

Pure competence in air.

# FOR A GREENER AND SAFER WORLD NOVENCO BUILDING & INDUSTRY

Building & Industry



SCHAKO Group



# FOR A GREENER AND SAFER WORLD

NOVENCO® Building & Industry is a worldwide leader in design, development and manufacture of ventilation products and systems on the technological forefront of performance and durability. We provide the largest energy savings and efficient solutions for protection of lives in ventilation worldwide. Our relentless focus is on the reliability of the fans and instant system performance.



**NOVENCO** moves air for  
a greener and safer world

## NOVENCO's products and solutions guarantee



Energy savings  
up to 50%



Life  
safety



Lifetime  
of 20+ years



Recyclability  
rate of 98%



Fan efficiencies  
up to 92%



Ultra low  
sound levels



Low  
maintenance costs



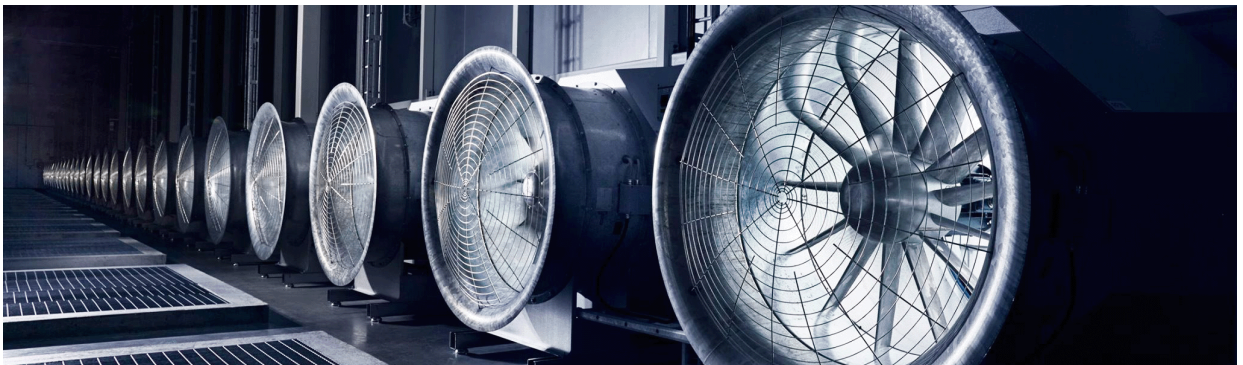
Plug-and-play  
installation

**NOVENCO's highly efficient ventilation fans and systems are installed here, there and everywhere for all sorts of conditions.**



