Good indoor climate with textile based ventilation.

KE FIBERTEC

AIR THE WAY YOU WANT

CradleVent®

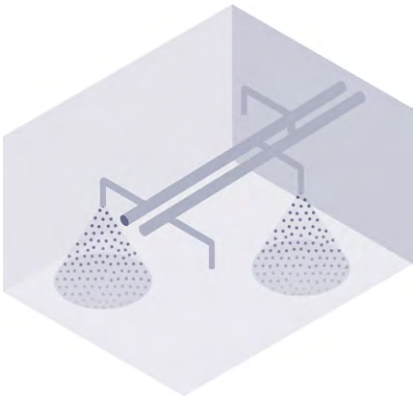
Green thinking by KE Fibertec

Uniform air distribution ensures good indoor climate.

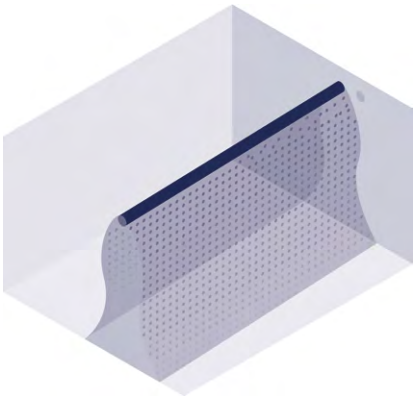
Textile based ventilation

KE Fibertec AS develops, manufactures and markets good indoor climate or air distribution systems based on fibre technology and sustainability. The principle is that the ventilation air is distributed draft-free and uniformly through the customised textile ducts.

Today, KE Fibertec air distribution systems are used in almost all types of installations - from industrial applications to sports halls, office environments, laboratories, the food sector and many other places where a good indoor climate is needed.



Conventional steel duct



Innovative textile duct

The world's first Cradle to Cradle certified ventilation duct

In 2012, KE Fibertec had CradleVent® approved as the world's first Cradle to Cradle certified ventilation duct.

CradleVent® is the world's first ventilation duct that approved as a Cradle to Cradle certified product by the renowned organisation EPEA in Hamburg. CradleVent® is our example of a future-proof and sustainable product for air distribution in offices, schools, laboratories, sports halls, public buildings and other comfort environments.

The increasing demands on contractors and architects for sustainability and resource efficiency make it attractive to include CradleVent® as a proven component in construction.

Advantages of textile ducts

- Efficient air distribution and good indoor climate
- Flexibility and customised solutions
- Unique materials and colours
- Fire approved materials
- Hygienic and easy to wash
- Great acoustic properties
- No condensation problems
- Quick installation and commissioning
- Ergonomically advantageous with low weight

A solution designed for the room.

Designed for the layout of the room

Sometimes a ventilation system can be a challenge to fit in with the rest of the interior design of a room. This could be rooms with curved walls, limited ceiling space or projects where the solution can be made almost invisible along the ceiling.

One of the many advantages of textile based ventilation is the flexible material that can be tailored to the customer's needs. With three variants of round, half-round and quarter-round ducts, we can design the solution to fit into the architecture, depending on the need for air exchange.

When permeability is essential

KE Fibertec develops and markets three main product groups for TBV, all of which are available in three different geometries. In the passive low impulse systems the air diffuses out through an air-permeable material. In high impulse systems, the air is distributed exclusively through holes (KE-Inject System) or nozzles (KE-DireJet System). The hybrid versions are a combination of the passive low impulse systems and the laser-cut Inject holes or DireJet nozzles.

3D visualisation of your solution.

TBV Designer

Flexibility and customised products are what characterise our TBV solutions. Here you are free to choose the dimension that best fits the design instead of being bound by a certain number of standard solutions.

In addition, we offer endless choices of system layouts, colours, offsets, bends, sockets, materials and, not least, whether the TBV system should be passive (low impulse), semi-active (hybrid) or fully active (high impulse).

We offer a wide range of standard colours and, for an additional cost, our textiles can be dyed in custom colours to match the interior.

3D design programme

To dimension our textile duct solutions, we use the advanced 3D programme TBV Designer. We dimension your solution with desired air velocity and room dimensions and design a system that is customised to meet the ventilation needs of the room.

Advanced programme

Based on our many years of experience and extensive technical knowledge in textile based ventilation, we have developed the TBV Designer programme from the ground up and continuously improved it so that it is always based on the latest technology.

