

# Geniox

The next generation of air handling units





Reference: VIA University College, Aarhus



# Sometimes things just click

That was what happened when we created Geniox – the next generation of air handling units with a number of innovative features. It comes with our outstanding selection software and a new high performance casing system that makes Geniox extremely scalable. In other words, it is easier than ever to customize the best possible ventilation solution for your requirements. Easier for the engineer, easier for the installer, easier for the facility manager and easier for you. Geniox simply is the smartest, easiest way to superior Indoor Air Quality. That is why we are confident that **You will click too.**



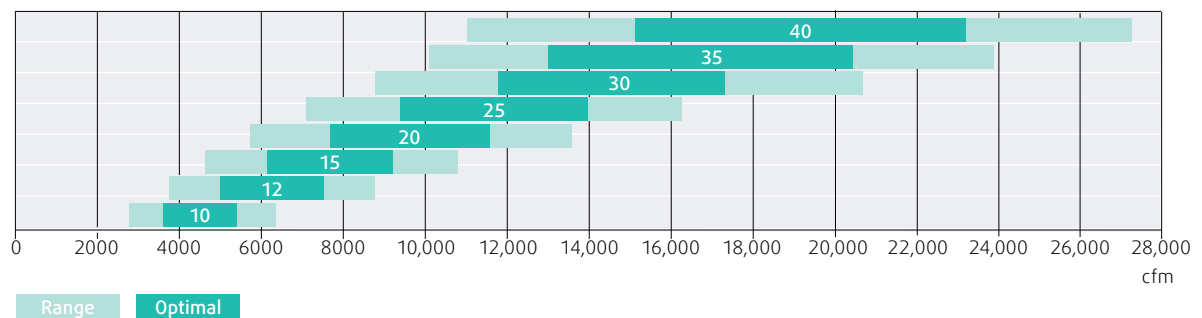
Geniox, designed for intelligent ventilation



Geniox offers a wide range of functions to make up the heart of any ventilation system. The air handling units offer an energy efficient ventilation solution for commercial, institutional and light industrial applications. The Geniox family can handle airflows from 2,700 to 27,000 cfm. This level of flexibility means that we can offer an optimized solution regardless of your project or industry.

We can configure Geniox for you in our SystemairCLICK design program. Or, you can try it yourself by accessing it online on our website. In SystemairCLICK, you can optimize the air handling unit to your needs and to the lowest possible energy consumption.

### Geniox airflows



## Geniox, easy choice

Solutions for comfort ventilation, retail, healthcare, commercial, educational and light industrial applications

Regardless of your industry, Systemair can deliver a product according to the most stringent demands. We offer flexibility in material, design and functions. To choose your optimal solution, consider the air density, stability, filter installation and thermal bridge freedom. These mechanical aspects are decisive factors.

Systemair offers all types of air handling units from small one piece compact units to flexible modular solutions. The flexible design and a wealth of functions and scalability mean that we can produce Geniox precisely to your needs. The possibilities are endless. Geniox provides an integrated, smart ventilation solution where

innovation, energy saving, noise reduction and sustainability are key. Whether for a hotel, office, school, shopping center, clinic or light industrial, we can offer you an easy solution.



### Commercial

#### Optimal indoor climate for commercial construction

Commercial spaces offer an exciting challenge to the building owner and consultant. Geniox offers the most efficient solution for optimizing energy consumption when the space is sparsely occupied. Our intelligent factory supplied controls and solutions that monitor, control and react to dynamically changing occupancy and can prioritize energy efficiency or minimize ventilation rates. Geniox can be equipped with a vast array of heating and cooling options that give the owner and consultant traditional and modern climate control solutions. Geniox can be applied anywhere from minor premises to apartments, retail stores and multifunctional business complexes.



### Education

#### Best in class performance

When designing an HVAC system for an educational facility, many factors must be considered. One constant is that utility bills reduce spending that could otherwise be used to maintain the facility or even improve the educational program. With variable speed EC fans, integral energy recovery, and factory ready full economizer, for use in a central system or a Dedicated Outdoor Air System (DOAS) AHU, Geniox ticks all the right boxes. When you combine VRF and Geniox, you now have the most energy efficient refrigeration system on the market. Geniox provides a healthy teaching environment, while saving energy and protecting the environment at the same time.



