

**MECHANICAL HEAT RECOVERY VENTILATION FOR RESIDENTIAL BUILDINGS**  
(thermal efficiency >90%)

**UTEK<sup>®</sup>**



**HRE**





# HRE



- ◆ High efficiency heat recovery ventilator (>90%)
  - ◆ Indoor installation with ambient temperature between 0° and 45° C
  - ◆ Range: nr. 2 models of 350 m<sup>3</sup>/h and 500 m<sup>3</sup>/h airflow
  - ◆ **Plug-n-play solutions** with electrical panel pre-wired and microprocessor control mounted on board.
- Optional microprocessor controls (see the [Accessories](#) booklet):
- CTR08
  - CTR07
  - **EVO PH**
  - **EVO D PH**



## DESCRIPTION

- ◆ Self-supporting casing made by double skin steel panels, plasticized white, sandwiched on injected polyurethane foam insulation, thickness 25mm
- ◆ easy access and maintenance panel
- ◆ easy connection plug-n-play to the power supply
- ◆ timed automatic defrosting of the heat exchanger

## VENTILATORS

- ◆ ECM-230V: low consumption radial ventilators 230V-1-50/60Hz backward curved blades

## HEAT EXCHANGER

- ◆ High efficiency polypropylene counterflow heat exchanger (thermal efficiency >90%)

## FILTERS

- ◆ G4 for exhaust air
- ◆ F7 [low pressure loss](#) for fresh air

## INSTALLATION

- ◆ [Vertical](#): wall or floor mounted, for indoor installation with ambient temperature between 0° and 45° C
- ◆ [Horizontal](#): ceiling or floor mounted, for indoor installation with ambient temperature between 0° and 45° C

## VERSIONS AVAILABLE

- ◆ With or without automatic by-pass
- ◆ With electrical post-heating, for duct mounting
- ◆ With post-heating water coil, for duct mounting

## ACCESSORIES AVAILABLE ON REQUEST (see the [Accessories](#) booklet)

- ◆ **Accessories of deicing and post-heating for duct mounting:**
  - RCF-SCTTC electric heater 500W with thermostatic regulation for deicing
  - BA-AFC HB+ cooling/heating water coil for horizontal installation

### ◆ Optional sensors:

- EE80 CO<sub>2</sub> sensor
- QPA 2002 CO<sub>2</sub>/VOC air quality sensor
- EE16 Humidity sensor

### ◆ Accessories for air filtration:

- F9 optional filter [low pressure loss](#)

### ◆ Protective accessories:

- SKMF-R Weather protection cowl
- RING Guarnilene rings for adjusting the diameter of the spigots

