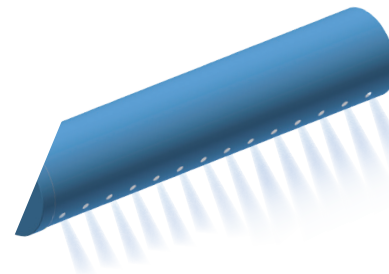




# *Customizable Airflow Solutions for Food Processing*



[ductsox.com](https://ductsox.com)

DSGFB0423  
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# Why Fabric?

## Who We Are:

DuctSox® air dispersion products are an innovative and cost effective fabric alternative to traditional metal ductwork providing precise and efficient heating, cooling, or ventilating for virtually any building application.

## What is Fabric Ductwork?

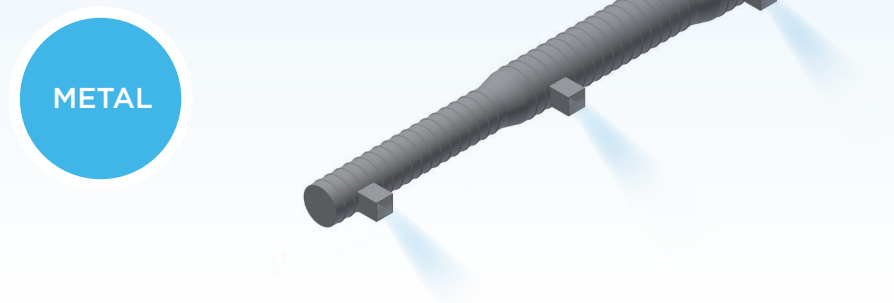
For decades, traditional metal systems that moved air throughout a facility were commonly referred to as “ductwork.” Each system requires a variety of components to achieve proper airflow.

When fabric was introduced several decades ago, it was referred to as “fabric ductwork” or “fabric ducting.” The reality is fabric provides a complete air dispersion system that is engineered to match the needs of specific applications.

Fabric systems are lightweight, adaptable and breathable which allows for uniform and precise air dispersion making it comfortable, quiet and more efficient than metal ductwork.



Traditional metal ductwork is heavy, rigid and can only disperse air through spaced out diffusers restricting airflow to localized areas.





## DuctSox<sup>®</sup> & Consumables

DuctSox fabric ductwork and diffuser products were initially developed exclusively for use in the consumables and food processing industry several decades ago. 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. 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. A wide variety of product options, including shape, suspension systems, airflow types, and fabric types, make DuctSox an ideal choice for food processing and USDA-inspected environments.

