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## ECONET® PREMIUM AND eQ - THE SMART SOLUTION FOR EFFICIENT ENERGY RECOVERY AND TRULY HYGIENIC AIR QUALITY

FläktGroup successful run around coil recovery system for eQ air handling units -Econet<sup>®</sup> - has reached a new reincarnation. Econet<sup>®</sup> Premium is the result of 20 years of development and sums up real world experience from over 4000 installations.

#### EFFICIENCY AND FLEXIBILITY

The new Econet<sup>®</sup> Premium is a great system to acheive high energy efficiency and low energy cost. Recovery rates up to 80% can be reached, and an unique advanced frost protection function improves the recovery rate even at low temperatures. An intelligent control system optimises the energy recovery at part loads, which is ideal for VAV systems. Econet<sup>®</sup> Premium is also a versatile system that can be connected to all type of heating and cooling sources, also those with less value, before considered as "low temperatured" waste heat.

#### PERFECTLY CLEAN AND SAFE AIR

With completely separated air flows the risk of cross-contamination is fully eliminated. Neither bacteria or pollution nor odour can be transferred from extract to supply air. This unique feature is obviously appreciated in hospital, pharma and microelectronic industries, but also an advantage when providing residential and work environments with perfectly clean and healthy air.

#### SPACE SAVING DESIGN

With the possibility of separate units for extract and supply air, Econet Premium offers great flexibility and space saving potential within the building. The extract unit can for instance be placed in the attic with supply in the basement – giving an increased leasable area.



More than 4000 Econet<sup>®</sup> installations worldwide – running reliably and efficiently in all types of buildings

#### APPLICATION EXAMPLES FOR ECONET<sup>®</sup> PREMIUM:

- Hospital
- Restaurants
- Residential buildings
- Parking garages
- Educado
- Pharma
- Supermarkets
- Industrial buildings
- Offices





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.



## THE ONLY CHOICE WHEN YOU NEED TO COMPLETELY ELIMINATE CROSS CONTAMINATION

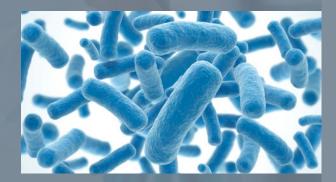
Certain applications require that the risk of cross contamination between exhaust and supply airflows are fully and entirely eliminated. In hospitals, strict hygiene demands are obviously needed to avoid spreading diseases between patients. The growing problem of multi resistant bacteria epitomises that fact, and implies that we in a close future will need to raise standards even further. Econet<sup>®</sup> is also the safest choice for residential buildings, restaurants and working environments where it is highly desirable for the breathing air to be free from odour, allergens and pollution. The absolute elimination of odour transfer between building areas is also a significant benefit.

The advantages of separated airflows are not only hygienical. It also opens up new recovery possibilities when heat can be recovered also from exhaust areas that are traditionally not used, for instance garages, WC's and kitchens.

### SEPARATE AIRFLOWS FOR ULTIMATE SAFETY AND ODOUR CONTROL

eQ Master and eQL is the modular part of the eQ air handling unit range. The supply and exhaust air streams are placed in two completely separated parts. This is the perfect long-term solution to eliminate every risk of cross contamination between airflows. The units can even be placed in separate parts of the building or on separate floors. Econet<sup>®</sup> Premium will still be able to provide full energy recovery.





