

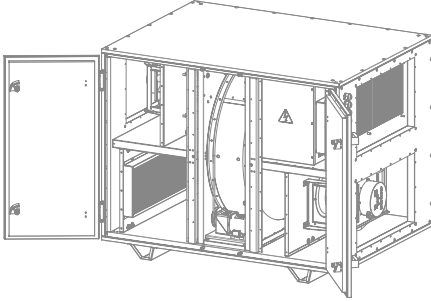
AIRVENTS



Premium line of commercial
heat recovery air handling units

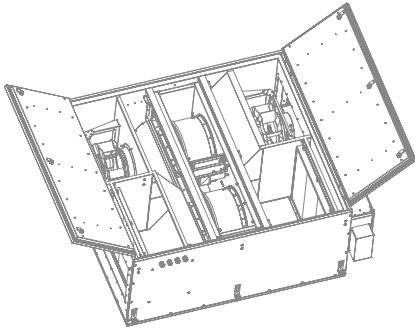
To provide buildings with the best possible balance of energy efficiency, air quality and comfort, VENTS offers standard air handling units with simplified on-site installation and proven, tested performance. Our air handling solutions deal with such issues as temperature, humidity, pressure control, energy recovery and air filtration.

ERV/HRV WITH ROTARY HEAT EXCHANGER



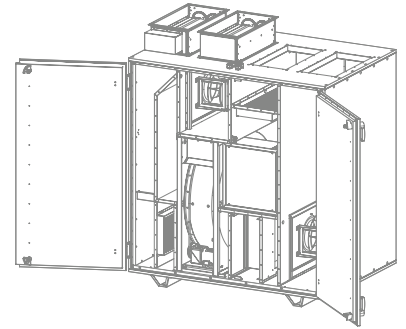
RH

Double-deck units 800-9000 m³/h



RV

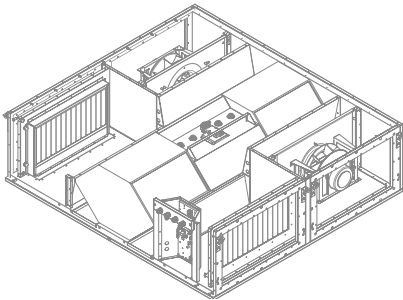
Low-footprint units with vertical outlets 800-6000 m³/h



RP

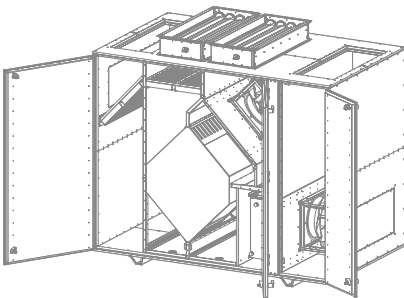
Ceiling-mounted units 800-2500 m³/h

HRV WITH COUNTER-FLOW PLATE HEAT EXCHANGER



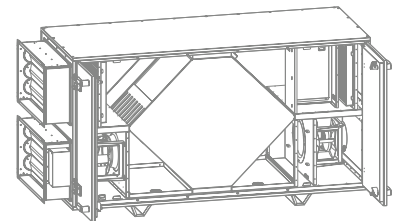
CFP

Ceiling-mounted units 500-6000 m³/h



CFH

Double-deck units 800-9000 m³/h



CFV

Low-footprint units with vertical outlets 800-6000 m³/h

MAIN FEATURES



- Counter-flow plastic plate heat exchanger or rotary heat exchanger class H1 (DIN EN 13053)
- High-efficiency EC fans, backward-curved, external rotor
- Integrated automatic dampers
- Integrated plug-and-play controls
- Automatic bypass
- Insulated double-skin frameless casing and with frame casing
- ECO-Design'18 compliant
- Web-interface, MODBUS, outputs for optional DX or Hydronic cooling/heating
- Complete set of accessories: silencers, VAV, CAV, etc.
- Operation by RH/CO₂/temperature/constant pressure/timer schedule
- Outdoor installation with outdoor mounting kit (optional)

CONTROLS

CAREL



- Supplied units come with "Plug-&Play" control system based on Carel programmable controller. Depending on the unit configuration, the system is fitted with 3 temperature sensors: outside, supply, and exhaust air temperature; return water temperature sensor and frost protection relay for water heater configuration; overheating protection relay for electric heater configuration. Standard controller outputs allow to connect various additional sensors. The list of the optional sensors may be found in the accessories section.
- Plug-and-play control system is fitted with Carel th-Tune control panel which ensures basic setting options and has user friendly interface. Carel PGDe extended control panel may be fitted on request and provides more flexibility and sophisticated control adjustments. The compact dimensions and elegant design make both suitable for all types of premises.

Default control system functions and optional features are listed below (th-Tune):



- Operation in comfort, precomfort or economy mode
- Temperature control
- Weekly schedule setting: holiday and special day functions, selection of up to four daily time bands with settings for each operating mode
- Coils and heat exchanger auto protection
- Air pressure control, air flow and humidity control (with optional sensors)
- Air quality control (with optional CO₂/IAQ sensors)
- Freecooling or freeheating mode (according to model)
- Pumps control, overload alarms and anti-blocking for each pump (according to model)
- MODBUS supervisor protocol and user friendly WEB-interface via Ethernet port
- PGDe panel's extended settings:
- Parameters settings divided by level (user, installer or manufacturer) with password-protected access
- 3 adjustable fan speeds
- Priority to temperature or humidity control by room/supply/extract sensors

ROTARY HEAT EXCHANGER (MODELS RH, RV, RP)

Rotary heat exchanger is made of two types of material:

- Sensible type (standard)
- Enthalpy type. Hygroscopic coating is applied on tape, providing additional latent heat transfer from one stream to another. This feature is especially useful when using a rotor in hot and humid areas in conjunction with air conditioning system.

The advantages are: high efficiency, keeping comfortable humidity and low risk of freezing.



COUNTER-FLOW PLATE HEAT EXCHANGER (MODELS CFH, CFV, CFP)

Heat exchanger is made of profiled plastic plates, packed with elastic heat-resistant sealant.

The sealing provides a reliable separation of the supply and exhaust air, eliminating internal flows, and not allowing moisture, dirt, odors and microorganisms transfer between streams.

Bypass channel on heat exchanger with automatic Belimo actuator provides active frost protection, freeheating and freecooling functions.

Drain pan is installed under the heat exchanger on both supply and exhaust sides.



PLUG FANS WITH ELECTRONICALLY COMMUTATED MOTORS (EC MOTORS)

Plug fans with EC motors are used for projects that require high energy efficiency. The advantages of this type of fan are: extremely low power consumption at any speed, no need for external speed control and compact size due to motor with external rotor.



FRAMELESS /WITH FRAME DESIGN

Frameless casing design excludes thermal bridges, usual for aluminum or steel frame.

This significantly increases thermal resistance and reduces heat loss, especially for outdoor installation. It also prevents condensation on the surface when air cooling is on. Casing is made of zinc-aluminum coated sheet steel heat- and sound-insulated with 40 mm mineral wool layer and with frame 50 mm for some AV07/AV12.

Benefits of frameless casing:

- Better thermal resistance
- Lower weight of the unit
- No thermal bridges
- Suitable for outdoor installation in cold climate
- High mechanical strength

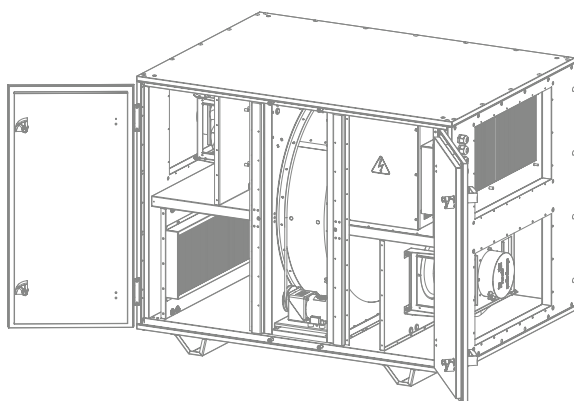


HEAT RECOVERY VENTILATION UNIT RH

The brand new premium line of commercial heat recovery air handling units for floor mounting with high-efficient heat exchanger. Available in 8 standard sizes based on the air flow capacity of 800, 1200, 1500, 2500, 3500, 5000, 6000, 9000 m³/h. Optionally accomplished with electric/water heater or water/freon cooler and ready for operation with all necessary control elements.

Main features:

- High-efficient EC fans, backward-curved, external rotor. Low power consumption at any speed, low noise level and stable operation in any climate conditions.
- Integrated plug-and-play controls on the basis of the Carel controller. Easy connecting via web-interface using the Ethernet-Modbus and BACnet.
- Insulated double-skin frameless casing.
- High-efficient aluminum rotary heat exchanger.
- Casing: Double skin; frameless; 40 mm mineral wool 90 kg/m³ for RH 800-6000 and with frame 50 mm for RH 9000. The units have C4 corrosion resistance class in compliance with ISO 12944. Each model is available in left- and right-handed modifications. The units have service access on both sides and on the bottom.
- Washable F7, G4 (optional) panel filters in exhaust and supply air streams.
- Integrated control panels:
 - A30 th-Tune: standard control panel with handy interface ensures basic setup of parameters.
 - A32 pGDe: control panel with expanded functionality ensures complete setup of parameters.
- Integrated automatic external dampers with Belimo actuators.
- ECO-Design'18 compliant.