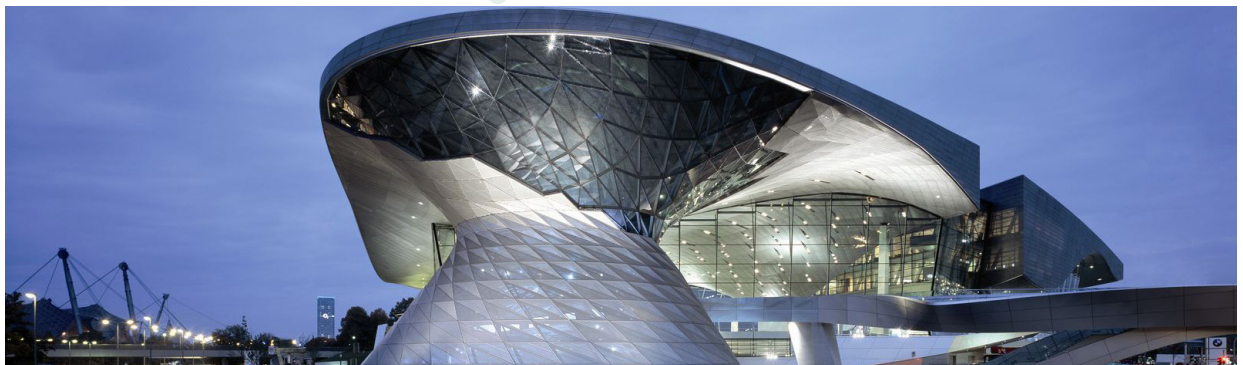
### **World's largest social media**

**NOVENCO fans cool Facebook down**



### **World's coolest building**

**BMW WELT equipped with NOVENCO jet fans**



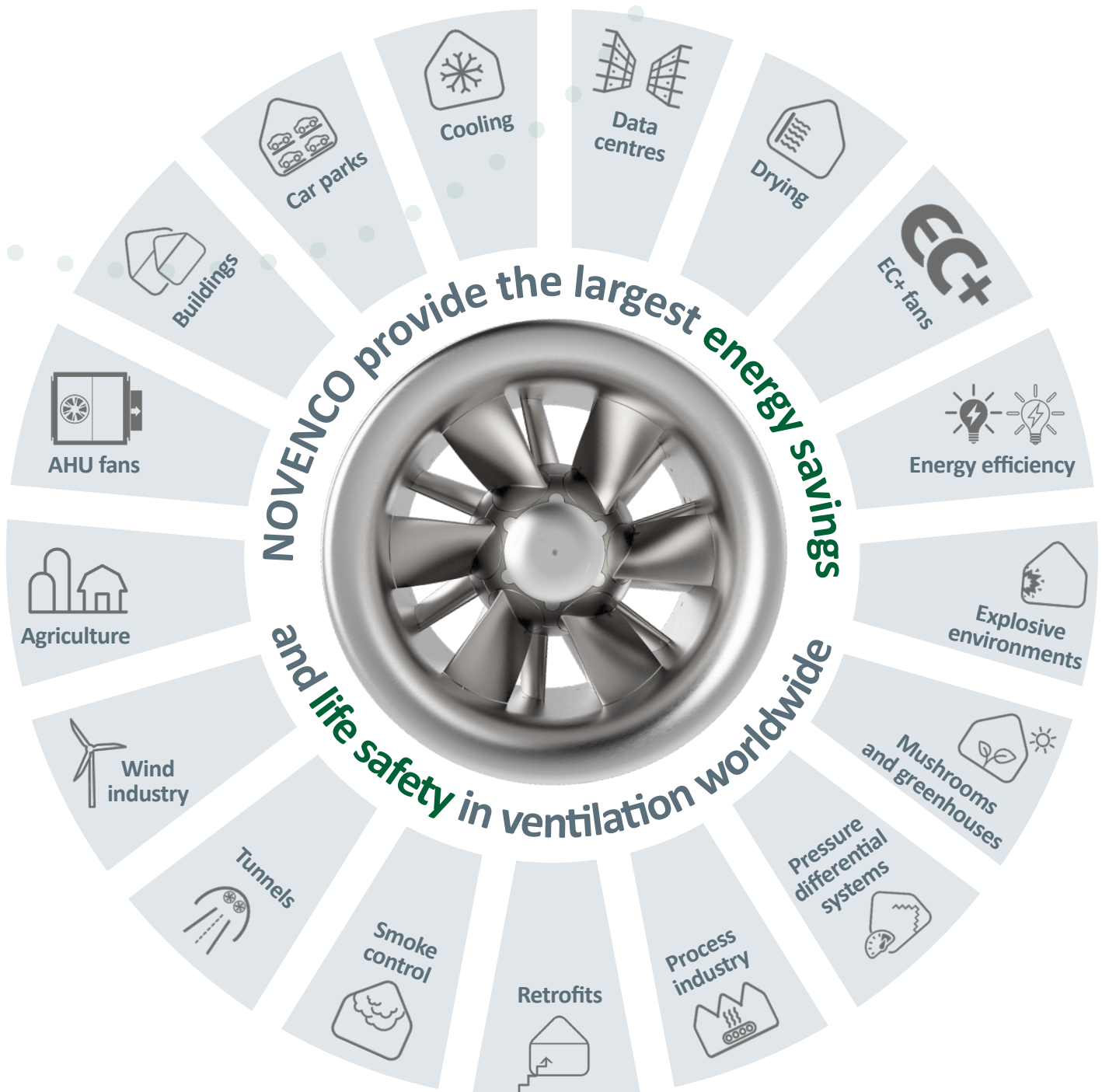
### **World's tallest building**

**Safety in Burj Khalifa's car park**



# NOVENCO SOLUTIONS

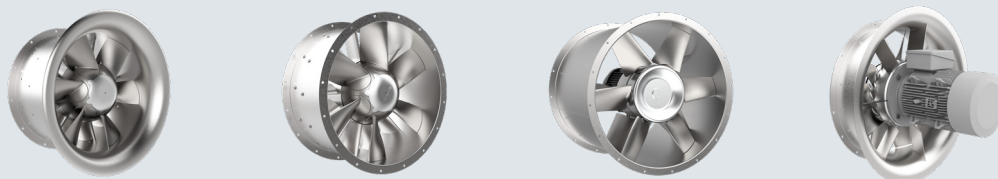
We provide energy-efficient and life safety ventilation systems well-known for uncompromising quality and the highest standards within a wide range of industries. We know and comply with business requirements and we have the products to supply the best solutions.



