

> AIR TREATMENT

AIR HANDLING UNITS

## AIR HANDLING UNITS by FLÄKTGROUP

>> A COMPLETE RANGE OF ENERGY EFFICIENT AND FLEXIBLE AIR HANDLING UNITS



eCO PREMIUM™



eCO TOP® / eQ TOP™



eQ PRIME®



eQ MASTER®



eQL®





WE BRING  
**BETTER AIR**  
TO LIFE

We eat about 1 kg of food, we drink approximately 2 liters of water but **we inhale 20 000 litres of air every day**. With up to 90% of our time spent indoors, the air we breathe makes a huge difference for our health, comfort and productivity. Also, typically 85% of the Life Cycle Cost of a ventilation system is generated by the energy cost which puts focus on smart and energy efficient solutions.

**This is where FläktGroup comes into the picture.**



## WE MAKE BUILDINGS MORE EFFICIENT AND COMFORTABLE – NOW AND IN THE FUTURE

As the world tries to combat global warming, the focus on energy consumption and its “carbon footprint” increases. If we can use less, that footprint will be smaller. With governments imposing ever stricter legislation and property owners increasingly demanding higher energy efficiency for their buildings, delivering solutions to meet these demands can seem daunting.

FläktGroup can help you achieve these targets. With our strong heritage, vast product range, global coverage and skilled people, we are in a unique position to deliver energy efficient products and solutions to all applications and industries.

Our solution is a broad approach that leaves no stone unturned to achieve optimum results. It is a chain that starts with high-performing components utilising the latest technologies, continues with carefully designed products that focus on energy efficiency and finishes with complete solutions that use smart controls to manage every single part of the system to optimise the energy savings. All this is achieved whilst maintaining high levels of indoor comfort that we need and expect within a modern building design – and that you can rely on FläktGroup to deliver.

## Energy efficiency – the essence of our solutions

All our research, development and testing activities are singularly focused to provide our customers with the best and most efficient solutions possible to their ventilation and indoor climate challenges.

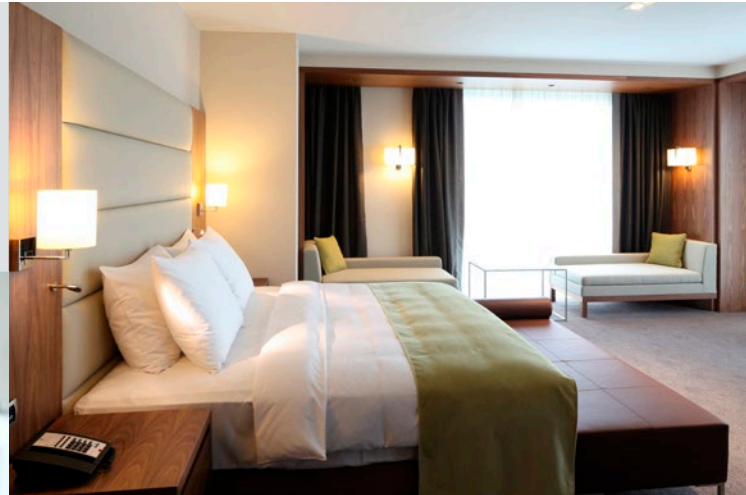
From new and innovative concepts, smart material choices and manufacturing processes to advanced controls, minimised running cost and easy maintenance, FläktGroup always strive to deliver the best for your long-term economy and our environment.



# We always have the right air handling solutions **for all types of environments**

## OFFICES

We provide high indoor air quality to ensure the wellbeing and productivity of the occupants, to ensure no sick leave due to draught or bad indoor climate. Making the office environment attractive will also allow for higher rental income for property owners.



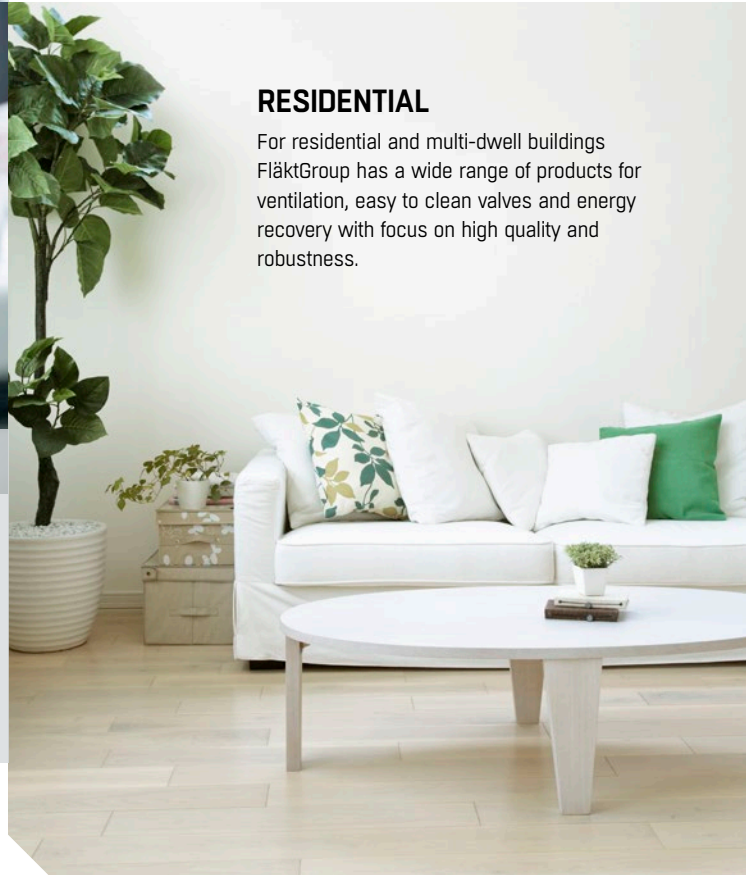
## HOTELS & RESTAURANTS

FläktGroup has a proven history of providing high comfort solutions for hotel rooms with low noise levels and comfortable airflows. For restaurants there is a wide range of products to ventilate dining areas and kitchens and to ensure that energy can be recovered without any risk of odours.



## HYGIENE

For hygienic applications such as hospitals and pharmaceutical facilities we offer solutions suited for perfect cleanliness, advanced energy recovery with zero contamination and adhering to legislative demands for patient security.



## RESIDENTIAL

For residential and multi-dwell buildings FläktGroup has a wide range of products for ventilation, easy to clean valves and energy recovery with focus on high quality and robustness.

## INDUSTRIAL APPLICATIONS

Industrial buildings with large volume spaces and a lot of machinery can present unique challenges when it comes to managing ventilation. FläktGroup has efficient solutions that optimise climate and productivity for both people and business critical equipment.



