

Plex

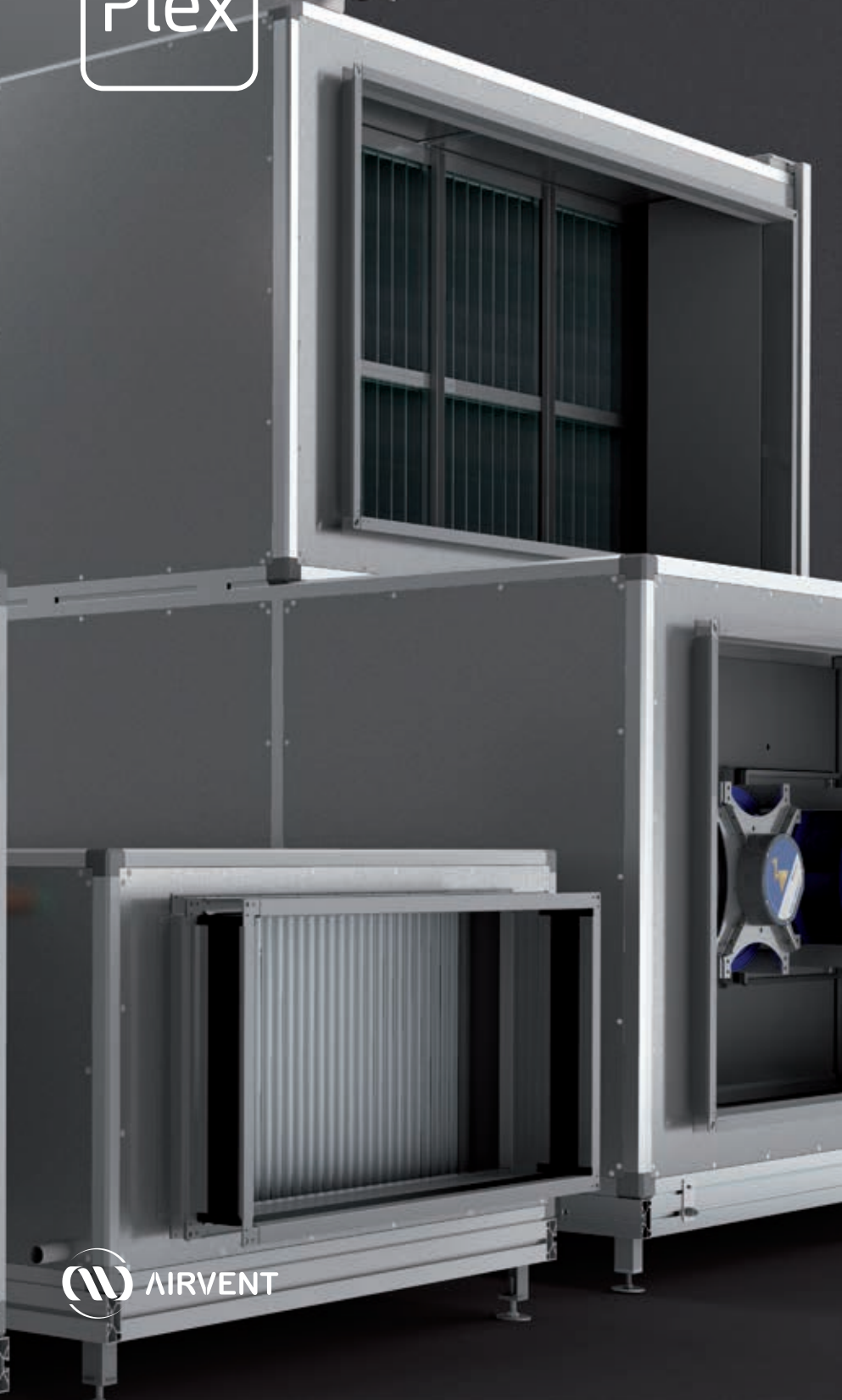


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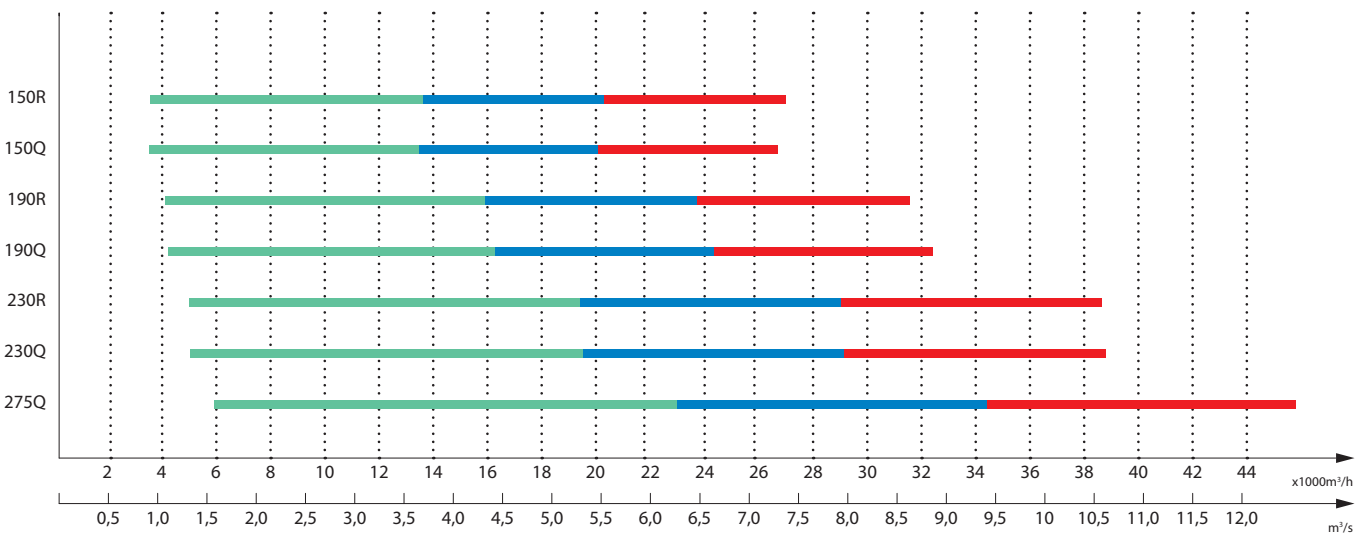
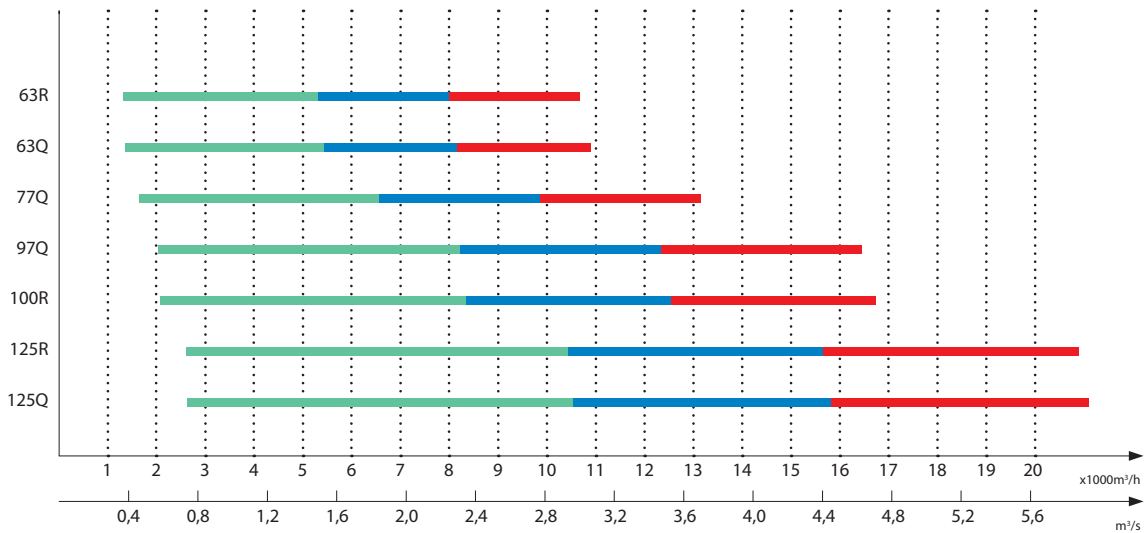
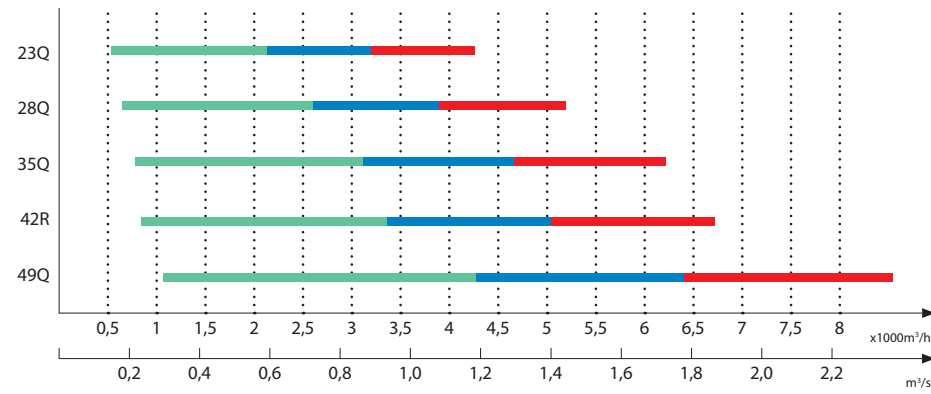
Airvent