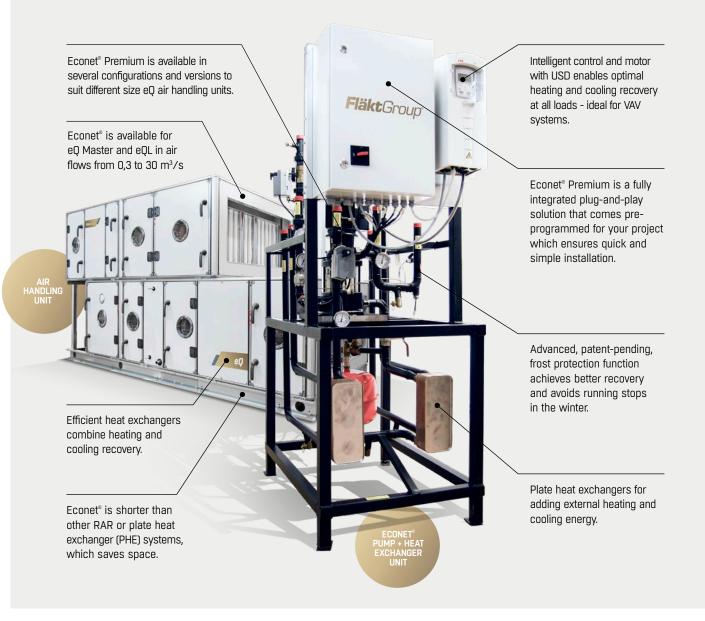
#### INCREASING HOSPITAL AIR HYGIENE - TOGETHER WE CAN HELP SAVE LIVES

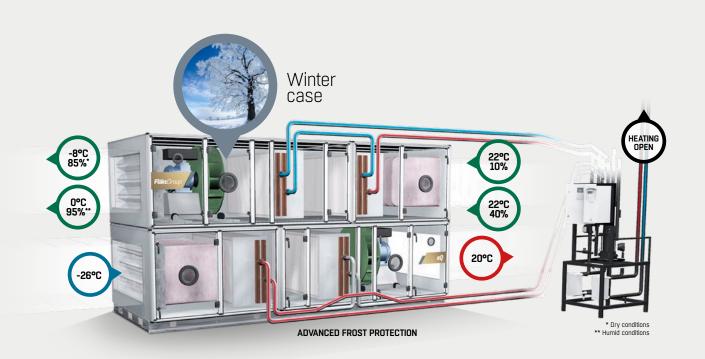
WHO's 2014 report on global surveillance of antimicrobial resistance reveals that antibiotic resistance is no longer a prediction for the future; it is happening right now, across the world, and is putting at risk the ability to treat common infections in the community and hospitals. Airborne infections are considered particularly difficult to protect ourselves against, and large numbers of people die each year of infections contracted in hospitals. At FläktGroup we cannot specify the hygiene requirements but we can play our part by ensuring an indoor air climate where the risk for cross contamination between areas is reduced or completely avoided.

Read more about or solutions for hospitals at www.flaktgroup.com

## ECONET<sup>®</sup> PREMIUM DELIVERS EFFICIENCY AND RELIABILITY IN ALL CLIMATE CONDITIONS

FläktGroup's Technical Centre in Jönköping, Sweden is one of the most complete ventilation laboratories in the world, able to perform simulations and testing in full-scale environments. The Econet<sup>®</sup> units are tested exhaustively during the development process on a specially-developed test rig, where their technical properties and performance are measured to a high degree of accuracy. The added experience from over 4000 installations and more than 20 years of continous development is part of the package.

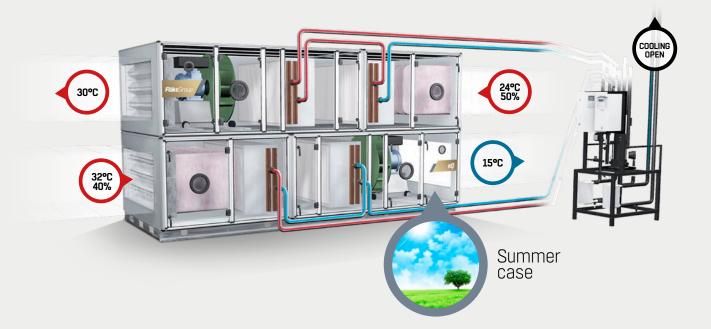




### Optimal energy recovery and advanced frost protection ensure maximum savings all year round

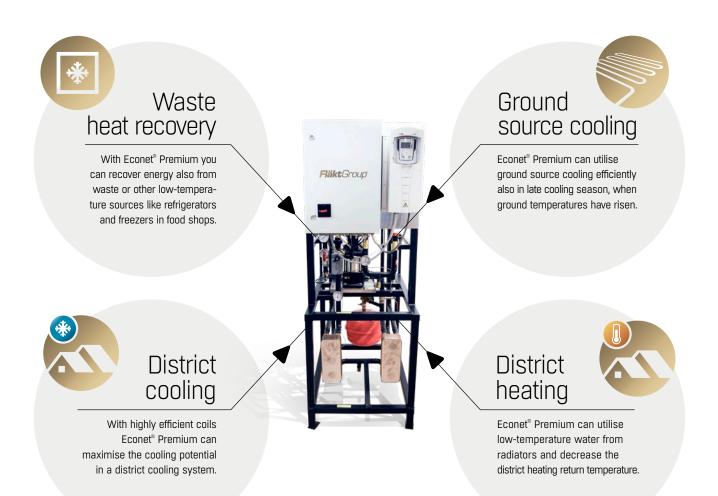
The Econet<sup>®</sup> Premium is equipped with the most efficient frost protection available on the market. The function is designed to optimise the energy recovery for all conditions by monitoring the real-time situation in the extract and exhaust air. The impact of this will be optimised energy saving even for extreme cold weather, no running stops, and a stable supply air flow and temperature. A patent pending unique feature.

Econet<sup>®</sup> delivers up to 80% energy recovery efficiency in both summer and winter operation



## WITH ITS CLEVER VERSATILITY ECONET PREMIUM **CONNECTS WITH JUST ABOUT ANYTHING**

With Econet<sup>®</sup> Premium installed you have a powerful and versatile tool to acheive savings in your hand. The efficient energy recovery system can recover up to 80% of the energy. When recovery isn't enough to acheive the appropriate amount of heating or cooling, intelligent control and a versatile connectivity opens up possibilities to utilise all kind of energy sources – but especially cheap sources – for the required additional energy.