## SHOPPING CENTRES

Shopping should be a pleasant and safe experience for the visitors as well as the possibility for the property owner to generate higher incomes. With our air treatment and fire safety solutions we ensure matching these requirements today and tomorrow.



## EDUCATION

We provide children and students the best possible climate for learning but still allowing for great flexibility as layout demands or occupancy will change over time, always adapting to the needs of the people occupying the spaces.



## PUBLIC BUILDINGS

In tunnels and metros it is crucial that people are safe in case of accidents and that bad air is ventilated out from the confined spaces. The FläktGroup fan range is developed to meet the needs in these complex installations.



## MARINE

Marine environments such as naval ships and oil rigs demand high quality solutions due to the harsh, corrosive and possibly explosive conditions. FläktGroup has a long history of successfully delivering solutions meeting the strict demands for these applications.

# 8 product families **that cover** **your project's every need**



## AIR TREATMENT



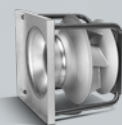
- Air handling units Modular (Commercial, Compact)
- Air handling units Industrial
- Air handling units Light Commercial
- Air handling units Residential
- Energy Recovery Wheels



## AIR DIFFUSION



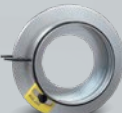
- Fan Coil Units
- Chilled Beams
- Underfloor Cooling
- Air Curtains
- Unit Heaters



## AIR MOVEMENT



- Ventilation Fans (Duct Fans, Radial Fans, Roof Fans)
- Fire Safety Fans
- Car Park Fans
- Cooker Hoods

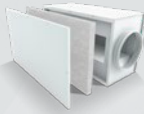
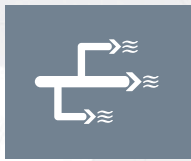


## AIR MANAGEMENT & ATD's



- Dampers (General, Fire, Smoke)
- Variable Air Volume Systems (VAV)
- Diffusers/Grilles/Air Valves
- External Louvres & Cowl's

**We have more than 3000 products to ensure that there is always a perfect fit in our customer's projects.** Having the largest product range in the market, our offering covers five critical air functions of the HVAC system for providing the best Indoor Air Comfort & Critical Air solutions.



- Ducts
- Fittings
- Silencers

#### AIR DISTRIBUTION



- Filter Media & Frames
- Dust Collectors/Duct Air Filters
- Electrostatic Precipitators
- Air Intake Systems
- Filter Control Systems
- Clean Room Solutions

#### AIR FILTRATION



- ICT cooling
- Chillers
- Heat pumps
- Single and Multi-Split units
- VRF - Variable Refrigerant Flow units

#### AIR CONDITIONING AND HEATING



- Control and Optimisation Systems

#### CONTROLS



# The advanced eQ family by FläktGroup

Always feature-packed, flexible and ready to deliver to the highest standards



**ECO**  
design



## Highly flexible

The eQ range gives you tremendous possibilities to tailor the configuration of your AHU to your specific demands. The complete range of energy-efficient components, accessories and configuration possibilities on offer ensures that there is always an optimal solution for you.

## Energy efficient

All FläktGroup air handling units are designed with energy efficiency in focus and are filled with the most energy efficient components. This ensures AHUs with low SFPv and high energy recovery rate.

## Certified performance

eQ air handling units are certified according to Eurovent. The energy and casing performance is tested regularly and certified. All FläktGroup AHU's can be designed to fulfil the EU Ecodesign directive.

## Focus on low LCC

eQ AHU's are great performers when it comes to energy efficiency, giving you the benefit of low annual energy consumption and low total energy cost. To optimise your investment, FläktGroup provides an advanced tool to calculate the Life Cycle Cost.





### Integrated controls

Factory-fitted controls to your unique configuration make sure that functionality and energy efficiency reach or surpass set targets. With easy to use interface and compatibility with BMS systems, commissioning is quick and simple.

### Robust casing

The unique eQ casing forms a strong, air tight and stable, box-section framework. The casing is Eurovent certified with excellent thermal and sound insulation as well as air tightness properties.

### Hygienic design

eQ casing is designed with hygiene in mind. Easy cleanability and no risk of trapped water are basic characteristics. Econet run around coil recovery system completely eliminates the risks of bacteria and odour transfer from exhaust to supply air.

### Easy installation

Thanks to the considered design, installation and commissioning times are kept to a minimum. As far as possible the units are delivered pre-assembled and pre-configured with a minimum of wiring and component assembly needed on site.

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# COMPACT AND STANDARDISED OR ULTIMATE FLEXIBILITY? WITH **eQ** THE CHOICE IS YOURS

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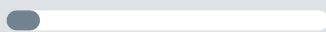
## eQ TOP™

eQ Top is a top-connected AHU with a small footprint. All connections are circular for easy connection to a spiro duct system. eQ Top is supplied with fans, filters and rotary heat exchanger. There is a wide range of duct mounted components, including dampers, coils, silencers etc. eQ Top can be equipped with an integrated control system with control and alarm functions as well as the possibility to communicate with BMS systems.

### QUICK FACTS

- Available in **2 sizes**
- Energy efficient rotary heat exchanger
- Plug & Play installation
- Circular connection on the top
- Integrated controls

### AIR FLOW



**0.2 – 14 m³/s**



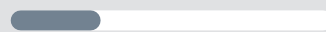
## eQ PRIME®

eQ Prime is a standardised range of air handling units in compact casing that includes the most energy efficient components such as 270 Premium rotor, ReCooler HP, Recuterm counterflow and PM-motors. The basic block of fans, filters, and heat recovery can be complemented with heater, cooler and silencers inside the casing or mounted in the duct. Integrated controls system is optional.

### QUICK FACTS

- Compact design available in **8 sizes**
- Plug & Play installation
- Regoterm 270 Premium energy recovery rotor
- Recuterm counterflow plate heat exchanger
- Integrated controls

### AIR FLOW



**0.1 – 6 m³/s**

**Modern buildings need to be ventilated in a modern and efficient way to achieve good indoor climate.** This also needs to be combined with reduced energy consumption and environmental impact. FläktGroup is a global leader in energy efficient ventilation solutions, and we are proud to offer an unrivalled range of air handling units that can cover virtually any application and requirement. From small compact units to completely tailored modular units for very large airflows, we can match or exceed your needs.



## eQ MASTER®

The eQ Master is a range of flexible modular air handling units. eQ Master offers wide flexibility in components, configuration and material selection to meet the needs of most building requests. eQ Master offers a comprehensive range of components, heat recovery systems, filters and fans etc. packed in a hygienic and rigid casing.

