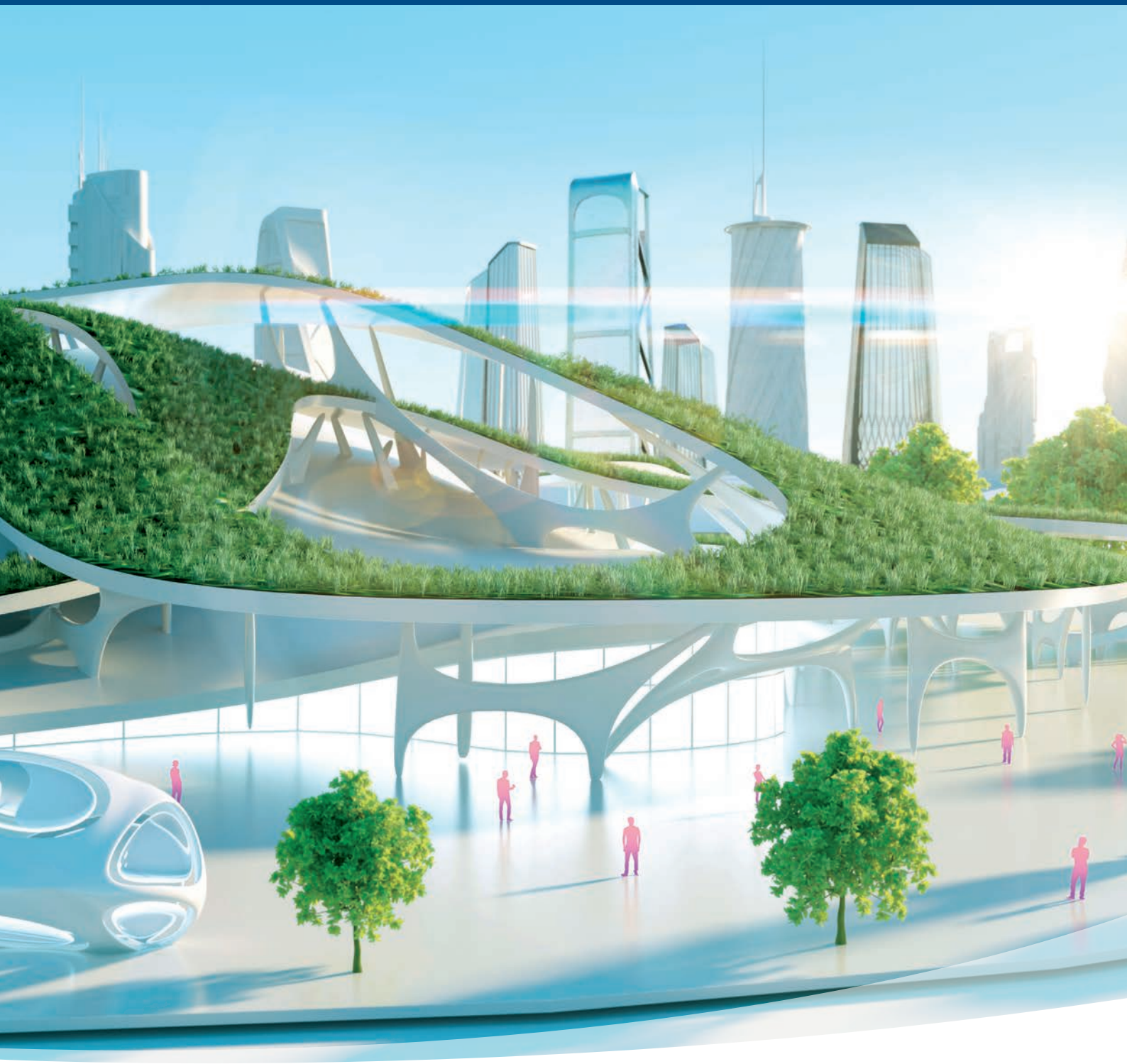
Portfolio Overview

Intelligent and energy-efficient ventilation, heating & cooling solutions



systemair

With 250 engineers, spread across 23 development teams in 18 countries and 15 technology centres on three continents, Systemair is a leader of product development in ventilation, heating and cooling.

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Green Ventilation

At Systemair, we are aware of our responsibility towards the environment. Our main contribution to modern environmental protection is efficient use of energy.
The Green Ventilation symbol identifies intelligent technology in harmony with the environment.

Improving the climate for your business

Systemair's products and solutions create a comfortable and healthy indoor climate in homes, workplaces, public areas and on ships.

OUR BRAND PROMISE

WE PUT OUR CUSTOMER FIRST
We meet our customers' expectations and offer products and solutions based on their needs. From concept to completion, we are at our customers' side.

WE SIMPLIFY
We make our customers' jobs easier by turning complex systems into smart, easy and sustainable solutions.

WE GUIDE
We share our deep knowledge and experience to give our customers advice and guidance. This makes us a trustworthy partner.

Systemair product solutions are

- Innovative and energy efficient
- Simple to choose, install and maintain
- Robust, stable and standardised
- Performance tested, measured and documented in every detail

Systemair products in the community

Systemair helps create a healthy, comfortable, and safe indoor climate in most areas where people spend time daily. We do this in the knowledge that good air quality contributes to a better quality of life. We also do this in an energy-efficient way to contribute to a more sustainable society. Systemair offers a wide range of solutions suitable across all application areas and applications.

Application Area
Industrial

Application
- Food Processing Plants
- Marine, Oil and Gas
- Factories and Production Facilities

Application Area
Hospitality and Entertainment

Application
- Hotels and Resorts
- Pools and Water Parks
- Restaurants
- Kitchens
- Sports and Leisure Facilities
- Concert Halls and Stadiums

Application Area
Healthcare

Application
- Hospitals and Medical Centres
- Pharmaceutical Facilities
- Laboratories

Application Area
Data Centre

Application
- Small- to Large-scale Data Centres
- Server Rooms

Application Area
Residential

Application
- Apartment Buildings
- Homes and Villas

Application Area
Education

Application
- Schools and Nurseries
- Universities and Higher Education Facilities
- Museums and Libraries

Application Area
Commercial

Application
- Office Spaces
- Retail and Showrooms
- Malls and Shopping Centres
- Supermarkets

Application Area
Infrastructure and Transport

Application
- Metro and Railways
- Airports
- Tunnels
- Car Parks
- Cruise Ships

Systemair at your fingertips

Selection tools & plugins making your work easier

Systemair provides a range of powerful selection tools to help you quickly find the right product that meets your specific requirements.
Find them at www.systemair.com or use the scannable code.

With Systemair's free plugins, you can also use our selection tools for air handling units and air distribution products in your own Revit, AutoCAD and MagiCAD design software.

Systemair WEBSHOP

You can now do your shopping from your laptop, tablet or smartphone whether you are at home, in the office or even at the construction site. The Systemair WEBSHOP is at your service and open 24/7.

Find out more at www.systemair.com.

34 000

BIM models available

Systemair delivers geometrical and technical data of the products that is usable in CAD projects. Systemair also offers plugins, which provide customers with additional functions for free.

MEDIA CENTER by Systemair

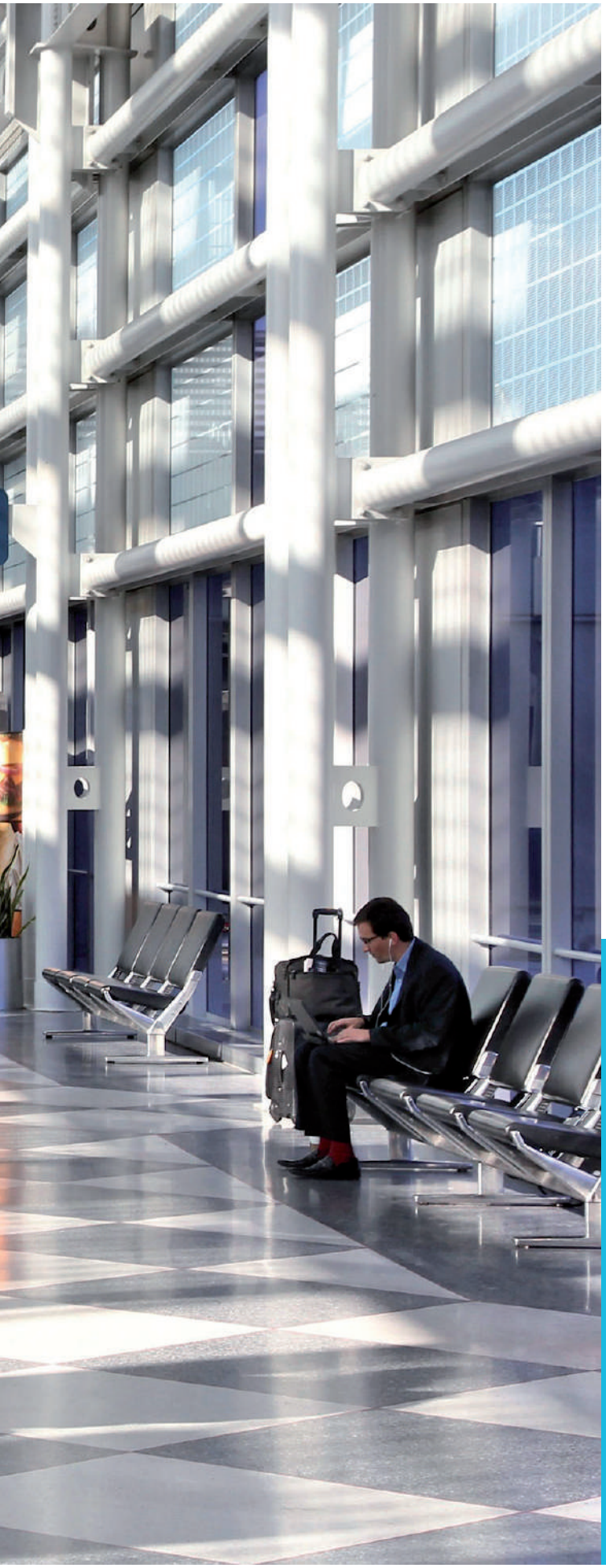
Access all Systemair documents anytime and anywhere on your smartphone, tablet or computer.