Airvent is a family-owned company, founded in 1990. We have more than 30 years of industry experience in engineering and manufacturing ventilation and air-conditioning products. Our mission is to create solutions for an energy efficient, comfortable and healthy indoor climate for housing, public and industry demands. We operate sales offices in several locations throughout Hungary and Europe. Our headquarters and manufacturing plant is located in Kecskemét, Hungary.



Airflow Ranges

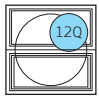
- Nominal airflow at 0,5–2,4 m/s air velocity
- Nominal airflow at 2–3 m/s air velocity
- Nominal airflow at 3–4 m/s air velocity



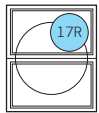
- R** Rectangle shaped cross section
- Q** Square shaped cross section

Cross-sections and Connection Sizes

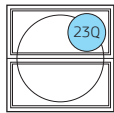
Plex air handling units with heat recovery are produced in two types of cross-section design: square and rectangular versions. These designs ensure the application of heat exchangers with the lowest internal pressure drop, the most advantageous settlement of fans, and the easier placing of air handling units in engine rooms with standard room height.



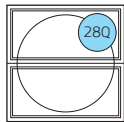
720 x 720
400 x 250



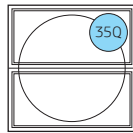
720 x 860
400 x 300



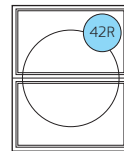
860 x 860
500 x 300



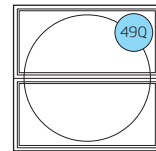
940 x 940
600 x 300



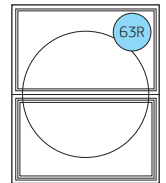
1020 x 1020
700 x 350



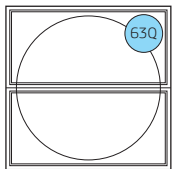
940 x 1180
600 x 400



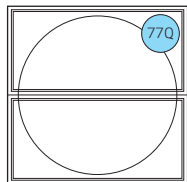
1180 x 1180
800 x 400



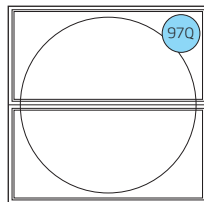
1180 x 1440
800 x 500



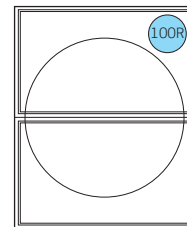
1320 x 1320
800 x 500



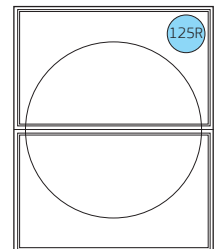
1440 x 1440
1100 x 500



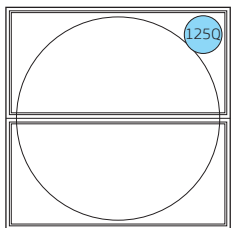
1600 x 1600
1200 x 600



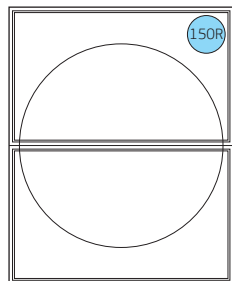
1440 x 1800
1100 x 700



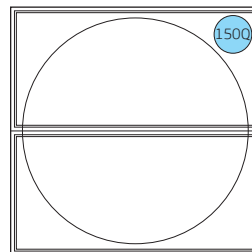
1600 x 2000
1200 x 800



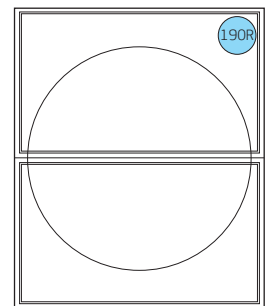
1800 x 1800
1400 x 700



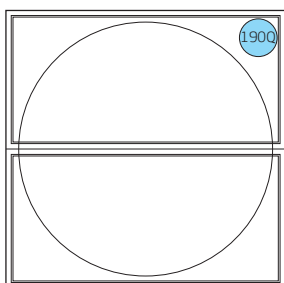
1800 x 2240
1400 x 800



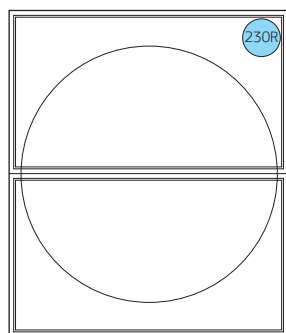
2000 x 2000
1600 x 800



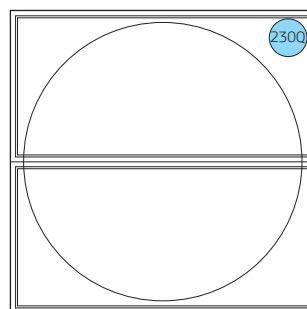
2000 x 2440
1600 x 900



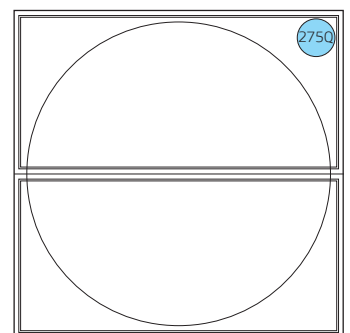
2240 x 2240
1800 x 800



2240 x 2640
1800 x 1000



2440 x 2440
1800 x 900



2640 x 2640
2200 x 1000

Cross-section dimensions, mm.
Connection sizes, mm.

