

## Series RECOM 4/6 RT EC L/R RECOM 4/6 RTS EC L/R



Air handling units in heat- and sound-insulated casing.  
Air flow up to **798 m³/h**.  
Heat recovery efficiency up to 88 %.

### Description

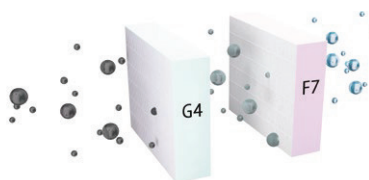
The **RECOM RT** air handling units are the fully-featured ventilation units that ensure air filtration, fresh air supply and stale air extraction.  
Used in ventilation that require an economical solution and a controlled ventilation system.

### Casing

Made of polymer-coated steel, internally filled with a mineral wool heat- and sound-insulating layer.  
**RECOM 4/6 RT "L"** – left-handed version.  
**RECOM 4/6 RT "R"** – right-handed version.

### Filter

Two built-in Coarse 90% (G4) filters provide efficient air filtration. ePM1 65% (F7) supply filter can be installed as an option.

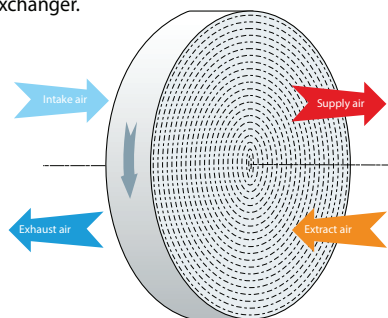


### Fans

The units are equipped with high-efficiency EC motors with an external rotor and a centrifugal impeller.

### Rotary heat exchanger

The units are equipped with a rotary heat exchanger.  
**RT** units are equipped with condensing rotary heat exchanger.  
**RTS** units are equipped with sorption rotary heat exchanger.



Rotary heat exchanger operation principle

### Heater

The units **RECOM 4/6 RT** are equipped with an electric heater.

### Automation

The units are equipped with an integrated control system. The **REC** controller allows to integrate the unit into the **Smart Home system** or **BMS (Building Management System)**. To control the unit via Wi-Fi, download the **Blaubeerg Home** smartphone app.



