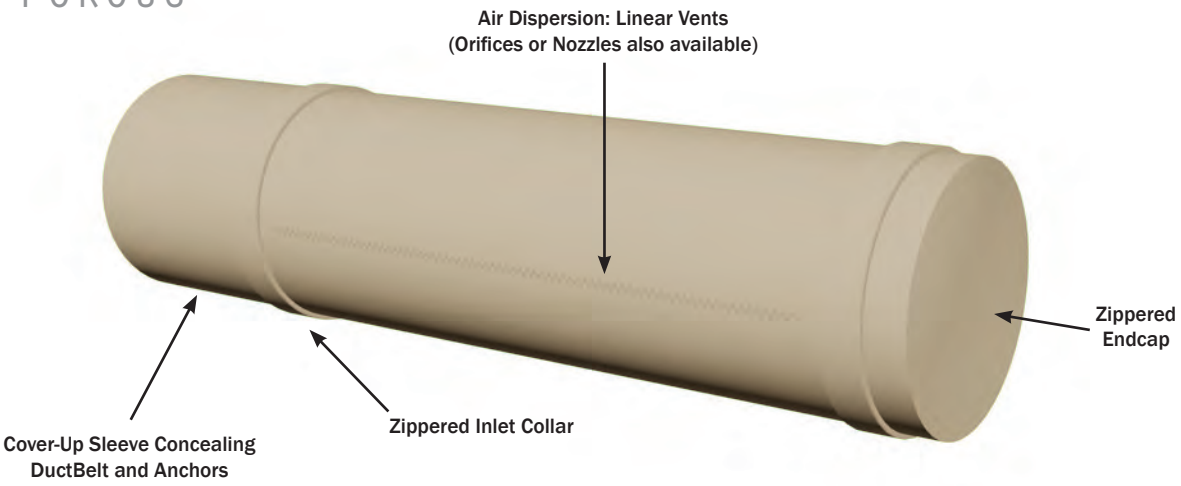
DRAWING TITLE: DUCTSOX PLAN VIEW - BLACK BOX			
PROJECT NAME: LITTLE ROCK WEST HIGH SCHOOL			
REPRESENTATIVE: AIRETECH CORP.			
DRAWING NUMBER: DS23-1000	DRAWN BY: KCS	DATE: 15 MAY 2023	

FABRIC: VERONA	COLOR: NOT SPECIFIED	HANG HEIGHT: COD = 19' - 6"	
SUSPENSION: INTERNAL HOOP SYSTEM		FITTING ALIGNMENT: ALL ALIGN TOP OF DUCT	
HARDWARE: GALVANIZED CABLE	SCALE: NTS	REVISION: 2	PAGE NUMBER: 5 OF 5

REV	DESCRIPTION	BY	DATE
-		-	-
-		-	-
-		-	-

Verona™

Air Porous



Fabric

The all purpose Verona is a woven, air permeable commercial grade fabric that offers best-in-class performance and features. Features include finished seam construction, a positive inlet anchoring system with cover-up sleeve, zippered endcaps, and a zippered inlet collar for a DuctSox Final Filter or AFD. Verona comes in seven popular colors, including black, silver, white, tan, green, blue, and red. Also available in custom colors. Verona is machine washable and available with all DuctSox suspension systems.

Application

Ideal for any aesthetically-attractive environment. Common uses include retail, commercial, education, and community applications. Ideal if condensation is a concern.

Specifications

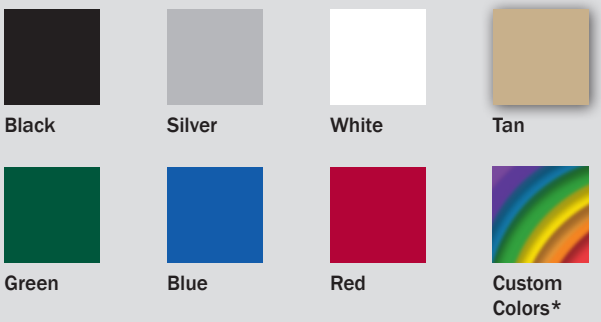
Weave: Fire Retardant Polyester Filament/Filament Twill

Weight: 6.8 oz/yd^2 (231g/m^2)

Porosity: 2 CFM/ft^2 at 0.5" w.g. (10.2L/s/m^2 @ 125Pa)

Codes:
- Classified by Underwriters Laboratories in accordance with the requirements of:
  - NFPA 90A
  - UL 2518
- UL-C (Canada)
- BS 5867 Part 2, 1980
- GB8624-2006
- DIN 4102-1

Color Options



Custom colors available, but requires a premium charge and additional lead time.

Note: Colors may vary. No two dye lots are the exact same color.

CLASSIFIED UL®
File R18856

VERONA NP™

Fabric Specification Sheet
Air Porous

FABRIC

Verona™ NP is an medium weight, all purpose, woven, polyester-based, commercial grade fabric that offers best-in-class performance and features.

