

## > FTE

### AIR HANDLING UNITS

The **FTE series is Eurovent certified** and is built with a modular system providing for 29 sizes for a wide range of capacities with the possibility of special set-up upon request.

■ **STRUCTURE:** made with strong framework in extruded anodised aluminium sections, joined with angle joints in die-cast aluminium panels with double shell made by galvanised steel sheet, prepainted, stainless ASI 304 or peraluman.

The panels are available in 2 different thickness:

- 48 mm with polyurethane foam
- 48 mm with high density rock wool
- 63 mm only with high density rock wool, coupled to special extruded anodised aluminium sections with rounded edges complete with thermal break to minimize heat loss and air leakage. In this configuration, panels and profiles are coplanar thus making the surface of the central completely smooth, thus facilitating the operations of cleaning and sanitizing.

This solution is particularly suitable for applications in hospitals, food processing, pharmaceutical, etc.

The panels are equipped with self-adhesive type seals. The inspection panels are fitted on hinges and provided with double closing handles (internal and external).

The fixed panels 48 mm thickness are fasten to the frame with galvanised steel or stainless steel screws.

The fixed panels 63 mm thickness are fasten to the frame with galvanised steel or stainless steel screws that are completely surrounded by the thermal insulation so avoiding any possible thermal bridge.



**Ferrol participates to the Eurovent certification program referred to the Air Handling Units (AHU).** The Eurovent certification program is based on the requirements defined by the EN 1886 standard that ranks the following technical features of air-handling units:

- Mechanical strength of the casing
- Air leakage through the casing
- Air leakage around the filter frame
- Thermal transmittance of the casing
- Thermal bridges of the casing
- Acoustic insulation of the casing



The verification of these requirements is based on tests conducted by TUV laboratory accredited by Eurovent.

## > FTP

### AIR HANDLING UNITS

The **FTP series** is built with a modular system providing for 29 sizes for a wide range of capacities with the possibility of special set-up upon request.

■ **STRUCTURE:** made with strong framework in extruded anodised aluminium sections, joined with angle joints in die-cast aluminium or nylon panels with double shell and insulated with high density rock wool or polyurethane foam with thickness 23, 48 or 63 mm, with normal profiles or with thermal break. The panels can be made by:

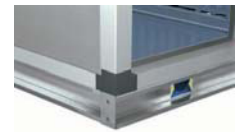
- galvanised steel sheet
- prepainted steel sheet
- peraluman sheet
- AISI 304 stainless steel sheet

The panels are fixed to the frame with galvanised steel or stainless steel screws and are equipped with self-adhesive type seals. The inspection panels are fitted on hinges and provided with double closing handles (internal and external).



# > General features

■ **BASE:** With a continuous beam in heavy galvanised steel sheet, press bent with sections with a high structural rigidity which ensure safe transport and handling on site.



■ **FANS:** to be selected upon the specific application:

- Dual-intake centrifugal type with forward or backward blades
- Dual-intake centrifugal type with airfoil backward blades
- Plug fan with speed control via 0-10V signal. They can be supplied with standard AC motor and external inverter control or with brushless EC motor ("inverter" built-in motor)



■ **MOTORS:** brushless type (for EC plug fan) or three-phase asynchronous squirrel-cage rotor windings and class F. All motors have efficiency class IE2 (IE3 on request) according to the international standard IEC 60034-30 and the ErP Directive 2009/125/EC (formerly EuP).

■ **HEAT EXCHANGER COILS,** removable type, can be chosen to work with water, brine solutions (eg. Glycol), steam or direct expansion. In the standard version are made with aluminum fins and copper pipes mechanically expanded. On request can be supplied in special versions (steel pipes or stainless steel, pre-painted aluminium fins, copper fins, etc..).



■ **ELECTRIC COILS:** The electric coils have armored-type heaters with one or two stages, complete with electrical panel and safety thermostat.

■ **AIR FILTERS** with high surface area and low pressure drop, can be selected:

- Roll filters
- Rigid or soft pockets filters
- Corrugated filter cells
- Activated carbon filters



■ **HEAT RECOVERY** can be selected:

- Static type cross-flow plates made of aluminum (or steel) sealed so as to ensure the total absence of contact between the exhaust air and the fresh air entered.
- Rotary with rotating hygroscopic drum; on demand can be supplied complete with a device for controlling the speed of rotation.



■ **DAMPERS:** constructed of galvanized sheet metal frame and paneled extruded aluminum fins, complete with gasket for maximum sealing.

■ **HUMIDIFICATION** to be selected according to the specific application:

- **STEAM** through the installation of a steam generator or through distributors in case of steam network.
- by **NOZZLES** through self-cleaning spray nozzles, mounted on one or two trains.
- **PACK** by a honeycomb packing cellulose impregnated with phenolic resins, complete with metal frame containing and water distributor.

■ **COLLECTION TRAYS:** These can be in galvanised steel or AISI 304 stainless steel sheet, provided with drain manifold.

■ **SILENCERS** available in different lengths, are made with insulating baffles, constructed with multiple layers of rock wool content from a microperforated sheet metal; external surfaces of the septa in direct contact with the treated air are coated with a plastic film to prevent flaking.

## Software Selection

Ferrol cta is a selection powerful and versatile software that allows you to select the air handling unit best suited to your specific needs quickly and completely.

The output generated by the SW is offering a comprehensive economic, including technical drawings and characteristics of the selected components.