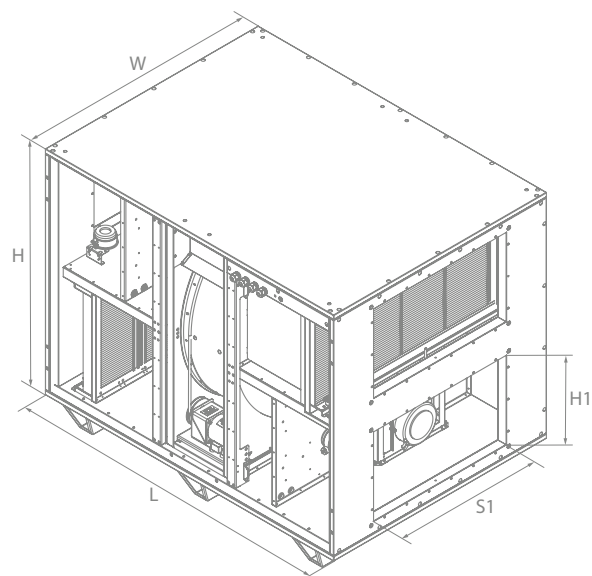
Technical parameters

Rated air flow [m ³ /h]		800	1200	1500	2500
EC fans	Phase/voltage [50–60 Hz/VAC]	1~200-240			1~200/277
	Power/current [kW/A]	2x0.27/2.5	2x0.61/5.3	2x0.61/5.3	2x0.835/7.6
	Fan speed [min ⁻¹]	2800	3000	3000	3000
	Perm. amb. temp. [°C]	-35...+50			
	Motor protection	IP54			
	Insulation class	F			
Transported air temperature [°C]		-25...+40			
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)			
Weight (net, without packing) [kg]		190	190	248	248
Housing protection class		IP34			
Sound pressure lvl @ 3m to environment [dBA]		34	35	37	37





Rated air flow [m³/h]		3500	5000	6000	9000
EC fans	Phase/voltage [50–60 Hz/VAC]	3~380/480			
	Power/current [kW/A]	2x1.23/3.95	2x1.41/3.95	2x2.74/8.8	2x2.74/8.8
	Fan speed [min⁻¹]	2400	1350	1700	1700
	Perm. amb. temp. [°C]	-35...+50			
	Motor protection	IP54			
	Insulation class	F			
Transported air temperature [°C]		-25...+40			
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)			
Weight (net, without packing) [kg]		328	559	559	930
Housing protection class		IP34			
Sound pressure lvl @ 3m to environment [dBA]		35	32	32	32

Overall dimensions

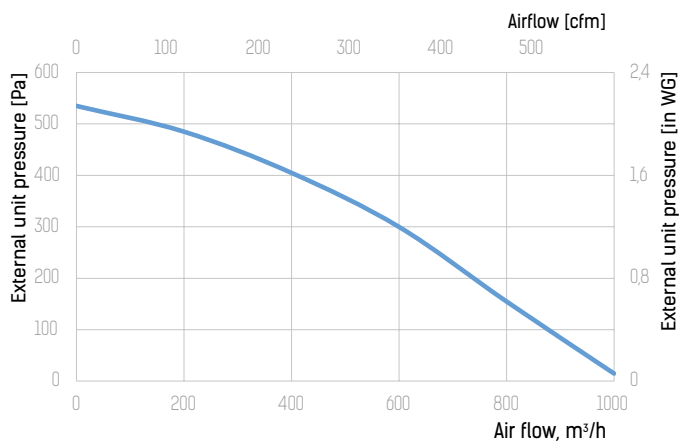
	Dimensions [mm]				
	L	W	H	H1	S1
RH 800	1400	765	820	315	-
RH 1200	1400	765	820	315	-
RH 1500	1300	960	960	350	600
RH 2500	1300	960	960	350	600
RH 3500	1300	1260	1290	400	700
RH 5000	1910	1390	1420	500	1000
RH 6000	1910	1390	1420	500	1000
RH 9000	2090	1738	1815	600	1200



Additional coil sections for RH 800–9000

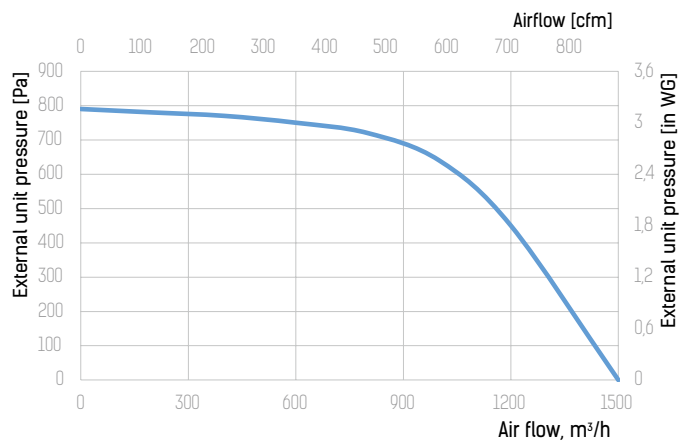
				RH							
				800	1200	1500	2500	3500	5000	6000	9000
Water heater		HW-2	L [mm]	360	360	360	360	360	360	360	360
Water cooler		CW-3	L [mm]	505	505	505	505	505	505	505	505
Electric heater		HE	L [mm]	306	306	220	220	220	360	360	505
DX cooler		CDX-3	L [mm]	505	505	505	505	505	505	505	505

RH 800



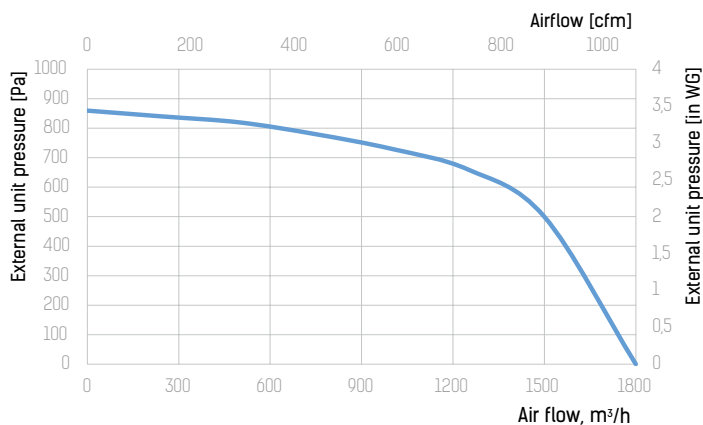
Additional pressure		RH 800
Water heater	Pa	50
Water cooler	Pa	68
Electric heater	Pa	30
DX cooler	Pa	68

RH 1200



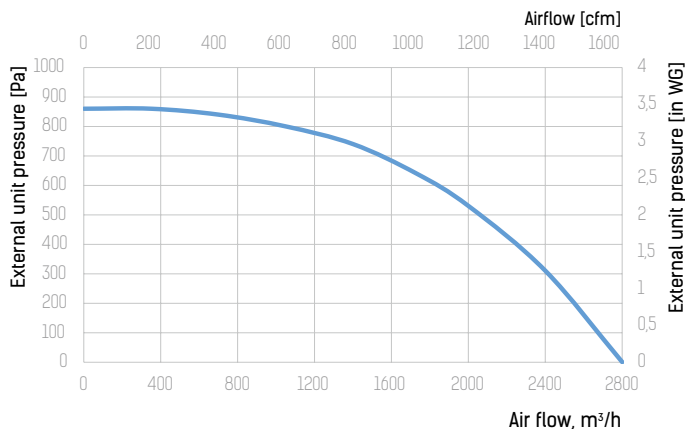
Additional pressure		RH 1200
Water heater	Pa	50
Water cooler	Pa	139
Electric heater	Pa	30
DX cooler	Pa	139

RH 1500



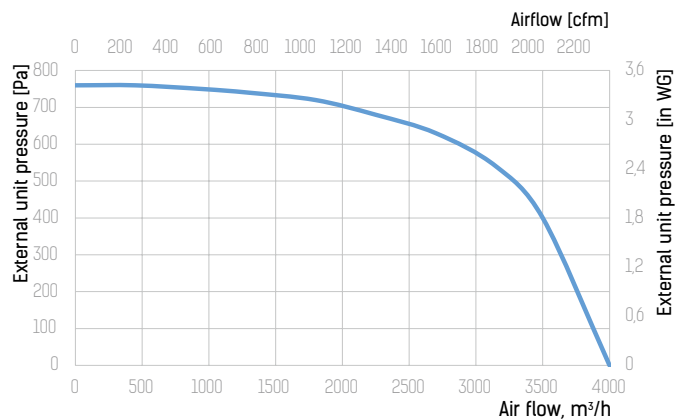
Additional pressure		RH 1500
Water heater	Pa	50
Water cooler	Pa	82
Electric heater	Pa	30
DX cooler	Pa	82

RH 2500



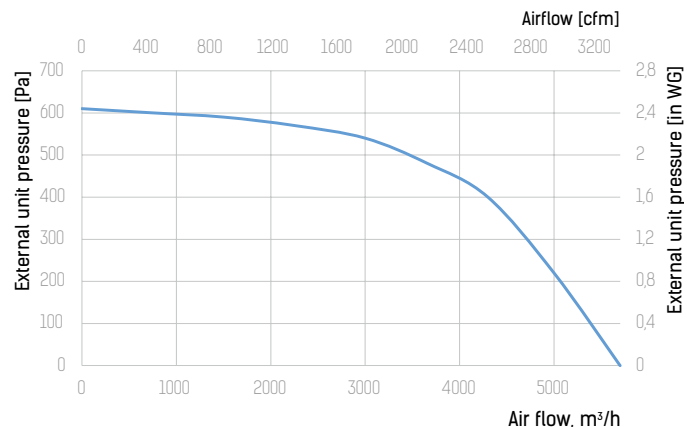
Additional pressure		RH 2500
Water heater	Pa	60
Water cooler	Pa	204
Electric heater	Pa	30
DX cooler	Pa	204

RH 3500



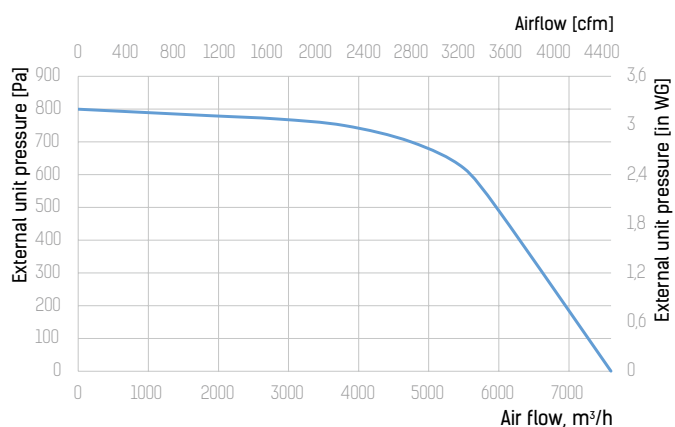
Additional pressure		RH 3500
Water heater	Pa	60
Water cooler	Pa	224
Electric heater	Pa	30
DX cooler	Pa	224

RH 5000



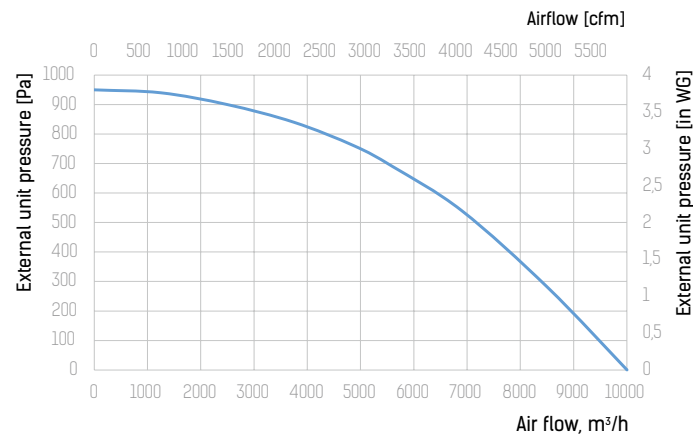
Additional pressure		RH 5000
Water heater	Pa	50
Water cooler	Pa	149
Electric heater	Pa	30
DX cooler	Pa	149

