

VENTILATION, HEATING AND COOLING

# Textile Ducting & Air Distribution

Breathe in the fresh air and refresh your mind.



#### 2021

The KE Fibertec Group, of which we are a part, has been awarded the prestigious certification from Bureau Veritas for meeting the UN Sustainable Development Goals: SDG 6, SDG 7, SDG 8, and SDG 12.

#### 2019

Our production continues to grow, along with our capacities. In 2019, our team reached over 50 employees.

### 2015

We have introduced CradleSox® – textile ducting certified according to the sustainable Cradle to Cradle standard.

#### 2011

Increasing demand has prompted us to move into larger production facilities in Varnsdorf, allowing us to better meet the needs of our customers. However, production continues both in the Czech Republic and in Vejen, Denmark.

#### 2007

 We became part of the KE Fibertec Group, one of the global leaders in textile air distribution.

### 2003

Johnny Kusk Møller and Torben Rohde expanded our activities by establishing a manufacturing facility in Varnsdorf, located in northern Bohemia.

#### 1991

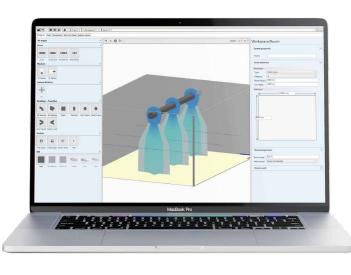
 Niels Erik Thomson founded the company in Denmark with a clear vision - to improve quality of life through more efficient air distribution.

#### **EURO AIR**

# We Are Experts in Textile Air Distribution

We have been improving the indoor environment with textile ducting since 1991. Since then, we have grown into a key player in international markets, and in 2007, we joined forces with the world's leading textile air distribution company, KE Fibertec.

Today, Euro Air's air distribution systems represent the perfect combination of smart design, maximum efficiency, and a commitment to sustainability. With our systems, you not only receive a product that meets your technical requirements but also the assurance that you are investing in technology that is safe, reliable, and designed with the future in mind.





#### Manufactured in Europe

Our production facilities are located in the Czech Republic and Denmark.

#### Self-produced materials

We are sewing from materials made in our own weaving mill in Vejen, Denmark.

#### The quickest reactions

We know how valuable your time is. That's why we respond within 24 hours.

#### Get a Solution Tailored to Your Exact Requirements

Since 2015, we have been using our proprietary software, TBV Designer. This advanced tool allows us to design solutions specifically according to your needs, taking into account all technical data, such as airflow, pressure loss, and noise levels. With us, you'll receive a design truly tailored to your unique specifications. Detailed visualizations provide a clear understanding of the final result, giving you confidence that your project will be perfectly functional and meet your expectations.

# Maximum Efficiency through Integration of R&D and Production

Our R&D department works closely with our weaving mill and production facilities, ensuring maximum efficiency in our solutions. With our state-of-the-art laboratory, equipped for smoke tests, we verify the quality and performance of each product in our range, ensuring that our systems always deliver on their promises.

Learn more about Euro Air: www.euroair.eu/en/about-us





**MATERIALS** 

# Textiles with Family Tradition

The TCS and DFC-HT materials, from which we manufacture air distribution systems, come from our own weaving mill in Vejen, Denmark. The KE Fibertec Væveri specializes exclusively in producing textiles designed for air distribution, ensuring the highest quality of our products.

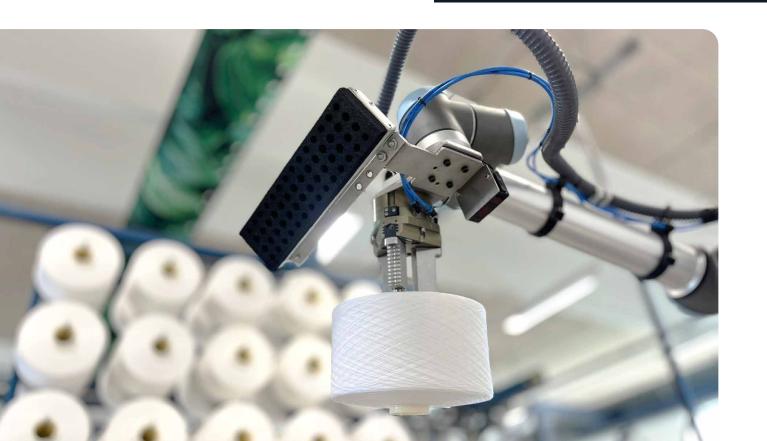
We use flame-retardant polyester yarn, produced from the same granulate for both materials. The differing properties of these materials are achieved through variations in the yarn processing.