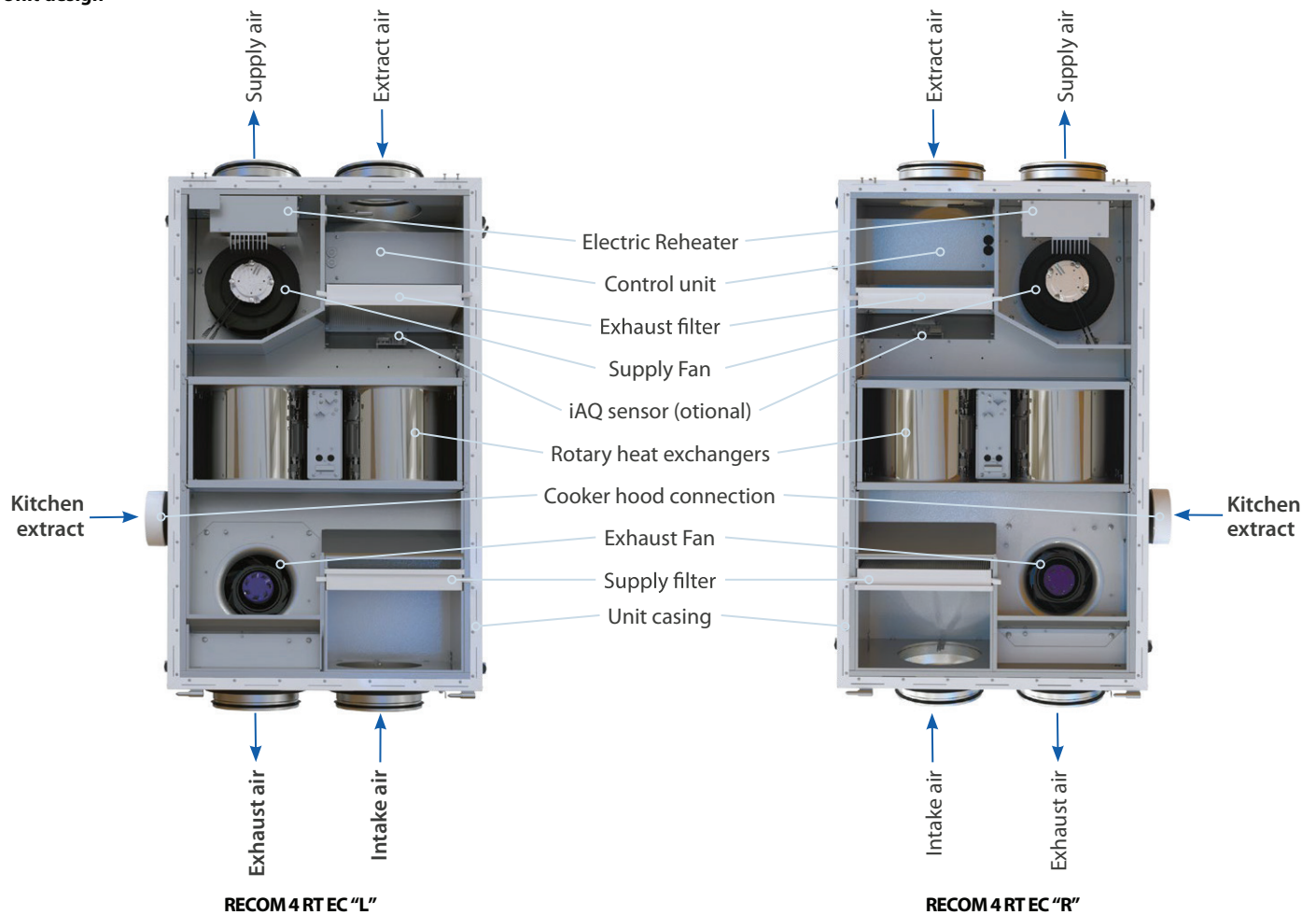
### Control and automation

| Functions                                    | REC                                                    |
|----------------------------------------------|--------------------------------------------------------|
|                                              | FP (option)                                            |
| Wired remote control panel                   |                                                        |
| Control via a wired remote LCD control panel | FPD (option)                                           |
|                                              |                                                        |
| Wireless remote control panel                | FP Wi-Fi (option)                                      |
|                                              |                                                        |
| BMS                                          | ModBus RTU (RS-485)<br>ModBus TCP/IP (Wi-Fi, Ethernet) |
| RECOM Cloud Server service                   | +                                                      |
| Control via Wi-Fi using a smartphone app     | +                                                      |
| Frost protection                             | +                                                      |
| Bypass                                       | Auto, manual                                           |
| Week-scheduled operation                     | +                                                      |
| Filter replacement indication                | Filter timer                                           |
| Alarm indication                             | +                                                      |
| Speed selection                              | +                                                      |
| Timer                                        | +                                                      |
| RH% sensor                                   | Option                                                 |
| CO <sub>2</sub> sensor                       | Option                                                 |
| VOC sensor                                   | Option                                                 |
| PM2.5 sensor                                 | Option                                                 |
| Boost mode                                   | +                                                      |
| Fireplace mode                               | +                                                      |
| Cooler connection                            | +                                                      |
| Fire alarm sensor connection                 | +                                                      |
| Minimum supply air temperature control       | +                                                      |

### Designation key

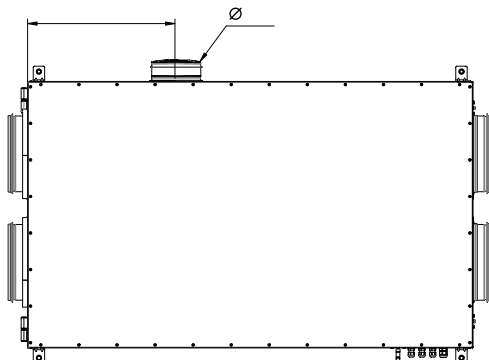
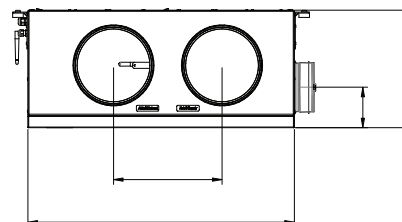
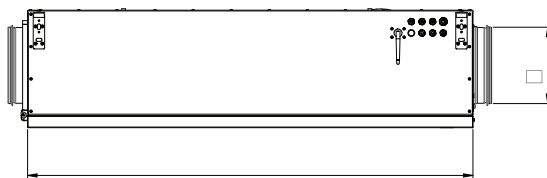
| TM           | Series                                                                                                            | Size    | Modification | Mounting             | Heater                                          | Motor                | Service Side                        | Control panel |
|--------------|-------------------------------------------------------------------------------------------------------------------|---------|--------------|----------------------|-------------------------------------------------|----------------------|-------------------------------------|---------------|
| <b>RECOM</b> | <b>RT</b> : unit with condensation rotary heat exchanger<br><b>RTS</b> : unit with sorption rotary heat exchanger | m³/h/10 | L/R          | <b>P</b> : suspended | – : w/o heater<br><b>E</b> : electric re-heater | <b>EC</b> : EC-motor | <b>R</b> : right<br><b>L</b> : left | <b>REC</b>    |

