RECAIR E-series

Rooftop Exhaust Heat Recovery Unit

- Energy-efficient solution for public, commercial, and residential buildings
- Duct connection at the end or bottom of the unit, selectable during installation
- Adjustable legs
- Exhaust air flow direction upwards
- Automation options with control panel or terminal block
- High-efficiency heat recovery coils

RECAIR
ETS NORD GROUP

Thanks to the integrated heat recovery, the E-series can significantly save energy and money by redirecting the heat captured from the exhaust air back into the heating systems. The heat recovery coil can be chosen based on the application, whether the heat is directed to the supply air unit or a heat pump to heat the building or domestic water.

The unit is suitable for new buildings, where the exhaust unit is used together with the supply unit, as well as for renovation projects where existing exhaust fans can be replaced with an E-series heat recovery unit. The E-series features height adjustable legs with a wide support base, reducing vibration and preventing roof damage.

New Buildings

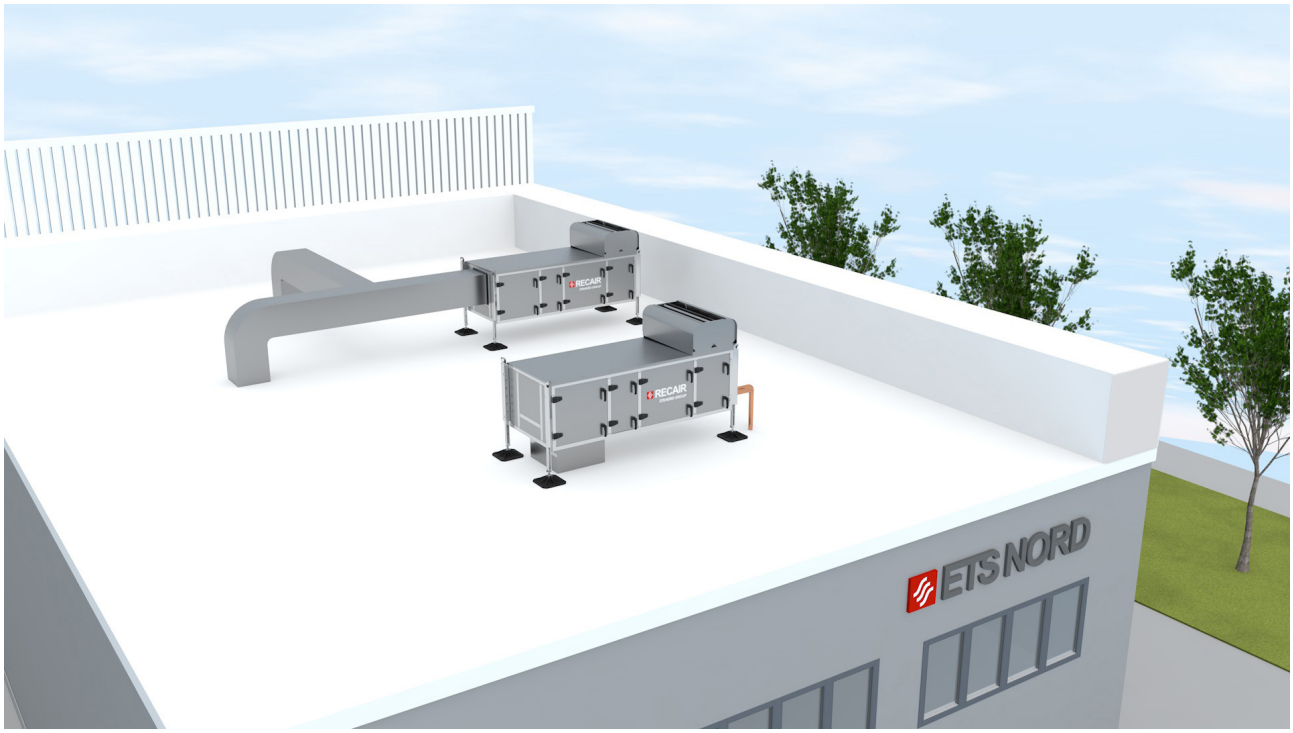
In new construction projects, the E-series rooftop exhaust unit can be used in places where there are restricted rooms inside the building for large ventilation units. It can be installed with Recair's supply units to achieve an optimal indoor climate. Together with Recair's supply units and the run-around coil pump group, it ensures high heat recovery efficiency.

