

TD-MIXVENT fan (from model 250) and a MBE electric heater installed on the discharge side of the fan.

TD-MIXVENT + MBE ELECTRIC HEATER

MBE heater type

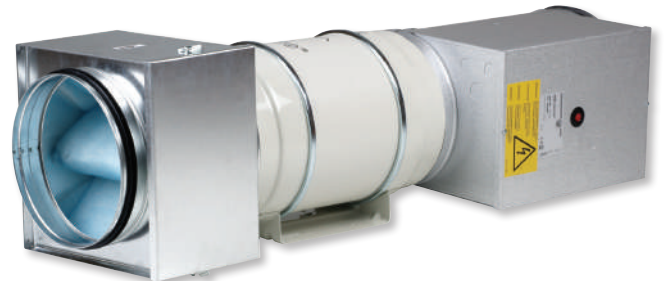
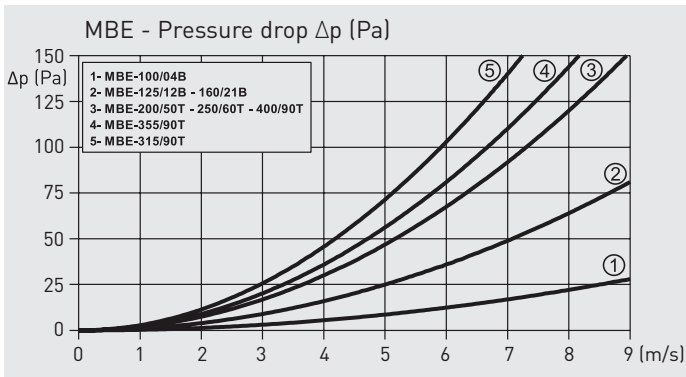
- Insulated element rods.
- Automatic overheat thermostat wired in series with an additional safety overheat manual reset thermostat (RESET). Units are available for single phase (models 100, 125 and 160) or three phase (other models) electrical supply connection, with a circuit protection supplied on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

A range of duct or ambient temperature sensors and controllers accessories to accompany the electric heater 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.

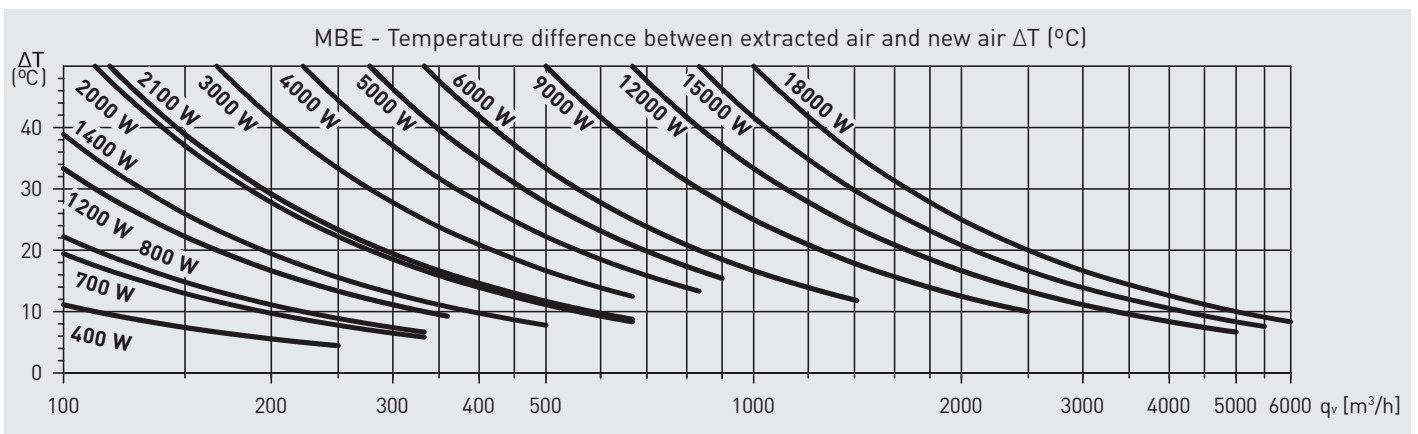


TD-MIXVENT

MBE electric heater (installed on the discharge side of the fan).