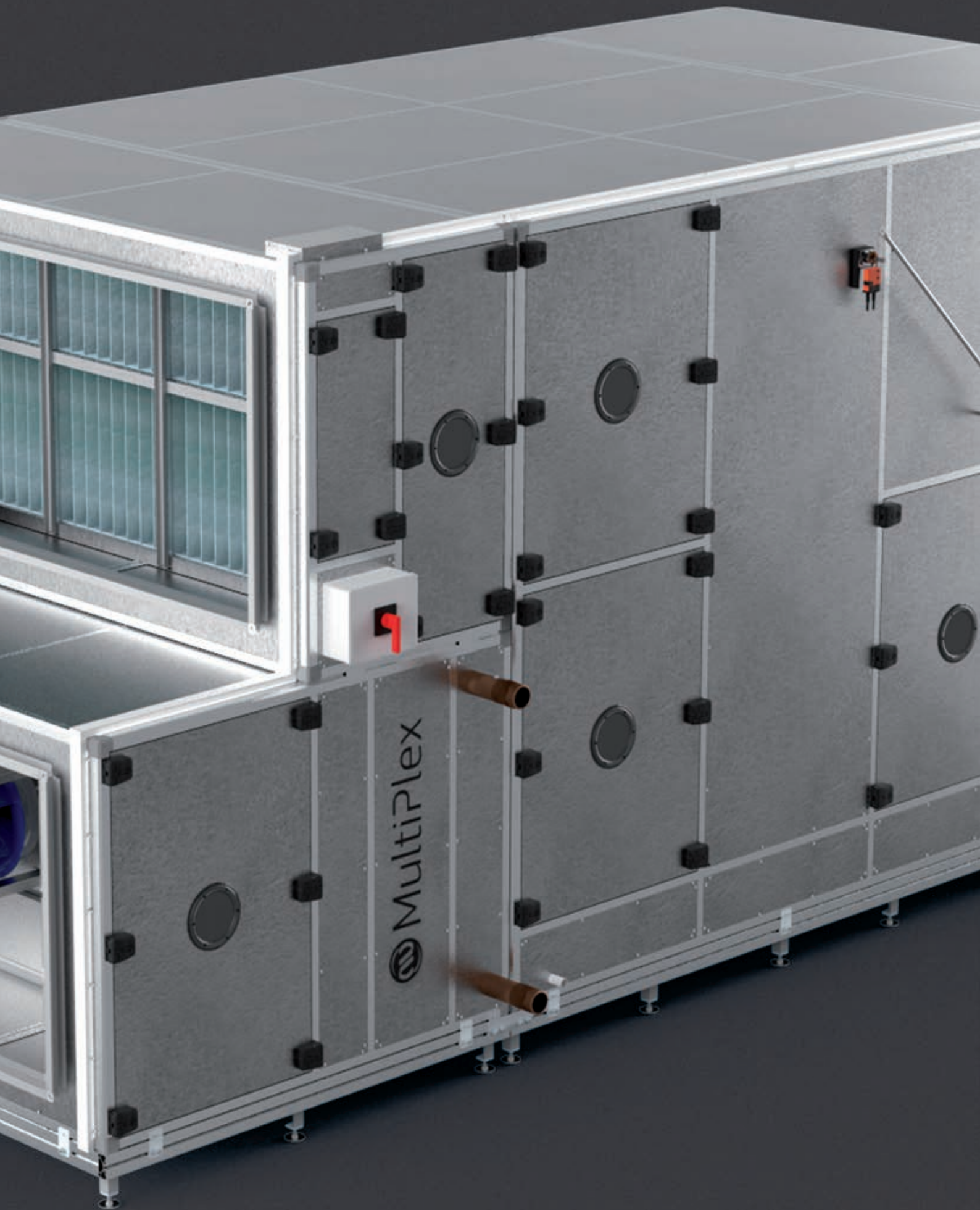
Plex Compact and Modular Air Handling Units

Our company has been producing air handling units since 1996. One of the main objectives when designing our Plex Air handling units was to continue delivering excellent quality, reliable products that our partners had come to know Airvent for, in addition to meeting the requirements for current and future energy standards.

The most important features of our Plex series

- Nominal airflow range between 1200–27500 m³/h
- Framework and base frame developed by Airvent, made of aluminum
- Durable, compact internal and external design in AZ 185 steel allowing a C4 corrosion classification
- EasyLink - Patented, user friendly module assembling system
- DUAL door hinges allowing the doors to be opened to both sides or to be removed.
- Available with rotary, plate (counter-flow) or coil heat exchangers
- Highly efficient EC fans with silent operation with low SFP values (kW/m³/s)
- Reliable energy efficient operation with low energy consumption
- Selection software providing accurate and detailed technical data - considering the operational air conditions - assists to choose the suitable unit to meet the current Ecodesign standards.

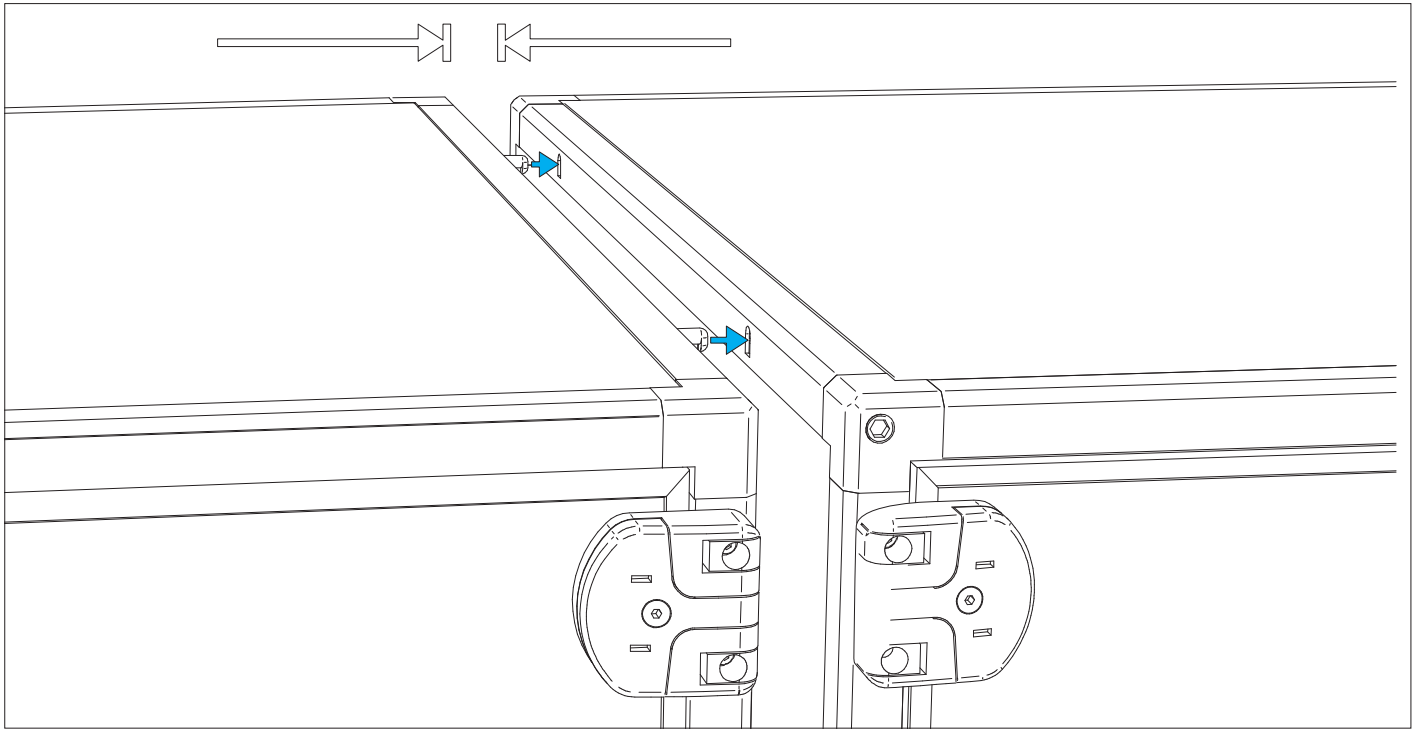




MultiPlex

EasyLink

EasyLink is a revolutionary and patented assembly system specially designed for Plex air handling unit series. As the name implies it is a simple, elegant and accurate method of connecting or disconnecting the air handling modules from the outside with a regular screwdriver tool in just a few minutes. EasyLink steers the modules to the correct position, is extremely solid and prevents leakage.



