

AIR HANDLING UNITS



# FLOWAY

AT THE LEADING EDGE  
OF AIR FLOW





# FLOWAY: DELIVERING ADVANCED AIR FLOW AND FULL SATISFACTION

Energy recovery was at the heart of CIAT new Floway offering. The range proposes compact air handling units that lead in their category in terms of ease of use, eco design and energy efficiency, ensuring your and your customers' peace of mind.

## 5 REASONS TO CHOOSE FLOWAY



**ECO DESIGN THAT EXCEEDS  
REGULATORY REQUIREMENTS**



**ENERGY MANAGEMENT AND  
ENVIRONMENTAL RESPONSIBILITY**



**FULL SYSTEM MANAGEMENT**



**HIGHEST PERFORMANCE  
STANDARDS**



**PLUG AND PLAY SOLUTIONS**



## FLOWAY: THE SOLUTION FOR EVERY MARKET NEED



OFFICES



ADMINISTRATION



HEALTHCARE



SHOPPING  
CENTRES



HOTELS

# 5 KEY ADVANTAGES OF FLOWAY

ErP  
READY

## ECO DESIGN THAT EXCEEDS REGULATORY REQUIREMENTS

CIAT is dedicated to developing products that anticipate the regulatory and sustainability requirements of tomorrow. The entire Floway range meets all market standards.

### One step ahead of regulation

The 2009/125/CE Energy-related Products (ErP) European directive sets the requirements linked to the eco design of energy-related products, and encourages manufacturers to take into consideration the environmental impact of a product during its complete life cycle.

Since January 1st 2016, the European regulation n°1253/2014 has been setting new energy efficiency requirements for ventilation units equipped with filters, energy recovery devices, fans and motors.

These requirements will be reinforced from January 1st 2018.

**Fully compliant with the 2016 regulation**, the Floway range has already anticipated the requirements on energy savings and reduced carbon footprint announced for the next regulation upgrade.

### Eurovent for additional confidence

CIAT assesses Floway products and their performance in its laboratories facilities that recreate real-life environments. CIAT also supports and participates in stringent independent Eurovent certification programmes for refrigeration, air conditioning, air handling and heating products, including tests in accordance with relevant European standards (EN1886 and EN 13053). Floway air handling units, as well as the heat recovery units on their own, are certified by Eurovent.

### A wide range of international standards

Floway's design takes into account and are compliant with the requirements of a number of international standards:

- ISO 14001
- OHSAS 18001
- HQE (High Quality Environmental)
- BREEAM (Building Research Establishment Environmental Assessment Method)
- DGNB (German Sustainable Building Council), LEED (Leadership in Energy and Environmental Design)...



EC PLUG FANS





## ENERGY MANAGEMENT AND ENVIRONMENTAL RESPONSIBILITY

Eco design and energy efficiency throughout product life cycle.

### Long and sustainable lifespan

During product conception, CIAT engineers consider existing and anticipated sustainability requirements to ensure a long lifespan for Floway units.

CIAT also implements systematic Life Cycle Analyses of its products, publishing their results in an environmental balance sheet, and drawing on the results to improve product design and minimize overall ecological impact.

### Superior brushless motor efficiency

Floway's brushless motor technology and high efficiency plug fan make a wide airflow

modulation range possible, resulting in a 90% yield in energy efficiency. The most demanding needs in terms of energy use are met.

### 2 types of heat exchanger units to meet heat recovery needs

A counter-flow plate heat exchanger is adapted to environments where flows of fresh and extracted air must be airtight.

A rotary heat exchanger (RHE) provides optimal heat recovery throughout the year, and includes an optional mixing section feature.

At its nominal flow rate, Floway has 80% dry efficiency in heat recovery.



## FULL SYSTEM MANAGEMENT FOR TOTAL CONTROL

Air handling units are managed using three systems. Floway Control runs the units locally while the Webserver makes the unit main functions accessible from an Internet browser, and CIATM2M allows you to fully track and monitor your CIAT equipment.

### Floway Control: Comfort management

Factory-tested to guarantee quality, you can manage all aspects of the air handling units, including auxiliary parts, using an intuitive interface:

- Supply and Return airflow, air temperature, free cooling, night cooling
- Air flow modulation in single or multiple zones
- Timer/schedule
- CO<sub>2</sub> sensor or duct pressure control
- Safety and alarm features
- A wide range of CMS communication protocols

### Webserver: Remote handling

Accessible using a web navigator, the CIAT Webserver runs the air handling units from a distance: synoptics, setpoints, trends and events.



### CIATM2M: Remote handling and performance monitoring

Real-time system monitoring from the CIATM2M website (synoptics, controller settings, curves, alert memory, parameters log). CIATM2M can send automatic email alerts at any event and it provides operation reports to optimise the system.



## HIGHEST PERFORMANCE STANDARDS

Top performance in providing clean air in a quiet environment is so important that CIAT goes to great lengths to test its air handling units and ensure that they are highly reliable.

