



DUCTSOX-MENA
MEGA PROJECTS BROCHURE

DUCTSOX[®]
M E N A FZCO

WHO WE ARE

DuctSox Products are Fabric Ductwork and Diffuser Systems used for heating, cooling, or ventilating. They are a cost effective, aesthetically attractive alternative to metal ductwork and diffusers. Each DuctSox System is 100% custom made, starting from the engineering design to the manufactured product. DuctSox designs can be simple, straight systems or have very intricate layouts.

DuctSox offers the best products, design, and sales support in our industry. We strive to lead through a commitment to quality, service, and innovation. DuctSox products have also been accepted within key industry organizations such as ASHRAE, Underwriters Laboratories (U.S. & Canada), International Code Council, and many building authorities throughout the world.

In 2003 DuctSox-MENA appeared into existence as the first company in the Middle East and North Africa which specialized in design, quotation, and technical support for Textile Duct Projects. In 2011 DuctSox made its headquarters in the Dubai Airport Free Zone as the first company in UAE specializing in textile air dispersion products.

WE WORKED WITH...





Consultant name:
Bechtel

NEW DOHA INTERNATIONAL AIRPORT

In order to quickly cool down the largest A380 aircraft housed at the HMH Bay in Doha, DuctSox MENA was selected to design the ventilation ducting for the world's biggest aircraft maintenance hangar at the New Doha International Airport (CP -26).

For a quick reduction of large aircraft temperature from 50C to 37C, the ductwork was installed at 45 meters from the finish floor. Instead of the expected 60 minutes for the required temperature to be achieved, the cooling was finished as fast as in 45 minutes, saving 25% of the time as a result.

The DuctSox MENA team has also provided its technical knowledge and support in order to assist with the design, delivery and installation in this important project.

"We have selected to use the DuctSox services and Textile Air Dispersion products, particularly Sedona-XM. It is a very reliable product with an even air distribution and effective area cooling, which requires balance temperature at all time.

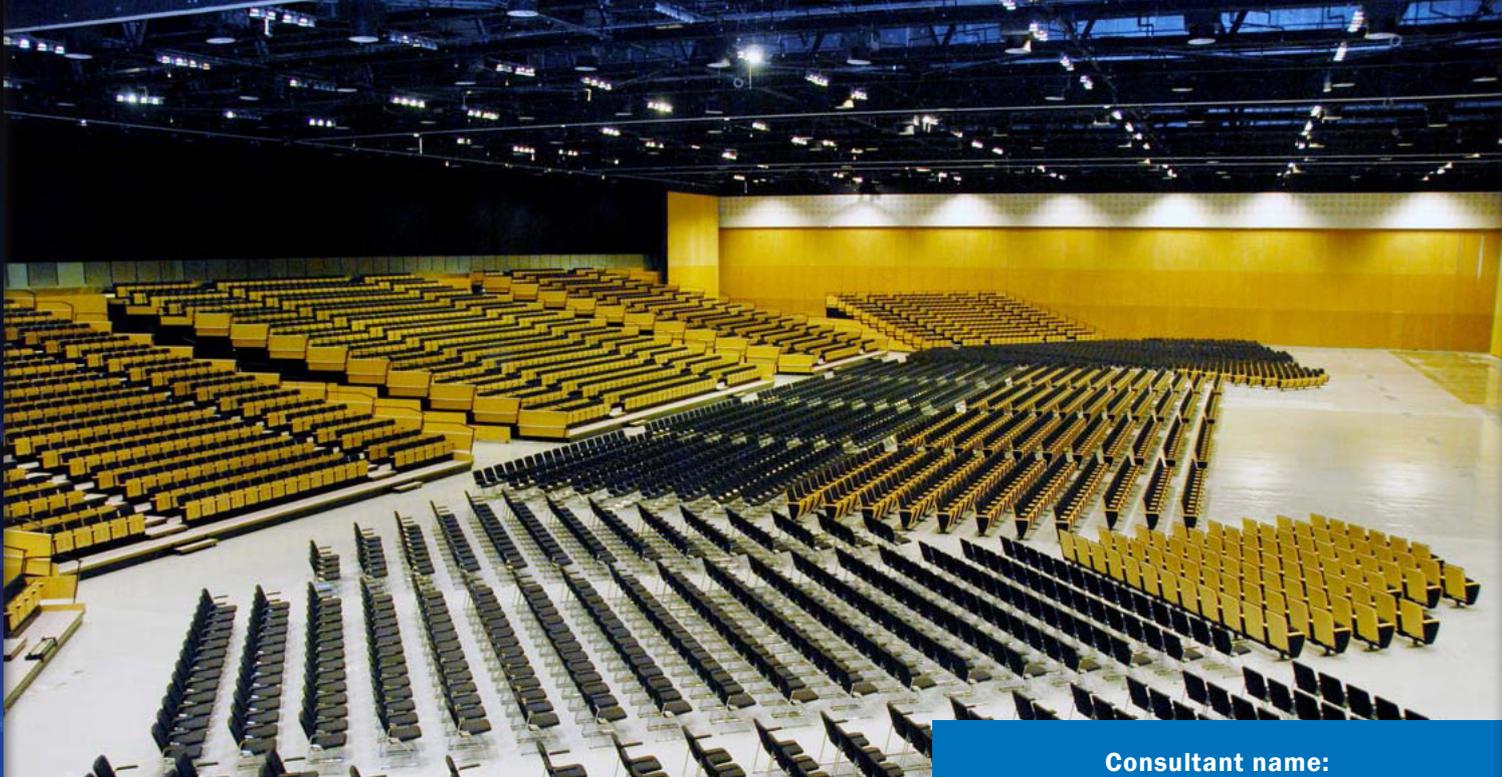
The total services offered by DuctSox were excellent. They have been on our side to help with the design, delivery as well as the installation. DuctSox was so helpful and the technical knowledge and support given to us for our project was exceptional."