## Unit design



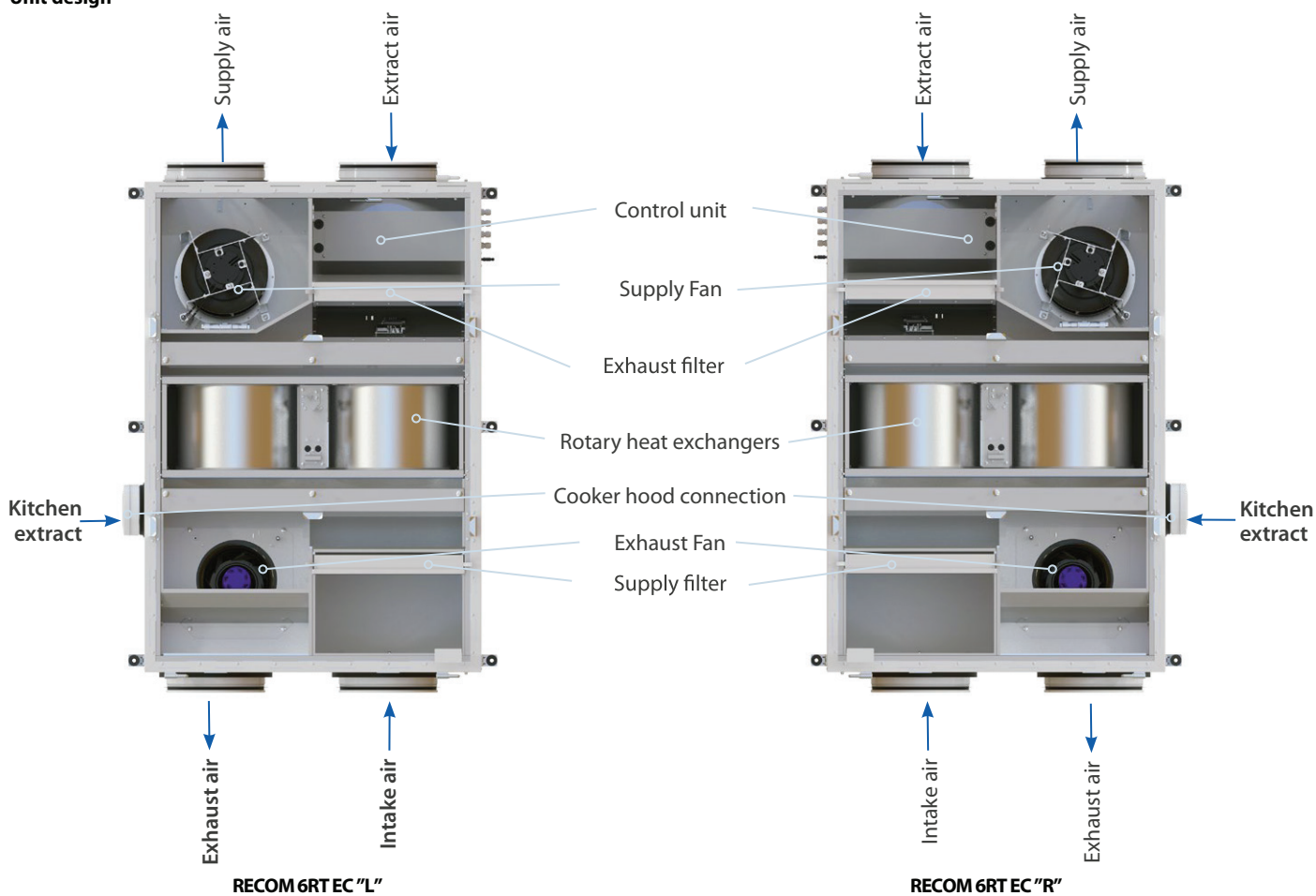
## Overall dimensions

| Model             | Dimensions [mm] |     |      |     |     |     |     |     |
|-------------------|-----------------|-----|------|-----|-----|-----|-----|-----|
|                   | H               | W   | L    | H1  | W1  | L1  | D   | D1  |
| RECOM 4 RT EC L/R | 308             | 700 | 1170 | 106 | 285 | 387 | 200 | 125 |