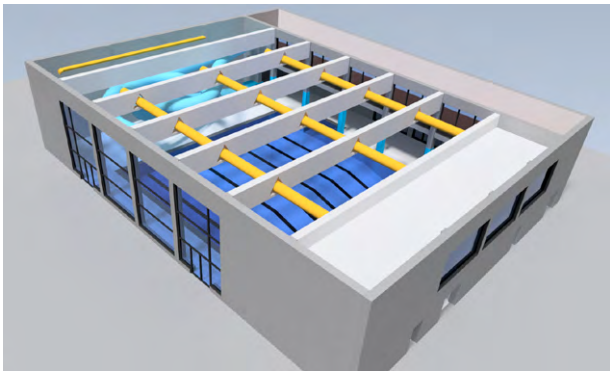
The system allows you to visualise the solution and provides you with data such as thermal air velocities in the occupied zone, pressure loss, sound data and carbon footprint calculation.

Complete CO2 documentation

We have further developed our TBV Designer to include the total footprint for each project. Where others have prepared EPD documentation for parts of a solution, our EPD material is complete because it provides full insight into all footprints.

With calculations for all components from textile materials, mounting parts, accessories and packaging, you get product-specific CO2 data that makes it easy to choose our textile based ventilation solution.

By choosing a textile based ventilation solution, you achieve 4-5 times lower carbon footprint compared to an identical solution using steel ducts*.



- Thermal air velocities in the occupied zone
- System pressure loss
- Pressure loss in substrings
- Sound data
- Climate footprint calculation
- Thermal penetration lengths
- CO2 documentation with EDP

*Source: VELTEK, Denmark

Materials and knowledge that make the difference.

KE Fibertec is the only manufacturer of textile ducts in the world with its own weaving mill. The weaving mill was founded in 1972 and is today run by the third generation of the family business.

KE Fibertec Weaving Mill only makes textiles for duct ventilation, which is unique in the world market and gives us a very special knowledge of the materials that can benefit our customers.

KE Fibertec Weaving Mill has very strict yarn supplier requirements, and the raw materials must go through an extensive incoming inspection to ensure that the air permeability is the same wash after wash. A barcode follows the fabric, giving us full traceability in terms of production date, permeability, etc. from yarn cone to finished product installed at the customer.

Fire approved materials

All KE Fibertec materials are of course fire approved according to DS 428 (article 3.8.): "Air distribution ducts (such as textile ducts) must be made of materials that fulfil the requirements for material class B-s1-d0. However, up to 5% surface area of plastic nozzles etc. of material class F may be built in, provided it is surrounded by material of class B-s1-d0."

Choose from unique materials and colours

We are the only manufacturer in the world to offer customised textiles from our own weaving mill. Our materials are developed exclusively for air distribution and not for tents or awnings when it comes to uniform airflow, shrinkage after washing, colour fastness and, not least, maximum dust holding capacity. Our textile materials are also available in a wide range of colours, with our two main materials being Cradle to Cradle approved.

GreenWeave

Energy-efficient and sustainable textile material.

GreenWeave is particularly suitable for comfort installations with high indoor climate requirements. Typical applications include offices, schools, laboratories, conference centres and cold workspaces in the food industry.

- Acts as an M6 pre-filter according to EN 779:2012
- Longer washing intervals with staplefibre yarns
- Dust holding capacity of 25 g/m² textile surface according to EN 779:2012
- Fire tested according to. DS 428, B-s1,d0
- 100% biodegradable and Cradle to Cradle certified material
- GW materials are woven from dyed yarn, reducing waste water consumption by appr. 2/3 compared to traditional piece dyeing

CRADLE TO CRADLE COLOURS				PANTONE / RAL
WHITE 11-0601-TP / 9010	BLACK 19-5708-TP / 9005	LIGHT GREY 12-4705-TP / 9002	DARK GREY 17-4402-TPG / 7042	
DARK BLUE 19-3864-TP / 5002	YELLOW 14-0955-TP / 1028	RED 18-1655-TP / 3031	WHITE 11-0601-TP / 9010	ANTISTATIC

MultiWeave

Durable and versatile textile material.

MultiWeave is a multifunctional material that is ideal for a wide range of industries - from ISO class 4 cleanroom facilities, industrial premises and sports halls to equalisation rooms in slaughterhouses.

- Material made of multifilament yarns that acts as a G2 pre-filter
- Cleanroom certified according to class 4, ISO 14644-1
- Fire tested according to. EN13501
- Very durable. Tear strength of 110-210 N according to EN ISO 13937:2

CRADLE TO CRADLE COLOURS			PANTONE / RAL
WHITE 11-0601- TP / 9010	BLACK 19-5708-TP / 9005	LIGHT GREY 12-4705-TP / 9002	DARK GREY 17-4402-TPG / 7042
DARK BLUE 19-3864-TP / 5002	LIGHT BLUE 16-4132-TP / N/A	YELLOW 14-0955-TP / 1028	GREEN 18-6024-TP / 6016

STOCK COLOURS		PANTONE/RAL
BEIGE/TAN 15-1215-TP / 1019	RED 18-1655-TP / 3031	

ZeroWeave

Airtight textile material.

