

## MICRA 150

SINGLE-ROOM ENERGY SAVING VENTILATION



### DESCRIPTION

MICRA 150 is a single-room heat recovery unit designed to provide the ideal ventilation solution for residential and commercial premises. Most frequently used in bedrooms, living rooms, offices as well as apartments and small commercial places. No need to connect to air ducts.

MICRA 150 delivers simple and efficient ventilation solution for any new or existing buildings.

### FEATURES

- Efficient supply and exhaust ventilation
- Polystyrene plate counter-flow heat recovery core with sensible recovery efficiency up to 88%
- EC fans with low energy demand (8 to 51 W)
- Three speed levels, up to 71 CFM
- Silent operation (1-1.8 Sones)
- Air cleaning with two built-in filters
- Easy mounting
- Compact sizes

### CASING

Metal polymer coated casing. 3/8" foamed synthetic rubber layer provides heat and sound insulation. The modern design matches any interior. The front panel opens with tools not necessary for easy access to servicing. The unit is fitted with a safety switch that cuts the power supply off when the panel is opened. Air is supplied to the unit and exhausted from the premise through two Ø5" air ducts.

### AIR FILTRATION

Supply airflow is channeled through a MERV 7 filter to provide a healthier indoor environment. MERV 5 filter protects the core from household contaminants such as dust as the air is exhausted outside.

### AIR SUPPLY AND EXHAUST

High-efficient EC motors with external rotor and forward curved blades are designed for air supply and exhaust. The fan motors have built-in overheating protection and ball bearings for longer service life. Due to EC technologies Micra 150 is featured with low energy demand and reliable operation.

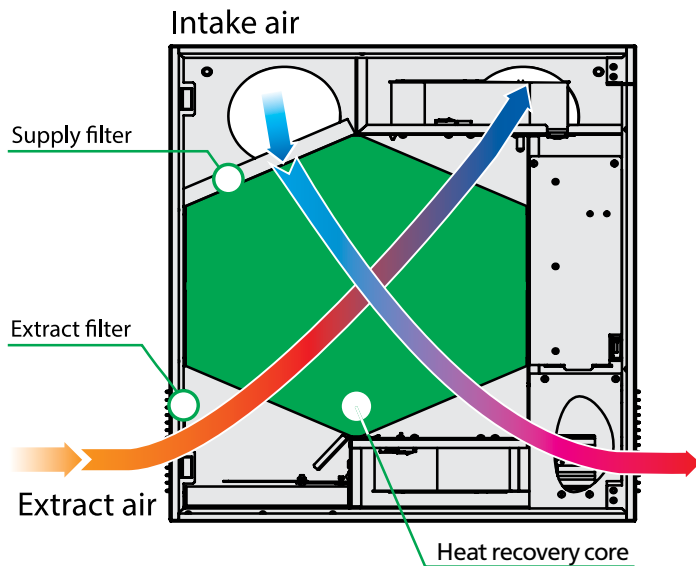
### FEATURES CONDENSATE DRAIN PAN

Condensate that may be generated during heat recovery process is collected in a special drain pan. As the drain pan is filled with condensate, the unit switches off automatically, which is confirmed by indication on the control panel. Remove condensate from the drain pan and restart the unit to continue the unit operation.



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### OPERATION

The intake air from outside flows through the filter and the heat recovery core and is supplied to the room with the supply centrifugal fan. The warm, stale air is driven through the filter and heat exchanger core and exhausted outside by the exhaust fan. In the heat exchanger, heat energy of warm extract air is transferred to filtered, cold intake air. Heat exchange results in minimization of heat loss and lower heating cost. The extract and supply airflows are fully separated, no contaminations, odors and microbes come in contact with the supply airflow.

### HEAT RECOVERY CORE

The unit incorporates a high-tech plate counter-flow polystyrene heat recovery core with a heat recovery efficiency of 85-88%. During heating season the heat exchanger utilizes the heat energy of extract air to warm up the incoming air while decreasing the operating load on the heating system. In warmer months, the supply air is cooled down by colder exhaust air.

### ANTI-FREEZE PROTECTION

The single-room heat recovery unit MICRA 150 is equipped with an anti-freeze protection system. A special thermostat prevents condensation from freezing during cold weather conditions. If the exhaust air temperature at the outlet of the core drops down below the set point, the supply fan stops. Warm extract air heats the core up and the exhaust air temperature at outlet of the core rises. After that the supply fan is turned on and the unit reverts to the previous operation mode.