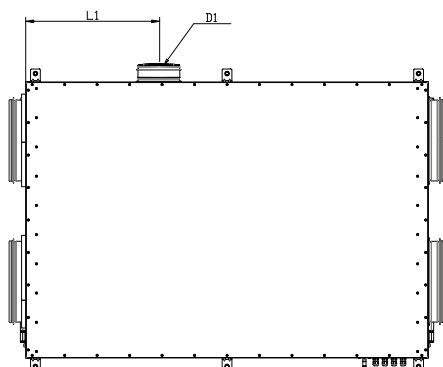
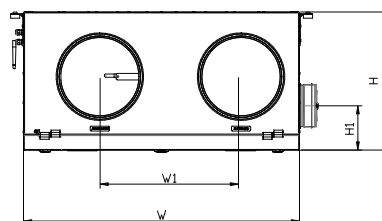
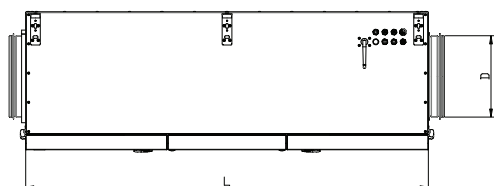
## AIR HANDLING UNITS WITH HEAT RECOVERY

### Unit design



### Overall dimensions

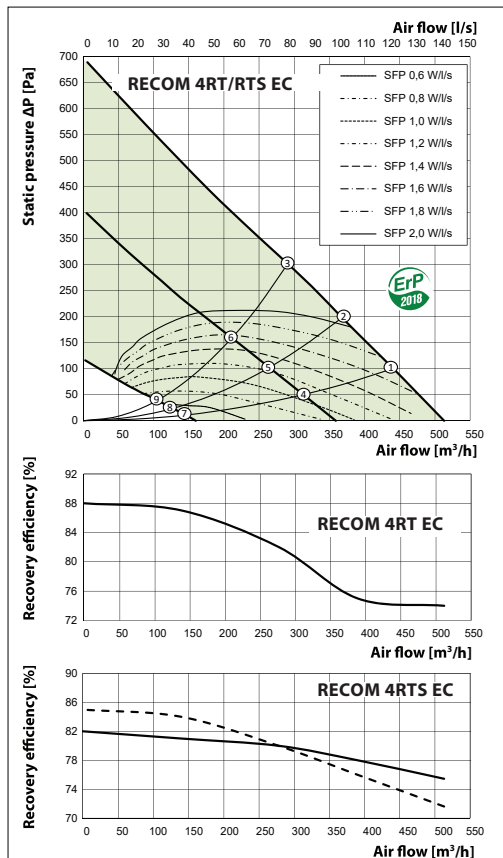
| Model            | Dimensions [mm] |     |     |     |     |     |     |     |
|------------------|-----------------|-----|-----|-----|-----|-----|-----|-----|
|                  | H               | W   | L   | H1  | W1  | L1  | D   | D1  |
| RECOM 6RT EC L/R | 425             | 850 | 850 | 136 | 435 | 410 | 250 | 125 |



## Technical data

|                                               | RECOM 4RT EC                                | RECOM 4RTS EC                               |  |  |
|-----------------------------------------------|---------------------------------------------|---------------------------------------------|--|--|
| Voltage [V / 50-60 Hz]                        | 230                                         | 230                                         |  |  |
| Max. unit power without electric heater [W]   | 247                                         | 247                                         |  |  |
| Integrated electric heater power [W]          | 1200                                        | 1200                                        |  |  |
| Max. unit power [W]                           | 1447                                        | 1447                                        |  |  |
| Max. unit current without electric heater [A] | 1,62                                        | 1,62                                        |  |  |
| Integrated electric heater current [A]        | 5,32                                        | 5,32                                        |  |  |
| Max. unit current [A]                         | 6,94                                        | 6,94                                        |  |  |
| Max air flow [m³/h]                           | 513                                         | 513                                         |  |  |
| Sound pressure level at 3 m distance [dBA]    | 31                                          | 31                                          |  |  |
| Max. operating temperature [°C]               | - 25...+40                                  | - 25...+40                                  |  |  |
| Case material                                 | painted steel                               | painted steel                               |  |  |
| Insulation                                    | 40                                          | 40                                          |  |  |
| Extract filter                                | G4 / Coarse > 60%                           | G4 / Coarse > 60%                           |  |  |
| Supply filters                                | G4 / Coarse > 60%<br>(option F7 / ePM1 60%) | G4 / Coarse > 60%<br>(option F7 / ePM1 60%) |  |  |
| Connected air duct diameter [mm]              | 200                                         | 200                                         |  |  |
| Weight [kg]                                   | 72                                          | 72                                          |  |  |
| Heat recovery efficiency [%]                  | 88                                          | 82                                          |  |  |
| Heat exchanger type                           | condensing                                  | sorption                                    |  |  |
| SEC class                                     | A                                           | A                                           |  |  |

