



VBW Engineering sp. z o.o.

SPS ECOBOX

Compact device
with counterflow or cross flow heat exchanger



SPS ECOBOX



Size

5

The SPS ECOBOX air handling unit is a compact device equipped with a counterflow (size 1-4) or cross-flow (size 5) heat exchanger.

The product line includes 5 sizes with capacities from 100 to 2500 m³/h. The device is designed for indoor installation. Depending on the size, it can be made in a suspended, standing or lying on legs system. The compact dimensions of the device allow installation in small spaces.

The unit is delivered to the customer as a standard ready-to-use unit. With an innovative self-supporting design, we put all the necessary components in a small, compact case. There is a built-in power and control switchgear, full internal wiring (operating in Plug & Play system) and intuitive automation.



Air flow [m³/h]

100 – 2 500



Compact device



Countercurrent/cross heat exchanger



Internal execution



Self-supporting construction



Suspending/standing/lying device

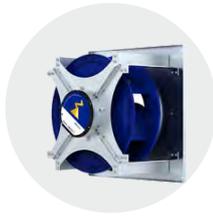


Plug&Play system

Device components



Counterflow or crossflow heat exchanger



Energy-saving fans with EC motors (IE4)



Panel filters



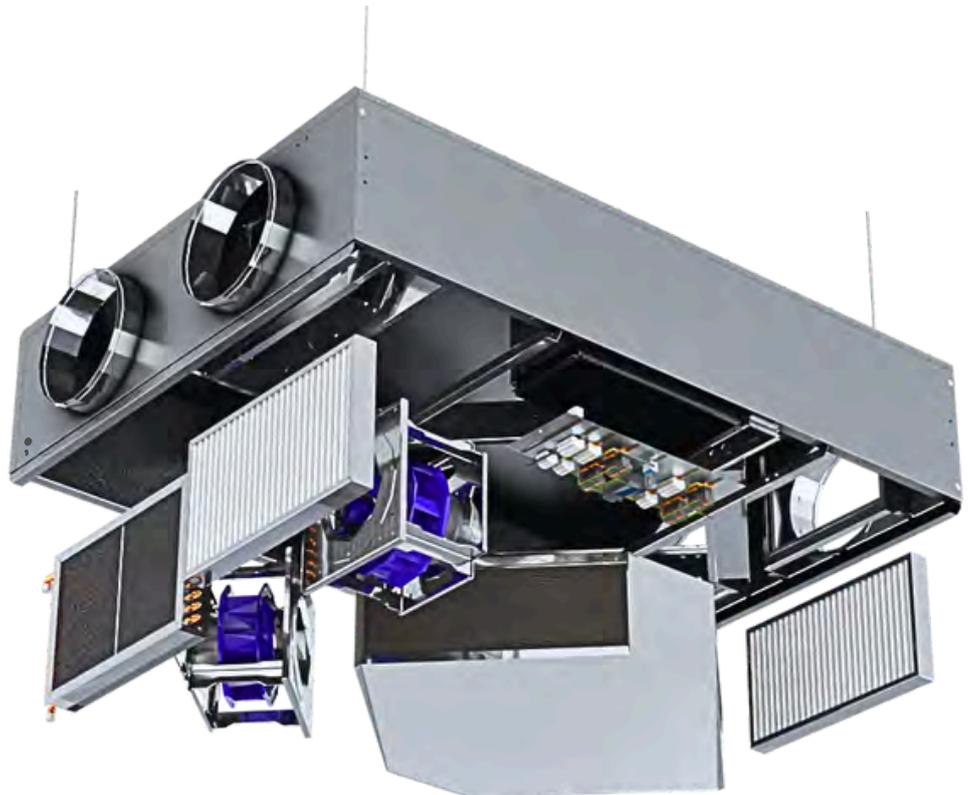
PTC electric or water heater



Metal connecting pipes

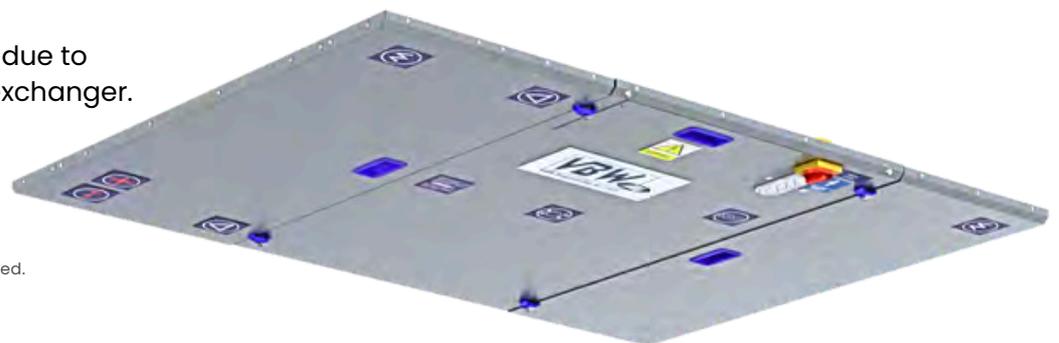