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



TECHNICAL CHARACTERISTICS MBE

| TD-MIXVENT | MBE heater type | Heater power (W) | Batteries supply (V) | Minimum airflow (m³/h) | Ø (mm) | Speed controller type |
|---------------|-----------------|------------------|----------------------|------------------------|--------|-----------------------|
| 250/100 | MBE-100/04B | 400 | 1/230 | 50 | 100 | PULSER |
| | MBE-100/08B | 800 | 1/230 | 50 | 100 | PULSER |
| 350/125 | MBE-125/04B | 400 | 1/230 | 70 | 125 | PULSER |
| | MBE-125/08B | 800 | 1/230 | 70 | 125 | PULSER |
| | MBE-125/12B | 1200 | 1/230 | 70 | 125 | PULSER |
| 500/160 | MBE-160/07B | 700 | 1/230 | 110 | 160 | PULSER |
| | MBE-160/14B | 1400 | 1/230 | 110 | 160 | PULSER |
| | MBE-160/21B | 2100 | 1/230 | 110 | 160 | PULSER |
| 800/200 | MBE-200/20T | 2000 | 2/400 | 170 | 200 | PULSER |
| | MBE-200/30T | 3000 | 2/400 | 170 | 200 | PULSER |
| | MBE-200/40T | 4000 | 2/400 | 170 | 200 | PULSER |
| | MBE-200/50T | 5000 | 2/400 | 170 | 200 | PULSER |
| | MBE-200/60T | 6000 | 2/400 | 170 | 200 | PULSER |
| | MBE-200/90T | 9000 | 3/400 | 170 | 200 | TTC-25/TTC-2000 |
| 1000-1300/250 | MBE-250/20T | 2000 | 2/400 | 270 | 250 | PULSER |
| | MBE-250/30T | 3000 | 2/400 | 270 | 250 | PULSER |
| | MBE-250/40T | 4000 | 2/400 | 270 | 250 | PULSER |
| | MBE-250/50T | 5000 | 2/400 | 270 | 250 | PULSER |
| | MBE-250/60T | 6000 | 2/400 | 270 | 250 | PULSER |
| | MBE-250/90T | 9000 | 3/400 | 270 | 250 | TTC-25/TTC-2000 |
| 2000/315 | MBE-315/30T | 3000 | 2/400 | 430 | 315 | PULSER |
| | MBE-315/60T | 6000 | 2/400 | 430 | 315 | PULSER |
| | MBE-315/90T | 9000 | 3/400 | 430 | 315 | TTC-25/TTC-2000 |
| | MBE-315/120T | 12000 | 3/400 | 430 | 315 | TTC-25/TTC-2000 |
| | MBE-315/150T | 15000 | 3/400 | 430 | 315 | TTC-25/TTC-2000 |
| 4000/355 | MBE-355/60T | 6000 | 2/400 | 540 | 355 | PULSER |
| | MBE-355/90T | 9000 | 3/400 | 540 | 355 | TTC-25/TTC-2000 |
| | MBE-355/120T | 12000 | 3/400 | 540 | 355 | TTC-25/TTC-2000 |
| | MBE-355/150T | 15000 | 3/400 | 540 | 355 | TTC-25/TTC-2000 |
| | MBE-355/180T | 18000 | 3/400 | 540 | 355 | TTC-40F |
| 6000/400 | MBE-400/60T | 6000 | 2/400 | 680 | 400 | PULSER |
| | MBE-400/90T | 9000 | 3/400 | 680 | 400 | TTC-25/TTC-2000 |
| | MBE-400/120T | 12000 | 3/400 | 680 | 400 | TTC-25/TTC-2000 |
| | MBE-400/150T | 15000 | 3/400 | 680 | 400 | TTC-25/TTC-2000 |
| | MBE-400/180T | 18000 | 3/400 | 680 | 400 | TTC-40F |

SELECTION EXAMPLE

DATA:

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

REQUIRED HEAT POWER:

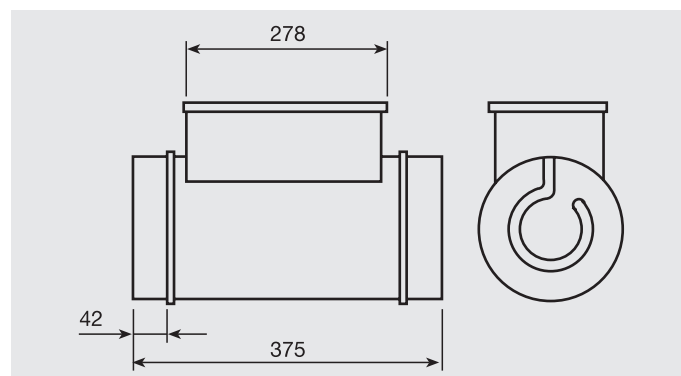
$$P = Q \times 0,36 \times \Delta T = 700 \times 0,36 \times 22 = 5544 \text{ W}$$

HEATER ELECTION: or: MBE-200/50T or: MBE-250/60T

Final election will depend of:

- Total pressure drop
- Desired sound level
- Available space

DIMENSIONS (mm)



ELECTRIC HEATERS ACCESSORIES MBE

For more information see Electrical accessories.



