

# FREQUENTLY ASKED QUESTIONS

DUCTSOX

TEXTILE

AIR DISPERSION

PRODUCTS

**DUCTSOX**<sup>®</sup>  
INTERNATIONAL

QUESTION	ANSWER
Who is DuctSox?	DuctSox is a USA owned and operated company based in Peosta, Iowa, with factory-trained distributors located throughout the world. We are a division of Rite-Hite Corporation, Milwaukee, Wisconsin.
How long has DuctSox been in business?	DuctSox has been manufacturing Textile Air Dispersion Systems since the early 1980s.
Does DuctSox have a website?	Yes, <a href="http://www.ductsox.com">www.ductsox.com</a> . Here you will find product information, application examples, photos, engineering data, literature, and a listing of factory-trained representatives.
Where does DuctSox manufacture their products?	DuctSox has three manufacturing facilities: Peosta, Iowa; Kunshan, China; and Guadalajara, Mexico. Products are manufactured using the same equipment and processes in all three factories.
What is a DuctSox Textile Air Dispersion System?	DuctSox are an attractive and cost effective replacement for exposed metal HVAC ductwork and diffusers. Constructed of fabric, systems are available in round, half-round, quarter-round or surface-mount shapes for horizontal or vertical orientations. They are available in a large variety of fabrics and options, ranging from antimicrobial treated fabrics to the SkeleCore Internal Fabric Tensioning System.
How is a DuctSox System different than a traditional metal duct system?	Different than conventional metal, fabric products are engineered and manufactured for each project. DuctSox designs can be simple straight systems or very intricate layouts; incorporating fittings such as radius elbows, Ts, transitions, or any combination. Sections are zippered together to form extended lengths.
Can a DuctSox System be used for heating, cooling, and ventilation?	Yes. DuctSox performs exceptionally well in delivering either heated air, conditioned cool air, ventilation, and even in refrigeration applications.
What is the number one advantage a DuctSox Textile Air Dispersion System has versus a traditional metal duct system?	Better air dispersion. Because the air is distributed along the entire length of duct, a DuctSox System evenly disperses the air, eliminating hot and cold spots in the space.
Why does a DuctSox Textile Air Dispersion System perform better than a traditional metal duct system?	In open ceiling architecture, traditional metal duct systems discharge air through side-mounted metal diffusers, usually spaced three to five meters apart. The air is directed to specific zones resulting in less efficient mixing of air in the occupied space and often causing 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.
Is a DuctSox System more energy efficient than a metal duct system?	Yes. A two-year long study performed by the Mechanical Engineering Department at the Iowa State University, "Thermal Comparison Between Ceiling Diffusers and Fabric Ductwork Diffusers for Green Buildings," proved textile duct brings the room to set point 24.6% quicker and more uniformly versus metal duct/diffusers. This results in reduced mechanical equipment runtime, thus saving energy in the process. Visit <a href="http://www.ductsox.com/media-library">www.ductsox.com/media-library</a> to see a copy of the Energy Report.
Is a DuctSox System less expensive than a traditional metal duct system?	Yes. A DuctSox System will typically be 10% less material cost than a comparable metal system and 50% to 70% less time to install. The savings is in the labor time required to install DuctSox versus a comparable metal system. It may require ten times more labor (man hours) to install metal. In addition, savings increases with diameter. The labor time required to install a 1524mm diameter DuctSox is nearly the same as a 508mm diameter DuctSox. That is not true for metal. The cost savings of air porous DuctSox are even more dramatic when compared to double wall spiral metal, or premium materials—aluminum, stainless, or PVC coated.
Can a DuctSox Fabric System design be simpler than a traditional metal duct system?	Yes. Because the entire DuctSox System is a diffuser, air can be supplied to the occupied space in a more efficient pattern. DuctSox Systems may be designed with fittings similar to metal ductwork, including many standard zippered fittings and unlimited customization to match any application requirements.
What are the other advantages of a DuctSox Textile Air Dispersion System?	In addition to better air dispersion, a DuctSox System is lightweight, will not scratch or dent, easier to install than a metal duct system, does not require balancing, and is a green product.
Is a DuctSox System lighter weight than a metal duct system?	Yes. The weight of a DuctSox System can be significantly less than a comparable metal system. Designing with DuctSox Systems means lighter roof loads, ease of handling, and reduced need for power lifting equipment.