### Testing conditions that improve performance

CIAT has a unique Center of Excellence where, in standardised test rooms, climate conditions can be reproduced as close as possible to real-life environments.

Airtightness, panel insulation, acoustics, heat recovery performance and control loops are tested to reach optimal air quality.

### Filtration to keep air fresh

Supply and return air filters keep both air and Floway's exchangers clean and free of dust.

On Floway Vertical, Classic, Classic RHE and Access RHE an optional second filtration stage for fresh air is also available.

### Acoustic comfort

Floway panels are thickly insulated to ensure complete acoustic comfort.



SUPPLY AND RETURN AIR FILTERS



## SIMPLICITY IN ACTION

Floway has been designed to be as straightforward as possible, freeing you to focus on your client satisfaction.

### Save Time

From the air handling unit itself to peripherals including Floway Control, everything is operational once it has been placed. You save time during both installation and maintenance.

### CIAT is your unique contact

Because CIAT has developed both Floway and the accompanying software, you have only one dedicated contact who will answer all your questions and concerns.



BUILT-IN CONTROL

# FIVE COMPACT AND HIGHLY EFFICIENT MODELS

Floway offers five standalone dual-flow air handling unit models that deliver highly efficient heating and cooling for indoor air quality and comfort. Choose from Access RHE, Classic RHE, Classic, Vertical and Ceiling.

## Floway Access RHE

This compact single block unit uses a rotary heat exchanger. It offers all the Floway essential features and its reliable performance.

## Floway Classic RHE

All the benefits of Floway Classic, but with a variable speed rotary heat exchanger for optimal heat recovery all year round.

	Floway Access RHE	Floway Classic RHE
Airflow range (m <sup>3</sup> /h)	300 to 8,500	300 to 18,000
Casing	Single section	2 block casing*
Coils with factory fitted valve (except DX coil)	Built-in water heating coil	
	Built-in water cooling or change-over coil	
	Built-in electrical heater	
	Built-in DX coil	
	-	External cased water heating coil
	-	External cased water cooling or change-over coil
-	External cased electrical heater	
Accessories	Shut-off damper with fitted actuator	
	Flexible sleeves	
	Roof and canopy for outdoor units	
	-	Recirculation damper
Heat exchanger	Aluminium	Aluminium / Epoxy-coated / Hygroscopic

\* For sizes larger than 1,000



## Floway Classic

Floway Classic is equipped with a counter-flow plate exchanger that manages airtight air flows between fresh air and extracted air. Machines that are larger than size 1,000 can be separated into 2 sections, making them easier to transport to where they will be installed.

	Floway Classic
Airflow range (m³/h)	300 to 6,600
Casing	2 block casing*
Coils with factory fitted valve (except DX coil)	Built-in water heating coil
	Built-in water cooling or change-over coil
	Built-in electrical heater
	Built-in electrical pre-heater for plate exchanger
	Built-in DX coil
	External cased water heating coil
	External cased water cooling or change-over coil
Accessories	External cased electrical heater
	Shut-off damper with fitted actuator
	Flexible sleeves
Heat exchanger	Roof and canopy for outdoor units
	Aluminium / Epoxy-coated

\* For sizes larger than 1,000



# FIVE COMPACT AND HIGHLY EFFICIENT MODELS

## Floway Vertical

Made for modular spaces in new or renovated buildings thanks to its slim dimensions, Floway Vertical combines heat exchange and ventilation for optimum comfort.

	Floway Vertical
Airflow range (m <sup>3</sup> /h)	300 to 2,600
Casing	Single section
Coils with factory fitted valve (except DX coil)	Built-in water heating coil
	Built-in electrical heater
	External cased water heating coil
	External cased water cooling or change-over coil
	External cased electrical heater
Accessories	Shut-off damper with fitted actuator
	Flexible sleeves
Heat exchanger	Aluminium / Epoxy-coated