### FUNCTIONS

The unit is equipped with a built-in LCD control panel and supplied with a remote control. Features three operation modes

- 1 speed air capacity 35 CFM
- 2 speed air capacity 53 CFM
- 3 speed air capacity 71 CFM

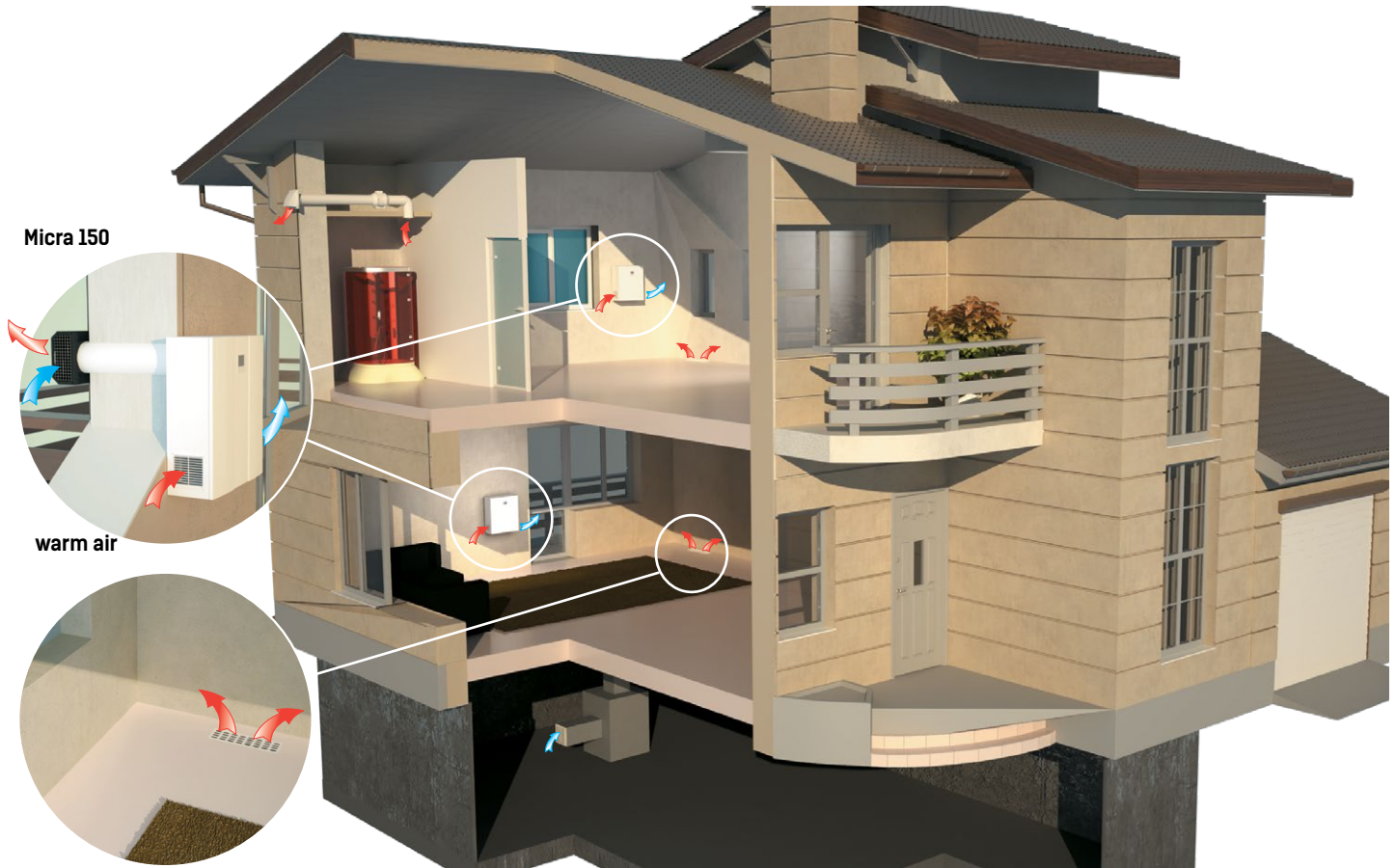
### Functions:

- Adjustable timer for high speed (20 to 60 minutes)
- Fan speed adjustment
- Week-scheduled operation
- Filter replacement and alarm indication

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## MICRA 150 VENTILATION SYSTEM INSTALLATION EXAMPLE



Install one or several MICRA 150 units in any space intended to be ventilated. One unit is capable of providing efficient ventilation up to 1200 sq ft.