Available on the App Store

GET IT ON Google Play

Explore Systemair's wide range of solutions through Virtual and Augmented Reality Apps


UNITED
SFO friendly
Gates B14-B24
Restrooms
B14
B17
B18
THE GREAT AMERICAN
BAGEL
BAKERY
Telephones



Fans

The key to keeping air fresh

Systemair has a wide range of fans for various applications, from residential buildings and small office premises to hospitals and large industrial spaces. All our products have been extensively tested in the laboratory and in the field to comply with current and future demands for low energy consumption. All products are also manufactured in compliance with international environmental requirements.

Systematic testing ensures high-quality performance

Our customers can rest assured that every fan that leaves our factories has been thoroughly tested. The AMCA-certified development centre in Sweden has one of the most modern testing and inspection facilities in Europe. The "quiet room" is a reverberation room with a background noise level of less than 10 dB(A). When measuring diffusers, a green laser light is used to show how the air from wall or ceiling mounted diffusers is distributed in the room. Furthermore, the climate chamber (down to -20°C) is used all year round to test heat recovery units.

On top of doing our own tests, we also work closely with respected testing institutes, universities and other external experts in the field of ventilation and air conditioning.

Air flows up to 30,000 m³/h

Green Ventilation

Circular and rectangular duct fans

A proud tradition of quality and innovation

The Systemair circular duct fan was the first of its kind, revolutionising the world of ventilation when it was first unveiled in 1974.

As the result of continuous improvements, our circular and rectangular duct fans set today's standards in terms of performance, functionality and reliability.

Our circular and rectangular duct fans are used in offices, residential buildings and industrial facilities, wherever there is a need for compact and reliable air supply and extraction systems.

Prio / KVK

Prio Silent XP

Prio

Prio

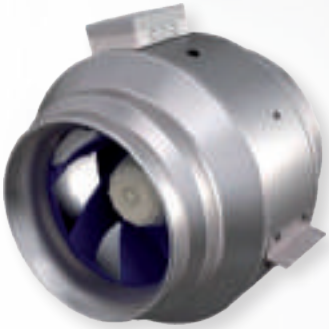
KV Duo

KVK Silent

K / KV / KD / RVK / MUB / RSI

K

KV



KD

RVK

MUB

RSI

Air flows up to 60,000 m³/h

Green Ventilation

Roof fans

Our classics

Robust and durable, Systemair roof fans are available in horizontal or vertical discharge models that provide highly reliable exhaust solutions. Low-noise, explosion-proof and smoke-extraction variants are also available, as well as thermo fans with the motor outside the airstream. Our roof fans with EC motors ensure low operational costs, as its motor saves energy and reduces carbon dioxide emissions.

TFSR

TOE

DHS

TFSK

TFC Red

TFC Black

DVS

Air flows up to 60,000 m³/h

Temperatures up to 200°C

High temperature fans

For kitchens and heavy-duty use

Systemair high temperature fans are the first choice for high air flow and harsh operating conditions. They are the smart choice when requirements are higher than average, such as in extraction from kitchens, process air systems and industrial ovens. Depending on the model, they are suitable for continuous air flow temperatures of up to 200°C.

KBR-EC

KBT

AXZent

DVN

MUB/T-EC

Air flows up to 190,000 m³/h

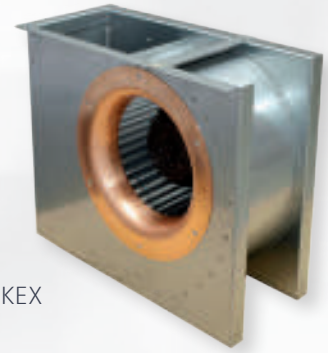
Explosion-proof fans

The safest choice in ventilation

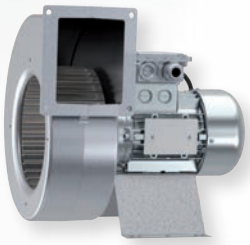
Systemair specialises in the design and manufacturing of explosion-proof (EX) fans. Our EX portfolio is the most extensive on the market, fulfilling the highest requirements for ventilating any area where there is a risk of explosions, such as in chemical labs and industrial facilities that generate combustible dust. Our EX fans are also ideal for ensuring high safety ventilation solutions in the shipping industry.

Each of our EX fan models has been designed from scratch to ensure spark-free operation both electrically and mechanically. We have a long tradition of relying on third-party testing to confirm full compliance with all relevant regulations, including ATEX Directive 2014/35EC. The complete EX range meets the requirements for ignition protection type EX h "constructional safety", EX eb "increased safety" or Ex db "flameproof enclosure". The EX fan portfolio is complemented by a range of suitable accessories that are also fully approved for the EX zone.

DVV-EX



DKEX



EX

PRF EX

AXC-EX Range can now be flexibly designed in the configurator.

AW EX

Choren Industries in Dresden, Germany

Choren Industries is one of the leading suppliers of gasification technologies for solid biomass and carbonaceous residues. Their Beta facility, built in 2007, was the first commercial production facility in the world dedicated to synthetic biofuel.

Our contribution:
In this unique project, the complete range of Systemair's explosion-proof fans was installed in the production facility's compressor hall.

Air flows up to 8,000 m³/h

Plastic fans

The smart choice for dirty or corrosive environments

Where dirt, corrosive gases or other problematic elements occur, fans are exposed to particular challenges. Our plastic fans were specially developed for such applications in the food, electronics and chemical industries. With the help of robust and carefully selected components, plastic fans function reliably in unfavourable conditions and have an impressively long service life.

DVP

PRF

Experimenta in Heilbronn, Germany

Experimenta, a learning and sensory centre, makes science and technology understandable and accessible in four elaborately staged theme worlds.

Our contribution: Systemair supplied fans and ventilation units for various applications, including four PRF plastic fans that are used to ventilate the chemistry labs in the Energy and Environment theme zone.

Air flows up to 210,000 m³/h

Smoke extraction fans & pressure differential systems

Customised solutions for your safety

300°C / 120min 400°C / 120min 600°C / 120min

Modern fire safety ventilation is based on a system approach that integrates smoke extraction fans with pressure differential systems. At Systemair, we are involved in the engineering process for larger projects to design customised solutions that offer high levels of safety and energy efficiency.

Our pressure differential systems pump in fresh air and over pressurise to ensure no smoke can enter the space. When used in combination with smoke extraction fans, the system pushes smoke toward the unit so that they can quickly and efficiently remove it from the building.

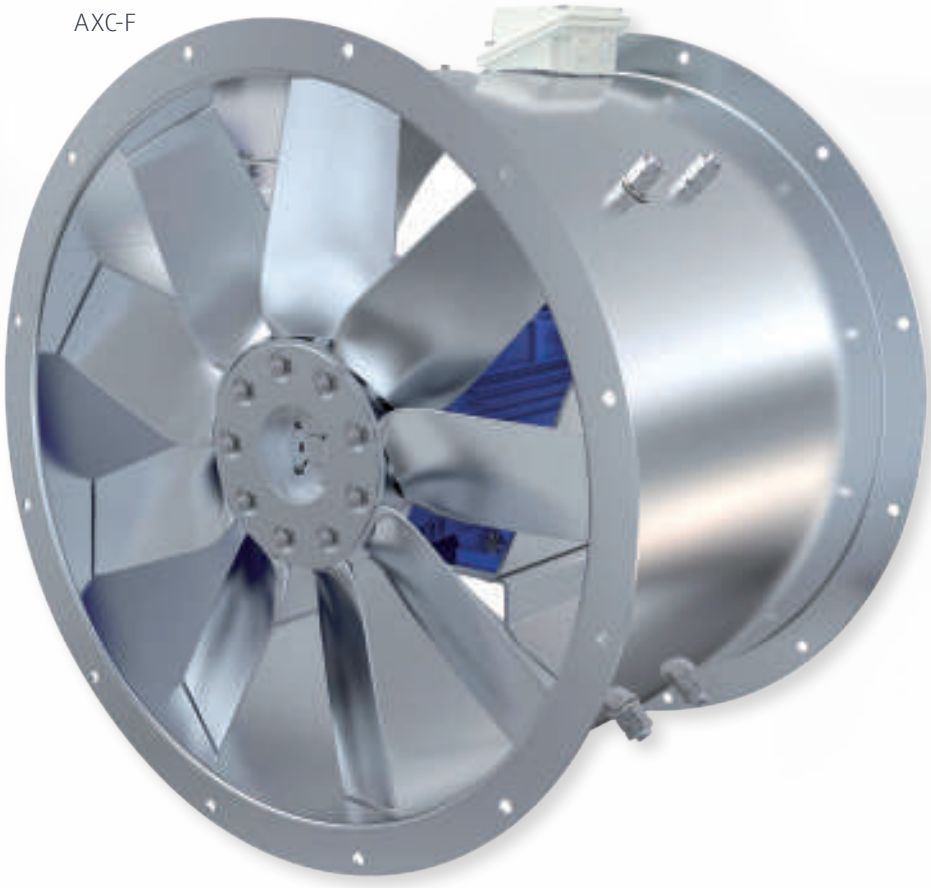
Our unmatched range of smoke extraction fans have all been tested according to the European product and testing standard EN 12101-3.

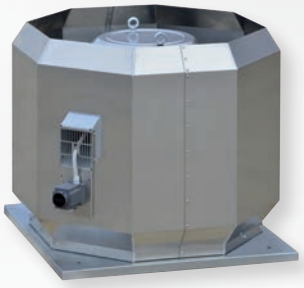
BKF

DVAX

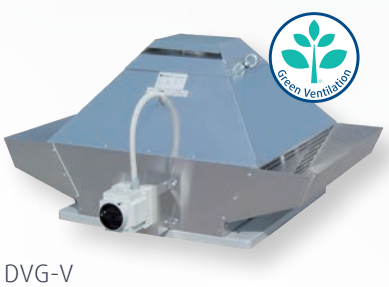
MUB-F

AXC-F





DVV



DVG-V

Air flows up to 500,000 m³/h

Axial fans

The best in the business

No matter how varied your requirements are, the axial fan range at Systemair is certain to meet them. Our axial fans are well suited to a wide range of applications, encompassing everything from large shopping malls to underground car parks to tunnel and metro projects around the world. Safety applications, such as smoke extraction and explosion-proof fans, are also part of our core competencies. The AW Sileo and AR Sileo ranges are suitable for low pressure environments, while the AXC range is intended for medium to high pressure, making it ideal for industrial applications. Our extensive range of accessories make it easy to tailor solutions to individualised needs.

