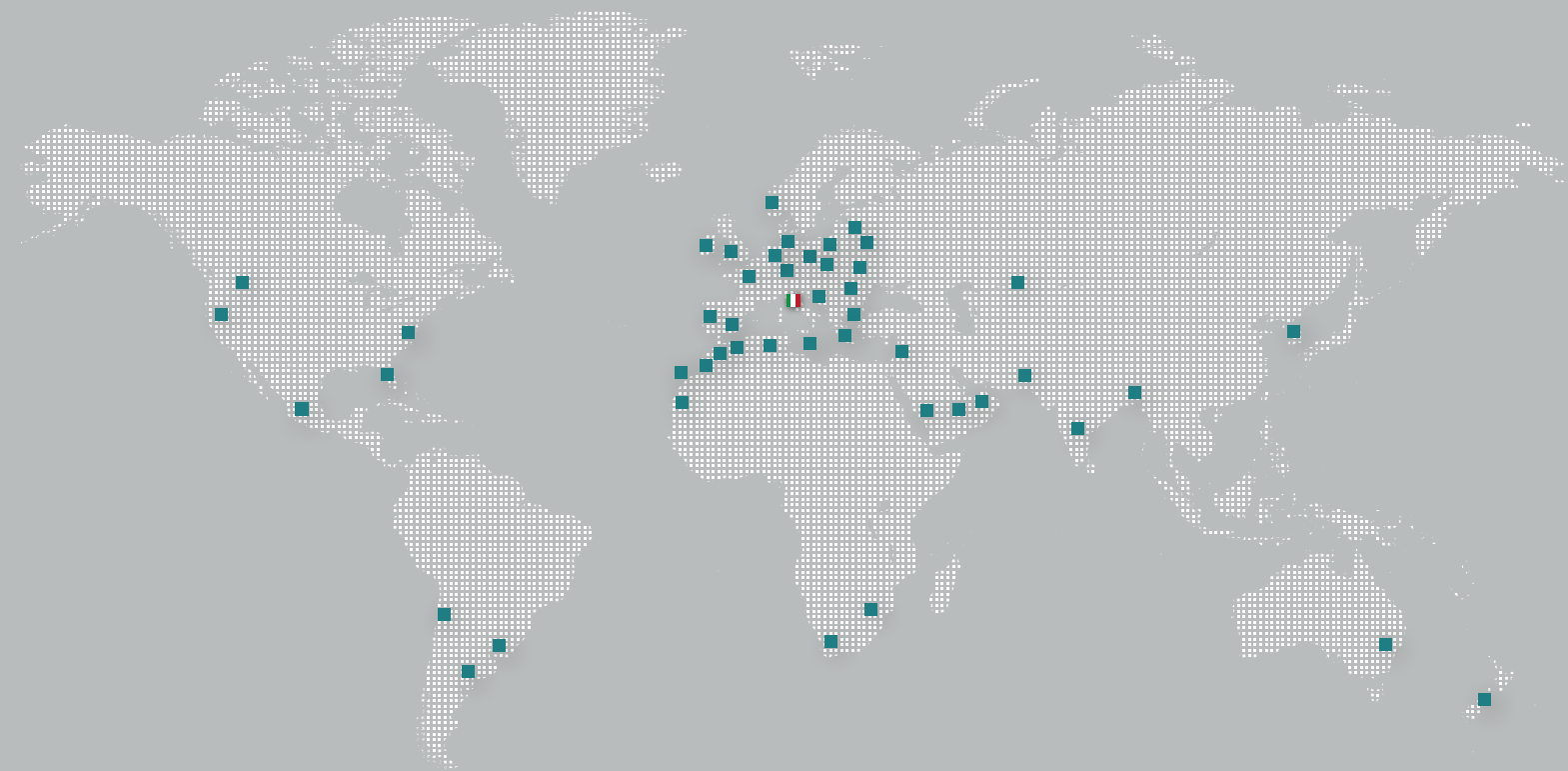


COMPACT DEHUMIDIFIERS  
WITH HEAT RECOVERY  
**SRO SRV**



# HiDew

Dehumidifiers 



**DISTRIBUTION:**

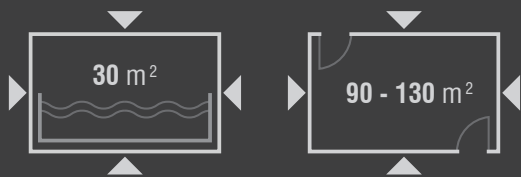
**EXPORT TO MORE THAN 50 COUNTRIES**



## SWIMMING POOLS AND SPA

Air distribution, evaporation rates, pool water chemicals, and operating costs must be considered and balanced for effective system design in any size swimming pool.

