Geniox

The next generation of air handling units

systemair

geniox

POLLY
GRACE

geniox

Contents

The next generation of air handling units

Geniox – You will click too

Geniox is more than an air handing unit. It is the heart of
a complete air handling solution that integrates everything
from design to operation.

You design – or we can do it for you

You know buildings, we know air handling. That is why we
made Geniox so easy to design, you can do it yourself. That
way, you can be sure each installation is optimized to each
building's requirements. Simply download our free design
software SystemairCAD and start configuring your Geniox
units. Or leave it all to us. We are happy to do it for you.

Easy to control

It is easy to operate and control Geniox. Using Systemair
Access, the complete control system for Geniox, you do
not have to be a ventilation expert to create the perfect
indoor climate. The intuitive NaviPad control panel lets
you click to control one or more Geniox units from
a single device.

Systemair GENIOX
The air handling unit

This modular platform is based on standardized sections that fit seamlessly together – making numerous configurations possible. Geniox is an integrated, intelligent ventilation solution where innovation, energy saving, sound proofing and sustainability are key.

SystemairCAD
The design tool

Geniox is easy to design and configure using SystemairCAD, a design program which ensures that every air handling unit is adapted for the actual conditions of each building. The software is free, easy to download, and it is easy for you to design the optimum Geniox unit yourself.

Systemair ACCESS
The control system

Systemair Access is a complete control solution for Geniox air handling units. It allows operators to optimize ventilation performance. It makes the advanced technology of Systemair's air handling units easily accessible, helping you to create the perfect indoor climate.
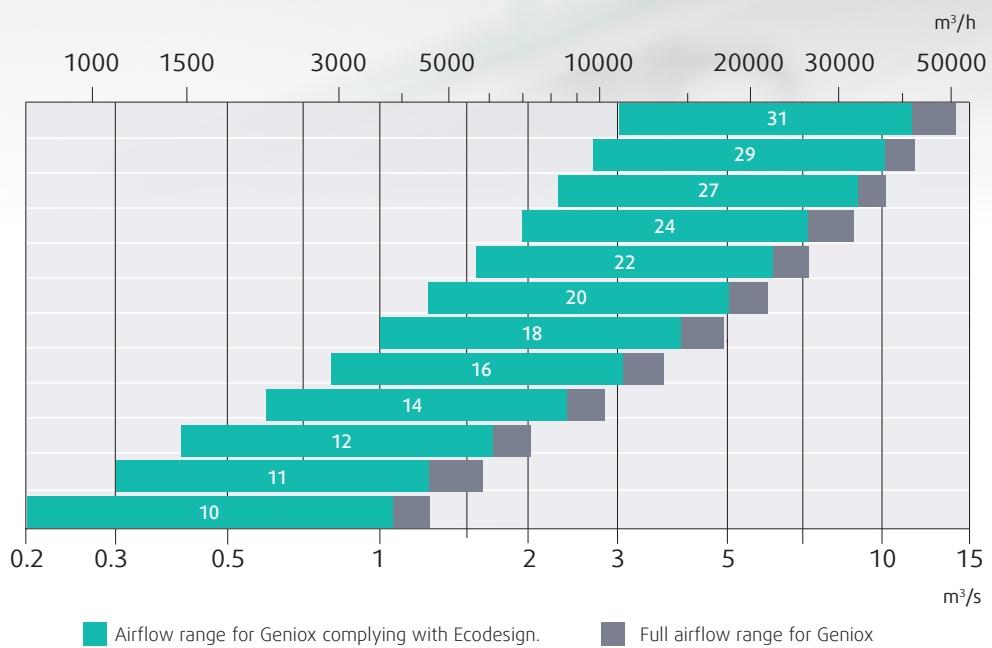
GENIOX

Designed for intelligent ventilation

Geniox comes with a wide range of intelligent functions – smart enough to be at the heart of any modern ventilation system. Geniox air handing units are available for airflows between 750 and 48,000 m³/h (0.2–13.3 m³/s). Thanks to the platform's flexibility, we are able to offer an optimized solution regardless of your project or industry.