### QUICK FACTS

- Modular unit available in **21 sizes**
- High degree of flexibility in functionality and configuration
- Flexible and highly efficient energy recovery systems
- Good hygiene characteristics
- Integrated controls
- VDI 6022 compliant



### AIR FLOW



0.1 – 12 m³/s



## eQL®

eQL is FläktGroup's range of air handling units for large airflow rates. The modular design means that it is possible to tailor the configuration of components, material selection and placement to meet the demands of most building types. The range includes energy recovery systems, rotor or Econet run around coil, filters, fans, humidifiers, etc. eQL can be delivered in the form of an outdoor plant with service corridor.

### QUICK FACTS

- Modular unit available in **8 sizes**
- High degree of flexibility in functionality and configuration
- Flexible and highly efficient energy recovery systems
- Large airflows in one unit
- Outdoor installation with service corridor

### AIR FLOW



8 – 30 m³/s

# The modular eQ family by FläktGroup

A flexible set of components for optimum energy efficiency



**Regoterm  
270 Premium** rotary  
heat exchanger

**Econet** intelligent  
run around coil  
recovery system

**FläktGroup's eQ range is designed from the outset as a modular unit, to give you maximum flexibility.** We offer a complete range of functional modules to tailor the air handling unit to the demands of your specific project. Thanks to our history of innovations, continuous development work, world-class testing and lab facilities, we will always offer components that are class-leading in terms of energy savings. Due to the fact that FläktGroup is also a specialist in complete ventilation solutions, we always use our know-how to select specific components that are well-balanced when combined. Together they provide optimum performance and energy efficiency, combined with a low life cycle cost.



**Recuterm** Crossflow and Counterflow plate heat exchangers

**CentriFlow 3D** plug fan with efficient mix flow impeller design

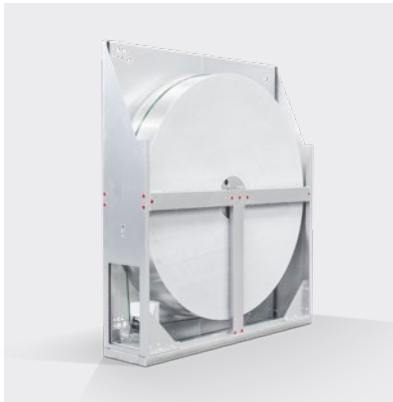
**ReCooler HP** Integrated heating and cooling recovery with exceptional energy recovery



To help you with the selection process we have developed ACON – an easy-to-use and powerful product selection tool for air handling units. It offers rapid product selection to specific project requirements and provides you with all the necessary technical information.

» [www.flaktgroup.com](http://www.flaktgroup.com)

## Energy recovery options

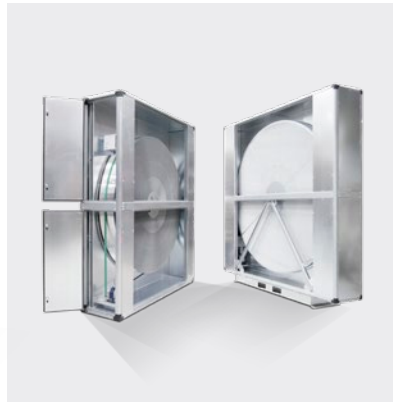


### REGOTERM® /REGASORP



Rotary heat exchangers from FläktGroup offer high levels of heating and cooling recovery at low pressure drops. Regoterm comes with different efficiency variants allowing true optimisation according to climate zone and supply air temperature needs

- Up to 90% temperature efficiency
- Regoterm 270 Premium for optimised ratio between heat recovery and pressure drop
- RegAsorp sorption rotor for up to 90% humidity transfer and efficient cooling recovery



### TWIN WHEEL®



Twin Wheel is a system with a RegAsorp sorption rotor, a cooling coil and a sensible rotor. This system significantly cuts down on cooling energy compared to traditional systems. The system is suitable in warm humid climate zones when there is a need for cooling and humidity control, especially in facilities with chilled beams.

- System for energy efficient dehumidification
- RegAsorp sorption rotor plus sensible rotor
- Stand-alone section with dedicated controller
- The need for a heating coil is dramatically reduced



### ECONET®



Econet is FläktGroup reliable and well proven intelligent run around coil recovery system with up to 80% heat recovery efficiency. It is a very safe system with no risk for transfer of bacteria or odour from exhaust to supply air.

- No risk for cross contamination – increased safety as supply and extract air does not mix
- Heating and cooling added to heat recovery coils - simplified configuration and short AHU
- Econet advanced frost protection for reliable operation and optimised heat recovery
- Factory built pump unit with control system

## Energy recovery options



### RECUTERM® counterflow



Recuterm counterflow is the plate heat exchanger range for high temperature efficiency ~85%. Recuterm counterflow is ideal for central AHUs in residential buildings where there is a need to consider risk of odour transfer. Recuterm AFP, advanced frost protection, demand based frost protection offers reliable operation and the highest total energy efficiency in cold climates.

- Heat transfer efficiency up to 85%
- Recuterm advanced frost protection
- Splittable for entry into narrow building openings

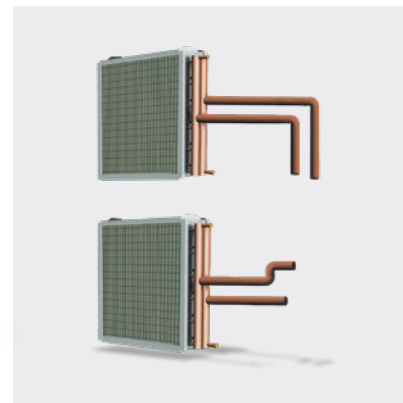


### RECUTERM® crossflow



Recuterm crossflow is the plate heat exchanger range for medium temperature efficiency ~73%. It is available for eQ Master upto size 072. It is ideal for all buildings where there is a risk of odour transfer from the extract air to the supply air. Typical applications are kitchen extracts, and residential buildings.

- Heat transfer efficiency up to 73%
- Airflow rates upto 25000m<sup>3</sup>/h (7m<sup>3</sup>/s)
- Recuterm advanced frost protection



### ECOTERM™



Ecoterm run around coil recovery system for eQ can be configured for above 68% heat recovery efficiency, which is the ErP request from 2018. The design for high heat recovery efficiency includes two coils in series.

- Run around coil recovery system for eQ Master
- Delivery includes coils in each air stream
- Ecoterm gives the benefit of no cross contamination between airflows

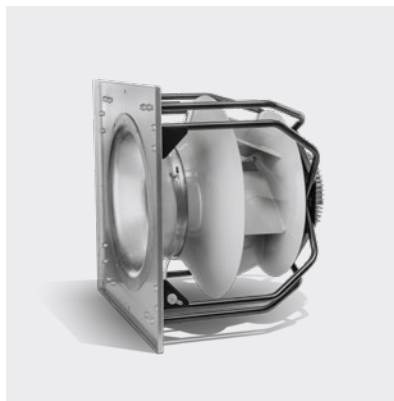


## CENTRIFLOW 3D®



The CentriFlow plenum fan range features impeller design that offers the best energy efficiency available on the market. The impeller is a mixed flow fan, designed with performance inside an AHU in mind. CentriFlow 3D comes with a wide scope of motors and VSD for reliable operation and low energy consumption.

