



# HVR MICRA 150

## Single Room Heat Recovery Ventilator



**MICRA 150 is a single-room heat recovery unit. It is designed to provide the ideal single room ventilation of social and commercial premises, flats and cottages. MICRA 150 is the most suitable solution for arrangement of ready made and refurbished premises. It has easy mounting without air ducts.**

### FEATURES

- Efficient supply and exhaust ventilation of separate premises (rooms)
- Polystyrene plate counter-flow core with sensible recovery efficiency 85-88%
- EC fans with low energy demand (8 to 51 W)
- Integrated automation with 3 operation modes
- For rooms up to 900 sq ft
- Silent operation (1-1.8 Sones)
- Air cleaning with two built-in filters
- Easy mounting
- Compact sizes
- 3 Year Warranty

### MICRA 150 DESIGN

#### 1 Casing

Metal polymer coated casing. 3/8" foamed synthetic rubber layer provides heat and sound-insulation. The modern unit design let it match well with any interior type. The front panel is easily opened for the unit servicing (e.g. for filter cleaning or replacement) and fitted with a protecting opening switch that cuts power supply off if the panel is opened. Air is supplied to the unit and exhausted from the premise through two Ø5" air ducts.

#### 2 Air Filtration

- Supply air flow is cleaned with built-in MERV 7 filter, and exhaust flow is cleaned with built-in MERV 5 filter.
- The filters serve to provide supply of fresh air free of dust and prevent the unit components from soiling.

#### 3 Air Supply & 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

#### 4 Heat Exchanger

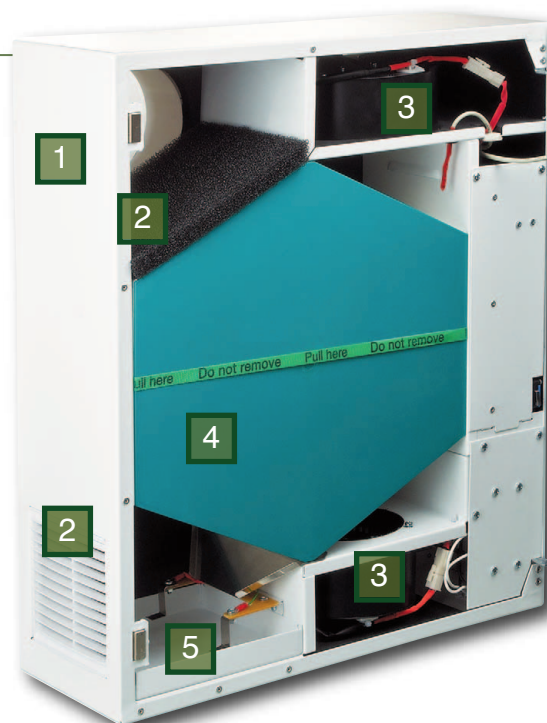
The ventilator is equipped with a high-tech plate counter-flow aluminum heat recovery core. Energy recovery efficiency is 79%. Using the MICRA in both cooling and heating seasons results in considerable energy saving.

#### Freeze Protection

The single-room heat recovery unit MICRA 150 is equipped with a built-in freezing protection. During heat recovery in cold season thermal energy of warm extract energy is transferred to cold intake air. The electronic freeze protection is applied to prevent condensate freezing during cold outside temperatures. If exhaust air temperature at outlet of the core drops down below the set point, the supply fan is stopped. 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.

#### 5 Features Condensate Drain Pan

Some 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 automatically off which is confirmed by indication on the control panel. Remove condensate from the drain pan and restart the unit to continue the unit operation.



### CONTROL AND OPERATION MODES

The unit is equipped with a control panel. The delivery set includes a remote control panel.

**The control system supports the following 3 operation modes:**

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

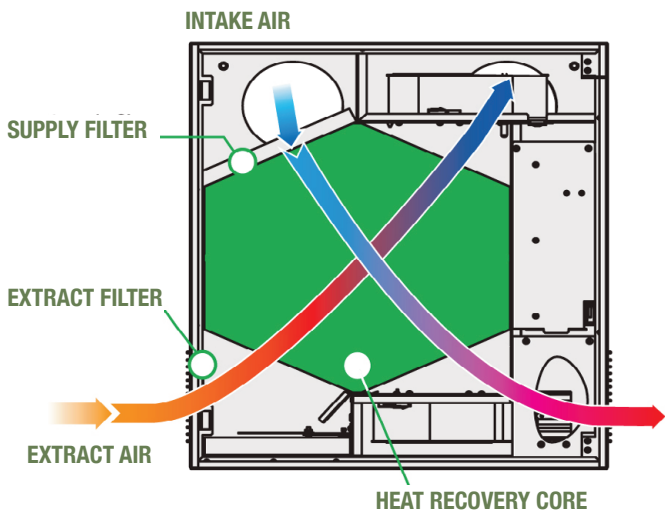
**The following functions are available:**