RH 6000



Additional pressure		RH 2500
Water heater	Pa	60
Water cooler	Pa	207
Electric heater	Pa	30
DX cooler	Pa	207

RH 9000



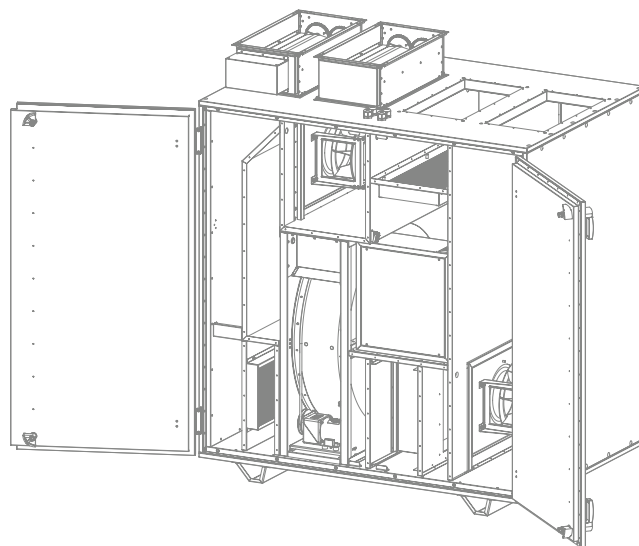
Additional pressure		RH 2500
Water heater	Pa	90
Water cooler	Pa	176
Electric heater	Pa	30
DX cooler	Pa	176

HEAT RECOVERY VENTILATION UNIT RV

The brand new premium line of commercial heat recovery air handling units for floor mounting with high-efficient heat exchanger. Available in 7 standard sizes based on the air flow capacity of 800, 1200, 1500, 2500, 3500, 5000, 6000 m³/h. Optionally accomplished with electric/water heater or water/freon cooler and ready for operation with all necessary control elements.

Main features:

- High-efficient EC fans, backward-curved, external rotor. Low power consumption at any speed, low noise level and stable operation in any climate conditions.
- Integrated plug-and-play controls on the basis of the Carel controller. Easy connecting via web-interface using the Ethernet-Modbus and BACnet.
- Insulated double-skin frameless casing.
- High-efficient aluminum rotary heat exchanger.
- The casing panels are made of steel with zinc-aluminium coating and internally lined with 40 mm heat- and sound-insulating mineral wool layer. The units have C4 corrosion resistance class in compliance with ISO 12944. Each model is available in left- and right-handed modifications. The units have service access on both sides and on the bottom.
- Washable F7, G4 (optional) panel filters in exhaust and supply air streams.
- Integrated control panels:
 - A30 th-Tune: standard control panel with handy interface ensures basic setup of parameters.
 - A32 pGDe: control panel with expanded functionality ensures complete setup of parameters.
- Integrated automatic external dampers with Belimo actuators.
- ECO-Design'18 compliant.



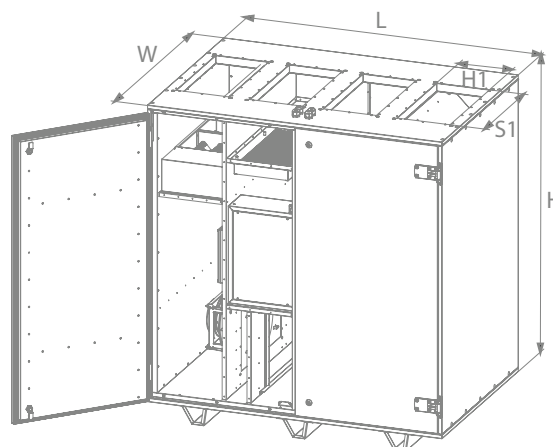
Technical parameters

Rated air flow [m ³ /h]		800	1200	1500
EC fans	Phase/voltage [50/60Hz/VAC]		1~200-240	
	Power/current [kW/A]	2x0.28/2.5	2x0.61/5.6	2x0.61/5.6
	Fan speed [min ⁻¹]	2800	3000	3000
	Perm. amb. temp. [°C]		-35...+50	
	Motor protection		IP54	
	Insulation class		F	
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)		
Weight (net, without packing) [kg]		270	270	307
Housing protection class			IP34	
Sound pressure lvl @ 3m to environment [dBA]		34	35	37
Transported air temperature [°C]			-25...+40	



Rated air flow [m³/h]		2500	3500	5000	6000
EC fans	Phase/voltage [50/60Hz/VAC]	1~200/277	3~380/480	3~380/480	3~380/480
	Power/current [kW/A]	2x0.84/7.6	2x1.24/3.95	2x1.42/4.53	2x2.74/8.8
	Fan speed [min ⁻¹]	3000	2400	1350	1700
	Perm. amb. temp. [°C]	-35...+50			
	Motor protection	IP54			
	Insulation class	F			
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)			
Weight (net, without packing) [kg]		307	405	715	715
Housing protection class		IP34			
Sound pressure lvl @ 3m to environment [dBA]		37	35	32	32
Transported air temperature [°C]		-25...+40			

Overall dimensions

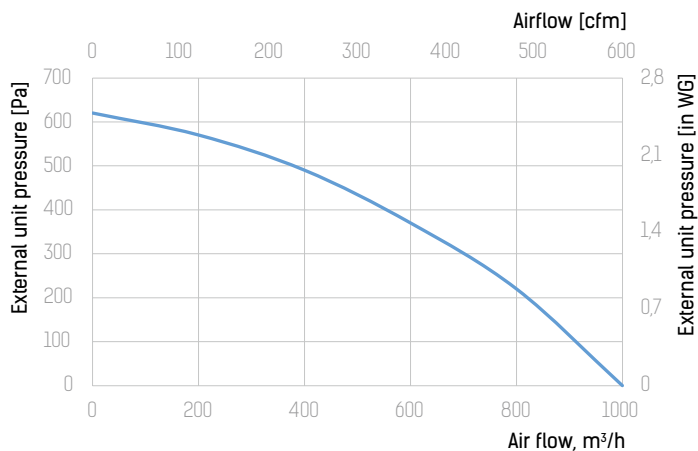
	Dimensions [mm]				
	L	W	H	H1	S1
RV 800	1140	785	1250	Ø250	-
RV 1200	1140	785	1250	Ø250	-
RV 1500	1400	960	1400	250	500
RV 2500	1400	960	1400	250	500
RV 3500	1600	1290	1860	300	600
RV 5000	1910	1390	2090	500	1000
RV 6000	1910	1390	2090	500	1000



Additional coil sections for RV 800-6000

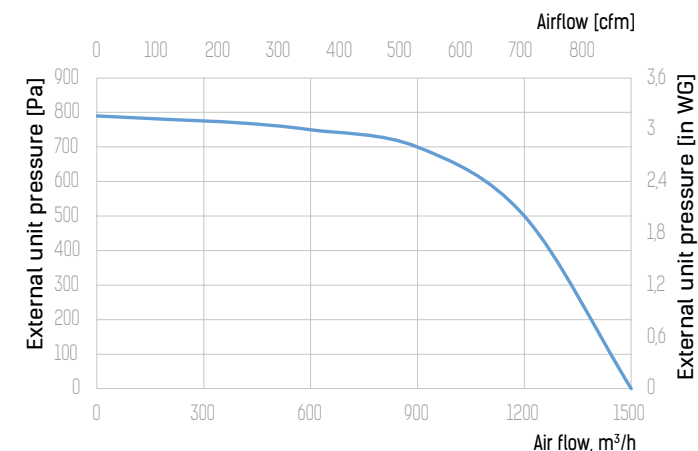
				RV						
				800	1200	1500	2500	3500	5000	6000
Water cooler		CW-3	H×W [mm]	500×250	500×250	600×350	600×350	600×350	1000×500	1000×500
DX cooler		CDX-3	H×W [mm]	500×250	500×250	600×350	600×350	600×350	1000×500	1000×500

RV 800



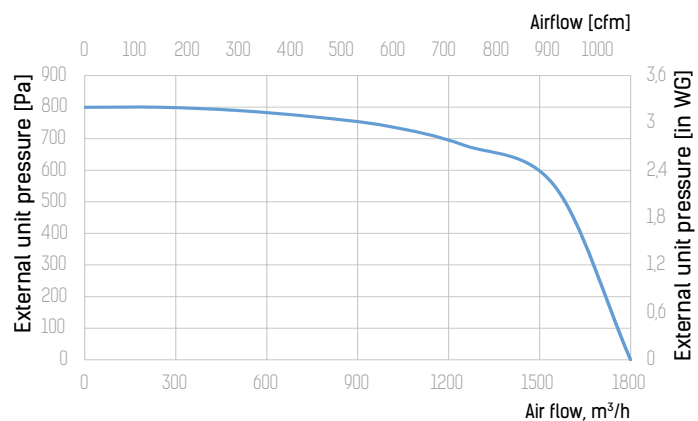
Additional pressure		RV 800
Water heater	Pa	50
Water cooler	Pa	68
Electric heater	Pa	30
DX cooler	Pa	68

RV 1200



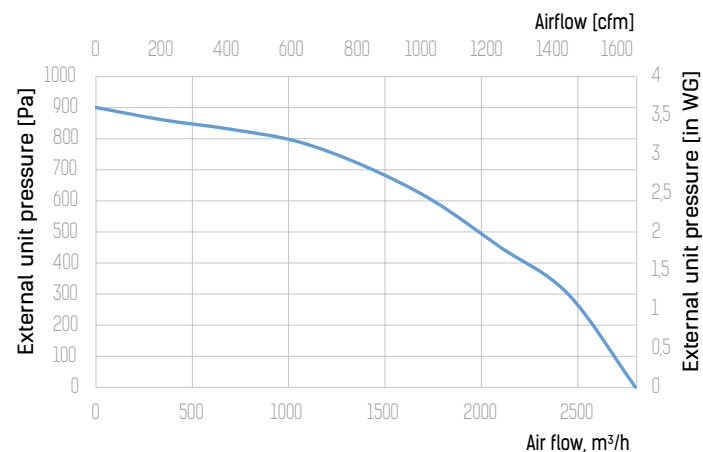
Additional pressure		RV 1200
Water heater	Pa	50
Water cooler	Pa	139
Electric heater	Pa	30
DX cooler	Pa	139