\*Sound pressure level at 3 m distance is specified at point 4 [dBA]



| RECOM 4 RT EC<br>Sound-power level, A - weighted<br>(p.1 on the diagram) | Gen-<br>eral | Octave frequency band, Hz |    |     |     |     |      |      |      |      | LpA,<br>3m<br>dB(A) | LpA,<br>1m<br>dB(A) |
|--------------------------------------------------------------------------|--------------|---------------------------|----|-----|-----|-----|------|------|------|------|---------------------|---------------------|
|                                                                          |              |                           |    |     |     |     |      |      |      |      |                     |                     |
|                                                                          |              | dB(A)                     | 63 | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |                     |                     |
| LwA to supply inlet                                                      | dB(A)        | 59                        | 42 | 45  | 48  | 49  | 42   | 36   | 28   | 24   | 40                  | 48                  |
| LwA to supply outlet                                                     | dB(A)        | 62                        | 44 | 47  | 51  | 52  | 44   | 38   | 29   | 25   | 42                  | 51                  |
| LwA to exhaust inlet                                                     | dB(A)        | 62                        | 44 | 47  | 51  | 52  | 44   | 38   | 28   | 24   | 42                  | 51                  |
| LwA to exhaust outlet                                                    | dB(A)        | 59                        | 42 | 45  | 48  | 49  | 42   | 36   | 27   | 23   | 40                  | 48                  |
| LwA to environment                                                       | dB(A)        | 59                        | 42 | 50  | 49  | 46  | 47   | 45   | 36   | 31   | 39                  | 48                  |

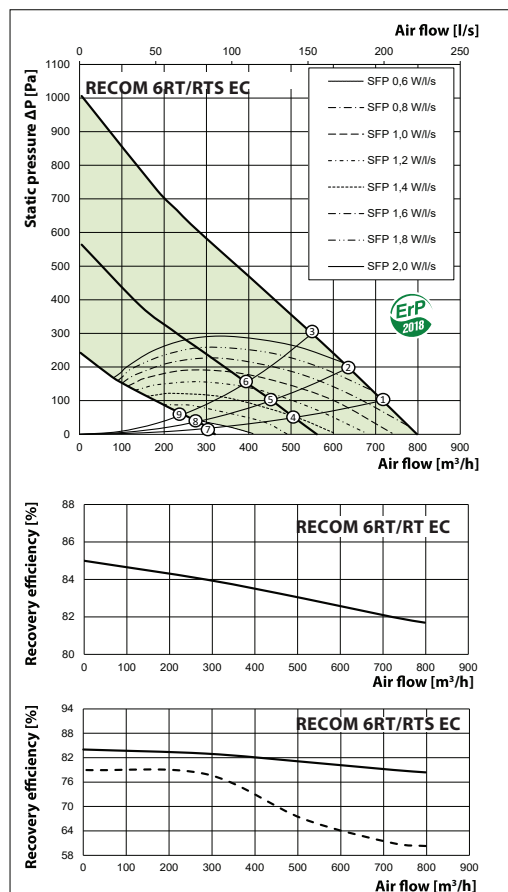
| RECOM 4 RT EC<br>Sound-power level, A - weighted<br>(p.4 on the diagram) |       | General | Octave frequency band, Hz |     |     |     |      |      |      |      | LpA,<br>3m<br>dB(A) | LpA,<br>1m<br>dB(A) |
|--------------------------------------------------------------------------|-------|---------|---------------------------|-----|-----|-----|------|------|------|------|---------------------|---------------------|
|                                                                          |       | dB(A)   | 63                        | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |                     |                     |
| LwA to supply inlet                                                      | dB(A) | 49      | 33                        | 36  | 40  | 38  | 31   | 26   | 21   | 23   | 29                  | 39                  |
| LwA to supply outlet                                                     | dB(A) | 51      | 35                        | 38  | 42  | 40  | 33   | 27   | 22   | 24   | 30                  | 40                  |
| LwA to exhaust inlet                                                     | dB(A) | 50      | 35                        | 38  | 42  | 40  | 33   | 25   | 21   | 23   | 30                  | 39                  |
| LwA to exhaust outlet                                                    | dB(A) | 53      | 37                        | 40  | 44  | 42  | 35   | 26   | 22   | 24   | 32                  | 41                  |
| LwA to environment                                                       | dB(A) | 51      | 39                        | 47  | 46  | 39  | 39   | 36   | 27   | 25   | 31                  | 40                  |