## Healthcare

### For a healthy indoor climate

Air cleanliness is important for healthcare facilities and Systemair can offer you a healthy solution with Geniox. Select from MERV 13 pleated or MERV 14 bag filters to control filtration and provide healthier environments for dental, family doctor, chiropractic and other medical clinics. Ensure exhaust air does not mix with fresh air with our two core energy recovery options. Or if energy savings is your priority but you need to ensure VOC's leave the building our 4 angstrom energy recovery wheel ensures that only water molecules are transferred to the incoming fresh air. Additionally, we provide a solution with low energy consumption, central control and easy maintenance.



## Office

### Your home away from home

Comfort, convenience, and construction are the critical factors when evaluating your HVAC solution for office spaces. Office buildings require good ventilation during the day, and depending on location, heat recovery and reheating of supply air. Geniox with demand control ventilation is a perfect choice for varying staffing levels. The modular construction allows for easy integration, elevator loading and installation of the central system to your office building. Select from indoor or outdoor models and multiple casing sizes to configure the best solution for your office building zones. Geniox is also designed to ensure low noise levels for better comfort and productivity.



## Industrial

### Guaranteed productivity

Even a small disturbance in industrial production may incur high costs. Geniox air handling units offer reliability in all conditions and are easy to maintain. Whether you require very high or low temperatures, Geniox light Industrial air handling units can be customized to your needs.



## Geniox, innovative features



**Casing.** High performance casing for minimal energy loss.

- Thermal break casing design
- Double wall sandwich panel with 2.4" R-14 injected foam insulation
- Minimized air leakage rate with a complex gasket design ( $< 1\%$  @  $\pm 8"$  w.g. ASHRAE 111 SMACNA Class 6)
- $< L/240$  @  $\pm 8$  in. w.g. panel and door deflection

**Panels.** Elimination of thermal bridges due to separation between inner skin and outer skin with a plastic gasket on the edges and removing metal-to-metal contact.

**Frame/profiles.**

- High corrosion resistance
- External powder coated, galvanized steel profiles
- Internal aluzink



**Corners.** Designed of ABS thermoplastic polymer ensures minimal thermal bridging.



**Handles and hinges.** Practical lockable handles and hinges make it possible to disassemble all doors and provide a space-saving solution that is easy to service.

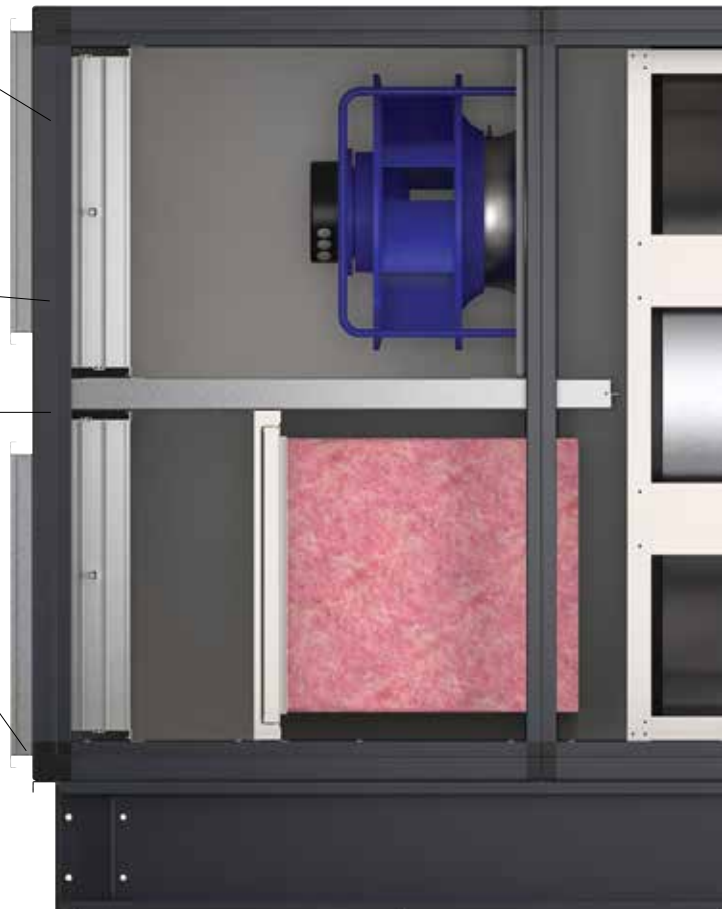


**Service windows.** The windows have been designed exclusively for Systemair and provide a large area for easy inspection.