### ◆ Accessories for air distribution:

- X-AIR Air distribution box

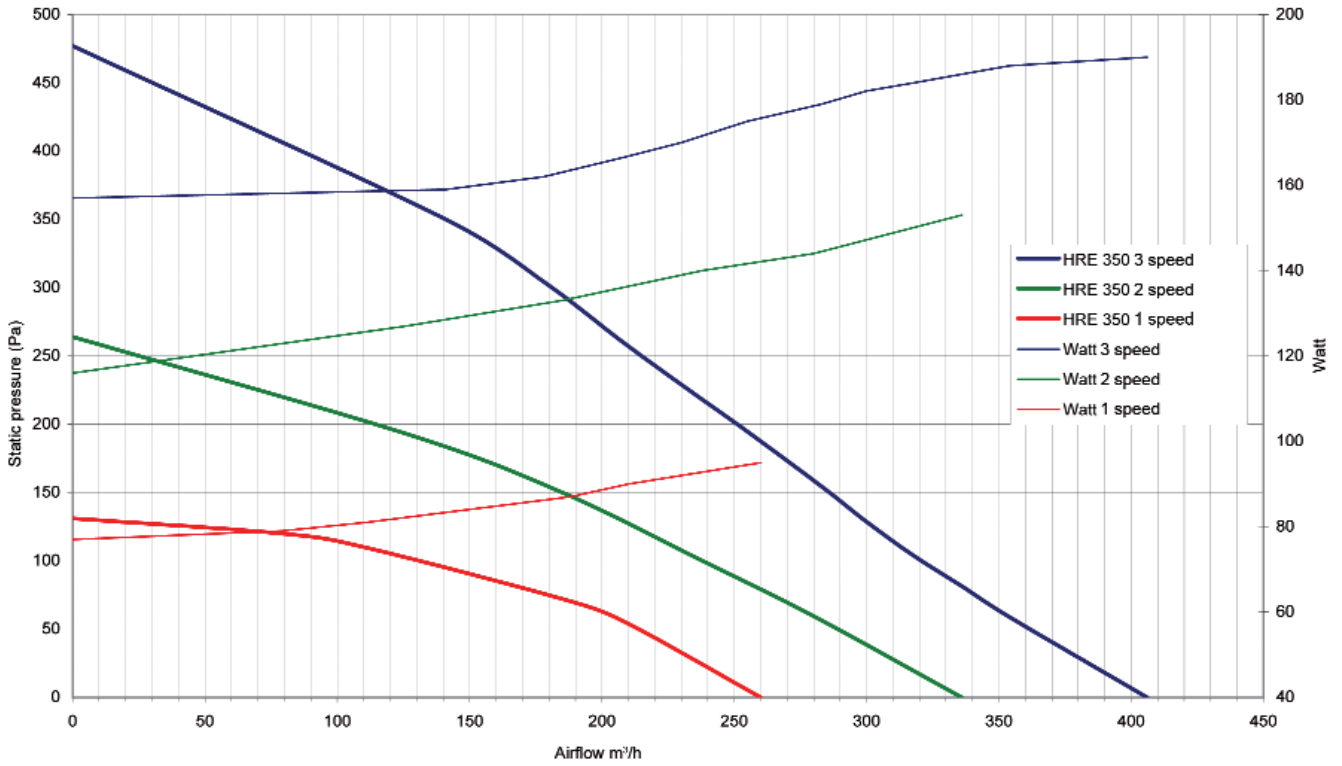
## PRICE LIST

See the [Price list](#) booklet



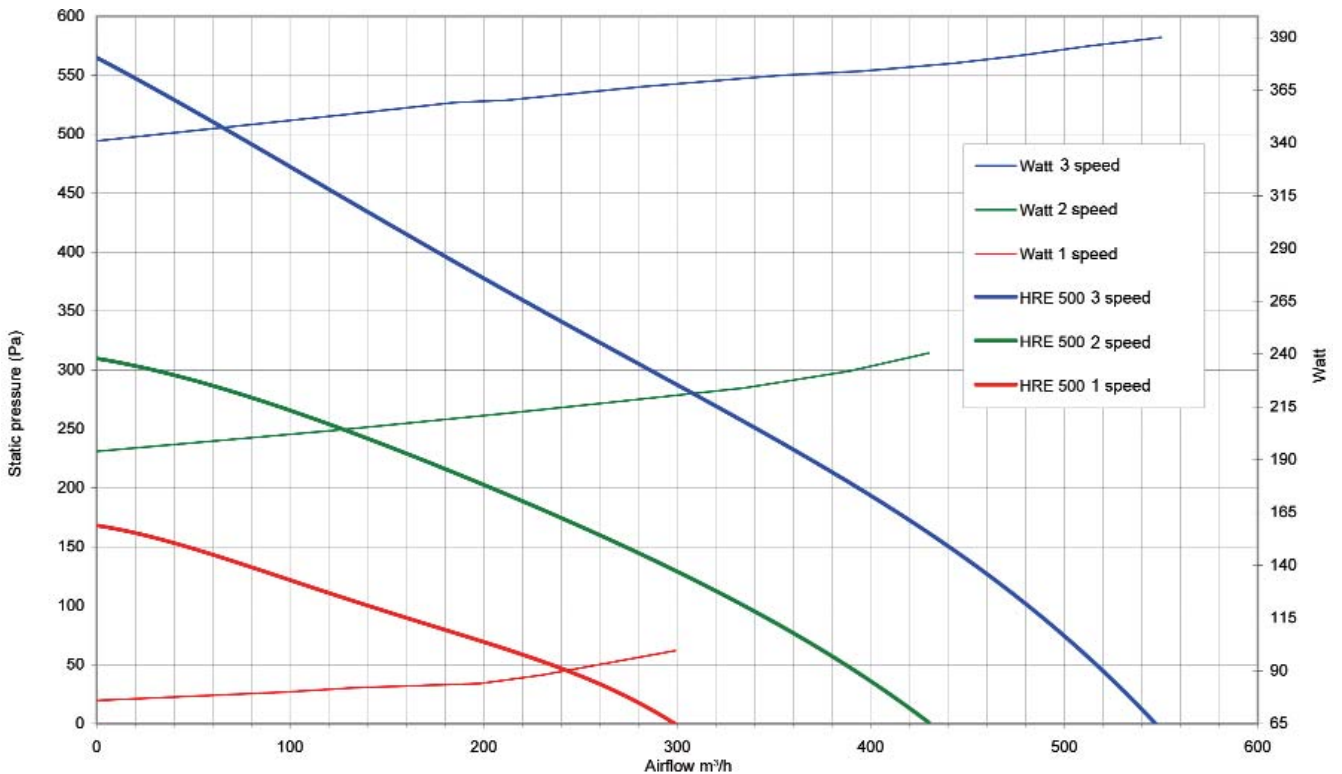
PERFORMANCES

HRE 350 | 3 speed



The unit must be ducted properly: UTEK authorizes the use only according to its performance diagram shown into this catalogue. The claimed performances are guaranteed only by UTEK original filter low pressure loss.

HRE 500 | 3 speed

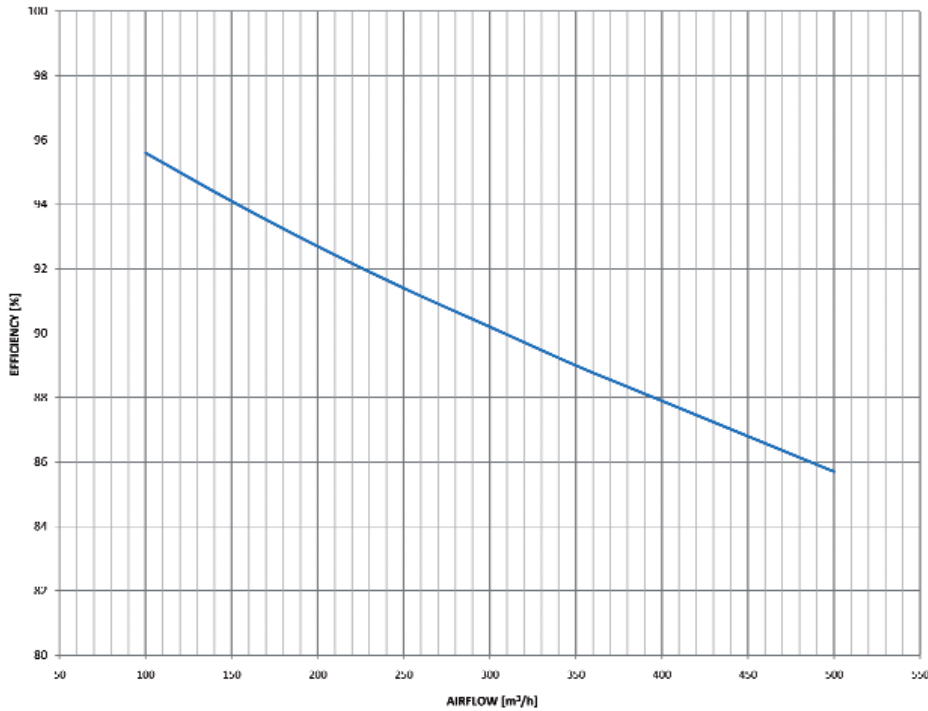


The unit must be ducted properly: UTEK authorizes the use only according to its performance diagram shown into this catalogue. The claimed performances are guaranteed only by UTEK original filter low pressure loss.



**HEAT RECOVERY PERFORMANCE (sensible efficiency)**

Values referred to the following conditions: Tbs external air - 5°C; U.R. external 80%; Tbs environment 20°C; U.R. environment 50%; nominal airflow



**TECHNICAL DATA**

**ELECTRICAL DATA**

| COUPLING | FAN *     |                    |                     |                  | HRE UNIT           |              |
|----------|-----------|--------------------|---------------------|------------------|--------------------|--------------|
|          | Power (W) | Power supply       | Current max. (230V) | Insulation class | Power supply       | Current max. |
| HRE 350  | 71 x 2    | 230 V, 50/60 Hz 1F | 0,5 A               | IP 44 B class    | 230 V, 50/60 Hz 1F | 1,1 A        |
| HRE 500  | 200 x 2   | 230 V, 50/60 Hz 1F | 1,1 A               | IP 44 B class    | 230 V, 50/60 Hz 1F | 2,3 A        |

\* ECM radial ventilator backward curved blades

**REL Electrical heater of deicing**

|                        | HRE |
|------------------------|-----|
| Nominal power (kW)     | 0,5 |
| Tension (V)            | 230 |
| Phases (nr.)           | 1   |
| Stages (nr.)           | 1   |
| Current absorption (A) | 2,8 |