FEATURES & BENEFITS

- Commonly used alternative to exposed double wall duct
- Guaranteed not to condensate
- Limited air is able to pass through the fabric weave
- Desired airflow can be delivered exclusively through the porous fabric or combined with various venting options
- Machine washable

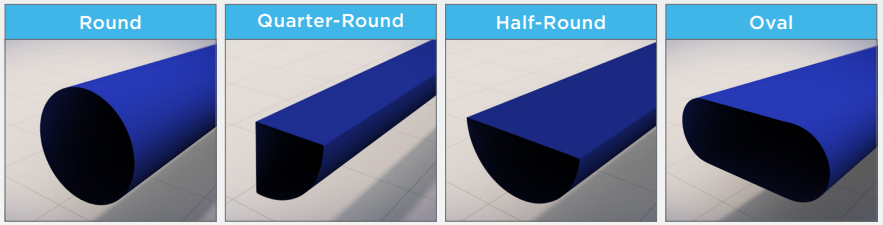
FABRIC SPECIFICATIONS

Weave:	Fire Retardant Polyester | Filament Spun Plain
Weight:	6.5 oz/yd² (220g/m²)
Porosity:	0.7 CFM/ft² @ 0.5in w.g (3.6 L/s/m² @ 125Pa)
Codes:	Classified by Underwriters Laboratories in accordance with the requirements of:

• NFPA 90A • UL 2518 • UL-C (Canada)
• AS/NZS 1530.3-1999 (Australia / New Zealand)

CLASSIFIED UL®
File R18856

SHAPE



COLOR

Black, Silver, White, Tan
Blue, Green, Red, Custom

NO CONDENSATION GUARANTEED

UL CERTIFIED ENVIRONMENTAL PRODUCT DECLARATION UL.COM/EPD

SUSPENSION

WARRANTY	SkeleCore FTS	SkeleCore Pull-Tight	IHS (Hoops)	Hangers	1, 2 or 3 Row	Surface Mount
	✓	✓	✓	✓	✓	✓
	15 yrs	**10 yrs**			**10 yrs**	
	Pro-rated 11-20yrs				Pro-rated 8-10yrs	

See full warranty sheet for application and airflow requirements

AIR DISPERSION

Air Porous	Linear Vents	Orifices	Grommets	Adjustable Nozzles	Fixed Nozzles
✓	✓	✓	✓	✓	✓

DuctSox Corporation
4343 Chavenelle Rd
Dubuque, IA 52002

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

ductsox.com

DUCTSOX® Redefining Air Dispersion

	Warranty Period (in years)*					
	SkeleCore FTS	SkeleCore Pull-Tight	Hoops (IHS)	Hangers	1,2,or3 Row	Surface Mount
Sedona-Xm, TufTex	20 (pro-rated 11-20)	15 (pro-rated 11-15)	10	10	10	10
Verona, DuraTex	15 (pro-rated 11-15)	10	10	10	10 (pro-rated 8-10)	10 (pro-rated 8-10)
UFSox, Stat-X	5 (pro-rated 2.5-5)					
Rx, Microbe-X, LabSox, KitchenSox, ChemSox	1					
OvalSox	5 (1 year for Food Processing)					

**Application Requirements: Airflow and static pressure per original DuctSox design in accordance with published requirements. Warranty is based on inlet velocities up to 1600 FPM (8.12m/s). For SkeleCore FTS, a 10 year warranty is available for inlet velocities up to 2000 FPM (10.16m/s). Some exceptions may apply.*

Design & Performance Warranty

DuctSox Systems that are designed within our performance criteria, based on DuctSox submittal documents, are covered by a 1 year Design & Performance Warranty. We want to ensure the product performs consistently through the entire heating and cooling cycle for the first year of operation. To ensure a DuctSox System is designed correctly, our Inside Sales and Engineering group are available to provide design assistance. Our Design Manual is also available on **www.ductsox.com/media-library**.

Product Warranty

Our Product Warranty is for replacement or repair credit based on the amount of the warranty period remaining. The warranty is not available in the form of a cash payment, only as credit towards repair or replacement. The DuctSox Warranty covers materials, fabrication, and performance of the fabric portion of the DuctSox System only. Warranty coverage begins at the time of shipment.

Both the Design & Performance Warranty and the Product Warranty exclude damage to the fabric from improper installation, poor maintenance, abuse, abrasion, caustic chemicals, exposure to high temperature (over 180 degrees Fahrenheit, 82 degrees Celsius), fabric discoloration and shrinkage, or any unauthorized modifications to the DuctSox System. It also does not cover labor, equipment rental, or freight charges incurred as a result of executing the warranty.

The DuctSox Product Warranty is non-transferable.

VENTILATION

Airflow is delivered through a DuctSox system by pressure difference between the inside and outside of the system. Designed as a closed system, this “ineternal” pressure is calculated using:

SP_1 = Static Pressure
VP = Velocity Pressure = (Velocity/4005)2
FL = Frictional Pressure Loss, use metal equivalents.

