

ACTION BEHIND THE WORDS

Sustainable ventilation with textile ducts.



A part of something bigger.

At KE Fibertec, we have no doubt that sustainable thinking is part of our DNA. It is important for us to see the bigger picture, when it comes to our production and employees and when it comes to the role of our products with our customers. We take our social responsibility as a company seriously and are driven by creating solutions that not only leave the smallest possible imprint, but also create the healthiest possible indoor climate. That is why we work in a structured way with CSR and sustainability in all aspects of the company. The investments required are common sense to us. Especially when we take into account that our work also benefits our customers in the form of greener profiles and more sustainable solutions.







UN Global Goals Certification.

In July 2021, KE Fibertec achieved certification by Bureau Veritas in four areas of the UN Global Goals. The four areas have been chosen on the basis of our perception of where we can make the greatest impact. By being certified by an independent and recognized certification body, we take our work with sustainability a step further and can document that we make a difference.

A step in the right direction.

With this certification we have not only reached a considerable milestone, but also gained a solid starting point for further development. It is not only about documenting KE Fibertec's contribution to sustainable development, but about making our efforts visible to employees, partners, suppliers and customers. The Global Goals certification is a step in the right direction in our ongoing work on sustainability.



SUSTAINABLE DEVELOPMENT GOAL 6

Clean water and sanitation.

Climate change and increasing temperatures on a global scale mean that water scarcity is a widespread problem. We are committed to conserving the planet's resources and have made extensive water-saving efforts in the dyeing of our yarns so we only offer Cradle to Cradleapproved colours. This equals a 67% reduction in water consumption and wastewater, corresponding to 1 million litres of water annually.



SUSTAINABLE DEVELOPMENT GOAL 7

Sustainable energy.

In our efforts to become carbon-neutral in 2030, we focus on minimising dependence on fossil fuels and instead using new, alternative energy sources. Since 2014 we have used 100% wind power at our Danish factories, head office, and weaving mill. We also focus on converting our gas heating to a carbon neutral energy source and thus contributing to promoting sustainable energy.



SUSTAINABLE DEVELOPMENT GOAL 8

Decent work and economic growth.

KE Fibertec works purposefully with CSR throughout the company by taking social responsibility and contributing to a positive development. At the same time, we contribute to economic growth and development with a sustainable aim. We focus on the entire value chain and follow the UN Global Compact on human rights, anticorruption and the environment, and our major partners and suppliers have signed the Ten Principles of the UN Global Compact. KE Fibertec is certified according to ISO 45001:2018 to provide a safe and healthy working environment.



SUSTAINABLE DEVELOPMENT GOAL 12

Responsible consumption and production.

For a number of years we have worked purposefully to reduce our footprint in consumption and production, both in relation to waste and CO_2 . In continuation of our Cradle to Cradle certification, we currently recycle leftover yarns to produce bulb cords for suspension of the ducts, which has resulted in a reduction of approx. 7 tons of leftover yarn. At the same time, we have reduced waste material from our laser cutting machines by 38 tons and through a number of initiatives in production have reduced our carbon footprint by 52% per turnover DKK, compared to 2010.

GLOBAL GOALS CERTIFICATION

We raise the bar.

As a company, we have a great responsibility in how we impact the environment and contribute to creating a supply chain that includes environmentally sound and energy-efficient development. For a number of years, we have worked strategically, structured and purposefully with the implementation of the UN Global Goals to ensure systematics and visibility in everything we do - from production to transport and recycling. To us this is sustainability in action.

CARBON NEUTRALITY

The course is set.

As a company, we have never been afraid to set ambitious climate goals. We make the necessary investments and we work strategically and systematically throughout the company to meet our goals. Not only because we as a company have a responsibility, but also because the investments are read through lower energy costs, less waste and unique competitive advantages.

What we do today.

- Use 100% wind power
- Carry out environmental mapping every 3 years
- Reduce wastewater by 67%
- Reduce carbon emissions by 52% since 2010
- Optimise the use of resources in production
- Offer life-extending maintenance on our products

Future initiatives.

- Launching and implementing a new packaging line that reduces our carbon footprint by more than 60% compared to our previous packaging solution.
- Annual analysis of our consumption of gas, electricity, water and waste, so we constantly monitor our progress
- Offer our customers LCA and EDP tools that document the positive impact of textile based ventilation on the environment.
- Goal of carbon neutrality by 2030, but it does not end here. It is
 a milestone in our continuous, strategic work on sustainability.
 We are committed to constantly exploring new development
 opportunities and ways to optimise through new technology in
 the future





Carbon neutral by 2030.

Our next ambitious goal is to become carbon neutral by 2030. We are already well on our way and are keeping a close eye on our progress in order to constantly be able to adjust and optimise our workflows throughout the company.