**REL Electrical heater of post-heating**

|                        | HRE |
|------------------------|-----|
| Nominal power (kW)     | 0,5 |
| Tension (V)            | 230 |
| Phases (nr.)           | 1   |
| Stages (nr.)           | 1   |
| Current absorption (A) | 2,8 |

**BA-AC Post-heating hot water coil\***

|                                | HRE |
|--------------------------------|-----|
| Ranks (nr.)                    | 1   |
| Thermal yield (kW)             | 0,7 |
| Air side pressure loss (Pa)    | 10  |
| Water side pressure loss (kPa) | 1   |

**BA-AT Post-heating temperate water coil\***

|                                   | HRE 350 | HRE 500 |
|-----------------------------------|---------|---------|
| Ranks (nr.)                       | 4       | 4       |
| Thermal yield (kW)                | 1,4     | 1,3     |
| Replacement air outlet temp. (°C) | 28,2    | 22,9    |
| Air side pressure loss (Pa)       | 35      | 41      |
| Water side pressure loss (kPa)    | 0,9     | 0,9     |

\* Values referring to the following conditions: water 80°/70°C

\* Values referring to the following conditions: water 45°/35°C



**NOISE LEVEL**

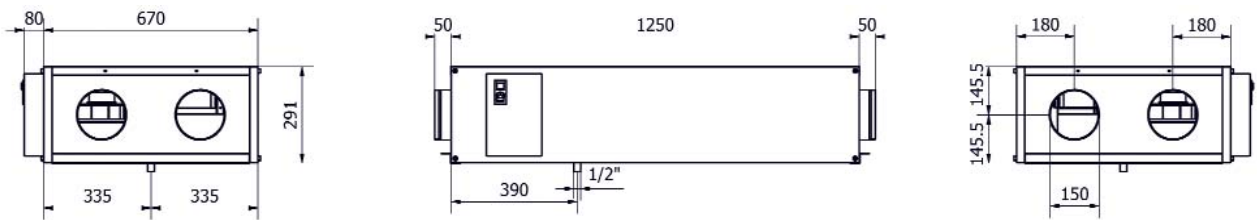
Sound power level (L<sub>w</sub>) taken in accordance to UNI EN ISO 3741  
 Sound pressure level (L<sub>p</sub>) at 1,5 mt perpendicular to airflow

| HRE 350                      |    |     |     |     |    |    |    |    | LP    |
|------------------------------|----|-----|-----|-----|----|----|----|----|-------|
| <b>IRRADIATED</b>            |    |     |     |     |    |    |    |    |       |
| Lw/Freq.Hz                   | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
| 5V.-50%                      | 35 | 43  | 42  | 35  | 34 | 34 | 26 | 18 | 32    |
| 7,5V.-75%                    | 42 | 49  | 57  | 43  | 42 | 46 | 36 | 25 | 43    |
| 10V.-100%                    | 49 | 51  | 53  | 46  | 45 | 49 | 42 | 29 | 45    |
| <b>GENERATED IN THE DUCT</b> |    |     |     |     |    |    |    |    |       |
| Lw/Freq.Hz                   | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
| 5V.-50%                      | 44 | 52  | 49  | 45  | 44 | 46 | 33 | 23 | 42    |
| 7,5V.-75%                    | 52 | 57  | 57  | 54  | 55 | 56 | 47 | 36 | 52    |
| 10V.-100%                    | 54 | 60  | 61  | 57  | 58 | 60 | 52 | 41 | 55    |

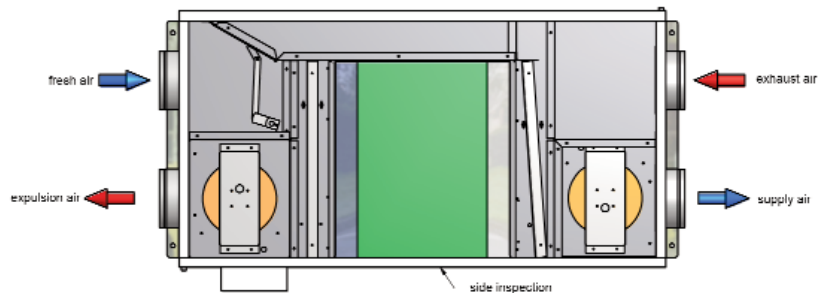
| HRE 500                      |    |     |     |     |    |    |    |    | LP    |
|------------------------------|----|-----|-----|-----|----|----|----|----|-------|
| <b>IRRADIATED</b>            |    |     |     |     |    |    |    |    |       |
| Lw/Freq.Hz                   | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
| 5V.-50%                      | 40 | 48  | 46  | 40  | 37 | 33 | 26 | 18 | 35    |
| 7,5V.-75%                    | 52 | 51  | 54  | 47  | 45 | 44 | 38 | 23 | 43    |
| 10V.-100%                    | 52 | 63  | 58  | 52  | 49 | 49 | 43 | 29 | 48    |
| <b>GENERATED IN THE DUCT</b> |    |     |     |     |    |    |    |    |       |
| Lw/Freq.Hz                   | 63 | 125 | 250 | 500 | 1k | 2k | 4k | 8k | dB(A) |
| 5V.-50%                      | 44 | 52  | 49  | 45  | 44 | 46 | 33 | 33 | 42    |
| 7,5V.-75%                    | 55 | 56  | 58  | 56  | 57 | 55 | 50 | 38 | 53    |
| 10V.-100%                    | 54 | 59  | 62  | 62  | 63 | 61 | 57 | 45 | 59    |