Renovated Buildings

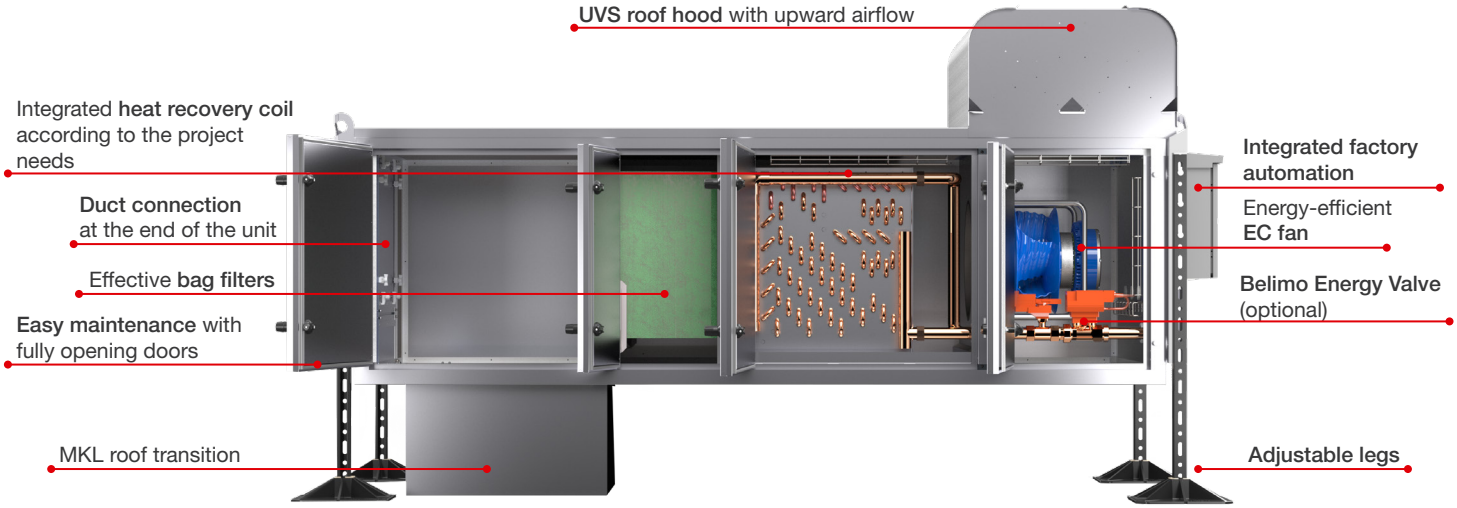
The E-series can be easily integrated with existing heating and ventilation systems. It can be combined with existing ventilation systems or integrated with a heat pump.

Benefits

- **Energy-efficient.** Reuses heat from exhaust air, significantly reducing energy consumption and heating bills.
- **Environmentally friendly.** Reduces the carbon footprint by reusing heat energy from the exhaust air.



Overview of the unit



- **Heat Recovery Coil.** The high-efficiency heat recovery coil that can be selected based on project needs.
- **UVS Roof Hood.** The water-resistant UVS roof hood directs exhaust air upward, creating a long discharge jet for good dispersion and prevents snow melting and ice formation on the roof during winter.
- **Duct Connection and MKL Roof Transition.** The device can be connected to the duct either from the end of the device or installed directly on the roof transition. Making the appropriate connection is easy and it can be modified on-site.
- **Easy Maintenance.** Fully openable doors for easy access to components. The doors and roof hood can be fully removed if needed.
- **Adjustable Legs.** Each leg is separately adjustable, enabling installation even on uneven roofs.
- **Belimo Energy Valve (optional).** Measures the heat fluid flow and temperature to calculate the actual energy saving from heat recovery.

Automation

The device can be delivered with two different levels of automation, with and without a controller.

When ordered with a controller, it comes with an electrical cabinet and full factory automation and control. It includes a residual current device that allows connection of the self-regulating heating cable.

