

# SINGLE-ROOM HEAT RECOVERY AIR HANDLING UNITS



## FRESHBOX E120



### Use

- ❑ Heat recovery single-room air handling unit for supply and exhaust ventilation.
- ❑ Single-room vent for efficient energy saving supply and exhaust ventilation in flats, houses, cottages and other small premises.
- ❑ Ideal solution for simple and efficient ventilation of new or refurbished premises.
- ❑ Heat recovery minimises ventilation heat losses.
- ❑ Controllable air exchange creates individually set microclimate.

### Design

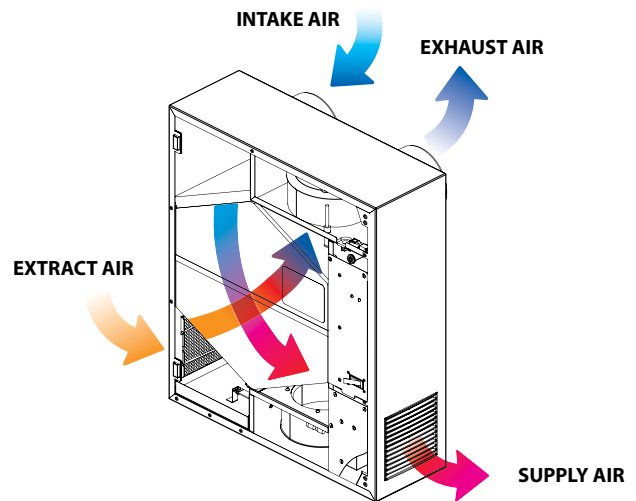
- ❑ The casing is made of polymer coated steel plates, internally filled with 10 mm thermal and sound insulation layer of cellular rubber.
- ❑ The front service panel of the casing ensures easy access to the unit internals for maintenance operations including filter replacement and cleaning.
- ❑ The spigots for connection to the air ducts are located at the side of the unit.
- ❑ The unit is supplied with a power cord and a plug for connection to power supply.
- ❑ Compatible with round Ø125 mm air ducts.

### Fans

- ❑ The unit is equipped with high-efficient external rotor EC motors and centrifugal impellers with forward curved blades for air supply and exhaust.
- ❑ EC motor technologies meet the latest engineering demands for saving energy and for high-efficient ventilation.
- ❑ Low energy demand due to implemented EC technologies.
- ❑ The fan motors are equipped with a built-in thermal overheating protection and ball bearings for a long service life.

### Heat recovery

- ❑ The unit is equipped with a high-efficient counter-flow polystyrene heat exchanger with a large surface area and high heat recovery efficiency.
- ❑ The air flows are fully separated within the heat exchanger. Odours and contaminants contained in the extract air are not transferred to the supply air flow.
- ❑ Heat recovery is based on extract air heat recovery for warming up of supply air. Extract air transfers most of its heat to the intake air flow. Heat recovery reduces heat losses in cold seasons. In summer the heat exchanger performs reverse and transfers a part of the accumulated coolness from the cooled extract air for cooling down of the intake air. This contributes to better performance of the air conditioner in ventilated premises.



- ❑ The integrated freezing protection system switches the supply fan off in the cold season in case of a freezing danger communicated by the temperature sensor to enable warming of the heat exchanger with the warm extract air flow. When a freezing danger is over the supply fan turns on and the unit reverts to the standard operation mode.
- ❑ The drain pan under the heat exchanger block is used for condensate collection and drainage.

### Air heater

- ❑ The unit is equipped with a 350 W electric posistor heater used for operation of the unit at low outside air temperatures.
- ❑ The electric heater has an integrated overheating protection.

### Air filtration

- ❑ Supply and extract air cleaning with two panel filters.
- ❑ The filters ensure fresh air supply, free of dust, insects and prevent contamination of the unit components.

### Control

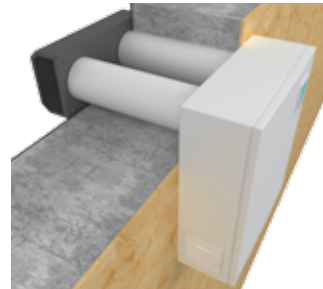
- ❑ The unit incorporates an integrated control system and a multifunctional external control panel with an LCD display and a remote control.