**DIMENSIONS (mm) and WEIGHT (Kg)  
 HORIZONTAL CONFIGURATION**

Weight: 52Kg



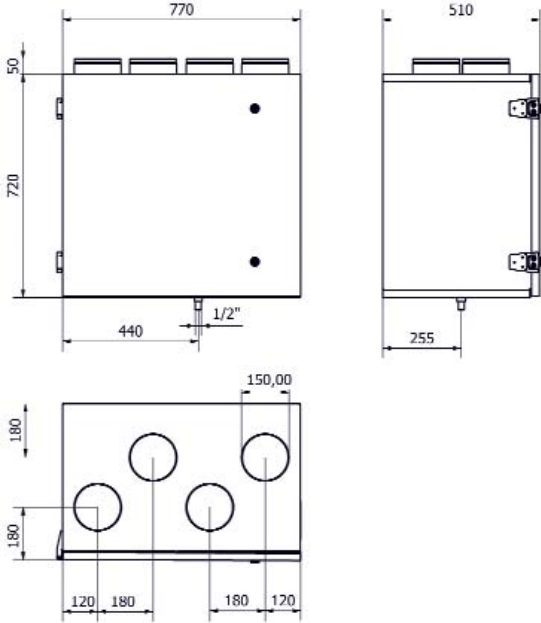
**HORIZONTAL CONFIGURATION  
 (top view)**