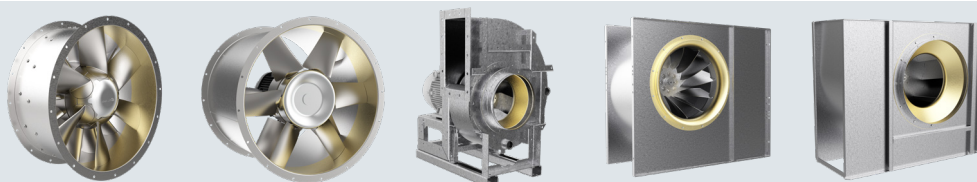


# NOVENCO PRODUCTS

## AXIAL FLOW FANS



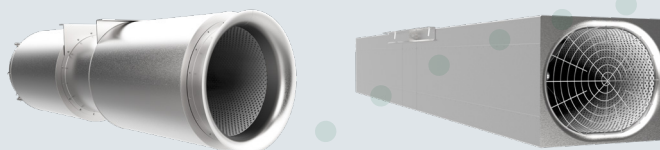
## ATEX AND EX FANS



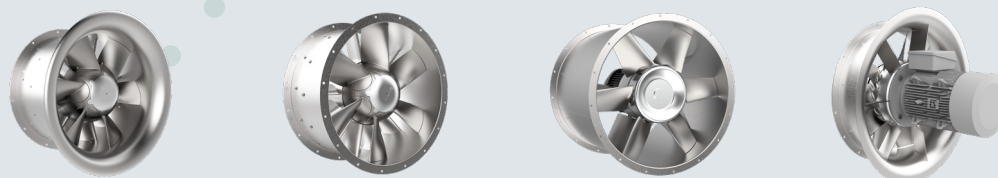
## CAR PARK JET FANS



## TUNNEL JET FANS



## SMOKE FANS



## CENTRIFUGAL FANS



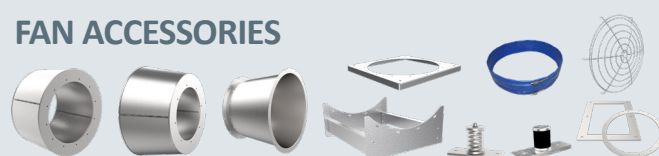
## AIR HEATERS



## DAMPERS



## FAN ACCESSORIES



# SUSTAINABLE PRODUCTS AND SYSTEMS FROM START TO END

The UN's 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals is a shared blueprint that calls for action by all countries in a global partnership. It is a blueprint that we are proud and eager to support in order to tackle the climate change, spur economic growth and help preserve nature.

## #11: CREATE SUSTAINABLE CITIES AND COMMUNITIES

Through our highly efficient ventilation products with remarkable recyclability rates and energy savings, we support the cities and communities of the future, where the requirements for sustainable production, efficiency levels and green operation are critical. We also contribute positively to our local environment by minimising and sorting scrap and applying climate-conscious production and logistics processes.

## #12: SUPPORT RESPONSIBLE CONSUMPTION AND PRODUCTION

We help reduce excessive consumption and production through development of highly effective and recyclable ventilation fans, which require minimal resources to run, save energy and reduce

the discharge of harmful substances. This allows us to enable operators worldwide to implement solutions that support the global climate goals.

Besides enabling our customers to more climate-conscious operation, we are also very ambitious internally. Our daily efforts and actions for energy-innovative and environmentally responsible production demonstrate our green enthusiasm.

## #13: INSIST ON CLIMATE ACTION

We know that we have to walk the talk to make actual climate changes – and that is why we take climate issues into account in every decision we make. Our resource-friendly products reflect this dedication with long life spans, environmental friendly production processes and impressive recyclability rates.





# GREEN AMBASSADORS OF EC<sup>+</sup> WITH NOVENCO ZERAX<sup>®</sup> FANS

The engineering of the ZerAx<sup>®</sup> fans is an unprecedented achievement in NOVENCO history. The ZerAx revolutionises the design and performance of axial flow fans and is in fact an energy-saver of the future that redefines and heralds a new generation of fans with unmatched fan efficiencies of 92%, low sound levels and 98% recyclability rate after 20+ years of product lifetimes.