- Mixed flow fan for best performance inside AHU
- Excellent sound performance – low noise
- Low vibration levels



## PM/EC MOTORS



For maximum energy efficiency the air handling units can be supplied with fans equipped with PM or EC motors. EC motors are used for the smallest eQ models and PM motors for larger, selected to fit the capacity range where they have highest efficiency.

- High energy efficiency motors with IE4 rating
- High efficiency also at part load
- Compact physical dimensions



## INDUCTION MOTORS



Induction motors in efficiency class IE2 or IE3 are available for plug-fans and belt driven fans. Induction motors comes in IEC standard according to common standard.

- Integral motor or separate VSD that can be connected to motor and mounted on AHU panel
- Outdoor units can be configured with VSD inside AHU casing

## Dampers



## DAMPERS



Damper constructed from galvanized sheet steel or stainless sheet steel. Dampers are factory mounted as standard, with actuator connected to controller on AHUs with integrated controls. Dampers are available for closing or mixing

- Counter-rotating stable damper blades in double-plate construction with EPDM rubber seals
- Mounted externally or protected inside casing
- Insulated damper blades as option
- According to tightness class CEN3 or CEN4
- Damper actuators as option

## Integrated cooling & heating



## ReCOOLER® HP



ReCooler HP is the combination of a reversible heat-pump unit and an energy recovery wheel in one unit – bringing true benefits from design to operations. eQ with ReCooler HP is a complete plug & play air handling unit for ventilation, heating and cooling, where everything is included and factory tested.

- High performance and comfort with low running costs
- Heat pump mode – no need for additional heating
- Quick and simple installation

This product contains fluorinated greenhouse gas, R410A, with a GWP-factor of 2088. Refrigerant quantity: 3.6-11.6 kg, corresponding to 7.9-24.6 tonnes of CO<sub>2</sub> equivalent.

## Heaters & coolers

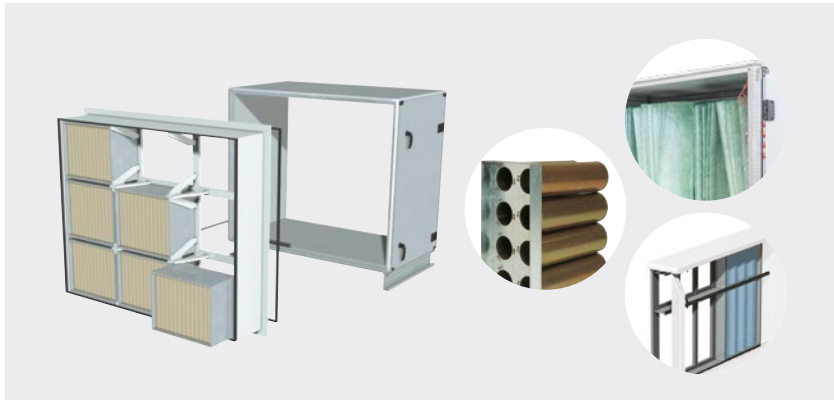


### HEATERS & COOLERS



eQ includes a wide offering of heaters and coolers. For heating we offer water coils or electrical heaters and for cooling, water or DX coils. The coils are made with copper tubes and aluminium fins, but for special demands, such as marine and off-shore use, different materials are available. We can deliver versions that are embedded in the AHU or duct mounted. For hygiene critical applications we offer a special model equipped with a withdrawable drain tray to facilitate cleaning, which satisfies hygiene requirements.

## Filters



### FILTERS



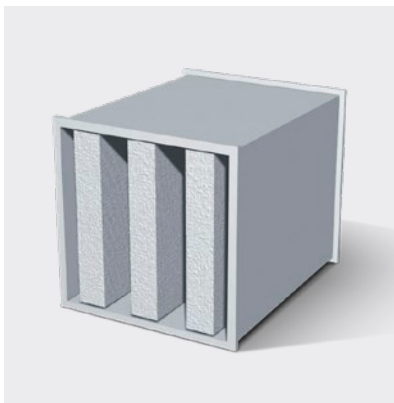
**Panel filter** – Filter cassettes in filter class G2 or G4. G2 filters are cleanable in aluminum and G4 filters are of synthetic material.

**Bag filter** – Filter cassettes, coarse filter: G4, fine filter: M5, M6, F7, F9. Manufactured from synthetic or glass fibre. Can also be provided with a G2 or G4 pre-filter. F7 and F9 filters are also available as compact filters for increased filter area. All bag filters are classified according to filter standard EN ISO 16890

**HEPA filter** for air handling units with high demands on hygiene. EQPF has a patented filter frame to eliminate the risk of leakage.

**Carbon filter** – Filter for adsorption/removal of gas pollutants and odours. The filter consists of cartridges filled with active carbon. Bayonet fitting makes installation and changes quick and easy.

## Silencers



### SILENCERS



All eQ units can be equipped with silencers mounted inside casing or as a duct-mounted version. When configured inside the AHU the sound performance is certified according to Eurovent. The baffles inside the silencers is made of non-combustible mineral wool with internal protective fabric which prevents fibres from the wool being carried along the air flow.

- 4 variants for different silencing effect and lengths
- Optional withdrawable baffles for manual cleaning

## Humidifiers



### HUMIDIFIER



Evaporative humidifier section is selectable for eQ Master and eQL. The humidifier material is made of a special impregnated glass fibre material that allows for superb moisture absorptive capability. The inorganic compound makes it hygienic, fire resistant and incombustible.

- Evaporative humidifier
- Circulating water or once-through





## CASING

The eQ unit casing consists of closed box-section frame members made of 1.5 mm aluzinc plated sheet steel (corrosion protection class C4) or stainless steel, and bolted together at the corners using steel brackets. The arrangement forms a strong, air tight and stable, box-section framework.

The double-skin design of the casing gives the unit very smooth inside and outside surfaces, which facilitates cleaning and reduces the risk of accumulations of dirt. The casing fulfils high hygiene requirements, and eQ is certified according to German VDI 6022 hygiene standard.

Casing panels and inspection doors are of double-skin design with 50 mm thick mineral insulation. Side panels can be removed from the outside of the unit. The doors are hung on adjustable hinges and are equipped with mechanically secured sealing strips. The doors are fitted with door handles with lockable latches. The latch is concealed within the door panel.

### OUTDOOR VERSION

The eQ units are also available in outdoor versions. The design is mostly identical to that of the indoor version and both have the same technical data. However, the outside of the casing is sealed with permanent elastic sealing compound and a factory fitted roof.

