

REPURO

Duct-type residential 2-way ventilation unit with heat recovery



- Compact dimensions
- High efficiency, reaching 90%+ (UNI EN 308)
- Cold Plasma purifier



DESCRIPTION

REPURO it's an innovative counter-current heat recovery system that ensures the right air renewal in closed areas. Thanks to the use of high-efficiency heat exchangers, REPURO allows fresh air to be delivered at a temperature close to that of the room itself, thereby cutting the energy costs that would be incurred with a traditional air renewal system or mechanical ventilation alone.

VERSIONS

- Standard
- R** With electric heater

Installation:

- **Ceiling or wall:** (100 - 170)
- **Floor or wall:** (250 - 650)

FEATURES

- Hexagonal heat recovery unit with a wider heat exchange surface;
- Free-standing sheet metal panels with internal insulation;
- Standard G4 filter on the fresh air;
- Standard G2 filter on the exhaust air;
- The filters can be removed for cleaning or replacement;
- The unit has in-built protection against frost formation with temperatures > -10°C;
- High efficiency, reaching 90%+ (UNI EN 308);
- Free cooling in the intermediate seasons, thanks to the automatic bypass function (not available for sizes 100 - 170);
- "No frost" bypass (RePuro 450-550-650), with PLSNF accessory;
- Air purification guaranteed by the Cold Plasma purifier: this is able to reduce pollutants, decomposing their molecules using electrical charges, causing the water molecules in the air to split into positive and negative ions. These ions neutralise the molecules in the gaseous pollutants, obtaining products normally present in clean air. The device is able to eliminate 90% of the bacteria. The result is clean, ionised air, free of foul odours;
- Nominal flow rate regulation from 0 to 100%;
- Centrifugal fans, directly coupled with the EC high-efficiency brushless electric motors with variable speed (ERP2015);

- Microprocessor control card that interfaces with the VMF system;
- Unit control by means of a wired panel (supplied as standard) with an innovative, extremely thin design. The functions are controlled via the capacitive touch keypad with an LCD display. Electric heater activation in the RePuro_R versions. Light grey front panel PANTONE COOL GRAY 1C;
- The 6-metre wired cable is provided as standard;
- Easy mounting on the wall (with the plate (provided), or on the floor (with the AVM accessory);
- Can adapt to an existing system;
- Compact dimensions;
- Silent operation;
- Filter change warning;
- Installation requires a condensate discharge system.

ACCESSORIES

- VCH:** 3-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
- VCHD:** 2-way motorised valve kit. The kit consists of a valve, an actuator and the relative pipe fittings. It can be installed on fan coils with both right and left connections.
- BC:** Condensate drip.
- AVM:** Anti-vibration supports.
- SSR:** Wall mounting kit
- FF7:** Filter with F7 efficiency class for the fresh air.
- BMConverter:** The BMConverter accessory consists of the FPC-N54 network device which allows units that communicate via the Modbus RTU protocol on RS485, to be controlled by a third-party BMS system via the BACnet TCP-IP protocol.
- KSAE:** External air sensor.
- VMF-CRP:** Accessory module for controlling boilers, heat recover units and pumps (if associated with VMF-E5 / RCC panels); if associated with the VMF-E6 panel, the VMF-CRP modules will be able to manage heat recovery units, RAS, boiler, sanitary management, I/O control, pumps.

Plenum with multi-way flange

PLS350: Vacuum delivery plenum with sound-absorbent covering and multi-way flange.

PLS350E: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater is housed inside.

PLS350L: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp is housed inside.

PLS350LE: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and an electric heater are housed inside.

PLS350W: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.

PLS350WE: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

PLS350WL: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

PLS350WLE: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

PLS650: Vacuum delivery plenum with sound-absorbent covering and multi-way flange.

PLS650E: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater is housed inside.

PLS650L: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp is housed inside.

PLS650LE: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and an electric heater are housed inside.

PLS650W: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.

PLS650WE: Delivery plenum with sound-absorbent covering and multi-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

PLS650WL: Delivery plenum with sound-absorbent covering and multi-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

PLS650WLE: Delivery plenum with sound-absorbent covering and multi-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

Plenum with 1-way flange

PLSM350: Vacuum delivery plenum with sound-absorbent covering and 1-way flange.

PLSM350E: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater is housed inside.

PLSM350L: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp is housed inside.

PLSM350LE: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and an electric heater are housed inside.

PLSM350W: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.

PLSM350WE: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

PLSM350WL: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

PLSM350WLE: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

PLSM650: Vacuum delivery plenum with sound-absorbent covering and 1-way flange.

PLSM650E: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater is housed inside.

PLSM650L: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp is housed inside.

PLSM650LE: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and an electric heater are housed inside.

PLSM650W: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray is housed inside; it is mandatory to fit the water valve as well.