Typical design standards suggest a ½” w.g. Static Pressure (SP) supplied at the inlet location.

Velocity Pressure (VP) according to extended testing and research, approximately 65% of VP is regained within the closed system as static pressure. To ensure proper inflation at the inlet, static pressure must be at least 30% higher than the velocity pressure

Static Pressure (SP) > VP x 1.3

Frictional Loss (FL) in most DuctSox systems is low due to inlet velocity and few diameter reductions.

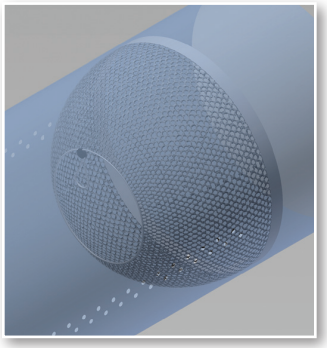
Average Pressure (AP) is the summation of these pressures acting on the system:

AP = SP + ((0.65 x VP - FL) / 1/414) (inch H20)

Fabric Airflow
If the design includes a porous fabric, this airflow can be calculated using the following equations:

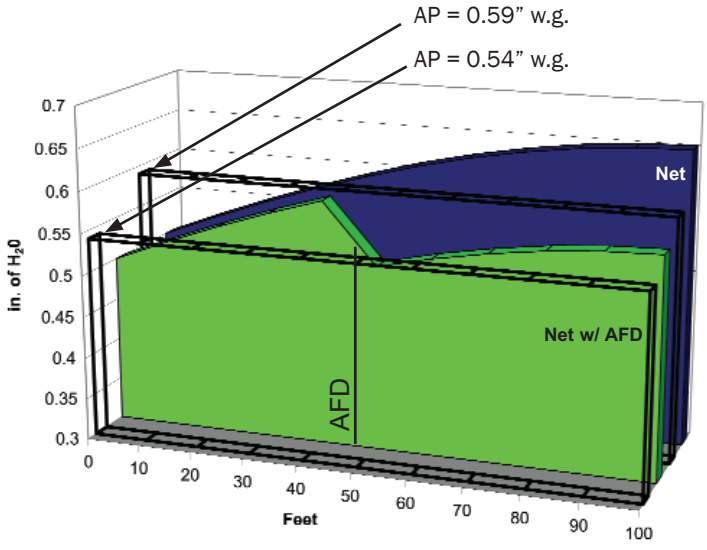
Q_{fabric} = FP x SA x √ (AP/.5) (CFM)

FP = Fabric Porosity (rated) (CFM/ft^2)
SA = Surface Area (all fabric) (ft^2)
AP = Average Pressure (inch/w.g.)



ADJUSTABLE FLOW DEVICE *(IF APPLICABLE)*

Airflow control is critical in HVAC air dispersion. The zip-in Adjustable Flow Device (AFD) offers variable resistance to balance static regain, balance airflow to branches reduce turbulence and reduce abrupt start-ups.



Orifices

Orifices throw air further distances with jet-type air flow. Used in large spaces where airflow requires higher velocities, such as warehouses or manufacturing facilities.

Vent Size and Airflow

Select orifice size and orientation based on throw that best fits the environment. Lower pressures result in improved efficiency, lower noise and extended service life.

Use the following equation to calculate total number of orifices (TO):

TO = AV / Airflow per orifice

ORIFICE SPACING

Typically, orifice spacing is determined by evenly spacing orifices the length of the duct. All systems include a standard 4 foot void (no orifices) near inlet or after any fitting to reduce potential for wear.

If there are too many orifices to fit within the length, then an alternating pattern may be recommended.

If custom orifice spacing is required for your application, the information should be provided at the time of quotation in order to complete the prliminary design.

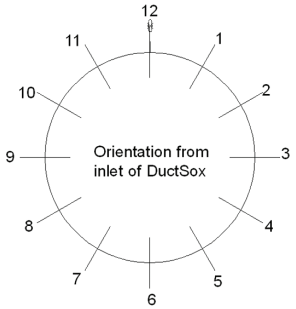
Orifice Location

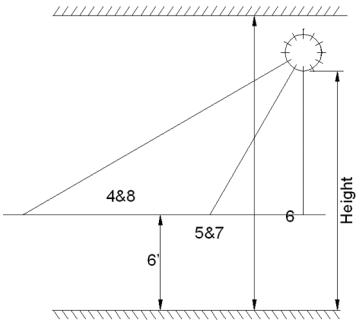
DuctSox Systems are 100% custom made, leaving room for unlimited flexibility for the locations of the Orifices. Some of the considerations when designing outlet orientation are:

11&1, 10&2 AND 3&9 O'CLOCK: Throw requirements focus on reaching exterior walls or filling gaps between parallel runs.