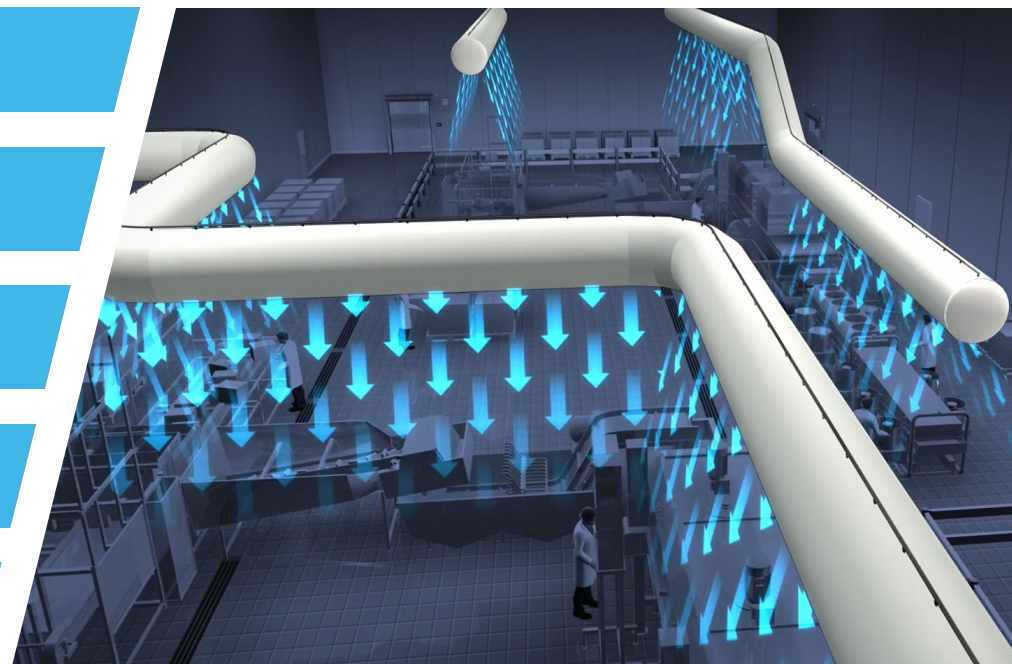
EFFICIENT AIRFLOW

LOW MAINTENANCE

NO CONDENSATION

ANTIMICROBIAL

ECONOMICAL

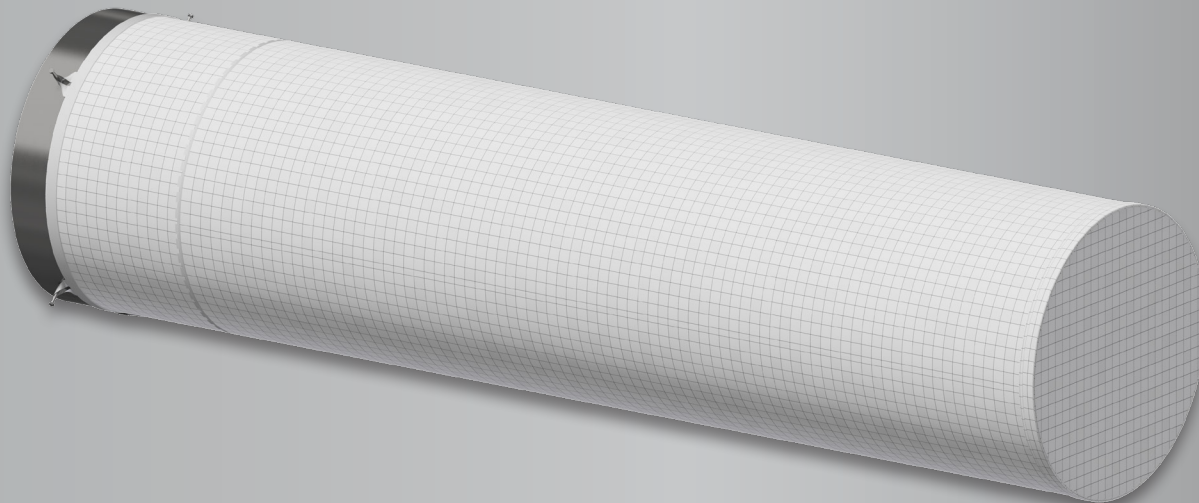


# Opti-X™ Fabric

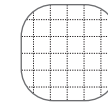
## The Choice Fabric Option for Sanitary Environments

Opti-X™ is a custom designed fabric used for targeted air dispersion to meet the quality and performance standards demanded in critical cleanroom environments.

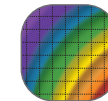
- **Antimicrobial Construction:** Polyester with antimicrobial treatment proven to remain effective beyond 75 laundering cycles. Effective at inhibiting the growth and spread of listeria, E. coli, salmonella, **aspergillus**, **powdery mildew**, and **botrytis** on the fabric's surface.
- **Antistatic Construction:** Filament polyester with interwoven electrostatic-dissipative (ESD) yarns to remain effective 250 laundering cycles or the life of the product. Antistatic fabric is grounded which prevents static build-up and repels dirt, keeping the fabric system cleaner for longer.
- **Non-Shed Clean Room Grade:** Filament/filament polyester weave.
- **Inlet:** Clean design with no cover belt and quick disconnect.