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Will a DuctSox System scratch or dent?	No. DuctSox fabrics will not dent or scratch like metal ductwork. Damage from moving objects like volleyballs and basketballs are eliminated.
Is a DuctSox Textile Air Dispersion System easier to install than a metal duct system?	Yes. There are three simple steps to installing a DuctSox System, which can save up to 70% labor time compared to metal. First, the suspension system is installed using either a simple wire cable or aluminum track system. Second, zippered DuctSox sections are connected to the suspension system. Third, the DuctSox inlet is connected to the starting metal collar using a Duct Belt and Anchors.
Does a DuctSox System require balancing?	Yes and no. Since a DuctSox System does not utilize traditional diffusers or grilles, they require little, if any, balancing. Typically, the system is only balanced at the AHU or the inlet (beginning) of the fabric system.
Is DuctSox considered a Green Product?	Yes. The green advantages of a DuctSox System include: improved air quality, reduced solid waste, lower construction costs, lower operating costs, improved productivity, comfortable environment, less packaging, minimal jobsite waste, quiet air delivery, uniform air dispersion, and better ventilation effectiveness.
Does the HVAC Industry accept DuctSox Textile Air Dispersion Systems?	Yes. DuctSox products have been accepted within key industry organizations such as ASHRAE, ISHRAE, Underwriters Laboratories (U.S. & Canada), International Code Council, British Standards, DIN Standards, and is accepted by many local building authorities throughout the world. To maintain industry leadership, DuctSox engineers work closely with building code and HVAC engineering organizations to establish standards for fabric air dispersion systems that serve as templates for future building designs.
Do DuctSox come in different colors?	Our fabrics are available in a variety of standard colors and patterns, including custom colors to match any interior decor. DuctSox can also be personalized with your company or school logos, mascots, inspirational sayings, sponsors, or suppliers.
Will DuctSox fabrics fade?	No. High performance dyes inhibit damage from ultraviolet light
Is a DuctSox System easier to ship than a metal duct system?	Yes. A DuctSox System shipment is significantly lighter and smaller than a traditional metal system. DuctSox can be packaged and shipped direct to your location from one of our manufacturing facilities.
What are the available lengths of a DuctSox System?	Each system is custom made per application requirements, ranging from a few meters to a few hundred meters.
What are the available diameter sizes?	Standard sizes are 150mm to 2,200mm diameters. Please consult factory for larger diameters.
What is the largest diameter DuctSox has ever made?	2.70m diameter.
What size DuctSox are kept in stock?	Only raw materials are stocked. Every DuctSox System is 100% custom designed for each application.
What are the standard lead times for a DuctSox System?	A complete, custom designed DuctSox System can usually ship within 3 to 4 weeks after an approved drawing has been received. Expediting can also be provided. Consult factory for details.
Are there static pressure requirements for DuctSox Systems?	Standard design is 125 Pa or 1/2" w.g. Range is from 60 Pa (.250" w.g.) to 750 Pa (3.0" w.g.).
Will DuctSox condensate?	Yes and no, depending upon fabric selected. Porous DuctSox fabric will not condensate because the airflow pattern around the DuctSox keeps the warm moist air off the walls of the DuctSox. As a rule of thumb, non-porous fabric performs the same as non-insulated metal duct and a porous fabric performs the same as insulated metal duct.
What is the inlet velocity for a DuctSox System?	Minimum inlet velocity is 5.08 m/sec (1000 fpm) Maximum inlet velocity is 8.13 m/sec (1600 fpm) Consult factory for lower or higher inlet velocities.
Is a DuctSox System noisier than a metal system?	No! With a properly designed DuctSox System, air is delivered quietly and without the resonating properties found in metal. Additionally, DuctSox fabrics provide noise absorption benefits in the occupied space.
Is DuctSox fire retardant?	All DuctSox fabrics meet the National Fire Protective Agency specification, NFPA90A Flame and Smoke spread test. DuctSox products have been tested to meet this specification by Underwriters Laboratories UL2518, British Standards BS5867, and DIN GB8624.
What does it mean for DuctSox to be fire retardant?	DuctSox fabrics are fire retardant This means that when the fire source is removed from the fabric, the flame will self extinguish.