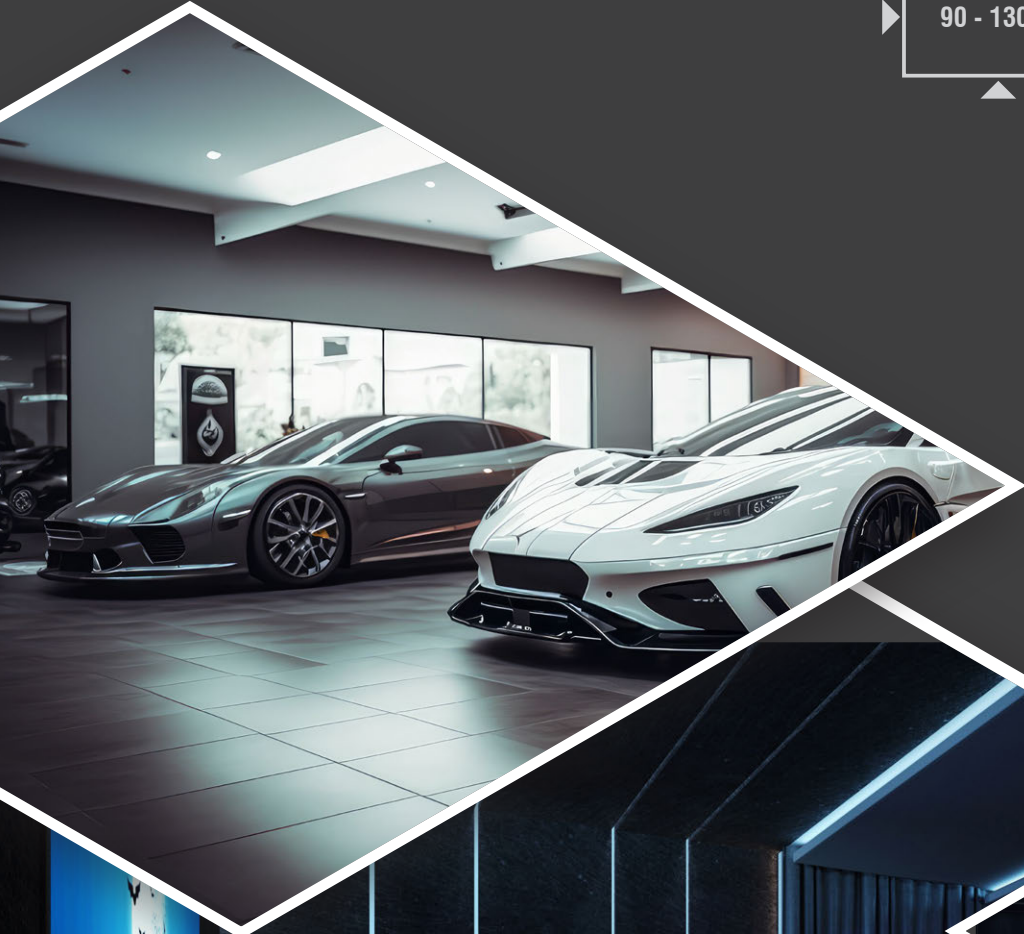
Dehumidifiers with integrated heat recovery and developed according to the heat pump principle allow control of temperature, humidity, and IAQ with low consumption.



# ARCHIVES AND WAREHOUSES

Products stored in archives and warehouses are often affected by the thermo-hygrometric conditions of the environment, which is the reason why temperature and humidity control is a must.

In addition, the additional heat recovery unit makes it possible to reduce energy consumption while providing better IAQ (internal air quality).





## RESTAURANTS, CELLARS AND GARAGES

In enclosed spaces such as restaurants, basements, garages, billiard halls, private cinemas etc., air quality is often more compromised than outside air quality, and the increased time spent inside these environments, results in greater risks to the occupants.

Controlling IAQ and thermo-hygrometric conditions, improves the user experience while keeping consumption under control thanks to the heat recovery and refrigeration circuit based on the heat pump principle.



# FLOWS, MODES AND OPERATING LIMITS

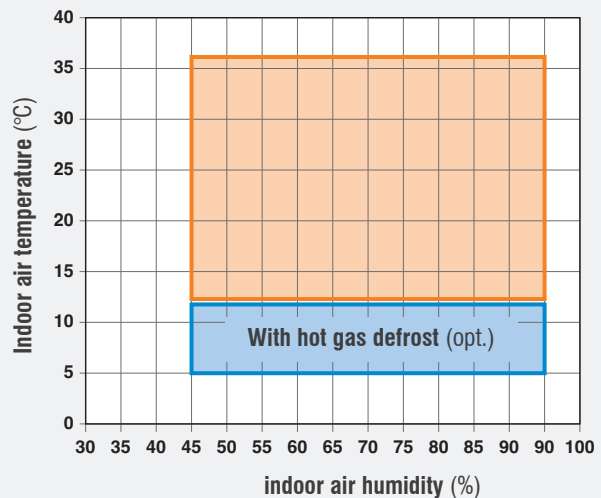
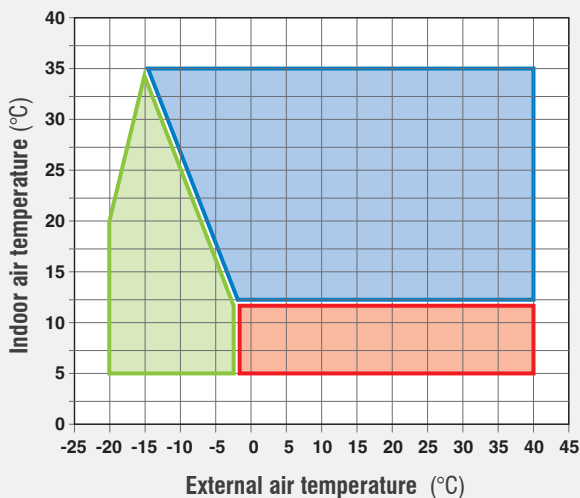
The unit allows control of humidity and temperature using an on-board probe.

## Modes of operation:

- **Ventilation:** treatments are off, fans operate at reduced speed to limit consumption while reading TH probe values.
- **Dehumidification:** the compressor is on and the air is dehumidified according to the heat pump principle.
- **Dehumidification + Cooling / heating:** the compressor is on at the same time as the water coil or electric heater; the air is dehumidified and heated/cooled as needed.
- **Cooling / heating:** the water coil/electric resistance is on. Only the air temperature is managed, either in hot or cold mode.
- **Recirculation:** the outdoor damper is opened, ensuring the exchange of room air. this mode can be activated either individually or together with the modes described above.



## OPERATING LIMITS

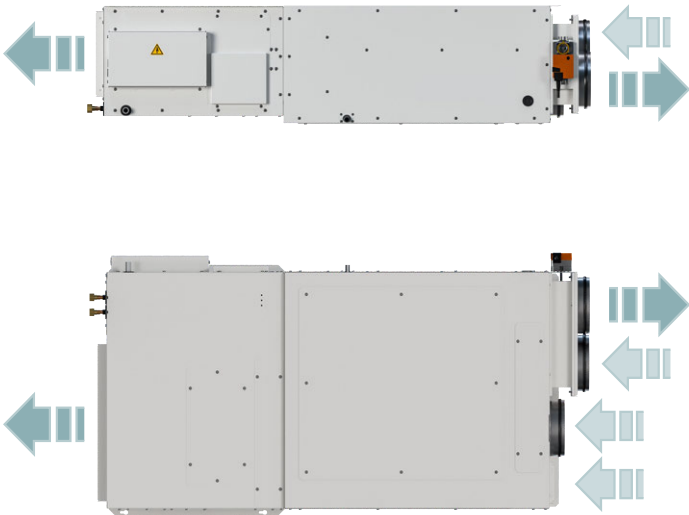


- Extension of winter operating limits due to automatic defrosting of the recuperator
- Normal operation
- With HOT GAS DEFROSTING option