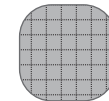
## Color Options



WHITE



CUSTOM



SILVER

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

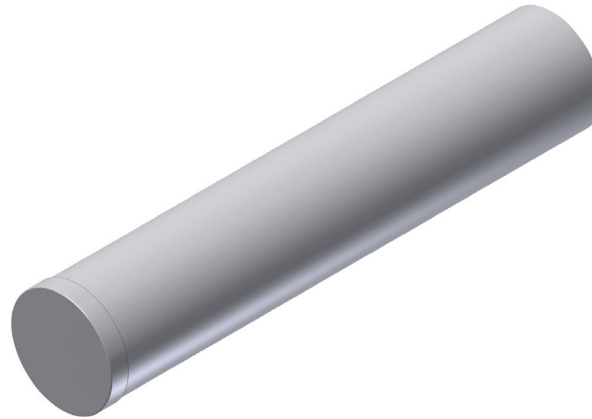
Custom colors available, but requires a premium charge and additional lead time.



# Shape

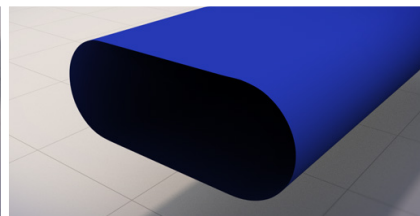
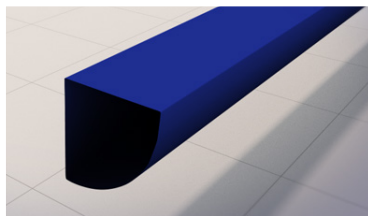
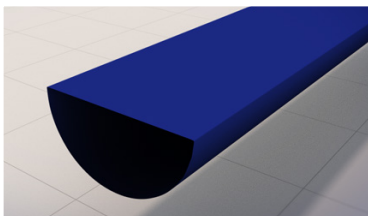
## DuctSox Round

For open ceiling environments, the cylindrical DuctSox provides a large air dispersion surface with a simple shape that is both easy to install and maintain. The cylindrical shape offers flexibility in diameter and length that is engineered for each project. Fittings such as elbow, tees, crosses, etc. may be incorporated as needed.



Air-Porous Fabric: Flow rate through fabric controlled by weave and pressure from 2 - 165 FPM (.01 - 0.8382 m/s).

## DuctSox also available in Half-Round, Quarter-Round, and Oval



Half-Round & Quarter-Round

Surface mount option for applications with finished ceilings or specialty airflow requirements

Oval

Ideal for applications with low head room or when obstructions are in the path of the ductwork



# Suspensions

## R-Track Suspension System

The DuctSox R-Track wire suspension system is a specialized stainless steel suspension system that can be retracted around corners and other obstacles. The glider attachments move smoothly over the round track, making it easy to remove and reinstall. The track is composed of connecting 8 ft (2.4m) long stock pieces, which makes it easy to install and remove for maintenance or laundering. Additionally, the system hangs from ceiling drops, eliminating the need for anchor attachments at each end.