PLSM650WE: Delivery plenum with sound-absorbent covering and 1-way flange. An electric heater and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

PLSM650WL: Delivery plenum with sound-absorbent covering and 1-way flange. A germicidal lamp and a water coil with condensate collection tray are housed inside; it is mandatory to fit the water valve as well.

PLSM650WLE: Delivery plenum with sound-absorbent covering and 1-way flange. A water coil with condensate collection tray, a germicidal lamp, and an electric heater are housed inside; it is mandatory to fit the water valve as well.

VMF system

VMF-ESB: White recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.

VMF-ESN: Black recessed panel with backlit graphic LCD display and capacitive keypad for centralised command/control of a complete hydronic system.

VMF-VOC: Air quality detection accessory.

ACCESSORIES COMPATIBILITY

Model	Ver	100	170	250	350	450	550	650
BMConverter	.,R	*	*	*	*	*	*	*
KSAE	.,R	*	*	*	*	*	*	*
VMF-CRP	.,R	*	*	*	*	*	*	*

Plenum with multi-way flange

Model	Ver	100	170	250	350	450	550	650
PLS350	.	*						
PLS350E	.	*						
PLS350L	.	*						
PLS350LE	.	*	*	*	*			
	R	*	*	*				
PLS350W (1)	.	*						
PLS350WE (1)	.	*						
PLS350WL (1)	.	*						
PLS350WLE (1)	.	*						
PLS650	.,R					*	*	*
PLS650E	.,R					*	*	*
PLS650L	.,R					*	*	*
PLS650LE	.,R					*	*	*
PLS650W (1)	.,R					*	*	*
PLS650WE (1)	.,R					*	*	*
PLS650WL (1)	.,R					*	*	*
PLS650WLE (1)	.,R					*	*	*

(1) It is mandatory to also provide for the water valve.

Water valves

3 way valve kit

Ver	100	170	250	350	450	550	650
.,R	VCH	VCH	VCH	VCH	VCH	VCH	VCH

2 way valve kit

Ver	100	170	250	350	450	550	650
.,R	VCHD	VCHD	VCHD	VCHD	VCHD	VCHD	VCHD

Installation accessories

Condensate drip

Model	Ver	100	170	250	350	450	550	650
BC10 (1)	.,R	*	*	*	*	*	*	*
BC20 (2)	.,R	*	*	*	*	*	*	*

(1) For vertical installation.

(2) For horizontal installation.

Anti-vibration support feet

Ver	100	170	250	350	450	550	650
.,R	-	-	AVM	AVM	AVM	AVM	AVM

The accessory cannot be fitted on the configurations indicated with -

Wall mounting kit

Ver	100	170	250	350	450	550	650
.,R	-	-	SSR	SSR	SSR	SSR	SSR

The accessory cannot be fitted on the configurations indicated with -

External air sensor

Ver	100	170	250	350	450	550	650
.,R	BMConverter	BMConverter	BMConverter	BMConverter	BMConverter	BMConverter	BMConverter

Accessories

Plenum with multi-way flange

Model	Ver	100	170	250	350	450	550	650
PLS350	.	•						
PLS350E	.	•						
PLS350L	.	•						
PLS350LE	.	•	•	•	•			
PLS350W (1)	.	•						
PLS350WE (1)	.	•						
PLS350WL (1)	.	•						
PLS350WLE (1)	.	•						
PLS650	.,R					•	•	•
PLS650E	.,R					•	•	•
PLS650L	.,R					•	•	•
PLS650LE	.,R					•	•	•
PLS650W (1)	.,R					•	•	•
PLS650WE (1)	.,R					•	•	•
PLS650WL (1)	.,R					•	•	•
PLS650WLE (1)	.,R					•	•	•

(1) It is mandatory to also provide for the water valve.

Plenum with 1-way flange

Model	Ver	100	170	250	350	450	550	650
PLSM350	.,R	•	•	•	•			
PLSM350E	.,R	•	•	•	•			
PLSM350L	.,R	•	•	•	•			
PLSM350LE	.,R	•	•	•	•			
PLSM350W (1)	.,R	•	•	•	•			
PLSM350WE (1)	.,R	•	•	•	•			
PLSM350WL (1)	.,R	•	•	•	•			
PLSM350WLE (1)	.,R	•	•	•	•			
PLSM650	.,R					•	•	•
PLSM650E	.,R					•	•	•
PLSM650L	.,R					•	•	•
PLSM650LE	.,R					•	•	•
PLSM650W (1)	.,R					•	•	•
PLSM650WE (1)	.,R					•	•	•
PLSM650WL (1)	.,R					•	•	•
PLSM650WLE (1)	.,R					•	•	•

(1) It is mandatory to also provide for the water valve; if you intend to use the system with post heating battery, or in any case in all those cases in which the air temperature in the channels could cause condensation on the external surfaces of the pipes, it is mandatory to adequately isolate the components of the system.