Together with Danfoss, we provide the most efficient EC<sup>+</sup> system solutions, which radically reduce energy consumption and maintenance costs, and hence increase efficiencies of HVAC systems.



**92%**

NOVENCO ZERAX<sup>®</sup>  
HIGH EFFICIENT AXIAL FAN

x



**95%**

HIGH EFFICIENT  
PM MOTOR

x



**98%**

HIGH EFFICIENT  
DANFOSS VLT<sup>®</sup>

=



**85%**  
**EFFICIENCY**

## ENERGY IN FOCUS. NATURALLY.

With overall efficiencies up to 85%, the EC<sup>+</sup> solutions are the most efficient, profitable and up-to-date available on the market. Conceived to increase efficiencies of HVAC systems, the EC<sup>+</sup> concept offers to radically reduce use of energy in new-build and in existing installations. The high EC<sup>+</sup> system efficiencies promote large economic savings and ROIs between 12-18 months. The complete plug-and-play solutions guarantee easy and fast retrofit of existing installations, lifetimes of 20+ years and zero down-times to ensure very low maintenance costs. Furthermore, the environmental impact is diminished and CO<sub>2</sub> emissions are significantly reduced.

## EC<sup>+</sup> CONCEPT FOR OPTIMISATION OF AHU SYSTEMS

This straightforward concept comprises the NOVENCO ZerAx<sup>®</sup> series of high efficiency fans, high efficiency IE4 or IE5 PM motors and intelligent and high efficiency Danfoss VLT<sup>®</sup> frequency converters. The motor and frequency converter efficiencies both reach above 95%, which with the ZerAx fan efficiency of 92% brings the overall system efficiency to an impressive 85%. This is the highest possible total system efficiency for AHUs on the market and is 20 -25% better than the closest alternative such as direct-driven centrifugal plug fans with EC motors.



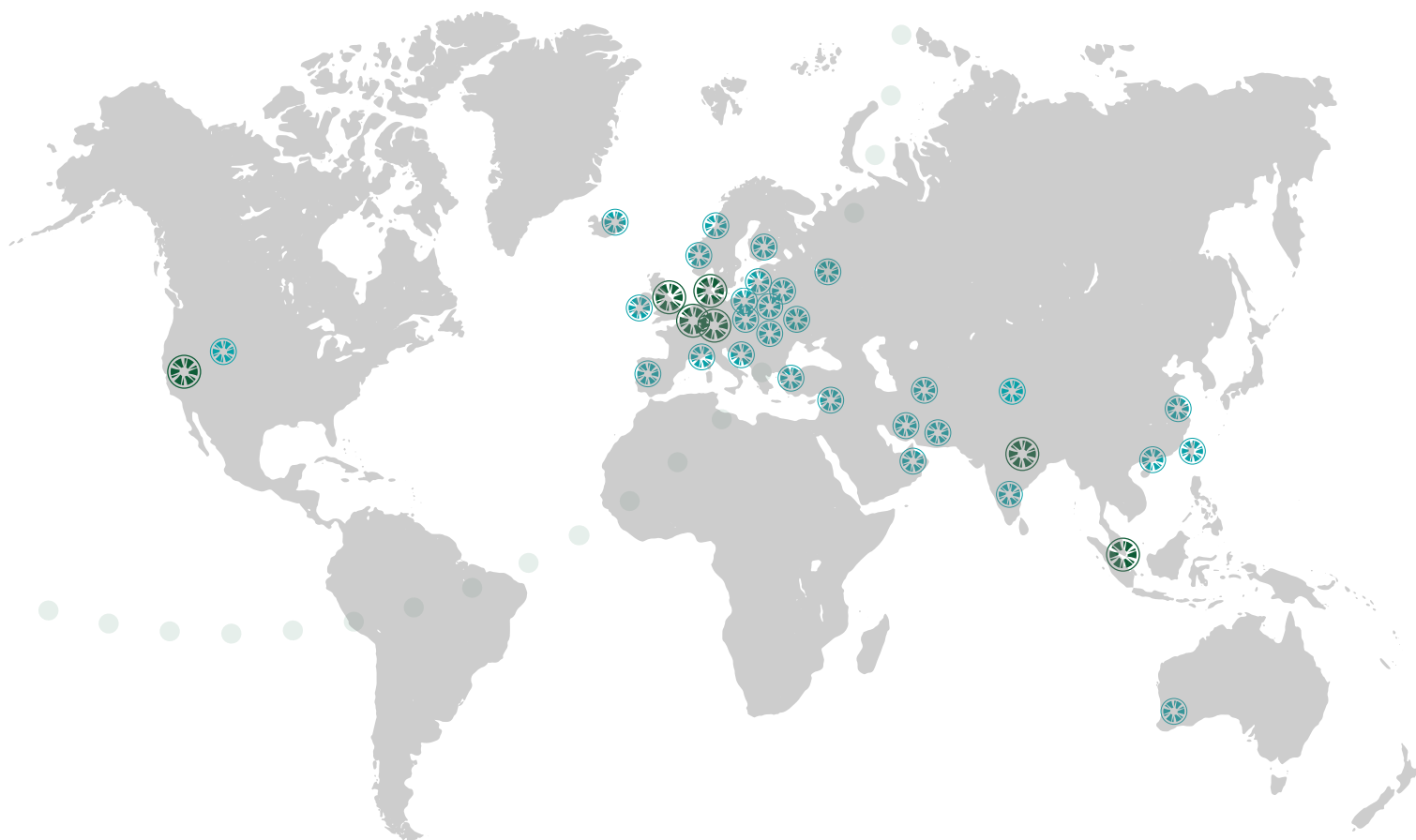
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**NOVENCO**