Geniox can be fully configured using SystemairCAD. We can do it for you, or you can easily do it yourself – the software is free to download from our website. In SystemairCAD, you can optimize your Geniox unit to each building's actual operating conditions, while ensuring the lowest possible energy consumption. When you have found your match, just insert the resulting CAD file into Revit, MagiCAD or other commonly used program.

Geniox is certified by Eurovent, offering you the security of knowing that your air handling unit will perform according to the technical specifications.

EUROVENT
CERTIFIED
PERFORMANCE
AHU N° 17.07.012
Range: Geniox-1

Geniox sizes and airflow range

m³/h

| | 1000 | 1500 | 3000 | 5000 | 10000 | 20000 | 30000 | 50000 |

Sizes: 31, 29, 27, 24, 22, 20, 18, 16, 14, 12, 11, 10

m³/s scale: 0.2, 0.3, 0.5, 1, 2, 3, 5, 10, 15

Legend:
- Airflow range for Geniox complying with Ecodesign.
- Full airflow range for Geniox

A framework for energy efficiency

Attention to detail

Geniox is an integrated, intelligent ventilation solution where innovation, energy saving, soundproofing and sustainability are key.

We have prioritised recyclable materials and future-proof solutions. Geniox is a stable air handling unit with reduced thermal bridges thanks to thick insulation and airtight doors and joints. Geniox is certified by Eurovent with very high classifications.
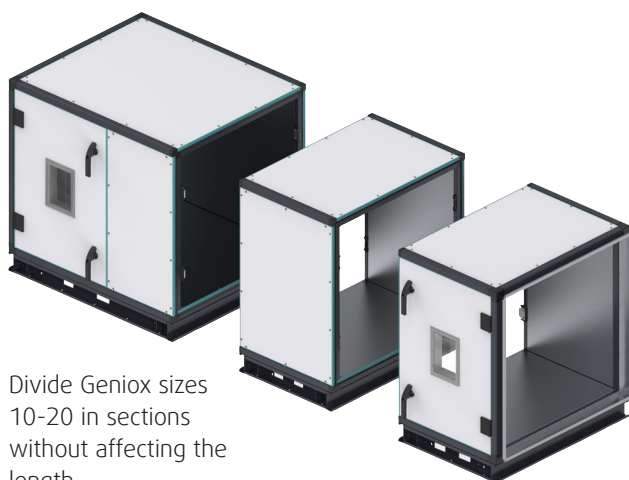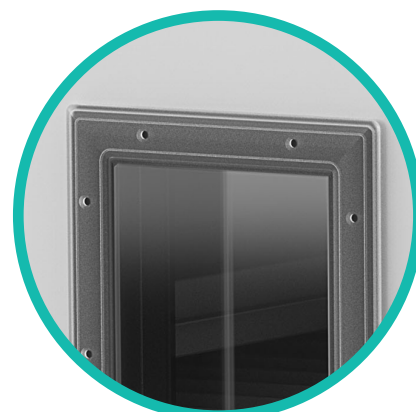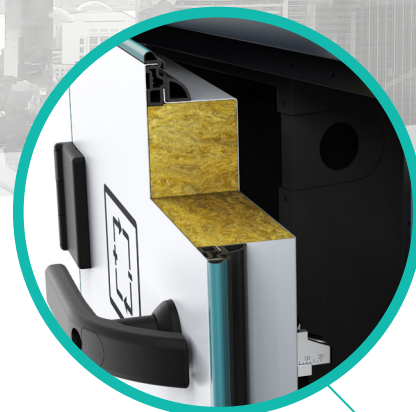
Minimal energy loss and durable design