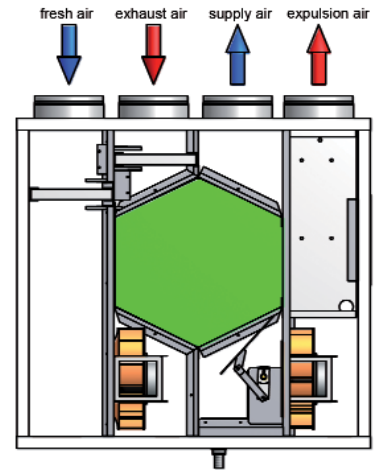


**DIMENSIONS (mm) and WEIGHT (Kg)  
VERTICAL CONFIGURATION**

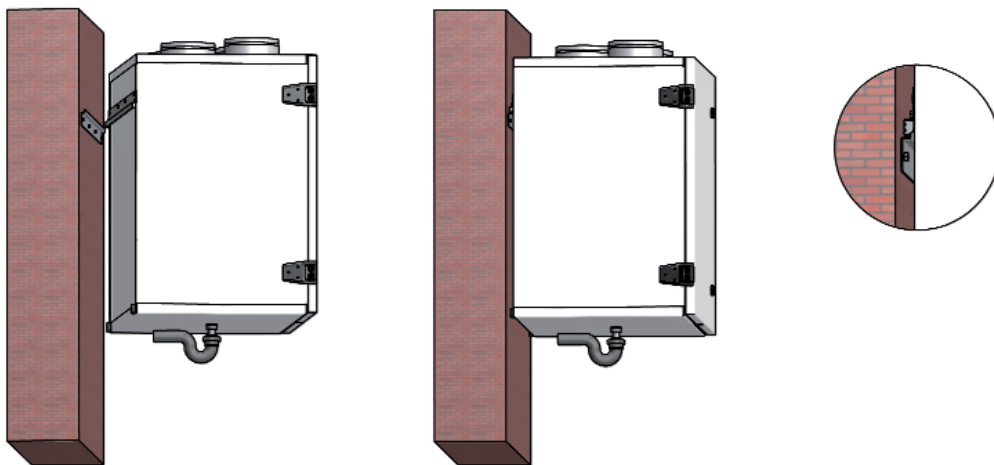
**WEIGHT: 48Kg**



**VERTICAL CONFIGURATION  
(front view)**

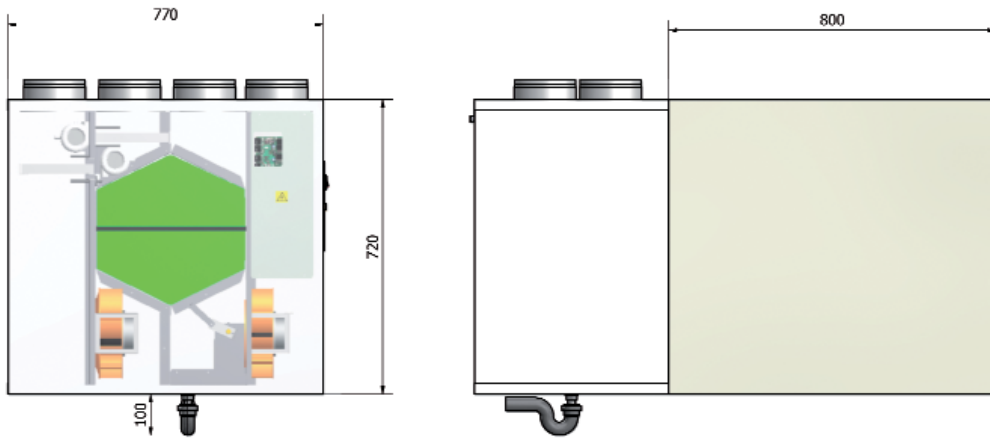


**VERTICAL WALL MOUNTED**

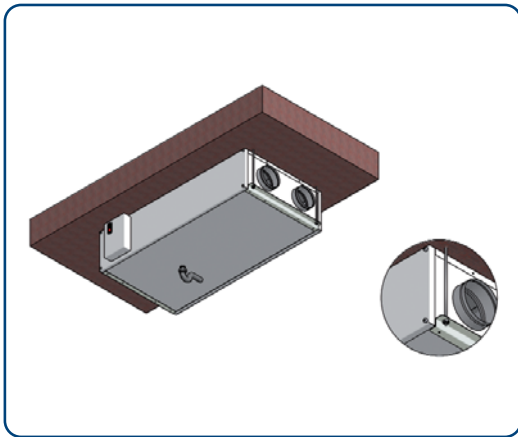




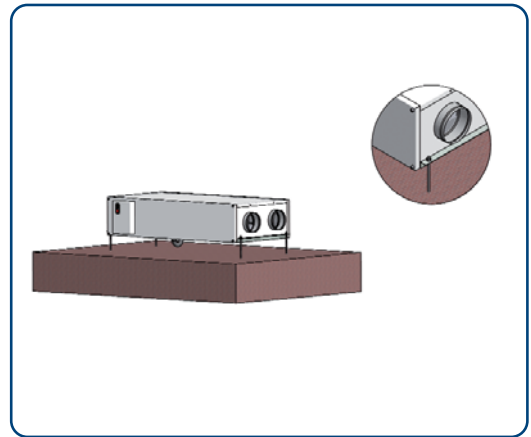
**MINIMUM REQUIRED SPACE  
FOR MAINTENANCE  
(mm)**



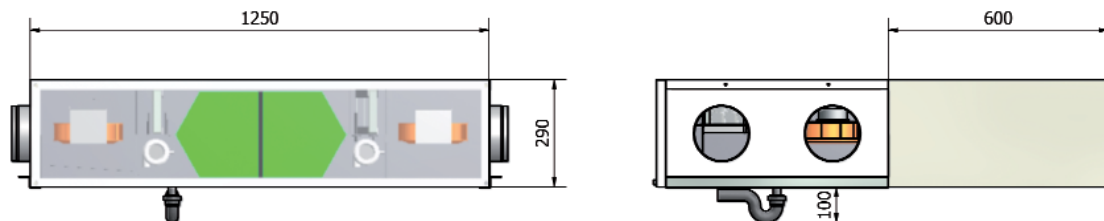
**HORIZONTAL CEILING  
MOUNTED**



**HORIZONTAL FLOOR  
MOUNTED**



**MINIMUM REQUIRED SPACE  
FOR MAINTENANCE  
(mm)**



UTEK s.r.l. reserves the right to make modifications  
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