## ACCESSORIES

For the eQ series, a wide range of functional and practical accessories are available, allowing you to fully tailor the unit to your demands in every detail. Below are some examples of the available accessories:

- Lamp
- Inspection window
- Lifting devices
- Adjustable feet
- Connection pieces and flexible connections
- Differential manometers for filter pressure drop, of different types incl. Dwyer Magnehelic
- Safety accessories including screens for fans and door stops
- Drains
- Water traps
- Spare filters
- Flanges for coils
- Empty sections with drain pans
- ....and many more



# Quick selection

## eQ TOP eQ PRIME



### eQ Prime with rotary heat exchanger

eQ size	Nominal airflow	Fan size	Length mm	Width mm	Height mm	Longest block length mm	Duct connection mm	Approx. weight kg
005	0,4	Standard	1450	1050	1102	500	500x300	310
008	0,8	Small	1550	1350	1302	550	800x400	420
	1,0	Large						
011	1,2	Small	1950	1450	1502	700	800x400	530
	1,4	Large	2050					
018	1,9	Small	2150	1650	1702	750	1100x500	660
	2,2	Large	2250					
023	2,9	Small	2750	1700	2002	950	1400x600	1100
	3,3	Large	2850					
032	3,7	Small	2850	1800	2202	1000	1400x800	1350
	4,2	Large	2950					
041	4,7	Small	3000	2000	2302	1050	1700x800	1500
	5,3	Large	3100					
050	5,9	Small	3600	2300	2602	1250	2000x800	1850
	6,5	Large	3700					



### eQ Prime with plate heat exchanger

eQ size	Nominal airflow	Fan size	Length mm	Width mm	Height mm	Longest block length* mm	Duct connection mm	Approx. weight kg
005	0,4	Standard	2250	800	1102	1250	500x300	477
008	0,8	Small	2450	1100	1302	1350	800x400	701
	1,0	Large						
011	1,2	Small	3000	1200	1502	1600	800x400	925
	1,4	Large	3100					
018	1,9	Small	3300	1400	1702	1800	1100x500	1186
	2,2	Large	3400					
023	2,9	Small	4050	1700	2002	2150	1400x600	1780
	3,3	Large	4150					
032	3,7	Small	4450	1800	2202	2450	1400x800	2125
	4,2	Large	4550					

\*Splittable

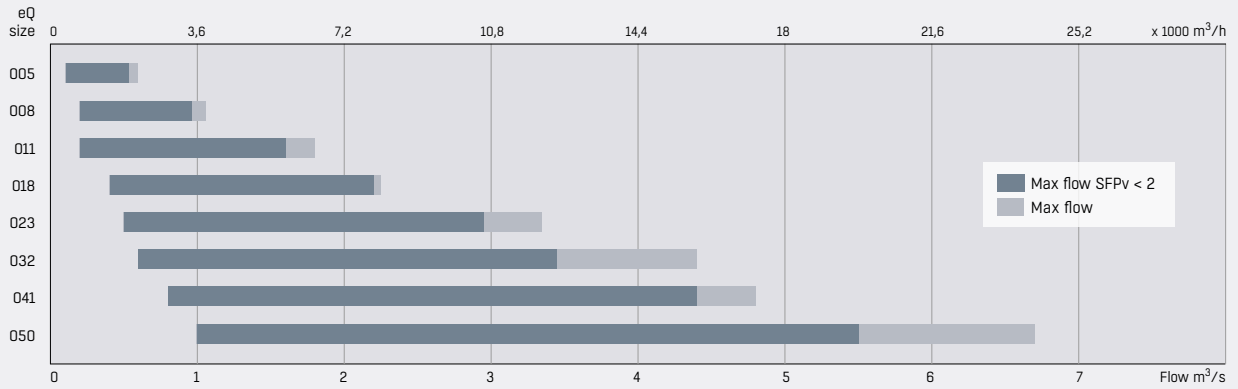


### eQ Top

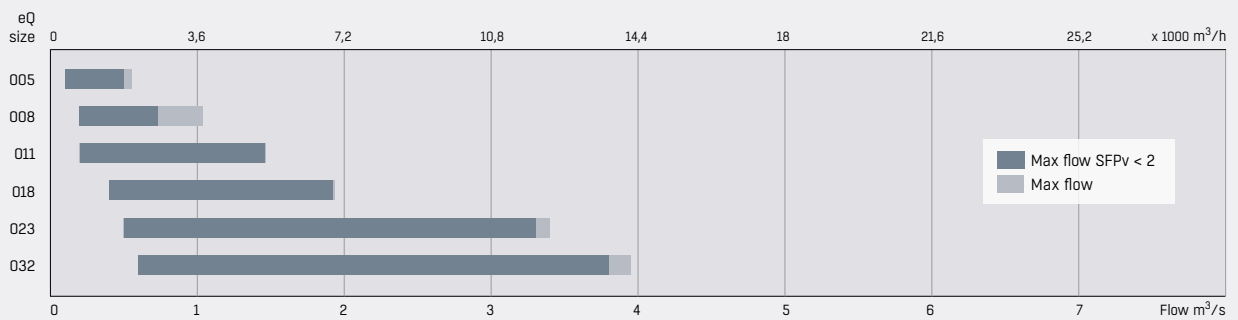
eQ size	Nominal airflow	Fan size	Length mm	Width mm	Height mm	Longest block length mm	Duct connection mm	Approx. weight kg
008	0,8	Small	1750	1100	1302	600	ø400	533
	1,0	Large						
011	1,2	Small	1950	1200	1502	700	ø500	662
	1,4	Large						

