# AIRPORTS & AIRCRAFT MAINTENANCE











## AIR DISTRIBUTION

Air distribution in Airports & Aircraft Maintenance Facilities can be challenging. Appearance, customer comfort, installation cost, maintenance, energy efficiency, and maintaining proper velocities and air flows are just a few of the important factors that must be considered when properly designing a duct system. DuctSox Textile Duct and Diffuser Systems have many advantages and benefits when installed in these types of applications.

Appearance. Constructed of fabric and available in a variety of standard and custom colors to match any decor, a DuctSox system is an attractive alternative to the industrial look of exposed metal duct systems. In addition, with a properly designed DuctSox System, air is delivered quietly and without the resonating properties found in metal.

Customer Comfort. In open ceiling architecture, traditional metal duct systems discharge air through side mounted metal diffusers. The air is directed to specific zones resulting in less efficient mixing of air in the occupied space and often causes drafting and hot or cold spots. With a DuctSox System, the air is discharged more uniformly along the entire length of the DuctSox System providing consistent and uniform air dispersion in the occupied space.

Lower Cost. The total installed cost of a DuctSox System is 20% to 30% less than metal. The cost savings of non-condensating air porous fabrics are even more when compared to insulated metal. There is also considerable savings in the labor time required to install DuctSox versus a comparable metal system. It may require 10 times more labor (man hours) to install metal and the savings increase dramatically with diameter.

Low Maintenance. Cleaning metal ductwork can be expensive. These costs are often overlooked. Not only is a dirty duct unattractive, it can be a leading contributor to sick building syndrome, human health problems, and the possible contamination of product in the store. Duct-Sox Systems are designed with zippered sections and can be easily removed and laundered in a commercial washing machine.

**Energy Efficient.** A DuctSox System is also more energy efficient than a traditional metal duct system. A 10-month study performed by the Mechanical Engineering Department at Iowa State University, proved fabric duct brings the temperature in the space to set point 24.6% quicker and more uniformly than a traditional metal duct/diffusers system. This results in lower operating costs.

Air Flow and Precision Velocity. The air dispersion vents on a DuctSox can be easily customized to direct the air to specific locations and at very precise velocities. Therefore, a DuctSox system can be designed to meet the

diverse airflow and velocity requirements in different locations within the Facility.

Aesthetically pleasing, improved customer comfort, lower installation costs, ease of maintenance, energy efficiency and precise control of air flow patterns and velocities makes a DuctSox system clearly the best choice when designing an air distribution system for your Airports & Aircraft Maintenance Facilities.



# BENEFITS

- Aesthetically pleasing
- Improved customer comfort
- Significantly lower cost than metal
- ▶ Low maintenance
- Energy efficient
- ▶ Draft-free and precisely controlled air dispersion
- ▶ Hygienic-Less drafts reduce airborne dust and dirt

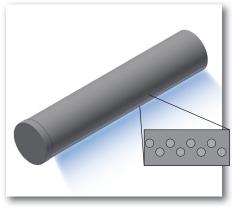
## FABRIC

SPECIFICATION	350sx	DuraTex	VERONA
Group	Economy	Commercial	Commercial
Diameters	200mm to 914mm 8" to 36"	200mm to 2000mm 8" to 78"	200mm to 2000mm 8" to 78"
Туре	Non-Porous	Non-Porous	Porous
Shape	Cylindrical	Cylindrical, D-Shape, Quarter-Round	Cylindrical, D-Shape, Quarter-Round
Air Velocity	High	High/Medium	High/Medium
Air Dispersion	Orifice	Orifice, Nozzle, Linear Vent	Orifice, Nozzle, Linear Vent
Launderable	Yes	Yes	Yes
Static Pressure	125 Pa Standard/Range 94 to 1870 Pa 0.50" Standard/Range 1/4" to 7.50"	125 Pa Standard/Range 94 to 1870 Pa 0.50" Standard/Range 1/4" to 7.50"	125 Pa Standard/Range 94 to 1870 Pa 0.50" Standard/Range 1/4" to 7.50"
Porosity	0	0	10.2l/s/m² @ 125Pa - 2 CFM/ft² @ 0.50" w.g. Custom from 0.3 to 50.0 CFM/ft²
Weight	186g/m² 5.5 oz/yd²	186g/m² 5.5 oz/yd²	210g/m² 6.2 oz/yd²
Fire Retardant	Inherent Fire Retardant Independent Laboratory Certified	Inherent Fire Retardant Independent Laboratory Certified	Inherent Fire Retardant Independent Laboratory Certified
Approvals	UL 2518 ICC AC167	UL 2518 ICC AC167	UL 2518/ICC AC167 Bs 5867/Gb8624/ASNZS1530.3/DIN
Antimicrobial	Passes UL Low Mold Growth & Humidity Test	Passes UL Low Mold Growth & Humidity Test	Passes UL Low Mold Growth & Humidity Test
Suspension	Cable	Cable, Track, Surface, Hoops, Hangers, PT, FTS	Cable, Track, Surface, Hoops, Hangers, PT, FTS
Colors	Black, Silver, White, Tan	Black, Silver, White, Tan, Blue, Custom	Black, Silver, White, Tan, Blue, Red, Green, Custom
Warranty	1 Year See Website for Details & Terms	Up to 15 Years See Website for Details & Terms	Up to 15 Years See Website for Details & Terms

# AIR DISPERSION



HIGH VELOCITY
Air is dispersed through Orifices.
Also available with fixed or
adjustable nozzles



MEDIUM VELOCITY

Air is dispersed through linear vents on the surface of the fabric



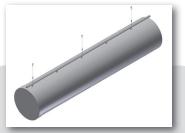
LOW VELOCITY
All air is dispersed through the surface of the fabric

## SUSPENSION SYSTEMS



#### CABLE

Simple Tension Cable is available with all fabrics and is the most economical option. For use with all sizes, cable suspension is available for 1, 2, and 3 row suspension options (two row required for systems 32" to 72" or 813mm to 1829mm in diameter, three row required for diameters larger than 72" or 1829mm). Gliders are spaced every 24" (610mm) along the length to ensure proper support. The system consists of a cable, turnbuckle(s), and securing hardware for a simple installation. Cable components are available in galvanized, 316 Stainless Steel, and plastic coated S/S cable.



#### TRACK

Anodized aluminum track includes an open top and bottom to allow easy location of vertical supports and clear connection to the DuctSox below. For use with all sizes, U-Track suspension is available for one and two row suspension options (two row required at 32" or 813mm diameter and larger) and may include radius sections for elbows. Gliders are spaced every 24" (610mm) along the length to ensure proper support. The system consists of 8' (203mm) sections of U-Track, couplers, end caps, locking cable drop supports for easy installation.



### SKELECORE

SkeleCore FTS is the only textile duct/ diffuser system that provides cylindrical tensioning to keep the fabric round and taut at all times. It maintains the same appearance with or without any air pressure in the duct and improves aesthetics by eliminating fabric sag and wrinkling. SkeleCore FTS is ideal when higher aesthetic value is desired, when cycling is frequent, or when systems are designed with variable air volume (VAV). It also eliminates disruptive tendencies such as motion and noise upon AHU start-up.





Products may be covered by one or more of the following patents: 6565430, 6558250, 5769708,

6425417, 6626754, 6280320, 6960130, 6958011, 6953396, and 8434526. Other patents pending.





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