



Air handling units



CLIMACIAT M.A.S.T.AIR

Very large air flows
High total pressures
Air tightness - Class B
High mechanical resistance

Air flow rate : 50 000 to 130 000 m³/h

Use

- This range of very strong units is especially suitable for specific industrial applications (process, clean rooms) and for particular comfort air conditioning systems.
- Self supporting construction. Double skin panels 50 mm mineral wool insulation.
- External casing painted in prelacqued sheet metal (RAL 7024).
- Casing designed to resist to high mechanical loads and to comply with Class B airtightness in accordance with Eurovent 2/2 and EN 1886.
- Casing assembly ensures smooth internal and external surfaces.
- Various options available such as : air washers, wet deck humidifiers, direct gas burner with gas piping, control panels, access corridor and all type of filters (heavy filter frame, travel spray...).

Norme EN 1886

To conform with the EN 1886 specifications, the **M.A.S.T.AIR** range meets the following requirements :

■ Casing airtightness

Class B as standard (EN 1886)

■ Casing resistance to pressure

2600 Pa as Standard

(-1 200 Pa)

(+ 1 400 Pa)

3600 Pa in strengthened construction

(-1 200 Pa)

(+ 2 400 Pa)

■ Casing thermal insulation

Class T3 as standard

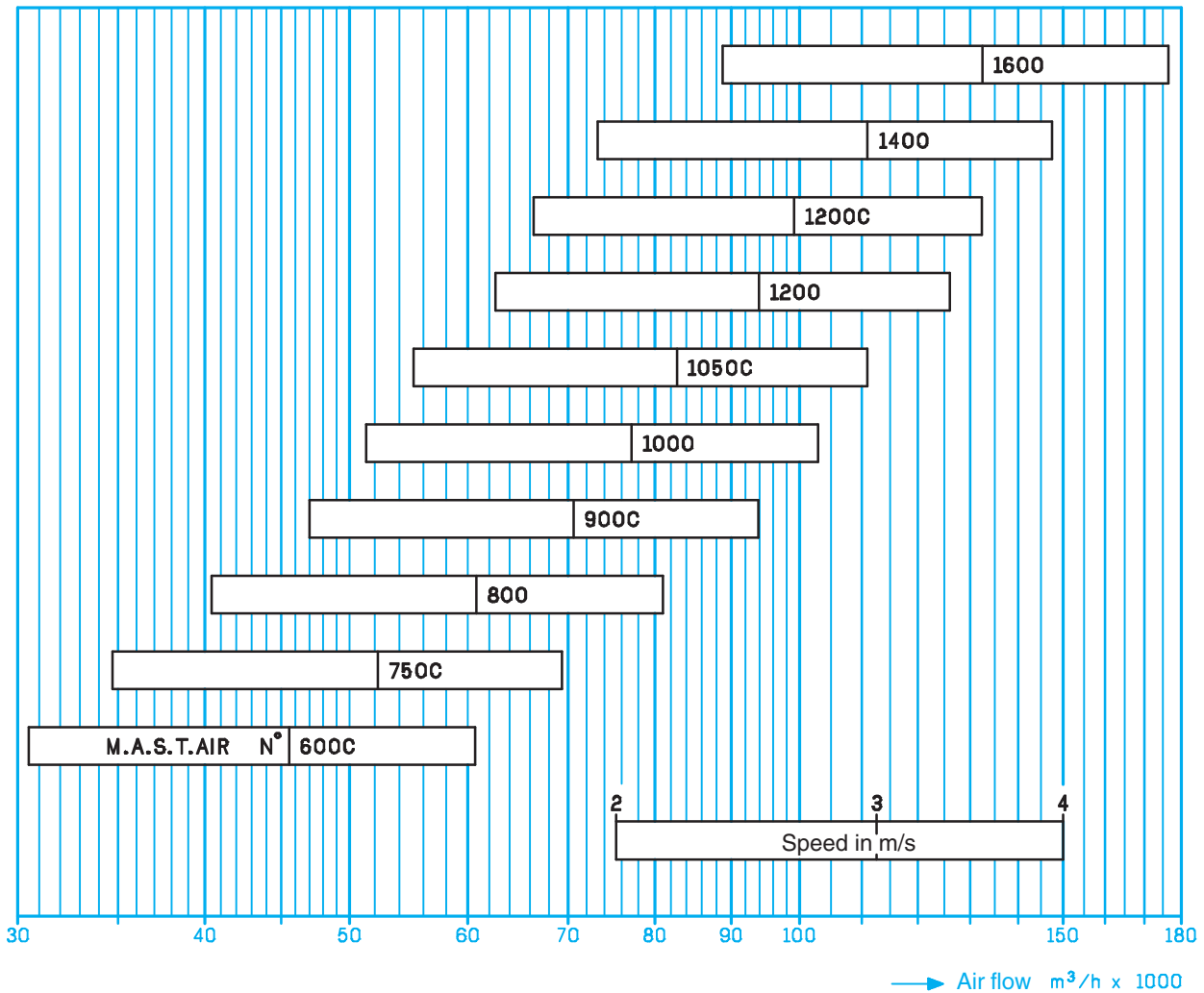
■ Noise insulation

Sound spectra are available and conform with the measurement method of EN 1886

■ Other criteria

Depending on unit's components and arrangement. Please consult us.

QUICK SELECTION



DESCRIPTION

■ Horizontal arrangement only

■ Internal or external units

(external units with bitumen felt roof)

■ Air intake sections

(Damper / Single air intake or Mixing box section) provided with modulating or airtight dampers.

Number of actuators depends on the air intake damper area.

■ Filter sections

All filters are of universal sizes, frame mounted with front withdrawal through access section.

Only prefilters G4 can be side withdrawn when access is not possible.

■ Coil sections