Fully internally wired, Plug & Play



83%

Heat recovery efficiency due to the counter-flow* heat exchanger.



*in size 5, a cross heat exchanger is used.

Basic information



Case

- The air handling unit is made in self-supporting technology without aluminum profiles
- The external covers of the air handling unit are made of coated sheet Magnelis ZM310, the internal ones are made of galvanized sheet
- Internal execution in a suspended, standing or lying system on legs
- 30mm thick device insulation
- Panel type housing consisting of removable covers
- The lower and upper covers are mounted on convenient hinges.



Heater

- Water heater
- Connections flush with the inner surface of the unit cover ensuring compactness and safety during transport
- Small dimensions in relation to heating power
- PTC electric heater (option)



Filters

- ISO Coarse >65% (G4)
- ISO ePM10 50% (M5)
- ISO ePM1 70% (F7)



Heat recovery

- Counterflow (size 1-4) or crossflow (size 5) heat exchanger
- Heat recovery efficiency up to 83% (sizes 1-4)



Automation

- Power and control switchboard integrated with the device
- Cooperation of the device with external elements
- Plug&Play automation with internal wiring



Fans

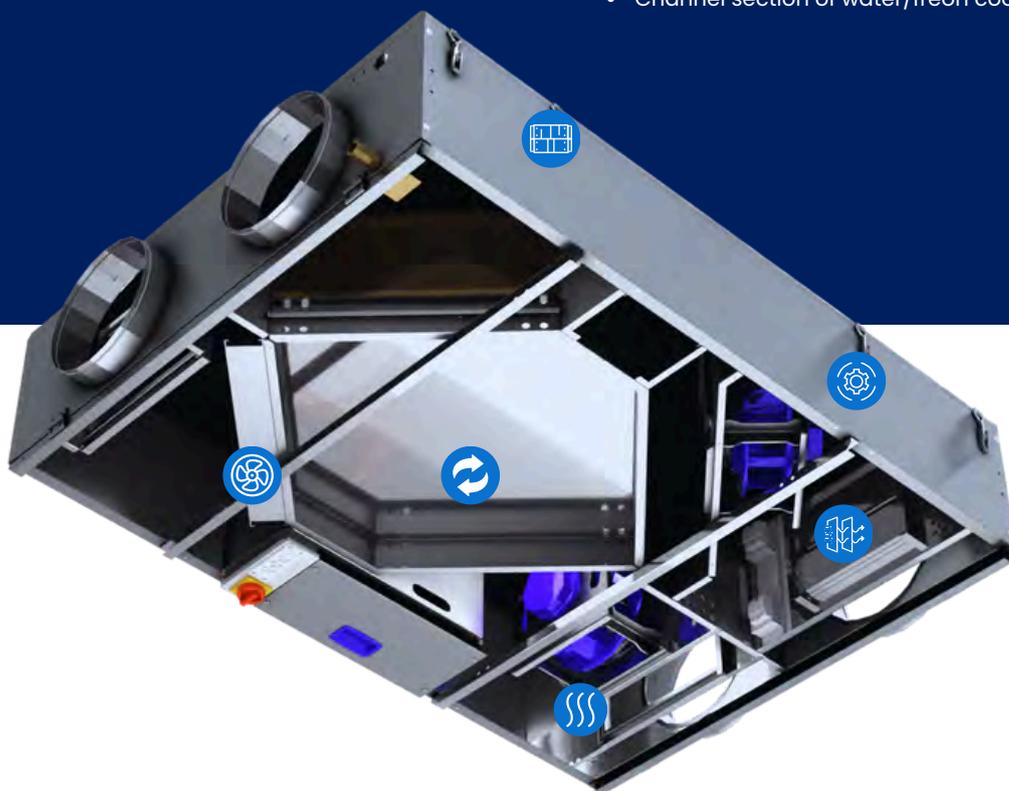
- Highly efficient EC motors
- Engine operation in the optimal speed range
- Reduced heat generation