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2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

 $^{^{\}star}\text{NM}^{3}$ gas consumption is not adjusted for the number of degree days of the year in question

TEXTILE BASED VENTILATION

More

Textile based ventilation is not a new invention. KE Fibertec installed the first simple textile based ventilation system in a Danish slaughterhouse in the early 1970s. Since then we have developed design and function for the advanced ventilation solutions that today ensure a good indoor climate, efficient distribution of cold and hot air and high comfort in buildings where many people are gathered.



nan air.

A smaller footprint.

By looking at our textile based ventilation solutions from a sustainable perspective, there are several advantages compared to steel solutions. First and foremost, the materials are easier to transport, which significantly reduces fuel consumption and thus carbon emissions. In addition, we produce solutions in 100% degradable material and Oeko-Tex Standard 100 certified yarns. By virtue of our ability to create tailored solutions for our customers, we reduce the amount of waste significantly, just as we are able to use leftover yarns in the rest of the production. In this way we help to reduce our overall footprint.

Green solutions.

Of course our customers will benefit from our sustainable solutions at no extra cost. Better and more even air distribution in the rooms we ventilate creates not only a better indoor climate, but also low energy costs for heating and ventilation. Our customised woven fabrics from our own weaving mill and maintenance programmes specifically designed for industry extend the life of the systems and ensure optimised operation and thus lower energy costs. We can extend the service life up to 20-25 years with proper maintenance, and when the textile ducts are worn out, we offer to buy them back* so that the used materials are handled correctly. In this way we consider the entire product life cycle.

*Applies to all CradleVent® systems



Sustainable benefits

- Good indoor climate with efficient air distribution results in lower energy consumption
- Flexible and customised solutions reduce material waste
- Low weight means less fuel consumption and lower carbon emissions during transport
- Maintenance programs extend life
- Option of recycling end-of-life CradleVent® systems

CRADLE TO CRADLE

Circular economy again and again.

In 2012, when we were able to introduce the market to the world's first Cradle to Cradle certified ventilation solution, it was the culmination of many years of work. We design products that benefit rather than harm the environment and at the same time recognize the growing lack of resources.



The entire life cycle.

The Cradle to Cradle mindset takes the Cradle to Grave idea one step further by taking responsibility for the entire product life cycle. This means that the product is ultimately not only handled responsibly, but at the same time is part of the production of a new product. In this way, the product's life cycle is in principle infinite, because once it has served its function, it does not become waste.

The process continues.

For us it is about continuing to develop the way we think about materials and production. Therefore, the Cradle to Cradle certification is not a completed process, but something we work on continuously and constantly set new and ambitious goals for.

Objectives for the Cradle to Cradle certification



Material health

Products that consist only of materials and substances that are 99.99% harmless to humans



Circular economy

As high a recycling rate as possible. In 2021, our recycling rate was 18-25%



Renewable energy

We want to be carbon neutral by 2030



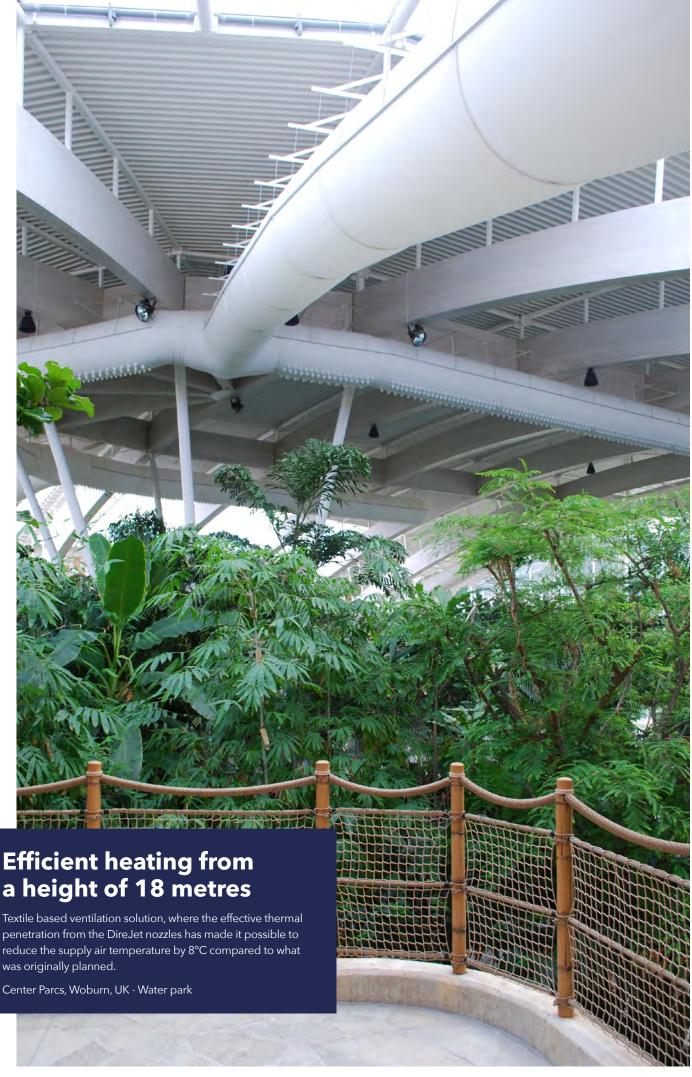
Water stewardship

All wastewater is collected and treated at treatment plants.
Today we have achieved a reduction of 67%