Panels, Framework and Base Frame

The framework of Plex air handling units is made of strong, solid aluminum profiles with aluminum corner fittings. Upon request Plex units can be delivered with a base frame with adjustable legs made of aluminum. For outdoor installation an outdoor set is available with roof and inlet/outlet grilles.



DUAL Door Hinges

The inspection doors of our air handling units are as standard equipped with DUAL, a flexible handle-hinge device. DUAL enables the inspection doors to be opened both to the left and to the right side, or if the space is limited on site, the door can easily be removed. This makes the maintenance and cleaning of the units a lot easier for the operator.



Real size



DUAL – inspection door opened to the right

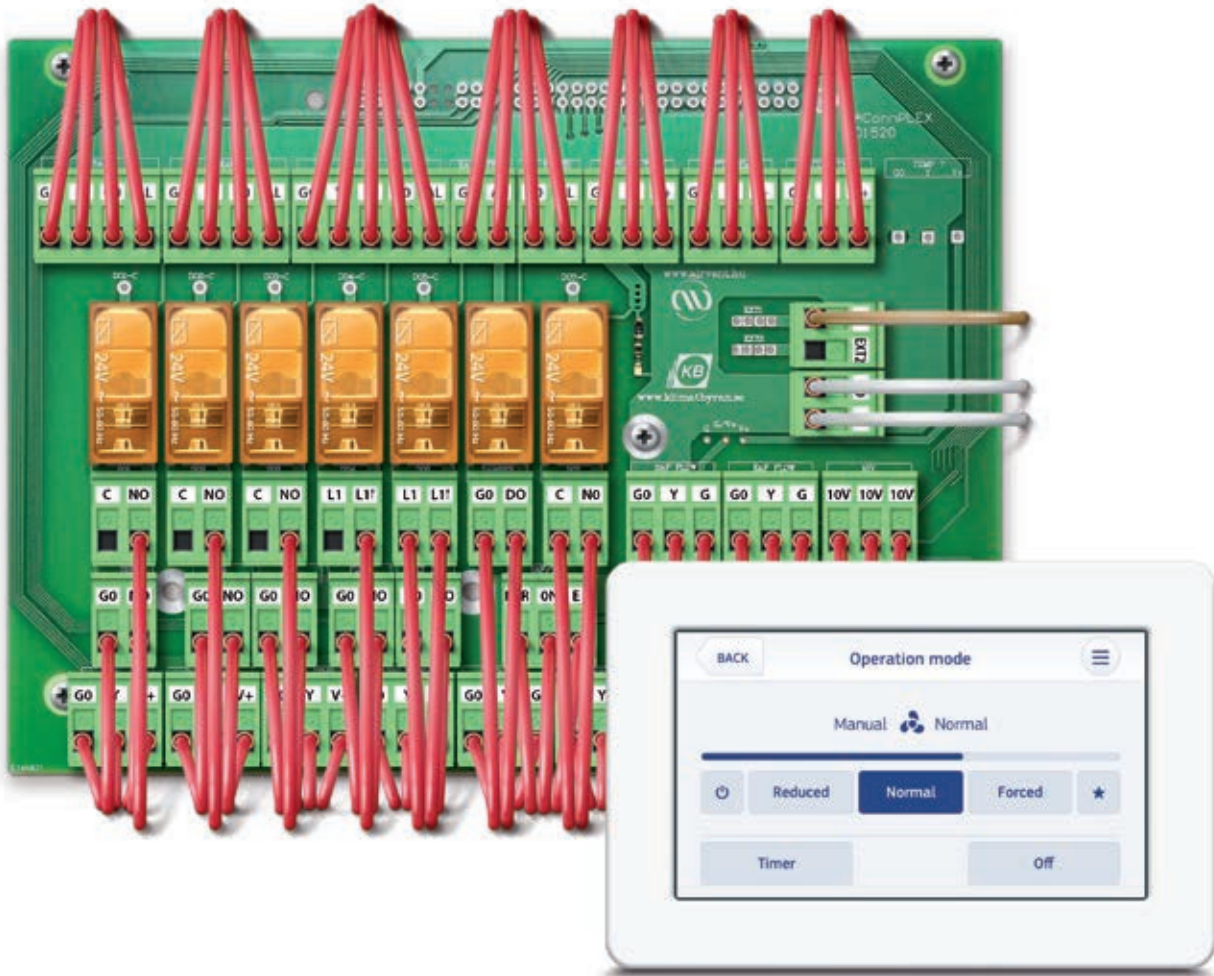


DUAL — inspection door removed



DUAL — inspection door opened to the left

CA-Plex Automatic Control



CA-Plex Automatic Control

The control of Plex air handling units is performed with an integrated CA-Plex automatic control system. With the help of the heat recovery unit a significant amount of heating and cooling energy can be saved. The air volume is measured on the supply and extract air sides and it is easy to set. The AltiPlex control unit can manage the control of external units (chillers, heat pumps, etc.) as well. The control system can be connected to building management systems via Modbus CA-Plex automatics can be ordered optionally with a hand-held or wall-mounted LCD display control terminal. Besides the local remote control, the web interface also enablesto record operation data and to obtain statistics. The CA-Plex automatic control is an integral component of Airvent's advanced A+ automation system, a ventilation and climate management solution, which leads to significant energy savings.

CA-Plex Temperature Control

CA-Plex Automatic Control system can regulate three circuits; a heat recovery, heating, and cooling circuits.

CA-Plex sensors

Plex air handling units equipped with CA-Plex automatic control system include inner temperature sensors as well as sensors for checking contamination levels in the filters. A sensor for supply air and exhaust temperatures and heating coil's defrost sensor are standard accessories.

CA-Plex Installation

The installation of Plex air handling units equipped with CA-Plex integrated automatic control system is simple. The main power needs to be connected directly to the main switch on the Plex air handling unit. The peripherals are connected to the suitable terminals of the CA-Plex panel.

Standard Features



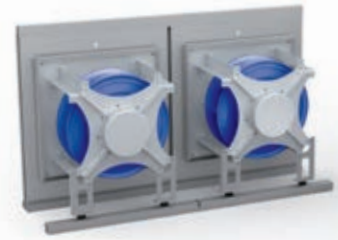
Rotary Heat Recovery

Plex air handling units are equipped with rotary heat recovery wheels. These rotors are all Eurovent certified and operate with a very high heating and cooling energy recovery efficiency (up to 95%) Another great advantage of rotary heat recovery is the short installation length, which is optimal for machine rooms with limited space. The rotors used for AltiPlex units have as standard variable speed regulation and operation control functions, as well as a cleaning sector to prevent the leakage of exhaust air into the supply air. Hygroscopic surface is an option.



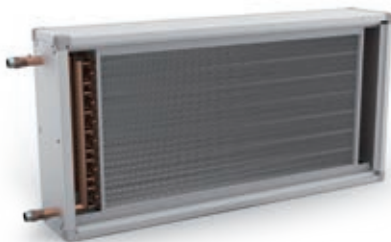
Counterflow Heat Exchangers

Our Plex air handling units can also be equipped with an air-to-air counterflow heat exchangers in an all aluminum design. These heat exchangers are Eurovent certified and operate with a very high heating and cooling energy recovery efficiency. The heat exchanger is made of separated aluminum fins with micro channels for the air passage. Because of the special joint technique the heat exchanger is airtight, which minimizes the risk of leakages between the exhaust and supply air stream, thus preventing the return of any odors or moisture back into the fresh room air. The condensed water is accumulated in a stainless steel drip-tray, with drain connections, positioned underneath the heat exchanger. As an option, the counter-flow heat exchanger can be delivered with epoxy coating as well.



