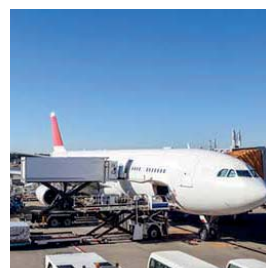




ENVIRONMENTAL  
CLIMATE CONTROL  
EQUIPMENT & SOLUTIONS



A DIFFERENT **CLIMATE**



MADE IN  
FRANCE

[www.ett-hvac.com](http://www.ett-hvac.com)

# ETT, a manufacturer and energy transfer specialist

Since 1979, Energie Transfert Thermique has been recognised as a market leader in the design and manufacture of bespoke air handling systems with energy recovery and high performance heat pumps.

Based at the western tip of France, our 18,000 m<sup>2</sup> factory (with 16,000 m<sup>2</sup> dedicated to manufacturing), is certified ISO 9001 (1999) and ISO 14001 (2010).

ETT is present all over France in 8 regional offices, and across the world through its network of agents and distributors.

Thanks to its **Research and Development Department**, ETT builds its growth on market expertise, innovation and environmental solutions.

**Our tailor-made solutions** address the challenges of today's demanding economic situation that privileges **comprehensive solutions including all costs**: purchase, installation, commissioning and energy consumption.



**1979**

Creation of **Energie Transfert Thermique**

**1999**

ISO 9001 certification



**2001**

Expansion and new organisation:  
8000 m<sup>2</sup> for Production, a new Research and Development Department

**2010**

ISO 14001 certification



**2011**

ETT doubles its production capacity

**Since 2017**

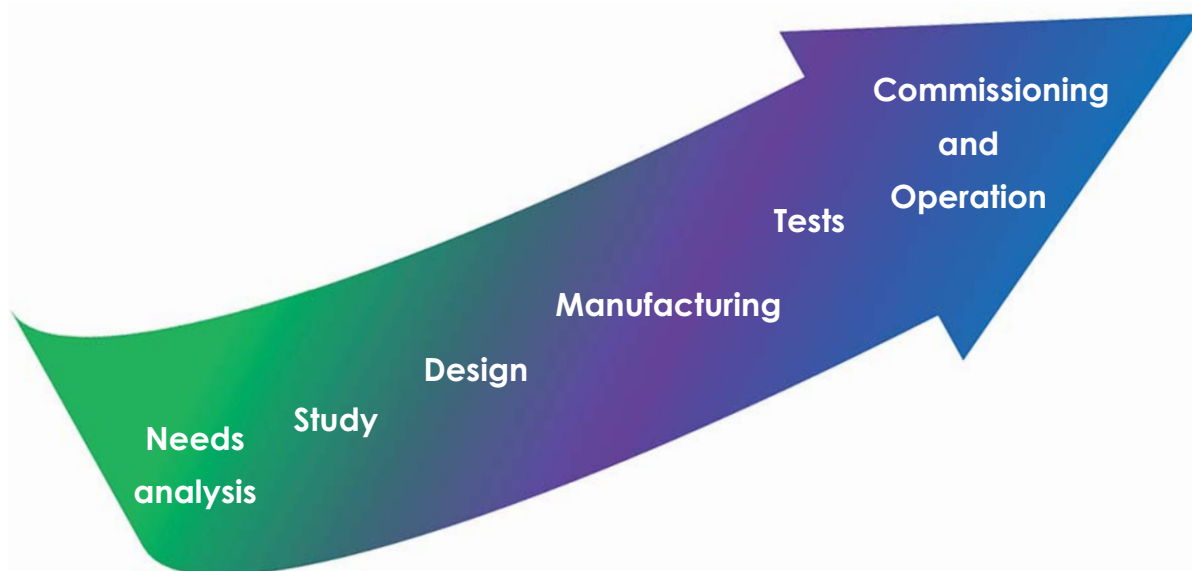
Eurovent certification



**2020**

RCS Evaluation: Corporate Social Responsibility

## ETT, at your side from design to manufacturing



## ETT, an approach tailored to each project

The project manager, your unique contact person, centralises all aspects of your project and ensures its smooth development, from design to commissioning.