4&8, 5&7 AND 6 O'CLOCK: Throw requirements can be critical in these locations because air is delivered towards the occupied space in most cases. To calculate the throw, use the distance between the bottom of the DuctSox System and the distance above the floor using the following equations:

4&8 o'clock: (Height - 6) x 2.00 = Throw required
5&7 o'clock: (Height - 6) x 1.16 = Throw required
6 o'clock: (Height - 6) x 1.00 = Throw required





Required Maintenance

There are three different areas to consider for maintaining your DuctSox Products.

Performance:

DuctSox products have been refined to reduce or eliminate required maintenance. Over years of use, extensive dirt build up will have little, if any, effect on the air dispersion performance of our products.

Aesthetics:

Keeping the exterior of your DuctSox looking clean may be very important to you. If this is the case, your maintenance schedule should be no different than with metal duct. Although, keeping your DuctSox looking clean can be much easier and less expensive than keeping your metal duct clean. There are a few things that may help reduce the exterior dusting of a DuctSox, including selecting a porous fabric or cycling the system once daily. The most common options for cleaning your DuctSox include vacuuming and/or using compressed air, or it can be easily removed and laundered.

Hygienic:

Over its lifetime, the interior of a duct system will collect dust and/or other micro-organisms that have been known to contribute to sick building syndrome. DuctSox has a distinct advantage over metal—you can completely launder your fabric duct system. This allows you to clean both the inside and outside of your HVAC system helping to eliminate the contributors of sick building syndrome.

Overall, the laundry requirements for each space varies based on the quality of the filters in the air handling unit, the amount of dirt entrainment entering the space (on people's shoes and/or clothing), and other location related issues (e.g. near farmland). Based on our experience, average commercial spaces with relatively high traffic and 50% efficient filters may choose to launder their DuctSox after five to seven years. If your fabric is white, a more frequent schedule may be necessary.

Laundering Instructions

- Remove the DuctSox fabric from your system, being sure to unzip all sections. Take care in recording where each section was installed.
- Turn soiled side out, soak in cold water for 30 minutes.
- Any commercial washer with mild detergent should be suitable for laundering your DuctSox.
- Wash cold on a gentle cycle.
- Rinse thoroughly (repeat cycle if water/DuctSox still soiled).
- Line dry or no-heat tumble dry.

If the system becomes dirty/soiled during installation, please coordinate a proper cleaning prior to completion.

Exterior surface dirt can, most frequently, be blown off using a combination of a brush and compressed air.

NOTE: For PolyTex, the above laundering instructions do not apply. PolyTex can be sprayed with water to remove dust and dirt particles. Wash with soapy water and rinse clean, if needed.

DUCTSOX®
Redefining Air Dispersion

Installation Guide
Hoops (IHS) Cable

Thank you for selecting a DuctSox System. This guide will be helpful for the installation of a Hoops (IHS) Cable System. Sections of fabric will be labeled, assembled, bagged, and boxed for shipping. More complicated systems will include a CAD detail of the system identifying what is in each package. NOTE: The DuctSox cable attachment (Glider) is built for 1/8" (3mm) cable only.

Overview

Inventory
The first step on any installation project is to read through this guide thoroughly and review the components that need to be installed. The best way to do this is to review the drawings of the project while reading the guide, including the CAD detail if applicable.