# Flowcharts

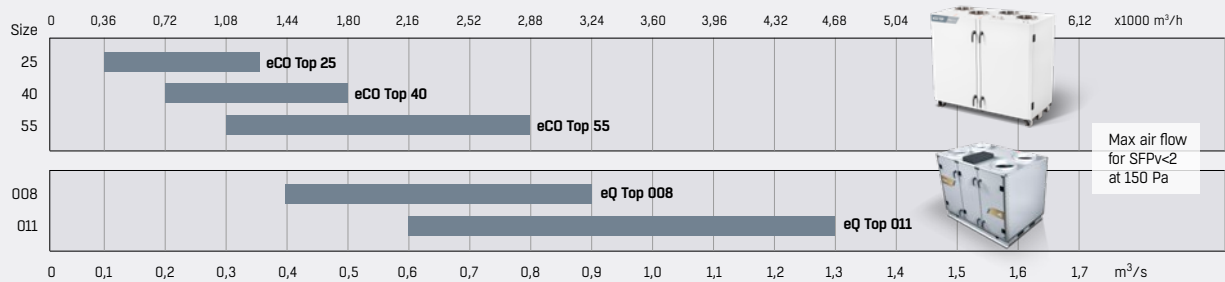
## eQ Prime with rotary heat exchanger



## eQ Prime with plate heat exchanger



## eCO Top and eQ Top



Max air flow for SFPv<2 at 150 Pa

# Quick selection

## eQ MASTER eQL



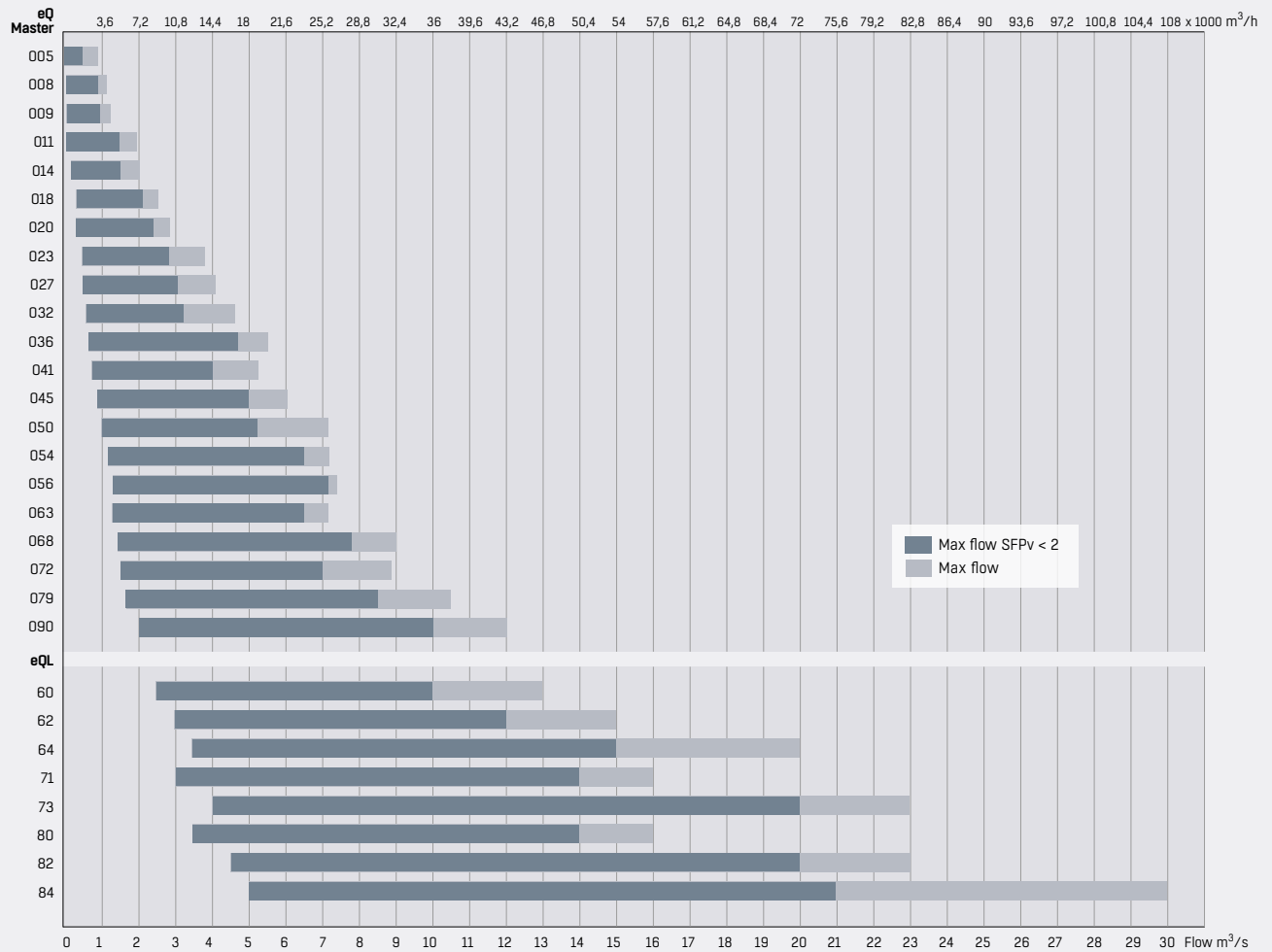
### eQ Master and eQL

eQ size	Width mm	Width with RHE mm	Height single deck mm	Height double deck mm	Duct connection mm	
005	800	800	476	952	500x300	
008	1100	1100	576	1152	800x400	
009	800	1400	776	1552	500x600	
011	1200	1200	676	1352	800x400	
014	1100	1400	776	1552	800x500	
018	1400	1400	776	1552	1100x500	
020	1100	1800	1076	2152	800x800	
023	1700	1700	926	1852	1400x600	
027	1400	1800	1076	2152	1100x800	
032	1800	1800	1026	2052	1400x800	
036	1400	2400	1376	-	1100x1100	
041	2000	2000	1076	2152	1700x800	
045	1700	2400	1376	-	1400x1000	
050	2300	2300	1226	2452	2000x800	
054	2000	2600	1376	-	1700x1000	
056	1700	3000	1676	-	1400x1200	
063	2300	2600	1376	-	2000x1000	
068	2000	3000	1676	-	1700x1200	
072	2600	2600	1376	-	2200x1000	
079	2300	3000	1676	-	2000x1200	
090	2600	3300	1676	-	2200x1400	
<b>eQL</b>						
60	2050	3400	2050	-	1600x1600	
62	2650	3660	2050	-	2200x1600	
64	3250	4000	2050	-	2800x1600	
71	2650	4000	2350	-	2200x1800	
73	3250	4500	2350	-	2800x1800	
80	2650	4500	2650	-	2200x2000	
82	3250	4500	2650	-	2800x2000	
84	4000	4900	2650	-	3400x2000	

# Flowchart and unit configuration



## eQ Master and eQL with rotary heat exchanger



## eQ unit configuration

Feature type	Detail	eQ Top	eQ Prime	eQ Master	eQL
Configuration	Supply or exhaust air only			•	•
Filter	Fine filters	•	•	•	•
	Carbon filter			•	•
	HEPA filter			•	•
Fans	Plug fan	•	•	•	•
	Radial fan			•	•
Heat recovery	Regoterm/RegAsorp (thermal wheel)	•	•	•	•
	Twin Wheel			•	
	Recuterm Crossflow PHE			•	
	Recuterm Counterflow PHE		•	•	
	Econet (run around coils)			•	•
	Ecoterm (run around coils)			•	•
Integrated cooling	ReCooler HP		•	•	
Heaters and coolers		•	•	•	•
Silencers		•	•	•	•
Humidifiers				•	•
Integrated controls		•	•	•	

# COMPACT UNITS FOR SPACE CONSTRAINED INSTALLATIONS



## eCO TOP<sup>®</sup>

eCO Top features compact dimensions, low sound levels and an attractive white-painted exterior finish to provide great flexibility in the location of the unit. It was developed with light commercial buildings, such as offices, schools and restaurants in mind. The top connections and Curo Touch with commissioning wizard make the installation quick and simple. Carefully chosen components ensures low running and life cycle costs.

