

ENERGY-EFFICIENT COLD CLIMATE HVAC SOLUTIONS

LEADING THE WAY IN AIR TECHNOLOGY



17
Modern
factories



3600
Talented
employees



65
Countries
worldwide

FläktGroup is a leading European manufacturer of Air Technology solutions. Each year we are proud to deliver products and solutions to thousands of projects all over the world with focus on Indoor Air & Critical Air Solutions, which help our clients to protect and enhance their building environments and its occupants.

> Contact us at flaktgroup.com



In Nordic climates, saving energy by reducing heating costs is paramount

FläktGroup offer a wide range of air handling units (AHU's) with integrated heat exchangers, for all market segments. We have extensive experience of developing heat recovery solutions for ventilation systems in cold climates, such as rotary heat exchangers and counterflow plate heat exchangers with advanced frost protection control systems. But we have also developed Econet – a smart run around coil recovery system for our eQ air handling units – with up to 80 % recovery efficiency.



ROTARY HEAT EXCHANGER



COUNTERFLOW PLATE HEAT EXCHANGER

Thanks to the separated supply and exhaust air streams the air handling unit can be placed virtually anywhere in the building, giving the possibility of renting the floor area otherwise occupied by a large technical room.

ECONET RUN AROUND COIL RECOVERY SYSTEM



> THE BENEFITS OF AN ECONET RECOVERY SYSTEM

• FREE MORE COMMERCIAL FLOOR SPACE

Because the supply and exhaust air streams are placed in two completely separated parts, placement flexibility of the unit is unrivalled. You are no longer limited to the traditional way of placing supply and exhaust air streams on top of each other. If you wish you can place exhaust air in the basement and supply air in the attic, or place them side-by-side, or after each other – anything is possible to optimise the use of floor space in the building. Rentable floor space is precious and with Econet you will find that the ROI calculation is very favourable. Double the air flow per given room height is possible!

• USE "FREE" HEAT SOURCES

The versatile Econet will connect to almost anything to achieve savings. For example you can recover energy from waste heat or

other low temperature sources, such as refrigerators and freezers in shops and district heating returns. Econet can also use borehole water for both cooling and heating. Thanks to Econet's separated air streams energy can be recovered from almost any building area, even the air from the garage.

• SAVE MONEY

If a technical room of 30 m² can be turned into rentable space by placing the AHU in an alternative location, this will translate into approximately € 200.000 in increased rental income over 20 years (based on € 200/m² per year). In many cases, additional savings can be realised by using only one AHU instead of several to cover all needs.

> *Please contact us to know more about the possibilities with Econet.*



ReCooler HP is the smart and easy alternative to costly and complicated outdoor installations. It is a completely integrated unit that is installed in your technical room.



COMPLETELY INTEGRATED IN THE eQ RANGE OF AIR HANDLING UNITS



COOLING



HEATING



CONTROLS



VENTILATION



RECOVERY

ReCooler HP – the easy solution for great energy savings and better indoor comfort all year round

With our eQ air handling units and the fully integrated ReCooler HP (Heat Pump), you only need one unit, one supplier and one contractor to get cooling, heating and ventilation – with integrated controls – for your building. It could hardly be more easy and cost- and energy-efficient!

The compact combination of a reversible heat pump and RegAsorp rotary heat exchanger brings true benefits from design to operation. From easy selection, through plug-and-play installation, to simple maintenance, the ReCooler HP is a solution that trumps the complicated, and often expensive, traditional heating and cooling installations.

ReCOOLER HP GIVES YOU THE BEST ENERGY SAVINGS – YEAR ROUND!

- Reversible heat pump with integrated rotary heat exchanger gives the lowest energy consumption
- Produce heating for € 0,02/kWh
- ReCooler HP uses the cooling unit as a heat pump during winter, thus maximising your ROI
- Compressor with PM motor for high efficiency, even at part load
- Cooling recovery

> **Contact us to know more about the eQ AHU range and ReCooler HP.**



* at 27 °C outdoor temperature
**at 0 °C outdoor temperature

Saving energy with Demand Control Ventilation

OPTIVENT® ULTRA – THE GAME CHANGER

30 years experience of developing and manufacturing VAV (Variable Air Volume) dampers has given FläktGroup great expertise in balancing ventilation needs and indoor comfort with energy efficiency. Our latest development is a revolutionary new technology for measuring air flow and temperature – ultrasound measurement. Better accuracy, fewer components in the air flow and no need for straight ductwork sections before or after the damper are key benefits.

A Demand Control Ventilation system can be controlled by:

- Occupancy sensors
- CO₂ sensors
- Temperature control

When using a Demand Control ventilation system it is very important to be able to make accurate measurements, particularly at low air flow, which is when energy savings can be achieved.

At low air flow, and air speed below 1 m/sec, traditional measurement methods a fault range of +/- 20% is common. If the crosshair sensors is not properly cleaned a fault range of more than +/- 30% is not uncommon, which obviously affects system accuracy and efficiency negatively. By contrast, when using FläktGroup Ultrasound measurement technology the fault range at air speed below 1 m/sec is typically below +/- 8%.

As our buildings become ever more air tight, and passive houses more common, the ability to accurately measure air flow is increasingly important, to prevent the buildup of pressure that can carry moisture into the building structure.

We launched our first VAV damper over 30 years ago and we used all our accumulated experience when we designed the new OPTIVENT® ULTRA. A key benefit is the fact that there is no need for any straight ductwork sections before or after the damper, making both design and installation flexible, quick and easy. The size of the damper is very compact and it is delivered ready to install with all parts factory fitted.

> Contact us to know more about Demand Control Ventilation and the OPTIVENT® ULTRA damper.



UltraSound
Technology
by FläktGroup