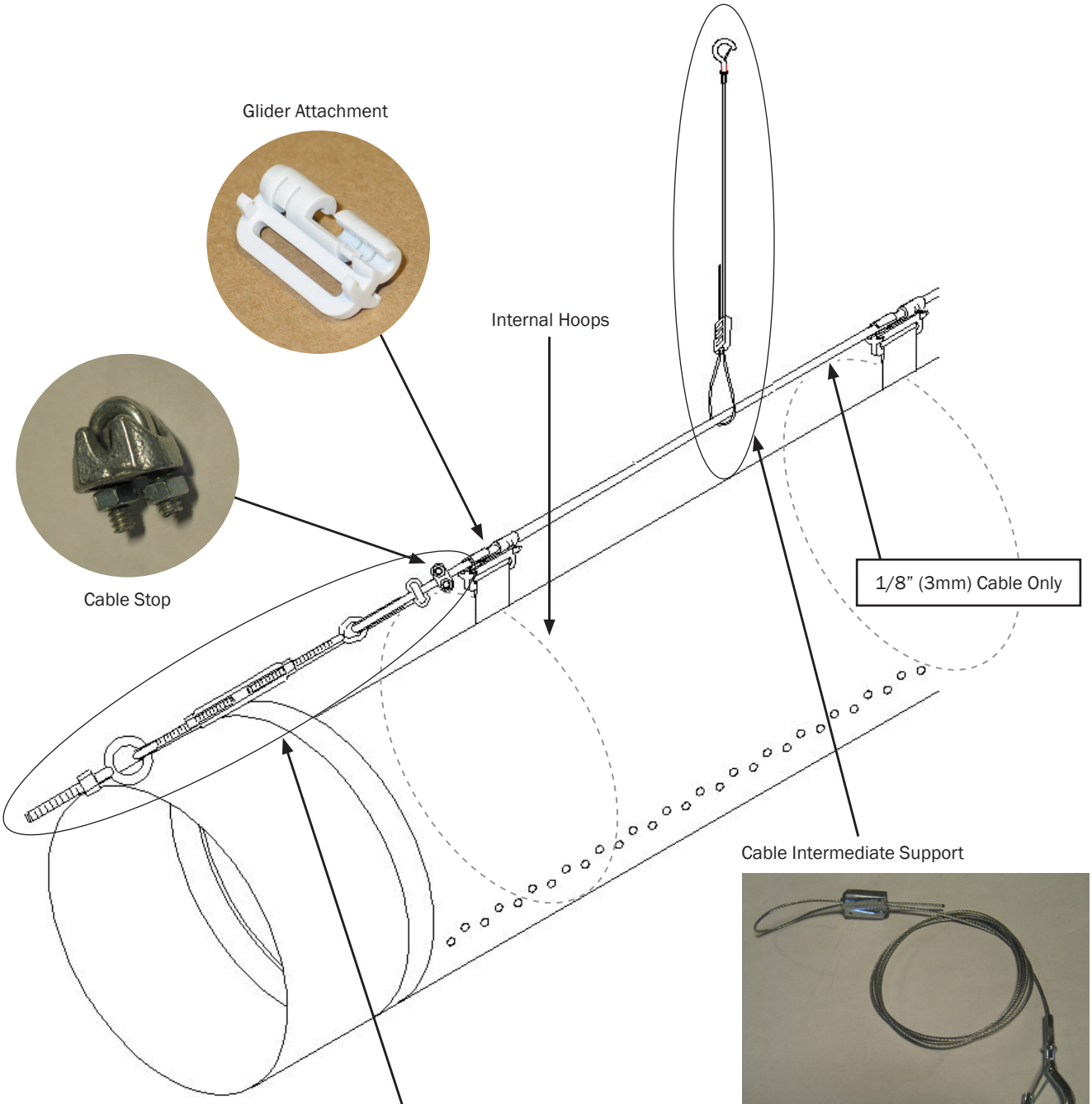
Shipping/Receiving
In some cases the DuctSox support system is delivered to the job site ahead of the DuctSox fabric sections. Depending on the size of a project or order, a DuctSox system will be shipped by common courier in a single brown box or several boxes. Larger orders will be shipped in crates by a common freight courier. Each DuctSox length should be packaged into individual plastic bags and labeled according to size and number of pieces. Other markings or labeling may also be incorporated for larger or more complicated systems. Be sure you have determined all boxes are accounted for.

Unpacking
Inspect shipment carefully and make sure all pieces are accounted for. Account for everything by emptying the box and examining all contents. 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 either 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.

Equipment Required:
- Drill
- Level
- Tape measure
- Marker or pencil
- Wrenches for cable clamps and eye bolts (5/16" and 9/16")
- Flat (standard) screwdriver
- Cable cutter

Component Details



Installation Steps

1. Review materials in box, including the CAD drawing and installed location of the DuctSox
2. Prepare metal inlet collar for fabric connection
3. Mark placement and install cable.
4. Install and assemble DuctSox components
5. Start up AHU
6. Balance airflow

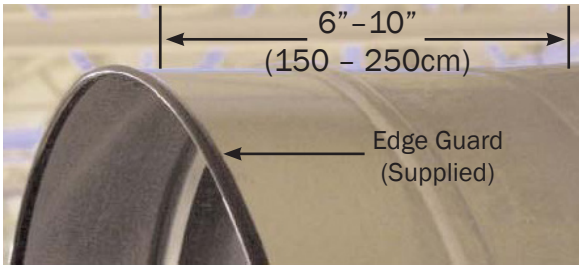
Step 1

Review materials in box, including the CAD drawing and installed location of the DuctSox. READ INSTRUCTIONS THOROUGHLY BEFORE BEGINNING.

Step 2

Prepare metal inlet collar for fabric connection.

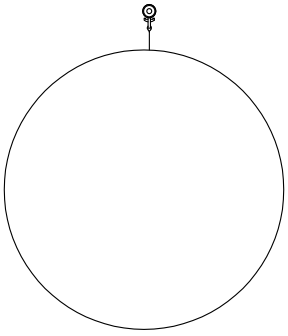
- Confirm inlet air supply location.
- Confirm inlet air supply size.
- DuctSox inlets are manufactured 1/2" (12mm) larger than specified to fit over metal inlet collar.
- Metal collar length should be 6"–10" (150 to 250cm) for secure fabric attachment.
- Edge Guard (provided) should be installed on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



Step 3

Mark Placement and Install Cable.