PULSER

Single phase electric heater controller.



TTC-2000 and TTC-25

Three phase electric heater controller.



TG-R

Room temperature sensor.



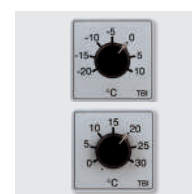
TG-K

Duct temperature sensor.



DPS

Differential pressure switch.



TBI-10 / TBI-30

External potentiometer.

TD-MIXVENT fan (from model 250) and a MBE-R electric heater installed on the discharge side of the fan.

TD-MIXVENT + MBE-R ELECTRIC HEATER

MBE-R heater type

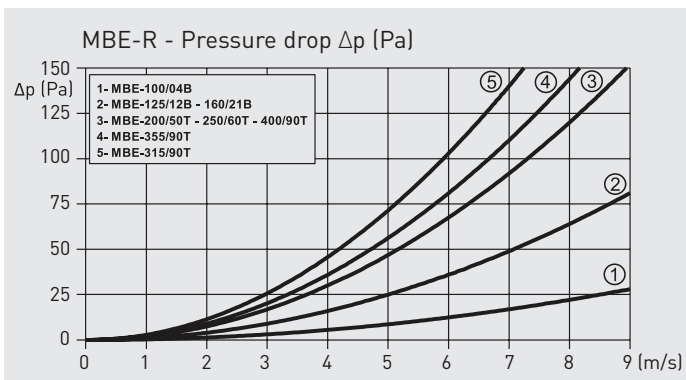
- Electric heater regulation, incorporated.
- Insulated element rods.
- Automatic overheat thermostat wired in series with an additional safety overheat manual reset thermostat (RESET). Units are available for single phase (models 100, 125 and 160) or three phase (other models) electrical supply connection, 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 electric heater are available. These controller accessories modulate the heater output as a function of the required environmental temperature.

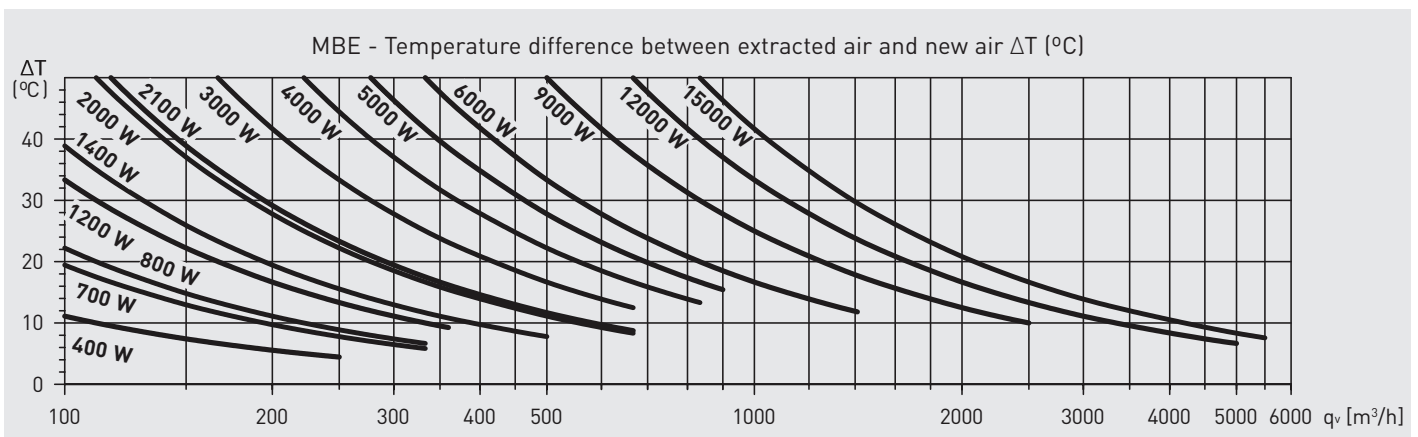


TD-MIXVENT

MBE-R electric heater (installed on the discharge side of the fan).