## AIR HANDLING UNITS WITH HEAT RECOVERY

### Technical data

|                                               | RECOM RT EC                                 | RECOM RTS EC                                |  |  |
|-----------------------------------------------|---------------------------------------------|---------------------------------------------|--|--|
| Voltage [V / 50-60 Hz]                        | 230                                         | 230                                         |  |  |
| Max. unit power without electric heater [W]   | 377                                         | 377                                         |  |  |
| Integrated electric heater power [W]          | 1400                                        | 1400                                        |  |  |
| Max. unit power [W]                           | 1777                                        | 1777                                        |  |  |
| Max. unit current without electric heater [A] | 2,58                                        | 2,58                                        |  |  |
| Integrated electric heater current [A]        | 6,21                                        | 6,21                                        |  |  |
| Max. unit current [A]                         | 8,79                                        | 8,79                                        |  |  |
| Max air flow [m³/h]                           | 798                                         | 798                                         |  |  |
| Sound pressure level at 3 m distance [dBA]    | 31                                          | 31                                          |  |  |
| Max. operating temperature [°C]               | - 25...+40                                  | - 25...+40                                  |  |  |
| Case material                                 | painted steel                               | painted steel                               |  |  |
| Insulation                                    | 40                                          | 40                                          |  |  |
| Extract filter                                | G4 / Coarse > 60%                           | G4 / Coarse > 60%                           |  |  |
| Supply filters                                | G4 / Coarse > 60%<br>(option F7 / ePM1 60%) | G4 / Coarse > 60%<br>(option F7 / ePM1 60%) |  |  |
| Connected air duct diameter [mm]              | 250                                         | 250                                         |  |  |
| Weight [kg]                                   | 104                                         | 104                                         |  |  |
| Heat recovery efficiency [%]                  | 85                                          | 84                                          |  |  |
| Heat exchanger type                           | condensing                                  | sorption                                    |  |  |
| SEC class                                     | A                                           | A                                           |  |  |

\*Sound pressure level at 3 m distance is specified at point 4 [dBA]



| RECOM 6 RT EC<br>Sound-power level, A - weighted<br>(p.1 on the diagram) | General<br>dB(A) | Octave frequency band, Hz |     |     |     |      |      |      |      | LpA,<br>3m<br>dB(A) | LpA,<br>1m<br>dB(A) |
|--------------------------------------------------------------------------|------------------|---------------------------|-----|-----|-----|------|------|------|------|---------------------|---------------------|
|                                                                          |                  | 63                        | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |                     |                     |
| LwA to supply inlet                                                      | dB(A)            | 67                        | 45  | 48  | 51  | 57   | 57   | 50   | 48   | 43                  | 47                  |
| LwA to supply outlet                                                     | dB(A)            | 71                        | 47  | 50  | 54  | 60   | 60   | 53   | 51   | 45                  | 51                  |
| LwA to exhaust inlet                                                     | dB(A)            | 63                        | 44  | 47  | 51  | 50   | 46   | 43   | 36   | 28                  | 43                  |
| LwA to exhaust outlet                                                    | dB(A)            | 60                        | 42  | 45  | 48  | 44   | 41   | 34   | 27   | 40                  | 49                  |
| LwA to environment                                                       | dB(A)            | 61                        | 38  | 46  | 45  | 51   | 50   | 50   | 43   | 38                  | 41                  |