Our fabrics stand out in the market with a unique feature: consistent air permeability across the entire surface of the diffuser. This is achieved through a special preparation of the warp, where we carefully maintain constant yarn tension during winding onto the spool. During weaving, we adjust the weft density to ensure the desired air permeability.



Our weaving mill is led by Mr. Frank Hansen, the third generation to continue the family legacy. Under his leadership, the KE Fibertec Væveri has become a symbol of combining tradition with modern and sustainable practices.

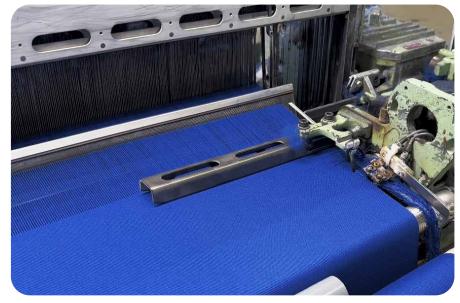
Frank Hansen successfully merges time-tested manufacturing methods with innovative, environmentally friendly approaches. Thanks to his visionary leadership, the mill now operates exclusively on renewable energy, diligently processes and recycles waste, and continually implements new production technologies. This not only preserves our quality and tradition but also actively contributes to long-term sustainability and environmental protection.











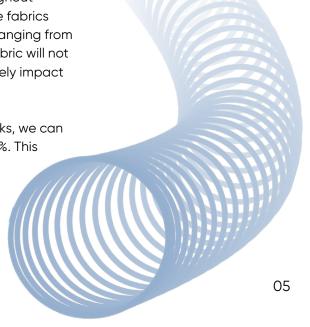
#### With Euro Air, You Are Assured of System Functionality Even Years Later

We carefully monitor every detail during the weaving process, especially the oil content in the yarn, which significantly affects material shrinkage. In addition to this, we conduct numerous other checks throughout the entire production process. Before the final inspection, the fabrics undergo thermal fixation in a special oven at temperatures ranging from 160°C to 190°C. This final and critical step ensures that the fabric will not shrink when exposed to heat, which could otherwise negatively impact its permeability and overall system functionality.

Thanks to this thoughtful process with multiple rigorous checks, we can guarantee the lowest shrinkage rate on the market – just 0.5%. This means you can rest assured that your system will continue to function exactly as intended, even years from now.

Learn more about weaving mill: www.euroair.eu/en/weaving-mill







# Textile Ducting and Air Distribution

Bring fresh air into any environment with textile diffusers. Whether you're designing office spaces, restaurants, or industrial facilities, textile air distribution systems are the smartest solution for modern and functional spaces.

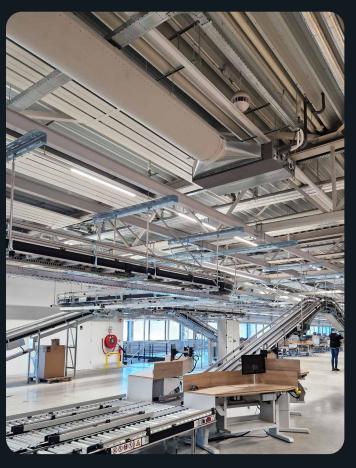
#### What Do You Gain with Textile Diffusers?