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



TECHNICAL CHARACTERISTICS MBE-R

| TD-MIXVENT | MBE-R heater type | Heater power (W) | Batteries supply (V) | Minimum airflow (m³/h) | Ø (mm) |
|---------------|-------------------|------------------|----------------------|------------------------|--------|
| 250/100 | MBE-100/04B-R | 400 | 1/230 | 50 | 100 |
| | MBE-100/08B-R | 800 | 1/230 | 50 | 100 |
| 350/125 | MBE-125/04B-R | 400 | 1/230 | 70 | 125 |
| | MBE-125/08B-R | 800 | 1/230 | 70 | 125 |
| 500/160 | MBE-125/12B-R | 1200 | 1/230 | 70 | 125 |
| | MBE-160/07B-R | 700 | 1/230 | 110 | 160 |
| | MBE-160/14B-R | 1400 | 1/230 | 110 | 160 |
| 800/200 | MBE-160/21B-R | 2100 | 1/230 | 110 | 160 |
| | MBE-200/20T-R | 2000 | 2/400 | 170 | 200 |
| | MBE-200/30T-R | 3000 | 2/400 | 170 | 200 |
| | MBE-200/40T-R | 4000 | 2/400 | 170 | 200 |
| 1000-1300/250 | MBE-200/50T-R | 5000 | 2/400 | 170 | 200 |
| | MBE-250/20T-R | 2000 | 2/400 | 270 | 250 |
| | MBE-250/30T-R | 3000 | 2/400 | 270 | 250 |
| | MBE-250/40T-R | 4000 | 2/400 | 270 | 250 |
| | MBE-250/50T-R | 5000 | 2/400 | 270 | 250 |
| 2000/315 | MBE-250/60T-R | 6000 | 2/400 | 270 | 250 |
| | MBE-250/90T-R | 9000 | 3/400 | 270 | 250 |
| | MBE-315/30T-R | 3000 | 2/400 | 430 | 315 |
| | MBE-315/60T-R | 6000 | 2/400 | 430 | 315 |
| 4000/355 | MBE-315/90T-R | 9000 | 3/400 | 430 | 315 |
| | MBE-315/120T-R | 12000 | 3/400 | 430 | 315 |
| | MBE-355/60T-R | 6000 | 2/400 | 540 | 355 |
| 6000/400 | MBE-355/90T-R | 9000 | 3/400 | 540 | 355 |
| | MBE-355/120T-R | 12000 | 3/400 | 540 | 355 |
| | MBE-400/60T-R | 6000 | 2/400 | 680 | 400 |
| 6000/400 | MBE-400/90T-R | 9000 | 3/400 | 680 | 400 |
| | MBE-400/120T-R | 12000 | 3/400 | 680 | 400 |
| | MBE-400/150T-R | 15000 | 3/400 | 680 | 400 |

SELECTION EXAMPLE

DATA:

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

REQUIRED HEAT POWER:

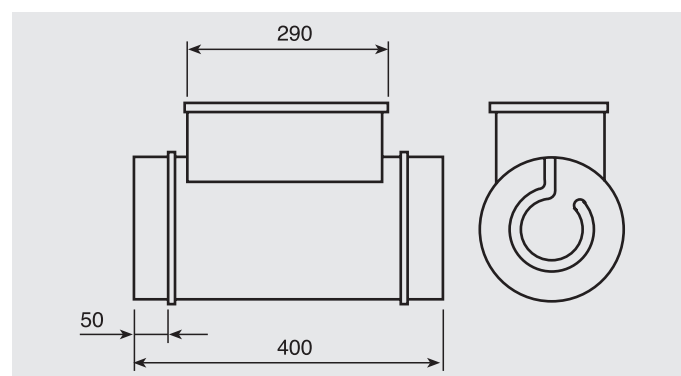
$$P = Q \times 0,36 \times \Delta T = 700 \times 0,36 \times 22 = 5544 \text{ W}$$

HEATER ELECTION: or: MBE-200/50T-R or: MBE-250/60T-R

Final election will depend of:

- Total pressure drop
- Desired sound level
- Available space

DIMENSIONS (mm)



MBE-R ELECTRIC HEATERS ACCESSORIES

For more information see Electrical accessories.



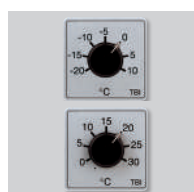
TG-R
Room temperature sensor.



TG-K
Duct temperature sensor.