**VERSIONS**

**SRO**

**HORIZONTAL CEILING  
INSTALLATION**

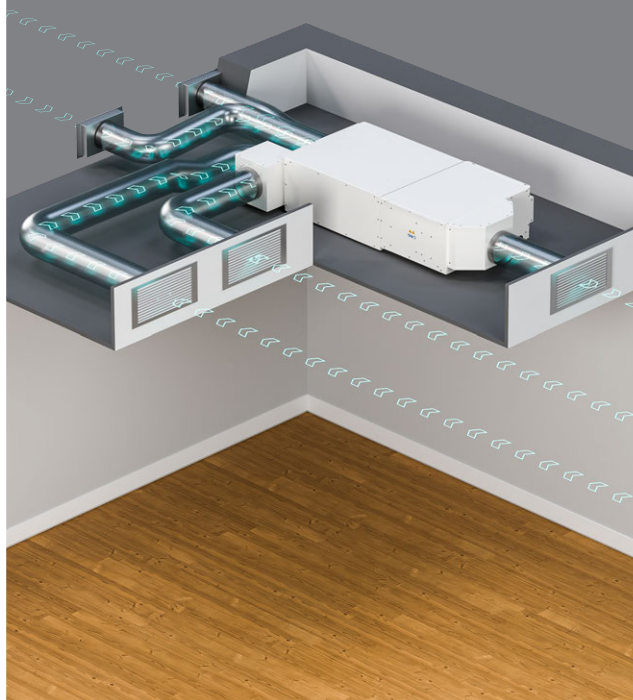


**SRV**

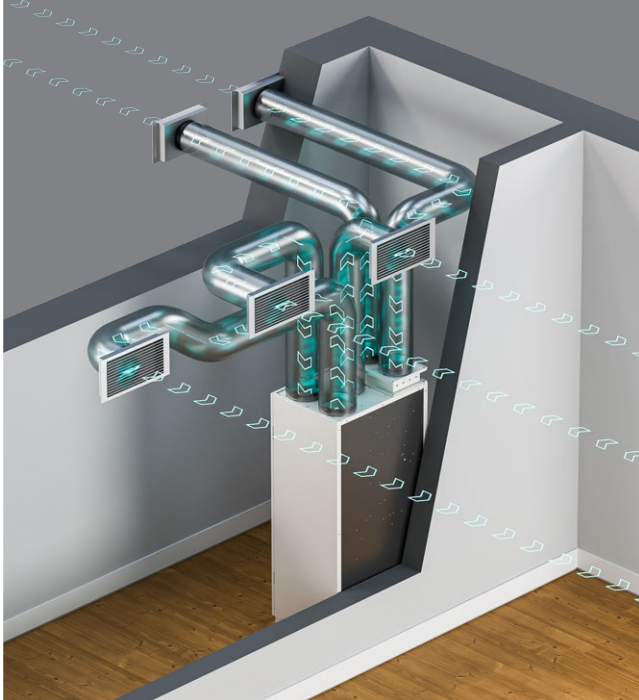
**VERTICAL FLOOR  
INSTALLATION**



**SRO DUCTED VERSION WITH SUPPLY  
PLENUM AND RECIRCULATION (Opt.)**



**SRV DUCTED VERSION  
FOR TECHNICAL ROOMS**

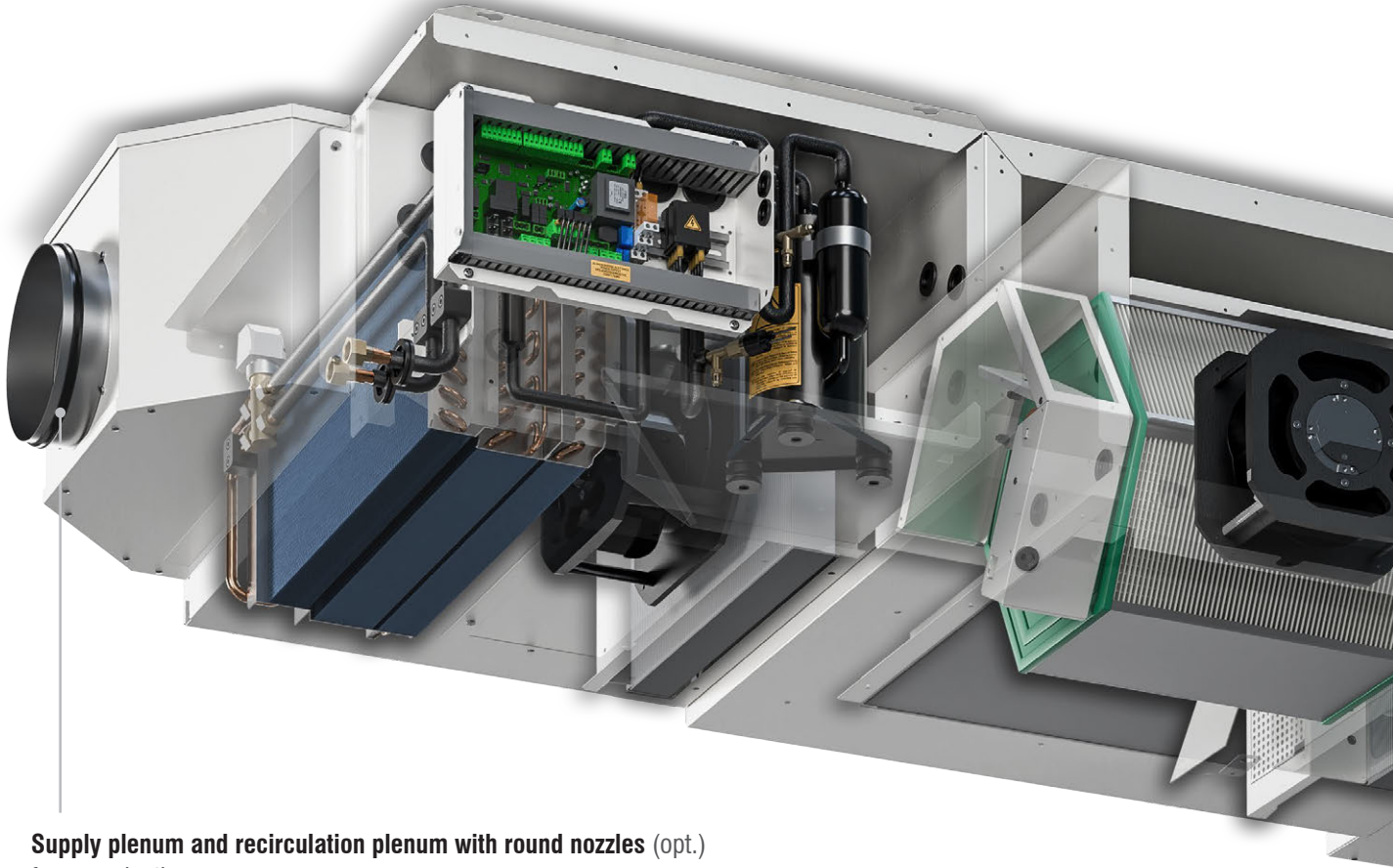




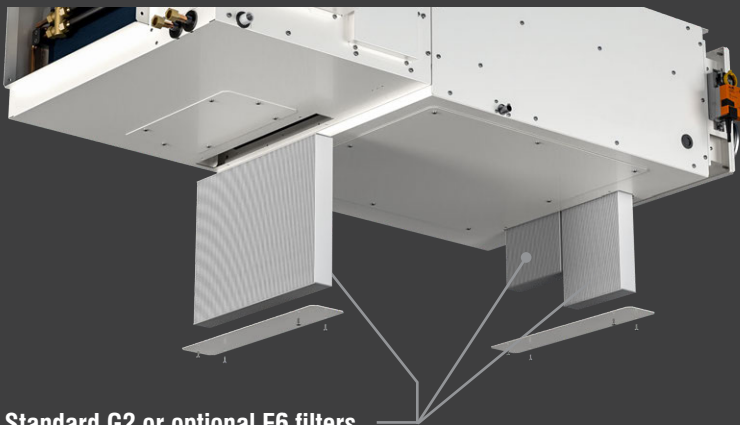
# UNIT AND COMPONENT DESCRIPTION

## SRO

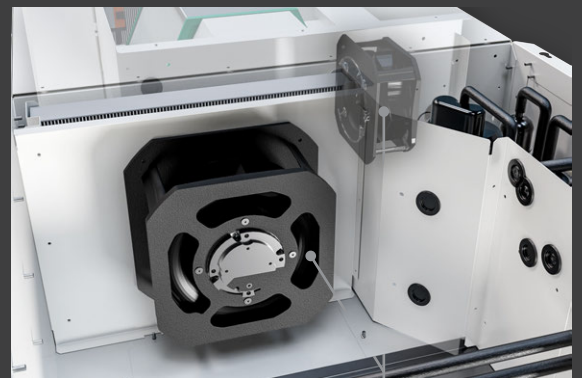
### STAND-ALONE HORIZONTAL DEHUMIDIFIER WITH HEAT RECOVERY UNIT



**Supply plenum and recirculation plenum with round nozzles (opt.)**  
for easy ducting.



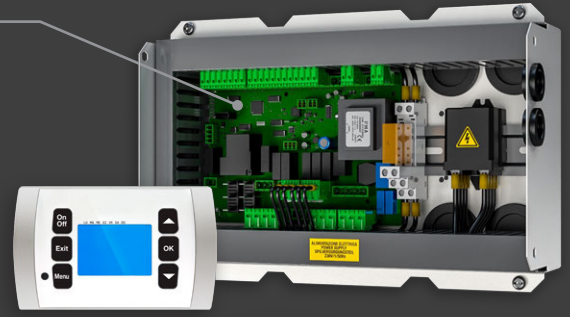
**Standard G2 or optional F6 filters,**  
placed in both the supply and intake flow of outside air.  