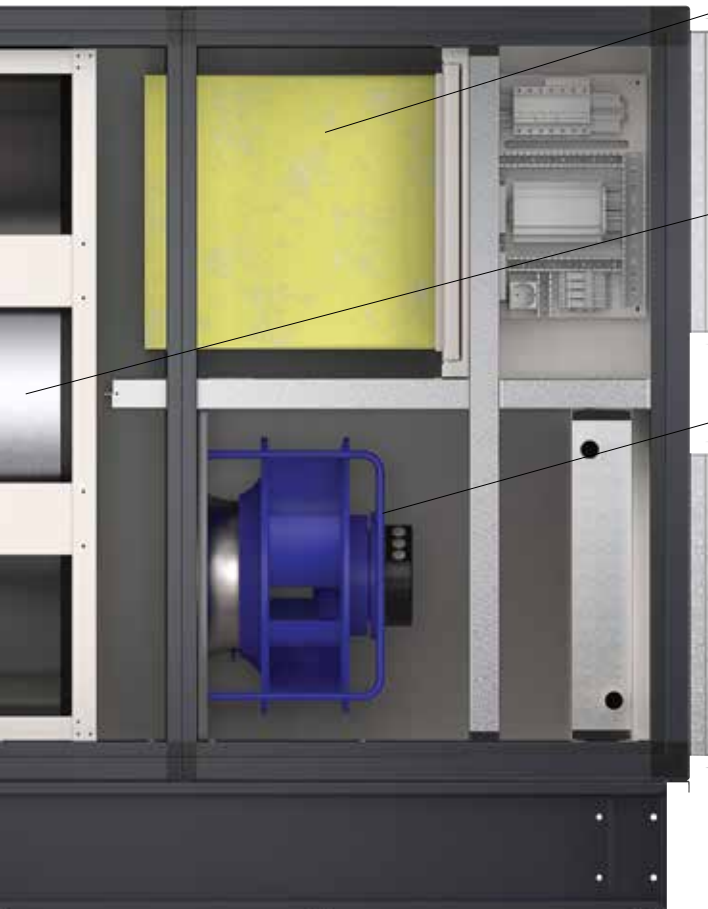
**Diamond Plate Floor.** Aluminum tread plate ensures safety against slips and sturdy construction for withstanding weight and corrosion.

**Outdoor Base Frame.** Roof curb offers a 12" perimeter rail that is a G90 galvanized steel tube, which hugs the perimeter of the Geniox unit, providing water protection.

**Factory Installed Roof.** Double sloped, A-Frame design. Rain shield protection and support for snow loading.







**Filters.** Compact bag filters, Merv9-Merv14, ensure a low initial differential pressure. Panel Filters, Merv8-Merv13, are also available.



**Energy recovery.** High quality and energy efficient exchangers are available: 3A Wheel (Sensible, Enthalpy) and Plate Exchanger (Sensible, Enthalpy).



**Fan/motor.** Various types of fans ensure your selection of the most energy-efficient system: EC motor, AC motor, or fan arrays.



**Dampers.** Aerodynamically profiled blades and best in class low leakage. Tightness class 1A (AMCA 500-D).



**Control system.** Fully tested preconfigured control. BMS communication configured via control panel; BACnet MS/TP. Geniox can be delivered without control system or installed with your 3rd party controls.

**Transportation.** Casing design and standard packaging allows for easy transportation.

**Service and maintenance.** All panels, doors and openings have easy access for cleaning and service.

**VRF Integration.** Custom factory installed VRF will make integration simple and easy.

# Control system

## Fully tested control system

Geniox can be supplied with a pre-assembled and fully tested control system. The factory provided Distech Controls package is a user-friendly system, where functions and parameters are selected from the external control panel.

## Important data continuously displayed

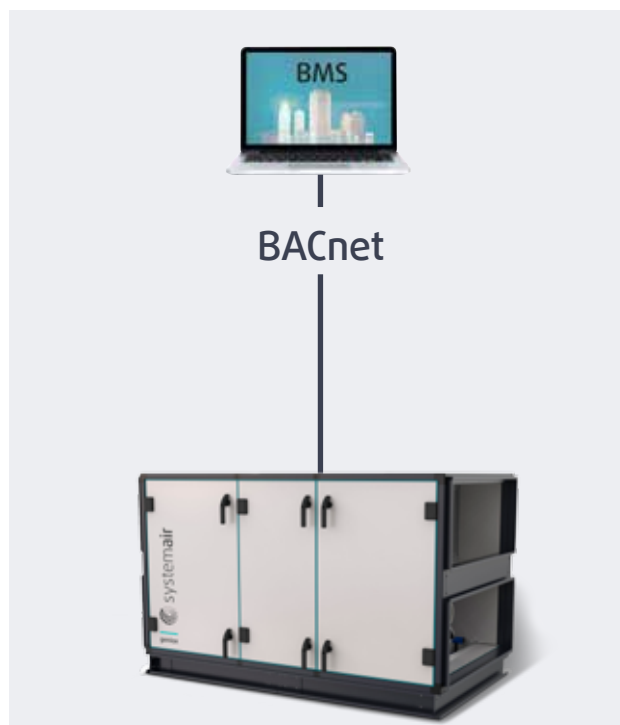
The most important operating data are continuously displayed on the control panel display, including alarms, operating values, operating status and time settings. Commissioning is simplified, as the control system is preloaded with temperatures, time settings and control sequences. The settings can easily be changed if desired.