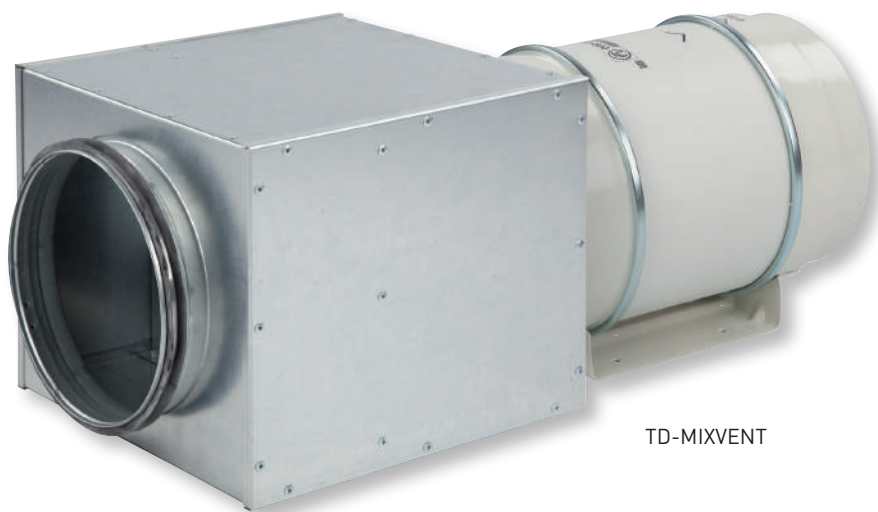


DPS
Differential pressure switch.



TBI-10 / TBI-30
External potentiometer.

TD-MIXVENT fan (from model 250) and a MBW water coil installed on the discharge side of the fan.



TD-MIXVENT

MBW water coil (advisable to install on the inlet side of the fan).

TD-MIXVENT + MBW WATER COIL

- MBW water coil type
- Range of connection diameters, 100 - 500 mm.
 - Galvanised steel housing.
 - Hot water coil with copper pipes and aluminium fins.
 - Removable side for maintenance purposes.
 - Can be mounted horizontally or vertically.
 - Connections with watertight seals.
 - Connection must be made between the coil and the hot water circuit.
 - Maximum pressure: 10 bar.
 - Maximum temperature: 100°C.

Shut-off valves must be installed on each water connection, so that the unit can be isolated if necessary (for cleaning filters, repairs, etc.) without the need to drain the entire circuit.

We recommend installing a filtration box with a filter (MFL-F + MFR) at the input to the unit, to capture water borne debris.