Casing. The 60 mm thick insulation minimises heat loss and thermal bridges to save energy and ensure the highest operating efficiency. It also reduces the sound from the unit. This provides freedom of choice for the placement of the unit. The panels are available in Aluzinc AZ 185 or pre-painted steel sheets in black RAL 9005 or in light grey RAL 7035. Both panel types ensure corrosion class C4.
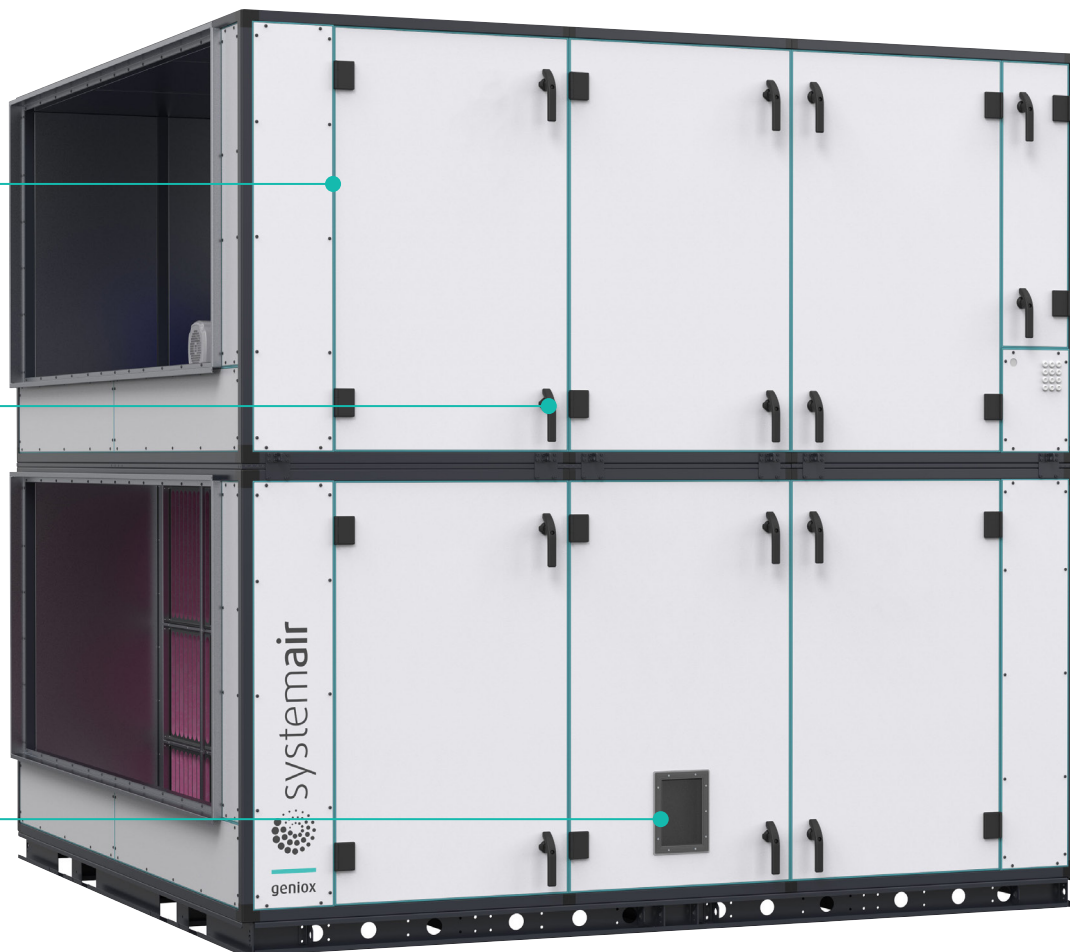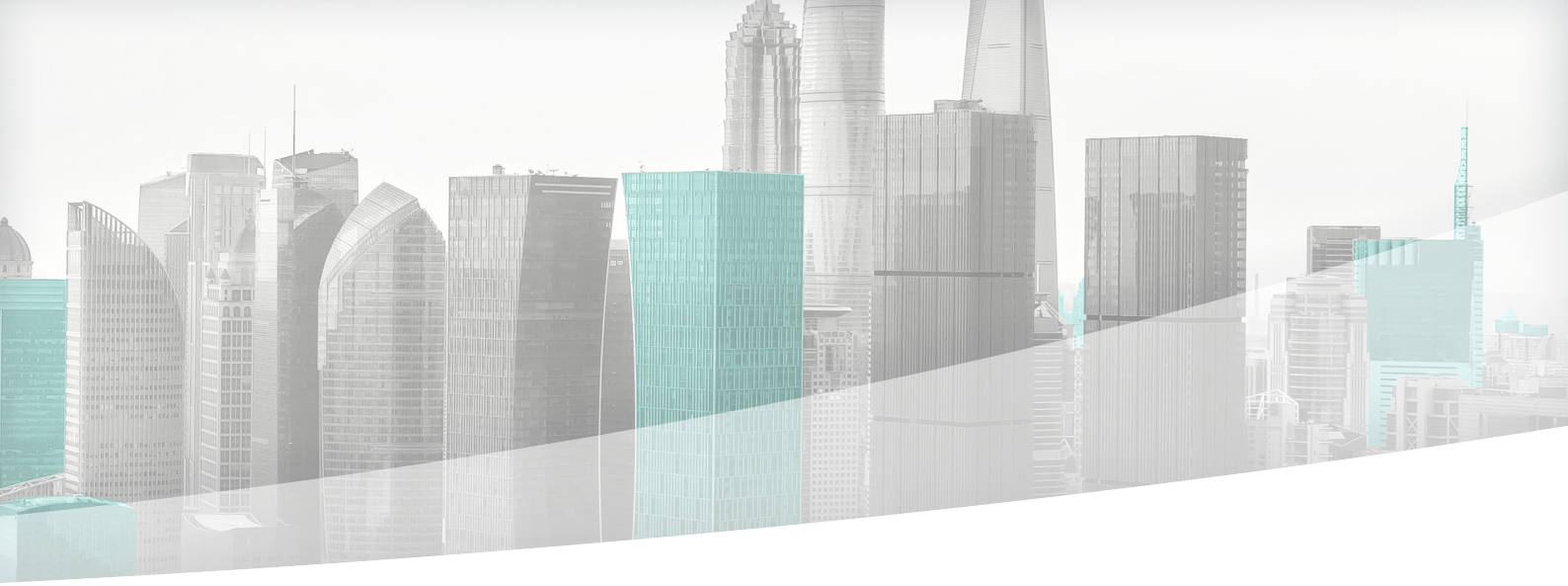
Handles and hinges. The handles and hinges are designed exclusively for and by Systemair. In addition to a nice feel and a practical solution with easy disassembly, they ensure an airtight solution with easy access for maintenance. The solid handles protect against accidents, as you cannot climb on them. All doors can be opened from inside in accordance with the Machinery Directive.