George E
Project Manager.
CP-11 ADCC,
Qatar



"Choosing and using DuctSox was amazing, technically and in response the material did pass and exceeds our requirements. The design, and the support during the installation and even the after sales support were terrific."

Huwaida H.
CP-26 ADCC, Qatar



Consultant name:
Adnec Engineering Department

Contractor Name:
Drake & Scull International



ABU DHABI NATIONAL EXHIBITION CENTER (ADNEC)

Located in the capital city of Abu Dhabi, the Abu Dhabi National Exhibition Centre (ADNEC) is a fully equipped, modern venue of more than 73, 000 m² of live event space that provides a perfect stage for more than 100 events held in the capital every year.

In 2008, DuctSox MENA was selected as the company to install textile ducting to which would provide efficient air supply to the entire area and ensure a pleasant and healthy atmosphere at all times. DuctSox air dispersion system ensures a large floor coverage by the air released from the duct. As each outlet releases air away from each other at a high velocity magnitude, the individual flows move down towards the floor where the air is “trapped” between the floor and the two incoming streams. This trapped air, along with recirculation zones, propels the two streams near the floor away from each other and distributes the air thoroughly across the entire floor. The diameter of the duct was 66”, ceiling height 10,45 m and each duct length was 60m. The project was a success. DuctSox was able to meet the air quality requirements and ensure a pleasant atmosphere for the visitors.

DOHA EXHIBITION CENTER



Doha Exhibition Center, located in the center of Doha, is a modern, fully equipped area that offers both indoor and outdoor exhibition areas and is a perfect location for Qatar’s increasing number of exhibitions, conferences and events. DuctSox was faced with a challenge of installing textile ducting in the exhibition hall in order to cool the area quickly, ensure a efficient air dispersion across the entire hall and provide a pleasant atmosphere for all the visitors at any time.

PROJECT DETAILS

- 1 DuraText fabric made from fire-retardant polyester fabric was selected
- 2 Each DuctSox textile duct wa of a 38” diameter
- 3 Total horizontal length of the ducts exceeded 240 meters



Client name: Ministry of Municipal & Rural Affairs
Contractor: CRCC
Consultant: Dar Al Handasah Consultants

AL MASHAIR TRAIN STATIONS (MAKKAH, KSA)

DuctSox MENA was selected for one of the largest projects in the world of construction – the ventilation of The Al Mashair Railway stations in Makkah, Saudi Arabia. Each of the Al Mashair trains transports as many as 72, 000 Hajj pilgrims per hour to the holy sites at Mina, Muzdalifah, Jamarat and Arafat. Al Mashair Train Stations - Mekkah.

FOR THIS PROJECT

- 1 Ducts of 5000 linear meters total were manufactured
- 2 Covered with the non-porous TufTex fabric
- 3 Made from fire retardant polyester

The installed ducts were customized to serve in the semi-outdoor area for at least six hours a day under direct sunlight exposure. DuctSox MENA was able to meet the requirements and complete the task in only forty days. The fabric air diffusion system covered the complete area efficiently. The openings located across the complete textile duct provided the required air flow percentage, complete control over the air throw and the angles of air supply. Because of this, the duct was manufactured with zero branches resulting in an effective air supply system forty times lighter than a conventional galvanized duct.



Al Mashair Train - DuctSox Detail

CARREFOUR DEERFIELDS



Consultant name:
Majed Al Futtain Engineering Department



Deerfields Carrefour is an area of 5200 m² and provision of fresh air delivery to thousands of store visitors at all times is a top priority for the store, but when the air dispersion can also have a direct impact on food and product quality - air delivery plays and even more important role.

