

CUSTOMISED COMPACT AIR HANDLING UNITS

**AmberAir**  
Compact



**SALDA**





# AmberAir Compact CX:

EXCEPTIONAL AIR HANDLING UNIT FOR YOUR PROJECT!

AmberAir Compact series offers combined flexibility of modular units and production speed of standardized units. 3D selection software makes modeling easy: select your unit from more than 4000 combinations and transfer directly to the ventilation system design drawings. Perfected construction leads to higher overall AHU efficiency approved by test results at independent laboratories. We guarantee extended durability, airtightness, thermal efficiency and smooth performance under European climatic conditions!

## REASONS TO CHOOSE

AmberAir Compact



### Customised air handling solution:

- › Airflow up to 9000 m<sup>3</sup>/h;
- › Selectable components.



### Hygienic level design:

- › High draining efficiency—98% (5 l/m<sup>2</sup> at 20 min);
- › Convenient servicing.



### Reliability:

- › Tested at conditions -35° C to +40° C, RH90%;
- › Eurovent certification.



### High energy efficiency:

- › Heat recovery up to 92%.



### Top quality:

- › SD50+ casing: D1, L1, F9, T2, TB1.

## AmberAir Compact CX

CREATES A PERFECT INDOOR CLIMATE IN:



Schools



Offices



Retail  
stores



Public  
buildings



Industry



Hotels

## ADDITIONAL BONUSES

FOR RECONSTRUCTION PROJECTS!

You will easily find a place for an AmberAir Compact:

- › Compact sizing for internal transportation and mounting in existing premises;
- › Ceiling units can be installed under suspended ceilings due to their low height;
- › All AmberAir Compacts are designed for outdoor installation with proper covering from precipitation;
- › Silent performance makes the installation nearby working zones possible.