Configurator Software

Access Systemair's simple and easy-to-use configurator software to find the best solution for your project needs.

AR Sileo

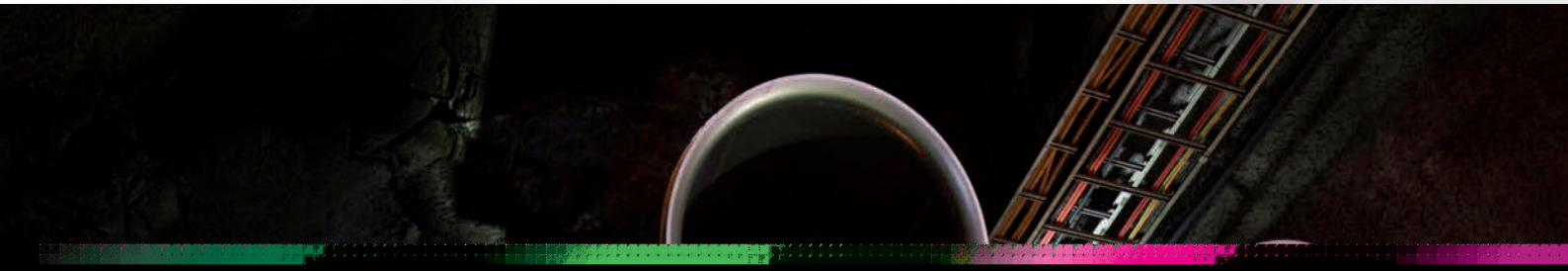
AXCP

AW Sileo

Grosspeter Tower in Basel, Switzerland

Sustainable architecture, 22 floors and 78 metres high, the Grosspeter Tower towers over the city of Basel. Nearly floor-to-ceiling windows create fascinating views, while the photovoltaic system fully integrated into the façade secures the building's energy needs. This very special system makes the Grosspeter Tower a unique building in Europe.

Our contribution: This project includes nearly the complete range of Systemair products: air handling units, AXC fans, fire and smoke dampers with communication modules, Optima communication controller, volumetric flow controllers with optimisers, RDA (pressure differential system) and CPV (car park system).



E39 Byfjord and Mastrafjord tunnels, Norway

The Byfjord and Mastrafjord tunnels are located in southwestern Norway among high mountains and deep fjords on the E39 highway between Trondheim, Norway, and Ålborg, Denmark. When it was opened in 1992, the Byfjordtunnel was the world's longest undersea tunnel at 5875 metres long, with its lowest point at 223 metres below sea level. The Mastrafjord tunnel is slightly smaller at 4424 metres long and 133 metres below sea level. After twenty years of use, a full refurbishment of the tunnels' safety equipment was required.

Our contribution: Systemair delivered a customised solution comprising 88 MoJet AJ1120 fans with 37 kW IE3 motors (stainless steel execution), 88 mounting frames made from stainless steel, 88 specially made isolator switches and 88 automatic lubrication systems.
The customer chose our solutions because we were able to prove that it offered the lowest total cost of ownership (TCO), considering the cost of the initial investment and installation, as well as the annual operation and maintenance costs over a 30-year period.

Air flows up to 540,000 m³/h
Pressure up to 5000 Pa
Thrust up to 2,500 N
Temperature up to 400°C/120 min

Metro & Rail Tunnel (MRT) and road tunnel ventilation

Complete, high-performance systems

Systemair has several decades of experience designing and manufacturing ventilation solutions for all types of road, rail and metro tunnels around the world. Our deep expertise and sophisticated calculation tools enable us to create customised solutions that provide a high level of safety and comfort while simultaneously minimising energy consumption through the use of our specially designed motors, impellers and fan casings. Air volumes up to 150 m^3/s and 5000 Pa are available.

Our tunnel fans prove their worth right from the start during the construction phase of the tunnel project by supplying the site with fresh air. When the tunnel is opened to traffic, the fans transport exhaust gases, dust and heat to the outside, ensuring a clear view and good travel and working conditions for both people and vehicles.

In the event of fire, our tunnel smoke extraction fans save lives by effectively keeping escape and rescue routes free of smoke and heat. They are tested in accordance with EN 12101-3 for temperatures up to 400°C for 120 minutes.

Our research and development centre in Germany plays a key role in continuously advancing our world-leading expertise in this application area.

Thrust 12-100N

Car park jet fans & control systems

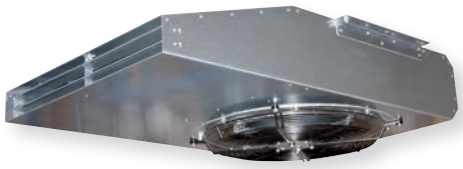
Custom designed, integrated solutions

Our car park jet fans ensure good air quality and maximise fire safety by efficiently removing car exhaust, dust and smoke from underground parking garages.

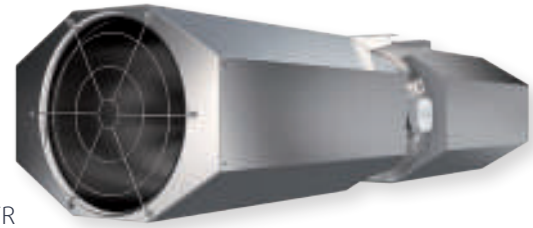
On top of delivering high-quality fans, we also supply main exhaust/supply fans and control systems, and use our engineering expertise to help customers create a tailored solution and integrate it into their projects. During the planning phase, we offer Computational Fluid Dynamics (CFD) simulations to prove that the proposed system design will operate efficiently.

Systemair jet fans are tested in accordance with EN 12101-3 and correspond to the temperature class F300–300°C/120 min, and F400–400°C/120 min.

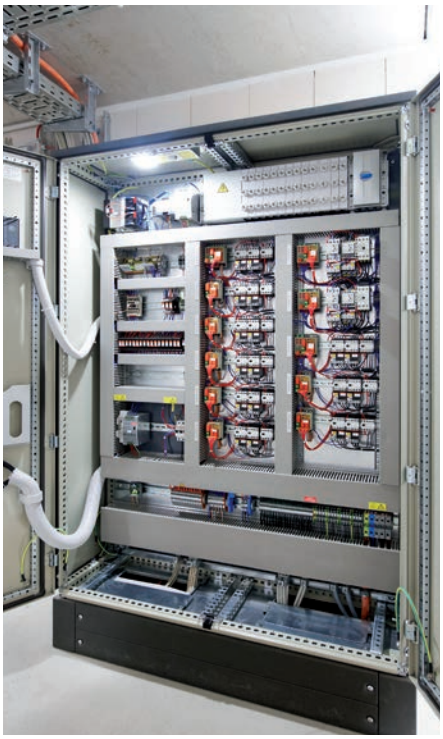
IV Smart



IV



AJ8-TR



The Systemair control system encompasses the fan control for ventilation and smoke extraction in underground car parks.

AJR-TR

Römer in Frankfurt am Main, Germany

The Römer has served as Frankfurt's city hall for more than 600 years and is one of the city's most important landmarks. As part of the structural restoration of the car park below the building, the customer needed a new solution for ventilation and for smoke extraction in the case of fire.

Our contribution: Systemair provided a Computational Fluid Dynamics (CFD) analysis to simulate the air flows in the two-storey car park, after first virtually dividing it into six areas due to its architectural complexity. Based on the results of the CFD simulation, 54 Systemair jet fans were installed in the car park, primarily AJ8 400-2/4 complemented with a smaller number of AXC 630-9 for supply and exhaust air.
All of the fans are equipped with a frequency converter to guarantee minimal energy consumption, low noise performance and material protection.

Air handling units

Air treatment at its best

Systemair's extensive range of air handling units (AHUs) regulate and circulate air in heating, ventilating and air-conditioning systems.

Ventilation accounts for a considerable share of energy consumption, in the form of heating and energy losses as heated air is replaced by cold air. Sustainable products with energy recovery capabilities are becoming increasingly important in reducing energy consumption while creating a healthy indoor climate.

Our range of AHUs includes modular air handling units and compact air handling units, as well as a range of products specially designed for use in residential ventilation applications.

We also offer a complementary range of air distribution products, fire dampers, air cooled and water cooled chillers, close control air conditioning, air conditioning water terminals, rooftop air conditioners, water source heat pumps, air curtains, fan heaters and radiant heaters.

Air flows up to 110,000 m³/h

CERTIFIED HVAC-HYGIENE

Conformity of the Systemair series Geniox and Geniox Go (selected as VDI 6022-1 certified in the SystemairCAD tool) with the hygiene requirements of the VDI 6022 guideline dated 06 July 2020.

SWKI VA 104-01

Modular air handling units

Ultimate in flexibility

In Systemair, we focus on developing energy-efficient air handling units with state of the art technology. Continuous research and development ensure an energy-efficient, flexible air handling unit, both in terms of design and function, while ensuring ease of use and installation.

With a modular air handling unit you have the option of configuring for many different applications. The flexibility of the modular unit makes it possible to optimise the air handling unit for any given project. The modular air handling unit is available in the range 0.2-30 m³/s (750-110,000 m³/h). The models can be constructed as an indoor or an outdoor air handling unit. All units can be produced with fully integrated controls if needed.

The modular air handling unit is dimensioned in the design program SystemairCAD. SystemairCAD makes it possible to combine air handling unit functions as required quickly and easily.

Geniox

The Swedish Pavilion, Expo 2020 in Dubai, UAE

The Systemair Group was proud to be the official sponsor of the Swedish pavilion at Expo 2020, in Dubai (UAE) from 1 October 2021 to 31 March 2022. Systemair and Frico, its daughter company, showcased modern climate solutions that ensured visitors of the pavilion breathe clean air and enjoy the cool climate smartly and sustainably.

Our contribution: Systemair supplied ten of its high-end Geniox AHUs with state-of-the-art control systems, sorption cooling recovery system with special material on the heat recovery wheel, along with fan coil units, one Sysaqua 170 chiller, and one roof fan, DVG EC560. The pavilion features two of the latest generation air curtains from Frico, installed in the shop and the cafeteria.