4 different geometrical type of fins - Fins in aluminium, polyurethane prepainted aluminium or copper.

2 different tube diameters in copper, steel or stainless steel. Coils can be in one piece (equal to the width of the unit) or split vertically and staggered in the direction of air flow. In the later case, only half of the unit's width is needed to withdraw the coil.

2 types of droplet eliminator

- Galvanised steel wire mesh for coil face velocity up to 3,25 m/s.

- PPHD blades for coil face velocity up to 4m/s.

A drawer for a control sensor can be factory mounted in the unit.

■ **Electric heaters**

■ **Humidifier section**

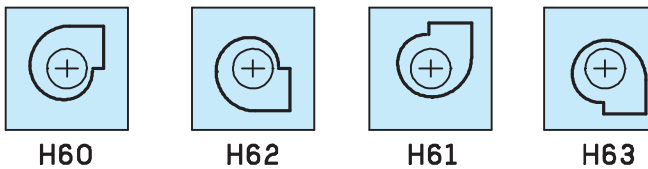
- Wet deck humidifier
- Steam humidifier
- Air washer 90 % efficiency

■ **Moderate fan generator section**

Direct combustion in the air stream (without exchanger)
 Running in total fresh air.
 Descriptive : burner and regulation mounted on the front plate
 adjustable diaphragm, control and regulation system.

■ **Fan section**

2 or 3 possibilities to optimise the fan selection by using 1 or 2 fans, 2 or 3 impeller diameters, 4 different fan discharges.



Fan section includes fan and motor chassis, antivibration mountings, adjustable belt tension device, internal flexible sleeve and door guard.

Also available factory mounted door switch, motor isolator, lockable door handle, etc ...

The sound traps, of various lengths can be planned upstream or downstream, from the ventilation system.

■ **Access corridor**

Particularly suitable for external units, it allows the fitting and protection of components such as actuators, manometers, differential pressure sensors, coil pipes and valves, control panel.

■ **Flat-pack delivery**

Generally units are delivered in factory assembled sections. In case of limited site access, section can be delivered flat-pack with technical assistance from CIAT.

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Example of air handling unit M.A.S.T.AIR 1050C : 80 000 m³/h / 200 mmWG CE