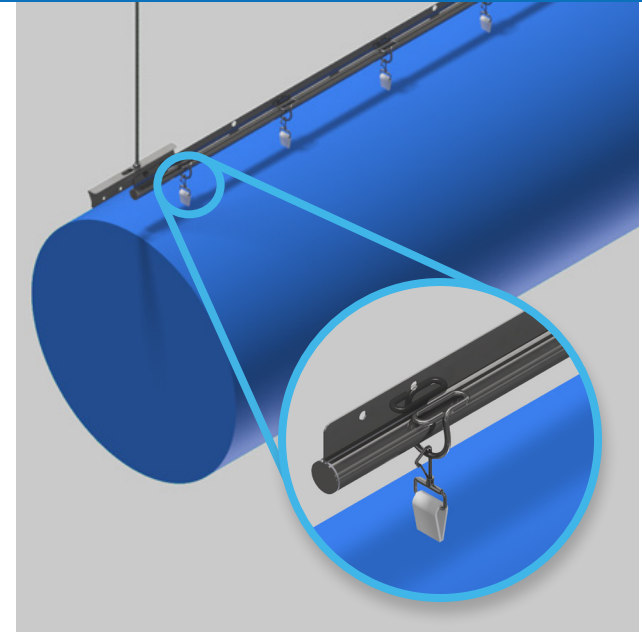
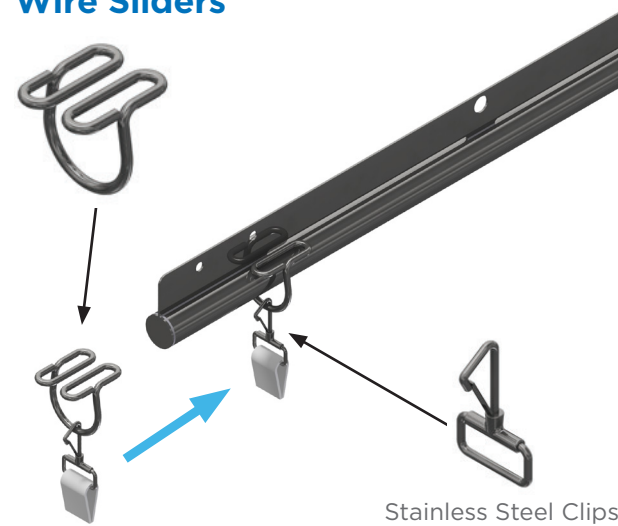
### Wire Slider

- Meets FDA, USDA, and other agency guidelines and requirements
- The track and sliders are made of **food-grade 304 stainless steel** along with food-grade welds to withstand chemicals commonly found in food processing wash-down cycles

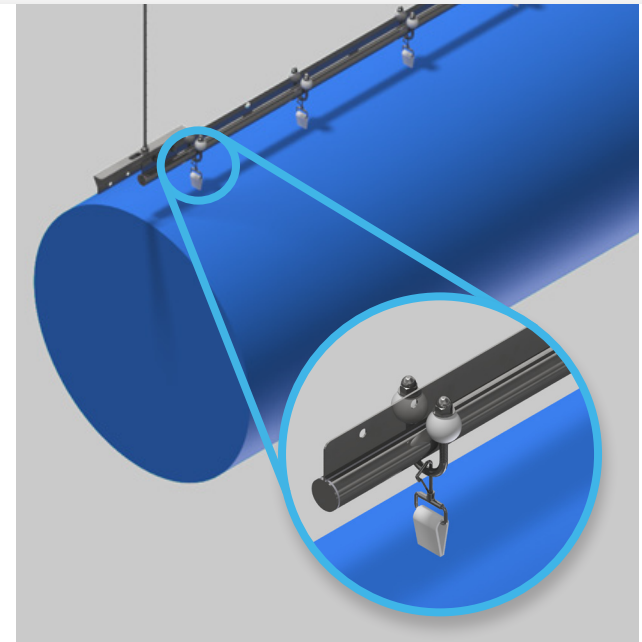
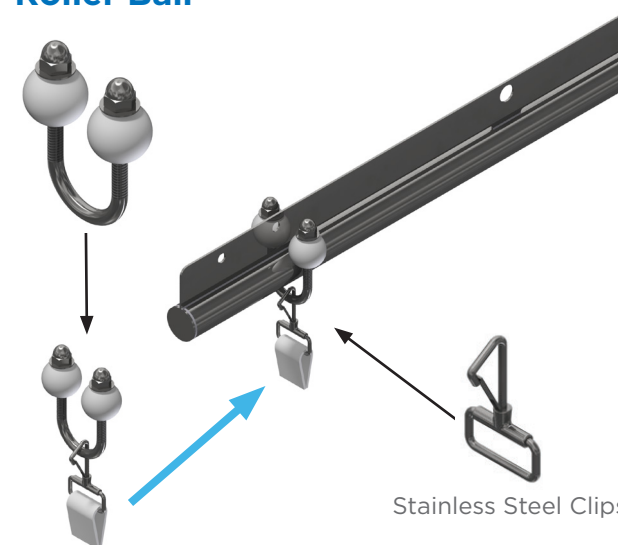
### U-Bolt Rollers