- 100% even air distribution without drafts or dead zones.
- Up to 20 times less ceiling stress compared to metal ducting.
- Extremely easy transportation and installation, saving you both time and costs.
- Customizable design with a wide selection of colors, and the option for patterns or logo printing.
- Perfectly clean air distribution, as textile ducts can be fully cleaned of all impurities during maintenance.
- Elimination of condensation risks, as the permeable material prevents its formation.
- Peace of mind with a 10-year warranty on all components and system functionality.













#### **Quality Indoor Climate without Drafts**

Textile ducting offer uniform air distribution throughout the entire space, unlike traditional metal ducting. The permeability of the materials eliminates "dead zones" and drafts, common issues with traditional air distribution systems. The result is a stable and comfortable indoor climate where the air is evenly dispersed. This not only improves overall comfort but also enhances the efficiency and energy savings of the HVAC system.

#### Lightweight, Easy-to-Install Systems

Our textile systems are extremely lightweight, with fabric weights ranging from 260 to 330 g/m<sup>2</sup> - approximately 20 times lighter than traditional metal ducting. Thanks to this low weight, they don't burden ceiling structures and can be easily installed even in more challenging conditions.

The systems are packed in boxes with a maximum weight of 25 kg, making transportation to the installation site easier. The lighter materials also reduce the carbon footprint during transport.

#### Flexible Solutions

Textile air distribution systems excel in their high flexibility, allowing for tailor-made solutions to fit the specific needs of each project. The material, suspension, and perforation are chosen based on the particular requirements of the project.

We offer round, half-round, and quarter-round ducts, as well as transition elements for changing size or shape, angles, bends, and special components to ensure the correct functionality of the entire system.

All these elements are available in standard colors, or upon request, in any RAL shade, including the option for custom patterns or logo printing.

For initial textile duct connections, we offer special frames for attachment to square ducting with or without flanges, direct connection to units, walls, or various types of tapes for connection to round ducting.

Learn more about textile ducting: www.euroair.eu/en/textile-ducting



#### **Environmentally Friendly Solutions**

With sustainable textile air distribution systems from Euro Air, you not only get efficient air ducting but also a choice that respects our planet.

Our systems ensure efficient air distribution with lower pressure loss, leading to significantly reduced energy consumption. The custom-designed solutions minimize material waste right from the production stage.

The lightweight nature of our systems also reduces fuel consumption during transport, resulting in lower CO2 emissions. Additionally, we offer the CradleSox® return program, allowing you to send back systems at the end of their life cycle so that we can handle their further processing for you.

Textile ducting has up to 6 times lower carbon footprint compared to traditional steel ducting, which can earn you additional points in LEED, DGNB, or BREEAM certifications. The materials we use are safe and certified according to the OEKO-TEX® standard.

By investing in textile diffusers from Euro Air, you also support sustainable manufacturing, which includes upcycling waste. For example, leftover yarn is used to produce cords for system suspension. We actively reduce emissions across Scope 1, 2, and 3 of the international Greenhouse Gas Protocol standard, and in our Danish facility, we rely exclusively on renewable energy sources – solar and wind power.











#### What Materials Do We Use for Textile Ducting?

The TCS and DFC-HT materials are produced in our own weaving mill in Vejen, Denmark. The DFC-0 material, due to its special impermeable character, is sourced from an Italian supplier.

#### **TCS**

Polyester material made from TREVIRA CS fibers, woven in a twill pattern, offering the highest dust retention capacity and therefore the longest maintenance intervals. TCS is available in 6 permeability levels and 7 standard color options, with custom color choices also available.

#### **Material Characteristics:**

- Filters air at the M6 level acc. to EN779:2012
- Dust holding capacity of 25 g/m² acc. to EN779:2012
- Fire resistance rating of D-S1-d0 acc. to EN13501
- 100% recyclable
- Cradle to Cradle certification option



#### DFC-HT

Polyester material made from high-tenacity fibers, woven in a plain weave. This material is known for its durability and versatile use, including in cleanroom environments. It is available in four permeability levels, offered in various standard colors, with custom color options also available.