Inspection window. The large windows, designed exclusively for and by Systemair, enable easy inspection.

Base frame. The base frame can be mounted in the factory or delivered on site. You can choose between a full length base frame or have it divided into sections. The base frame makes on site transportation easy with forklift holes and lifting eyes. SystemairCAD and the Geniox catalogue will give you the full overview of options.

Divide Geniox sizes 10-20 in sections without affecting the length.

Casing

- Thermal bridging TB2
- Thermal insulation T2
- Deflection class D1
- Leakage class L1.

Official model box EN 1886 results.

- Flexible selection of materials and surface treatments (pre-painted or aluzinc).

Directives

Geniox is compliant with the following directives:

- Machinery Directive 2006/42/EC
- Ecodesign Directive 1253/2014
- EMC Directive 2014/30/EU
- Low Voltage Directive 2014/35/EU
- Pressure Equipment Directive 2014/68/EU

Geniox Core
Simplify your choice

Enjoy the energy efficient performance of a
Geniox with a small footprint and fast delivery time.

Geniox Core is a pre-configured standard solution that can be ordered
with short lead times. Geniox Core is based on Systemair's well-known
technology in production of air handling units with more than 40 years'
experience.

Simple to choose, install and run
Geniox Core offers you everything you would expect from Systemair
and Geniox, just easier. With this smart and simple solution, you just
specify your basic requirements, and we deliver a pre-configured air
handling unit to you, fast and easy.

Your Geniox Core solution is based entirely on the Geniox design
platform. Based on the entered preconditions, SystemairCAD will
optimize your specific unit by selecting the best suited heat exchanger
and motor. You can freely place dampers, heating and cooling coils and
sound attenuator.

Small footprint
Components like dampers and coils can be placed externally, giving
you flexibility where space is limited.

In short, you get a customized air handling unit with great flexibility
and small footprint. Geniox Core provides you with the high quality air
handling from Geniox – with the fastest possible delivery time.

7 sizes
7 sizes with airflows:
750 -17,500 m³/h
(0.2 - 4.9 m³/s).

Enjoy Geniox quality, delivered pre-configured, quickly and easily.

Casing

Thermal bridging TB3
Thermal insulation T2
Deflection class D1
Leakage class L1
Official model box
EN 1886 results.

Fast delivery

Pre-configuration means easy setup, which in turn means fast delivery.

Pre-configured

Hand over the configuration work to Systemair. You specify the requirements, we deliver a ready-to-use air handling unit.

Geniox quality

Geniox Core provides you with all the essential qualities from Geniox in a compact design.

Systemair ACCESS

Create the perfect indoor climate

At Systemair, our goal is to keep things simple for our customers and we believe that advanced technology should be accessible for everyone. Now we have combined the strong heart of a Geniox with a sharp mind – Systemair Access.

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

Inspired by the advanced simplicity of today's smartphones, we have developed a logical and intuitive menu structure. It is now easier than ever to navigate and utilize the full functionality of Systemair air handling units.

HTML5 interface

Intuitive and easy navigation of menus that can be used on a variety of devices including NaviPad, control panels, smartphones or computers. Access to information can be set to three different user levels, depending on competence.

Connectors for external components

The installation and startup time can be reduced as all connectors for external components on the control unit are clearly marked and grouped together.

Bus-based components

Internal and external communication link for Modbus-based components. Easy and simple wiring to all connected devices make all needed data and diagnostics available in real time.
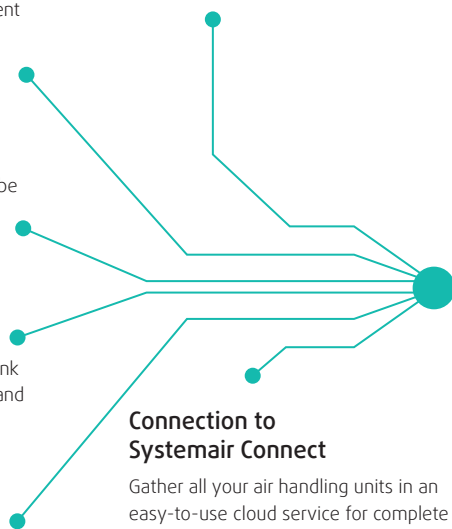
Dedicated BMS connection

Modbus and BACnet make the control unit well-prepared for integration into SCADA or BMS.

Designed by Systemair

Designed specifically for fast and easy installation of Systemair air handling units.

Connection to Systemair Connect

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

Access made it
simple to connect,
configure and
control our air
handling unit.

SYSTEMAIR
ACCESS

Access NaviPad

Just click to control Geniox

NaviPad is an ergonomic and robust designed control panel, developed specifically for industrial environments.

You are in control

You will very soon become familiar with NaviPad's graphical user interface. You monitor and control your air handling unit by navigating the easy and intuitive menu structure with icons on your touchscreen. Thanks to NaviPad's user-friendly interface, it is now easier than ever to manage Systemair air handling units.