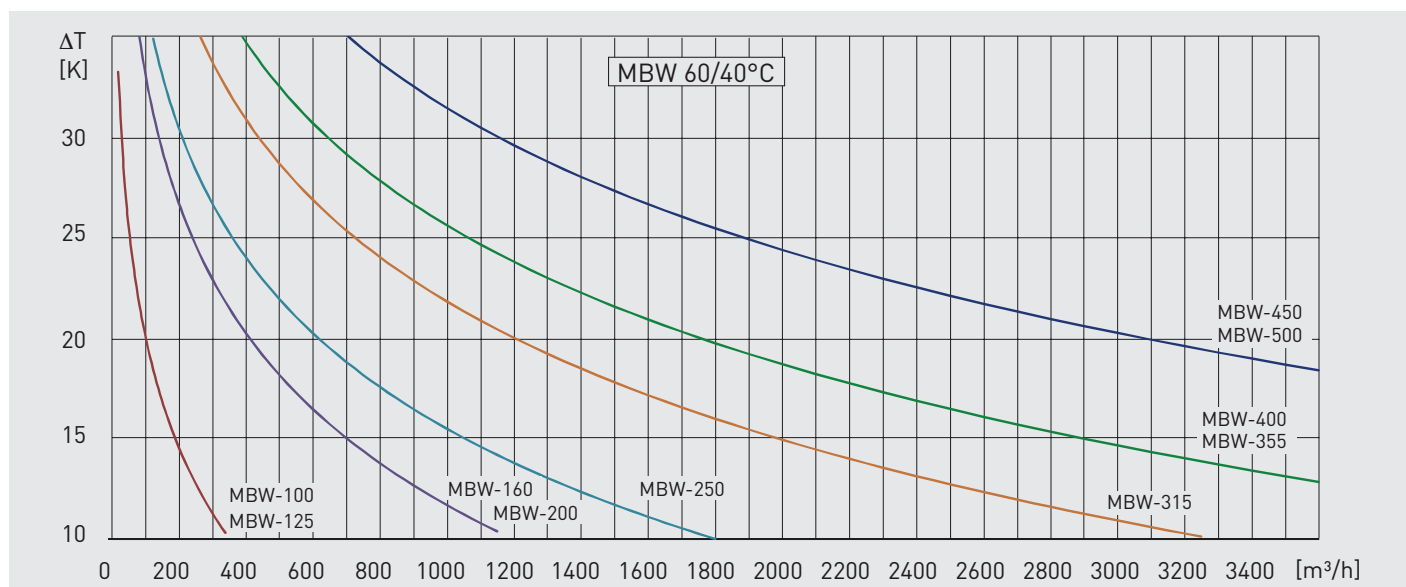
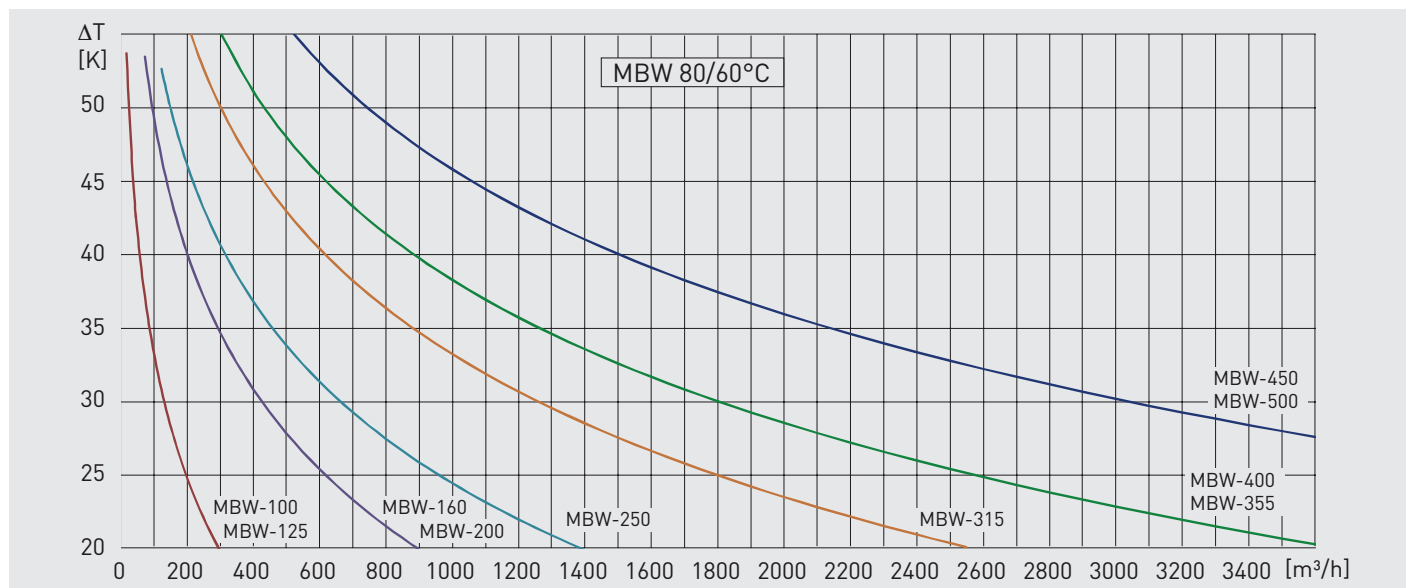
In those installations where MIXVENT HEATING system is required it is convenient to use filter boxes MFL to protect the coil from the dirt.