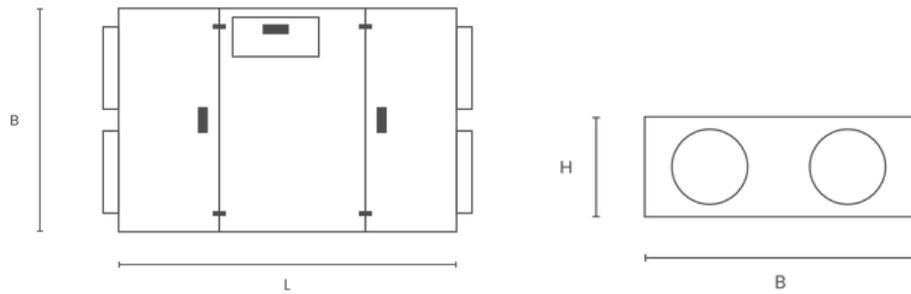
Additional sections

(the device can be expanded with additional cooperating sections)

- Channel section of water/freon cooler



Technical data



Size	H-1		H-2		H-3		H-4		5 (Co-current)		5 (Countercurrent)	
	Air flow	min.	[m³/h]	100	300	500	800	1200	1200	2000(*2500)	2000(*2500)	
	max.		300	500	800	1200	2000(*2500)	2000(*2500)				
External static pressure		[Pa]	300/300	300/300	300/300	350/350	350/350	350/350	350/350			
Max. heat recovery efficiency		[%]	81,4	82,8	83	81,6	81,6	81,6	75			
Weight		[kg]	64	76	98	135	162	173				
Dimensions	L	[mm]	1 050	1 100	1 350	1 700	1 600	1 700				
	B	[mm]	700(300)	800(300)	1000(375)	1250(395)	1 400	1 400				
	H	[mm]	300(700)	300(800)	375(1000)	395(1250)	495	495				
Insulation thickness		[mm]	30									
Connections size		[mm]	fi160	girl200	fi250	fi315	500x400	500x400				
Energy consumption	engine power	[kW]	0,17	0,17	0,17	0,5	0,5/0,78	0,5/0,78				
	max. power of electric heater	[kW]	3	3	3	6	12	12				
	max. power of water heater	[kW]	0,8	1,3	1,7	3,3	3,3	3,3				
Motor power (max.)		[A]	1,7	1,7	1,7	2,5	2,5/4	2,5/4				
Voltage		[V,Hz]	3~400, 50									

Filters

ISO Coarse>65% (G4) ISO ePM10>50% (M5) ISO ePM1>70% (F7)