Going pro!

You do not need to be an expert to get the most out of your air handling unit. We have made functions and features easily available, allowing you to make optimal use of your air handling unit.
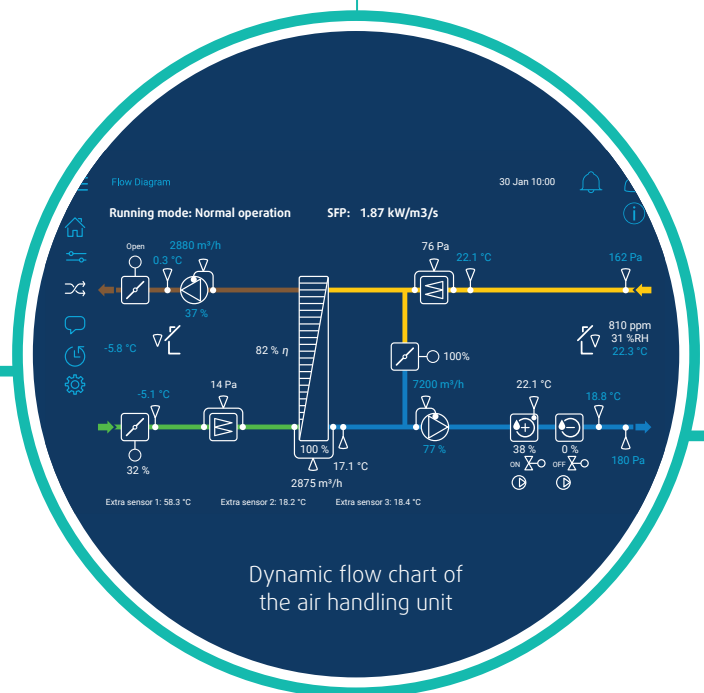
Create the perfect indoor climate

Systemair Access and NaviPad will help you optimize the air handling unit performance so people can breathe easy in a great indoor climate. Using your air handling unit more effectively will help you reduce energy consumption and save money.
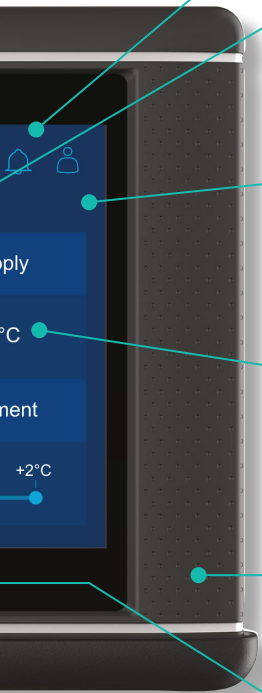
systemair

Geniox 12DR   10 Apr 10:00

Running mode

Unit stopped

Extended run

0 min

Outdoor   Sup

21°C   16

Setpoint adjustm

-2°C   0

GENIOX with ACCESS

NaviPad comes as standard with Systemair's Geniox air handling units.

Flow Diagram   30 Jan 10:00

Running mode: Normal operation   SFP: 1.87 kW/m3/s

Open   2880 m³/h   76 Pa
0.3 °C   22.1 °C   162 Pa
        37 %
-5.8 °C   82 % η   810 ppm
                                                       31 %RH
                                                       22.3 °C
-5.1 °C   14 Pa   7200 m³/h   22.1 °C   18.8 °C
32 %   100 %   77 %   38 %   0 %   180 Pa
            2875 m³/h   ON   OFF
            17.1 °C

Extra sensor 1: 58.3 °C   Extra sensor 2: 18.2 °C   Extra sensor 3: 18.4 °C

Dynamic flow chart of the air handling unit

You are in full control

NaviPad puts you in control of your air handling unit – at all times.
Should an error occur, you will immediately be notified by an alarm. Press the alarm icon to see the list of active alarms including the alarms history.