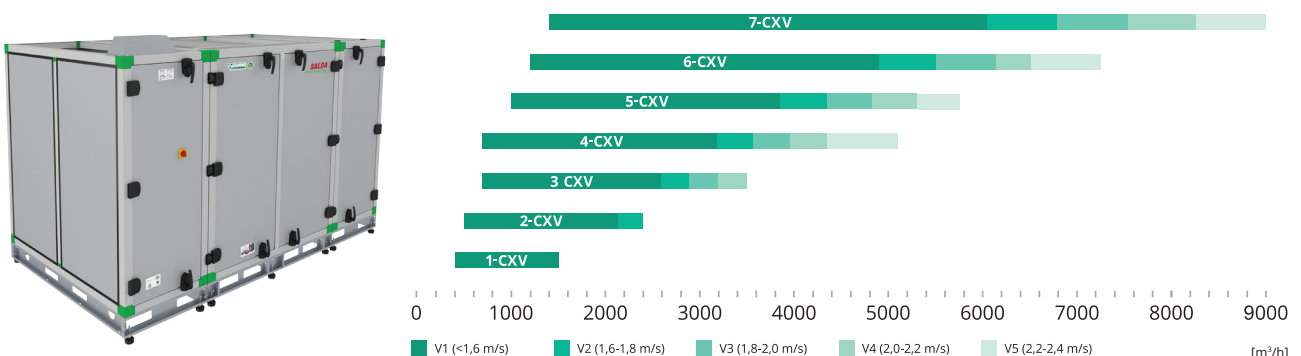


## AmberAir Compact CXV AND CXH SERIES

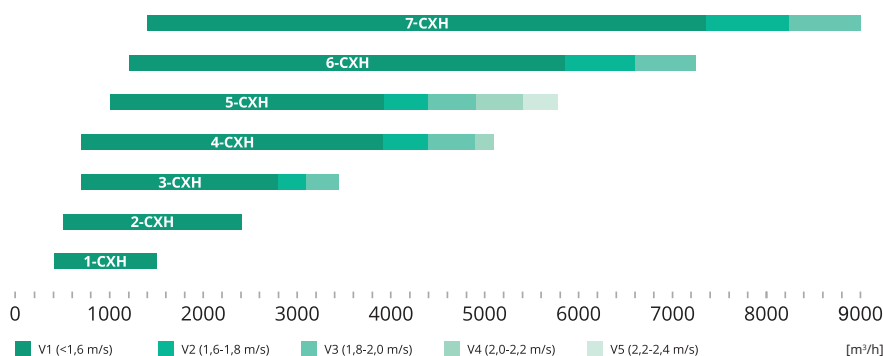
Air handling units were tested at conditions from  $-35^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ , RH90% in at independent laboratory. The premium casing combined with top-quality components from leading EU companies ensures superb indoor climate at any climate!

- › Casing strength class D1 indicates long service life;
- › Casing air leakage class L1 guarantees less than 1% air loss;
- › Filter by-pass leakage class F9 ensures that all air is cleaned by filters;
- › Thermal transmittance T2 and thermal bridging TB1 eliminate risk of condensation on the unit walls.

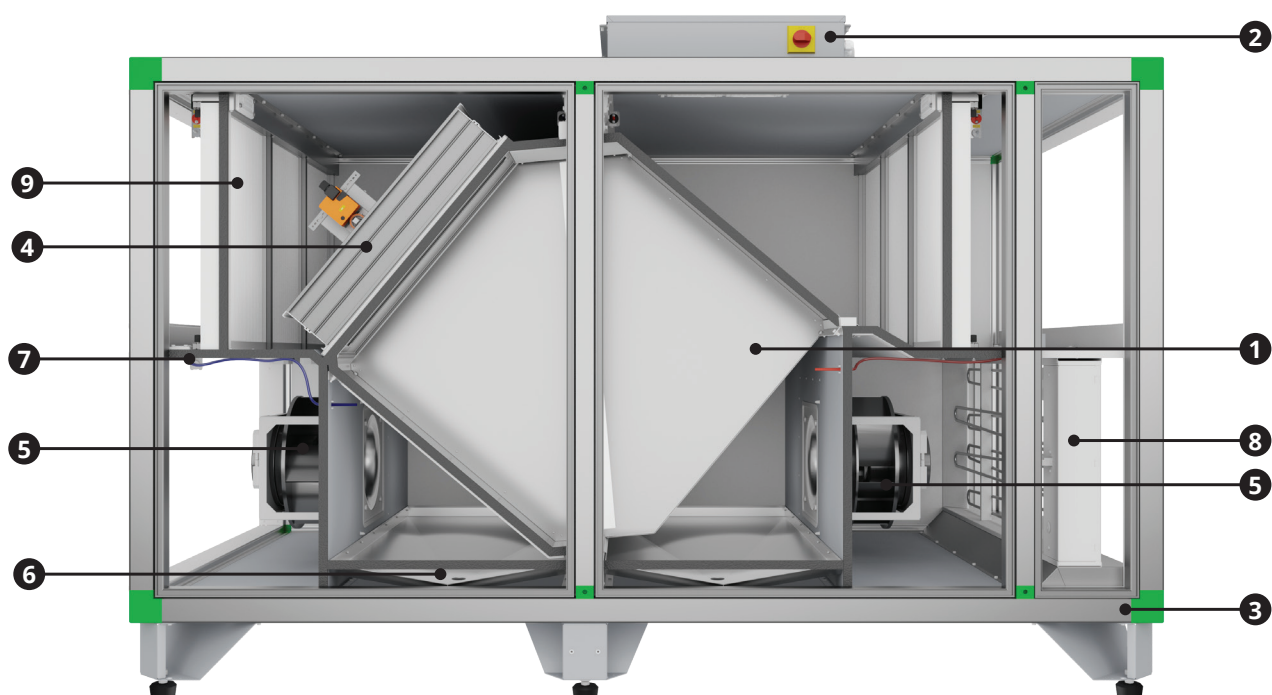
**AmberAir Compact CXH/V come in seven sizes.** Each size has the option of two different capacity fans that supply fresh air in the range of 400-9000  $\text{m}^3/\text{h}$ .