Fans

All Plex ventilation units are equipped with energy-efficient direct driven supply and exhaust air fans with EC motors. The motors have an integrated variable speed control, which provides high efficiency even in lower speed range. Several ventilation intensities can be selected using the CA-Plex control display panel. Apart from energy efficient demand-controlled ventilation options, four basic ventilation intensities (reduced, normal, forced and special) are available. To facilitate maintenance, the fan housing is produced in an easily removable design.



Heating and Cooling Coils

The coils used in our units are made up of copper tubes - with standard male pipe connections of copper and venting and drain valves - running through aluminum fins. The cooling coils have a stainless steel drip tray with Ø32 mm drain. In order to protect the heating coil against frost, a temperature sensor is placed in the return side of the coil which in case of low temperature sends a signal to the central control system.



Sound Attenuators

Our well-known, high quality absorption-type sound attenuators are produced either with fixed, or with removable baffles to facilitate cleaning and inspection. The silencers were designed with aerodynamically shaped internal baffles, to achieve very low pressure drops. The shape, position and construction of the attenuators are selected with regards to the noise level of the source and the required level of noise reduction. The casing lengths are available from 500 to 1500 millimeters



Filters

Our MultiPlex and SimPlex air handling units are available with various types of filter sections. The filter prevents dust and other small particles from getting into the room. In addition, it also provides protection for the more sensitive parts of the air handling unit, such as the coils and heat exchanger, against contamination. The efficiency of filtering and dust storage, depending on the type of the filter, can vary a great deal. Due to the dirt, the resistance of the section will increase, which requires higher fan capacity and energy consumption, so the filters must be checked and replaced regularly.

AltiPlex R and AltiPlex P

AltiPlex air handling units are equipped with highly efficient heat exchanger of either rotary or counter-flow type and EC fans in a compact form with vertical air connections, designed to automatically provide healthy and energy efficient indoor climate. Airflow range: 1200-7200 m³/h



The dimensions of all AltiPlex units have been designed in such a way so that all sizes can be installed in narrow indoor spaces. Thanks to the DUAL door hinges, the doors are openable to both sides and also can be removed.



The control of AltiPlex units is performed with the integrated CA-Plex automatic control, which can be connected to building management systems. All Plex units are delivered with an LCD display control terminal.



In addition to the high efficiency, another great advantage of the rotary heat exchanger is the short installation length. The use of counter-flow heat exchanger is recommended when the mixing of extract and supply air is not allowed.



Smaller units are delivered in one piece, while the larger ones are delivered in sections. The installation is made easier by the cables with quick connectors and the EasyLink system so the divided sections can be assembled in a short time.

MultiPlex H

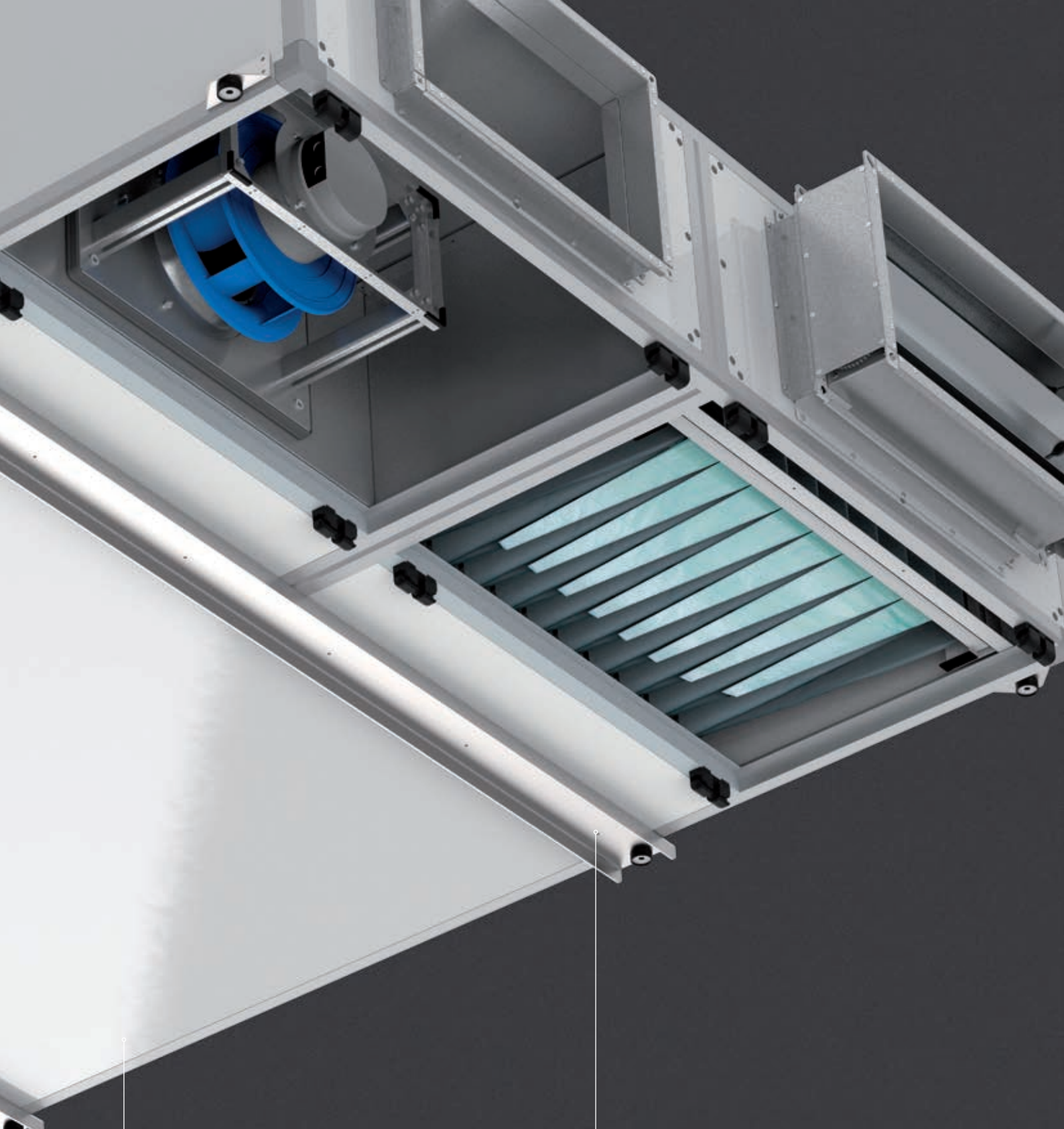
MultiPlex H horizontal air handling unit with low installation height was developed specially for indoor applications. The casing of the unit is white powder coated which makes ceiling installation aesthetic while saving useful floor area. Airflow range: 1200-4900 m³/h



Our air handling units are equipped with energy-efficient direct driven supply and exhaust air fans with EC motors which have an integrated variable speed control, that provides high efficiency even in lower speed range. The low SFP value also contributes to efficient use of energy.



The requested ventilation intensity, time schedule, pressure, temperature and humidity of supply air can be easily programmed by using CA-Plex control display, where operation data is also available for the user.