Energy insight in a glance

With the Energy Insight function, it is easier than ever to monitor energy usage for fans (SFP value) and water heater as well as recovered energy for exchanger.

It is easy to use

We were inspired by modern smartphones when developing NaviPad's user interface. Just click on an icon on your touchscreen to activate a function, change a setting or adjust a value. You will quickly learn how to control your unit as you go, thanks to NaviPad's intuitive graphical user interface.

Live data

It is easy to monitor and adjust your air handling unit's performance. Relevant operating data and flow charts are easily available in real time and can be changed with a few clicks. You can view the status and adjust the settings of your air handling unit.

NaviPad is robust and can handle being dropped

NaviPad is developed specifically for industrial use – simple to use, yet robust and durable in design. Drop tested and IP54 classified, your NaviPad will fit in most heavy-duty installations. A frame made of high-friction rubber will keep it firmly in your grip as you manage your air handling unit.

See all units at once

Press the Home button to view the system overview dashboard. A LED-light will indicate current status. This provides access to a system overview dashboard for all connected air handling units, giving the operator control of several units from one NaviPad.

Detachable

NaviPad* is a robust control panel, designed specifically for industrial usage. It is mounted on the air handling unit or on the wall, easy to detach for handheld use.
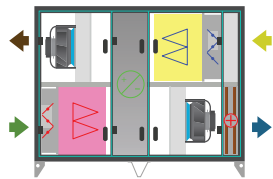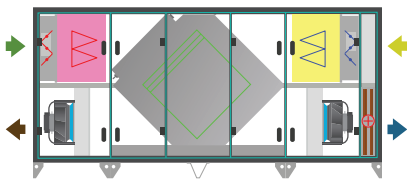
*The NaviPad is connected via 3 m flat cable

Quick guide to Geniox

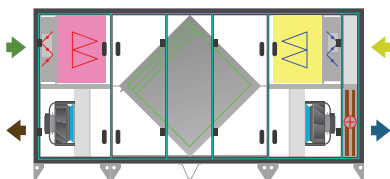Geniox has endless variation possibilities.
This page lists some common configurations,
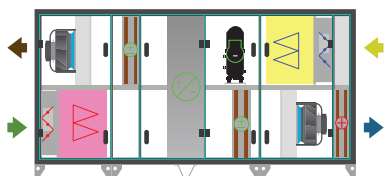suitable for most applications.

Rotary heat exchanger												
Size	10	11	12	14	16	18	20	22	24	27	29	31
Width	1082	1182	1282	1482	1682	1882	2082	2282	2482	2782	2982	3182
Height*	1082	1182	1282	1482	1682	1882	2082	2282	2482	2764	2964	3164
Length	2282	2282	2282	2282	2282	2282	2382	2546	2746	2946	3146	3146

Counter flow heat exchanger							
Size	10	11	12	14	16	18	20
Width	1082	1182	1282	1482	1682	1882	2082
Height*	1082	1182	1282	1482	1682	1882	2082
Length	3182	3382	3382	3482	3782	3782	3982

Cross flow heat exchanger												
Size	10	11	12	14	16	18	20	22	24	27	29	31
Width	1082	1182	1282	1482	1682	1882	2082	2282	2482	2782	2982	3182
Height*	1082	1182	1282	1482	1682	1882	2082	2282	2482	2764	2964	3164
Length	2982	3082	3182	3382	3582	3782	3782	4446	4746	4946	5446	5446

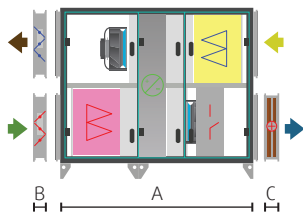| Integrated reversible heat pump								
Size	10	11	12	14	16	18	20	22	24
Width	1082	1182	1282	1482	1682	1882	2082	2282	2482
Height*	1082	1182	1282	1482	1682	1882	2082	2282	2482
Length	3282	3282	3282	3282	3482	3482	4082	4346	4546