VMF system

Model	Ver	100	170	250	350	450	550	650
VMF-E5B	.,R	•	•	•	•	•	•	•
VMF-E5N	.,R	•	•	•	•	•	•	•
VMF-VOC	.,R	•	•	•	•	•	•	•

PERFORMANCE SPECIFICATIONS

Size		100 (1)	170 (1)	250 (2)	350 (2)	450 (2)	550 (2)	650 (2)
Heat recovery unit								
Power supply					230V ~ 50Hz			
Summer recovery (3)								
Recovery efficiency	%	90	85	86	82	83	81	78
Recovered heating power	W	180	289	430	573	750	887	1015
Winter recovery (4)								
Recovery efficiency	%	94	91	91	89	90	88	87
Recovered heating power	W	957	1573	2329	3171	4118	4940	5734
General data								
SEC	kWh/(m ² a)	-36	-38	-37	-40	-40	-40	-40
CLASS					A			
Total input power	W	45	65	160	180	220	280	360
Heat recovery unit performance								
Nominal air flow rate	m ³ /h	100	170	250	350	450	550	650
High static pressure	Pa	85	20	195	133	100	120	70

(1) Ceiling or wall installation

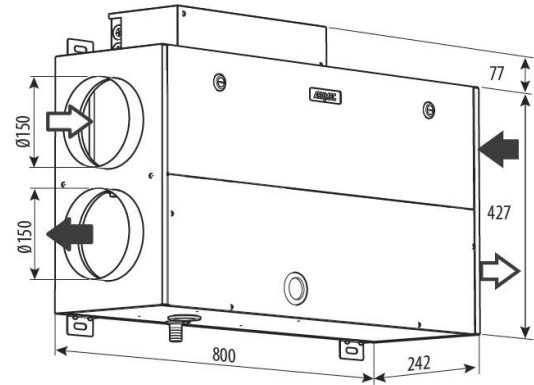
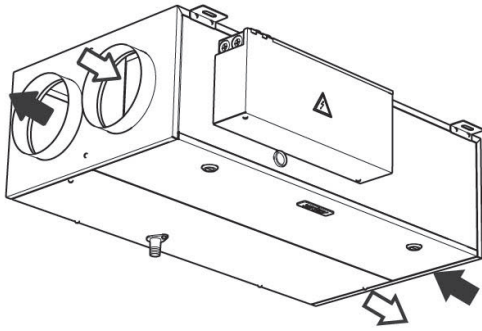
(2) Floor or wall installation

(3) Exhaust air temperature 26°C D.B., 50% R.H; Fresh air temperature 32°C D.B., 50% R.H.

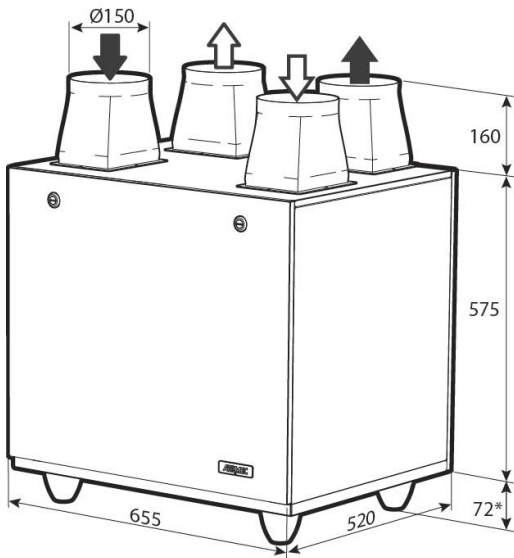
(4) Exhaust air temperature 20°C D.B., 50% R.H; Fresh air temperature -10°C D.B., 80% R.H.

DIMENSIONS (MM) AND WEIGHTS

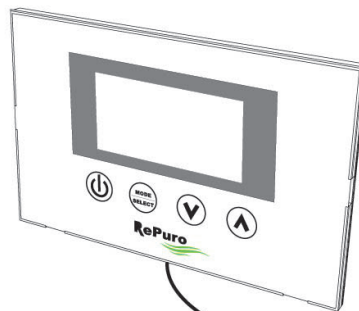
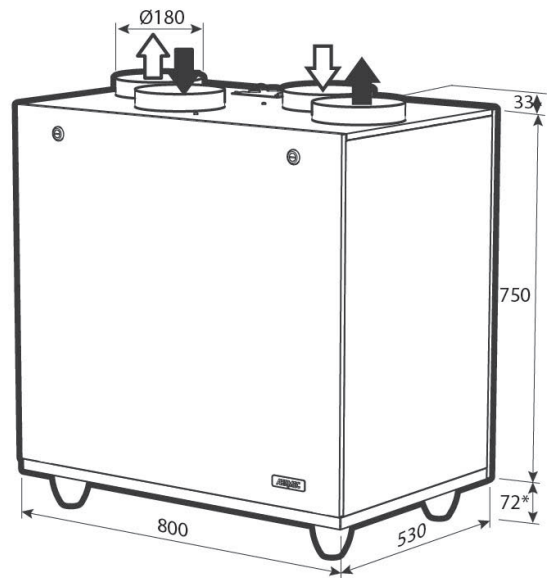
RePuro 100 - 170



