

Air-handling unit

climaCIAT

concept



The technological choice

airtech

0,3 to 18,3 m³/h





➤ Public area



➤ Airports



➤ Industry



➤ Hospitals

airtech

➤ Performing to new standards

Airtech air-processing units have been designed in line with the guidelines in the **EN 13053** manufacturing standard and with the aim of fulfilling the strictest grades in the **EN 1886** standard: transmittance and thermal bridging, mechanical strength, casing air leakage, filter bypass leakage, compliance with mechanical safety requirements for fans.

CIAT has developed all the components and accessories (handles, safety latches, through-wall unions, inspection windows, seals) that give high performance, thanks to a special design that has become a reference point.

Characteristics	Class
Casing strength	D1 / D2
Casing air leakage	L1
Filter bypass leakage	F9
Thermal transmittance	T2
Thermal bridging factor	TB2



Validity of online certificate:
www.eurovent-certification.com
 ou www.certiflash.com



→ Community centres



→ Hotels



→ Offices

airtech

→ Air treatment for all applications

An extended range of airflow equipment and an exhaustive selection of air-processing options make Airtech an efficient solution for applications in both tertiary and the industrial sector.

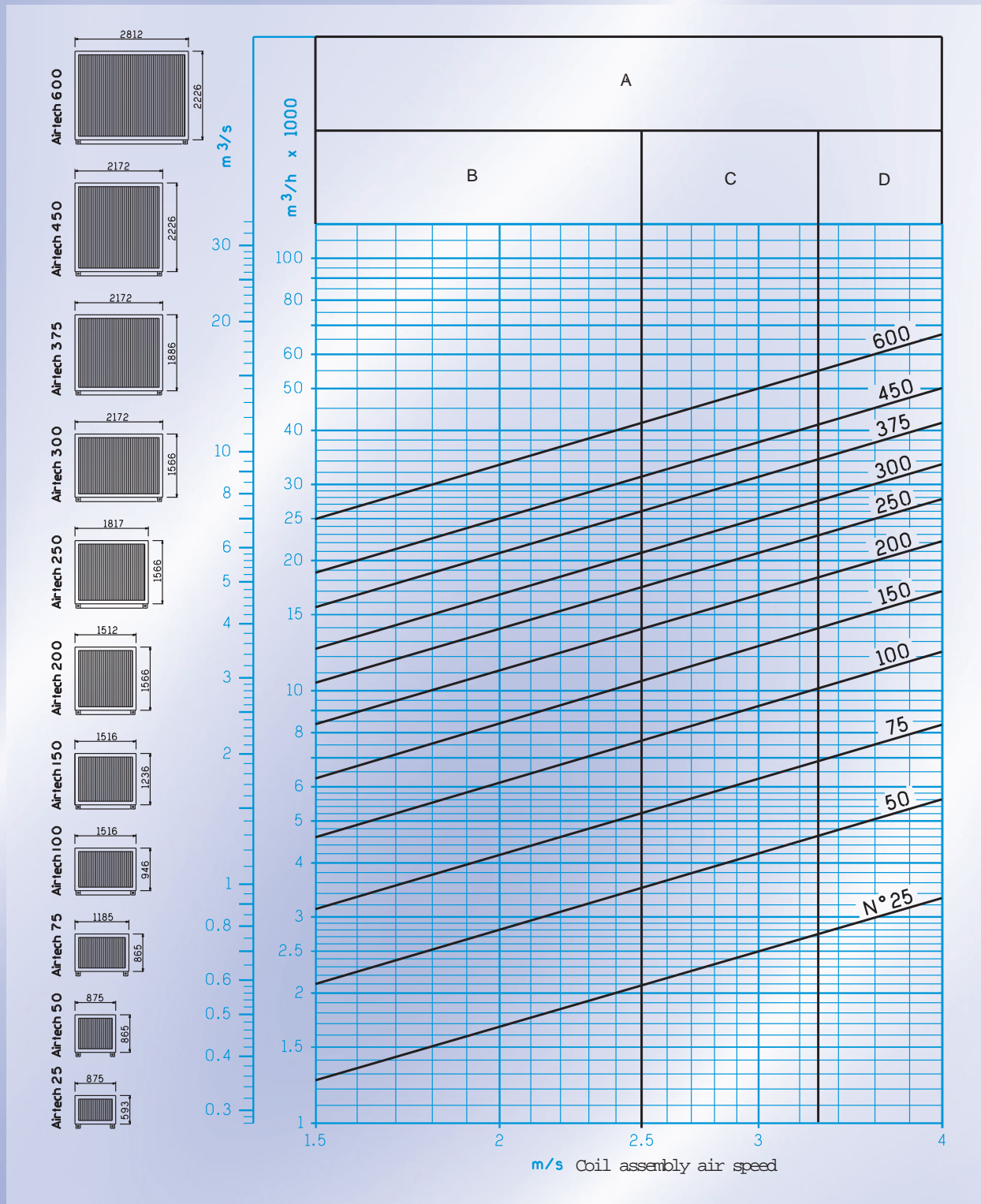
The wide range of solutions available and the product's extensive modular design, as well as the various horizontal, vertical, double-deck and side-by-side assembly formats for both indoor and outdoor use, provide solutions that can accommodate your requirements.