RV 1500



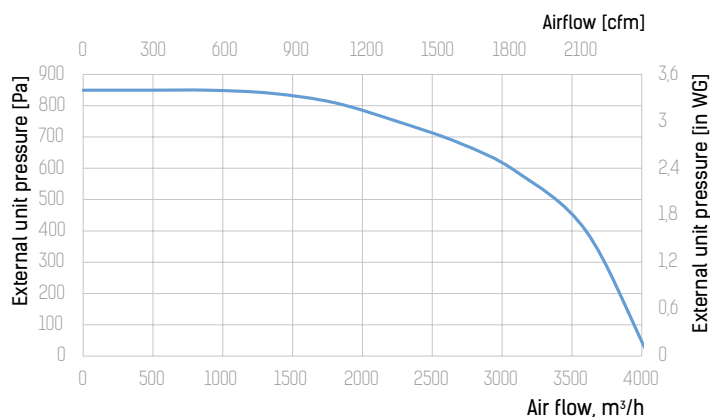
Additional pressure		RV 1500
Water heater	Pa	50
Water cooler	Pa	82
Electric heater	Pa	30
DX cooler	Pa	82

RV 2500



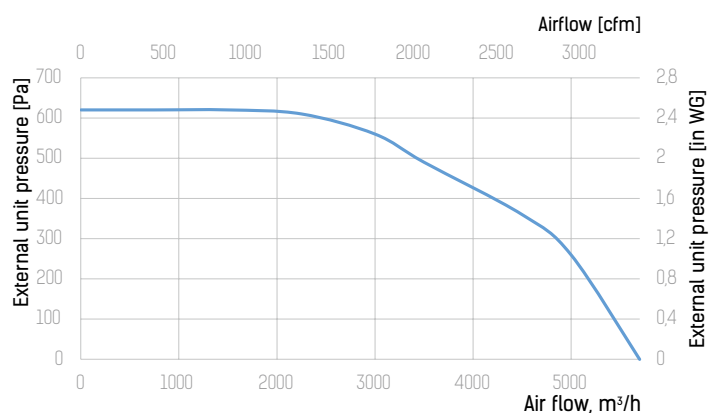
Additional pressure		RV 2500
Water heater	Pa	60
Water cooler	Pa	204
Electric heater	Pa	30
DX cooler	Pa	204

RV 3500



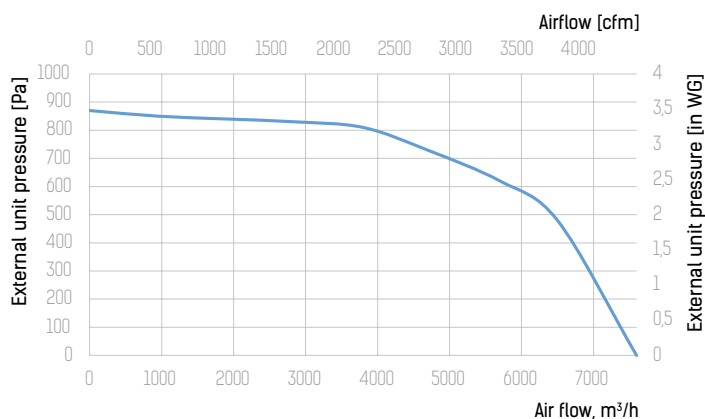
Additional pressure		RV 3500
Water heater	Pa	60
Water cooler	Pa	286
Electric heater	Pa	30
DX cooler	Pa	286

RV 5000



Additional pressure		RV 5000
Water heater	Pa	50
Water cooler	Pa	149
Electric heater	Pa	30
DX cooler	Pa	149

RV 6000



Additional pressure		RV 6000
Water heater	Pa	60
Water cooler	Pa	207
Electric heater	Pa	30
DX cooler	Pa	207

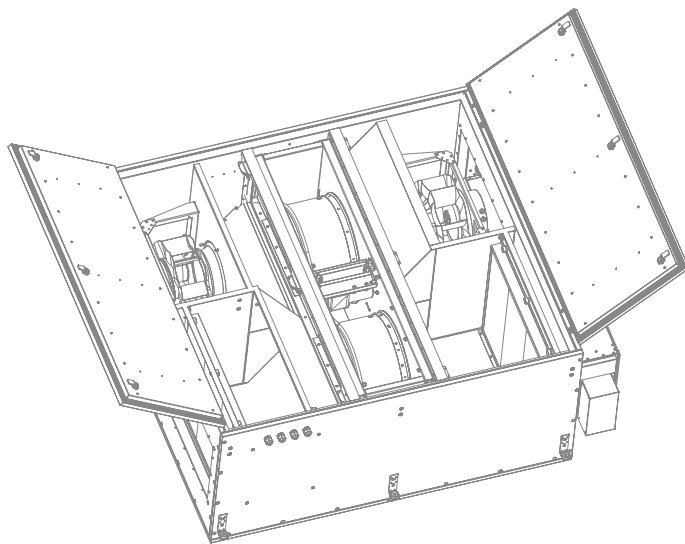
HEAT RECOVERY VENTILATION UNIT RP

The brand new premium line of commercial heat recovery air handling units for ceiling mounting with high-efficient heat exchanger. Available in 3 standard sizes based on the air flow capacity of 800, 1500, 2500 m³/h.

Optionally accomplished with electric/water heater or water/freon cooler and ready for operation with all necessary control elements.

Main features:

- High-efficient EC fans, backward-curved, external rotor. Low power consumption at any speed, low noise level and stable operation in any climate conditions.
- Integrated plug-and-play controls on the basis of the Carel controller. Easy connecting via web-interface using the Ethernet-Modbus and BACnet.
- Insulated double-skin frameless casing.
- High-efficient aluminum rotary heat exchanger.
- The casing panels are made of steel with zinc-aluminium coating and internally lined with 40 mm heat- and sound-insulating mineral wool layer. The units have C4 corrosion resistance class in compliance with ISO 12944. Each model is available in left- and right-handed modifications. The units have service access on both sides and on the bottom.
- Washable F7 panel filters in exhaust and supply air streams.
- Integrated control panels:
 - A30 th-Tune: standard control panel with handy interface ensures basic setup of parameters.
 - A32 pGDe: control panel with expanded functionality ensures complete setup of parameters.
- Integrated automatic external dampers with Belimo actuators.
- ECO-Design'18 compliant.

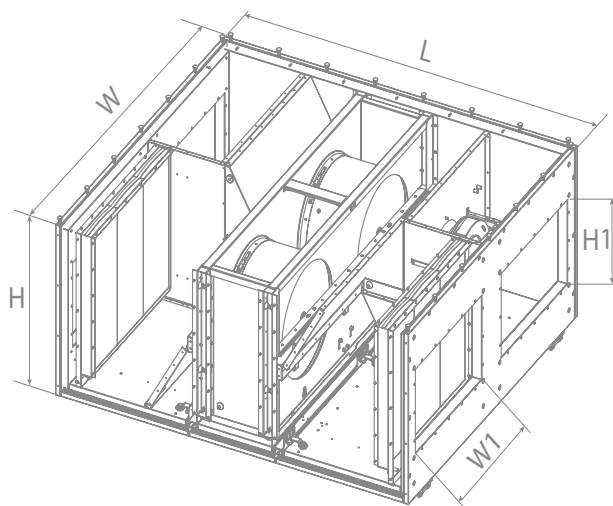


Technical parameters





Model		RP 800	RP 1500	RP 2500
Nominal air flow [CFM]		470	883	1471
EC fans	phase/voltage [50–60 Hz/VAC]	1~200/277		
	power/current [kW/A]	2x0.169/1.75	2x0.46/3.0	2x0.74/3.75
	fan speed [min ⁻¹]	4120	2848	2640
	perm. amb. temp. [°F]	-31...+122		
	motor protection	IP54		
	insulation class	F		
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)		
Weight (net, without packaging) [kg]		620	620	650
Housing protection class		IP34		
Sound pressure level @ 0.3 m to environment [dBA]		35	35	39
Transported air temperature [°C]		-25...+40		

Overall dimensions

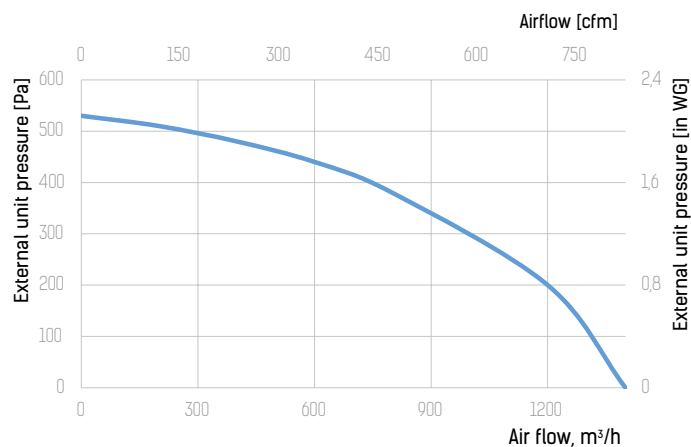
	Dimensions [mm]				
	L	W	W1	H	H1
RP 800					
RP 1500	1400	1290	500	630	300
RP 2500					



Additional coil sections for RP 800, RP 1500, RP 2500

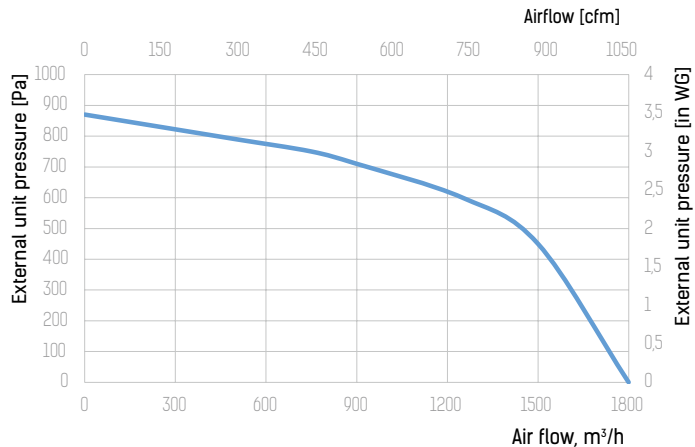
				RP		
				800	1500	2500
Water heater		HW -2	L [mm]	360	360	360
Water cooler		CW-3	L [mm]	505	505	505
Electric heater		HE	L [mm]	300	300	500
DX cooler		CDX-3	L [mm]	505	505	505