- ❑ Available functions:
  - Extra heating of supply air.
  - Maximum speed setting timer for 20-60 minutes.
  - Fan speed setting.
  - Week-scheduled operation mode setting.
  - Filter replacement/alarm indicator.

### ■ Mounting

- ❑ Install one FRESHBOX E120 unit in each room requiring ventilation.
- ❑ Surface wall mounting on an outside wall from inside the premise.
- ❑ The hole spacing for Ø125 mm air ducts with a master plate included in the delivery set.

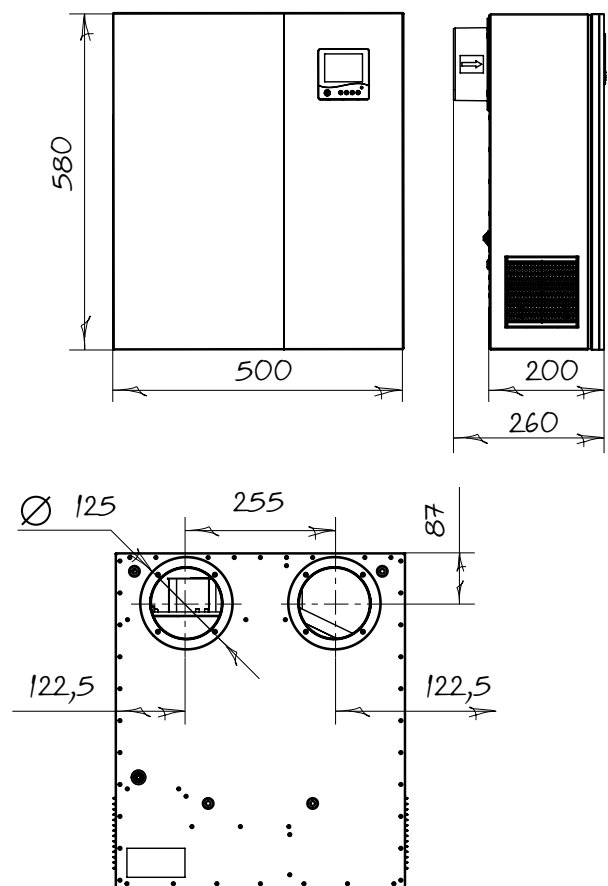
- ❑ Install the AH FRESHBOX E120 outer hood (separate order, ref. accessories) on outer wall.



### ■ Technical data

Parameters	FRESHBOX E120		
Voltage [V] /50 Hz	230		
Speed	1	2	3
Fan power [W]	9	16	40
Electric heater power [kW]	0,35		
Total unit power [kW]	0,39		
Total unit current [A]	1,7		
Air capacity [m³/h]	40	80	120
RPM	450	780	2000
Noise level [dB(A)]	30	35	38
Transported air temperature [°C]	-20 up to +50		
Filter: extract/supply	G2/G4		
Replaceable filter kit	FP-FRESHBOX E120		
Heat recovery efficiency [%]	82 up to 92		
Heat exchanger type	counter-flow		
Heat exchanger material	polystyrene		
Weight [kg]	20		
SEC class	A+		

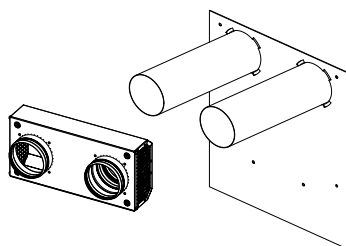
### ■ Overall and mounting dimensions



\*replaceable filter kit is a specially ordered accessory and is available on a separate order.



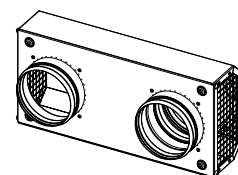
### ■ Accessories



**MS2 FRESHBOX E120 mounting kit:**

- cardboard master plate (1 item);
- plastic Ø 125 mm, 500 mm long air duct (2 items);
- polymer coated outer hood.

Fully-featured solution for a complete single-stage unit mounting.



**AH FRESHBOX E120 ventilation hood:**

- polymer coated outer hood.

For air intake / exhaust and prevention of water and foreign objects ingress into the unit.