

Your challenges

- **Energy savings**
Energy is one of the biggest cost items in running a swimming pool.
- **User comfort**
Users comfort and well-being strongly depends on indoor climate.
- **Building sustainability**
Excessive condensation can cause serious damage to the building.

Our solutions

- **Heat recovery**
for significant energy savings
- **Air dehumidification,**
air heating and pool water heating
- **Humidity control**
to ensure air quality and building durability

ETT, a different climate

Our complete command of the manufacturing process — from design to commercialisation — allows us to offer bespoke and innovative solutions.

As a specialist in air handling systems with energy recovery and high performance heat pumps, we have been guiding our clients towards responsible energy solutions for more than 30 years.



Customer satisfaction as a core value

- **Personalised study of each project**
- **Constant innovation**
- **Climatic chamber**
- **Environmental consideration**

ETT is strongly **committed to customer satisfaction**. To this end, we have built up a comprehensive network of professionals to provide every customer with a dedicated contact person according to his project and requirements.

Our extensive experience in the HVAC industry is also bolstered by the expertise and dedication of our teams: **Design Departments, expert consultants, ETT Services network.**



ETT & ecodesign:

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

- **Energy:** ETT, innovator in Heat Transfer solutions.
- **Aluminium:** aluminium is endlessly 100 % recyclable.
- **Low polluting ETT manufacturing process:** selective sorting, waste recovery, 60% of waste recycled, no paint on casings, no use of solvent.
- **Consumables: efficient waste management:** ETT units include "ecodesigned" air filters (selective sorting: frame - grille - media)



ETT Services

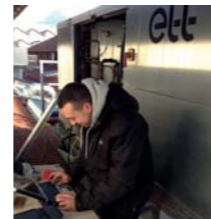
▶ **ETT technical support team** is spread **across France and abroad** to share their expertise and offer you the right solution for your application.

Optimise your energy costs

▶ **ETT Service Contract:** increase the **lifespan of your HVAC equipment**.

Equipment upgrades:

energy efficiency optimisation, refrigeration circuits restoration, compressors retrofit, communication tools.



▶ **Regular audits:** **maintain a high level of energy efficiency** and keep your operating costs low.

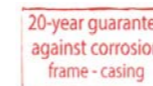
Train your teams

- ▶ Operation and maintenance training
- ▶ Advanced operational training
- ▶ Custom training

Guarantee

ETT air handling units are contractually covered by a **one-year guarantee** in France and abroad.

For metropolitan France, the guarantee covers parts, labour and travel.



Spare parts

ETT spare parts catalogue is available for download at www.ett-hvac.com.

Conformity

All units are checked and inspected at the factory prior to shipment; a control certificate is issued for each unit.



ETT Quality organisation is certified **ISO 9001:2008** (AFNOR Certificate no. 1994/2016f).

Moreover, each unit is delivered with an **EC certificate of conformity**.

ETT control and communication

ETT units are controlled through the **ETT SysCom** communication system which ensures **precise and reliable control** of the units for optimised **energy efficiency**.

All ETT units are connected to an ETT SysCom communication system to facilitate unit management through **local or remote communication**.

You can choose to **monitor your consumptions** with:

- ▶ **CCAD:** local communication system for a single unit
- ▶ **PCO Terminal:** local communication system for several units.
- ▶ **PGD Touch:** local communication system with remote display
- ▶ **myETTVision:** internet-based communication system (with login credentials)



ENVIRONMENTAL CLIMATE CONTROL EQUIPMENT & SOLUTIONS



SWIMMING POOLS

Solutions FOR THE future OF pool applications

AIR HANDLING: A CENTRAL ISSUE IN HUMID ENVIRONMENTS

Swimming pools and other aquatic facilities are complex, energy-intensive environments which must comply with strict regulations and energy objectives while ensuring user comfort.

ETT independent air handling units are designed for dehumidification, ventilation, heating and energy recovery in indoor swimming pools and other humid environments.

What parameters should you consider?