RP 800



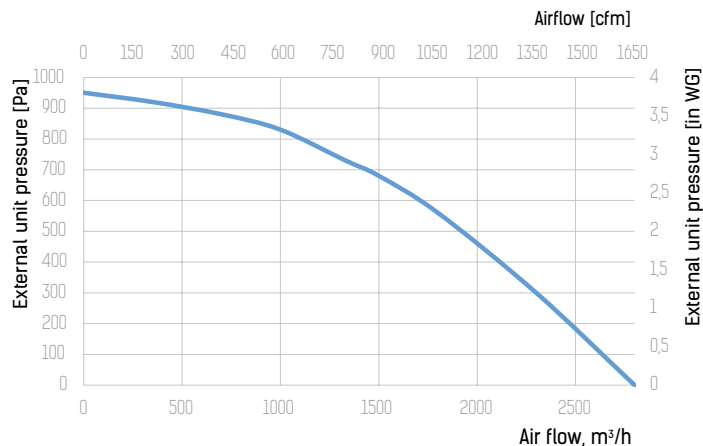
Additional pressure		RP 800
Water heater	Pa	50
Water cooler	Pa	50
Electric heater	Pa	30
DX cooler	Pa	50

RP 1500



Additional pressure		RP 1500
Water heater	Pa	50
Water cooler	Pa	149
Electric heater	Pa	30
DX cooler	Pa	149

RP 2500



Additional pressure		RP 2500
Water heater	Pa	65
Water cooler	Pa	276
Electric heater	Pa	30
DX cooler	Pa	276

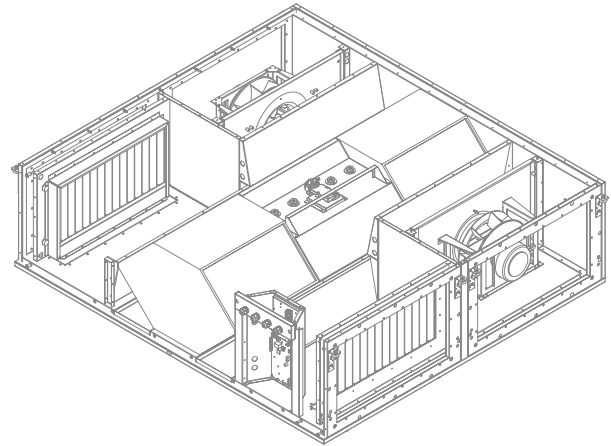
HEAT RECOVERY VENTILATION UNIT CFP

The brand new premium line of commercial heat recovery air handling units for suspended mounting with high-efficient counter-flow heat exchanger. Available in 8 standard sizes based on the air flow capacity of 500, 700, 1200, 1500, 2500, 3500, 5000, 6000 m³/h.

Optionally accomplished with electric/water heater or water/freon cooler and ready for operation with all necessary control elements.

Main features:

- High-efficient EC fans, backward-curved, external rotor. Low power consumption at any speed, low noise level and stable operation in any climate conditions.
- Integrated plug-and-play controls on the basis of the Carel controller. Easy connecting via web-interface using the Ethernet-Modbus and BACnet.
- High-efficient counter-flow heat exchanger is made of profiled plastic plates and impregnated with elastic heat-resistant sealant.
- The stainless steel drain pan is located on the inlet and outlet sides.
- Casing: double skin; frameless; 40 mm mineral wool 90 kg/m³ for CFP 500-3500 and with frame 50 mm for CFP 5000-6000. The units have C4 corrosion resistance class in compliance with ISO 12944. Each model is available in left- and right-handed modifications. The units have service access on both sides and on the bottom.
- Washable F7 panel filters in exhaust and supply air streams.
- Integrated control panels:
 - A30 th-Tune: standard control panel with handy interface ensures basic setup of parameters.
 - A32 pGDe: control panel with expanded functionality ensures complete setup of parameters.
- Integrated bypass of the heat exchanger with automatic damper and Belimo actuator ensures active freeze protection. Free heating and cooling functions are also available. Built-in automatic external air dampers with Belimo actuators.
- ECO-Design'18 compliant.



Technical parameters

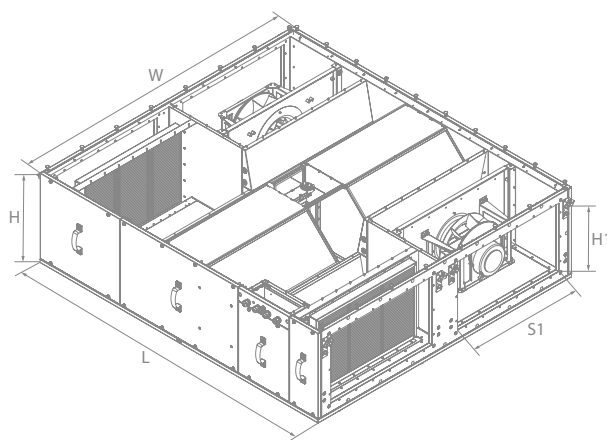
Rated air flow [m ³ /h]		500	700	1200
EC fans	Phase/voltage [50/60Hz/VAC]		1~200-240	
	Power/current [kW/A]	2x0.083/0.75	2x0.169/1.75	2x0.23/2.3
	Fan speed [min ⁻¹]	3200	4120	3200
	Perm. amb. temp [°C]		-35...+50	
	Motor protection		IP54	
	Insulation class		F	
	Transported air temperature [°C]		-25...+40	
	Filter exhaust/supply	ePM1 70%/ePM170% (ISO 16890)-F7 (EN779)		
Weight (net, without packing) [kg]		82	85	120
Housing protection class			IP34	
Sound pressure lvl @ 3m to environment [dBA]		32	33	35

Rated air flow [m³/h]		1500	2500	3500
EC fans	Phase/voltage [50/60Hz/VAC]	1~200/277	1~200/277	3~380/480
	Power/current [kW/A]	2x0.46/3.0	2x0.74/3.75	2x1.14/1.8
	Fan speed [min ⁻¹]	2848	2640	2400
	Perm. amb. temp. [°C]		-35...+50	
	Motor protection		IP54	
	Insulation class		F	
	Transported air temperature [°C]		-25...+40	
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)		
Weight (net, without packing) [kg]		270	290	320
Housing protection class			IP34	
Sound pressure lvl @ 3m to environment [dBA]		32	34	35





Rated air flow [m³/h]		5000	6000
EC fans	Phase/voltage [50/60Hz/VAC]	3~380/480	3~380/480
	Power/current [kW/A]	2x1.32/4.25	2x2.65/8.5
	Fan speed [min ⁻¹]	1350	1700
	Perm. amb. temp. [°C]		-35...+50
	Motor protection		IP54
	Insulation class		F
	Transported air temperature [°C]		-25...+40
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)	
Weight (net, without packing) [kg]		685	685
Housing protection class			IP34
Sound pressure lvl @ 3m to environment [dBA]		34	35

Overall dimensions

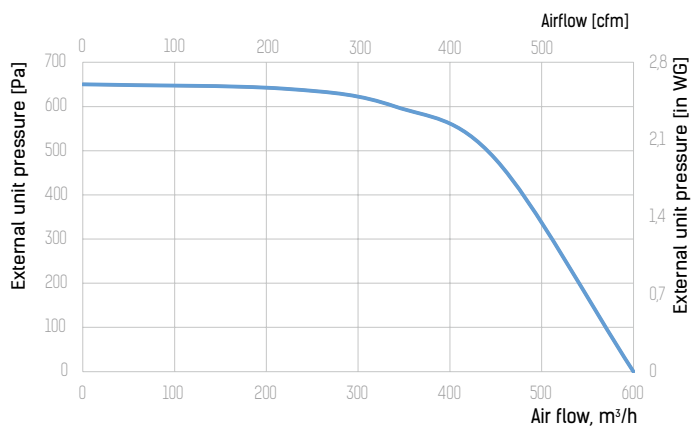
	Dimensions [mm]				
	L	W	H	H1	S1
CFP 500	1500	1100	295	250	-
CFP 700	1500	1100	295	250	-
CFP 1200	1800	1440	380	300	500
CFP 1500	1646	1500	480	350	600
CFP 2500	1646	1500	480	350	600
CFP 3500	1880	1500	630	350	600
CFP 5000	2900	1900	1000	500	800
CFP 6000	2900	1900	1000	500	800



Additional coil sections for CFP 500-6000

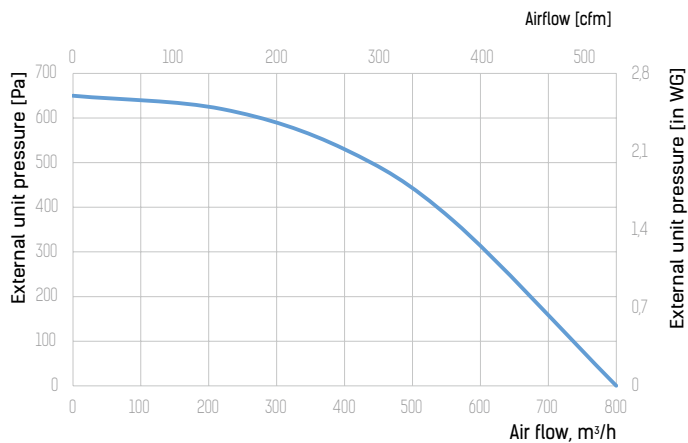
			CFP								
				500	700	1200	1500	2500	3500	5000	6000
Water heater		HW -2 L [mm]		350	350	350	360	360	360	350	350
Water cooler		CW-3 L [mm]		425	425	540	505	505	505	505	505
Electric heater		HE L [mm]		306	306	306	220	220	220	505	505
DX cooler		CDX-3 L [mm]		425	425	540	505	505	505	505	505

CFP 500



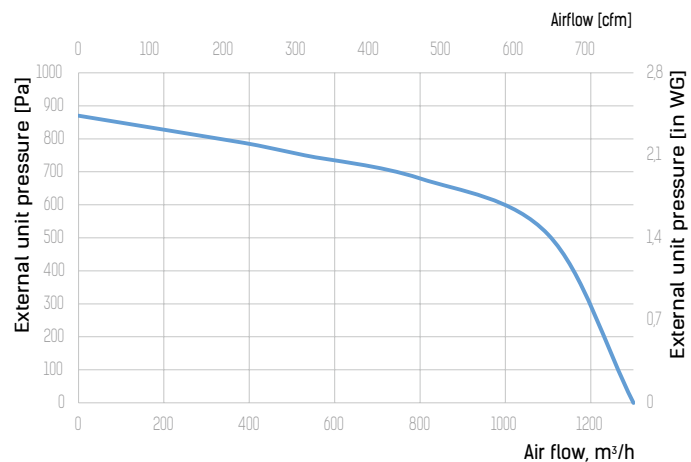
Additional pressure		CFP 500
Water heater	Pa	55
Water cooler	Pa	31
Electric heater	Pa	30
DX cooler	Pa	31