### AIR FLOW

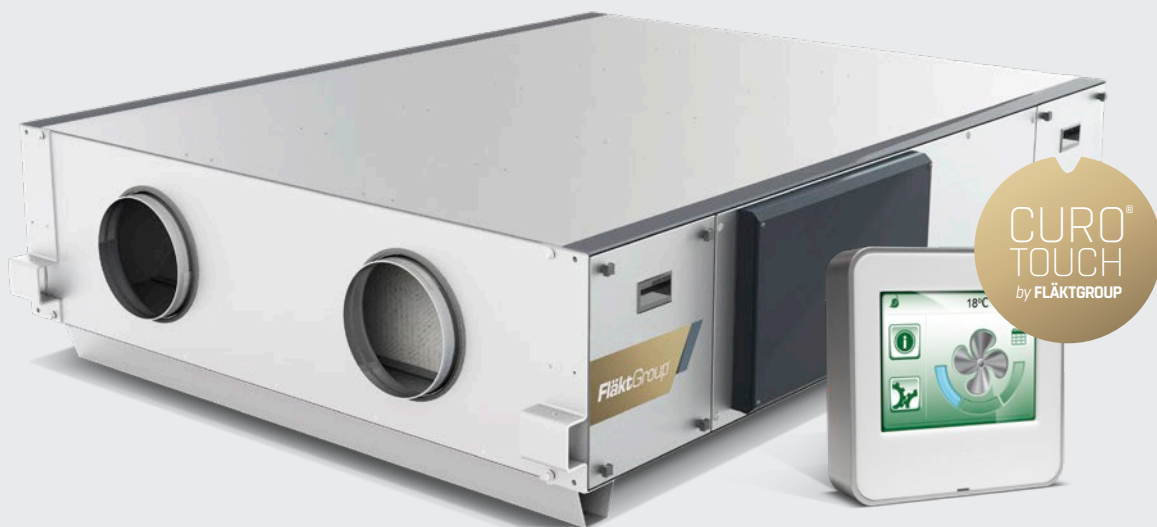
360 – 2808 m<sup>3</sup>/h

### QUICK FACTS

- Available in **3 sizes**
- Simple installation with all connections facing upwards
- Rotary heat exchanger with up to 85% energy recovery
- Energy efficient plenum fans with EC-motors
- White-painted exterior finish, suited for installation in public areas with optional top and bottom cover plates
- Curo Touch with commissioning wizard
- Low noise
- Compliant to the hygienic standard VDI 6022



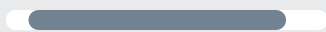
**eCO Top and eCO Premium – air handling units that are compact in dimensions but fully featured and packed with all our know-how.** These units are perfectly suited for installation in areas that have space limitations, narrow fan rooms or in ceiling voids. Typical examples are public buildings such as child care centres, schools, offices, shops etc. where the small footprint, perfect comfort and low noise levels are especially appreciated. They also come with integrated controls that are programmed, configured and tested to ensure that installation and commissioning is quick and simple – and that the units' energy efficiency is maximised straight out of the box.



## eCO PREMIUM™

A compact high performing AHU with energy recovery, ideal for ceiling void installations. The unit is packed with features for clean, fresh air, high efficiency and low noise. Elaborate electronic control system, minimised maintenance and most importantly high energy performance. In the new eCO PREMIUM, all of these features are fitted in a compact casing that fit even the smallest spaces.

### AIR FLOW



0.2 – 0.9 m<sup>3</sup>/s

### QUICK FACTS

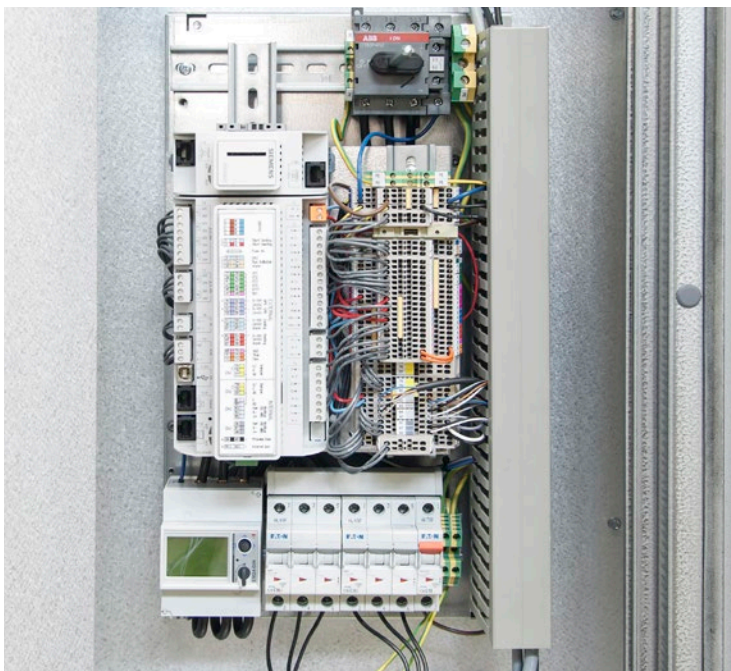
- Available in **6 sizes**
- Very low noise level (BSRIA tested)
- Integrated controls with CURO Touch
- Plug fans with EC-motors
- Counter flow plate heat exchanger ~85% efficiency
- Market leading energy efficiency - low SFPv
- Heaters inside the unit
- Wide scope of duct mounted components
- Outdoor version as option

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# INTEGRATED CONTROLS

## QUICK INSTALLATION AND OPTIMISED EFFICIENCY IN ALL CONDITIONS

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### PRE-CONFIGURED CONTROLS

The integrated control equipment is supplied complete with all necessary field components; pre-programmed, configured and tested. All control software is developed by FläktGroup using our collective expertise and experience from countless installations all over the world. The control hardware for the eQ range is the reliable and flexible Climatix and for the compact eCO Top and eCO Premium units we use our in-house developed CURO.

All controls are delivered pre-configured to the exact specification of the air handling unit which enables quick and reliable commissioning. Also with our easy-to-use hand controllers all of the setup parameters are literally at your fingertips.

### FULL CONNECTIVITY

There are many communication possibilities for the eQ air handling units – for connecting accessories, connection to BMS or connection to the internet and mobile services.

- Modbus TCP
- BACnet
- LonWorks
- Modbus RTU

eQ can also be configured with our intelligent web-based eQ Smartweb. The system constantly monitors the health, readiness and performance of the eQ, giving you full control at all times and minimising emergency visits on site.