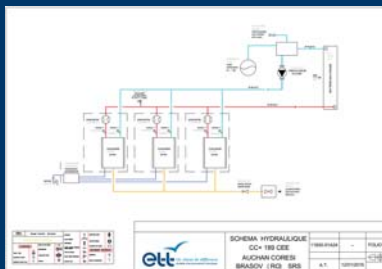
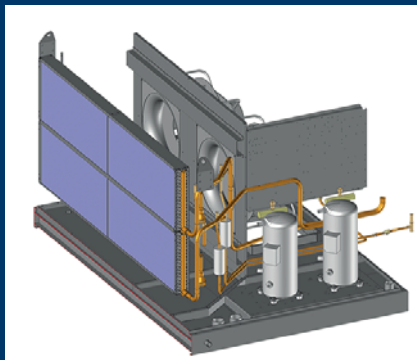
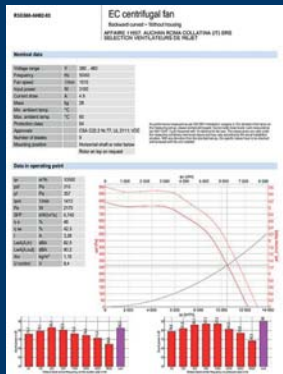
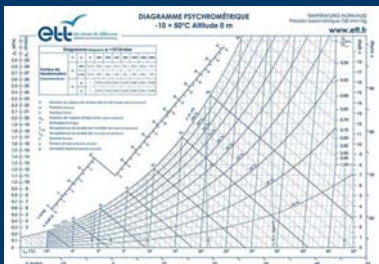
20-year guarantee  
against corrosion  
frame - casing



# ETT, from Design to Manufacturing

## ► 4 Design Departments

R&D - Project & Studies - Process planning  
Electricity & Control systems



## ► 4 Core Skills

Sheet Metal Work - Refrigeration engineering  
Heat engineering - Electrical engineering



# ETT, priority to research & innovation

ETT closely monitors the technical and regulatory developments that will shape tomorrow's HVAC systems.

ETT builds its approach on the expertise of its Design Departments and expert engineers.

- **Project & Studies Department**
- **Process Planning Department**
- **Electricity & Control Department**

All technical services rely on the **Research and Development Department** to provide innovative technical solutions tested and validated in its **climatic chamber**



## Industrial performance

- A modern factory at the cutting edge of technology
- 4 complementary core skills:

**Sheet Metal Work - Refrigeration engineering**  
**Heat engineering - Electrical engineering**



# Every application has its specific requirements



## Retail - Commercial facilities

- Mass retail industry
- Specialised retail shops
- Shopping centres



## Leisure & Entertainment

- Swimming pools and spas
- Skating rinks
- Cinemas and theatres
- Entertainment and multipurpose halls
- Exhibition centres
- Amusement parks



## Tertiary sector

- Restaurants
- Hotels
- Office buildings
- Collective housing
- Education
- Healthcare facilities



## Industry & Special markets

- Food processing
- Printing
- Mechanics & Automotive
- Electronics & Electricity
- Chemistry & Pharmacy
- Textile & Clothing
- Plastics
- Data Centres
- Transport/Logistics
- Energy
- Shipbuilding
- Defence sector
- Airports
- Oil & Gas

ETT provides solutions for ALL APPLICATIONS WHERE TEMPERATURE CONTROL, HUMIDITY CONTROL AND AIR QUALITY ARE IMPORTANT PARAMETERS.