A range of performance levels

The airtech range covers, in 11 sizes, airflows ranging from 1,000 to 66,000 m³/h.

The following chart shows the required size based on:

- The air velocity through the front area exchanger coil assembly
- The air flow to be treated



The next generation design

Casing

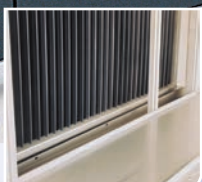
- 1 Double skin casing, pre-coated outside panel, 50 mm insulation
- 2 At least one removable panel per function, as per EN 13053
- 3 Smooth panel facing with no protruding internal screws, as per EN 13053
- 4 Access panel as standard for maintenance
- 5 Off-set axis hinge and latch handles, all made from polyamid with fiberglass for withstanding corrosion and temperatures from -40° C to +80° C
- 6 Ergonomic base frame mounting blocks for easy handling, fitting, unit linkage and air circulation around the panels ; can also accommodate a control system
- 7 Door seal system manufactured to a special profile and from special material. High-quality seal on irremovable panels is a factor in the structure achieving EN 13053 airtight classification
- 8 Large square inspection window complies to EN 13053, double glass porthole with internal high efficiency sealing.



5 Polyamid hinge



5 Handle



13 Condensate drain tray



14 Sealing flange



18 Adjustable sledge

Air intake

- 9 Contra-rotating blades, cog-wheel drive system, "Class 3" airtightness as per EN 1751

Filters

- 10 Sliding rails with clamping system (comply to EN 1886 class F9)
- 11 individual pressure tapings

Coils

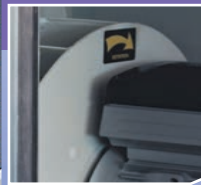
- 12 Threaded connections as standard up to 3"
- 13 Tilted condensation drain tray, as per EN 13053
- 14 Sealing flange, fully airtight with thermal bridge free between piping and casing

Fans

- 15 3 available fan types: forward curved, backward curved and plug fan, all in different sizes
- 16 Fans are mounted on anti-vibration frame with spring isolator as standard
- 17 Flexible, inner fan-to-casing connection
- 18 Motor on self-aligned adjustable sledge
- 19 Fitted packing gland for electrical power supply



The technological choice



7 Seal gasket



10 Filter sliding rail with clamping system



16 Anti-vibration mount

Airtech performance **airtech** is built around the definitive filtration system

Pre-filtration :

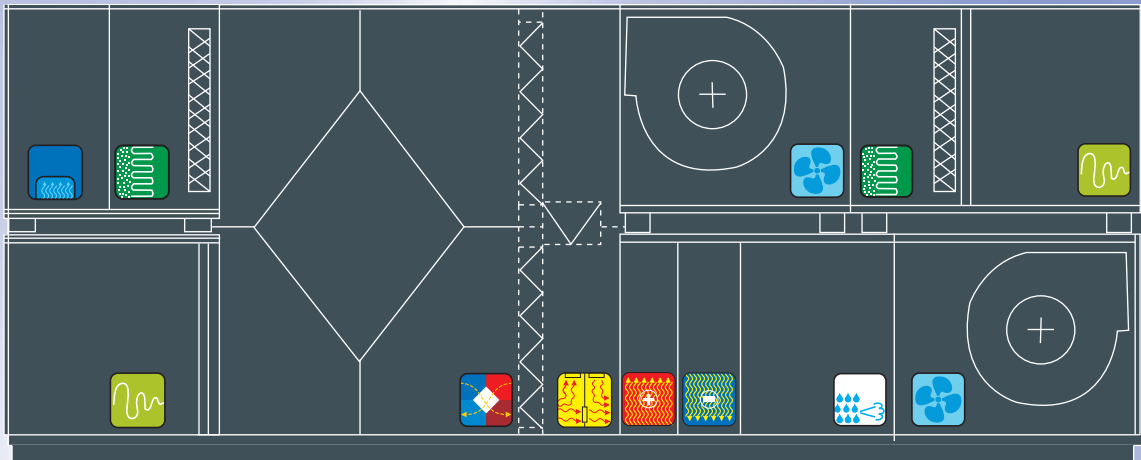
The filter mediums have been exclusively designed by Ciat to meet the most stringent quality requirements whilst also providing the tightest seal under the EN 1886 standard. The filter sliding rails with clamping system mounted on counter frame and including a sealing, guaranteeing the airtightness on the filter system.