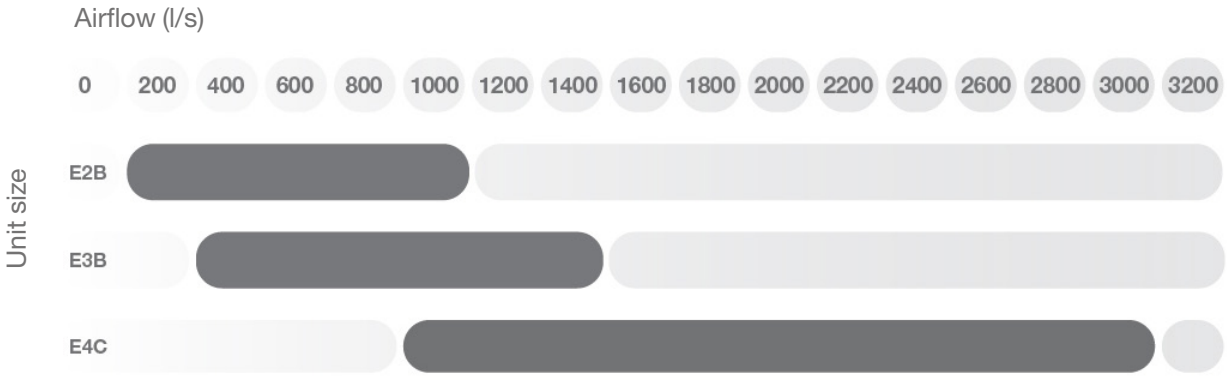
The controller allows:

- Airflow control
- Time-based program control
- Control based on duct pressure (pressure sensor optional)
- Control via external 0–10 V analog signal

When ordered with an electrical cabinet and without a controller, the unit comes with all electrical components and readiness for controller and building automation connection.

Sizes and Airflow Capacities

The E3B unit is currently available. Sales of the E2B and E4C units will begin in the third quarter of 2024.



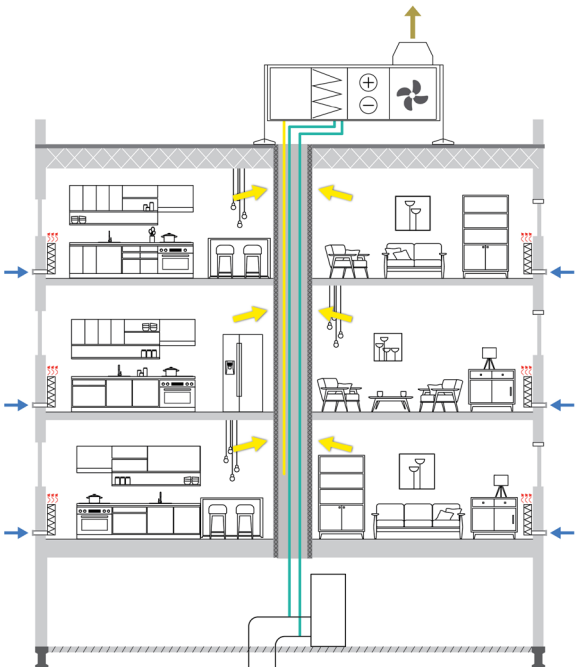
Solutions for Different Building Types

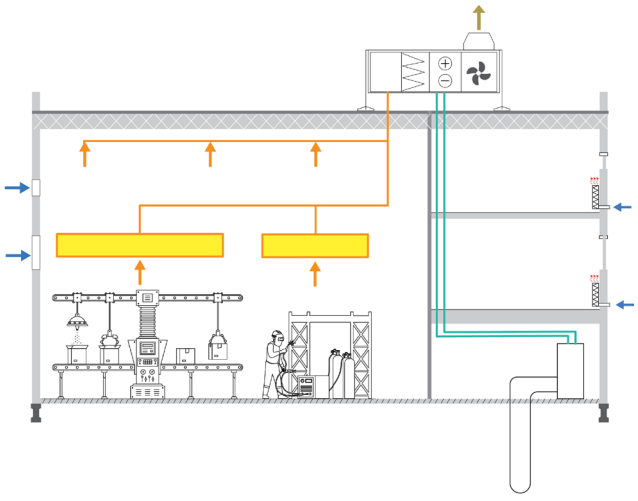
Apartment Buildings

Ideal for renovation projects to achieve energy savings.

Connects to building exhaust risers to ensure continuous exhaust and desired air exchange.

The heat from the exhaust air is returned to the heating system, reducing heating costs.