# Heat pump / Single flow

## High Energy Performance range

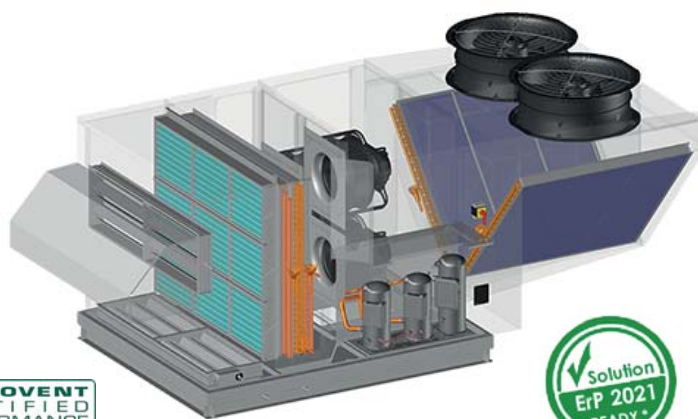
- \* Commercial facilities
- \* Tertiary sector
- \* Industry

Designed for large volumes, such as medium and large supermarkets, warehouses, etc.

- Rated air flow rate from 7,500 to 54,000 m<sup>3</sup>/h
- Net cooling capacity from 35.1 to 273.5 kW
- Net EER from 2.97 to 3.56
- Net heating capacity from 37.1 to 285 kW
- Net COP from 2.75 to 4.73

### This unit includes:

- EC variable-speed propeller fans, communicating, optimum performance and low acoustic level
- Variable-speed EC fans with air flow rate measurement on supply air
- New generation controller with display
- ISO Coarse 65% (G4) ecodesign filtration
- Multi-stage refrigeration circuit



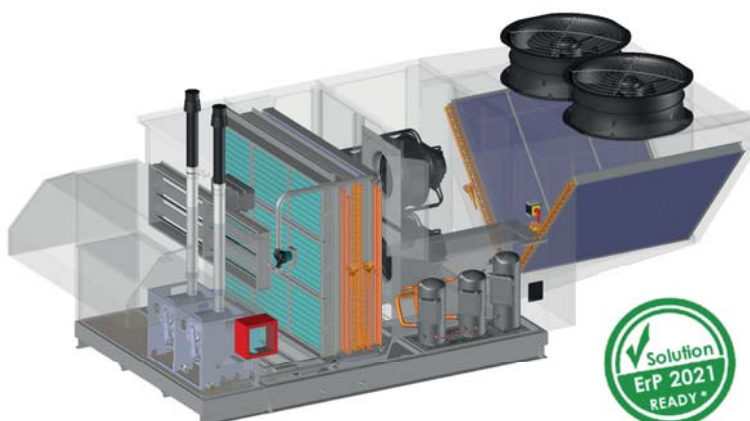
# Heat pump / Single flow

## Coupled with one or several condensing boiler(s)

- \* Commercial facilities
- \* Tertiary sector
- \* Industry

### Hybrid gas solution including:

- EC variable-speed propeller fans, communicating, optimum performance and low acoustic level
- Variable-speed EC fans with air flow rate measurement on supply air
- Condensing boiler with premix burner compliant with the 2009/142/EC directive on gas appliances
- Heat pump or Gas operation according to the unit best COP
- Modular capacity: 1 to 4 boilers of 63 kW HHV
- Capacity variation from 17 % to 100 % / boiler
- NOx class: 5
- ISO Coarse 65% (G4) ecodesign filtration
- New generation controller with display
- Patented solution



# Heat pump / Double flow

## High energy performance - 4 dampers

- \* Entertainment halls
- \* Cinemas

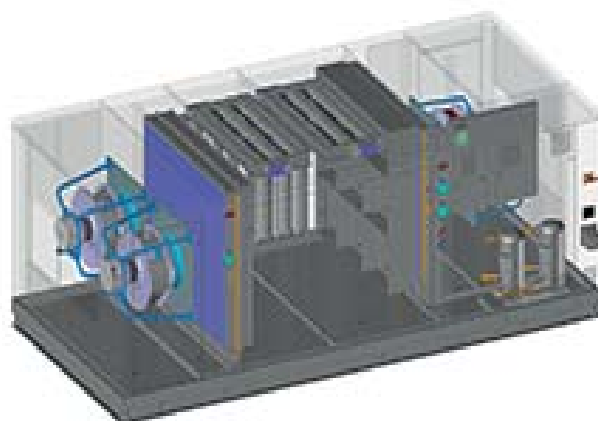
Designed for buildings with variable occupancy such as cinemas, theatres, community halls, etc.

