Air handling unit

CLIMACIAT AIRTECH

Climaciat AirTech

The technological choice

Characteristics	Class
Casing strength	2A
Casing air leakage	B
Filter bypass leakage	F9
Thermal transmittance	T2
Thermal bridge factor	TB2

Air flow : 1 000 to 66 000 m³/h

AIR HANDLING FOR ALL APPLICATIONS

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

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

PERFORMING TO NEW STANDARDS

Airtech air handling units have been designed in the sprit of the **EN 13053** manufacturing standard and with the aim of fulfilling the strictest **EN 1886** standard grades: transmittance and thermal bridge, mechanical endurance and airtight jacket, 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.

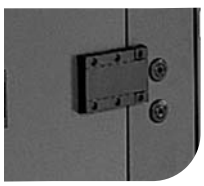
THE NEXT GENERATION DESIGN

Body

1. Twin-wall casing, pre-coated outer panelling, 50 mm thick 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-dependent functions
5. Off-centre hinge units and latch handles, all made from composite material for withstanding corrosion and temperatures from -40° C to +80° C
6. Multi-purpose, ergonomic 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-diameter square inspection window is manufactured to EN 13053, with a twin-wall system and inner linkage bellows to reinforce the seal.

Air inlet

9. Face-to-face damper louvres, cog-wheel drive system, "Grade 3" tightness as per EN 1751



5 Composite hinge unit

5 Handle

13 Condensates drain tray

14 Sealing flange

18 Adjustable drive-unit bracket

Air handling unit

Filters

10 Parallel gripped filter. Sliding rails with clamping system (comply with EN 1886 class F9)

11 Pressure tappings at each level filtration

Exchangers

12 Threaded connectors as standard up to 3"

13 Tilted condensates drain tray, as per EN 13053

14 Sealing flange, fully airtight and thermal bridge free between piping and casing

Fans

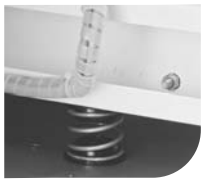
15 3 available fan types: low pressure, medium pressure and freewheel, all in various sizes

16 Fans are mounted on anti-vibration frame with spring-loaded pads as standard

17 Flexible, inner fan-to-casing connection

18 Motor mounted on self-aligned adjustable frame

19 Fitted packing gland for electrical power supply



16 Anti-vibration pad

10 Contracting filter runner

7 Seal gasket

AIRTECH PERFORMANCE 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 are mounted on a back frame and include an outer seal, guaranteeing excellent air tightness on the filter system.

Terminal filtration :

Demands on terminal filtration performance were especially intense:

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

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

The diagrams show the types of layout with the operating limits of the components.

Air heater (A), air conditioner without droplet separator (B), with standard droplet eliminator (C), with high speed droplet separator (D).