Low maintenance material. Many applications such as high-bay warehouses, supermarkets, large sports halls, swimming pools and rooms with high dust generation or difficult access.

- Airtight (non-permeable) material
- No PVC, halogens or other harmful substances
- Fire tested according to. DS 428, B-s1,d0 and EN13501-1
- No condensation issues in environments below 90% RH

STOCK COLOURS			PANTONE/RAL
WHITE 11-0601- TP / 9010	LIGHT GREY 14-4201-TP / 7047	DARK BLUE 19-3864-TP / 5002	

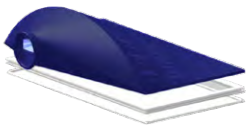
Efficient and draft-free ventilation.

FBS ceiling panel

KE Fibertec offers FBS ceiling panels for diffuse or directional ventilation in schools, offices and other comfort environments. The system can operate at a lower air pressure compared to standard ceiling diffusers, making it an energy efficient solution.

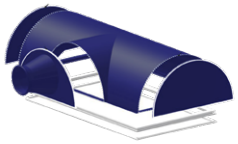
Fresh air is evenly distributed over the entire surface of the panel, providing a good indoor climate without draft problems. FBS ceiling panels are ideal for rooms with low headroom and in rooms with low ceiling heights.

- Good indoor climate without drafts
- Low pressure loss
- Low sound power level
- Low weight
- Easy to install and maintain
- Fully integrated in suspended ceilings
- Short delivery time

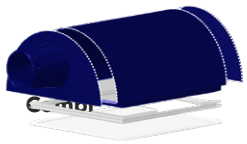


Side 1200x600

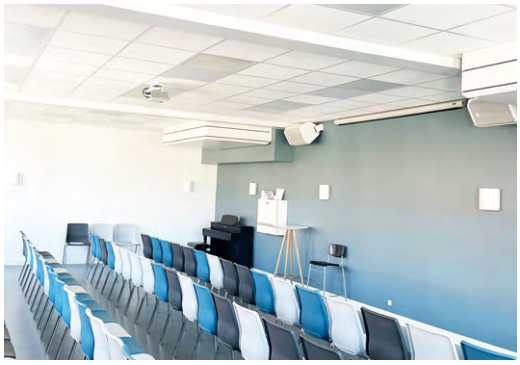
End 600x600 / 1200x600



Combi 1200x600



600x600



Washing and maintenance.

A ventilation duct must be maintained in order for it to maintain its performance and thus be energy-efficient. This applies to both textile ducts and steel ducts.

Ensure a healthy indoor climate

The ventilation ducts will become dirty over time, and dust will be deposited in ducts, on dampers and valves. Dust, dirt and, in the worst-case scenario, microorganisms in the ventilation system will reduce its efficiency and may, in some cases, be directly harmful to people's health.

To ensure a healthy indoor climate and the best possible energy efficiency, it is therefore important to regularly inspect ducts, dampers, valves and filters in the ventilation system.

The textile duct can be easily dismantled and washed as required. Our processed Trevira CS materials absorb max. 1% water even at a relative humidity of more than 90% and the materials are approved for the food industry.

Antibacterial treatment

In extremely humid environments we recommend an additional Antibac treatment of the materials that renders them resistant towards fungi and micro-organisms. Please note that the effect is non-existing at rates below 85% RF.

Extend product life

Washing and maintenance costs must be included in the design as early as in the project planning phase. It is a mistaken belief that you can choose "maintenance-free components" like some suppliers claim, because they do not exist.

With correct maintenance and regular washing of the textile ducts it is possible to save energy and extend the life of the product.

We focus on the UN Global Goals.

Since 2021, the 17 Sustainable Development Goals of the UN have been a central part of our approach to sustainability. We have selected four specific goals that we are working towards.

Working with external advisors has provided us with valuable input and challenged us in relevant areas. This has enabled us to make strategic choices that not only strengthen our sustainable profile, but also contribute to concrete improvements and support our continued growth.

By continuously evaluating and developing our work based on the global goals, we ensure that sustainability remains an integral part of our business. It also means that we constantly focus on where we can strengthen our efforts – both in our internal processes and in the solutions we offer our customers.

Our products and processes meet a range of requirements within the construction industry and document that our solutions make a real difference to the climate. This is part of our belief that responsible development and green choices must be incorporated into the entire value chain.

Our work with the Global Goals, together with our Cradle to Cradle and ISO certifications, helps us to fully document that we meet the standards set for the construction industry and that our solutions actually make a difference to the climate.

We call this Green Thinking!

Read more in our Sustainability brochure about our many initiatives and how we can help certify your next ventilation project.

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