Standard filter capacity is ISO Coarse 70% (G2),  
alternatively an ISO ePM10 60% filter can be installed.



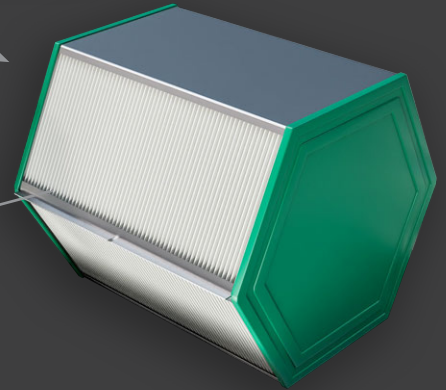
**Backward-bladed EC fans**  
directly coupled with brushless motors regulated  
by a 0/10 volt signal. They ensure lower power  
consumption and lower emitted sound power.



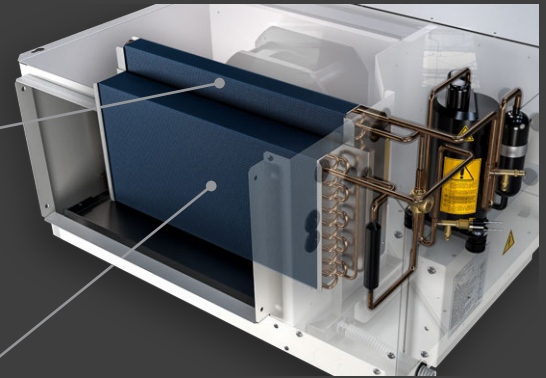
**Advanced electronic control** with clock/time zone card and RS 485 Modbus protocol. Temperature/humidity probes on board. Remote display is provided (2m) (5-10-20 m opt.).



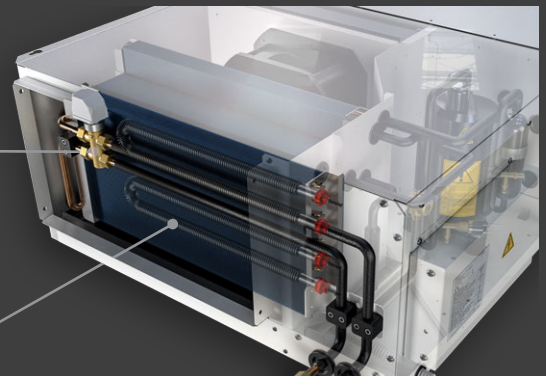
**Free-cooling** thanks to the electronically controlled damper, it is possible to bypass the recuperator by taking advantage of favorable outdoor climatic conditions.