- Longer life expectancy with less fabric sagging and wrinkling compared to multiple-row and horizontal suspension systems

### Wire Sliders



### Roller Ball



# Air Dispersion

## Airflow Potential

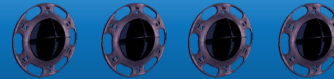
DuctSox significantly improves overall environmental control. Implementing systems with our engineered airflow design, DuctSox can help prevent condensation and cross contamination.

- **100% Engineered** - DuctSox are designed to fit the specific need of each space, ensuring exact airflow where it is needed.
- **Specially Designed Fabric** A combination of porous, antimicrobial, and antistatic materials prevent bacteria, dust, and debris buildup while dispersing air at low velocities.
- **Controlled Airflow** - Directed airflow allows for maximum efficiency with production and equipment.



“Temperatures are more consistent. We no longer hear complaints about cold spots and drafts. Worker comfort has improved along with productivity.”

*Utilities Supervisor and DuctSox User  
Food Processing Facility*



## Air-Porous Fabrics

Air supply is distributed exclusively through porous fabric, which evenly distributes the air at a lower velocity throughout the space. This type of airflow is non-disruptive to production processes and prevents heavy powders or debris from being blown into the air, thereby improving air quality.

## Orifices

Focused Air supply is distributed through ½" - 5" diameter circular openings within the fabric. The sizing and distance of the orifices is dependent on the required air throw distance. You can find grommet outlets in either 2" or 3" diameters.

## Adjustable Nozzles

The air is delivered through precise directional nozzles, which are strategically positioned and sized to enable controlled airflow capabilities. This feature allows you to direct the general flow of air to particular areas or spot-cool specific equipment, spaces, and individuals.

## Linear Vents

Airflow is controlled through precision cut vent patterns. Air distribution can be increased to a higher velocity by carefully calculating the size and placement of the vents along the duct.

# F-Series Diffuser

Developed for freezers, the F-Series Diffuser can be fitted to existing or new equipment operating with frosted coils. By collapsing when the unit goes into a heated defrost cycle, the sleeve keeps the heat inside the unit, speeding the thaw cycle time and reducing the amount of heat that would normally escape into the freezer.

## Benefits include:

- Helps coils thaw/quicker defrost cycle
- Reduces unintended product thawing in freezer
- Air porous fabric will not condensate during operation
- Adjustable outlet eases field adjustment for lower flow conditions



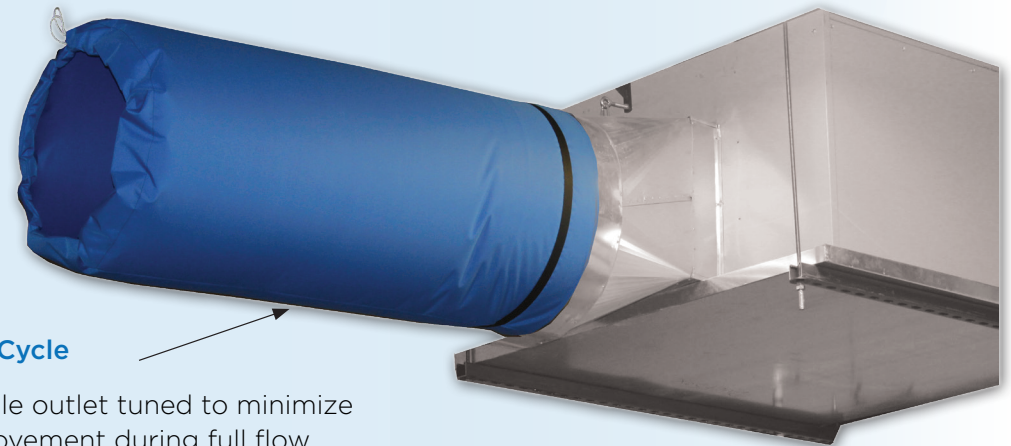
## Defrost Cycle

F-Series Diffuser collapses and covers the outlet to keep heat in, reducing defrost time.



