Pure competence in air.

## FOR A GREENER AND SAFER WORLD NOVENCO BUILDING & INDUSTRY



# 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%



Lifetime of 20+ years



Fan efficiencies up to 92%



Low maintenance costs



Life safety



Sustainable production



Ultra low sound levels



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 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.



#### Pure competence in air.

## **NOVENCO PRODUCTS**



### SUSTAINABLE PRODUCTS AND SYSTEMS FROM START TO END

The importance of energy efficiency to the world and to the people on the earth grows each year. NOVENCO's ambition is to be on the technological forefront when it comes to energy and cost-efficient ventilation. We focus on sustainability in the construction, production and recyclability of our products. We are proud to have launched products that meet market demands as well as the environmental standards of tomorrow and future decades.

#### THE ENVIRONMENT IN FRONT

The Paris Agreement from 2015 aims to reduce the emission of greenhouse gases to slow down global warming. The agreement links directly to UN Global Goals no. 11 Sustainable Cities and Communities, no. 12 Responsible Consumption and Production and no.13 Climate Action on the 2030 Agenda. At NOVENCO we put in all our effort and actions in the form of energy-efficient, innovative and long-lasting products as well as environmentally responsible production processes. Consideration to the environment in the design and manufacturing of our products is a core obligation for us.

#### NOVENCO'S COMMITMENT TO THE 2030 AGENDA

NOVENCO Building & Industry dates back to 1947, where we began design, development and production of the first fans. Much has followed and vast experience has been gained with implementation and adaptation of products and systems. Today, this knowledge and these achievements go into our research and development of new products and improvements that are on the technological forefront and synchronized with the UN goals. The performance and durability of our products is ground-breaking, but even the most efficient and ingenious products call for improvements sooner or later. We learn this from our customers, the environment and new legislative measures, which all call for innovative solutions. The need for the products of tomorrow is already here, and we have the ideas and know-how to create them.

We believe, that our best products hold glimpses of what can be expected from the next generation of ventilation products.



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

The engineering of the ZerAx<sup>®</sup> fans is an unprecedented achievement in NOVENCO history. The ZerAx<sup>®</sup> 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 product lifetimes of 20+ years. Together with Danfoss, we provide the most efficient EC+ system solutions, which radically reduce energy consumption and maintenance costs, and hence increase efficiencies of HVAC systems.



### 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 garantuee 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 intellient and high efficiency Danfoss VLT<sup>®</sup> frequency converters. The motor and frequency conventer efficiencies both reach above 95%, which with the ZerAx<sup>®</sup> fan efficiency of 92% brings the overall system efficiency to an

impressing 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.

### 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.



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Group

## DGNB CERTIFICATION OF SUSTAINABLE BUILDINGS

The DGNB certification is a systematic approach to sustainability. It is considered as the most advanced system of its kind in the world. NOVENCO's highly efficient and energy-saving products contribute positively to the DGNB certification of buildings.





#### **GREEN QUALITY OF BUILDINGS**

The DGNB certification system provides constructors and contractors with a tool for calculating how their decisions and choices of materials influence on the sustainability of the finished buildings.

Sustainability is a prevailing issue when it comes to growth, efficiency and future viability. Therefore cities and municipalities increasingly focus their strategies on sustainable development. In recent years, many constructors and contractors have chosen for their constructions to have a sustainable DGNB blue stamp. It makes the buildings more attractive to buyers, tenants and users, while sustainable constructions contribute considerably to the indoor and outdoor environments. NOVENCO Building & Industry sees the DGNB certification to be of great value to the sustainability of buildings and the construction thereof. It therefore follows naturally for us to enter the DGNB certification and have our NOVENCO ZerAx® axial flow fans recorded in the certification programme.

### **DGNB** facts

DGNB stands for 'Deutsche Gesellschaft für Nachhaltiges Bauen' (in English the German Sustainable Building Council)

DGNB is the German sustainability certification for buildings.

More than 4,500 projects have been certified in accordance to the DGNB certification in around 30 countries.

DGNB is the undisputed market leader and is regarded worldwide as the most ambitious system in terms of content.

A building can achieve DGNB certification at levels of silver, gold or platinum.

In Denmark, the Green Building Council Denmark recomends the DGNB certification.

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## **NOVENCO'S TIERS OF TRUST**