**Irrespective of whether you are a consultant, a contractor or an operator, you will notice the advantage of choosing eQ factory-fitted control equipment.** An advanced air handling unit needs to meet high demands and deliver both a healthy and comfortable indoor climate, while at the same time comply to ever stricter energy consumption directives. Our control equipment has been developed to get the very best out of the carefully chosen components of the eQ air handling units. It also gives the added benefits of simplifying project planning, installation and operation; to give you more time for other issues.



## ENERGY SAVING FUNCTIONS

The control system includes many functions to optimise the overall energy performance, as well as functions to monitor and control efficiency-critical parts of the ventilation system.

- Pressure control (for VAV systems)
- Sequential mixing
- Night purging (free-cooling)
- Night heating
- Cooling recovery
- Compatible with IPSUM (FläktGroup pressure optimisation system)

## KEY FUNCTIONS

Supply air temperature and airflow can be controlled based on: a schedule for different times during the day and week, CO<sub>2</sub> content in the extract air, outdoor temperature, manually controlled forced operation or fire alarm.

- The control system includes alarm function for reliable operation of the air handling unit including monitoring of filter pressure drop
- Measurement of electrical energy is optional equipment
- Measurement of heat recovery efficiency is optional
- Fire controller is optional equipment that connects to the AHU controller and offers the possibility to control up to 128 dampers and receive input from smoke detectors



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# ALWAYS THE RIGHT PRODUCT CHOICE WITH A COMPLETE RANGE OF ADVANCED SELECTION TOOLS

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To help you always select the correct product for your project, FläktGroup has developed a complete range of selection tools. The programs are freely available on our website and are continuously updated to always include the latest products and knowledge from our research centres and lab testing. Many of the tools are considered to be among the very best of their kind in the world, they offer advanced life cycle cost calculations and all the efficiency and performance data you need. The goal is to make it easy to specify the most energy efficient and functional product for your project, regardless of application area. Therefore we also focus on making our selection tools as user-friendly as possible.

On the support centre section of [www.flaktgroup.com](http://www.flaktgroup.com) we have gathered links and information on all of our selection tools.

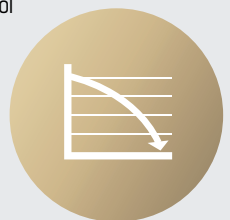


## LCC CALCULATIONS

To make an informed choice when making your investment in an air handling unit, the overall life cycle cost calculation is an important metric to consider.

FläktGroup has developed a sophisticated calculation tool that provides you with the yearly energy cost and life cycle cost. A large number of data sources are taken into account, including detailed climate information, heating and cooling recovery equipment and all relevant energy consumption points etc.

The LCC calculation tool is integrated in ACON for maximum ease of use.

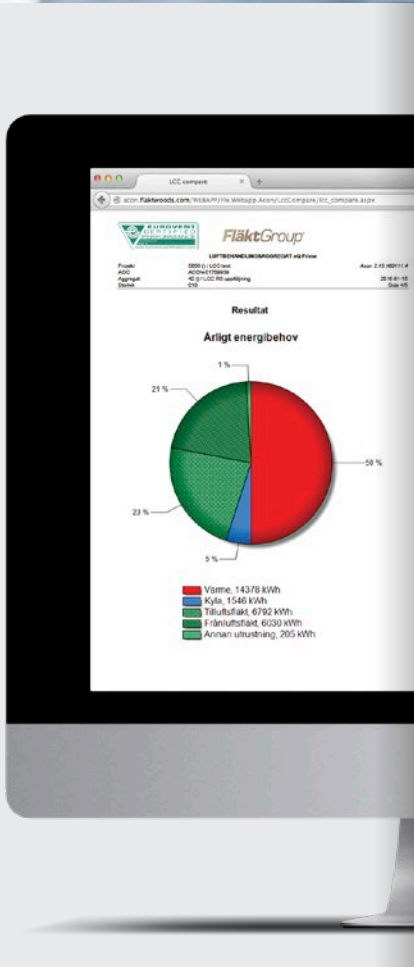




## ACON® SELECTION TOOL

Easy-to-use and powerful selection. ACON® is a powerful and easy product selection tool for air handling units. It is the best and most advanced of its kind on the web. It offers rapid product selection to specific project requirements and provides you with all the technical information.

- Product dimensions
- Noise data
- Performance data
- Efficiency data
- Life cycle cost
- Product documentation
- Export of Dxf and Dwg files

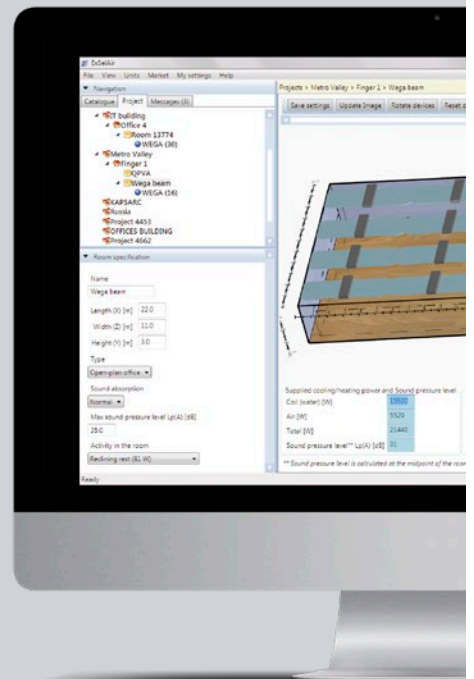


## MAGICAD PLUG-INS

MagiCAD offers possibilities to have plugins to enable a user to connect and import product selections and calculations and thereby selections become faster, easier and more accurate.

The plugin enables the users to find air terminal devices, chilled beams and air handling units. The plugins are available for AutoCad and Revit.

Via MagiCAD, plugins offer FläktGroup an opportunity to make it easier and more productive for designers to choose between our products. The Plugin is available for free for all MagiCAD users worldwide.



## EXCELLENCE IN SOLUTIONS

WWW.FLAKTGROUP.COM

AHU RANGE 9908GB

FläktGroup is the European market leader for smart and energy efficient Indoor Air and Critical Air solutions to support every application area. We offer our customers innovative technologies, high quality and outstanding performance supported by more than a century of accumulated industry experience. The widest product range in the market, and strong market presence in 65 countries worldwide, guarantee that we are always by your side, ready to deliver Excellence in Solutions.

### PRODUCT FUNCTIONS BY FLÄKTGROUP

Air Treatment | Air Movement | Air Diffusion  
Air Distribution | Air Filtration | Air Management & ATD's  
Air Conditioning & Heating | Controls | Service



» Learn more on [www.flaktgroup.com](http://www.flaktgroup.com)  
or contact one of our offices