In mixing mode, the unit ensures air extraction and fresh air modulation without indoor pressure change.

- Rated air flow rate from 3,000 to 30,000 m<sup>3</sup>/h
- Net cooling capacity from 14.2 to 131.9 kW
- Net EER from 2.6 to 3.0
- Net heating capacity from 16.4 to 151.3 kW
- Net COP from 4.0 to 4.4

### This unit includes:

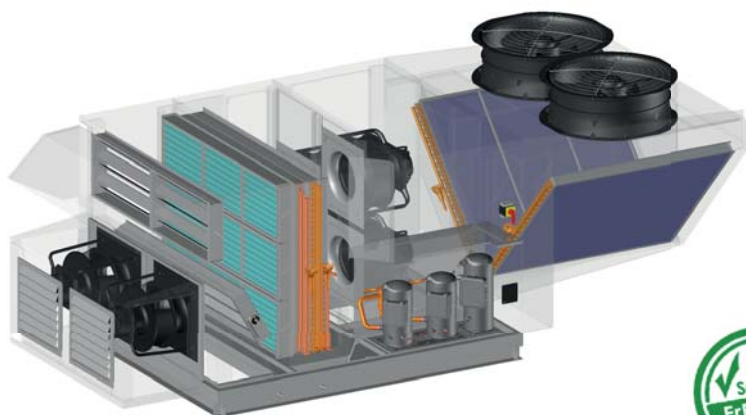
- Communicating ETT HPE+ control
- Variable-speed EC fans with air flow rate measurement on supply and exhaust air
- ISO Coarse 65% (G4) ecofilter (+ ISO ePM1 55% (F7) filter without fibreglass)
- Multi-stage refrigeration circuit
- New generation controller with display



# Heat pump **Double flow**

## With extraction box

- \* Commercial facilities
- \* Tertiary sector
- \* Industry



### This unit includes:

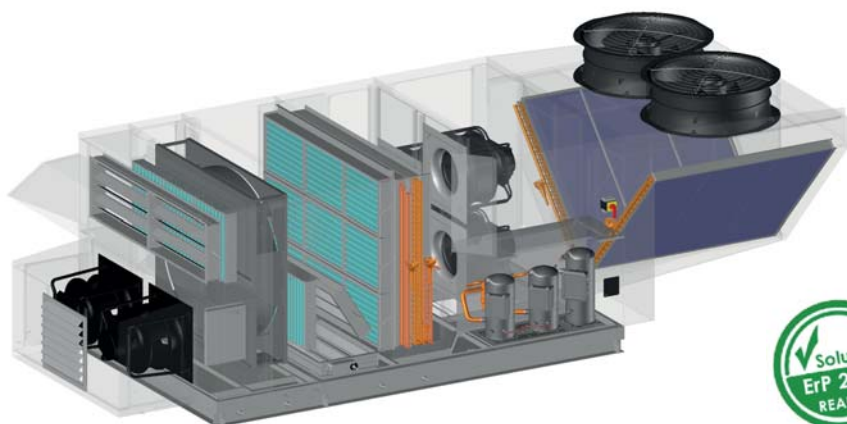
- Variable-speed EC fans with air flow rate measurement on supply and exhaust air
- Fresh air/exhaust air modulation from 0 to 100 % of the rated supply air flow
- The gravity damper remains closed when the unit is stopped or operating in all recycling mode.
- Multi-stage refrigeration circuit
- ISO Coarse 65% (G4) ecodesign filtration
- New generation controller with display