Full connectivity and control

Access - the control system for Systemair modular and compact air handling units

You are in control

You can monitor and control your air handling unit by navigating the easy and intuitive menu structure with icons on your touchscreen. Thanks to Access NaviPad's user-friendly interface, it is now easier than ever to manage Systemair AHUs.

Systemair Connect

Gather all your air handling units in an easy-to-use cloud service for complete overview and accessibility.

Energy insight at a glance

With the energy insight function, it's easier than ever to monitor energy usage for fans (SFP value) and water heaters as well as recovered energy for heat exchangers.

SYSTEMAIR **Access**

Access NaviPad button

Gives you a visual indication of the status for each connected air handling unit.

Starting page

Important operating data are shown in real time, easy to change with a few clicks.

Full control

You have access to all operating data in real time. Should an error occur you will immediately be notified by an alarm. Press the alarm icon to view the list of active alarms including the alarm history.

Plug'n'play with Geniox and Topvex

Systemair Access comes as standard in Geniox and Topvex air handling units.

SYSTEMAIR
Access

A complete control solution for air handling units, making advanced technology easily accessible – helping you to create the perfect indoor climate.

ATEX air handling units

The ultimate in safety

Our extensive range of explosion-proof (EX) air handling units are designed to meet the requirements of industrial environments containing highly combustible gases, vapours, mists or dust, which have the potential to ignite under certain operating conditions. They are widely used by companies that produce chemicals and oversee offshore platforms and pharmaceuticals, cosmetics, food, refineries, and waste recycling facilities.

All HVAC system components and air handling units operating in environments with a risk of explosion must be specially designed for the task. Our models are tailored to meet the latest international norms and 2014/34/EU ATEX directives outlining the safety requirements for workplaces and equipment used in explosive atmospheres. We also offer a comprehensive range of EX fans and accessories fully approved for use in EX zones.

Marine, Oil & Gas applications

Complete HVAC solutions

Systemair offers a wide range of robust and reliable ventilation, air-conditioning and heating products ideally suited to marine and oil and gas applications, where space restrictions and widely varying weather conditions can present significant challenges. Whether it is air conditioning of cabins on a cruise liner, cargo hold ventilation on a freighter or exhaust air in the engine room of a ferry, our wide product portfolio always ensures the right solution.

Where applicable, we can deliver our products in accordance with the standards of classification societies such as Germanischer Lloyd, Det Norske Veritas, Lloyd's Register of Shipping, Russian Register, American Bureau of Shipping, Bureau Veritas and RINA. These certificates are backed by 40 years of experience and our expert knowledge in comfort and safety ventilation.

Hygiene-certified air handling units

The highest possible hygiene performance

Systemair can offer hygienic air handling units (HAHUs) tested and certified according to relevant European standards (e.g. VDI 6022-1, Eurovent HAHU and DIN 1946-4). Certification of this hygiene application is carried out by independent accredited third-party certification bodies. The standards and guidelines define the specific requirements for a hygienic version of an air handling unit to the smallest detail, from design of the unit until assembly, shipment and maintenance.

Special care is taken on the inner surface materials, arrangements of fans, accessibility of the unit sections, proper drainage of condensate water, seals and gaskets to avoid bacterial growth. Systemair completes it with additional instructions relating to proper use, cleaning and maintaining for a durable and safe installation.

Systemair believes that all AHUs should be #HygienicByDesign. We are of the firm opinion that hygienic measures should be a standard offering in all general ventilation units, instead of only being implemented in units developed for critical healthcare applications.

Virucidal air filters

DELTRI+ filters for air handling units contain an advanced plasma technology capable of neutralising or destroying 99% of all viruses, including SARS-CoV-2.

The treated filter surface activates on contact with the droplets that carry viruses. After the contact time, viruses are inactivated and no longer infectious.

Learn more about this innovative technology

CERTIFIED HVAC-HYGIENE

Conformity of the Systemair series Geniox and Geniox Go (selected as VDI 6022-1 certified in the SystemairCAD tool) with the hygiene requirements of the VDI 6022 guideline dated 06 July 2020.

SYNLAB HYGIENE

SWKI VA 104-01

Healthcare applications

Faster recovery with fresh air

Establishing an optimal indoor climate in hospital buildings has been proven to play a key role in reducing patients' recovery time. Hospitals and other healthcare facilities require reliable, energy-efficient ventilation solutions that take into account the fact that many patients are very ill, have weakened immune systems and/or spend a great deal of their time sitting or lying still. A higher level of air circulation is necessary to meet stringent hygiene requirements that help to prevent the risk of spreading antibiotic-resistant bacteria and other contagious infections. Further, experience has taught us that healthcare facilities benefit significantly from implementing ventilation solutions that provide a high degree of central control, so that staff can focus on caring for patients.

Our wide range of solutions for healthcare applications include:

- Air handling units with hygienic design
- All types of fans for air extraction
- Chillers and heat pumps
- Air distribution products
- Electrical heaters
- Accessories

Air flows up to 10,000 m³/h

Green Ventilation

CERTIFIED HVAC-HYGIENE

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SYNLAB HYGIENE

SWKI VA 104-01

Compact air handling units

Easy, compact and quick!

Our compact air handling units save both energy and time. They are delivered ready to install and connect, which ensures easy commissioning. All components, such as fans, filters, heat exchangers and heating batteries, as well as control systems, are integrated and coordinated with each other.

In this way, you obtain a healthy and pleasant indoor climate in offices, schools, hotels and many other buildings.

Thanks to modern motor technology, these compact air handling units are extremely energy efficient.

Topvex SR60

Topvex TR60

Systemair Access NaviPad

Systemair Access is a complete control solution developed by Systemair for Topvex and Geniox.
See page 27.

Metro headquarters in Paris, France

Metro's headquarters is a large building located in central Paris.

Our contribution: 35 modified Topvex top- and side-connected rotary units and counter flow ceiling units have been installed, floor by floor. The delivery was divided into three and the entire process from modification of the units to installation has been arranged by Systemair, just getting a 17-meter-long truck through central Paris was an exercise in itself. The project's success resulted from the local sales team's close cooperation with the customer and ability to adapt everything according to their needs.

menerga
a systemair company

Air treatment technology for challenging applications

Menerga has developed and produced innovative ventilation and air conditioning systems for extensive fields of application since 1980. The Menerga name is based on a simple guiding philosophy: "Creating a good indoor climate – through Minimal ENERGY Application". Menerga air conditioning systems are individually designed to meet each project's specific requirements from hygiene to industry, precision, data centre, air handling and swimming pool hall dehumidification.

Application area

Pool

The air treatment of swimming pool halls is one of the most demanding tasks in air handling – this is where Menerga has its origins. We not only create an ideal feel-good climate for athletes and wellness enthusiasts but are also focused on protecting buildings from moisture damage by continuously dehumidifying the swimming pool hall air.

Precision

Maintaining a precisely defined indoor climate is essential for sensitive technology, valuable collections and historic buildings. With our highly efficient systems and an intelligent control principle, we can precisely control temperatures and relative humidity - reliably and efficiently. We always ensure precise levels of temperature and humidity control tailored to the application.

Industry

Industrial production and operations require indoor climate solutions that address each sector's particular requirements and guarantee the protection of people and the environment. The conditions can be challenging, specific and complex and robust and reliable facilities engineering is critical to protect the ambient climates at all times, and avoid potentially expensive downtimes.

Data Centre

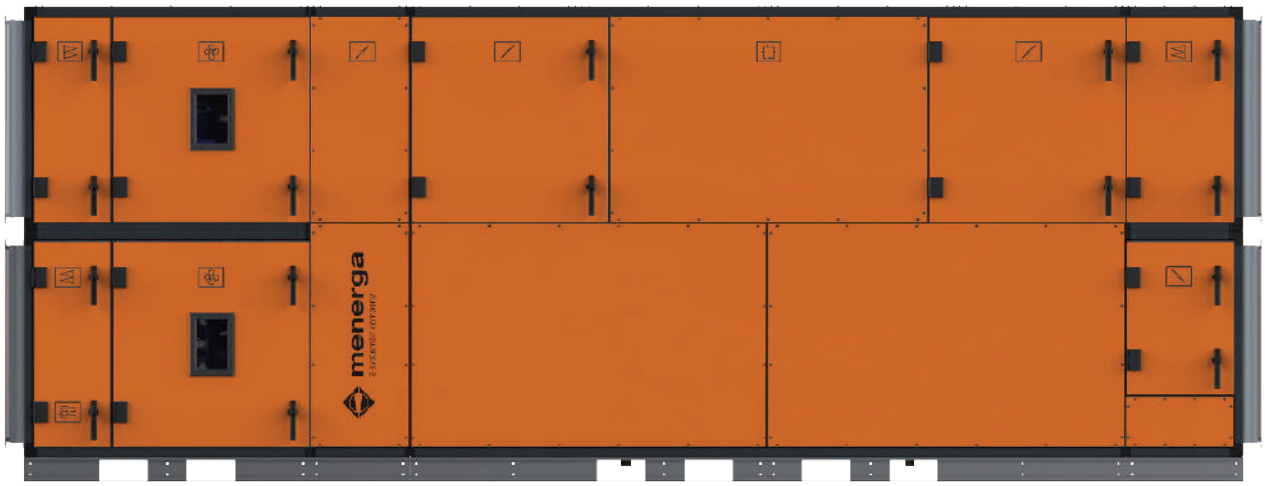
Information and communication technology is a high priority in everyday life. Technological developments such as cloud computing or large data, as well as the increasing spread of mobile devices, have led to very high requirements regarding computer performance. Therefore it is of utmost importance to keep the growing data centre capacities and the resulting energy requirements and CO_2 emissions as low as possible with the help of an efficient cooling system.

Hygiene

Hospital HVAC systems maintain air quality, provide comfortable temperature and humidity conditions, and offer infection-free environments. They also play an essential role in isolating infectious patients, preventing the circulation of airborne pathogens among other patients, medical staff and visitors. Our new casing meets the highest standards of performance and hygiene.

The Next Generation of Efficiency

Our air handling technology has been state of the art for decades. Our new casing meets the highest standards, has a distinctive, practical design and above all: it ensures flexibility and quality. With the next generation of our products and processes, we are taking efficiency in air treatment technology to the next level. Our design configurator makes it possible to respond quickly and reliably to the needs of our customers.