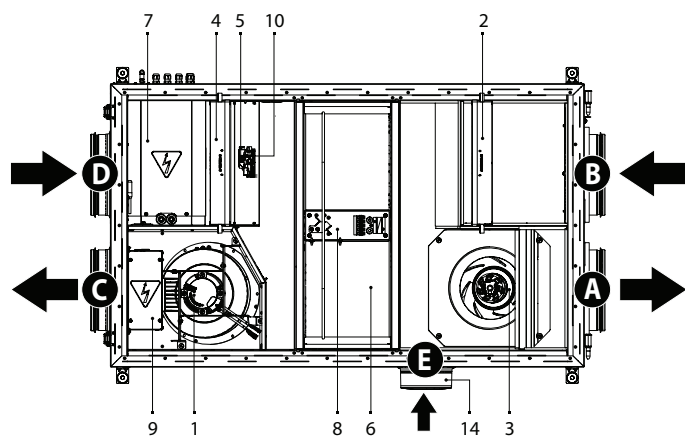
| RECOM 6 RT EC<br>Sound-power level, A - weighted<br>(p.4 on the diagram) | General<br>dB(A) | Octave frequency band, Hz |     |     |     |      |      |      |      | LpA,<br>3m<br>dB(A) | LpA,<br>1m<br>dB(A) |
|--------------------------------------------------------------------------|------------------|---------------------------|-----|-----|-----|------|------|------|------|---------------------|---------------------|
|                                                                          |                  | 63                        | 125 | 250 | 500 | 1000 | 2000 | 4000 | 8000 |                     |                     |
| LwA to supply inlet                                                      | dB(A)            | 58                        | 42  | 45  | 48  | 48   | 41   | 35   | 28   | 38                  | 47                  |
| LwA to supply outlet                                                     | dB(A)            | 60                        | 44  | 47  | 51  | 50   | 43   | 37   | 29   | 40                  | 49                  |
| LwA to exhaust inlet                                                     | dB(A)            | 54                        | 44  | 47  | 51  | 41   | 36   | 32   | 23   | 23                  | 34                  |
| LwA to exhaust outlet                                                    | dB(A)            | 57                        | 46  | 49  | 54  | 43   | 38   | 34   | 24   | 24                  | 37                  |
| LwA to environment                                                       | dB(A)            | 51                        | 38  | 46  | 45  | 40   | 39   | 40   | 28   | 25                  | 31                  |

**Accessories for air handling units**

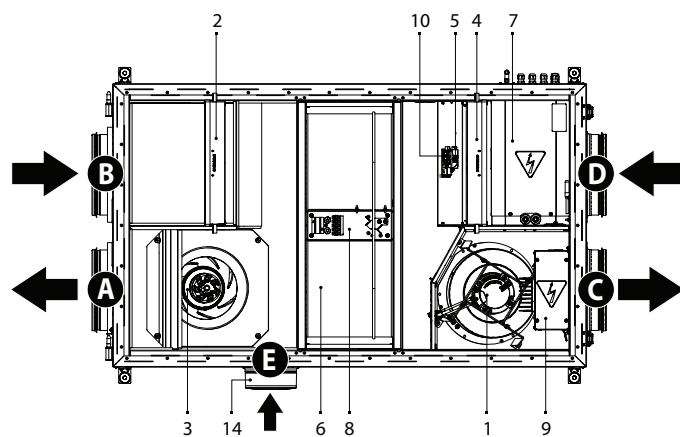
| Type          | Filter G4                                                                         | Supply filter F7                                                                  | Control panel                                                                     | Control panel                                                                      | WiFi Control panel                                                                  | Internal humidity sensor                                                            | Internal CO <sub>2</sub> sensor                                                     |
|---------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|               |  |  |  |  |  |  |  |
| RECOM 4 RT EC | SF 302x256x48<br>Coarse 90% G4                                                    | SF 302x256x48<br>ePM1 60% F7                                                      | FPD                                                                               | FP (22)                                                                            | FP (22) Wi-Fi                                                                       | HV-2                                                                                | CO2-3                                                                               |
| RECOM 6 RT EC | SF 377x330x48<br>Coarse 90% G4                                                    | SF 377x330x48<br>ePM1 60% F7                                                      |                                                                                   |                                                                                    |                                                                                     |                                                                                     |                                                                                     |

SERVICE PANEL SIDE VIEW

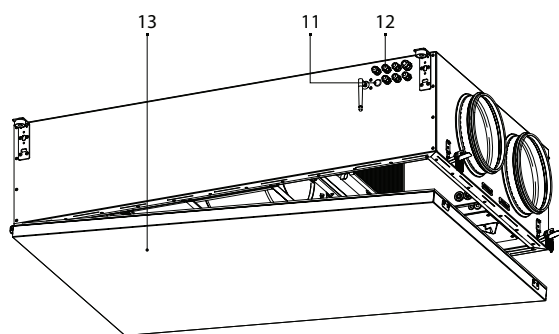
RECOM 4/6 RT EC "L"