## EXCEPTIONAL AmberAir Compact CXV AND CXH DESIGN LEADS TO HIGH EFFICIENCY AND EASY SERVICING



### 1. Counter-flow aluminium heat exchanger:

- › Efficiency up to 92%;
- › Separated supply and exhaust air: virtually no moisture transfer, no mixing;
- › Low maintenance;
- › Pressure relays – anti-frost protection for heat exchanger.

### 2. Integrated advanced MCB control board:

- › Demand control ready ventilation;
- › Control by remote controllers, PC via MB-Gateway, SALDA AIR application via WiFi or BMS (ModBus, BACnet\*);
- › Fire damper control and testing;
- › El. heater/preheater 0-10V control;
- › Water heater/preheater control and protection;
- › DX/water cooler, air damper control;
- › Constant airflow mode.

\* From QIV 2017.

### 3. SD50+ casing features:

- › Galvanized steel with powder coating panels;
- › Aluminium frame;
- › Thermal insulation: polyurethane 45 mm;
- › Thermal breaking profiles with 25 mm plastic strips;
- › Profiles internally rounded for easy cleaning.

### 4. 3 bypass types: 100%, with recirculation or segmented.

### 5. Efficient EC fans with backward curved impellers: 2 versions.

### 6. Stainless steel drip tray – high draining efficiency – 98% (5 l/m² at 20 min).

### 7. 4 air temperature sensors (supply, extract, outdoor and exhaust).

### 8. Heater:

- › Integrated modulating control electric heater (signal 0-10V);
- › Integrated water heater. Available accessories for anti-frost protection.

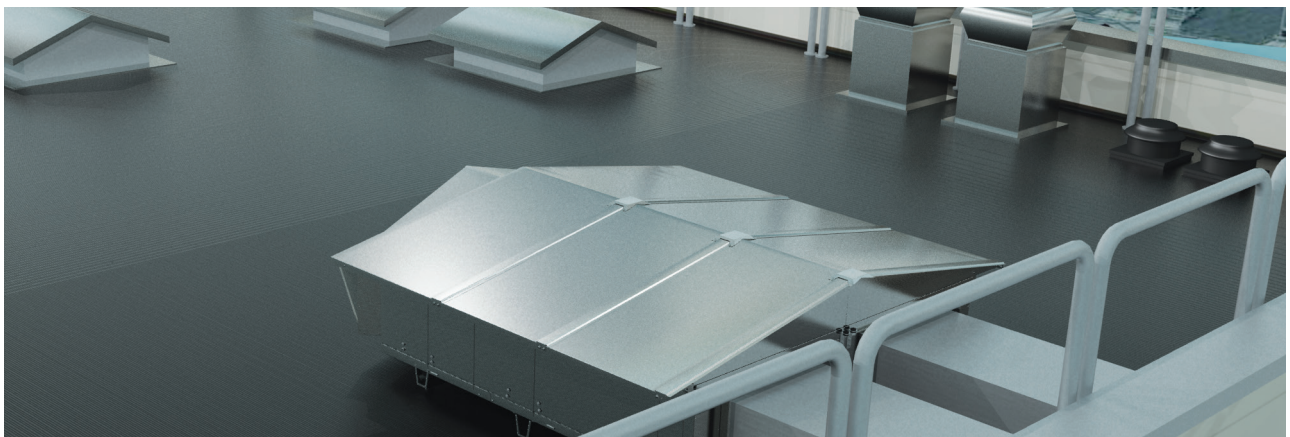
### 9. Filters:

- › Stitched pocket filters (external box) or panel filters (integrated);
- › Class: G4/M5/F7;
- › Filter pollution monitoring: pressure switches and timer.