# Flexibility and small space requirements gives room for large savings

In new buildings there is an economical incentive to maximize usable or leasable space. In older buildings, available areas for ventilation equipment are often limited. They are designed for simple systems, far from the space requirements of todays energy savings and air comfort solutions. Conventional rotor or plate heat exhangers need to place supply and exhaust air streams on top of each other. Econet<sup>®</sup> Premium in comparison offers flexibility and space savings as supply and exhaust can be placed independently, even in separate parts of the building!

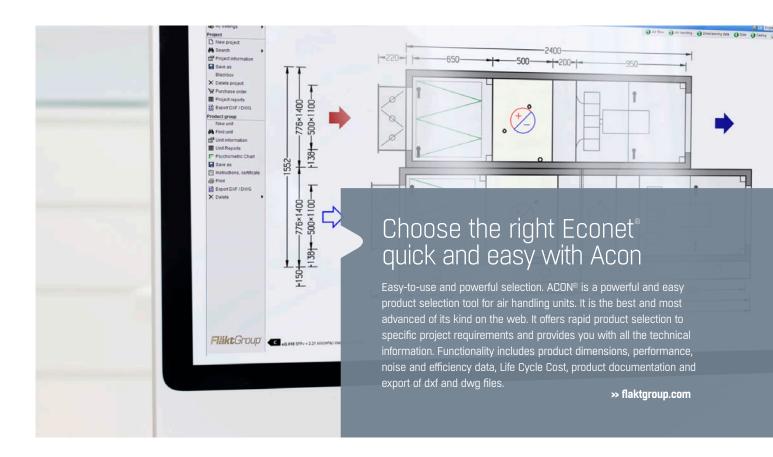
### The advantages of a split unit installation

#### » INCREASED LEASABLE SPACE

When updating ventilation systems in existing buildings, new demands for energy recovery and air comfort require larger Air Handling Units. Sometimes it's neccessary to take parts of adjacent leasable space in claim to be able to fit the equipment. Here eQ models with split supply and exhaust units placed side-by-side or in a row can be easier to fit.

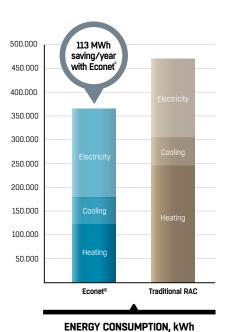
#### » INCREASED RECOVERY RATE

With split units for supply and exhaust air no leakage takes place. As a result also exhaust air from for instance WCs, kitchens and garages can be used for heat recovery. With fully split units no risk for odour or pollution cross-contamination between airflows needs to be taken into account.



## You can always count on Econet<sup>®</sup> – especially when it comes to savings

FläktGroup has a broad approach to savings. Our prime target is to provide the best choice with everything taken into account and in the long run - the Life Cycle Cost. But for Econet<sup>®</sup>, savings are apparent and obvious even at a glance; compared to traditional Run Around Coils (RAC) it uses a little more electricity for drive purposes but saves on both cooling and heating. The total energy consumption is in a class of it's own.



6.770 EUR saving/year with Econet 60.000 55.000 50.000 45.000 40.000 35.000 30.000 25.000 20.000 15.000 10.000 Coolina 5 000 Heating **Econet**<sup>6</sup> Traditional RAC

YEARLY ENERGY COST, EUR

Air flow: 10 m³/s

#### Summer

Outdoor air: +25 °C/60% Extract air: +24 °C/50% Supply air: +17 °C

#### Winter

Outdoor air: -26 °C/90% Extract air: +22 °C/30% Supply air: +20 °C

#### Energy prices\*

Electricity: 0,12 EUR/kWh Heating:\*\* 0,06 EUR/kWh Cooling: 0,04 EUR/kWh

Climate data: Helsinki/Finland \*2016-02 \*\*District heating

District field

#### **INFO & CONDITIONS**



# An efficient solution with clear and simple benefits



#### **END USER/BUILDING OWNER**

- Energy efficient solution for low operating costs
- Reduced investment cost on Cooling and Heating Systems
- Well proven and safe solution
- · Good indoor air quality
- No risk of odour or bacteria transfer
- No running stops even in extremely cold climates



#### CONSULTANT

- Absolutely no cross-contamination between air streams
- Low operating cost thanks to superior efficiency
- Reliable operation even in extreme arctic conditions
- Possibility to use process/waste heat, district cooling and heating
- Self-optimising unit (perfect for VAV Systems)
- Possibility to recover heat from all parts of the building (including car parks and kitchen areas)
- High reliability



#### CONTRACTOR

- Reduced labour on site
  (pre-fabricated pump unit with
  sensors and required controls)
- Less equipment to purchase
   only one pump/shunt circuit
- Space saving and easy installation (reduced length, footprint & weight of AHU)
- Reduced capital cost when considering the whole HVAC system



## **EXCELLENCE** IN SOLUTIONS

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

ECONET PREMIUM 9712G

» Learn more on **www.flaktgroup.com** or contact one of our offices