

# MIXVENT HEATING System (MIXVENT-TD + MBE heater battery)

The MIXVENT heating system offers the most economic solution for the heating of fresh air supply systems.

The MIXVENT HEATING system consists on a MBE electric heater battery installed on the discharge side of the MIXVENT-TD fan.

The minimum air velocity through the heater batteries must be 2 m/s.

The batteries incorporate:

- Insulated element rods.
- Automatic overheat thermostat wired in series with an additional safety overheat manual reset thermostat (RESET). Units are available for single phase (models 100, 125 and 160) or three phase (other models) electrical supply connection, with a circuit protection supplied on 230V single phase.
- Connection box IP43.

A range of duct or ambient temperature sensors and controllers accessories to accompany the electrical heater battery are available. These controller accessories modulate the heater output as a function of the required environmental temperature. With this system it is possible to achieve temperature rise up to 50° on the supply air.



TD-MIXVENT

MBE Electrical heater battery



TD-MIXVENT	MBE battery type	Battery power (W)	Batteries supply	Minimum airflow (m3/h)	Speed controller type
250/100	MBE-100/04B	400	01/01/30	60	PULSER
350/125	MBE-125/12B	1200	01/01/30	90	PULSER
500/160	MBE-160/21B	2100	01/01/30	150	PULSER
800/200	MBE-200/50T	5000	01/02/00	230	PULSER
1000-1300/250	MBE-250/60T	6000	01/02/00	350	PULSER
2000/315	MBE-315/90T	9000	01/03/00	560	TTC-2000
4000/355	MBE-355/90T	9000	01/03/00	710	TTC-2000
6000/400	MBE-400/120T	12000	01/03/00	900	TTC-2000

## SELECTION EXAMPLE

### DATA:

- Airflow: 700 m3/h (Q)
- Input air temperature: +5 °C
- Required output temperature: +27 °C

### REQUIRED HEAT POWER:

$$P = Q \times 0,36 \times \Delta T$$

$$= 700 \times 0,36 \times 22$$

$$= 5544 \text{ W}$$

### BATTERY ELECTION

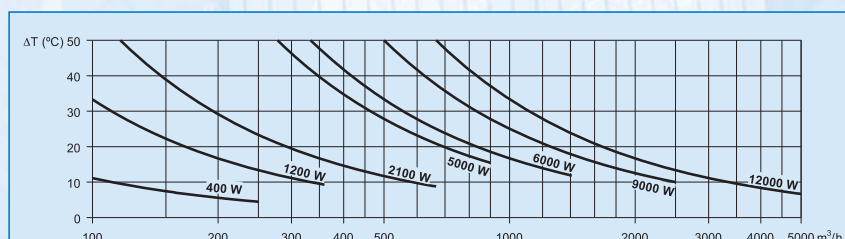
Or: MBE-200/50T  
Or: MBE-250/60T

Final election will depend of:

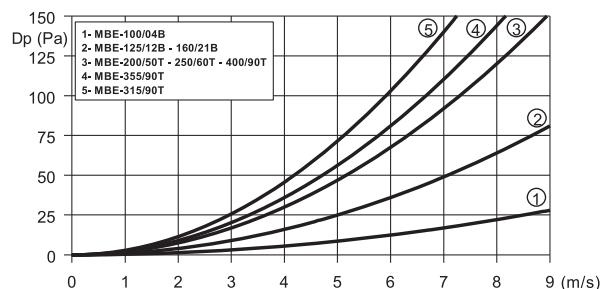
- Total pressure drop
- Desired sound level
- Available space



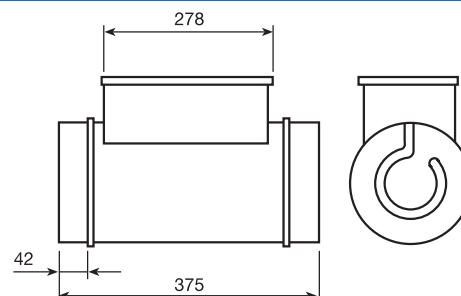
In those installations where MIXVENT HEATING system is required it is convenient to use filter boxes MFL to protect the electrical batteries from the debris.



### Battery pressure drop $\Delta p$ (Pa)



### Dimensions (mm)



## ■ MBE heater batteries accessories



Dimensions LxAxH (mm):  
92x45x150

### PULSER controller

Electronic controller to regulate the heat output for single phase or two phase (200 - 415 V) electric heater battery in order to maintain a constant pre-selected temperature. Depending on the selected temperature, the controller pulses the entire power output and uses a time-proportional control to maintain that temperature. PULSER incorporates a built-in temperature sensor and can be installed directly in the room to heat. External temperature sensors can be also connected.



Dimensions LxAxH (mm):  
160x140x280

### TTC-2000 controller

Electronic controller to regulate the heat output for three phase electrical heater batteries up to 16.5kW in order to maintain a constant pre-selected temperature. Depending on the selected temperature, the controller pulses the entire power output and uses a time-proportional control to maintain that temperature. TTC-2000 is designed to be mounted within a main electrical board and has to be connected to a temperature sensor placed in the room to heat or in the warm air supply ducting.



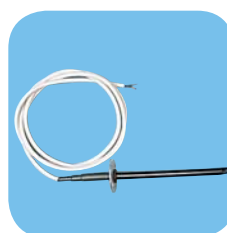
Dimensions LxAxH (mm):  
70x30x70

### Room temperature sensor TG-R530

To place in the room to heat:

- NTC type with linear scale
- Operating temperature: 0 -30°C
- IP-20

Suitable for controller type TTC-2000.



### Duct temperature sensor TG-K330

Temperature sensor to place in the warm air supply ducting.

- NTC type with linear scale
- Operating temperature: 0 -30°C
- IP-20

Suitable for controllers type PULSER and TTC-2000.