## Cooling Cycle

Adjustable outlet tuned to minimize fabric movement during full flow.

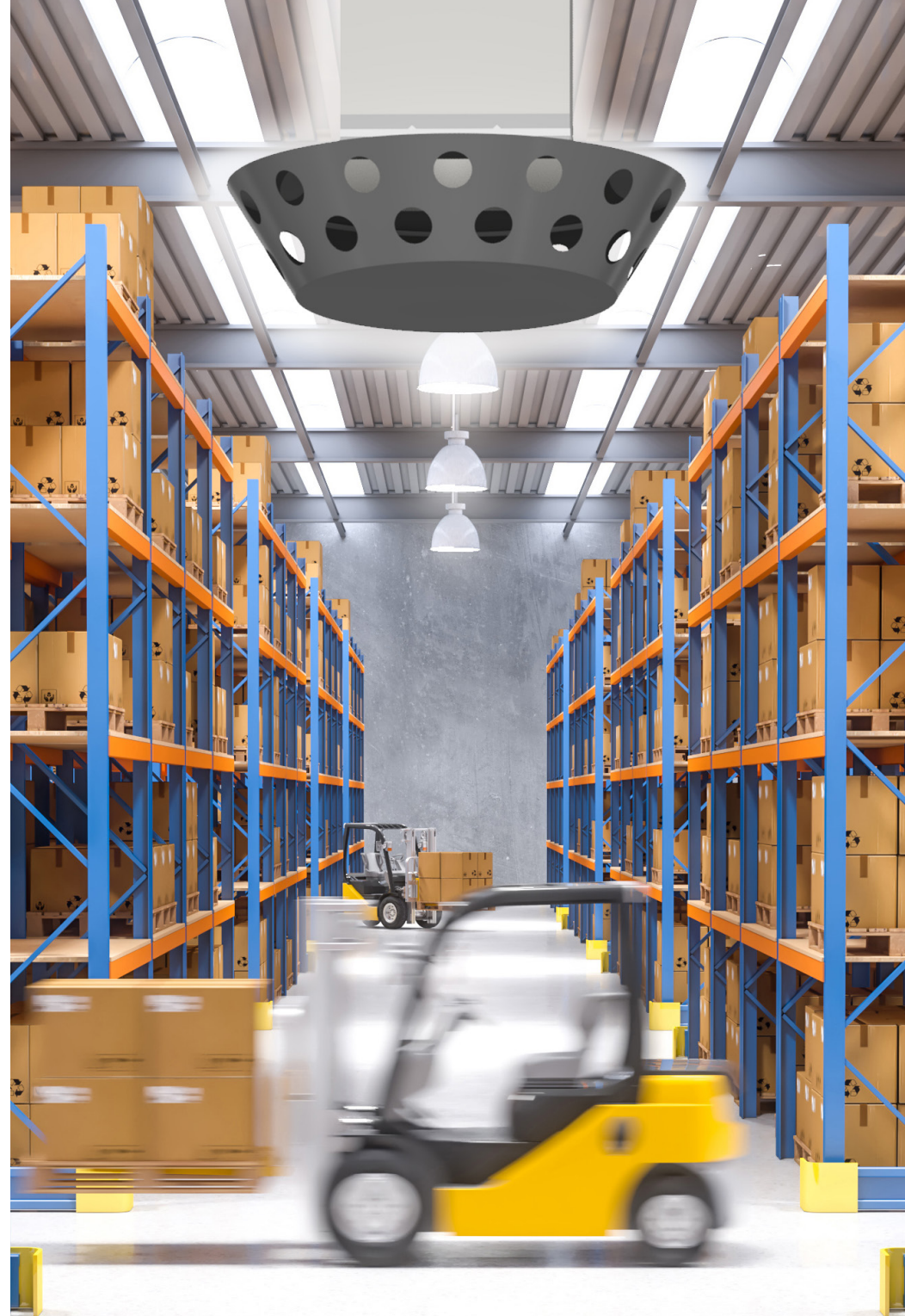
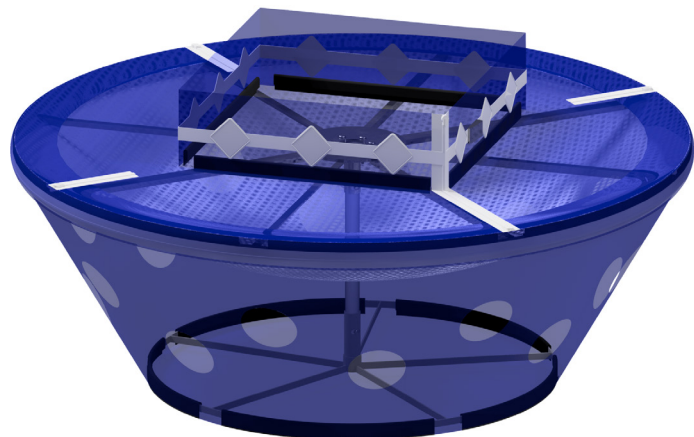