#### **Material Characteristics:**

- Filters air at the G2 level acc. to EN779:2012
- Certified for cleanrooms, Class 4 acc. to ISO 14644-1
- Fire resistance rating of D-S1-d0 acc. to EN13501
- High strength with a durability of 110 210 N acc. to ISO 13937:2
- Cradle to Cradle certification option

#### WHITE BLACK LIGHT GREY DARK GREY DARK BLUE **© © 6 G** YELLOW RED LIGHT BLUE **GREEN** SESAM **DESIGN 250 7030** RAL: 3031 **6**

#### DFC-0

An airtight material that always requires additional air distribution elements. It is characterized by minimal maintenance requirements and is ideal for applications where large volumes of air need to be transported over long distances. The material is available in three color options.

#### **Material Characteristics:**

- Impermeable material with zero filtration capability
- When used in an environment with RH below 90%, it does not condense
- Free of PVC, halogens, and hazardous substances
- Fire resistance rating of D-S1-d0 acc. to EN13501



Detailed technical data sheets of the fabrics: www.euroair.eu/en/data-sheets





#### What are the ways of air distribution?

Air distribution can occur through functional elements only (non-permeable system), through the fabric itself (permeable system), or by combining both options (hybrid system).

In the case of functional elements, we offer three types:







#### **DFC** perforation

The key to effective ventilation, heating, and cooling. By alternating holes and baffles, the airflow is directed perpendicularly, preventing it from being entrained in the direction of airflow, as is common with standard perforations.

#### **Nozzles**

Nozzles are ideal for situations where large volumes of air need to be delivered over long distances, as they increase the air outlet velocity from the system. With nozzles, you can effectively heat even with a system installed at great heights.

#### **EA** perforation

Designed for price-sensitive projects. Perforation may not be the most efficient method of air distribution, but it still delivers adequate results and is suitable for highly economical solutions.

Learn more about perforation: www.euroair.eu/en/perforation



#### What Are the Suspension Options for Textile Ducting?

We offer 3 options that meet the needs of any project where the installation will be placed.





#### **Flexrail**

Suspension using aluminum profiles, which are fixed to the ceiling with threaded beams or wire hangers. Flexrail is suitable for round ducts but can also be used for half-round ducts.

#### Wingrail

Aluminum profile mounted directly to the ceiling or wall of the room. This makes it the most suitable solution for half-round or quarter-round ducts, but it can also accommodate round ducts with direct ceiling attachment in a single-row suspension.

#### Wire

Wire suspension is one of the most commonly used methods. It is the lightest possible way to install the system, making it the least burdensome option for building ceilings.

Learn more about suspension: www.euroair.eu/en/mounting





## **CradleSox®**

Cradle to Cradle is a globally recognized concept that fundamentally changes the approach to production and consumption. Imagine a cycle where no material goes to waste - everything returns to circulation at the end of its life, creating raw materials for new products. This approach not only conserves natural resources but also ensures long-term value for users. It is for this reason that the Cradle to Cradle concept is highly valued by investors and architects worldwide.

We launched CradleSox® already in 2015. This product offers an ideal air distribution solution for various spaces, such as offices, schools, laboratories, or sports halls, where sustainability is also a priority.

CradleSox® textile ducts meet all five key criteria for achieving Cradle to Cradle certification, specifically material health, circular economy, renewable energy use, water stewardship, and adherence to social fairness standards.

With CradleSox®, you gain something that standard textile ducts do not offer - certified sustainability and responsibility for the entire product lifecycle. By choosing this solution, you can be confident that at the end of its life, CradleSox® materials will be recycled and reused, significantly reducing the environmental footprint of your project. This not only helps you meet growing sustainability demands but also positions you as a leader in environmentally responsible business practices.





## DefrostSock

DefrostSock is a unique duct that significantly accelerates the defrosting of evaporators in HVAC units by up to 50%. This innovative product not only saves energy but also time. DefrostSock accumulates warm air directly around the frosted evaporator, effectively preventing heat loss to the surroundings and speeding up the entire defrosting process.