With a long experience of working with retail and hypermarket, as well as food-related applications in the region and around the world, DuctSox installed a textile dispersion system across the large area to guarantee an efficient fresh air delivery and ensure that air does not have any direct contact with the refrigerators, resulting in condensation. Better than a conventional metal air dispersion system, DuctSox textile fabric provided a better, lightweight, simpler and yet more efficient alternative for the well known hypermarket.

It was ensured that air does not hit the refrigerators and that temperature at the store is kept at a temperature pleasant for the visitors. This was done in order to avoid condensation on the refrigerator and to provide comfortable environment and homogeneous air distribution for the department store visitors. The project was a success and the area is now open to visitors on a daily basis.

PROJECT DETAILS

- 1 Ducts of 40 linear meters each were installed with a diameter of 22" reduced to 16"
- 2 DuraText fabric made from fire-retardant polyester fabric was selected for the ducting
- 3 Total horizontal length of the ducts exceeded 240 meters
- 4 AC ducts and ducts for fresh air were manufactured from Verona fabric
- 5 Fabric permeability specific for this project was 0.5 cfm/ft to 1.5 cfm/ft.



KRAFT HIDD PLANT IN MANAMA



DuctSox products were initially developed exclusively for use in the food processing industry. The flexible fabric is a cost effective alternative to insulated stainless steel ducting and diffusers. Draft-free airflow through the woven fabric improves comfort for employees and reduces dehydration in the end product.

Fabric duct is a much more hygienic options for food processing. The ducts are lightweight, easily removed and can be cleaned in a washing machine. Additionally, the antimicrobial treated fabrics also act as a final filter, potentially capturing airborne particles that may otherwise end up in the environment or end product.

Appointed to design a textile air dispersion system for KRAFT in Bahrain in 2009, DuctSox manufactures fabric ducts of blue color made of Sedona-XM. Made of 55% recycled content, this antimicrobial treated permeable and premium grade fabric features an active antimicrobial agent which is incorporated into the fabric during the fabric manufacturing process. Independent antimicrobial testing reveals a distinct zone of inhibition around the fabric swatch. Even after being laundered, tested fabric samples continue to yield clear antimicrobial effectiveness. As many other food processing projects in the region and globally, this one was a success.

NESTLE FACTORY



Consultant name:
Nestle Engineering Department



The project was approved in 2007 and DuctSox was appointed to design textile ducting and ensure an efficient and clean air supply in Nestle's factories all over the world. Low velocity air delivery is an important feature that the food processing industry needs to consider

when selecting an air dispersion system. Additionally, all food processing industries must meet the sanitary regulations and provide a clean and healthy environment in the area. Because lightweight sections of the textile duct can be easily removed and cleaned at any time, textile ducting is a perfect solution for such applications.

For this project, Ducts were covered with Microbe-X – a fire-retardant polyester, launderable antimicrobial USDA fabric developed specially for food processing applications. For higher efficient filtration benefits and elimination of the added cost of a second filtration station in the HVAC system, the Final Filter option was used. This contributes to the sanitary requirements by filtering the air, keeping the system cleaner for the food production process as well as the staff members.

SHEIKH KHALIFA SPORTS CITY

This complete 20 million project included a new main grandstand, a large stadium in addition to a multi-purpose 4,200 seats sport hall, a new centre court for tennis, a swimming hall with 2 pools, boundary fencing and gates, developments of infrastructure, a parking lot for 750 cars, external works and other services.



As a specialist in sports and recreation facilities, DuctSox was selected to design an air dispersion system for the swimming pool area, the diving area as well as the multipurpose hall area. Metal ducts corrode in the humid swimming pool area. Additionally, the arena was to be used for sports like football and basketball, so there is a risk of damaging the metal duct by flying sports equipment. DuctSox products proved a better solution - the fabric would not corrode and would not cause a hazard if hit by flying sports equipment.

For the first swimming pool, linear ducts of 55,7m in length each were manufactured, two with a diameter of 40" and two with 48" , with a two row cable suspension at 10&2 o'clock. For the second swimming pool, 2 ducts of 32" diameter and 16 linear meters, 2 ducts with 36" diameter and 17,8 linear meters, plus an additional duct of 40" diameter and 23,7m in length were made. Comfort flow design and duct location ensured that air was dispersed evenly and effectively, without negatively affecting the atmosphere.

The air dispersion system had to be designed to provide an efficient air supply to the audience area, while at the same time to not interrupt the badminton games or disrupt other sports games. Additionally, in sports facilities as such, seating is placed to ensure that the view of those at the back is not blocked by those seating in front, and so the seating elevates as it gets further away from the stadium. As a solution, DuctSox designed ducts of 40" diameter to be located along the entire perimeter of the multipurpose hall area, each with a length of 55m and 35m in length. The velocity design was done as to ensure that the air dispersion above the audience remained at the comfortable 50ft/min level, regardless of the elevation - air velocity remained the same at 48', 40' and 30' below the duct.