Next Generation

Atoll Achensee in Austria

Area of application:
Ventilation unit for public swimming halls.

Our contribution:
The technical room required units with only one inspection side. Nevertheless, we found a way to enable inspection from only one side, even with the largest unit type of ThermoCond series. Since then, the indoor swimming pool with children's area, slide tower, sports and thermal pools have been dehumidified with maximum heat recovery and low operating costs.

RoofLine units

Solution for decentralised ventilation

Weatherproof roof units with an integrated heat recovery system and air flow range up to 13,000 m^3/h are especially suitable for ventilation of exhibition halls, industrial halls, storage halls, sports halls and other multipurpose halls with heights up to 30 m, where the air supply and exhaust from the high ceiling are acceptable. Specially designed lightweight housing made of saltwater resistant aluminium (AlMg3) enables quick and easy installation on the roof of the building without the need for an additional ventilation duct system. Wall panels are thermally insulated with 50 mm of rock wool.

The unit consists of an external part (DWR) where the heat exchanger, high-efficiency EC plug fans and air filters are located and the internal part (DD) with integrated heating and cooling batteries as well as supply and exhaust air distribution elements. All the components can be managed with an integrated controller.

Data Centre applications

Cooling the ones and zeros

Systemair offers a comprehensive range of products for ventilation and cooling of data centres from concept to completion – even in the most challenging climatic regions.

Close Control units

Our extensive range of Close Control units is suitable for most Data Centre layouts. Direct expansion and chilled water SysTemp units provide low sound levels and energy efficiency.

AMS 3 Data Centers, in Amsterdam, Netherlands

AMS 3 is one of the sites of Switch Data centres, which is located in the financial district of Amsterdam, Netherlands. It is certified as a Tier III data centre and features high reliability, energy efficiency and sustainable solutions.

Our contribution: The facility is air cooled with 64 Systemair IFC DV indirect free-cooling units. Three ventilation units with Access control systems are taking care of data hall overpressure. Thanks to highly efficient indirect evaporative cooling technology - the IFC DV units are 100% free-cooling the data centre all year round without any chiller support. This solution helps achieve significant savings in both operational and capital expenses.

Free-cooling units

With the ever-growing global focus on sustainability, green data centres are no longer a trend, but a must. As a result, modern-day, eco-friendly free cooling technologies are becoming more relevant and needed than ever before. In addition to the extremely low energy consumption, the undeniable advantage of free cooling is the use of exclusively natural processes without the use of harmful substances or chemicals.

Geniox Tera D, a direct free-cooling unit is able to use 100% fresh air for energy and offers the smallest pressure drop that results in smallest pPUE figures.

The Geniox Tera, Systemair's indirect free-cooling units, are designed to meet the high requirements for sustainable cooling, by using outdoor air and the natural cooling effect of the water evaporation process. Considering ASHRAE's regulations for IT equipment, Geniox Tera units are able to provide free cooling all year in most European locations. In hot regions, free cooling can be used in combination with built-in mechanical cooling to ensure the lowest power consumption and minimal environmental impact.

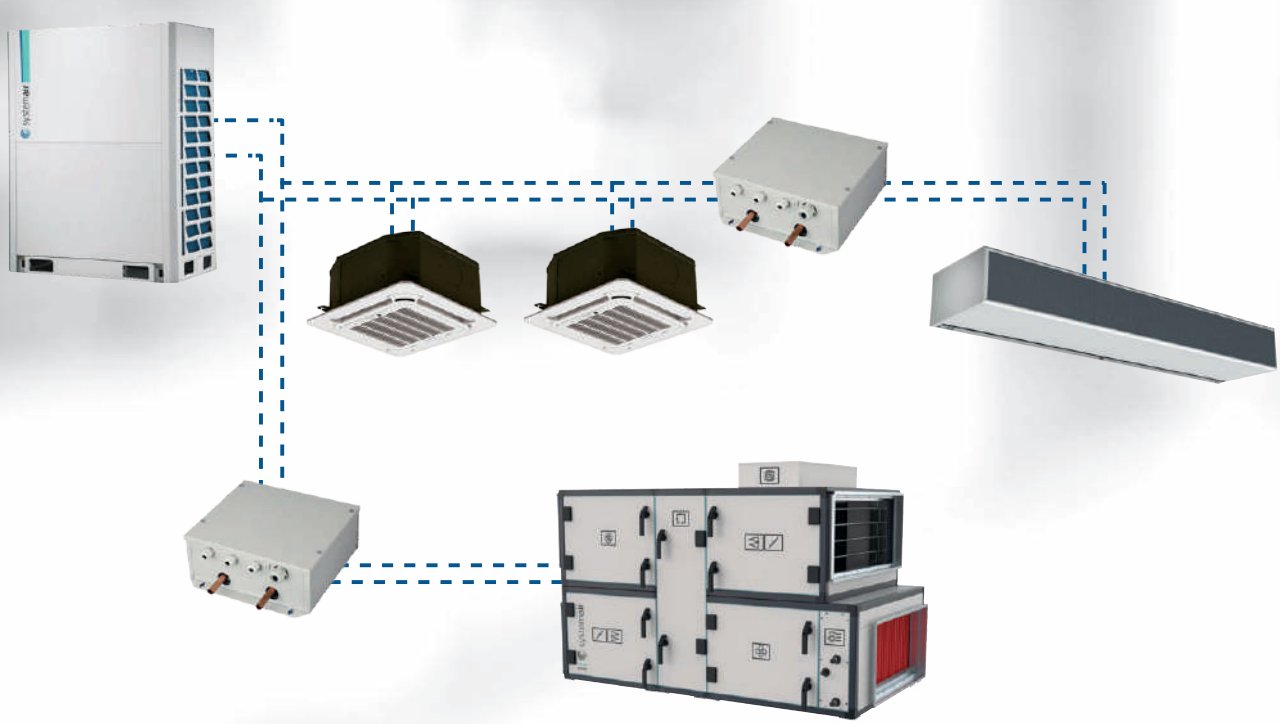
Data centre cooling solutions depend on various factors such as location, SLA, building layout, and application. Systemair technical specialists are available to offer expert advice on the most suitable product and configuration to suit a project's particular needs and provide a detailed performance analysis.

Geniox Tera 100

System & product solutions

Flexible HVAC solutions meeting customer needs

Systemair supplies you with a perfectly harmonised system consisting of an air handling unit and heat pump. Depending on your needs, additional components such a indoor units and air curtains can be integrated. This creates an efficient system that provides comfortable heating in winter, cooling in summer, and quickly adapts to conditions even in seasons with greater temperature changes. With our broad product range, we can offer you the optimal solution for your project as a one-stop shop.



Example installation of VRF system: One SYSVRF2 outdoor unit for cooling/heating, one AHU with AHU-box, two cassette units and one air curtain with AHU box

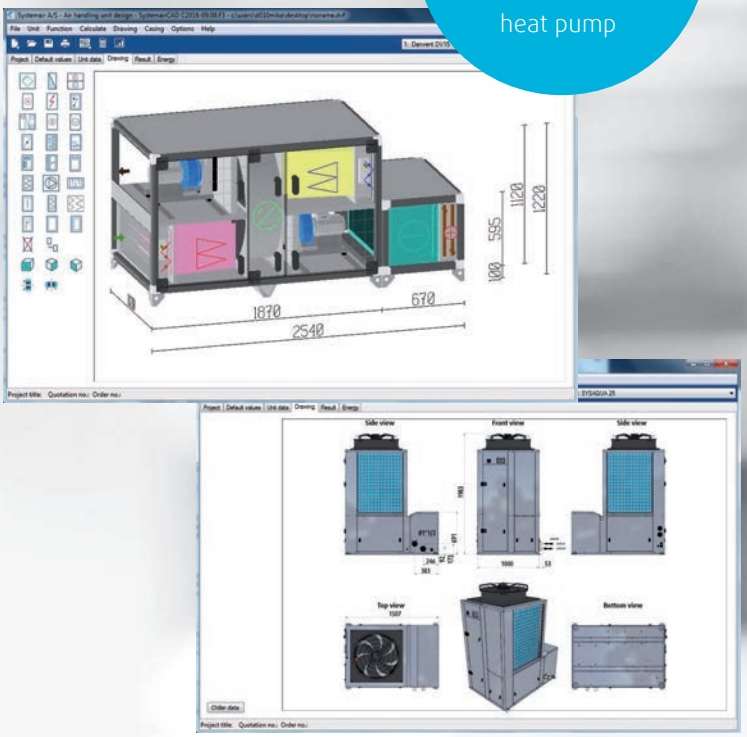
Integrated solutions

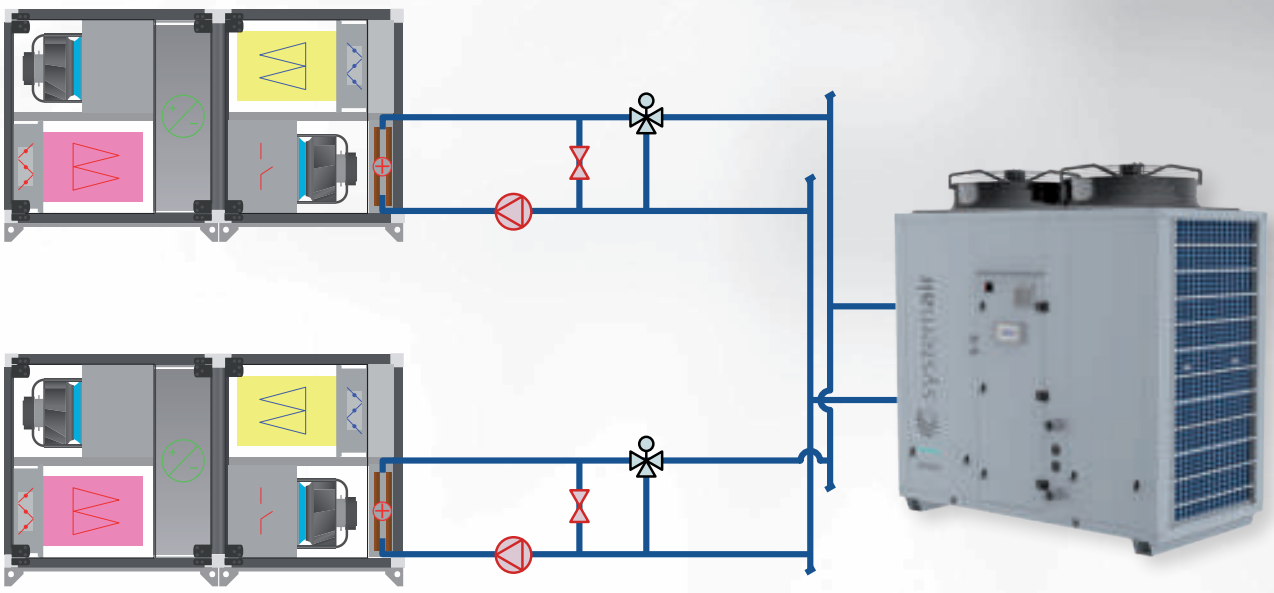
Ventilation & air conditioning in one system

SystemairCAD calculates AHU's in combination with a chiller or heat pump

With the help of SystemairCAD, it's easy to design a solution that combines one or more Geniox air handling units with a chiller or heat pump to create a fully integrated ventilation and air-conditioning system.