## BMS communication

- BMS communication is configured via the control panel
- BACnet – MSTP

## Distech Controls

Distech Controls' line of BACnet controllers delivers superior native BACnet connectivity and functionality. Designed for ease of use, our ECB Series of BACnet controllers are BTL listed and offer feature-rich hardware and software toolsets that help increase productivity and reduce installation costs.



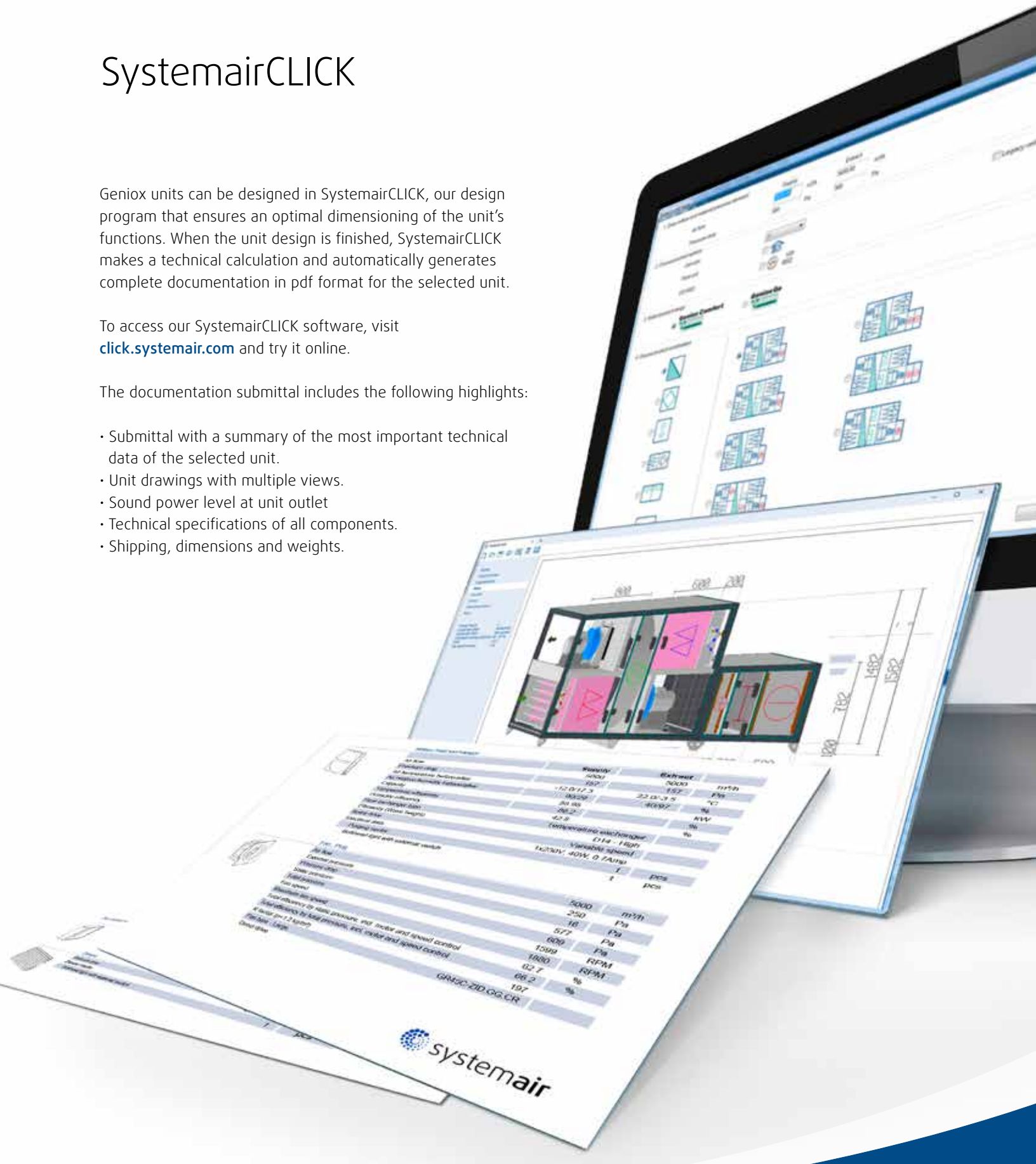
# SystemairCLICK

Geniox units can be designed in SystemairCLICK, our design program that ensures an optimal dimensioning of the unit's functions. When the unit design is finished, SystemairCLICK makes a technical calculation and automatically generates complete documentation in pdf format for the selected unit.

To access our SystemairCLICK software, visit [click.systemair.com](http://click.systemair.com) and try it online.

The documentation submittal includes the following highlights:

- Submittal with a summary of the most important technical data of the selected unit.
- Unit drawings with multiple views.
- Sound power level at unit outlet
- Technical specifications of all components.
- Shipping, dimensions and weights.





# Ventilation made simple

## Choosing the right air handling unit

Geniox is currently available in 8 different sizes and can handle air volumes from 1,380 to 27,000 cfm. You can design Geniox for all types of projects, and add and remove features as needed by using SystemairCLICK. You can do this on your own by downloading SystemairCLICK from our website, or by consulting with your local Systemair representative.

In SystemairCLICK you can input the expected data for daily operation to find the most energy efficient solution for your project.

As soon as you have defined your unit in SystemairCLICK and approved it, we are ready to manufacture it. That is how we can keep our delivery time down and ensure that you receive the right unit at the right time.



## Easy to install and service

Assembling an air handling unit has never been easier than with the Geniox system. You can now assemble the unit on site simply by clicking the modules together.

Geniox is delivered with all necessary documentation to help you assemble, set up and service the unit.

Geniox is available with preinstalled and fully integrated control system with a large number of features e.g. alarms, setting of time, operating values and operating status. Or, if you prefer, we will install your own 3rd party controls to the unit, saving you time and money.

The system is prepared for communication to a BMS system.

## Long term benefits

Geniox is built to last and designed to be an integrated part of the construction. The casing's surface treatment provides a high corrosion resistant class and protects external parts of the unit from damages and scratches.