Social fairness

All established partners and suppliers have signed on to the ten principles of the UN Global Compact



BUILDING CERTIFICATION

A powerful tool for construction.

Today, 40% of the world's carbon emissions can be related to construction and buildings. Therefore the focus is not only on a higher degree of sustainable construction, but also on increased documentation and certification.

Here we work according to different classifications and certifications. The most widely used is the DGNB standard, which with a focus on more than 40 criteria, documents the sustainability of buildings within for example environmental impact, air quality, indoor climate and energy and resource consumption. In addition, there is the Danish voluntary sustainability class, which is a recent initiative. For both, textile based ventilation in general and our CradleVent® in particular are strong contributions.

Complete documentation packages.

Although the ventilation system often only makes up a small part of the total construction, we want to help our customers to create an overview with the necessary documentation.

Therefore, in collaboration with Ramboll Danmark, we have prepared complete documentation packages for consultants, contractors and architects that show how our textile based ventilation solutions contribute to the overall certification of a sustainable construction.

We also support the international certification schemes BREEAM and LEED v4 with points for 'material ingredient'.

"We want to give our customers relevant documentation and materials, which provide a quick overview and help with an easier process in what can sometimes be a complex and comprehensive project description, especially when it comes to larger construction projects. We have had a positive collaboration with Ramboll in preparing comprehensive documentation on how our textile based ventilation solutions can give points for a certification of a sustainable construction."

Anders Olsen

Development Manager KE Fibertec AS



ON THE ROAD TO 2030 SINCE 1963

Words behind the action.

KE Fibertec is the world's largest manufacturer of textile ducts. With roots dating back to 1963, we stand on the shoulders of a long and solid history, from the first simple filter bags to today's advanced use of fibre technology. Along the way, we have strived to develop sustainable solutions, and with the world's first Cradle to Cradle certified ventilation duct we took the first step towards our recent Global Goals certification and further towards the goal of becoming carbon neutral by 2030.

A positive development.

These targeted sustainability efforts permeate the entire company and our approach to CSR. Through a wide range of initiatives we contribute to a positive development in the world in the areas in which we operate. Today we are a modern company with international activities in large parts of the world. We advise on and contribute to increased sustainability in construction and are constantly improving our core competencies in the development, logistics, and production of textile based ventilation products.









2030

KE Fibertec becomes carbon neutral

2021

SDG 6, SDG 7, SDG 8 and SDG 12 Global Goals certification by Bureau Veritas

2020

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KE Fibertec Weaving Mill (100% owned subsidiary) recycles all leftover yarn and turns it into bulb cords for suspension for KE Fibertec's products. All empty plastic yarn spools are sent for recycling to KE Fibertec's supplier of plastic nozzles

2019

Own special laundry exclusively for textile ducts

2017

New material concept introduced -GreenWeave, MultiWeave, and ZeroWeave

2016

Now possible to download BIM objects for dimensioning with textile ducts in Revit. KE Fibertec is the first company in Denmark to be recertified according to the new ISO 9001:2015 and ISO 14001:2015 standards

2015

KE Fibertec introduces a new generation of dimensioning software, TBV Designer

2014

KE Fibertec develops the intelligent textile duct, InTex®

2012

Sustainability with the CradleVent® textile duct, the world's first Cradle to Cradle certified ventilation duct

2008

KE Fibertec develops the Vario nozzle

2000

KE Fibertec introduces textile ducts with laser-cut inject holes

1999

KE Fibertec buys its own weaving mill, KE Fibertec Væveri AS. KE Fibertec's 3D dimensioning software, WinVent, is introduced

1998

KE Fibertec develops the DireJet® nozzle for directional air distribution. Textile ducts are made of Trevira CS® polyester

1993

KE Fibertec develops and patents the KE-Inject® LV system, the first textile duct system for heating

1989

Textile ducts are made of 100% polyester

1978

Textile ducts are made of polypropylene

1974

First textile duct installed in a Danish slaughterhouse. 1st generation in cotton material

KE Fibertec AS develops, produces, and markets "good indoor climate" or air distribution systems based on fibre technology and sustainability.

Contact us to learn more about how we can help you with your next ventilation project.







