

eQ Air Handling Units

With ReCooler

ESEER
11.2



FläktWoods

eQ Air Handling Unit with integrated cooling

The New ReCooler System from Fläkt Woods offers integrated cooling within the Air Handling Unit whilst delivering the lowest power consumption available on the market.

It incorporates Plug & Play design technology – no on site installation of Condensing Units, Pipework or Controls. ReCooler Package is manufactured, commissioned and tested at the factory, simply provide power and start cooling.



ReCooler saves, time, space, capital and energy costs

No components in the airstream
– easy to service

Industry Challenges going forward.

The new Building Regulations introduced in 2010 require a 30% reduction in CO₂ emissions from the previous building regulation standards.

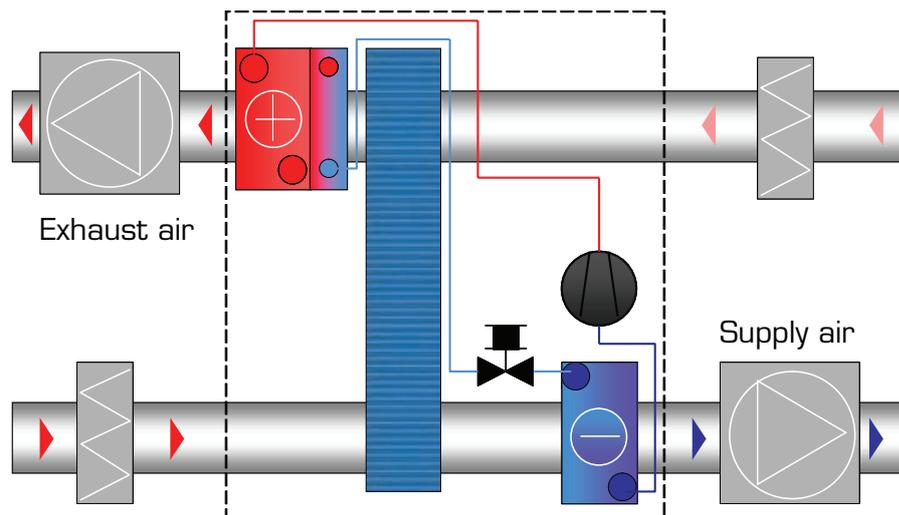
Legislation introducing the Carbon Reduction Commitment will introduce compulsory Carbon Credit purchases for all large organisations in both Public and Private sectors, those who do not reduce their Carbon Consumption will face energy cost increases of up to 20%, each Industry Sector will have league performance tables published.

With an average ESEER of 11 the ReCooler uses a third of the energy of a comparable Chilled Water System, installed cost is reduced by 60% with a reduction of installation time of at least six weeks.

The requirement to reduce CO₂ emissions will increase dramatically in the coming years, this combined with the pressure to reduce running and capital costs provide a compelling case for installing the Fläkt Woods ReCooler.

The air volumes can be reduced up to 40% of the nominal flow when only the small compressor is running. On top on this, ReCooler always has a separate sub-cooling coil to boost the capacity in all running modes.

Together, the cooling recovery and the sub-cooling give the ReCooler exceptional energy performance.





Lowest Cooling ESEER on the market

ESEER (European Seasonal Energy Efficiency Ratio) gives a weighted mean value of the EER for a chiller. We have adapted the basic principal to suit the operation of the ReCooler to give an equivalent value of ESEER in the following table:

	Outdoor temp	EER
	20	8.1
	25	10.0
	30	14.6
	35	14.5
ESEER with cooling recovery		11.2

Basic conditions: Outdoor humidity 50%, extract air: 22°C 40%RH



Controlability over time

ReCooler is fitted with three controls steps controlled by a 0-10V input signal. Since the cooling circuits are rather small compared to the total cooling capacity, the temperature control is very good.

Every individual component is chosen for its high reliability and efficiency. Together with the

Fläkt Woods control system this ensures a reliable and stable system with a long life.