Terminal filtration :

Demands on terminal filtration performance were especially intense:

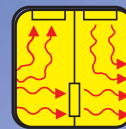
- Double airtightness sealing for bigger performance,
- Separate panels to prevent any deflection when work is being carried out inside the unit and also help to protect the outer seals.

Adaptable solutions without limits.



Air inlet section

Damper
Single air inlet
2-way mixing box

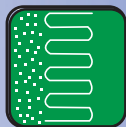


Economiser

3-way mixing
- Horizontal
- Vertical

Filtration section

Gravimetric
Opacimetric
Absolute
Active carbon

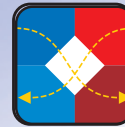


Humidification section

Spray washer
Evaporative
Steam

Fan section

Forward
Backward
Plug fan



Heat recovery section

Runaround coils
Heat pipe
Plates heat
Heat wheel

Cooling coil section

Chilled water
Dx coil



Additional section

Sound attenuator
Expansion chamber
Technical section
Jig
Diffusion plenum
Corner section

Heating coil section

Hot water
Superheated water
Low and high pressure steam
DX condenser electric
Gas burner:
with exchanger,
moderated ventilation

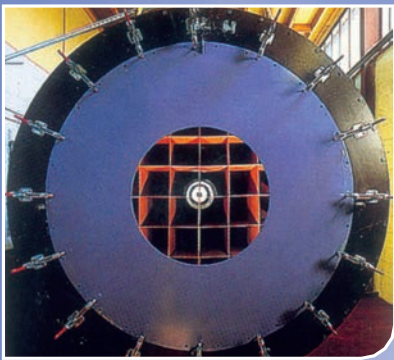


Accessories

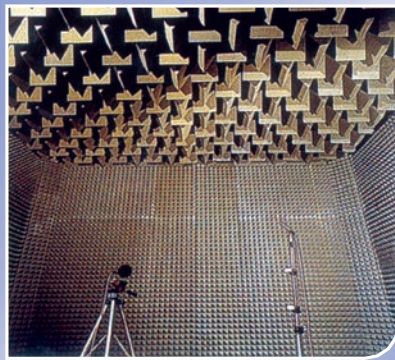
Adverse weather protection,
Flexible connection,
Connection frame,
Lighting,
Pressure gauge
Pressure switch,
Control,
Actuator,
Antifreeze thermostat
etc.

CIAT, mastering **technology**

CIAT is a leading European company and a genuine expert in the field of air treatment. Our R&I potential, test resources, model-building and sizing software are developed and managed in-house so that our products are perfectly balanced and fulfil the special requirements imposed by the market, and our customers' own requests. Our engineers and technicians are experts in the fields of heat transfer, acoustics, airflow and electronics, working in close harmony with a number of research centres to enable us to continuously enhance the technology used in our products.



Aerulic test tunnel

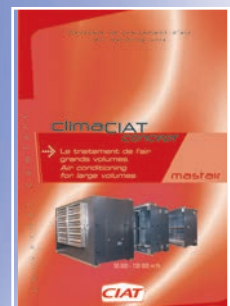


Acoustic chamber



Climate room

CIAT, covering **air processing** from every angle



With 6 ranges covering all tertiary and industrial applications, CLIMACIAT concept is the ideal and customized answer to your requirements regardless of air volume to be treated or hygienic level to achieve.

This document is non-contractual. As part of its policy of continual product improvement, CIAT reserves the right to make any technical modification it feels appropriate without prior notification.

Head office

Avenue Jean Falconnier - B.P. 14
01350 - Culoz - France
Tel.: +33 (0)4 79 42 42 42
Fax: +33 (0)4 79 42 42 10
if@ciat.fr - www.ciat.com