Step 3 – 1 Row Style



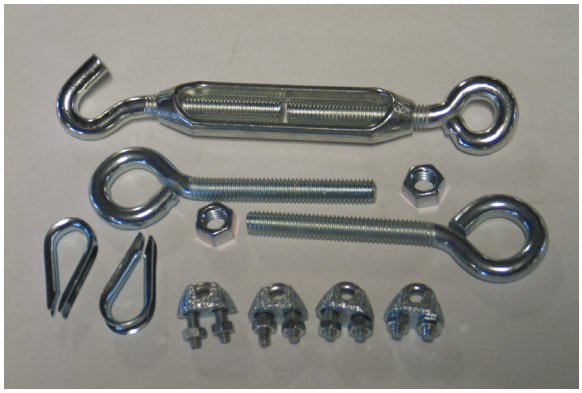
The following details are used for ALL styles.

Type 1 and Type 2 Kits

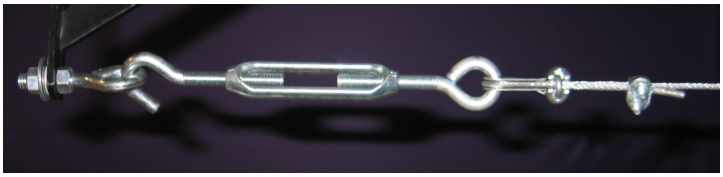
Type 1 and Type 2 kits are for straight runs of cable:

- Type 1: 50 feet (15250mm) or less
- Type 2: 50 to 100 feet (15250mm to 30500mm)
- For systems over 100 feet (30500mm), a combination of the kits should be used.

These kits include one 6" (153mm) turnbuckle (two for Type 2), two eyebolts, two cable thimbles, and four cable clamps.



Eye bolts must be fastened into the structure of the building by others (this could include knee braces).

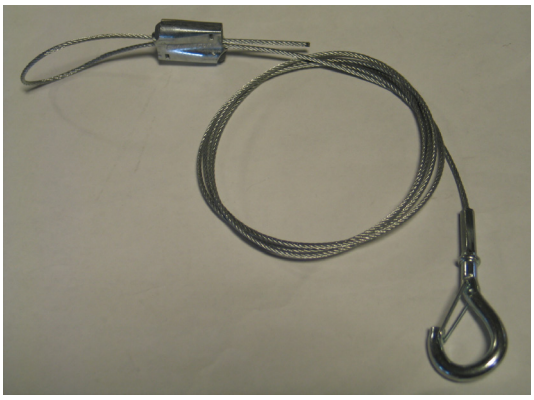


Cable is fastened directly to an eyebolt with a thimble and two cable clamps. Take the cable end and thread two cable clamps onto it. Now hook the thimble onto the eyebolt. Next, thread the cable onto the thimble and through the eyebolts (cable clamps are still on the cable). Now thread the cable back into the cable clamps and tighten them.

Cable is then fastened directly to the turnbuckle with a thimble and two cable clamps. Slack in the cable is taken up by the turnbuckle. If cable is still too loose after tightening the turnbuckle, loosen the cable, re-fasten cable to turnbuckle at a tighter position, and re-tighten the turnbuckle. Do not over-tighten the turnbuckle, we recommend no more than 100 lbs (445 Newtons) of tensile force.

Intermediate Support Cable

Installed every 12.5 feet (3810mm) or less to keep the DuctSox installed at a consistent elevation (reduces sag of the cable).