Assessories

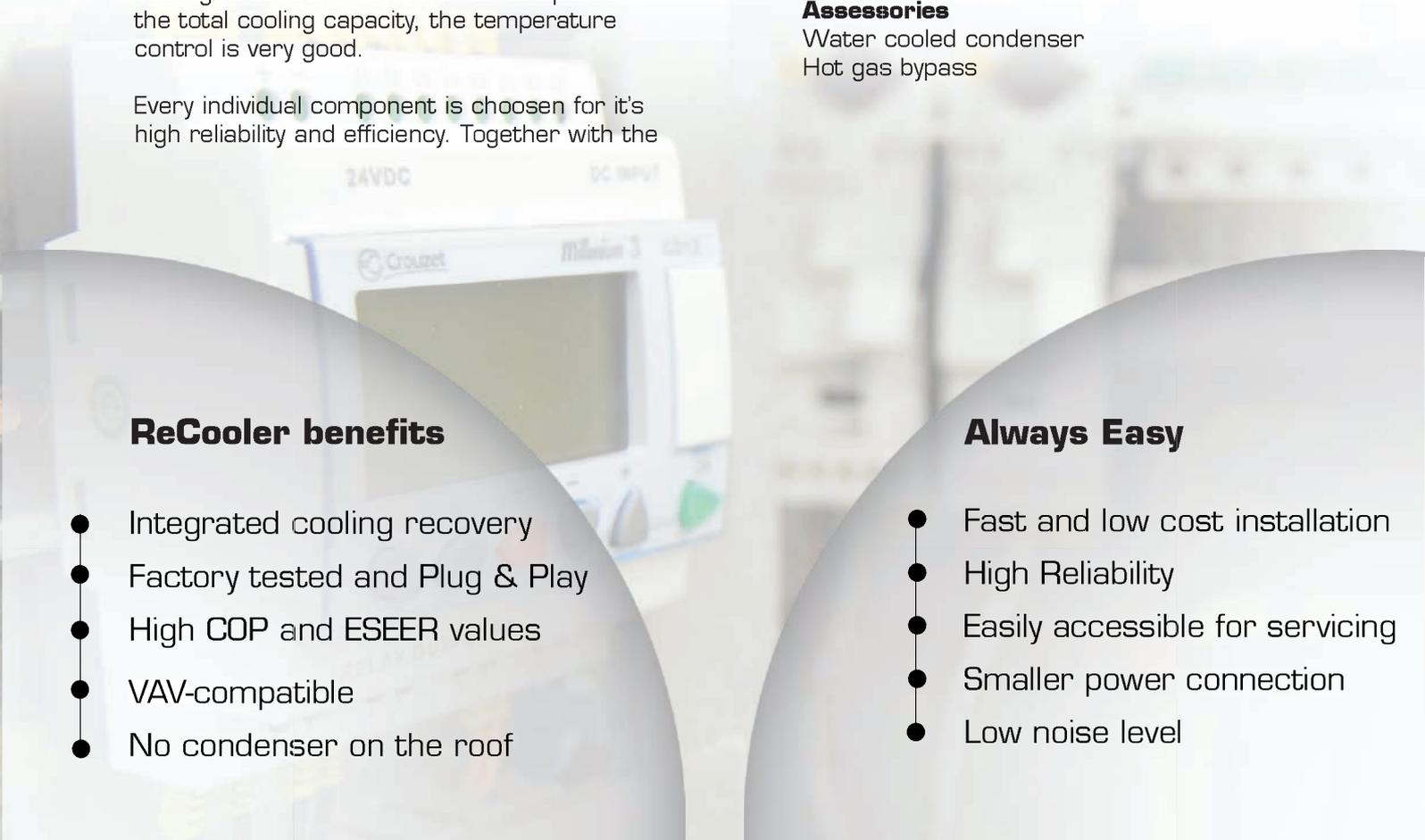
Water cooled condenser
Hot gas bypass

ReCooler benefits

- Integrated cooling recovery
- Factory tested and Plug & Play
- High COP and ESEER values
- VAV-compatible
- No condenser on the roof

Always Easy

- Fast and low cost installation
- High Reliability
- Easily accessible for servicing
- Smaller power connection
- Low noise level



We Bring Air to Life

Fläkt Woods is a global leader in air management. We specialise in the design and manufacture of a wide range of air climate and air movement solutions. And our collective experience is unrivalled.

Our constant aim is to provide systems that precisely deliver required function and performance, as well as maximise energy efficiency.

Solutions for all your air climate and air movement needs

Fläkt Woods is providing solutions for ventilation and air climate for buildings as well as fan solutions for Industry and Infrastructure.

● Air Handling Units (AHUs)

Modular, compact and small AHU units. Designed to ensure optimisation of indoor air quality, operational performance and service life.

● Air Terminal Devices and Ducts

Supply and exhaust diffusers and valves for installation on walls, ceiling or floor are all included in our large range and fit all types of applications.

● Chilled Beams

Active induction beams for ventilation, cooling and heating, and passive convection beams for cooling. For suspended or flush-mounted ceiling installation – and multi-service configuration. With unique Comfort Control and Flow Pattern Control features.

● Residential ventilation

A complete range of products for residential ventilation. Consists of ventilation units, exhaust air fans and cooker hoods designed to optimise indoor comfort and save energy.

● Fans

Advanced axial, centrifugal and boxed fans for general and specialist applications. Comprehensive range including high temperature and ATEX compliant options. Engineered for energy efficiency and minimised life cycle cost.

● Chillers

Air-cooled and water-cooled chillers with cooling capacity up to 1800 kW. Designed to minimise annual energy consumption in all types of buildings.

● Controls and drives

Variable speed drives and control systems, all tested to ensure total compatibility with our products. Specialist team can advise on energy saving and overall system integration.

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