The innovative technology includes three Velcro straps that allow the duct to quickly collapse once the evaporator is switched off, and a drawstring to regulate airflow, optimizing the defrosting process. DefrostSock a revolutionary solution for efficient and rapid defrosting.

For cold storage rooms, where quick defrosting is crucial, DefrostSock is an indispensable element. Whether it's cooling food in restaurants, meat processing plants, or storing fresh fruits and vegetables, this duct ensures smooth operation without unnecessary delays.

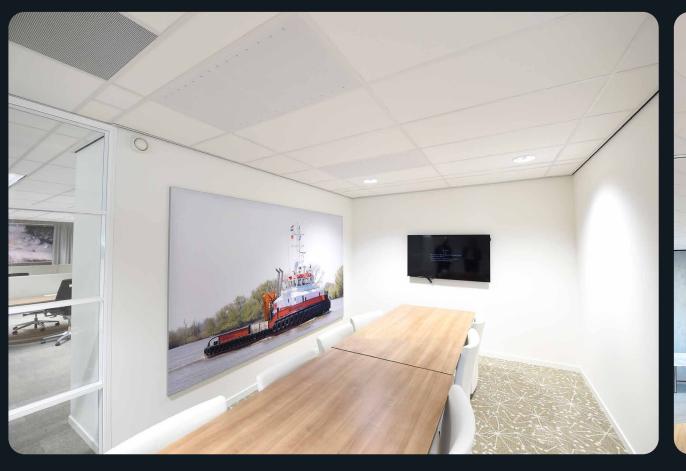
Vice o Defrost Sock na: www.euroair.eu/defrostsock



















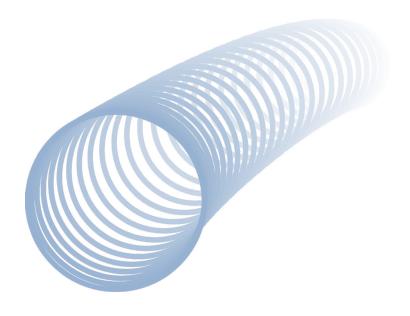


# **FBS Panels**

FBS panels are flat ceiling diffusers designed for easy integration into suspended grid ceilings, allowing you to achieve efficient and aesthetically pleasing ventilation in your space.

#### What Do You Gain with FBS Panels?

- Draft-free air distribution for a comfortable environment.
- Energy savings and lower operating costs due to low-pressure drop performance.
- A very quiet environment with low sound pressure levels (as low as <20 dB(A)).
- Easy fit for grid ceilings with sizes according to standardized dimensions.
- Simple installation without the need for special tools.
- Easy maintenance by simply removing the bottom section.
- Long-term peace of mind with a 10-year warranty on both material and system functionality.





#### Efficient and Cost-Effective Solution

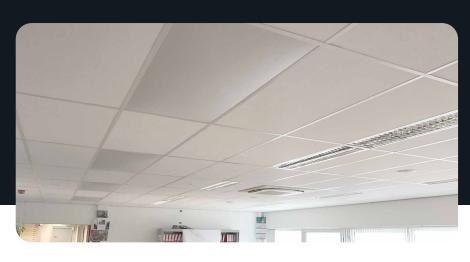
The diffusers are made from fire-resistant textiles, with the top part of the panel being impermeable, ensuring that air is distributed solely into the room and not into the space above the ceiling. This allows the entire visible surface of the panel to be actively used for air supply, providing low airflow velocity and draft-free air distribution with minimal pressure loss.

The design of FBS panels is ideal for cooling or isothermal air supply.

#### Suitable for Comfortable Spaces

Thanks to the flexible textile upper part, FBS panels are perfect for rooms with suspended grid ceilings. The panels are fully integrable into the ceiling, and their lightweight design eliminates the need for additional ceiling attachments—installation is as simple as with standard ceiling tiles.

FBS panels are particularly well-suited for schools, offices, and other spaces where high comfort standards are required.