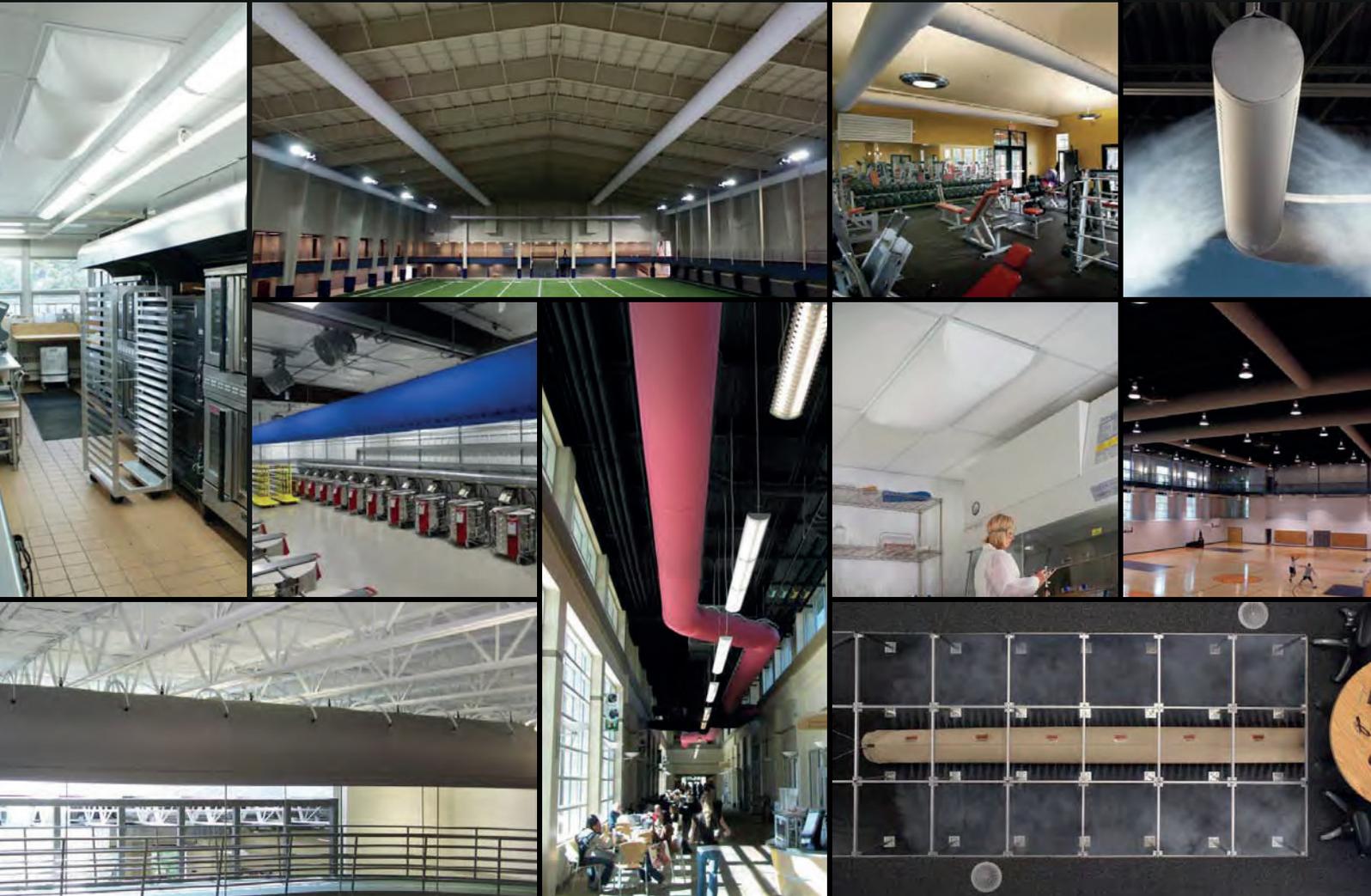
On the other hand, the game area had to be cooled down evenly, so two separate duct sections of 69 meters in total were manufactured to follow the shape of the area with a constant velocity of 50 ft/min. All ducts were made from Verona all-purpose permeable fabric and were blue in colour. The project was completed in a short time and was a success and DuctSox textile ducts are ensuring a pleasant environment to thousands of visitors per day until now.



DUCTSOX CORPORATION

- ▶ Leading manufacturer of textile air dispersion products
- ▶ Global manufacturing and distribution
- ▶ Design and installation support

U.S.A. owned and operated



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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, 8434526, 8676545, 8808075, and 8844578. Other patents pending.

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