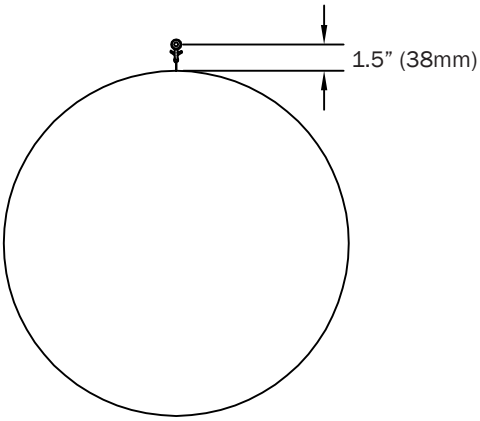


Standard

Pools

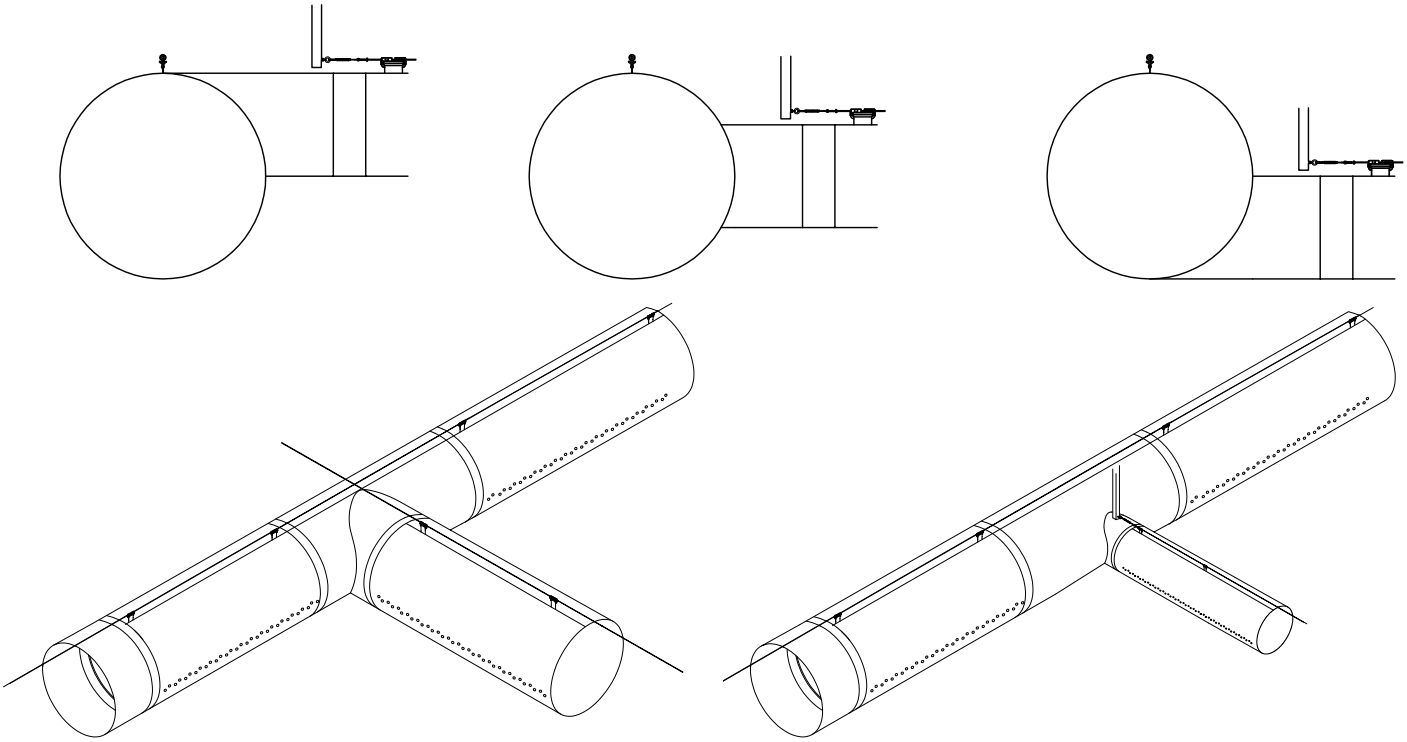
Step 3

Determine placement of cable (both cable path and elevation). The cable must be mounted 1.5” (38mm) above the 12:00 location of the DuctSox. Intermediate Cable supports are spaced no more than 30ft (9150mm).



T’s

There should be roughly 12” (305mm) from sidewall of DuctSox to the closest edge of any knee-bracing. Structure too close to the main run may cause premature failure due to abrasion from the structure. NOTE: Offset distance of branch knee-brace from main trunk is approximately half of the main trunk diameter plus 12” (305mm).



Elbows

Extended straps on heels of elbows are provided for support to cable suspension (Figure A). Vertical elbows are also supported by extended straps (Figure B).

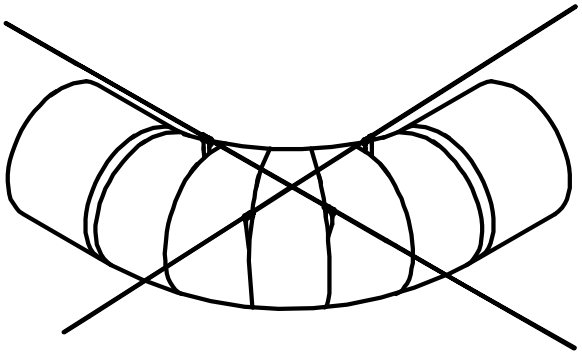


Figure A

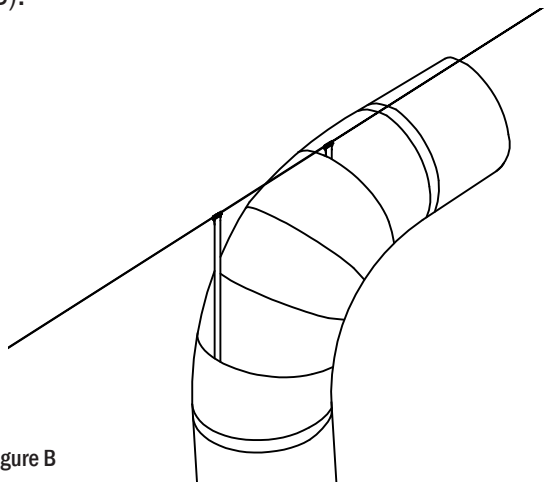
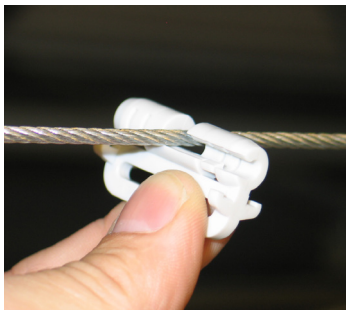