# AmberAir Compact CXP

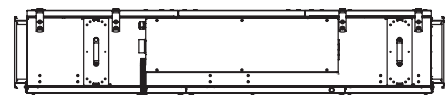
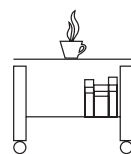
- › Lowest height among all ceiling AHU in the market;
- › Quiet performance (sound pressure level at 3m – 37-49dBA).
- › Suitable for outdoor mounting under all European climatic conditions (tested at: -35° C - +40° C, RH 90%);
- › Three mounting positions: under the ceiling, on the floor or roof, or horizontal by the wall.



## AmberAir Compact CXP

LOWER THAN AN ORDINARY COFFEE TABLE!

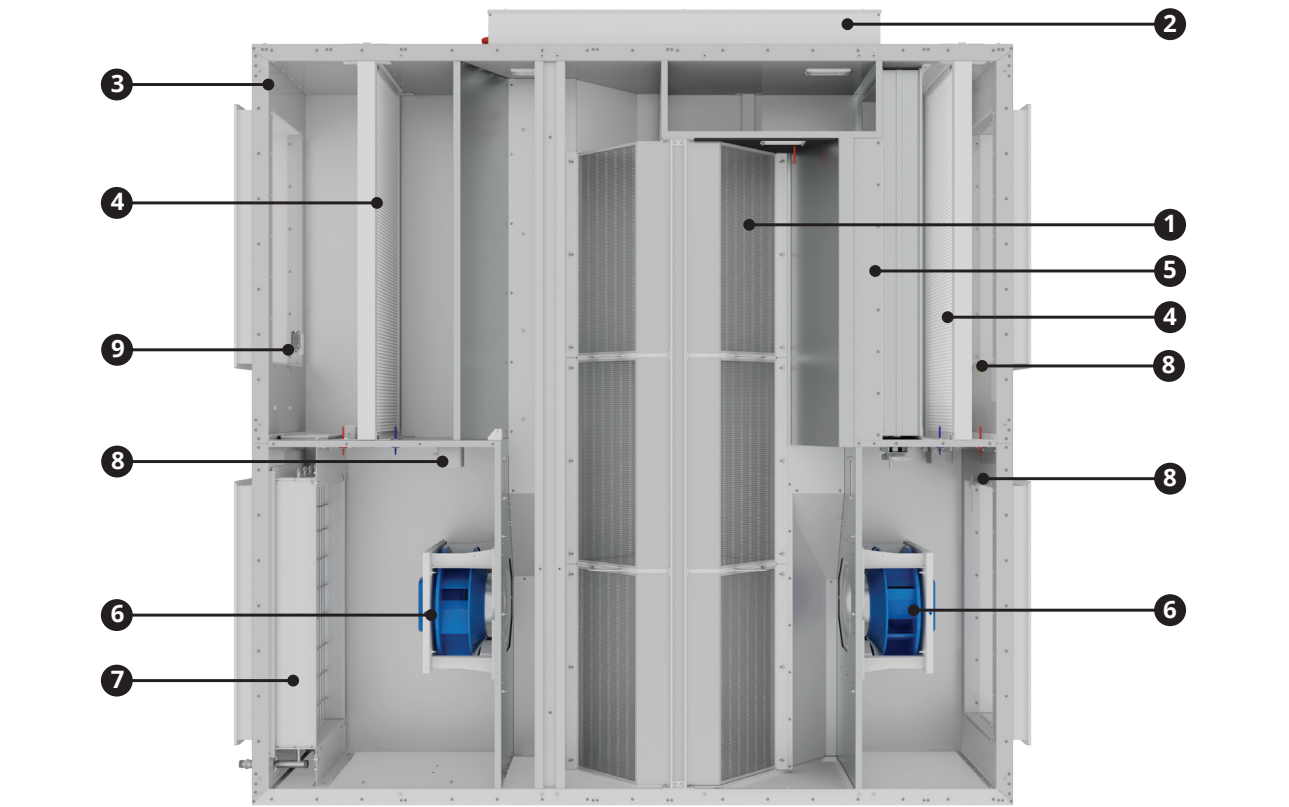
AmberAir Compact 1CXP	385 mm
AmberAir Compact 2CXP	400 mm
AmberAir Compact 3CXP	400 mm
AmberAir Compact 4CXP	500 mm