CFP 700



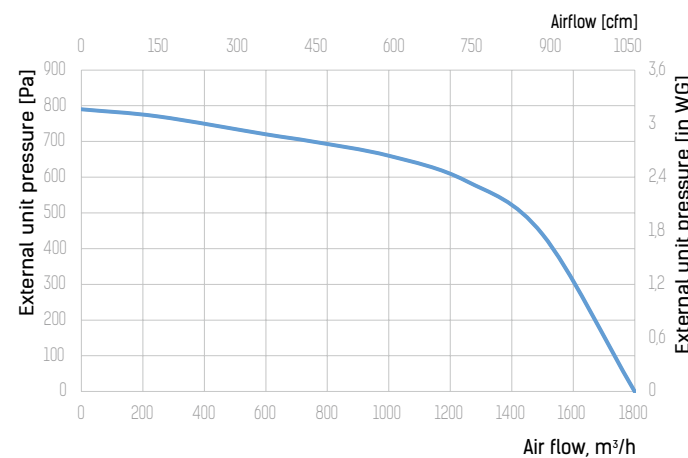
Additional pressure		CFP 700
Water heater	Pa	55
Water cooler	Pa	48
Electric heater	Pa	30
DX cooler	Pa	48

CFP 1200



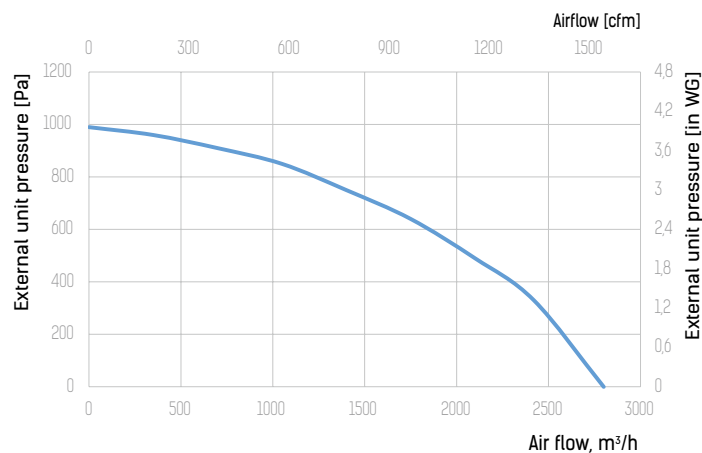
Additional pressure		CFP 1200
Water heater	Pa	55
Water cooler	Pa	100
Electric heater	Pa	30
DX cooler	Pa	100

CFP 1500



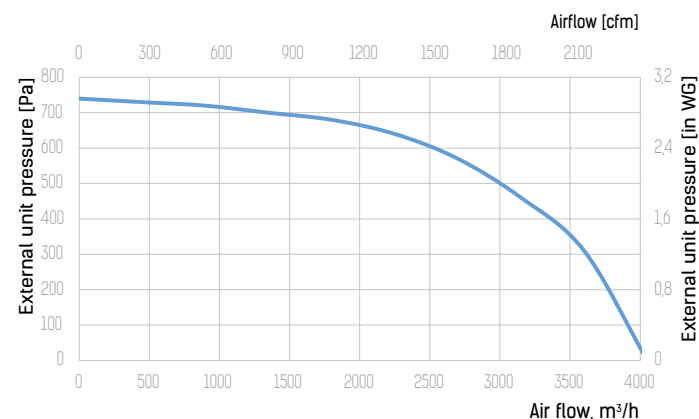
Additional pressure		CFP 1500
Water heater	Pa	55
Water cooler	Pa	82
Electric heater	Pa	30
DX cooler	Pa	82

CFP 2500



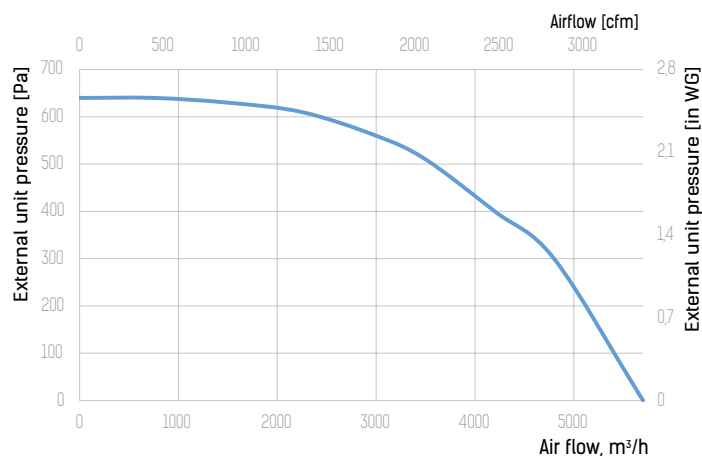
Additional pressure		CFP 2500
Water heater	Pa	60
Water cooler	Pa	204
Electric heater	Pa	30
DX cooler	Pa	204

CFP 3500



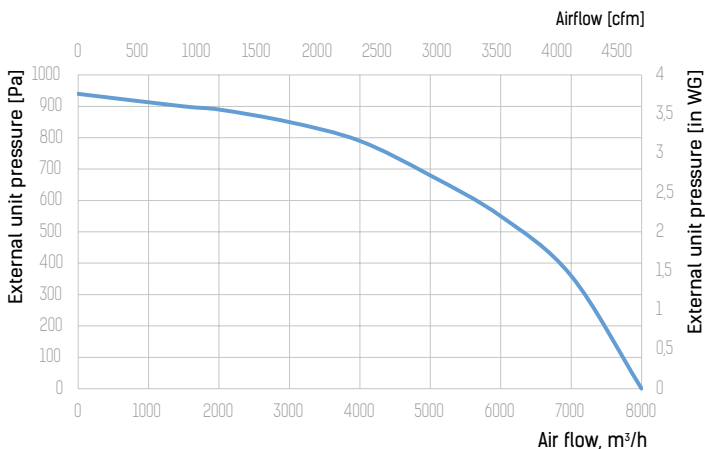
Additional pressure		CFP 3500
Water heater	Pa	90
Water cooler	Pa	286
Electric heater	Pa	30
DX cooler	Pa	286

CFP 5000



Additional pressure		CFP 5000
Water heater	Pa	55
Water cooler	Pa	223
Electric heater	Pa	35
DX cooler	Pa	223

CFP 6000



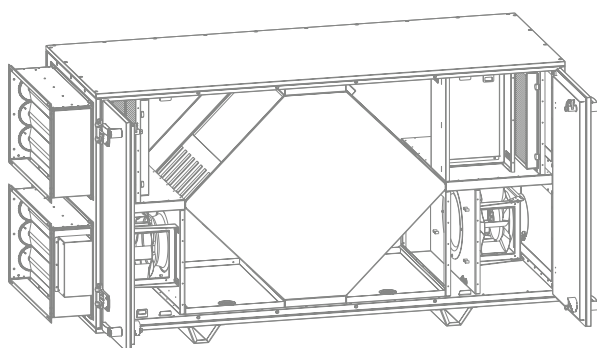
Additional pressure		CFP 6000
Water heater	Pa	90
Water cooler	Pa	285
Electric heater	Pa	50
DX cooler	Pa	285

HEAT RECOVERY VENTILATION UNIT CFH

The brand new premium line of commercial heat recovery air handling units for floor mounting with high-efficient counter-flow heat exchanger. Available in 8 standard sizes based on the air flow capacity of 800, 1200, 1500, 2500, 3500, 5000, 6000, 9000 m³/h. Optionally accomplished with electric/water heater or water/freon cooler and ready for operation with all necessary control elements.

Main features:

- High-efficient EC fans, backward-curved, external rotor. Low power consumption at any speed, low noise level and stable operation in any climate conditions.
- Integrated plug-and-play controls on the basis of the Carel controller. Easy connecting via web-interface using the Ethernet-Modbus and BACnet.
- High-efficient counter-flow heat exchanger is made of profiled plastic plates and impregnated with elastic heat-resistant sealant.
- The stainless steel drain pan is located on the inlet and outlet sides.
- Casing: double skin; frameless; 40 mm mineral wool 90 kg/m³ for CFH 800-6000 and with frame 50 mm for CFH 9000. Outer skin: zinc-aluminum. The units have C4 corrosion resistance class in compliance with ISO 12944. Each model is available in left- and right-handed modifications. The units have service access on both sides and on the bottom.
- Washable F7, G4 (optional) panel filters in exhaust and supply air streams.
- Integrated control panels:
 - A30 th-Tune: standard control panel with handy interface ensures basic setup of parameters.
 - A32 pGDe: control panel with expanded functionality ensures complete setup of parameters.
- Integrated bypass of the heat exchanger with automatic damper and Belimo actuator ensures active freeze protection. Free heating and cooling functions are also available. Built-in automatic external air dampers with Belimo actuators.
- ECO-Design'18 compliant.



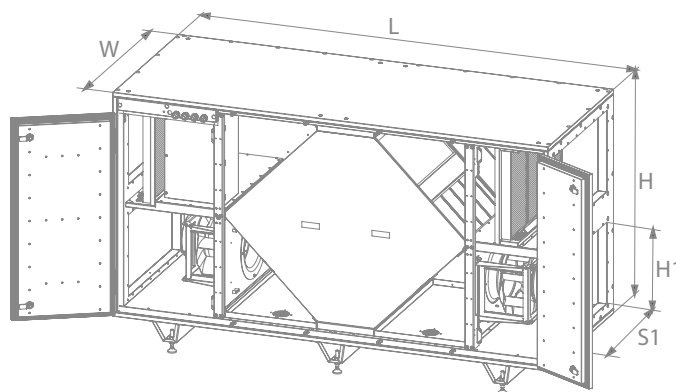
Technical parameters

Rated air flow [m ³ /h]		800	1200	1500	2500
EC fans	Phase/voltage [50/60Hz/VAC]		1~200-240		1~200/277
	Power/current [kW/A]	2x0.27/2.5	2x0.61/5.3	2x0.61/5.3	2x0.835/6.9
	Fan speed [min ⁻¹]	2800	3000	3000	3000
	Perm. amb. temp. [°C]		-35...+50		
	Motor protection		IP54		
	Insulation class		F		
Filter exhaust/supply			ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)		
Weight (net, without packing) [kg]		230	230	295	295
Housing protection class			IP34		
Sound pressure lvl @ 3m to environment [dBA]		34	35	37	37
Transported air temperature [°C]			-25...+40		