- Temperature
- Humidity
- Ventilation / Air quality
- Chloramines removal

Enhanced air quality

- Maintain constant temperature (27 to 28°C) and humidity level (60 to 70% RH) to ensure user comfort
- Fight against chloramines

Efficient dehumidification

Avoid condensation on walls and surfaces to preserve the structure and ensure building sustainability

Temperature probe
Hygrometry probe
Probes are integrated into the unit.

- 1 FRESH AIR 2 RETURN AIR
3 SUPPLY AIR 4 EXHAUST AIR

Our plus points

Bespoke units

Unit dimensions and capacities can be specially tailored to your requirements.

Heat transfer

When inside air temperature is high enough, recovered heat is transferred to pool water.

Installation

ETT units can be installed either outdoor (on the rooftop) or indoor (in a technical room)

ETT Services

Our team will guide you every step of the way, from commissioning to operational support.

Up to 50% energy savings

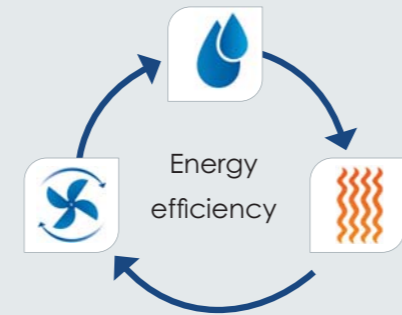
Energy costs are partly due to heating, air handling and dehumidification.

Thanks to energy recovery, heat pumps offer an efficient and economical solution.

ett THE AIR HANDLING EXPERT

ETT, the right solution for every high-humidity application

3 technologies to address all the challenges



1 Dehumidification

Dehumidification using thermodynamics

2 Ventilation

Air flow adapted to occupants' needs thanks to innovative technology

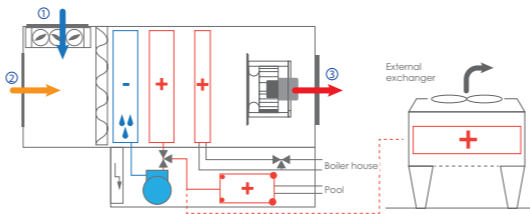
3 Heating

Optimised energy consumption with heat recovery systems

Cooling

Air conditioning available when needed

Single Flow



Air is cooled for dehumidification purposes and then reheated thanks to a heat pump. This system of thermodynamic heat recovery reduces the heating demand.

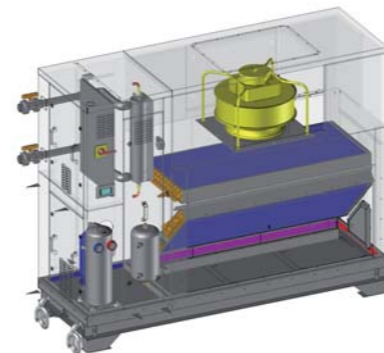
OCTO+

Dehumidification is ensured by a refrigeration cycle. The air goes through the evaporator and the condenser placed in line.

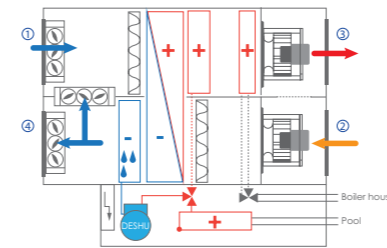
Air is cooled on the evaporator to dry it up.

Heat recovered at this stage is then transferred to the in-line condenser.

A heating coil may be added for auxiliary heating.



Double Flow

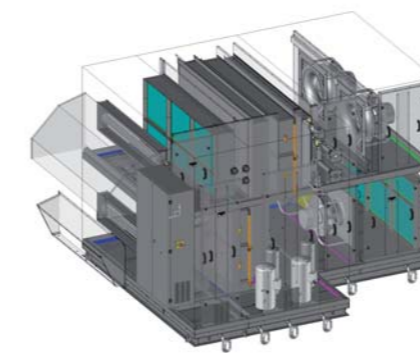


Dehumidification is ensured by the heat pump refrigeration cycle coupled with a heat pipe. Recovered heat is transferred to the supply air side, on the heat pipe and the air-cooled condenser, in order to heat the dehumidified air.