# UNIVERSAL AmberAir Compact CXP CONSTRUCTION

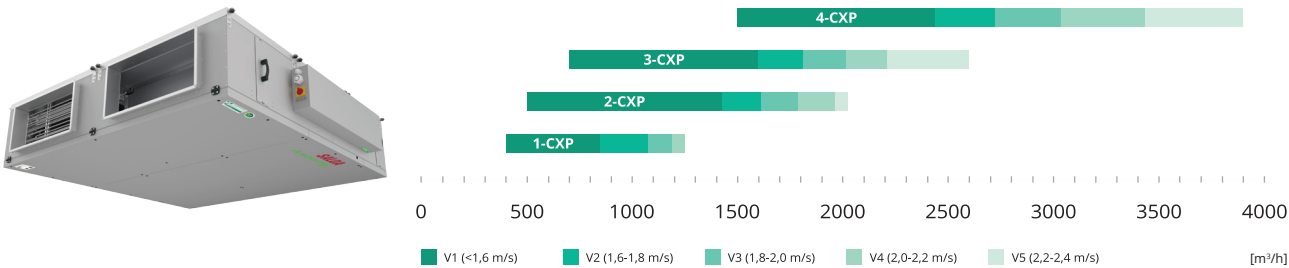
ENABLES MOUTING IN THREE POSITIONS!



<b>1. Counter-flow aluminium heat exchanger:</b> <ul style="list-style-type: none"> <li>› Efficiency up to 90%;</li> <li>› Separated supply and exhaust air: almost no moisture transfer, no mixing;</li> <li>› Low maintenance;</li> <li>› Pressure relays – additional anti-frost protection for heat exchanger.</li> </ul>	<b>2. Integrated advanced MCB control board:</b> <ul style="list-style-type: none"> <li>› Demand control ready ventilation;</li> <li>› Control by remote controllers, PC via MB-Gateway or BMS (ModBus, BACnet*);</li> <li>› Fire damper control and testing;</li> <li>› El. heater/preheater 0-10V control;</li> <li>› Water heater/preheater control and protection;</li> <li>› DX/water cooler, air damper control;</li> <li>› Constant airflow mode.</li> </ul> <p>* From QIV 2017.</p>
<b>3. Double-skinned casing panels:</b> <ul style="list-style-type: none"> <li>› 50/30 mm of mineral wool insulation*;</li> <li>› Galvanized steel powder coated corrosion class – C3.</li> </ul>	<b>4. Panel (integrated) or pocket (external box) filters:</b> <ul style="list-style-type: none"> <li>› Class F7, M5 or G4;</li> <li>› Fully recyclable;</li> <li>› Supply/extract filter pressure switch.</li> </ul>
<b>5. 100% motorized by-pass damper.</b>	<b>6. EC fans with a backwards curved impeller.</b>
<b>7. Heater:</b> <ul style="list-style-type: none"> <li>› Integrated modulating control electric heater (signal 0-10V);</li> <li>› Integrated water heater.</li> </ul>	<b>8. 3 air temperature sensors (supply, outdoor and exhaust).</b>
	<b>9. DTJ – humidity - temperature sensor.</b>

\* - 50 mm casing insulation, 30 mm doors; possibility to select 50 mm door insulation.

CXP come in four sizes and supply fresh air in the range of 400-3900 m³/h.