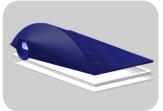
#### **Panel Variants**

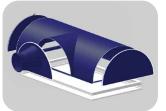
The panels are available in sizes 600x600 mm and 1200x600 mm, designed for standard suspended ceilings, with a flexible connection of Ø160-250 mm.

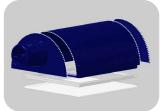
Panels sized 600x600 mm are always made with a connection at the end of the panel, while 1200x600 mm panels can have a connection either on the side or at the end of the panel.

All panel sizes are also available in a version with zippers, allowing the combination of up to 4 panels.

The panels can be used as a 100% permeable solution with permeability rates of 550, 775, and  $1240 \text{ m}^3/\text{m}^2/\text{h}$ , or equipped with DFC perforation for broader air distribution.







Type: Side Type: End

Type: Combi

Type: Combi



#### Installation in Just a Few Minutes

The entire installation process is very quick and requires no special tools.

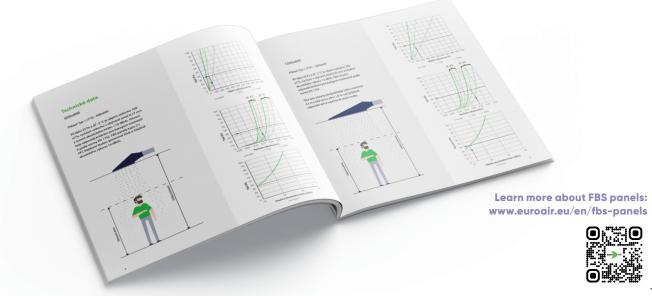
- 1. Simply remove the ceiling tile that will be replaced by the diffuser.
- 2. Place the diffuser into the grid, designed to fit seamlessly.
- 3. Connect the air supply and reinstall the adjacent ceiling tile.

#### Detailed catalogue about FBS panels

We have prepared an extensive and detailed catalogue on FBS panels, where you will find all the information on variants, available colours, maintenance and a detailed technical analysis of an illustrative situation.

In addition, you will also find a special offer.

The catalogue can be found on our website or by contacting your contact person.







**VERSATILE APPLICATION** 

# Your Premises, Our Solution

Textile diffusers are no longer limited to the food industry, as many designers still mistakenly believe.

Today, textile ducts are successfully used in a wide range of installations, from office spaces and schools to sports halls and laboratories. Thanks to their flexibility and efficient a ir distribution, they are suitable for almost any type of space where high-quality and even air distribution is required.

You can see completed projects at: www.euroair.eu/en/projects



# **euro**



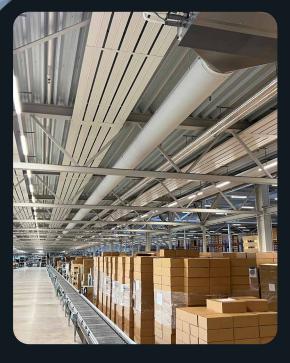
#### **Industrial Halls**

An ideal solution for efficient ventilation in your workspaces, ensuring energy efficiency and low operating costs due to their operation with lower pressure loss.



#### **Food Industry**

Textile ducts are perfect for the food industry due to their high hygienic standards. The antibacterial treatment prevents the growth of bacteria, which is essential in humid and cold environments.



#### **Logistics Centers**

Textile ventilation helps maintain optimal temperatures in logistics centers, ensuring that stored goods are not compromised by temperature fluctuations.



#### Cleanrooms and Laboratories

DFC-HT material ducts meet the stringent ISO Class 4 standards, ensuring efficient ventilation while maintaining the highest laboratory standards.





#### Offices

In office spaces, textile ducts ensure a sufficient supply of fresh or conditioned air for all employees, thanks to the even distribution of air across the entire surface.