**High-efficiency heat recovery unit** suitable even for corrosive environments. Allows outside air to be introduced without compromising consumption. Automatic defrosting makes the unit installable even in particularly cold climates.



**Painted condensate coil and evaporator coil** with copper tubes and aluminum fins with stainless steel condensate collection tray. Epoxy treatment for particularly corrosive environments (opt.).



**Hot gas defrost (opt.)** of the evaporator coil.

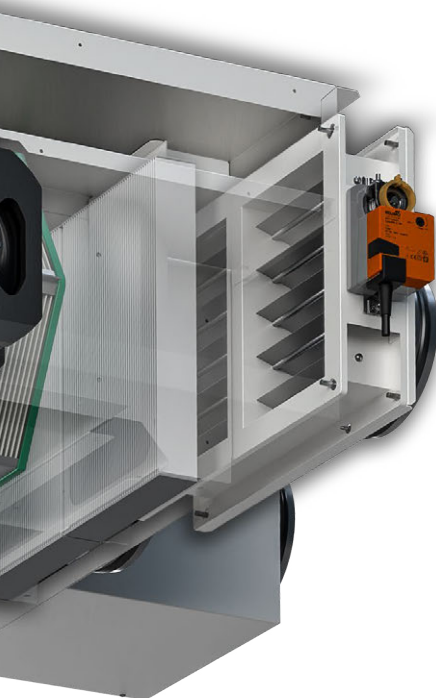
**Water coil (opt.) with 3-way valve,** can operate with either cold or hot water as needed.



**Electric post-heating heater (opt.)** ON/OFF operation.

**Motorized dampers** for outdoor air control (standard).

**additional Temperature and Humidity probe on the outside air side,** allows comparison of indoor and outdoor air conditions and autonomous decision on the best mode to dehumidify by turning off the compressor if not necessary.



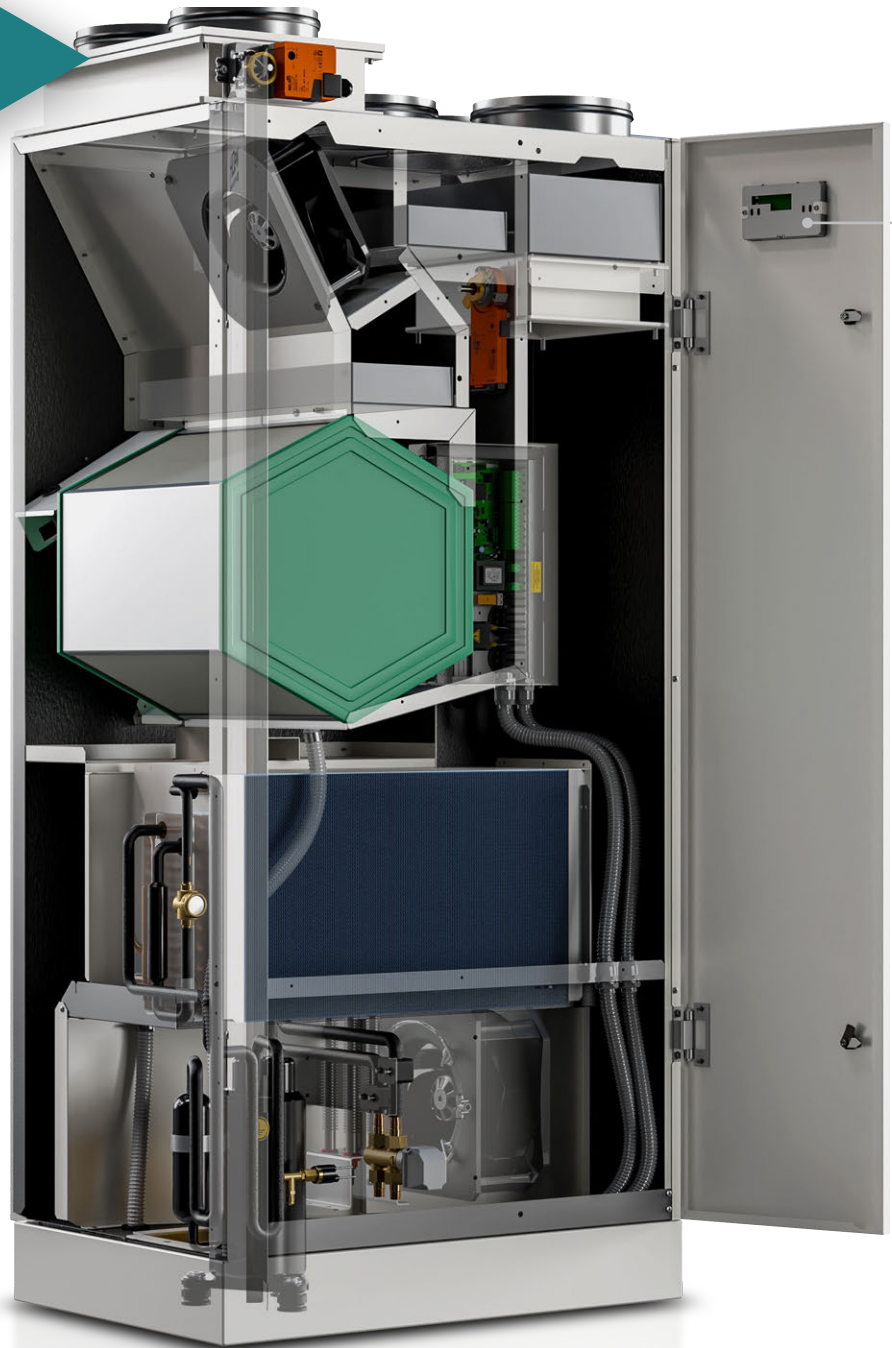
**Rotary type compressors,** thermally protected. Noise can be reduced by compressor compartment aphonization (opt.).