When two air handling units (AHUs) are connected, the components ensure optimal output performance of the chiller or heat pump. The diagram below features an extra buffer tank (included in the chiller), which we recommend when several units are connected, in order to reduce the number of starts and stops for the compressor.





Example installation of one AHU master, one AHU slave and one SYSAQUA R32 chiller/heat pump

Air conditioning

Smart and sustainable solutions for human comfort and industrial processes

Systemair's air conditioning products are suitable for a wide variety of applications such as offices, shopping centres, schools, hotels, public transports, data centres, residential buildings, and industrial facilities.

As part of our mission to provide customers with not only a product but a complete solution, our extensive range includes everything from air-cooled and water-cooled chillers and heat pumps to rooftop units, water source heat pumps, water terminals, close control units and direct expansion units.

We also develop products for the future, such as rooftop solutions with high-performance heat recovery systems and more units with low GWP (Global Warming Potential) refrigerants such as R32, R513A and R290.

At Systemair, we want to be a major player in the ecological transition. This serves as the guiding principle of our Research and Development (R&D) departments. Through their innovation and breakthroughs, we offer the most efficient and environmentally friendly solutions on the market.

Chillers and Heat Pumps

Ultimate comfort and high efficiency

Our wide range of chillers and heat pumps uses water as the exchange fluid, offering the perfect combination of comfort and high efficiency. Appropriate for any type of building, these air or water cooled chillers or heat pumps provide cold or hot water to water terminals. They can be complemented with air handling units to ensure perfect indoor air quality. This system is particularly well suited for applications such as hotels, shopping centres, hospitals and office buildings. The air-cooled chiller variant of the system is also a fundamental part of many industrial processes.

One of the most eco-friendly units on the market!

AC CLOUD

Enter the Era of connected units and achieve significant savings!

Systemair is committed to offering more than just reliable products. With this in mind, we created AC Cloud software to ensure our customers can have full control over all the chillers and heat pumps at anytime and from anywhere. The software will also help decrease energy consumption and optimise maintenance interventions.

Water-cooled chillers, heat pumps and condenserless units

Cooling 20-1460 kW
Heating 25-1655 kW

AC SELECT

The online selection software for all your Air Conditioning projects.

acselect.systemair.com

R32 air-cooled chillers
and heat pumps

Cooling 6-175 kW
Heating 6-180 kW

R410A air-cooled chillers,
heat pumps and condensing
units

Cooling 20-900 kW
Heating 20-900 kW

Cooling
295-1395 kW

R513A and R134a air-cooled
chillers (Screw compressors)

Free-cooling modules

Fan coil units, water source heat pumps and rooftops units

A wide range of solutions to meet all your projects requirements

Fan coil units

Ducted

Cooling 0,5-25 kW
Heating 0,6-25 kW

High wall

Floor/Ceiling

Cassette

Water Source Heat Pumps

Cooling 1,5-30 kW
Heating 2,0-38 kW

R407C

Rooftops units

Cooling 50-220 kW
Heating 50-215 kW

Split and VRF systems

High energy efficiency solutions ideal for creating a comfortable and sustainable climate

Split units

Cooling 2,6 - 16 kW
Heating 2,9 - 18 kW

Wide indoor unit choice:
Wall-mounted, Console, Cassette, Floor/Ceiling, Ducted.

VRF units

Cooling 7 - 270 kW
Heating 7 - 270 kW

Many configurations available: Mini, 2-Pipe, 3-Pipe.
Compatible with Systemair AHUs.

Istanbul Airport in Turkey

The airport in Istanbul is the largest infrastructure project in Turkey. It is the largest newly constructed airport in the world.

Our contribution: Systemair was chosen as a supplier thanks to the efficiency, quality and the design of its products. The customer also placed great value on the high-quality standards of its international production and overall trust in the brand. A total of 531 air handling units and more than 5,000 fan coil units were installed in the airport.

Aupark shopping centre in Kosice, Slovakia

Aupark, located in the centre of Kosice, is one of the biggest shopping malls in Slovakia with an area of 34,000 square meters. It has 140 retail stores and 1,100 parking spaces.

Our contribution: Systemair supplied an extensive assortment of duct, roof and axial fans, as well as air curtains, air distribution products and fire dampers.

Air distribution products

The perfect fusion of function and form

Systemair develops, produces and delivers air distribution products, diffusers and air flow control units for private and commercial buildings. These components not only comply with the interior design requirements, but also make their own contribution to a pleasant indoor climate. This is guaranteed by our development lab, which is one of the most modern in Europe. There we measure air volumes, throw, coanda effect, sound level and temperature sequences so we can provide our customers with accurate data.

Diffusers, grilles and air flow control

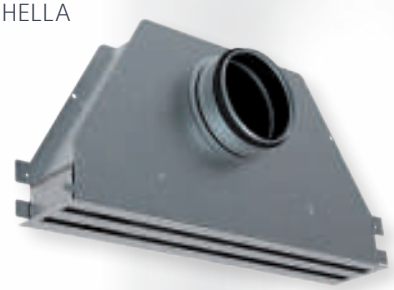
Robust and discrete

Systemair offers a wide selection of air distribution products for all possible environments and positions.

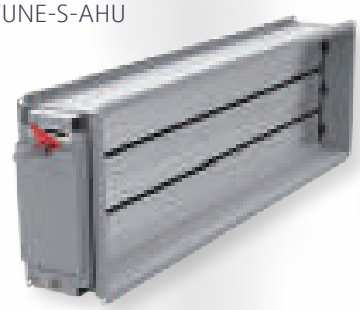
The dampers and control equipment for protection against smoke and fire are certified for use during normal operation and in the event of a fire.

BURE

HELLA



TUNE-S-AHU



OPTIMA-RES-A

OPTIMA-RI-FC

OPTIMA-S-FC

Select with Systemair DESIGN

Easy and precise

The new online tool Systemair DESIGN helps you find suitable air distribution products, fire or smoke dampers in a very easy, and precise way.
Smooth product configuration ensures that you will never forget to include all the required accessories.

Through Systemair DESIGN, technical data and information can be easily viewed, and users have direct access to download BIM models from the MagiCAD Cloud.

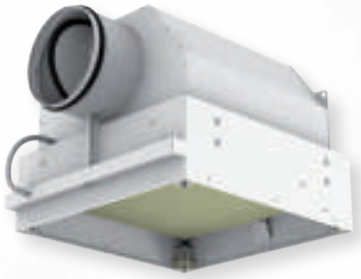
Critical aspects such as indoor air quality and draft risk are assessed on a room level in 3D view, by experiencing the airflow patterns.

Systemair DESIGN is also used to select and utilise products in Revit via plugin. Systemair products can be directly accessed through your Revit project, where you can insert products, export and design rooms, or update already installed products.

CAP-F

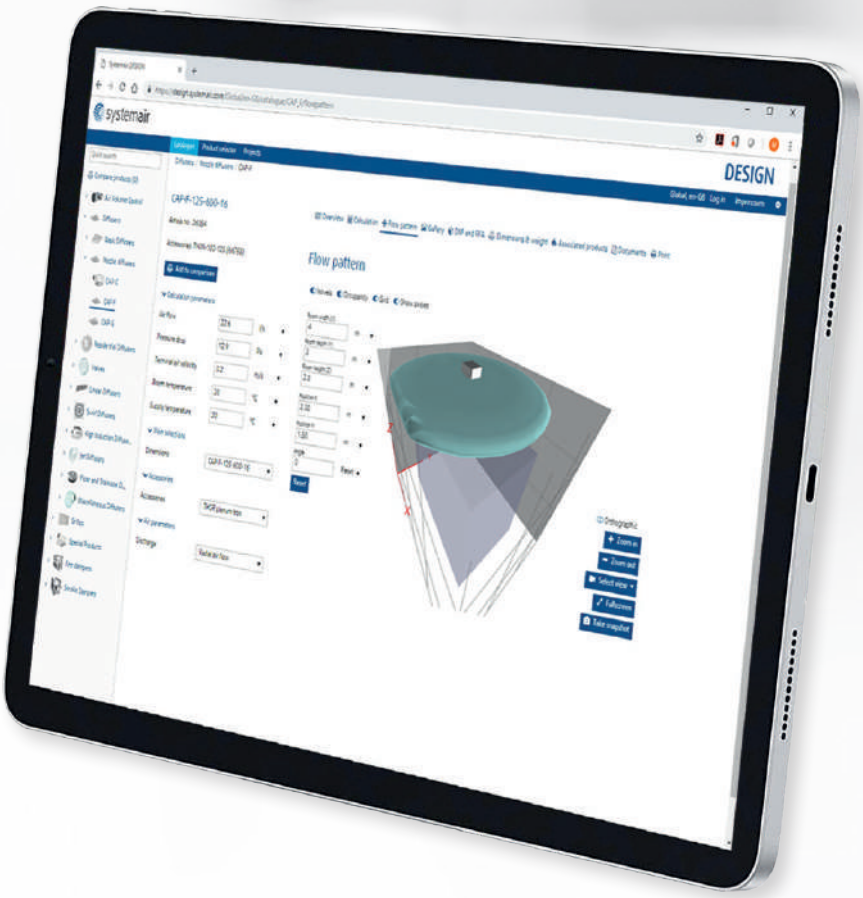
BOR-R

CFC-A



NOVA-RF

ODEN-F



Fire and smoke dampers

Key components of fire safety ventilation

Systemair fire and smoke control dampers are used to minimise the property damage, help with evacuation of occupants and most importantly prevent loss of life by fire or smoke. When penetrating compartments by the duct work of the heating, ventilation, and air conditioning system, the integrity of fire rated walls is sustained by the use of fire and smoke control dampers.