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Are DuctSox low smoke emitting?	DuctSox fabrics are considered low smoke emitting in accordance with NFPA90A testing results.
What does the AC167 test consist of and why is that important?	AC167 tests for mold, bacteria, and high temperature resistance, this benefits the fabric due to erosion and fire risks.
At what temperatures can DuctSox operate?	DuctSox Systems have been tested and approved for use up to 85 degrees C. To meet the AC167 requirement, the product is tested in an oven where internal temperature of the product is maintained at not less than 129.4 degrees C and the exterior is maintained at not less than 51.7 degrees C for 60 days.
Is a DuctSox System more hygienic than a traditional metal duct system?	Yes. DuctSox woven fabrics do not absorb moisture which can be a source for development of bacteria and mold. The hygienic nature of DuctSox provides resistance to fabric deterioration and breakdown extending life and minimizing maintenance.
Are DuctSox easy to launder and/or clean?	Yes! Cleaning metal ductwork can be expensive—these costs are often overlooked. A dirty duct (interior) can be a leading contributor to sick building syndrome and human health problems. When it comes time to clean your DuctSox System, it can be easily removed and laundered. The cleaning process can involve either vacuum cleaning and/or hand or machine washing depending on the fabric. DuctSox Systems are designed with zippered sections for ease of handling and are sized to fit into industrial washing machines.
What type of maintenance is required for a DuctSox System?	Very little maintenance is required to keep a DuctSox System operating properly. Laundering the product based on the application environment is the only maintenance that needs to be performed.
How often does a DuctSox System need to be laundered?	It depends on the application. Some installations are laundered every week while others have been installed for many years of operation without needing to be cleaned.
How do you clean a DuctSox System?	Simply remove system and unzip the sections. Turn soiled side out, soak in cold water for 30 minutes. Place in a commercial washing machine and set at cold, gentle cycle using mild detergent. Rinse thoroughly and drip-dry/no heat dry.
Will DuctSox shrink after washing?	No. DuctSox fabrics have undergone shrinking during manufacturing to minimize subsequent shrinkage after laundering.
Is a DuctSox Textile Air Dispersion System portable?	Yes. Lightweight, flexible, simple, and easy installation/removal enables DuctSox Systems to be re-located between multiple sites. Ideal for temporary use facilities such as large banquet tents, tunneling projects, or most any application where part time air ventilation is required.
What is the warranty of a DuctSox System?	As much as 20 years! Depending on the fabric and suspension system. Visit <a href="http://www.ductsox.com">www.ductsox.com</a> or ask your local Representative for details.
Does DuctSox offer a Performance Warranty?	Yes. For the first year of operation, each DuctSox System designed and operating within the published engineering guidelines is covered by a design and performance warranty. Ask your Representative for more details.
Does DuctSox assist with system design and layout?	Yes. DuctSox has a fully staffed Engineering Department than can help you with all phases of your design. We offer this service at no cost.
Can DuctSox provide Computer Aided Drawings?	Yes. We offer this service at no additional cost.
Does DuctSox provide CFD (Computational Fluid Dynamics) modeling for a project?	We can. CFD analysis can be very useful when evaluating performance in your application. However, depending on the complexity of the report, it can also be expensive. Consult the factory or you local Representative for details.
Does DuctSox have global distribution?	Yes. DuctSox has Factory-Trained Representatives in over 100 countries worldwide.
How do I find my Representative?	Log on to <a href="http://www.ductsox.com/rep-locator">www.ductsox.com/rep-locator</a> to located your local Representative or send an email to the International Sales Manager at <a href="mailto:jlipscomb@ductsox.com">jlipscomb@ductsox.com</a>



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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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