Rated air flow [m³/h]		3500	5000	6000	9000
EC fans	Phase/voltage [50/60Hz/VAC]	3~380/480			
	Power/current [kW/A]	2x1.15/3.6	2x1.33/4.25	2x2.65/8.5	2x2.65/8.5
	Fan speed [min⁻¹]	2400	1350	1700	1700
	Perm. amb. temp. [°C]	-35...+50			
	Motor protection	IP54			
	Insulation class	F			
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)			
Weight (net, without packing) [kg]		420	628	628	1400
Housing protection class		IP34			
Sound pressure lvl @ 3m to environment [dBA]		35	32	32	32
Transported air temperature [°C]		-25...+40			

Overall dimensions

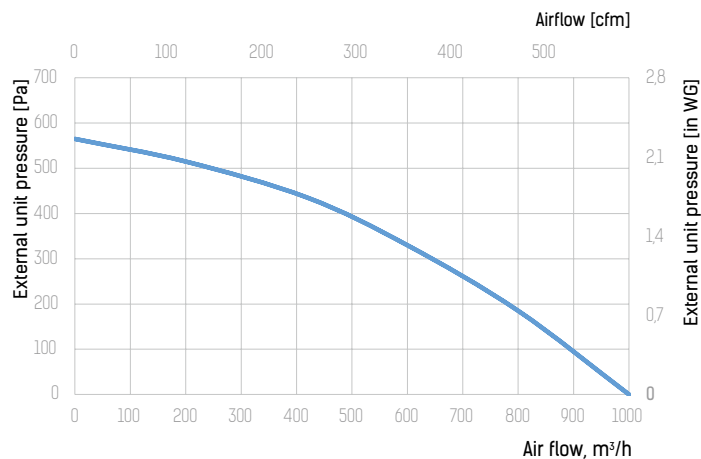
	Dimensions [mm]				
	L	W	H	H1	S1
CFH 800	1550	800	820	Ø315	-
CFH 1200	1550	800	820	Ø315	-
CFH 1500	1880	750	960	350	600
CFH 2500	1880	750	960	350	600
CFH 3500	2200	890	1290	400	700
CFH 5000	2300	1390	1420	500	1000
CFH 6000	2300	1390	1420	500	1000
CFH 9000	2990	2310	1710	600	1200



Additional coil sections for CFH 800-9000

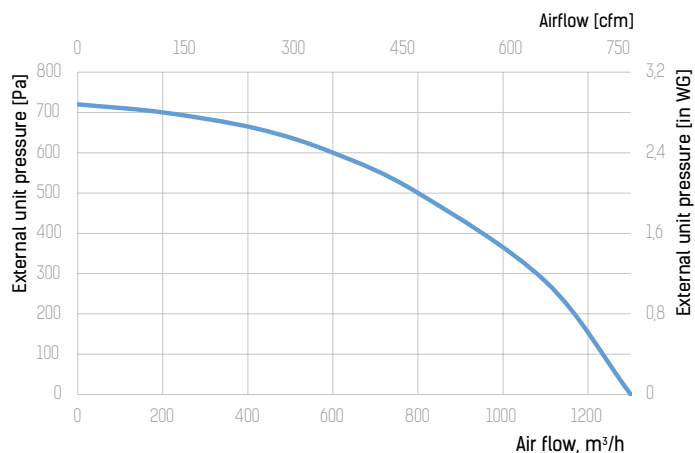
				CFH							
				800	1200	1500	2500	3500	5000	6000	9000
Water heater		HW -2	L [mm]	360	360	360	360	360	360	360	360
Water cooler		CW-3	L [mm]	505	505	505	505	505	505	505	505
Electric heater		HE	L [mm]	306	306	220	220	220	360	360	505
DX cooler		CDX-3	L [mm]	505	505	505	505	505	505	505	505

CFH 800



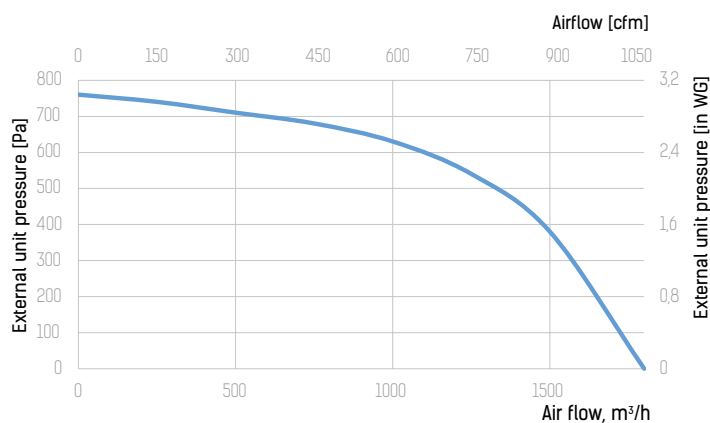
Additional pressure		CFH 800
Water heater	Pa	55
Water cooler	Pa	68
Electric heater	Pa	30
DX cooler	Pa	68

CFH 1200



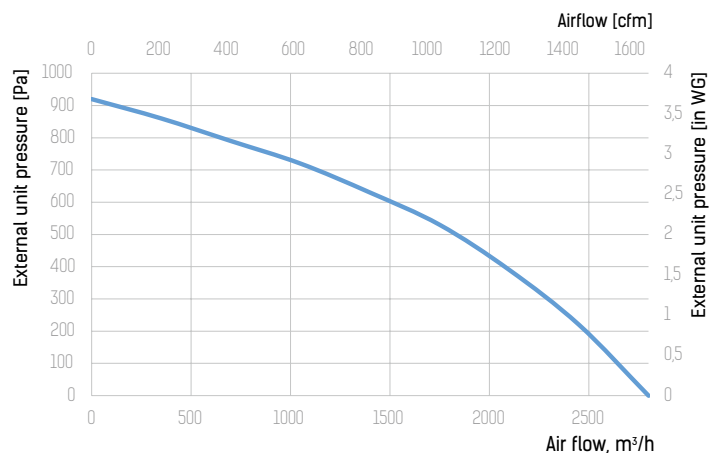
Additional pressure		CFH 1200
Water heater	Pa	55
Water cooler	Pa	139
Electric heater	Pa	30
DX cooler	Pa	139

CFH 1500



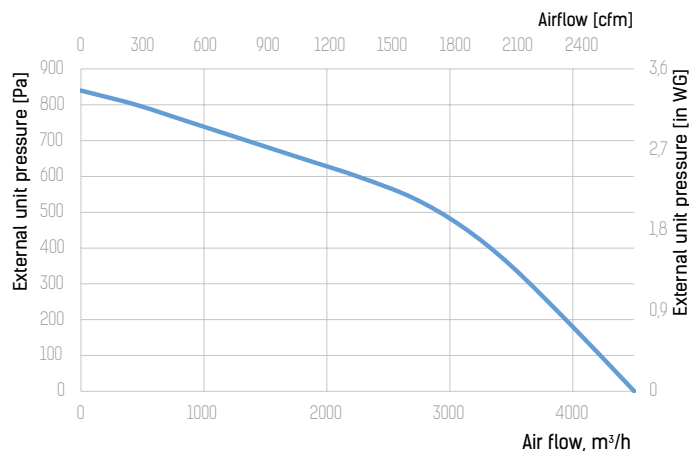
Additional pressure		CFH 1500
Water heater	Pa	55
Water cooler	Pa	82
Electric heater	Pa	30
DX cooler	Pa	82

CFH 2500



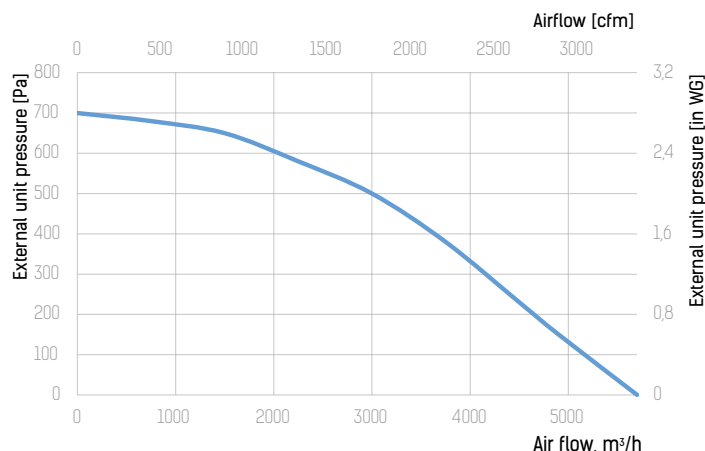
Additional pressure		CFH 2500
Water heater	Pa	60
Water cooler	Pa	190
Electric heater	Pa	30
DX cooler	Pa	190

CFH 3500



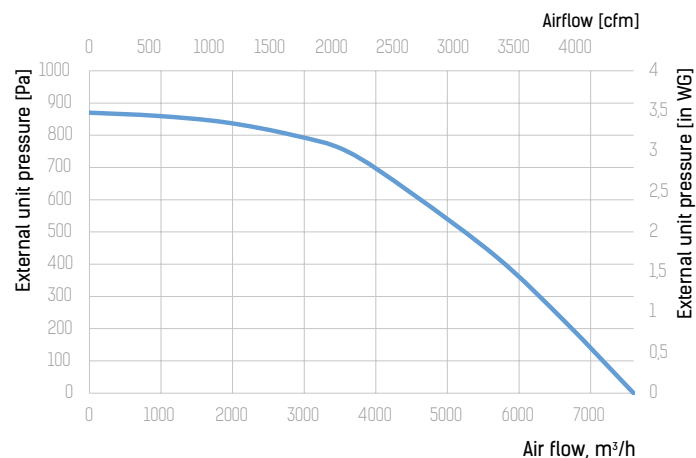
Additional pressure		CFH 3500
Water heater	Pa	55
Water cooler	Pa	223
Electric heater	Pa	30
DX cooler	Pa	223

CFH 5000



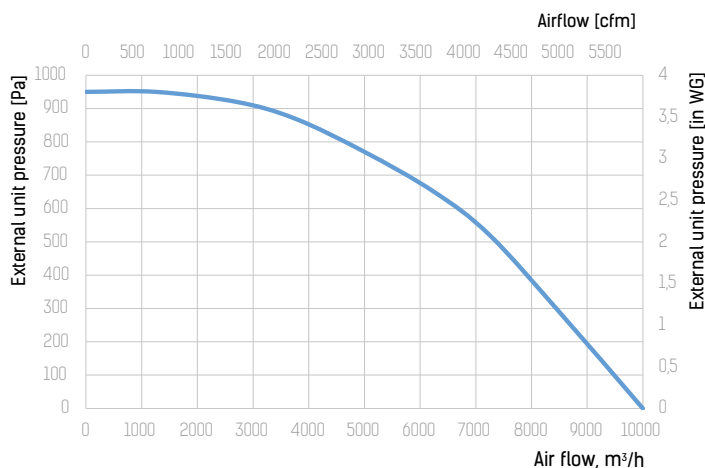
Additional pressure		CFH 5000
Water heater	Pa	50
Water cooler	Pa	128
Electric heater	Pa	30
DX cooler	Pa	128