- High speed activation timer adjustable from 20 to 60 minutes
- Fan speed adjustment
- Week-scheduled operation
- Filter replacement and alarm indication



# HVR MICRA 150

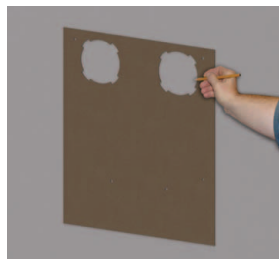
## Single Room Heat Recovery Ventilator



### HOW MICRA 150 WORKS / 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. Warm stale air from the room flows through the filter and the heat exchanger and is exhausted outside through the wall by the exhaust centrifugal fan. In the heat exchanger heat energy of warm extract air from the room is transferred to clean cold air flow from outside. Heat exchange results in minimization of heat losses and lower heating costs. The extract and supply air flows are fully separated, so no contaminations, odours and microbes come to supply air flow.

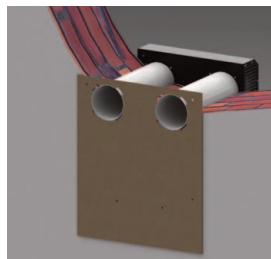
### INSTALLATION SAMPLE



Mark the holes for the air ducts with a cardboard master plate.



Drill the holes.



Mount air ducts and metal hood.

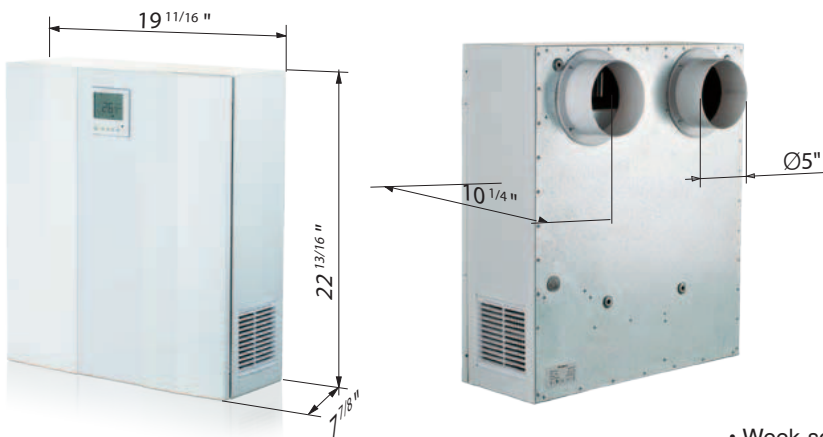


Complete the casing mounting.

### PERFORMANCE SPECIFICATIONS

MODEL	SPEED	VOLTAGE (V)	POWER (W)	MAX CURRENT WITHOUT HEATING (A)	AIR CAPACITY (CFM)	ROTATION SPEED (MIN-1)	SENSIBLE RECOVERY EFFICIENCY (%)	SONES	FILTER EXTRACT/INTAKE	TRANSPORTED AIR TEMP (F)	INGRESS PROTECTION RATING
MICRA 150	1	120 V 60 Hz	8	0.07	35	450	88	1.0	MERV 5/ MERV 7	From -13° F up to 122° F	IP 22
	2		27		53	780	87	1.3			
	3		51		71	2000	85	1.8			

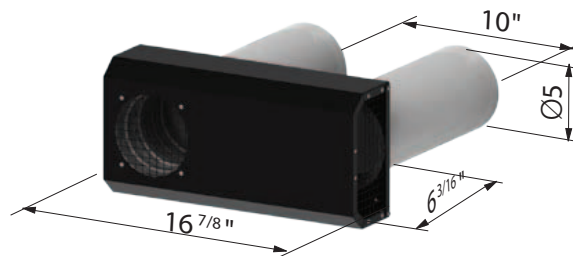
### DIMENSIONS



### MOUNTING KIT MK2 MICRA 150

#### MK2 Micra 150 mounting kit:

- Two plastic air ducts (Ø5" -19 11/16" long)
- double outer metal hood



- Week-scheduled operation
- Filter replacement and alarm indication