Fresh air modulation + thermodynamics

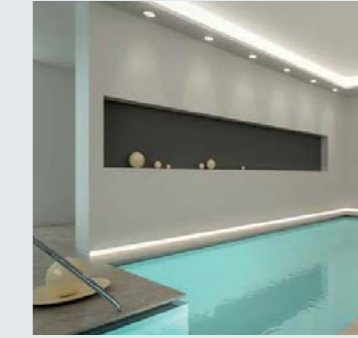
STANDARD

Dehumidification is ensured by the heat pump cooling cycle coupled with a heat pipe. The heat pipe recovers heat without external energy, which allows significant energy savings and compressors' size reduction by 30 to 50%, thus reducing electricity consumption. Return air is dehumidified through the joint action of the heat pipe and the evaporator.



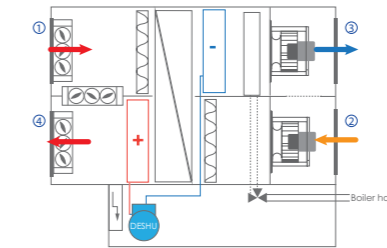
Small-volume pools SINGLE FLOW UNIT

- Private pools
- Hotel pools
- Balneotherapy
- Special use pools



Large-volume pools DOUBLE FLOW UNIT

- Public swimming pools
- Aquatic centres
- Indoor water parks

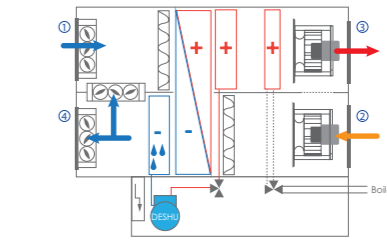
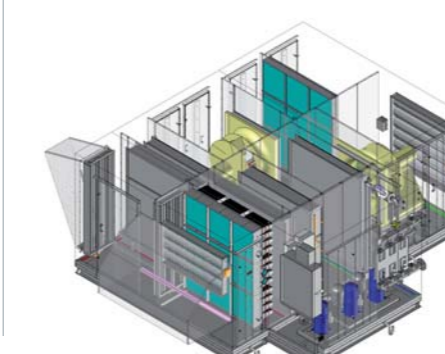


ETT control system progressively adjusts the fresh air flow according to the dehumidification need.

BESPOKE

Our bespoke dehumidification systems allow you to adjust unit dimensions according to the space available in the technical room.

Dehumidification is ensured by the heat pump cooling cycle coupled with a heat pipe.



- 1 FRESH AIR 2 RETURN AIR 3 SUPPLY AIR 4 EXHAUST AIR

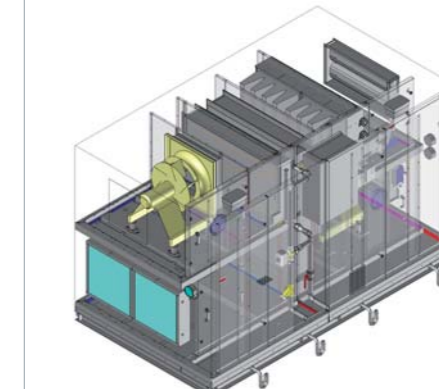
Fresh air modulation

Dehumidification is done through fresh air modulation.

ETT control system progressively adjusts the fresh air flow according to the dehumidification need.

Fresh air intake also helps reducing chloramines.

Heat recovered on exhaust air is transferred to supply air on the heat pipe.



Aqua Systems

AQUACOOL

Energy recovery on waste water for pool water heating

The Aquacool system combines passive energy recovery and thermodynamics to save energy on pool water heating.



AQUAPACK

Pool water preheating

This system combines a dual condenser heat pump and an ETT dehumidifier for pool water and/or domestic hot water preheating.

Aquapack is specially suited for medium and high capacity pools.