Systemair fire and smoke control dampers are known for their lightweight design, high quality and energy-efficient performance. All Systemair fire and smoke control dampers are CE certified. They are available with a manual actuator, optional accessories, such as micro-switches, electromagnets or a servo-driven actuator and communication control units, as standard.

F-B90

S-BA2

F-R60K

F-R60

F-C2

Example of a complete fire damper controls system

VM-Mountain in Copenhagen, Denmark

VM-Mountain is one of the world's most advanced buildings and the winner of four major international architecture awards. Bjarke Ingels, one of Denmark's most promising architecture talents, was commissioned to design a non-conventional building in Copenhagen with an integrated, multi-storey car park.

He designed a building where the facades face in different directions and apartments are arranged in the shape of mountain terraces, with the required multi-storey car park underneath. All apartments have unobstructed views with terraces and small gardens.

Our contribution: Systemair supplied VM-mountain with MUB fans complete with a control system and all necessary accessories, as well as WVA smoke extraction units and the K range of duct fans.

Residential ventilation

Top-quality air and great indoor climate

Systemair's heat recovery ventilation units are ideal for homes, small offices and similar premises. They offer a high level of comfort both in terms of heating and clean air supply, along with significant energy savings. All units are operated via a modern control system that makes it easy to check their status at any time. Further, the sleek and discreet range of controls, supply grilles, exhaust grilles and other accessories blends in perfectly wherever they are installed.

The rotary or counter flow heat exchangers in every product ensure high operational efficiency in all conditions, fulfilling market demands for low energy consumption and sound levels. State-of-the-art EC technology contributes to energy efficiency and a low Specific Fan Power (SFP) factor, enabling us to meet ErP requirements. Technical performance is certified by Eurovent, an independent, third-party certification programme.

We not only offer standalone products but also system solutions. Working in harmony like a perfectly coordinated organism – ventilation systems from Systemair can be configured individually for each house and tailored to every requirement. Because every organism is unique in its own way, the ventilation ducts work like veins, distributing and transporting air. Correct installation and appropriate use are critical to enable proper circulation of air with no problems.
Our global design team can help with system design including the unit as well as ducts, attenuators, supply and exhaust devices. The design is developed with the aim of achieving great indoor air quality, high efficiency, and low energy consumption.

SAVE TOUCH

Advanced touch screen controller with intuitive and simple control interface. Simple unit configuration using Start Up Wizard, provides an option to monitor and control all unit parameters and offers an overview of alarm and data history.

SAVE LIGHT

Simple control panel for basic control functionality, providing an option to reset filter timer and alarm indication.

SAVE Control System

Simplified connection, configuration and control

The SAVE control system is the common platform for all SAVE models.

The Connection Board simplifies installation of external devices such as, heating/cooling equipment, cooker-hoods, sensors for Indoor Air Quality control, smoke or fire sensors for safety. We have you covered for all cases!

The SAVE control system offers a variety of different control interfaces to fit the needs of every customer. A combination of up to 10 control panels can be used at one time.

The panels can also be used in combination with one another. The SAVE TOUCH control panel includes advanced control functions and the SAVE LIGHT offers basic control functions. SAVE CONNECT enables both remote control and monitoring of the SAVE unit and provides the option for easier configuration by uploading configuration files stored in it or in your mobile device.

Mobile APP

The SAVE CONNECT mobile application offers full unit control and remote configuration functionality. The app completely eliminates the need for additional control panels, and offers a possibility for remote service and control of the unit.

Store configuration

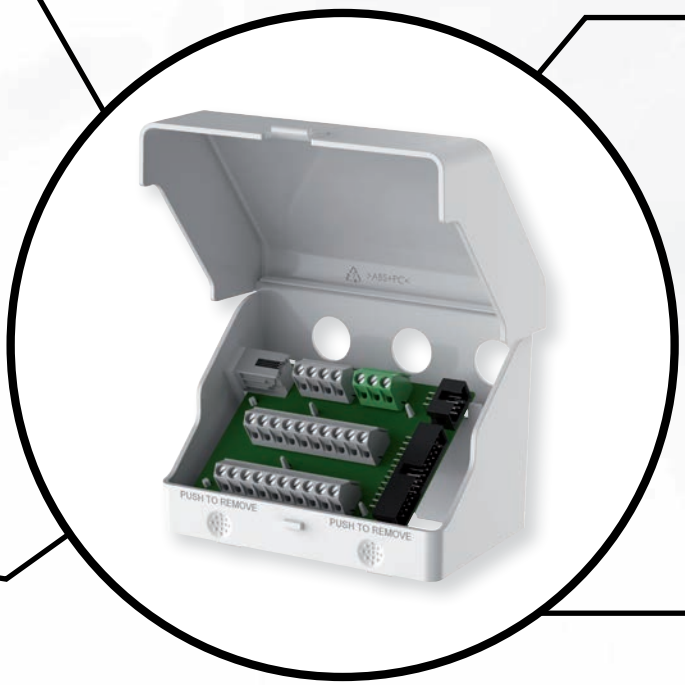
Store the configuration file in the SAVE CONNECT module, copy it to one or more units for faster installation - no Internet connection required.

Modbus TCP gateway

Internet Access Module as Modbus TCP over TCP/IP gateway.

SAVE CONNECT

A solution enabling the customer to remotely control the SAVE unit, manage unit configuration or integrate to BMS systems with Modbus TCP.



Connectors for external components

Connectors for external components (temperature, air flow control, safety, IAQ sensor, etc.) on the control units are clearly marked and grouped together to reduce installation and startup time.

Air curtains and heating

Energy-efficient solutions for a comfortable indoor climate

It makes sound economic sense to install air curtains in entrances as they create an invisible barrier, separating different temperature zones. Our air curtains provide the most efficient separation with the lowest possible energy consumption, regardless of whether it is the heat or cold that you want to keep inside.

In addition to air curtains, Frico's product range also include heating applications such as radiant heaters and fan heaters, which are designed to ensure that heat is distributed optimally in the premises.

Our radiant heaters imitate the sun, only emitting heat when the rays hit a surface, so that the room temperature can be lowered without its occupants becoming cold.

Our fan heaters are reliable and the investment cost is low compared to other heating systems. One of their greatest advantages is the option of using these products to combine heating and ventilation.

FRICO

Frico, a member of Systemair group, is the market leader in air curtains and heating products in Europe. Frico is represented via subsidiaries or distributors in 70 countries. The brand represents 85 years of accumulated experience in developing products that offer customers a comfortable indoor climate. Frico offers a comprehensive solution consisting of airborne products for heating and energy saving.

Air curtains

The invisible door

Air curtains create an invisible barrier in an open entry or passage areas, separating different temperature zones from each other without blocking the access of people or vehicles. They reduce energy loss and create a pleasant indoor climate. They are equally helpful in situations where you need to prevent the escape of cold air or entry of dust, exhaust gases or insects.

Frico Thermozone technology has enabled us to develop a line of air curtains in which performance, sound level and the orientation of air flow are all fully optimised. The products were developed in close cooperation with leading architects and product designers, leading to their modern and aesthetically pleasing design. Our wide range of air curtains include systems with or without heating, suitable for openings in any area – from a passenger doorway to an aircraft hangar entrance. Special applications for cold rooms and freezers are also available.

Most of our air curtains are supplemented with the intelligent control system FC, which can be customised to suit your specific needs. Smart and automatic features enable simple setup and operation, allowing you to optimise your comfort with minimum effort.

PAECS

Arden

AGI6000

Pamir (horizontal)

Sierra

Pamir (vertical)

Lotte World Tower in Seoul, South Korea

The inspiration for the interior is taken from traditional Korean art forms and the elegant tapered shape of the exterior makes a beautiful monument in the city skyline. Lotte World Tower is located in the large Lotte World complex which includes the world's largest amusement park. The skyscraper will contain shops, offices, apartments and a luxury hotel. The top floors are for the general public with viewing stations and a roof top cafe.

Our contribution: There are 75 air curtains from Frico installed in Lotte World Tower, the models are PA2220CE10 and PA2520E16. During construction great environmental responsibility has been undertaken with the use of solar panels and wind turbines. The air curtains are a part of the deliberate environmental plan. The air curtains are located at the entrances to protect the indoor climate and contribute to a comfortable and energy efficient solution.

Fan heaters

Powerful and silent

Fan heaters are used in a wide variety of applications including storage rooms, sport venues, shops, drying rooms, stables and boats. The investment for fan heaters is relatively low in comparison to other heating systems.

Our fan heaters are known for their extremely compact and light design. They are portable and easy to mount on a wall. Nevertheless, they meet the highest requirements even under harsh conditions like corrosive environments and EX-proof applications. Our fan heaters are both quiet and powerful and are available with electrical, hot-water or DX heating and cooling.

Elektra

SWH

Panther

Tiger

LSN Spitsbergen AS in Longyearbyen, Norway

LSN Spitsbergen AS is a construction contractor with vast experience in Polar Region projects.

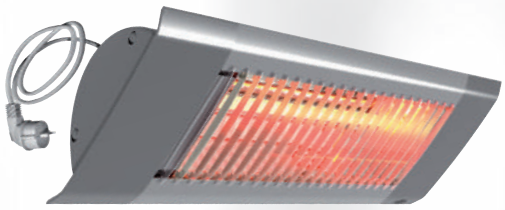
Our contribution: The company's work facilities in Longyearbyen are equipped with Frico water-heated fan heaters Model SWH12, in conjunction with SIRe Advanced regulation. The equipment has been installed by Kverneland Electrical Group and is connected to a monitoring system, optimising comfort and energy savings, whether it is hot or cold, whilst maintaining the supply of fresh air. Longyearbyen required solutions that would address major challenges in terms of providing comfortable temperatures in working environments. The most common use of transport are snowmobiles for both locals and tourists, which explains why there are more snowmobiles on the island than residents.