# Heat pump **Double flow**

## With extraction and energy recovery module

- \* Commercial facilities
- \* Tertiary sector



### This unit includes:

- Variable-speed EC fans with air flow rate measurement on supply and exhaust air
- Rotary heat exchanger, minimum 70 % efficiency
- Fresh air modulation from 0 to 50 % of the maximum flow rate
- Multi-stage refrigeration circuit
- ISO Coarse 65% (G4) ecodesign filtration
- New generation controller with display



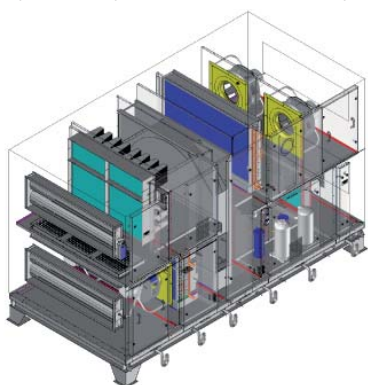
# Heat pump **Double flow**

## With rotary heat exchanger

- \* Commercial facilities
- \* Tertiary sector

**Designed for buildings with high fresh air requirement, these units give priority to energy recovery on exhaust air.**

The rotary heat exchanger allows energy recovery on exhaust air in both Heating and Cooling modes. The unit also features a reversible heat pump to complement heat recovery and maintain the desired supply air temperature.



- Rated air flow rate from 2,000 to 35,000 m<sup>3</sup>/h
- Total cooling capacity from 14 to 230 kW
- Net EER from 3.62 to 4.19
- Net heating capacity from 24.1 to 390.8 kW
- Net COP from 8.32 to 10.31

### This unit includes:

- Variable-speed EC fans with air flow rate measurement on supply and exhaust air
- Rotary heat exchanger, minimum 60 % efficiency
- ISO Coarse 65% (G4) ecofilter (+ optional ISO ePM1 55% (F7) filter without fibreglass)
- ETT SRV (Variable Cooling System) Technology
- Electronic expansion as standard on the circuits
- Supply air temperature control (4 probes on average)
- ETT HPE+ communicating control with ETT controller with user terminal

# Heat pump Double flow

## Indirect adiabatic cooler and double heat recovery plate

- \* Tertiary sector
- \* Low-energy buildings

Designed for fresh air treatment and preparation in low-energy buildings. These units allow significant energy savings thanks to an indirect adiabatic cooler.

- Rated air flow rate from 5,000 to 30,000 m<sup>3</sup>/h
- Total cooling capacity from 22.3 to 141.5 kW
- Net EER from 3.24 to 4.45 depending on the model
- Total heating capacity from 50 to 292 kW
- Net COP from 6.5 to 7.66 depending on the model

### This unit includes:

- Variable-speed EC fans with air flow rate measurement on supply and exhaust air
- ISO Coarse 65% (G4) + ISO ePM1 55% (F7) filters without fibreglass
- Electronic expansion as standard on the circuits
- Communicating ETT HPE+ control
- Dual plate heat exchanger (65 to 80 % efficiency depending on operating conditions)
- High efficiency indirect adiabatic cooler (80 to 85 % efficiency)



# Dehumidifier

## High energy performance thermodynamics

Single flow

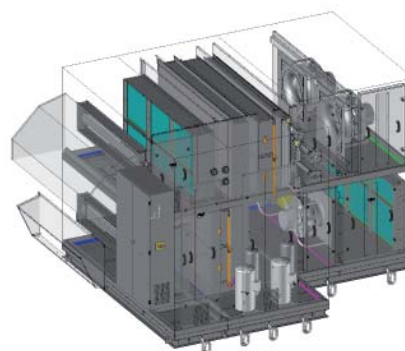
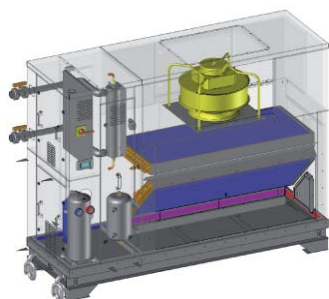
Double flow

- \* Swimming pools
- \* Skating rinks
- \* Balneotherapy

Designed for dehumidification and energy recovery on variable occupancy aquatic facilities such as municipal swimming pools, leisure pools, balneotherapy centres, etc.