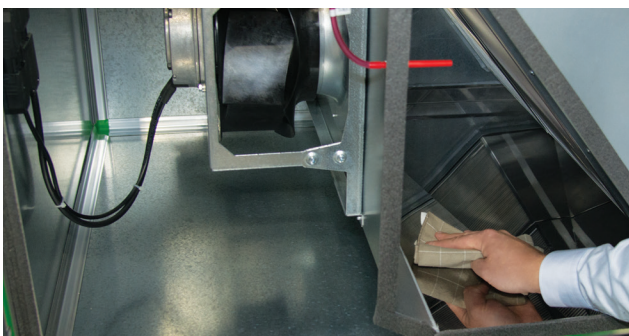
# SERVICE FRIENDLY DESIGN

## ENSURES THE PERFECT INDOOR CLIMATE

One of the main tasks in developing AmberAir Compact was to ensure easy servicing and cleaning.



› **Filter change.** Filter pollution is monitored by pressure switches or a timer. Filters are easily removable: in the CXP series there's even no need to remove the cover. This is critical when the unit hangs under the ceiling.



› **Cleaning.** Internal surfaces are easily accessible and resistant to most cleaners and disinfectants.



› **Component removal.** Components are conveniently removable for inspection. All of them can be changed with standard tools.

Easy and convenient servicing ensures long service life and low maintenance costs.

## FIVE EFFICIENCY BONUSES

AmberAir Compact CXH provides the top energy savings in its class:



Up to 92% heat recovery



Efficient EC fans



External leakage <1%



Demand control ready ventilation\*



Modulating control e-heater

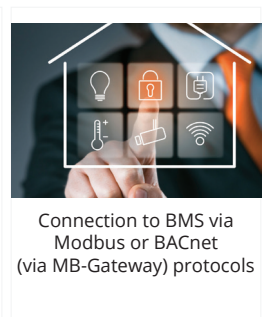
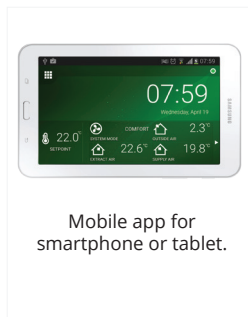
\* RH sensor is integrated only in the CXP series; for other AmberAir Compact units it is available as an accessory with the other comfort sensors



# SMART AIR HANDLING

AmberAir Compact AHU is controlled by a remote panel, Ethernet, or mobile application. The unit can be connected to the BMS (building management system) via Modbus or BACnet\*. The entire AHU has a demand level control option via comfort sensors such as CO<sub>2</sub>, RH, presence detectors.

\* from QIV 2017



This set of functions ensures convenient air handling and a comfortable indoor climate and saves up to 30% electricity.

4 system modes



Weekly Schedule



Holiday Schedule



Night cooling



Constant pressure mode



Constant airflow mode



BOOST function



Fireplace function



CO<sub>2</sub> reduction



Relative humidity reduction



Protection against Dryness



# COMPLETE SYSTEM FROM ONE SUPPLIER

We offer all the accessories for an efficient ventilation system:

Water and DX coolers



Electrical preheaters,  
0-10V signal



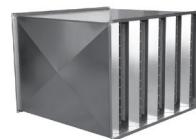
Air dampers and actuators



Flange adapters, flexible  
connections for connecting  
to air ducts



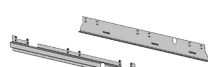
Single duct or dual  
silencers



Intake-outlet covers



Rails for CXP cover



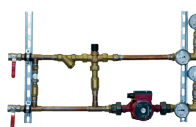
Presence, CO<sub>2</sub>, RH,  
pressure, smoke sensors



Energy analyzers



Mixing point and other  
accessories for coils



## QUALITY

CONFIRMED BY EXTENSIVE TESTING



Every AmberAir Compact unit went through testing in order to guarantee smooth performance in any conditions:

- › Climatic chamber: thermal efficiency and performance at climate conditions of -35° C - +40° C, 90% RH and anti-frost protection of the heat exchanger;
- › Multi tube airflow measurement chamber: aerodynamic characteristics of fans;
- › Noise chamber: determination of sound power level.