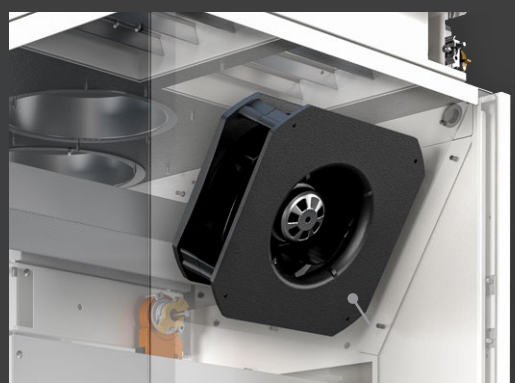
# UNIT AND COMPONENT DESCRIPTION

## SRV

### STAND-ALONE VERTICAL DEHUMIDIFIER WITH HEAT RECOVERY UNIT



**Standard G2 or optional F6 filters,** placed in both the supply and intake flow of outside air. Standard filter capacity is ISO Coarse 70% (G2), alternatively an ISO ePM10 60% filter can be installed.



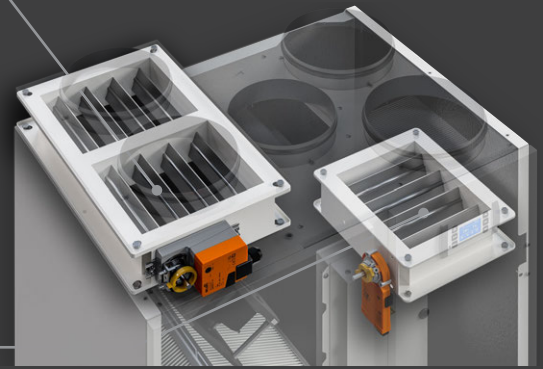
**Backward-bladed EC fans** directly coupled with brushless motors regulated by a 0/10 volt signal. They ensure lower power consumption and lower emitted sound power.



**Advanced electronic control** with clock / time zone card and RS 485 Modbus protocol. Temperature/humidity probes on board. Remote display is provided (2m) (5-10-20 m opt.).

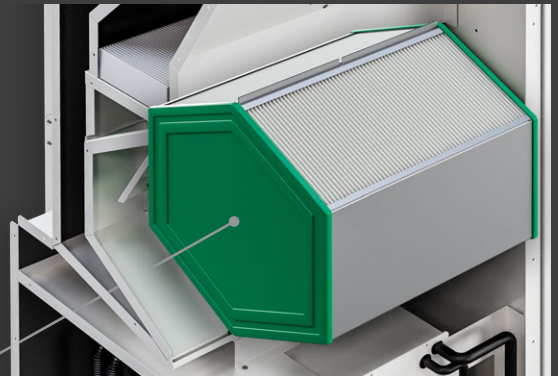


**additional Temperature and Humidity probe on the outside air side,** allows comparison of indoor and outdoor air conditions and autonomous decision on the best mode to dehumidify by turning off the compressor if not necessary.

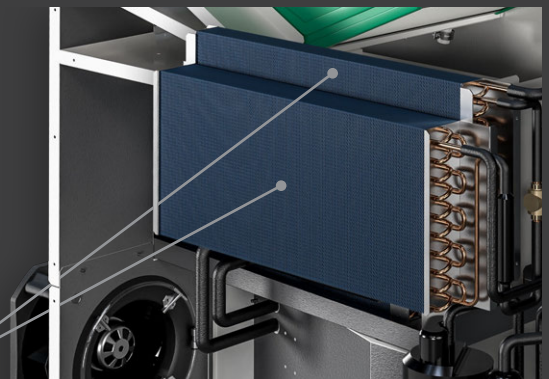


**Motorized dampers** for outdoor air control (standard).

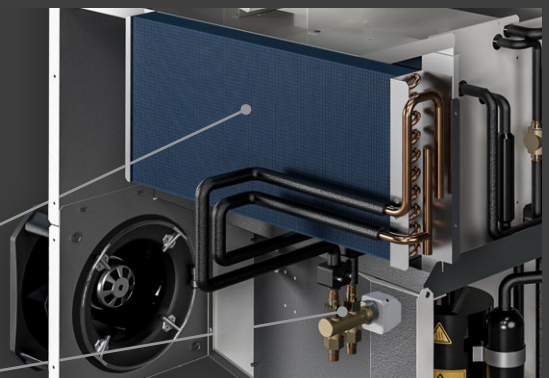
**Free-cooling** thanks to the electronically controlled damper, it is possible to bypass the recuperator by taking advantage of favorable outdoor climatic conditions.



**High-efficiency heat recovery unit** suitable even for corrosive environments. Allows outside air to be introduced without compromising consumption. Automatic defrosting makes the unit installable even in particularly cold climates.

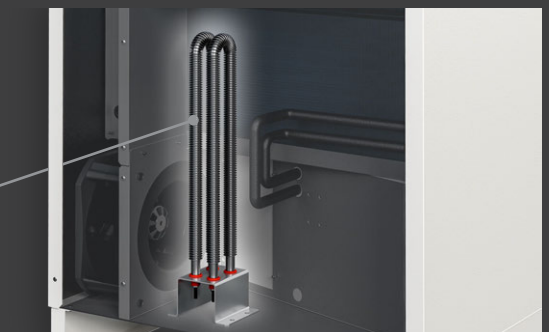


**Painted condensate coil and evaporator coil** with copper tubes and aluminum fins with stainless steel condensate collection tray. Epoxy treatment for particularly corrosive environments (opt.).