Radiant heaters

Heat like the sun

Our radiant heaters imitate the sun – the heat only develops once the rays encounter a surface. The people present will be warmed before the air heats up. As such, the temperature can be lowered without compromising on comfort.

Heat radiation systems make spot and surface heating possible. Large spaces can be divided into smaller areas and heated differently, depending on needs. According to this principle, even a single workspace can be heated. This means that energy is saved while increasing comfort. Thanks to their discreet design, our radiant heaters provide heat without being noticed. Easy to integrate in any facility, they don't cause any air movement and because they can be mounted in the ceiling, wall space is kept free.



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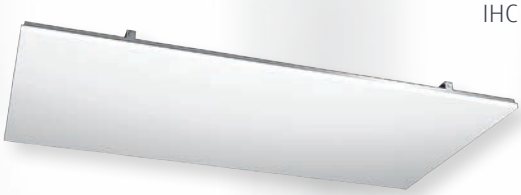
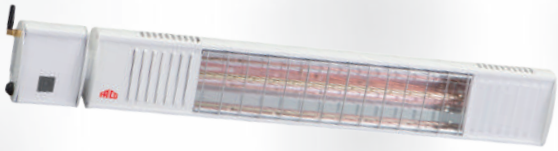
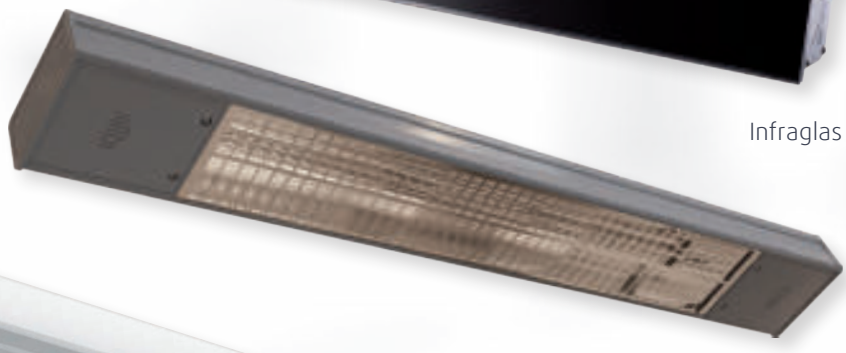


Thermocassette HP

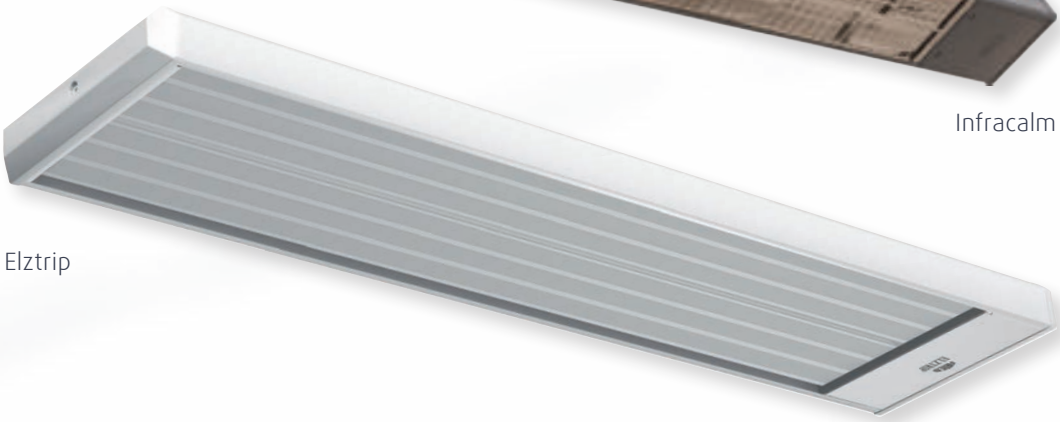


Infrasmart

Infraglas



Infracalm

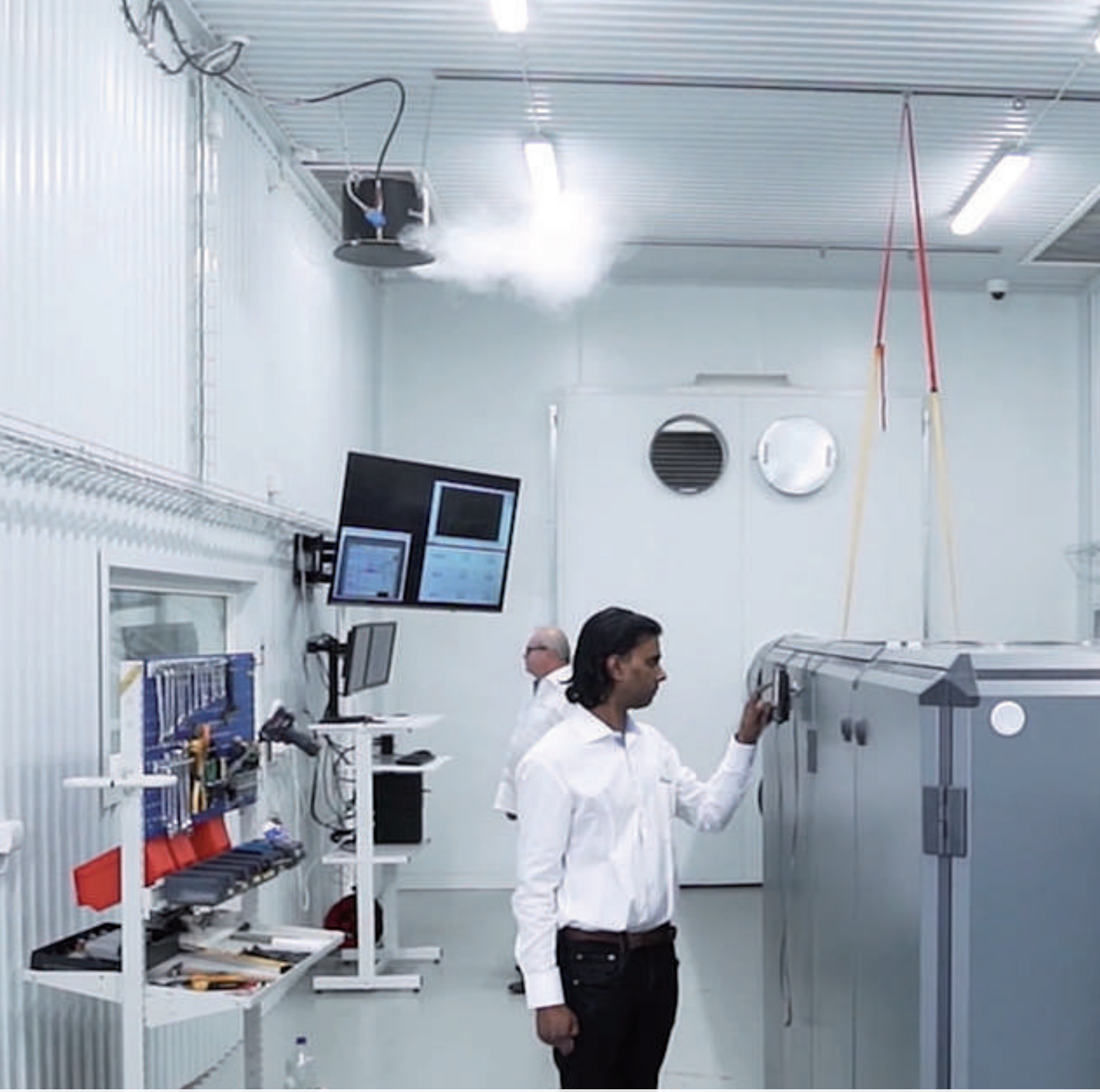


Elztrip

Hotel Avalon in Gothenburg, Sweden

Hotel Avalon, located in the centre of Gothenburg, is a four-star hotel with 101 rooms. During the summer months they open their large outdoor terrace with seating for 180 guests. However, the Nordic climate have some chilly summer nights, so the hotel wanted to find an outdoor heating solution that would fit into its sleek and stylish environment.

Our contribution: Since a large part of the terrace is exposed, compact and stylish IH infrared heaters have been installed along the walls to provide evening heat. They have high-intensity halogen bulbs and polished reflectors that provide heat even in open areas.



Research & Development

Innovation is in our DNA. Our strong focus on Research & Development paves the way for the most energy-efficient, sustainable, and user-friendly products that accommodate the highest indoor air quality levels, evolving environmental standards, technological trends, and customer needs.

Systemair's collaboration with the higher education sector enables us to quickly integrate new research discoveries into our operation. Products are developed keeping in mind the latest academic findings and customer feedback. Systemair works systematically on standardising its procedures to make it easier to share and integrate research results – whether originating in New Delhi in India, Kansas City in the USA or Skinnskatteberg in Sweden.

Our process and facilities are compliant with ISO 9001, and the development centre in Skinnskatteberg is one of Europe's most modern facilities for measuring air flow,

Systemair has today 23 development teams at 15 technology centres in 18 countries on three continents. We employ more than 250 engineers in product development all over the world, with a common technology platform, shared database and the same processes and project management tools.

sound levels, pressure and energy consumption. The products undergo rigorous performance tests to ensure their efficiency in the final development phase. These parameters are evaluated and documented in precise detail to provide customers with data that reflect actual conditions, which will help with their decision making.

Systemair can guarantee that all our quoted catalogue data is accurate through this process. Precision testing has been essential to Systemair's success, ensuring our customers that our products operate as promised. Systemair operates test facilities accredited by the Air Movement and Control Association (AMCA).

Meeting rigorous environmental and energy-efficiency demands

An important driving force in the ventilation sector is the emergence of increasingly strict environmental classification systems, including BREEAM, LEED© and Miljöbyggnad (Environmental Building). A common factor among these systems is that they stipulate how much energy new buildings are permitted to consume. This often leads to higher-density building, which, in turn, makes the requirements for effective ventilation more important. The demands for low energy consumption are also creating a greater need for demand-led ventilation and integrated building management systems. Systemair is at the forefront of this trend, offering a wide range of products capable of meeting even the most rigorous environmental and energy-efficiency demands.

Systemair worldwide

Always close to you!

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systemair

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