Ventilation based on MICRA 150 single-room heat recovery ventilator ensures adequate air exchange in premises while providing considerable energy saving both winter and summer.

MICRA 150 is installed directly on an interior wall. The wall thickness must be no less than 4". First fix the template included in the mounting kit to the wall with screws. Mark the mounting holes for the air ducts and drill the holes. Use the mounting template for proper positioning of the air ducts.

Insert the air ducts into the holes.

Use the mounting template for proper positioning of the air ducts. Mount the double metal hood on the exterior wall to protect the unit from water ingress.

Fill the gaps between the air ducts and the wall with mounting foam through special slots in the mounting template.

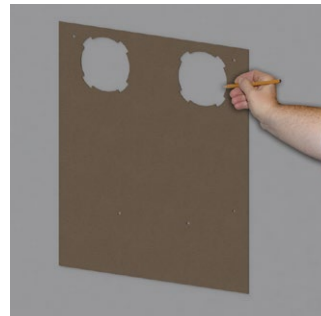
After the foam hardens, remove the mounting template and cut off the excess foam to be flush with the wall surface.

To mount the casing, open the front panel and remove the core.

Connect the unit to the air ducts and fix them to the wall by screws. The unit is supplied with a pre-wired power cord and socket.

If desired, MICRA 150 can also be hardwired. Before you take this step, turn the power off to the unit.

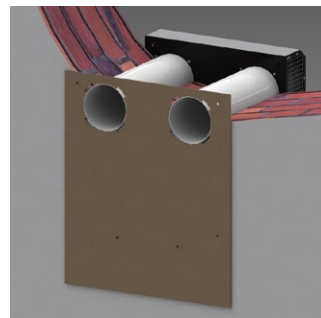
Lastly, re-install the core and close the front panel. The unit is ready for operation.



Mark the holes for the air duct using the template provided



Drill the core holes in the wall



Mount air ducts and metal hood



Mount the casing

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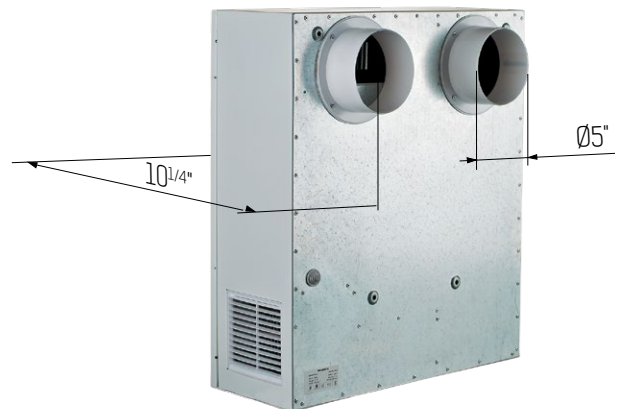


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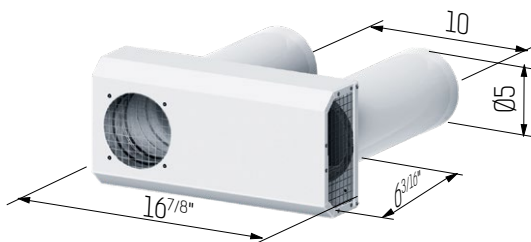
## TECHNICAL DATA

| Model                                    | MICRA 150     |     |      |
|------------------------------------------|---------------|-----|------|
| Ventilation mode                         | 1             | 2   | 3    |
| Voltage                                  | 120 V / 60 Hz |     |      |
| Maximum fan power [W]                    | 8             | 27  | 51   |
| Unit max. current without heating [A]    | 0.7           |     |      |
| Air capacity [CFM]                       | 35            | 53  | 71   |
| RPM [min <sup>-1</sup> ]                 | 450           | 780 | 2000 |
| Noise level at 10 feet distance [Sones]  | 1             | 13  | 18   |
| Sensible recovery efficiency (SRE) [%]   | 88            | 87  | 85   |
| Maximum transported air temperature [°F] | -13...+122    |     |      |
| Pipe diameter [inch]                     | 5"            |     |      |
| Heat insulation thickness [inch]         | 3/8"          |     |      |
| Extract filter                           | MERV 5        |     |      |
| Supply filter                            | MERV 7        |     |      |
| Replacement filter kit                   | SF Micra 150  |     |      |
| Weight [lb]                              | 44.09         |     |      |

## OVERALL DIMENSIONS [INCH]



## ACCESSORIES



### Mounting kit **MK MICRA 150**:

- two plastic air ducts (Ø 5", 19 11/16");
- double metal outer ventilation hood