# C-Series Diffuser

The C-Series fabric diffuser from DuctSox provides 360 degrees of even air dispersion in facility spaces that cannot use ductwork for physical or financial reasons.

- **360° Airflow Coverage:** Not limited the traditional 4 or 6 sides
- **Available with Two Throw Lengths:**  
Regular Throw: Equal to typical drum diffusers  
Extended Throw: Average 37% increase throw distance in comparison to Regular Throw
- **Flat or 30° Angle Diffusion Options**
- **Round or Square Top Inlet:** Square top inlets have edge seal to prevent leakage
- **Stainless Steel Options Available for Caustic Environments**
- **Variety of Fabric Offerings Include:**  
Anti-Microbial  
Custom Colors & Patterns



# Features and Benefits of DuctSox in Food Processing

## Benefits

- Significantly lower cost than metal
- No risk of condensation
- Draft-free or precisely controlled air dispersion
- More comfortable work environment; less accidents and increased productivity
- Secondary air filtration, reducing infiltration
- Less drafts reduce airborne dust and dirt
- Antimicrobial treated fabrics reducing risk of contamination
- Easily removed for laundering

## Airflow

- Reduced Dispersion Velocities
  - Less Noise
  - Gradual Destratification
- Consistent Temperatures
  - Comfortable Work Environment
  - Assist Production Processes

## Reduced Time & Materials Cost

- Lightweight construction makes it great for retrofit applications
- Installation time is considerably less than equivalent metal system (up to 75% less time)
- Minimal balancing and no painting required

## DuctSox Airflow Solutions

From coffee shops to airplane hangers our full range of products are custom designed and configured to fit ANY space and are ideal for a variety of environments...

- |                      |                    |                            |                     |
|----------------------|--------------------|----------------------------|---------------------|
| • Cleanrooms         | • Fitness Centers  | • Industrial/Manufacturing | • Pools/Water Parks |
| • Convention Centers | • Food Processing  | • Kitchens                 | • Retail            |
| • Data Centers       | • Grow/Agriculture | • Laboratories             | • Stadiums/Arenas   |
| • Education          | • Gymnasiums       | • Office Buildings         | • Warehousing       |

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**DUCTSOX**<sup>®</sup>  
Redefining Air Dispersion