

## REAL BENEFITS OF HEAT RECOVERY

Heat recovery from the ventilation system reduces the costs of heating rooms. The savings can be from 70% to 96% of the heat consumed by the ventilation system. In addition, fresh air is introduced into circulation, which removes significant numbers of mites, fungi and other allergens. This is the most economic and efficient way to obtain air comfort, fresh and filtered air at a suitable temperature.

### CLEAN ATMOSPHERE

One medium-sized tree absorbs 5-6 kg CO<sub>2</sub> per year. The application of heat recovery supports the forests by cleaning the atmosphere.

### REDUCED CO<sub>2</sub> EMISSION

The technology that enables reducing this emission contributes to the improvement of air quality and reduction of the greenhouse effect that threatens the Earth.



### REDUCED FUEL CONSUMPTION

Heat recovery from used air removes the need for energy obtained through the combustion of expensive and gradually depleting resources of natural gas and oil or less expensive, but contaminated and harmful coal.



### OPERATIONAL GAINS

Investments with a heat recovery systems show a high profitability index.



### ECO-COMPANY

The manufacturer and user of heat recovery systems is sure to be recognised as environmentally friendly.

The product range of VBW Engineering includes a wide range of appliances that fully meet the higher energy efficiency requirements applicable to air conditioning units since 2018.

Adopted in July 2014, the European Commission Regulation no. 1253/2014 implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for ventilation units (OJEU L 337/8) specify the requirements for the equipment manufacturers in the entire European Union.

Specific ecodesign requirements are applicable to the ventilation systems designed for residential buildings (RVU) and non-residential buildings (NRVU).

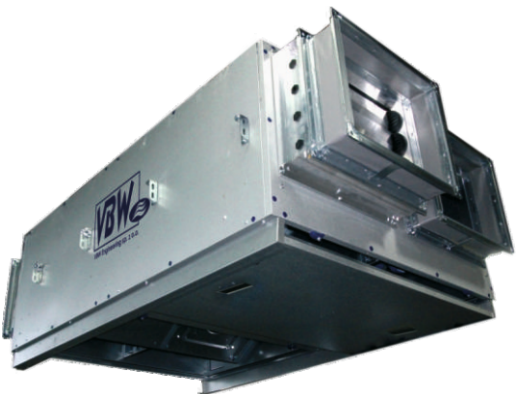
# ECOPROJECT

VBW Engineering products fully meet the requirements and compliant with the latest regulations, they reduce the site operating costs, thus increasing their environmental advantages.

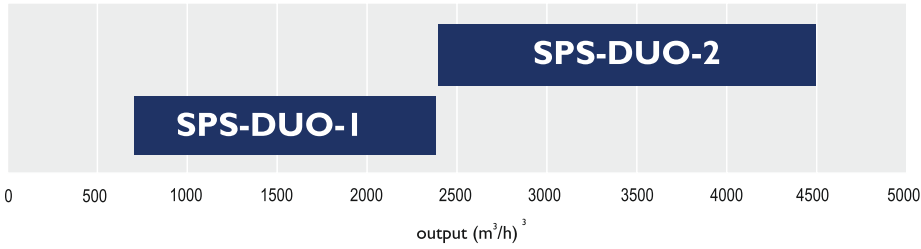
# 03 SPS-DUO

## GENERAL INFORMATION

Appliance type	<ul style="list-style-type: none"> <li>suspended</li> </ul>
Number of sizes in the product series	<ul style="list-style-type: none"> <li>2</li> </ul>
Insulation thickness	<ul style="list-style-type: none"> <li>50 mm</li> </ul>
Output	<ul style="list-style-type: none"> <li>700 - 4500 m<sup>3</sup>/h</li> </ul>
Basic options	<ul style="list-style-type: none"> <li>filter class G4 (ISO Coarse&gt;65%);</li> <li>water heater;</li> <li>axial-radial fans with an EC motor.</li> </ul>
Additional options	<ul style="list-style-type: none"> <li>filters: M5 (ISOe Pm10&gt;50%), M7 (ISOePM1&gt;70%);</li> <li>cooling section - cooler: water/freon- based;</li> <li>heating section - electric/water heater;</li> <li>damping section;</li> <li>automation</li> </ul>
Execution	<ul style="list-style-type: none"> <li>internal</li> </ul>
Other features	<ul style="list-style-type: none"> <li>high efficiency of heat recovery: up to 82%;</li> <li>special self-supporting structure without aluminium sections (no thermal bridges);</li> <li>option to set on feet.</li> </ul>



**HEAT RECOVERY EFFICIENCY**  
**82%**  
 up to

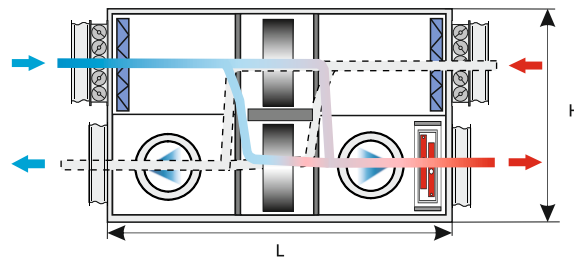


SYSTEM OF SLIDING COVERS

# 03 SPS-DUO

## TECHNICAL PARAMETERS

Unit size	Weight [kg]	Dimensions [mm]			Air output [m <sup>3</sup> /h]		El. energy consumption [kW]	
		width (B)	height (H)	length (L)	min	max	[kW]	
							motor power	el. heat.power
1	320	1 260	635	1 880	700	2 400	0,5; 0,78; 1,35	3 - 12
2	450	1 560	785	1 880	2 400	4 500	0,78; 1,35; 2,5	6 - 15



## PRINCIPLE OF OPERATION

SPS-DUO is a ventilation unit with a heat recovery efficiency of up to 82%, achieved by a system of two high efficiency rotary exchangers (the rotors in use are driven through a common V-belt, by a low-speed motor without mechanical transmission, which reduces the consumption of electricity).

In the appliance with a length of 1880 mm, the rotary exchanger assembly covers less than 300 mm. For comparison: the length of a cross-flow exchanger adequate for this size is far greater (up to 1050 mm), while it does not ensure thermal recovery at the same high level. The application of heat exchangers, in addition to economic savings, ensures a significant reduction of the footprint of the appliance. Proper air flow outputs are ensured by axial-radial fans with direct drive.

The design of the enclosure enables expanding the appliance by adding subsequent blocks, such as the water/freon cooler and/or the damping section.

By default, SPS-DUO is suitable for suspension, however it is also possible to set the unit on feet and operate the appliance from above. By default, units are equipped with multi-plane dampers and flexible joints that facilitate installation on site. The positioning of flexible joints as close as possible to the edge of the appliance facilitates the routing of ducts.

The application of a novel system of sliding covers significantly facilitates the operation of the suspended unit and additionally increases user safety.

## APPLIANCE OPERATING RANGE