RePuro 250 - 350



RePuro 450 - 550 - 650



VMF - E4 RePuro

6m

Size	100 (1)	170 (1)	250 (2)	350 (2)	450 (2)	550 (2)	650 (2)
Dimensions and weights							
Empty weight	25	25	48	48	55	55	55

(1) Ceiling or wall installation
 (2) Floor or wall installation

RePuroDistribution

A complete range for air distribution which, combined with the innovative RePuro heat recovery and air purification units, provides designers,

installers and users with an efficient, practical installation solution that guarantees optimum comfort throughout the lifecycle of the system.

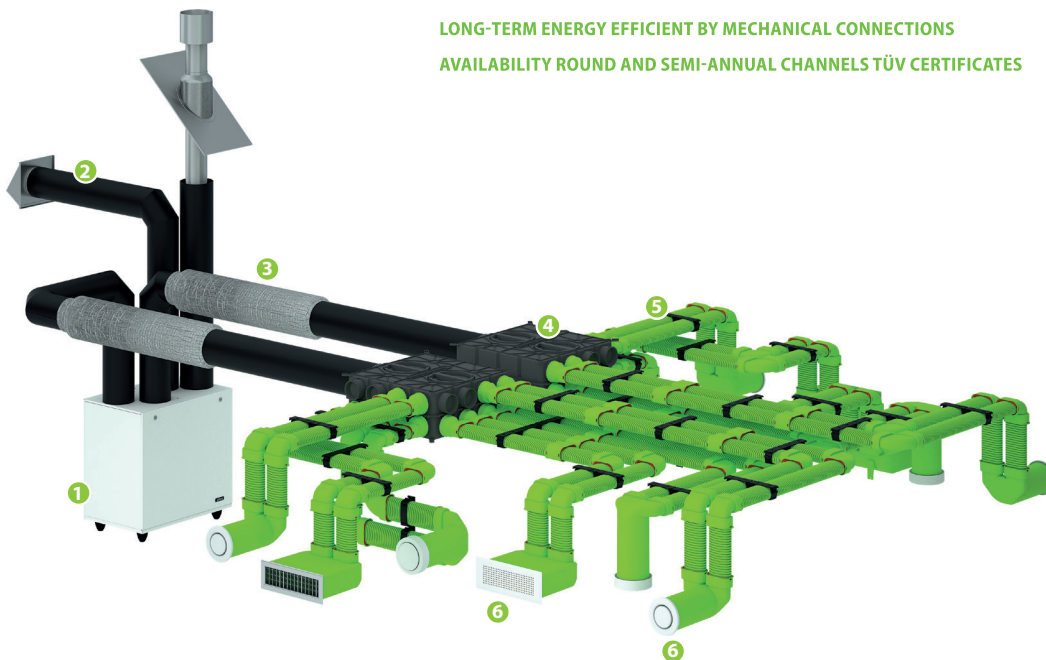
EASY "PLUG & PLAY" INSTALLATION

LOW DUCT HEIGHT FOR IN-WALL AND SCREED-FLOOR APPLICATION

ANTI-STATIC AND ANTI-BACTERIAL PROPERTIES

LONG-TERM ENERGY EFFICIENT BY MECHANICAL CONNECTIONS

AVAILABILITY ROUND AND SEMI-ANNUAL CHANNELS TÜV CERTIFICATES



The picture is intended purely as an example of a system with semi-rigid, semi-oval, antibacterial ducts. This example consists of:

- 1 RePuro heat recovery units
- 2 Duct with fresh/exhaust air intake
- 3 Interconnection between RePuro and the distribution box
- 4 Hydronic box
- 5 Air distribution with semi-rigid, semi-oval, antibacterial ducts
- 6 Terminals with designer intakes or grilles

In addition to point 5, the Aermec range also includes a further 2 air distribution systems:

- Air distribution with semi-rigid, round ducts
- Air distribution with rigid, rectangular ducts

For more information about all the types and solutions available, refer to the "AerDistribution" selection program and the technical documentation, both available at www.aermec.com

Aermec reserves the right to make any modifications deemed necessary. All data is subject to change without notice. Aermec does not assume responsibility or liability for errors or omissions.

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