## ENERGY SAVINGS WITH ZERAX<sup>®</sup> AND EC<sup>+</sup>

- AT LEAST 20% COMPARED TO BEST-IN-CLASS EC FANS
- TYPICALLY 40% BY RETROFIT OF OLD PLUG FANS
- TYPICALLY 50% BY RETROFIT OF OLD CENTRIFUGAL FANS

# NOVENCO WORLDWIDE



**NOVENCO offices**  
Denmark, Netherlands, United Kingdom,  
Germany, India and Singapore



**NOVENCO agents**





# SCHAKO GROUP

The 1.000 employees in all five companies of the SCHAKO Group are specialised in ventilation. The companies are reliable and competent partners for all solutions within ventilation, air-conditioning, fire protection and smoke extraction technologies. We develop, produce and deliver reliable, high-quality, energy-efficient and economical products and systems.



OT ventilation systems, energy and media supply bridges and surgical lights in operating theatres and medical practices

Building & Industry



Energy-efficient ventilation and life safety systems for buildings, industries and infrastructures



Air cleaning systems in commercial kitchens and industries



Ventilation and air-conditioning in commercial and public buildings



Special ventilation engineering in all kinds of laboratories



Air technology and smoke extraction systems for industries and tunnels



Components in ventilation, air conditioning systems and air distribution with JET-systems



Group

# CERTIFICATION OF SUSTAINABLE BUILDINGS

## GREEN QUALITY OF BUILDINGS

Sustainability is a prevailing issue when it comes to growth, efficiency and future viability. Therefore cities and municipalities focus increasingly on sustainable development. In recent years, many constructors and contractors have had their constructions certified with the sustainable LEED, BREEAM or DGNB stamps. The certification makes the buildings more attractive to buyers and users, while the sustainable constructions contribute considerably to the indoor and

outdoor environments. NOVENCO Building & Industry believes the LEED, BREEAM and DGNB certifications to be of great value to the sustainability of buildings and the construction thereof. It therefore follows naturally for us to enter the LEED, BREEAM and DGNB certifications and have our NOVENCO ZerAx® axial flow fans recorded in the certification programs.



**The LEED certification is a globally recognised symbol of sustainability achievement and leadership. It is a commonly agreed overall system for reducing environmental impact.**



**The BREEAM is the world's first environmental assessment method for new building designs and stands for Building, Research, Establishment, Environmental, Assessment and Method.**



**The DGNB certification is a systematic approach to sustainability. It is considered the most advanced system of this kind in the world.**





# NOVENCO'S TIERS OF TRUST

## ENERGY EFFICIENCY



## DATA CENTRES



## INDUSTRY

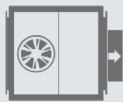


Mercedes-Benz

## WIND INDUSTRY



## AHUs



I love this shot because it looks like a sci-fi movie. These enormous fans draw in the outside air to cool the tens of thousands of servers in the data hall...



Mark Zuckerberg  
Founder of Facebook

Pure competence in air.

mu 15955 0125

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