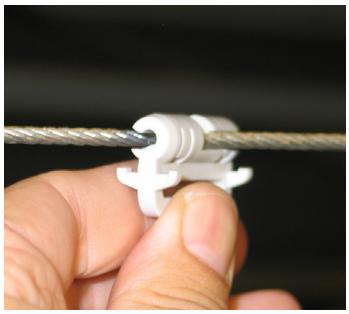
Figure B

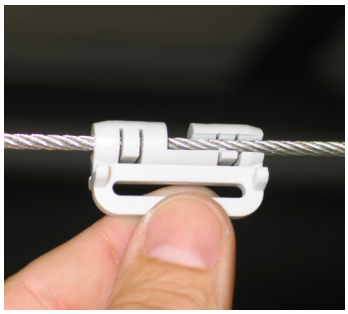
Step 4

Install DuctSox Fabric. DuctSox Inlet must be attached to the metal collar using screws (not included) through plastic patches on the Inlet Belt. Be sure to locate the zipper start and seam at the 12:00 orientation for proper alignment.

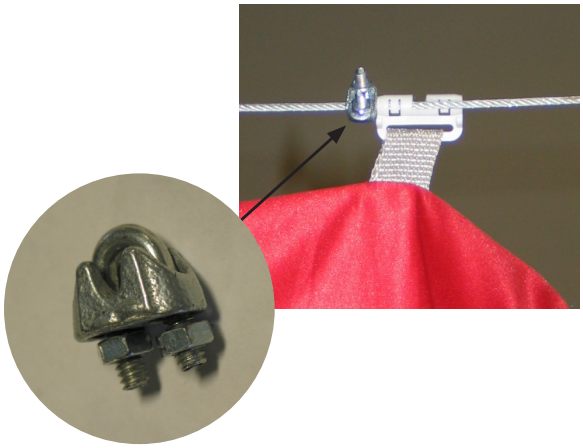
Twist and snap the Glider attachments of the DuctSox onto the cable (pliers may be helpful for installation and removal of Gliders). Unzip fittings and slide them in place independently of the straight sections. Cable Stops are installed at the Endcap Glider, at the Inlet Glider, and at each Glider immediately adjacent to all fittings. Leave them installed loose until Step 5 is complete. Close all zipper connections before moving to Step 5.







The Cable Stop is used to keep sections of DuctSox from moving lengthwise on the cable. They also are used to put a slight tension on straight sections of DuctSox (straight sections may consist of more than one zippered section of DuctSox). Nuts are tightened to lock the stop at locations where Gliders are to be locked in place (see Step 5).



Step 5

Start Up 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.

Once system is properly adjusted, inflate the system, pull the last Glider in each straight section (including straight sections between fittings), and secure tension using Track Stop Screws. Also, be sure to install a Track Stop Screw into the U-Track at the Endcap Glider, at the Inlet Glider, and at each Glider immediately adjacent to all fittings.

The Track Stop Screw is used to keep sections of DuctSox from moving lengthwise in the U-track. They also are used to put a slight tension on straight sections of DuctSox (straight sections may consist of more than one zippered section of DuctSox). The screw is tightened into the bottom channel to lock the stop at locations where Gliders are to be locked in place.

If the system includes elbows or T's, secure Gliders before and after these fittings. Failure to install DuctSox Systems correctly may void warranty.

Step 6

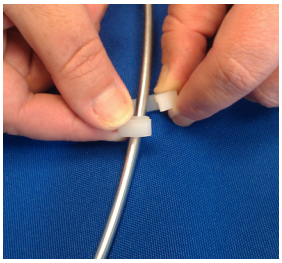
Air Balancing. System must be balanced to design CFM and static pressure immediately after installation. Most DuctSox Systems include a zipper at the inlet location for easy access to monitor flow.

If the fabric is fluttering after balancing, please contact your factory rep immediately. Solutions to the fluttering include adjusting the Adjustable Flow Device (AFD), adding AFDs, or other solutions that would result in a less turbulent airflow.

Laundering Instructions

Sedona-Xm, TufTex, Verona, DuraTex, Microbe-X, Rx, and Stat-X fabrics:

- Remove the DuctSox fabric from your system, being sure to unzip all sections. Take care in recording where each section was installed.
- Remove the hoops from the DuctSox system by simply twisting the attachment sideways. *Note: the hoop attachment only slides one way.*
- Turn soiled side out and soak in cold water for 30 minutes.
- Wash cold, gentle cycle.
- Rinse thoroughly (repeat cycle if water/DuctSox still soiled).
- Drip dry or no-heat tumble dry.



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If any questions arise regarding the installation of your Hoops (IHS) Cable System, contact us.

866-382-8769 or 563-588-5300

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