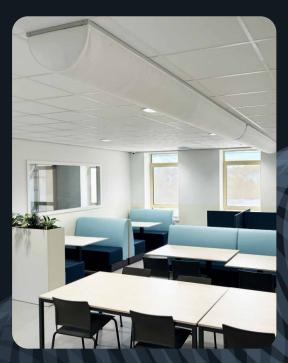
#### **Stores and Shopping Centers**

Textile diffusers efficiently cool in the summer and heat in the winter, enhancing customer comfort and encouraging longer shopping visits.



#### Children's Play Areas

Textile diffusers provide a comfortable, draft-free climate in preschools, promoting children's health and reducing the risk of illness.



#### Schools and Universities

High CO2 concentrations in schools impact both health and performance. Textile diffusers improve circulation and ensure even air exchange, promoting a healthier and more effective learning environment.



#### Restaurants

Unpleasant kitchen odors can ruin the dining experience for guests. Textile ducts effectively ventilate spaces without causing uncomfortable drafts, ensuring a pleasant atmosphere.



#### Kitchens

Textile air ducts provide a reliable supply of fresh air to kitchens, keeping the work environment fresh and comfortable for staff.



#### **Swimming Pools**

By choosing textile air ducts, you avoid corrosion issues, saving both time and maintenance costs.



#### Gyms and Fitness Centers

Every gym and fitness center requires highquality ventilation for healthy exercise. As physical activity increases, so does the need for efficient air circulation.



#### **INFORMATION**

### Service & Maintenance

One of the biggest challenges with traditional duct systems is maintenance and cleaning, which can be both complex and costly.

Traditional HVAC systems can never be cleaned 100%, meaning that dust and microorganisms gradually accumulate. Poorly maintained ventilation systems are a primary cause of poor indoor air quality, often contributing significantly to the so-called Sick Building Syndrome. In the food industry, inadequate maintenance of these systems can create ideal conditions for the rapid growth of microorganisms, posing health risks.

Textile diffusers, however, solve this problem effectively. Due to their easy removal and reinstallation, the diffusers are simple to maintain, ensuring complete hygienic cleanliness.

#### **Dust Holding Capacity**

This value indicates how much dust the material can capture and hold before needing to be washed. Our permeable systems ensure uniform dust deposition across the entire diffuser, significantly extending maintenance intervals. Additionally, TCS material, due to its structure, can retain up to 4 times more dust than standard materials, which means longer intervals between cleanings while still maintaining high air quality in your spaces.

#### Mold and Microorganism Prevention

Proper maintenance is key. Diffusers must be stored dry to avoid mold. Polyester materials of inorganic origin prevent the growth of microorganisms when relative humidity is below 85%. For humid environments with a relative humidity above 90% (such as dairies or bakeries), we offer an ecofriendly antibacterial treatment without silver ions.

Learn more about antibacterial treatment: www.eurogir.eu/en/antibacterial-treatment









#### **INFORMATION**

# Warranty

Our warranty covers all components and the overall functionality of our systems.

Materials produced in our own weaving mill come with a 10-year warranty, ensuring long-term reliability. We also provide a 10-year warranty on FBS panels.

For DFC-0 material, sourced from our Italian supplier, the warranty is 5 years. To maintain the warranty's validity, the system must be properly maintained according to instructions, and no unauthorized modifications or installations should occur.

Detailed warranty terms, including maintenance guidelines, can be found in our terms and conditions or in the warranty certificate.

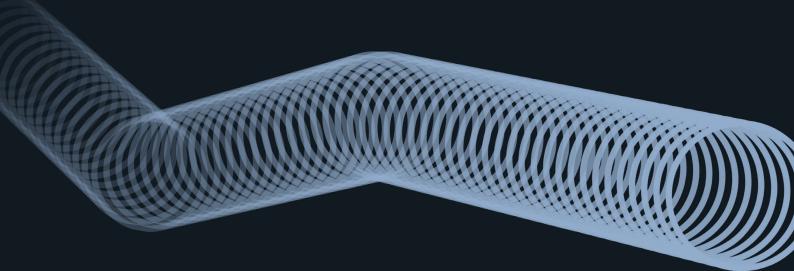
Complete information can be found: www.euroair.eu/en/terms











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