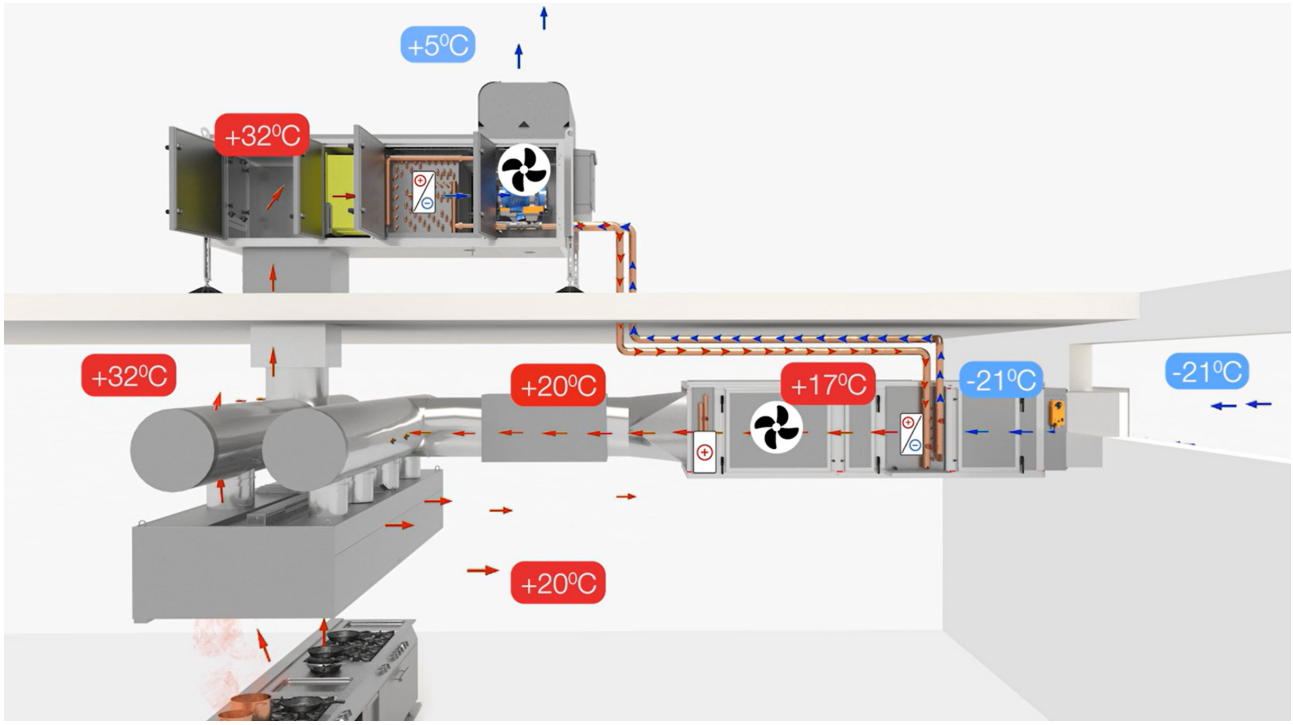
Industrial Buildings

The Recair E-Series unit can be integrated into an existing ventilation system in an industrial building. By recovering the heat contained in the extracted air, significant energy savings and cost reductions on heating bills can be achieved.

Excess heat generated from production processes and local exhaust ventilation can be reused in the heating unit or supplied to the air intake unit, thereby reducing the energy required to heat outdoor air.

Large Kitchens

The E-series is easily replaceable with existing exhaust fans. If connected to kitchen hoods that have air purification systems, the cleaned exhaust air can pass through the rooftop unit's heat recovery coil. Energy from exhaust air can be redirected to the supply unit, providing significant energy savings.



Energy Calculation Example

Airflow: 1000 l/s

	Without Heat Recovery	With RECAIR E-series Exhaust Heat Recovery Unit
Saved energy	0 MWh/year	62,06 MWh/year
Heating energy consumed	70,95 MWh	8,35 MWh
Annual heating cost	7095 €	835 €
Annual savings	0 €	6260 €

*Working hours: 12h (12.00–00.00)

**Calculation based on Tallinn ASHRAE IWEC climate data

***District heating price: 100 €/MWh

ETS NORD

ETS NORD AS

Address: Peterburi tee 53
11415 Tallinn
Estonia

Phone: +372 680 7360

info@etsnord.ee
www.etsnord.ee

ETS NORD Finland

Address: Pakkasraitti 4
04360 Tuusula
Finland

Phone: +358 40 184 2842

info@etsnord.fi
www.etsnord.fi

ETS NORD Sweden

Address: Järsjögatan 7
69235 Kumla
Sweden

Phone: +46 19 554 20 50

info@etsnord.se
www.etsnord.se

ETS NORD International

info@etsnord.com
www.etsnord.com

Let's move the air ***together!***