## SMART SELECTION OF SOFTWARE

# VENTMASTER V5



AmberAir Compact CX selection and modeling is easy with VentMaster:

- › 3D modelling;
- › Automatic heater capacity selection;
- › Online price calculation and ordering (for registered users);
- › Export of drawing in .DXF file;
- › Export of drawing and technical data to Autodesk Revit;
- › LCC calculation (available from QIV 2017).

Select the most suitable solution by using an LCC calculator that includes:

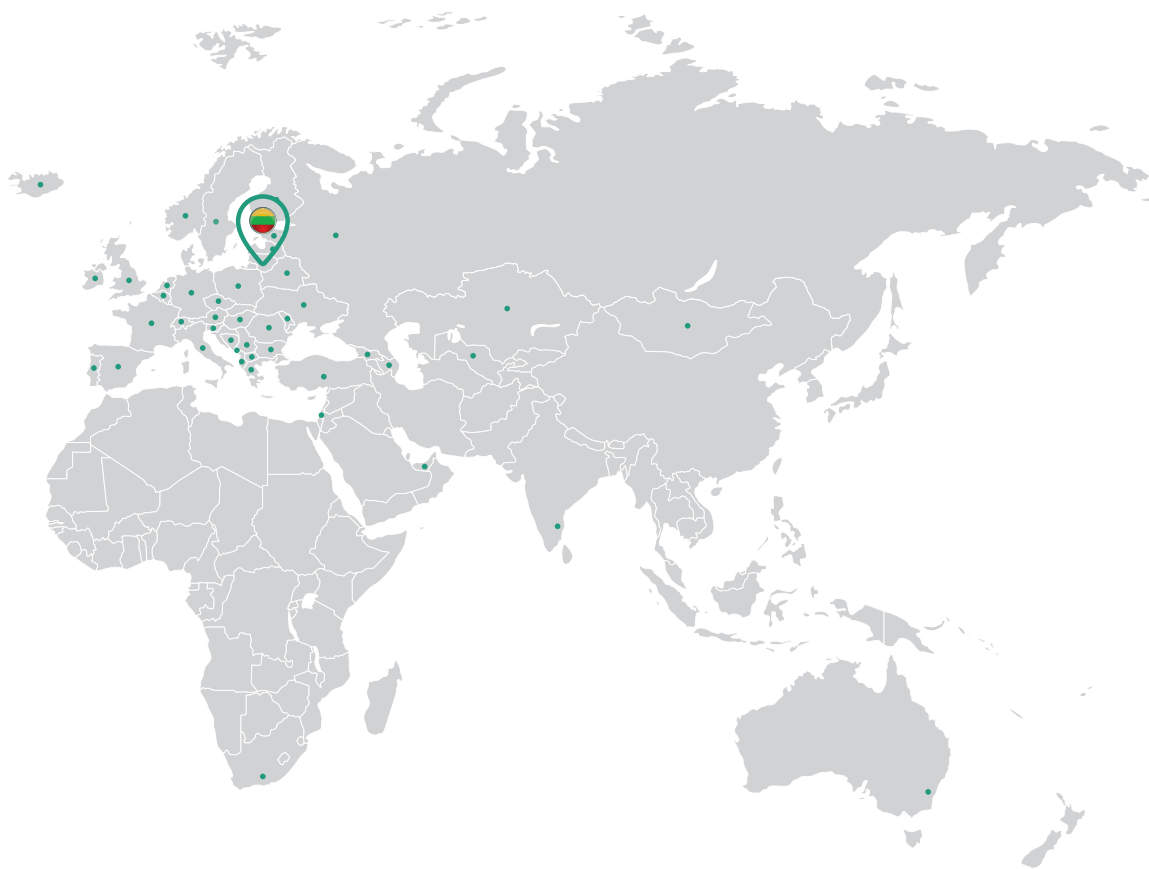
- › Primary investment;
- › Electricity consumption of fans;
- › Electricity, fuel or hot water consumption of heating elements.




VentMaster

### Software is free of charge.

Go to [www.salda.it](http://www.salda.it) to get your VentMaster.



  
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