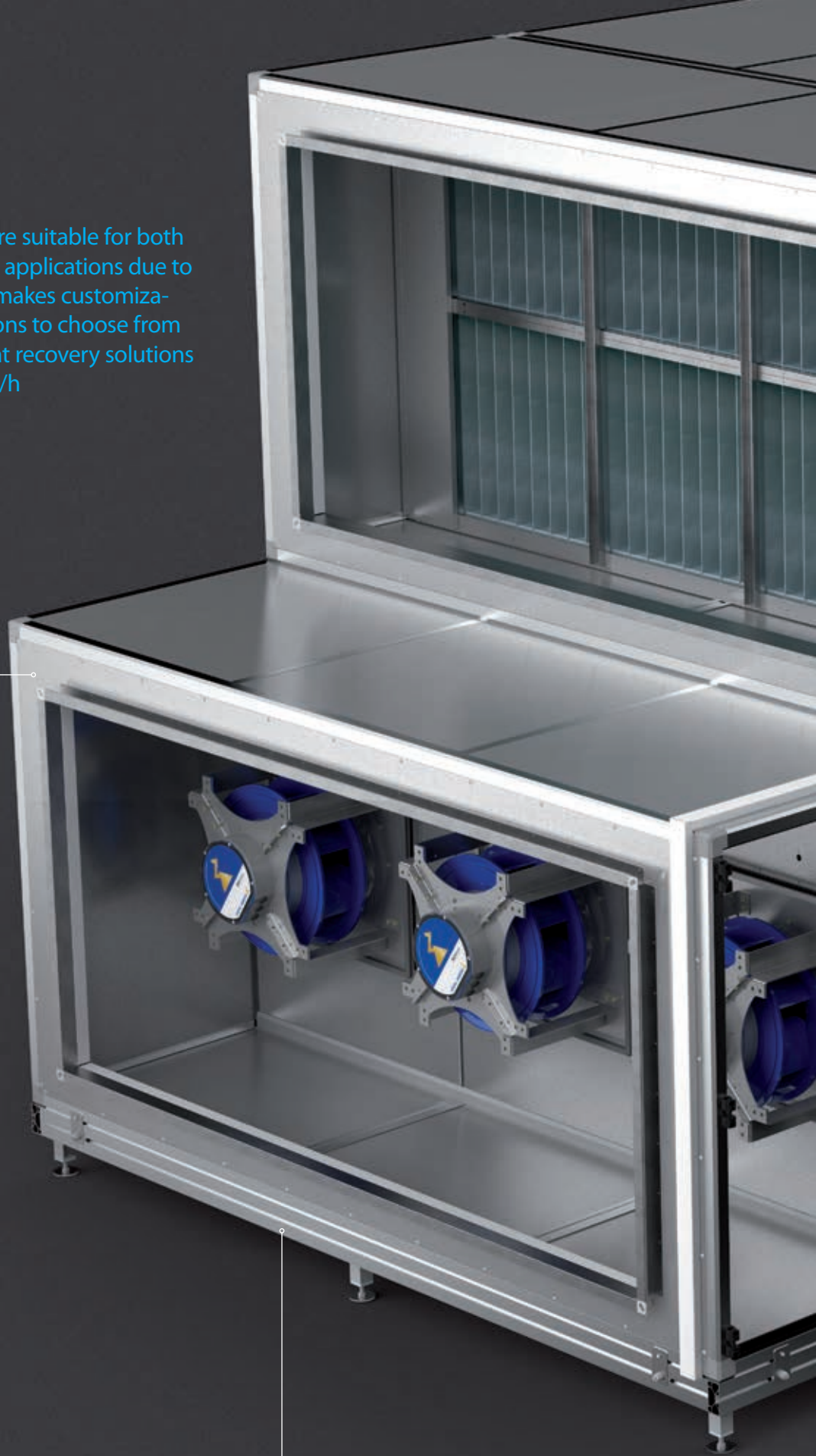
The highly efficient counterflow heat exchanger - efficiency of up to 86% - installed in the air handling unit is equipped with a by-pass damper which provides anti-freeze protection and makes summer free-cooling operation possible.



We have designed our MultiPlex H series in a way that the total height of each unit - even the one with the largest airflow - do not exceed 620 mm, what makes false-ceiling installation and free-hanging possible.

MultiPlex

Our MultiPlex air handling units are suitable for both comfort and industrial ventilation applications due to their modular construction - this makes customization possible, having several options to choose from in terms of size, airflow range, heat recovery solutions etc. Airflow range: 1200-27500 m³/h



Units for special applications are also available upon request for medical technology, laboratory, hygienic, agricultural and technological applications. In case of commercial kitchen application the motor of the extract air fan can also be isolated.



As standard, the units are made of alu-zinc coated AZ185 type steel sheet in accordance with EN ISO 12944-2:2000, so that the units meet the requirements of C4 corrosion class. In case of outdoor application the units can be ordered with increased panel thickness (50-60 mm) and with outdoor roof.



EasyLink is a patented assembly solution, designed by Airvent, for a simple and elegant way of connecting and disconnecting the sections of Plex air handling units without having to enter the modules. The electrical cables are equipped with quick connections for easy installation.



We can offer our MultiPlex air handling units with various heat exchanger (plate, rotary, coil), heating (water, gas, electric) and cooling (water, DX) solutions in order to be able to deliver a product that best meets the requirements of a project.

SimPlex

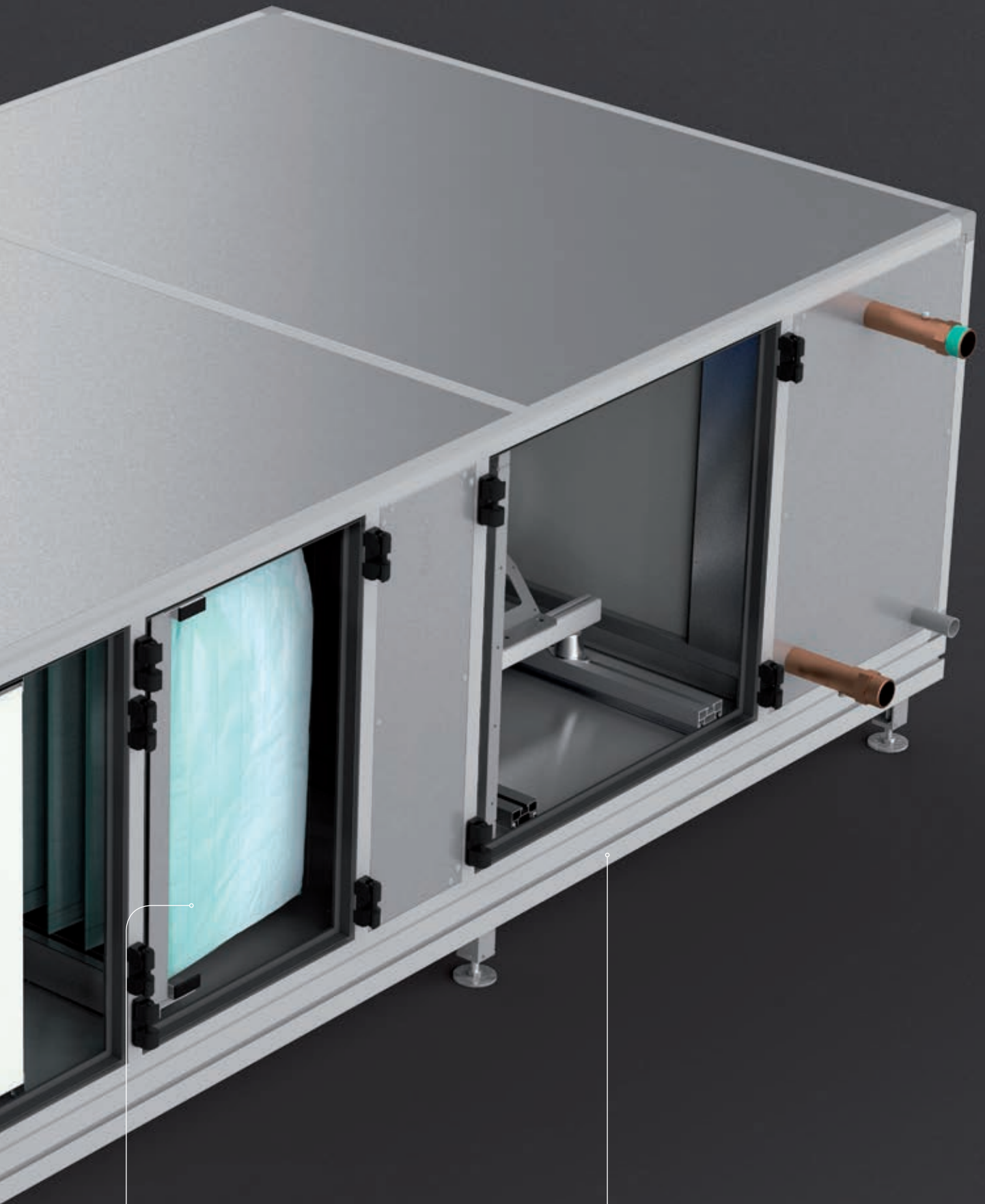
Our SimPlex unit, a member of the modular air handling unit family, can be used for supply or extract air. 21 different sizes are available, with either extract or supply function, variable cooling and heating solutions in accordance to the requirements of the application. Airflow range: 1200-27500 m³/h