Exhaust air ◄   Extract air ◄
Outdoor air ►   Supply air ►

The dimensions are a guideline only. Accurate values and combinations are calculated in SystemairCAD.
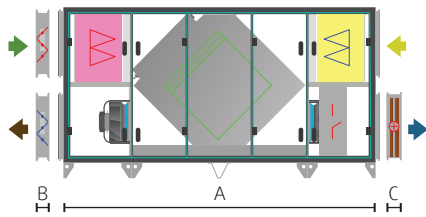
* Height excl. legs/base frame.
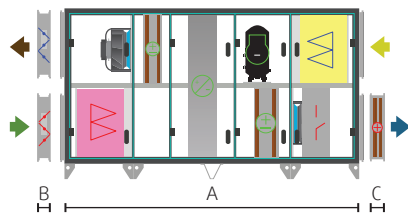
Quick guide to Geniox Core

Geniox Core is a pre-configured air handling unit with small footprint. Below are the typical configurations for Geniox Core.

Rotary heat exchanger							
Size	**10**	**11**	**12**	**14**	**16**	**18**	**20**
Width	1082	1182	1282	1482	1682	1882	2082
Height*	1082	1182	1282	1482	1682	1882	2082
Length (A)	1682	1682	1782	1782	2082	2082	2082
Length (B)	140	140	140	140	140	140	140
Length (C)	210	210	210	210	210	210	210

Counter flow heat exchanger							
Size	**10**	**11**	**12**	**14**	**16**	**18**	**20**
Width	1082	1182	1282	1482	1682	1882	2082
Height*	1082	1182	1282	1482	1682	1882	2082
Length (A)	2482	2682	2782	2882	3382	3382	3582
Length (B)	140	140	140	140	140	140	140
Length (C)	210	210	210	210	210	210	210

Integrated reversible heat pump							
Size	**10**	**11**	**12**	**14**	**16**	**18**	**20**
Width	1082	1182	1282	1482	1682	1882	2082
Height*	1082	1182	1282	1482	1682	1882	2082
Length (A)	2682	2682	2882	3082	3182	3282	3982
Length (B)	140	140	140	140	140	140	140
Length (C)	210	210	210	210	210	210	210

A = Geniox Core
B = Damper
C = Heating coil

Exhaust air ◀   Extract air ◀
Outdoor air ▶   Supply air ▶

The dimensions are a guideline only. Accurate values and combinations are calculated in SystemairCAD.

* Height excl. legs/base frame. All indoor units are with 118 mm feet or base frame. Forklift holes are available in base frame.

Be in control.
Configure your Geniox unit
exactly the way you want it to be.

Configure Geniox with

SystemairCAD

It is easy to configure Geniox using SystemairCAD, a design tool which ensures that every air handling unit is customized for the actual conditions of each building.

When you configure your air handling unit, SystemairCAD does a number of calculations for you. Once you are finished, you can save all technical documentation as a pdf file on your computer.

The documentation contains e.g. technical data, drawings, calculation results, charts and a complete descriptive text that you can use in your specification document.

The drawing, which is made to scale, can be exported to other CAD or BIM programs as DXF or DMR files. Project files can be opened directly in AutoCAD or in Revit using the Systemair plug-in program MagiCAD.

You can also make LCC calculations, print to 3D-dxf files or print "live" air handling units to MagiCad or Revit.

SystemairCAD can be downloaded from Systemair's website.

You design yourself
You can design your Geniox air handling unit yourself using SystemairCAD. The program calculates and generates the necessary documentation.

Everything is double-checked
SystemairCAD notifies you of any irregularities in your design, and our experienced staff checks that everything is in order before your unique air handling unit is produced.

Straight to manufacturing
Your drawings are ready to go straight into manufacturing at one of Systemair's plants, reducing administration and delivery times.

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