### Thermodynamic single flow dehumidifier

Air is dehumidified through the cooling process and then reheated thanks to a heat pump.



### Thermodynamic double flow dehumidifier

Dehumidification is ensured by the heat pump refrigeration cycle coupled with a heat pipe. ETT control ensures progressive fresh air intake.

# Heat pump

## Bespoke units

Single flow

Double flow

- \* Oil & Gas
- \* Industry

If temperature, humidity and air quality control are important parameters in your process or application, we can offer you a solution.

### Many units have been designed and manufactured with:

- High flow rates, up to 80 m<sup>3</sup>/h
- Cooling and/or heating capacity up to hundreds of kW
- Additional heat sources (hot water, electric, gas)
- Dedicated control systems for specific applications
- Specific filtration systems (HEPA, HUPA, electrostatic, activated carbon)
- Extreme outside conditions, ATEX requirements
- Dehumidification and humidification options
- Hybrid combinations (solar energy, gas and/or water loop, geothermal energy)
- Delivery in several blocks
- Special insulation
- Adiabatic systems
- Low noise levels

For many years now, we have developed solutions for **special applications** and we have gained **considerable experience** in fields as varied as **food-processing, energy, electronics, positive-energy buildings and installations for Explosive Atmospheres (ATEX).**

# ETT,

a **service** provider to help you  
meet operational constraints

## Our commitments:

### ► Guarantee

- 20-year anti-corrosion guarantee (frame and casing)

20-year guarantee  
against corrosion  
frame - casing

### ► Reliability

- Use of premium components
- Units tested at the factory prior to shipment

### ► Service contract

- Auditing & installation optimisation
- Extension of the guarantee
- Refrigeration circuits tightness testing
- Technical assistance/consulting

### ► Retrofit - Upgrade

- Energy optimisation
- Control system optimisation or replacement
- Refrigeration circuit renovation or retrofit (R22 ban)
- Unit transformation
- Communication tools (BMS, web, etc.)

### ► Technical expertise

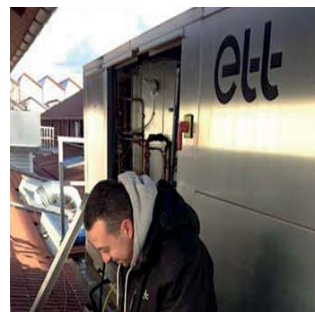
- Full assessment of your HVAC units
- Analysis and consulting services

### ► Training centre

- Operation and maintenance training
- Custom training

What service means to us:

Reactivity  
Guarantee  
Advice  
Expertise





## Environmental impact:



**The Ultima Green Line is eco-responsible and uses R32, a refrigerant with a low environmental impact :**

- ✓ Zero ozone depletion (ODP)
- ✓ Global Warming Potential (GWP) of 675

## ETT & **ecodesign** :



**GREEN DESIGN involves DECONSTRUCTION: ETT units are 98 % recyclable.**

**Aluminium: a good choice for the planet!**

- Aluminium is endlessly 100% recyclable. Recycling covers over 30% of aluminium needs.

• **Low polluting ETT manufacturing process:**

- Selective sorting, waste recovery, 60% of waste is recycled.
- No paint on casings, no use of solvent.

• **Consumables: efficient waste management:**

- Filtration: ETT includes ecodesign air filters (sorting frame - grille - media).

• **ETT Certifications:**

- **Certification Iso 14001:** Certification (Environmental Management System).
- **Certification Iso 9001:** our Quality organisation is the subject of the AFAQ Certificate n° 1994/2016f. Each unit is checked and tested at the factory, prior to shipment, and a test certificate is issued.
- **Evaluation RCS:** quality of the CSR management system - Corporate Social Responsibility



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