The extract and supply sections of the SimPlex unit can be installed with greater distance apart, which makes the installation flexible. Thanks to the integrated CA-Plex automatics the two sections can be controlled by one automatic controller.



SimPlex supply air unit can be used as a stand-alone ventilation unit for cooling and/or heating big halls, stadiums, warehouses with the help of a simple mixing section (mixing ~20% fresh air to the extract air).



Depending on the application of the SimPlex unit, it can be equipped with various filters (G4-F9). In case of commercial kitchen application or when extracting greasy air grease filters can also be added to the modules.

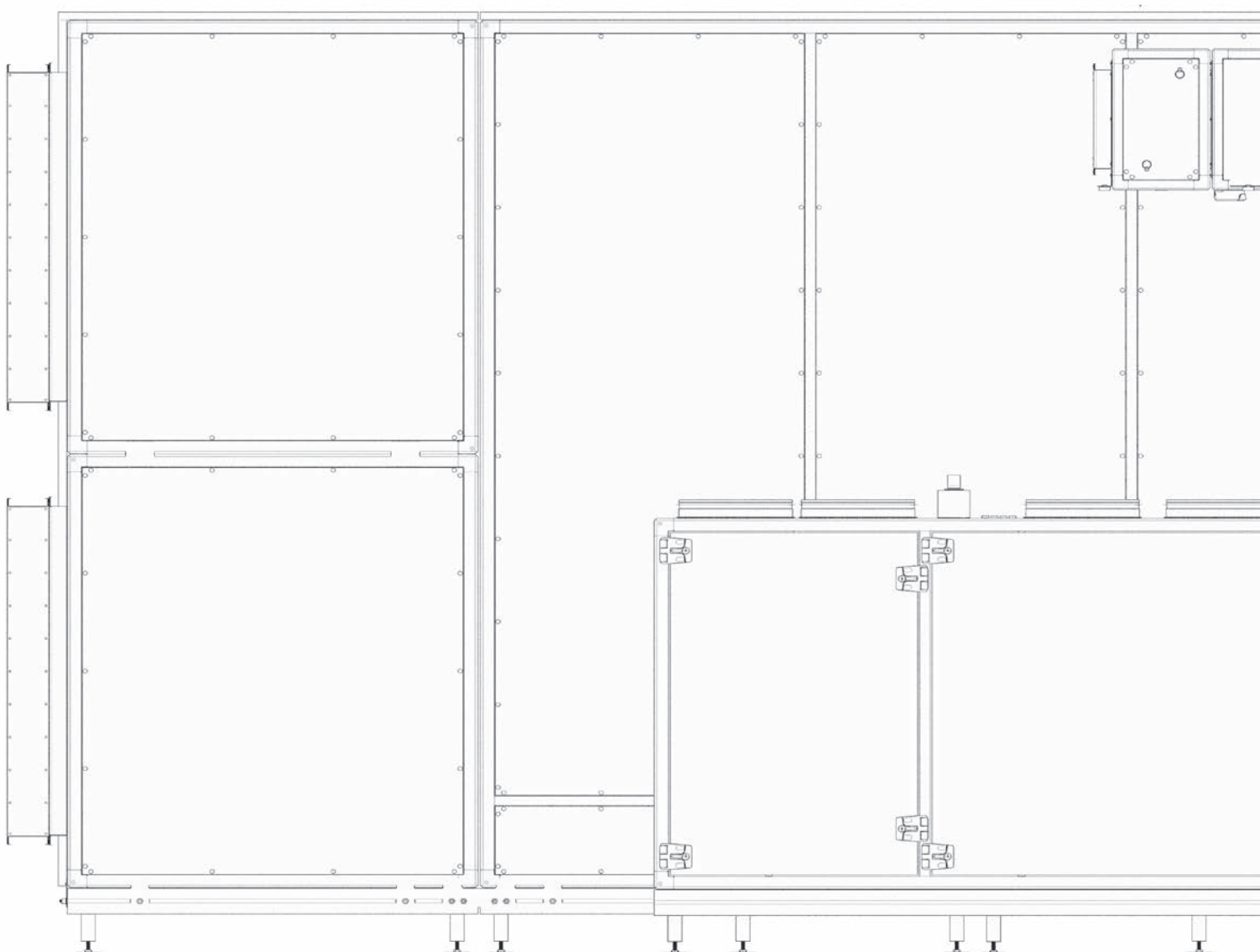


In most cases, SimPlex unit is installed on a base frame on the floor, but the total height of the unit also makes ceiling installation possible. In case of outside installation the product can be ordered with increased panel thickness (50-60 mm) and outdoor roof.