TECHNICAL CHARACTERISTICS MBW

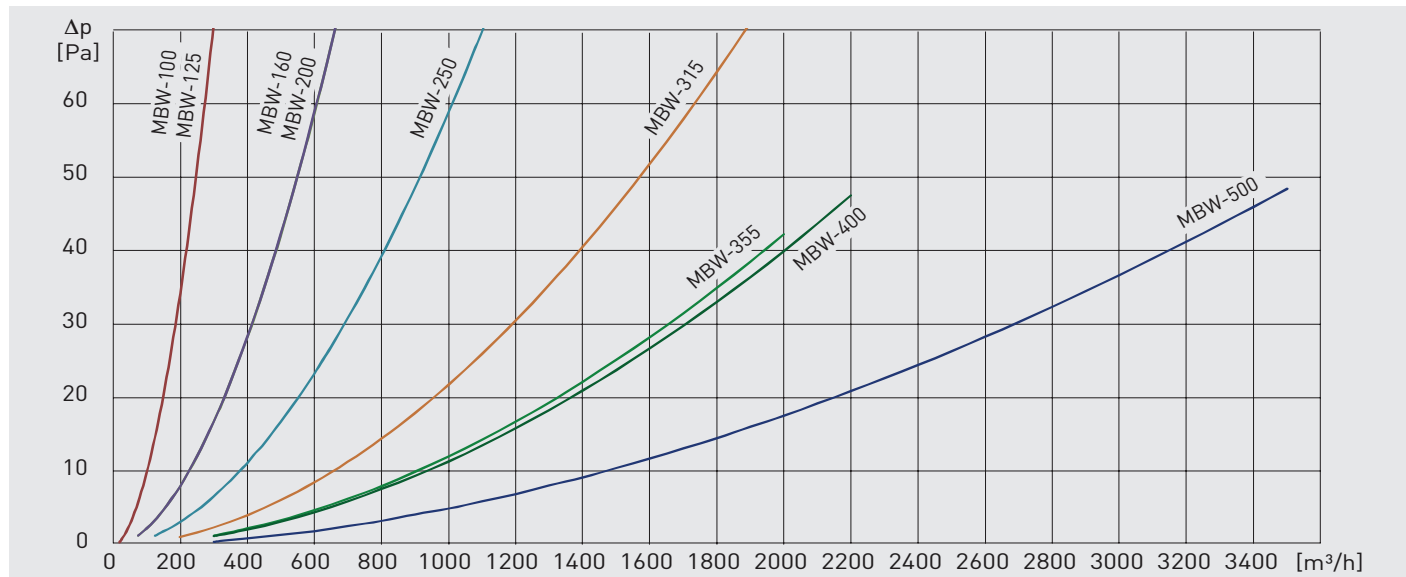
| TD-MIXVENT | MBW water coil | Air data | | | | Water data | | Weight (kg) | Accessories | | | | | | |
|---------------|----------------|-------------------|-------------------|------------------|------------------|--|----------------------------------|-------------|----------------------------|----------------------------|-----------------------------|-------------------------|------------|-----------------------|---------------------------------------|
| | | Heating power | | Air | | Airflow (m ³ /h) ^{1,2} | Pressure drop (kPa) ¹ | | Airflow (l/h) ¹ | Manual temperature control | Manual temperature control* | Water coil mounting kit | Pump speed | Anti-frost thermostat | Thermostat for external installation* |
| | | (kW) ¹ | (kW) ² | (K) ¹ | (K) ² | | | | | | | | | | |
| 250/100 | MBW-100 | 1,7 | 1,0 | 33 | 18 | 150 | 1 | 70 | 5,8 | TRW | 3 | - | | THE-F | - |
| 350/125 | MBW-125 | 2,1 | 1,2 | 29 | 17 | 220 | 1 | 90 | 5,8 | TRW | 4 | - | | THE-F | - |
| 500/160 | MBW-160 | 4,6 | 3,0 | 39 | 25 | 360 | 4 | 200 | 7,7 | TRW | 5 | - | | THE-F | - |
| 800/200 | MBW-200 | 6,1 | 4,0 | 32 | 21 | 560 | 7 | 270 | 7,7 | TRW | 6 | - | | THE-F | - |
| 1000-1300/250 | MBW-250 | 9,7 | 6,2 | 32 | 20 | 900 | 4 | 430 | 9,6 | - | | PWW-SE1 | 1 | - | THE 16/4 A |
| 2000/315 | MBW-315 | 16,6 | 10,9 | 35 | 23 | 1.400 | 6 | 730 | 11,9 | - | | PWW-SE1 | 1 | - | THE 16/4 A |
| 4000/355 | MBW-355 | 22,3 | 14,9 | 36 | 24 | 1.800 | 9 | 980 | 14,5 | - | | PWW-SE1 | 2 | - | THE 16/4 A |
| 6000/400 | MBW-400 | 25,6 | 16,9 | 34 | 22 | 2.300 | 9 | 1.130 | 20,5 | - | | PWW-SE1 | 2 | - | THE 16/4 A |

The data provided refers to an outdoor temperature of 0°C and input/output temperatures of: 180/60°C, 260/40°C.
 * Only necessary when the pump cannot be connected via the operating boiler.