With a high performance casing, and using only the best internal components, Geniox will ensure that your project will enjoy an energy efficient and sustainable ventilation solution.



# Geniox makes it click

Click! Selection is made easy using SystemairClick design software.

Click! You can assemble the Geniox air handling units on site, simply by clicking the modules together. This construction will reduce the installation time as well as make the unit easier to handle. You will also find that it is quicker and easier to service Geniox.

Click! Geniox stands out in the world of air handling units. The unique casing design is not just aesthetically pleasing, it has been designed using a thermally insulated panel construction with very low leakage values, which eliminates thermal bridging.

Click! The electricity meter will not be running at top speed with Geniox. Geniox follows the European Ecodesign guidelines, the most stringent energy directive in the world.

You can trust that what we promise is what we deliver.

## Systemair – a leading ventilation company

Systemair is a leading ventilation company with operations in 49 countries. We manufacture and market high quality ventilation products. Our product range spans a broad range of energy efficient fans, air handling units, products for air distribution, air conditioning, air curtains and heating products. Our products are robust and simple to choose, install and use.

### Our strengths

#### **Trust – most important watchword**

Our customers can trust that they will get the right products, with the right performance characteristics, delivered at the right time.

#### **High quality and availability**

Systemair is a well-known brand in the ventilation industry. We offer the products that the market demands – all offering top quality and high availability.

#### **Growth is part of our culture**

We will continue to grow organically and through acquisitions. Trust and ongoing product development provide the foundations for stable growth.

### Facts

Sales for the 2015/16 financial year totalled SEK 6,1 billion.

Founded in 1974 at the initiative of Chairman of the Board Gerald Engström.

The Company has its registered office and headquarters in Skinnskatteberg, Sweden.

Operations in 49 countries in Europe, North and South America, the Middle East, Asia and Africa.

The Group comprises of 66 operating companies with a total of 4.855 employees.

24 factories with more than 3,000,000 ft<sup>2</sup> of warehouse and production space.

Systemair shares have been quoted on Mid Cap List of NASDAQ OMX Stockholm since October 2007.





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Accurate calculations must be made in SystemairCLICK.