**Hot gas defrost (opt.)** of the evaporator coil.

**Water coil (opt.) with 3-way valve,** can operate with either cold or hot water as needed.

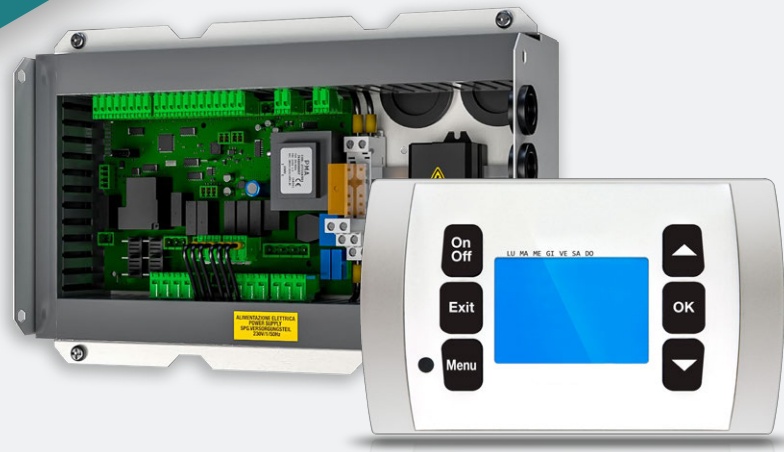


**Rotary type compressors,** thermally protected. Noise can be reduced by compressor compartment aphonization (opt.).

**Electric post-heating heater (opt.)** ON/OFF operation.



## ADVANCED ELECTRONIC CONTROL

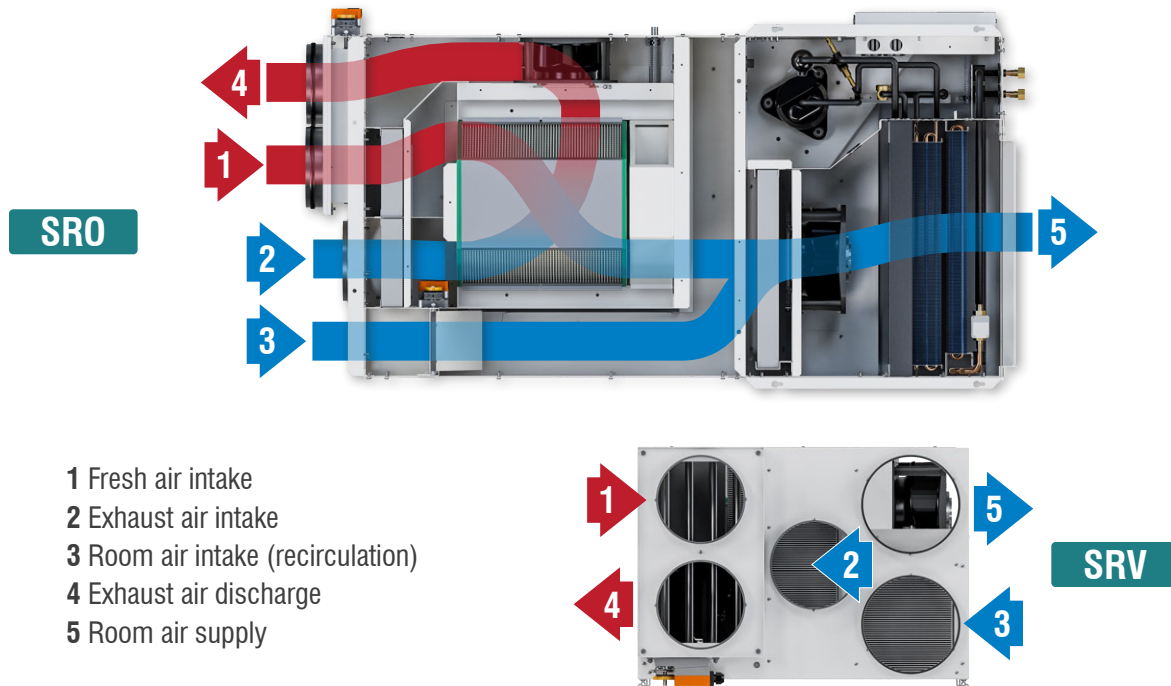


The units are managed by an advanced electronic control with a clock card and time bands. Software for managing and optimizing the refrigeration cycle, electronic and electromechanical components is implemented and developed in-house, with the following main functions:

- I- Set unit control: manual or time bands.
- Time slot programming on 7 daily programs, 24 time slots per day: unit ON/OFF, desired temperature, desired relative humidity.
- Alarm management.
- Temperature and humidity management.
- RS485 modbus serial card.



## PRINCIPLE SCHEME

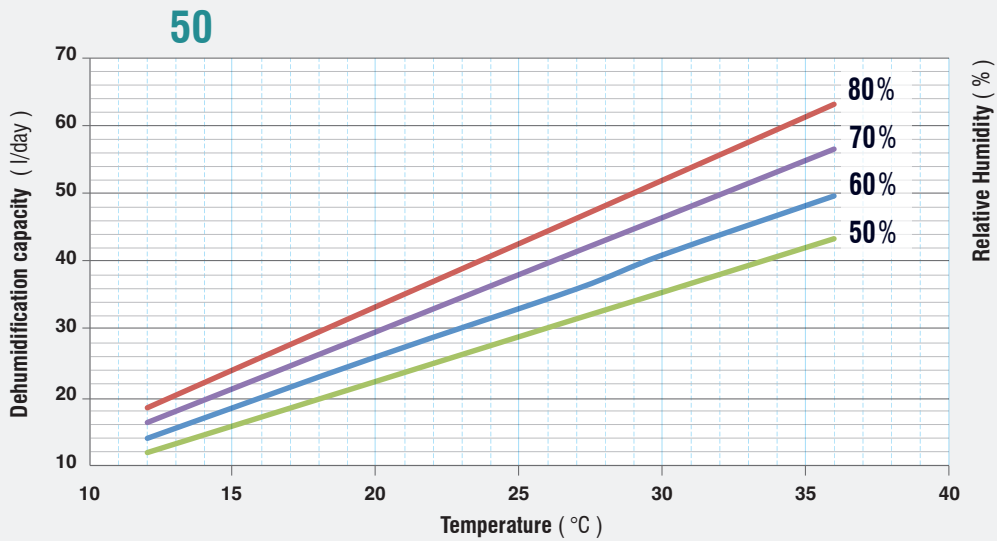


## OPTIONS

Model size: ▶	SRO 050	SRV 050
MOTORIZED OUTDOOR AIR DAMPERS	●	●
REMOTE DISPLAY WITH 2 m CABLE	●	●
DISPLAY MOUNTED ON BOARD	-	○
FREE COOLING / HEATING	○	○
HIGH EFFICIENCY FILTER SET	○	○
SHIELDED DISPLAY CONNECTION CABLE L. 5-10-20 m	○	○
ON-BOARD TEMPERATURE AND HUMIDITY PROBE	●	●
AUTOMATIC RECUPERATOR DEFROSTING	●	●
SOUNDPROOF VERSION	○	○
HOT/COLD WATER COIL WITH 3-WAY VALVE	○	○
ELECTRIC HEATERS (as an alternative to hot water coil)	○	○
HOT GAS DEFROSTING	○	○
FINNED COILS WITH EPOXY TREATMENT	○	○
MODBUS RS485	●	●
PAINTED SUPPLY PLENUM 1 X Ø200	○	-
PAINTED RECIRCULATION PLENUM 2 X Ø200	○	-
FILTER REPLACEMENT KIT, STANDARD	○	○
FILTER REPLACEMENT KIT, HIGH EFFICIENCY	○	○
ADDITIONAL TEMPERATURE AND HUMIDITY PROBE OUTDOOR AIR	○	○