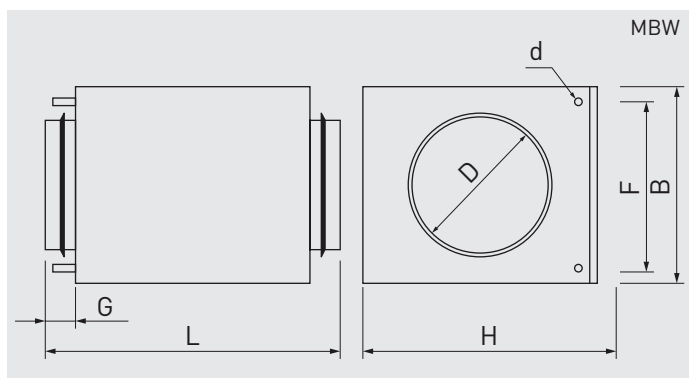
MBW - AIR TEMPERATURE INCREASES ΔT (°C)



MBW - PRESSURE DROP Δp (Pa)



DIMENSIONS (mm)



| Model | D | B | H | d | F | G | L |
|---------|-----|-----|-----|----|-----|----|-----|
| MBW-100 | 100 | 183 | 225 | 10 | 140 | 40 | 380 |
| MBW-125 | 125 | 183 | 225 | 10 | 140 | 40 | 380 |
| MBW-160 | 160 | 258 | 305 | 10 | 215 | 40 | 380 |
| MBW-200 | 200 | 258 | 305 | 10 | 215 | 40 | 380 |
| MBW-250 | 250 | 333 | 385 | 22 | 290 | 40 | 380 |
| MBW-315 | 315 | 408 | 460 | 22 | 365 | 40 | 380 |
| MBW-355 | 355 | 479 | 534 | 22 | 400 | 65 | 430 |
| MBW-400 | 400 | 479 | 534 | 22 | 400 | 65 | 430 |
| MBW-450 | 450 | 529 | 685 | 22 | 425 | 65 | 465 |
| MBW-500 | 500 | 529 | 685 | 22 | 425 | 65 | 465 |

ACCESSORIES FOR MBW WATER COIL



TRW
 Temperature control unit.



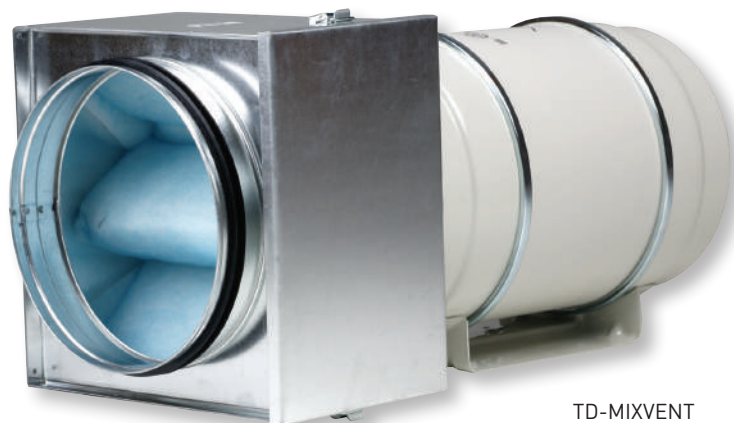
PWV
 Mounting kits.



THE-F
 Thermostat with capillary tube anti-frost sensor.



THE 16/4 A
 External thermostat.



TD-MIXVENT

Filter box MFL

TD-MIXVENT + FILTER BOX MFL-G4

The MIXVENT HEATING system consists on a MFL filtration box installed on the inlet side of the TD-MIXVENT fan and are used when the installation requires supplying filtered clean air. MFL filtration boxes are of EU4 grade filtration and are designed for direct connection with standard circular ducting.

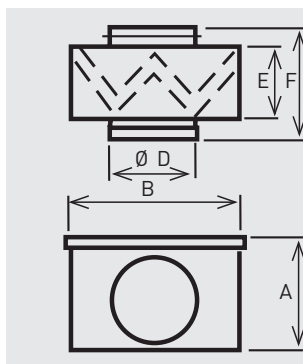


A usual application of MFL filtration boxes is to protect the electric heaters from the dirt, in installations where MIXVENT HEATING system is used.



The MFL filtration boxes are supplied with a cover easily removable to replace the filter.

DIMENSIONS (mm)



| Model | A | B | D | E | F |
|------------|-----|-----|-----|-----|-----|
| MFL-100 G4 | 200 | 200 | 100 | 160 | 196 |
| MFL-125 G4 | 200 | 200 | 125 | 160 | 196 |
| MFL-160 G4 | 200 | 200 | 160 | 154 | 196 |
| MFL-200 G4 | 243 | 244 | 200 | 154 | 202 |
| MFL-250 G4 | 293 | 294 | 250 | 154 | 206 |
| MFL-315 G4 | 342 | 343 | 315 | 154 | 206 |
| MFL-355 G4 | 447 | 448 | 355 | 154 | 254 |
| MFL-400 G4 | 447 | 448 | 400 | 154 | 254 |

PRESSURE DROP OF THE FILTER BOXES Δp (Pa)