Overview

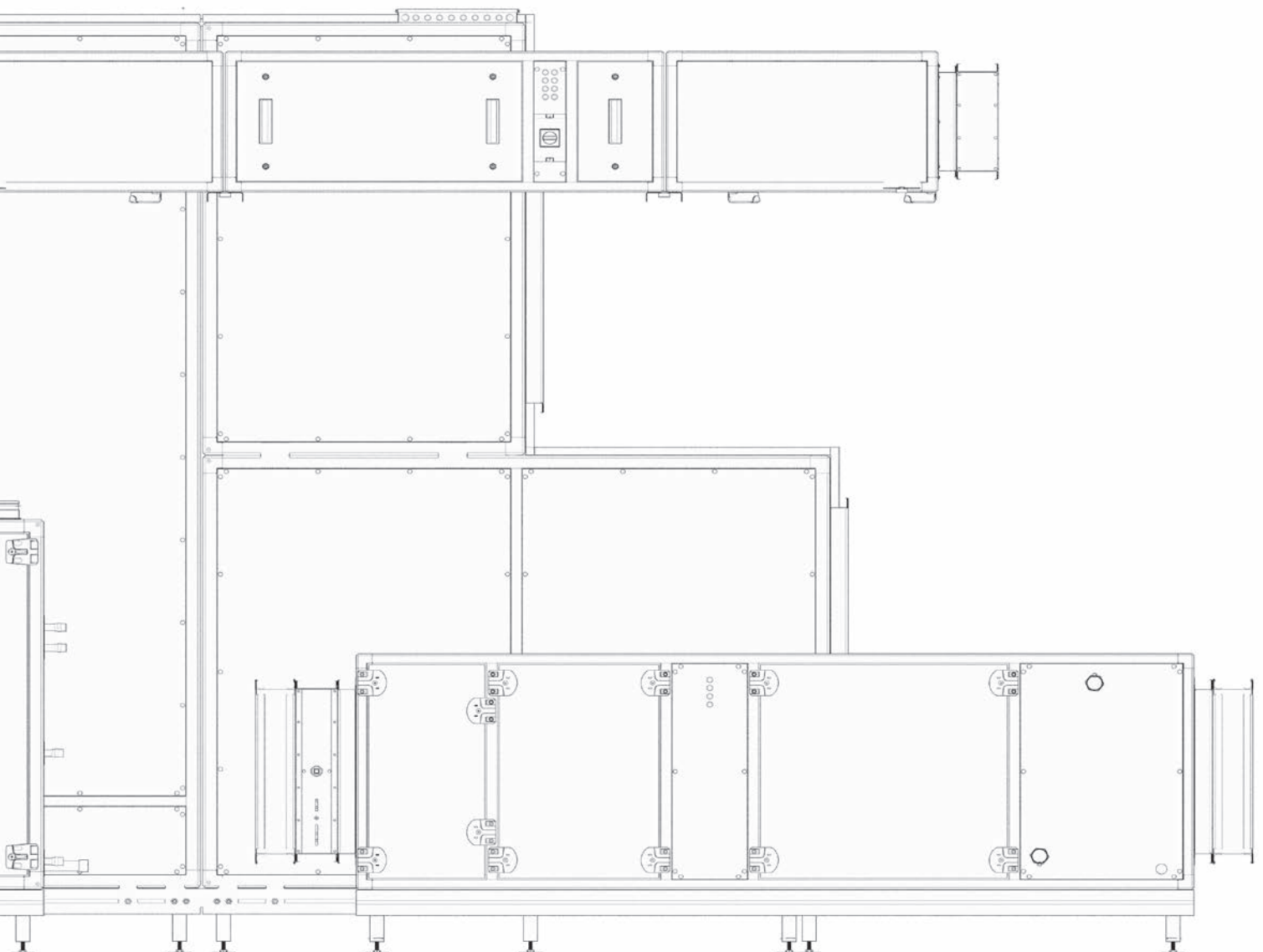
	Type	Place of Installation		Application		Nominal Airflow Range (m ³ /h)	Number of Sizes	Type of Air Connection	Panel Thickness (mm)	Finish of Panels
		Indoor	Outdoor	Comfort	Industrial					
<i>AltiPlex R</i>	Compact	•		•		1200-7200	6	Top	40	Alu-Zinc coated sheet steel
<i>AltiPlex P</i>	Compact	•		•		1200-7200	6	Top	40	Alu-Zinc coated sheet steel
<i>MultiPlex H</i>	Compact	•		•		2300-4900	4	Side	30	White powder coated sheet steel, galvanized sheet steel
<i>MultiPlex</i>	Modular	•	•	•	•	1200-27500	21	Side and/or top/bottom	30-60	Alu-Zinc coated sheet steel
<i>SimPlex</i>	Modular	•	•	•	•	1200-27500	21	Side and/or top/bottom	30-60	Alu-Zinc coated sheet steel

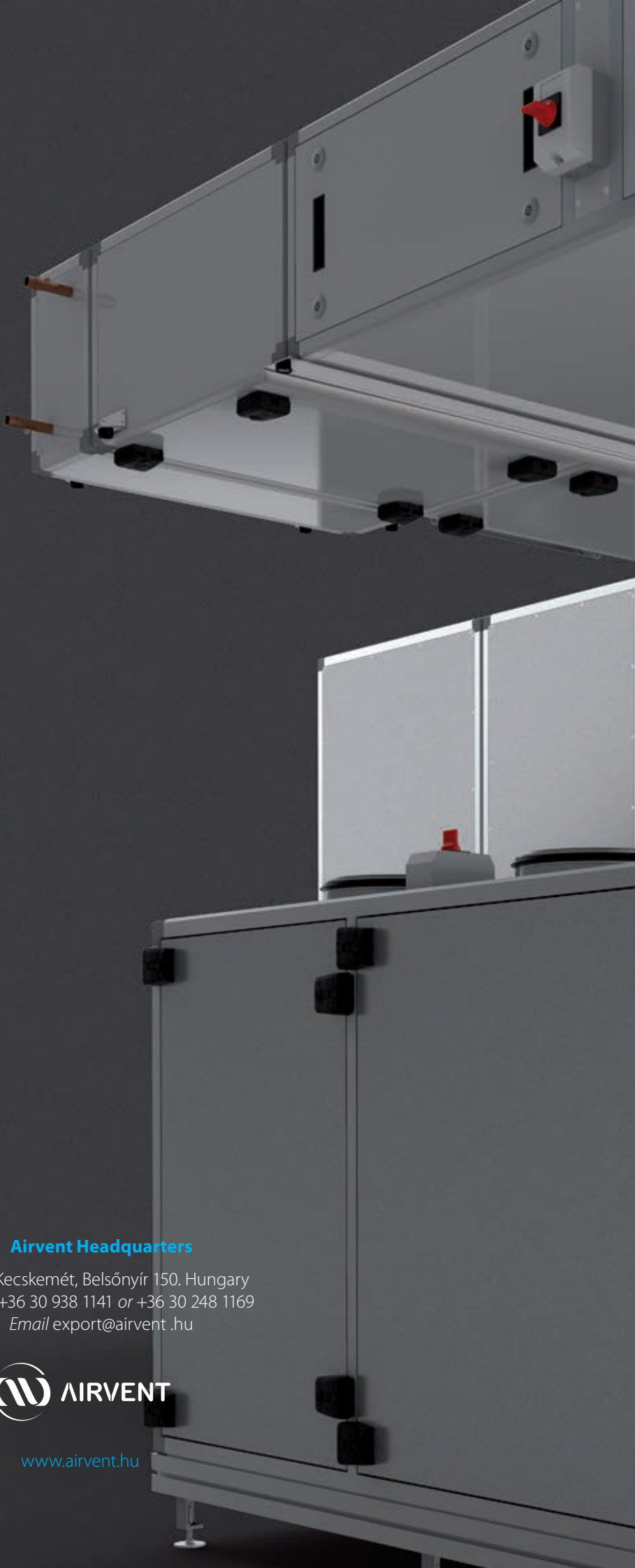
The air-conditioning and ventilation needs can significantly vary from building to building, from project to project. Having the design work be made by an experienced expert is essential, but having the right tools and products is equally important. When choosing a product the energy efficiency and environmental aspects are just as important as excellent performance and quality. Our Plex air handling series has been designed by taking these aspects into consideration so that we can offer products that meet the varied requirements of comfort and industrial ventilation.



Automatic Control	Filters		Optional Heat Recovery Types			Cooling and Heating Coil Options				
	Filter Class	Optional Multi-stage Filtering	Rotary	Counter-flow Plate	Coil	Water Cooler	Water Heater	DX Coil	Electric Heater	Gas Burner
CA-Plex	F5-F6		•			•	•	•	•	
CA-Plex	F5-F6			•		•	•	•	•	
CA-Plex	F5-F6-F7			•		•	•	•	•	
CA-Plex	G4-F7	•	•	•	•	•	•	•	•	•
CA-Plex	G4-F7	•			•	•	•	•	•	•

The air handling units of the Plex serie are either compact or modular units. For comfort ventilation we recommend using our compact units, while for industrial applications our modular units are most suitable. In addition to the standard modular units we can offer customized solutions as well. Thanks to our wide product range we can offer air handling units for various projects where specialized products are required.





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