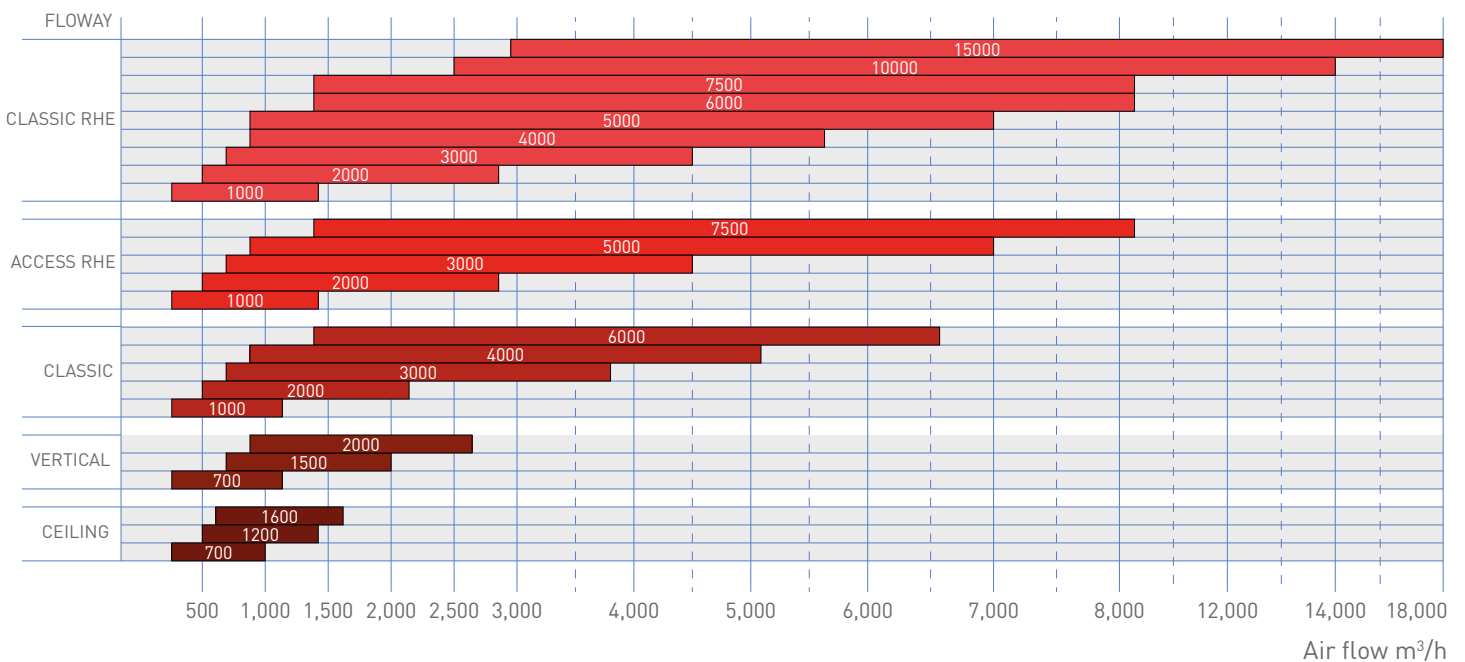
## Floway Ceiling

When no floor space is available, Floway Ceiling's small dimensions and reduced height lend themselves to confined spaces. Ventilation and heat exchange ensure indoor air quality at minimum cost.



	Floway Ceiling
Airflow range (m <sup>3</sup> /h)	300 to 2,600
Casing	Single section
Coils with factory fitted valve (except DX coil)	External cased water heating coil
	External cased water cooling or change-over coil
	External cased electrical heater
Accessories	Shut-off damper with fitted actuator
	Flexible sleeves
Heat exchanger	Aluminium / Epoxy-coated

## AIR FLOW RATES





# GLOBAL SYSTEM PROVIDER

## FULL EQUIPMENT COMPATIBILITY FOR IMPROVED PERFORMANCE

CIAT offers a complete range of equipment designed to work together for the best possible results providing first rate performance and optimised energy efficiency.





## SMART CIATCONTROL THE ENERGY MANAGEMENT SYSTEM

Connected to all HVAC components (refrigeration, comfort units, air handling unit) and using a patented algorithm that can be programmed according to building occupancy and weather conditions, Smart CIATControl adapts the efficiency of the thermodynamic producer to emitter needs in real time. Features include:

- Automatic system changeover based on calculation requirements.
- Optimal Stop & Start: Predictive function which anticipates the stop and start times of the HVAC system.
- Optimal Water<sup>®</sup>: Allows the temperature of the chiller or heat pump to be controlled according to emitter demand.
- Night cooling: Fills the building with fresh air during the night and delays the activation of the refrigeration request during the day.
- Epure Dynamics<sup>®</sup>: Patented process which ensures a particulate level for the building that is beneath the fixed WHO recommendation of 10µg/m<sup>3</sup>

The optimisations offered by Smart CIATControl allow an average **energy saving of 40%** for the building.



## SUPPORT THROUGHOUT YOUR PROJECT

CIAT makes a long-term commitment as a partner by your side: from the specifications stage right through to installing the equipment, our experts analyse your requirements to provide you with the best possible solution. Our integrated engineering department, ultramodern research and design centre and cutting-edge industrial facilities, from which we manage the entire production process, allow us to adapt to your specific needs.





# CIAT AT YOUR SERVICE

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At CIAT, our objective is to develop partnerships with you and provide high quality service throughout the lifecycle of your HVAC system. We understand your changing needs, and develop smart services and energy solutions that optimise energy performance and enable savings.

We provide the support you need to get the most out of your solution:

- Preventive and corrective service maintenance.
- On-site inspection by experts close at hand.
- Online parts shop.
- Dedicated hotline for off-site technical support.

We also offer you a comprehensive range of smart services:

- Consulting on energy performance upgrade.
- Advanced monitoring and plant system management solutions.
- Equipment and system modernization.

PRESENT  
IN  
OVER **50**  
countries  
OVER **80**  
years  
OF EXPERIENCE  
AVAILABLE  
**24/7**



[www.ciat.com](http://www.ciat.com)