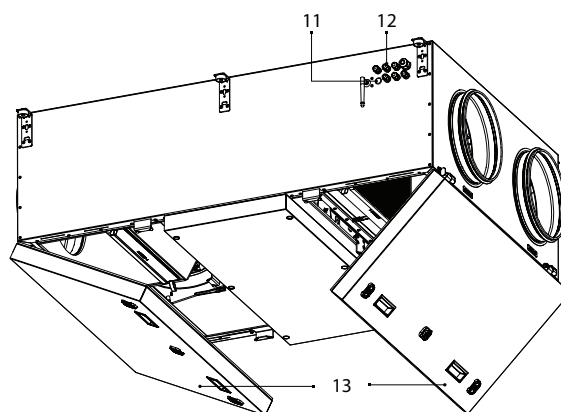
RECOM 4/6 RT EC "R"



RECOM 4 RT EC



RECOM 6 RT EC



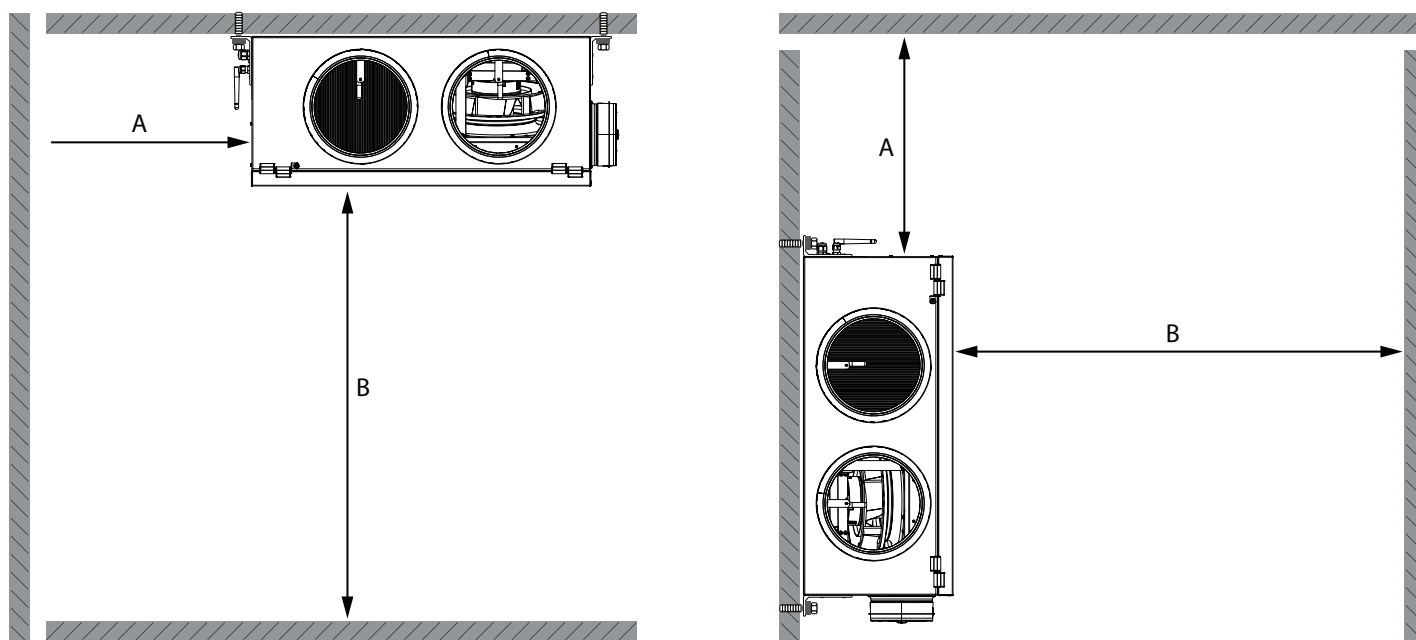
1 — supply fan; 2 — supply filter; 3 — extract fan; 4 — extract filter; 5 — humidity sensor (option); 6 — rotary heat exchanger; 7 — control unit; 8 — rotary heat exchanger actuator; 9 — electric heater; 10 — CO<sub>2</sub> sensor (option); 11 — Setup Mode button; 12 — cable glands; 13 — service panel; 14 — plug.

**A — exhaust air, B — intake air, C — supply air, D — extract air, E — from the range hood**

## MOUNTING AND SET-UP

The units are available in left-hand and right-hand design. Choosing the right design can improve the ease of installation, shorten the length of the ducts and reduce the number of air duct bends.

While mounting the unit provide the minimum required access to the unit for maintenance and repair. The recommended minimum distances from the unit to the walls are shown below.



A — min 300 mm, B — min 1200 mm