● standard    ○ optional    - not available

**PERFORMANCE CURVES**

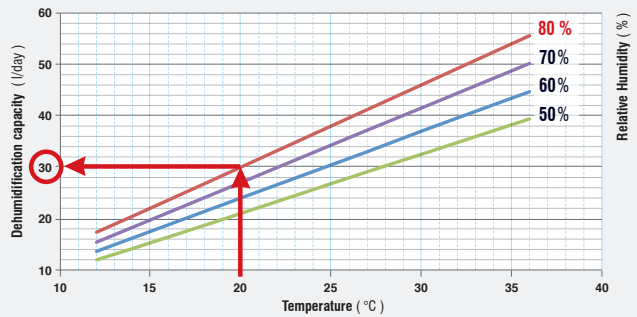


**GRAPH READING EXAMPLE**

**Performance graph reading example**

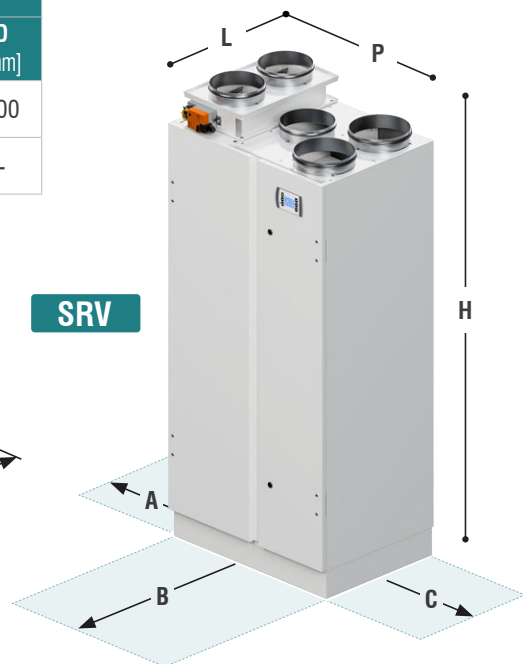
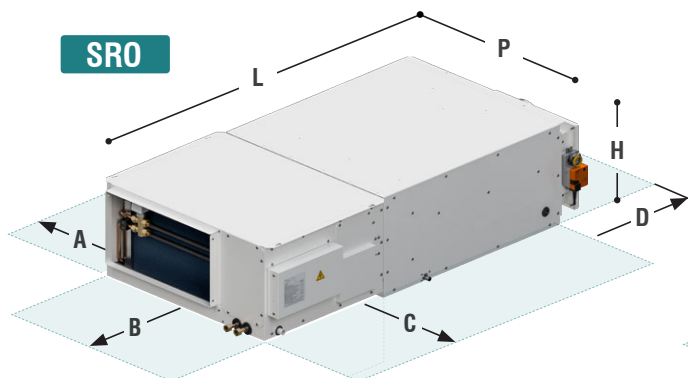
Air temperature 20 °C  
Air relative humidity 80 %

The graph allows to determine dehumidification capacity, in this case equal to 30 l/day



**DIMENSIONS AND CLEARANCE SPACES**

	DIMENSIONS			CLEARANCE SPACES			
	L [mm]	P [mm]	H [mm]	A [mm]	B [mm]	C [mm]	D [mm]
<b>SRO 050</b>	1545	810	375	200	400	400	200
<b>SRV 050</b>	700	515	1510	50	500	50	-





**TECHNICAL FEATURES**

		Model size: ►	SRO 050	SRV 050
DEHUMIDIFICATION CAPACITY (1)	L/24h		52	52
CIRCUITS/COMPRESSORS	n° / n°		1 / 1	1 / 1
COMPRESSOR TYPE	Type		Rotative	Rotative
REFRIGERANT TYPE	Gas		R410A	R410A
REFRIGERANT CHARGE	Kg		0,6	0,5
SUPPLY AIR FLOW RATE	m³/h		520	520
SUPPLY AIR AVAILABLE STATIC PRESSURE	Pa		200	200
FRESH AIR FLOW RATE	m³/h		0-260	0-260
EXHAUST FAN AVAILABLE STATIC PRESSURE	Pa		100	100
RECUPERATOR EFFICIENCY				
WINTER (2)	%		87,3%	87,3%
SUMMER (3)	%		87%	87%
RECOVERED HEAT CAPACITY				
WINTER (2)	kW		1,92	1,92
SUMMER (3)	kW		0,61	0,61
WATER COIL CAPACITY (4)	kW		4,5	4,5
HOT WATER COIL NOMINAL FLOW RATE	m³/h		0.4	0.4
HOT WATER COIL PRESSURE DROP	kPa		20	20
SENSIBLE COOLING CAPACITY OF WATER COIL (5)	kW		2,15	2,15
COLD WATER COIL NOMINAL FLOW RATE	m³/h		0.4	0.4
COLD WATER COIL PRESSURE LOSSES	kPa		23	23
ELECTRICAL RESISTANCE POWER (ALTERNATIVELY TO WATER COIL)	kW		3	3
COMPRESSOR RATED ELECTRICAL POWER (6)	kW		0,7	0,7
TOTAL RATED ELECTRICAL POWER (6)	kW		0,8	0,8
ELECTRICAL POWER SUPPLY	V/Ph/Hz		230/1+N/50	230/1+N/50
SOUND PRESSURE (7)	dB(A)		44	44
WEIGHT	Kg		83	93

(1) Dehumidification capacity is stated at the nominal point +30 °C / 80% RH.

(2) Winter efficiency and heating capacity is declared at room air +20 °C, 50% RH and outdoor air -5 °C / 80% RH.

(3) Summer efficiency and heat output is declared with room air +26 °C, 65% RH and outdoor air +35°C, 50% RH

(4) Water +70° C / 80 °C, room temperature: +30 °C.

(5) Water +7 °C, room temperature: +26 °C / 65% RH.

(6) the power input is declared at the nominal point +30 °C / 80% RH.

(7) Sound pressure is measured at 1 meter in free field.



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HD-SROSRVEN-2023

MADE IN ITALY



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