CFH 6000



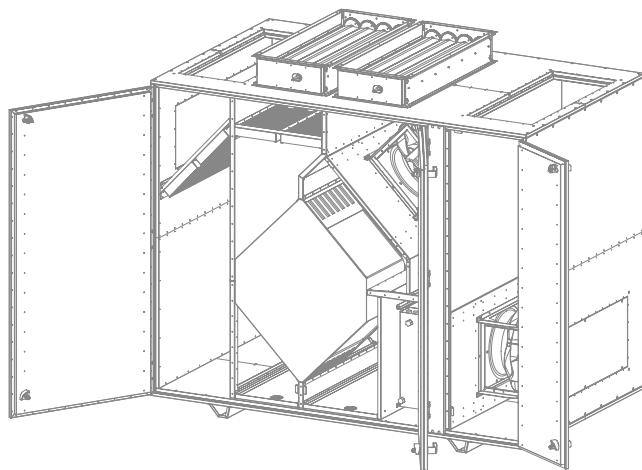
Additional pressure		CFH 6000
Water heater	Pa	60
Water cooler	Pa	207
Electric heater	Pa	30
DX cooler	Pa	207

CFH 9000



Additional pressure		CFH 9000
Water heater	Pa	60
Water cooler	Pa	176
Electric heater	Pa	30
DX cooler	Pa	176

HEAT RECOVERY VENTILATION UNIT CFV



The brand new premium line of commercial heat recovery air handling units for floor mounting with high-efficient counter-flow heat exchanger. Available in 7 standard sizes based on the air flow capacity of 800, 1200, 1500, 2500, 3500, 5000, 6000 m³/h. Optionally accomplished with electric/water heater or water/freon cooler and ready for operation with all necessary control elements.

Main features:

- High-efficient EC fans, backward-curved, external rotor. Low power consumption at any speed, low noise level and stable operation in any climate conditions.
- Integrated plug-and-play controls on the basis of the Carel controller. Easy connecting via web-interface using the Ethernet-Modbus and BACnet.
- High-efficient counter-flow heat exchanger is made of profiled aluminium plates and impregnated with elastic heat-resistant sealant.
- The stainless steel drain pan is located on the inlet and outlet sides.
- The casing panels are made of steel with zinc-aluminium coating and internally lined with 40 mm heat- and sound-insulating mineral wool layer. The units have C4 corrosion resistance class in compliance with ISO 12944. Each model is available in left- and right-handed modifications. The units have service access on both sides and on the bottom.
- Washable F7, G4 (optional) panel filters in exhaust and supply air streams.
- Integrated control panels:
 - A30 th-Tune: standard control panel with handy interface ensures basic setup of parameters.
 - A32 pGDe: control panel with expanded functionality ensures complete setup of parameters.
- Integrated bypass of the heat exchanger with automatic damper and Belimo actuator ensures active freeze protection. Free heating and cooling functions are also available. Built-in automatic external air dampers with Belimo actuators.
- ECO-Design'18 compliant.

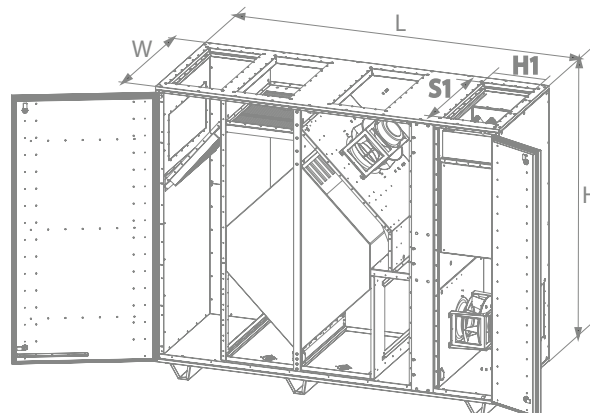
Technical parameters

Rated air flow [m ³ /h]		800	1200	1500
EC fans	Phase/voltage [50/60Hz/VAC]	1~200-240		
	Power/current [kW/A]	2x0.27/2.5	2x0.61/5.3	2x0.53/4.8
	Fan speed [min ⁻¹]	2800	3000	3000
	Perm. amb. temp. [C0]	-35...+50		
	Motor protection	IP54		
	Insulation class	F		
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)		
Weight (net, without packing) [kg]		260	260	307
Housing protection class		IP34		
Sound pressure lvl @ 3m to environment [dBA]		34	37	28
Transported air temperature [C0]		-25...+40		



Rated air flow [m³/h]		2500	3500	5000	6000
EC fans	Phase/voltage [50/60Hz/VAC]	1~200/277	3~380/480	3~380/480	3~380/480
	Power/current [kW/A]	2x0.75/6.8	2x1.15/3.6	2x1.32/4.25	2x2.6/8.5
	Fan speed [min⁻¹]	3000	2400	1350	1700
	Perm. amb. temp. [C0]	-35...+50			
	Motor protection	IP54			
	Insulation class	F			
Filter exhaust/supply		ePM1 70%/ePM1 70% (ISO 16890)-F7 (EN779)			
Weight (net, without packing) [kg]		307	515	715	715
Housing protection class		IP34			
Sound pressure lvl @ 3m to environment [dBA]		30	34	32	34
Transported air temperature [C0]		-25...+40			

Overall dimensions

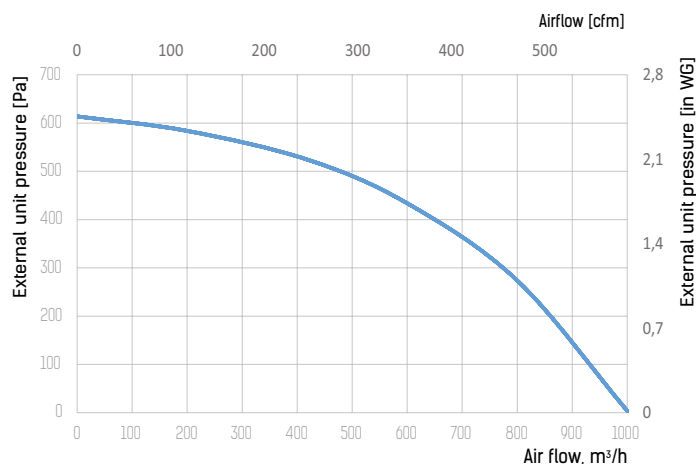
	Dimensions [mm]				
	L	W	H	H1	S1
CFV 800	1400	800	1250	Ø315	-
CFV 1200	1400	800	1250	Ø315	-
CFV 1500	1950	750	1550	300	600
CFV 2500	1950	750	1550	300	600
CFV 3500	2200	890	1800	300	600
CFV 5000	2330	1390	1800	400	1000
CFV 6000	2330	1390	1800	400	1000



Additional coil sections for CFV 800-6000

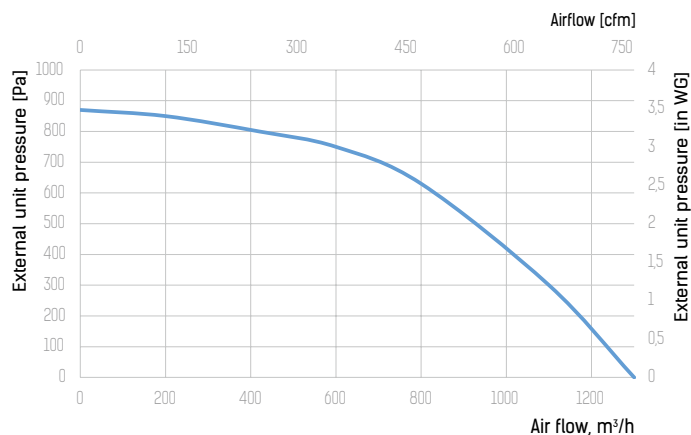
				CFV						
				800	1200	1500	2500	3500	5000	6000
Water cooler		CW-3	W×H [mm]	500×250	500×250	600×350	600×350	600×350	1000×500	1000×500
DX cooler		CDX-3	W×H [mm]	500×250	500×250	600×350	600×350	600×350	1000×500	1000×500

CFV 800



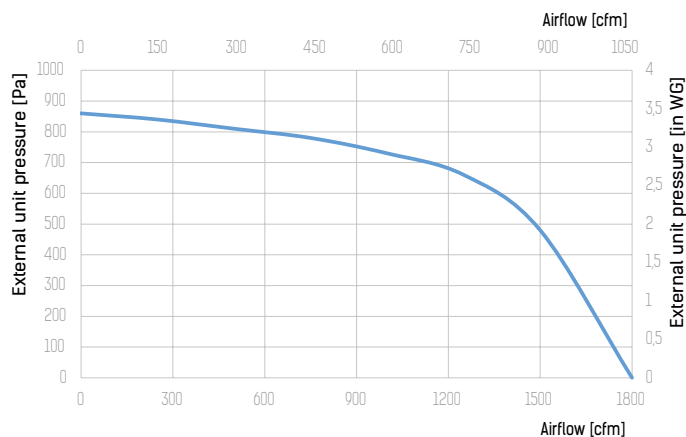
Additional pressure		CFV 800
Water heater	Pa	35
Water cooler	Pa	68
Electric heater	Pa	25
DX cooler	Pa	68

CFV 1200



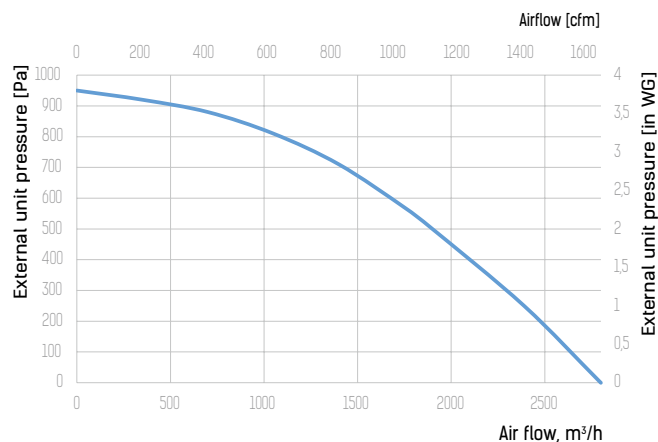
Additional pressure		CFV 1200
Water heater	Pa	35
Water cooler	Pa	139
Electric heater	Pa	25
DX cooler	Pa	139

CFV 1500



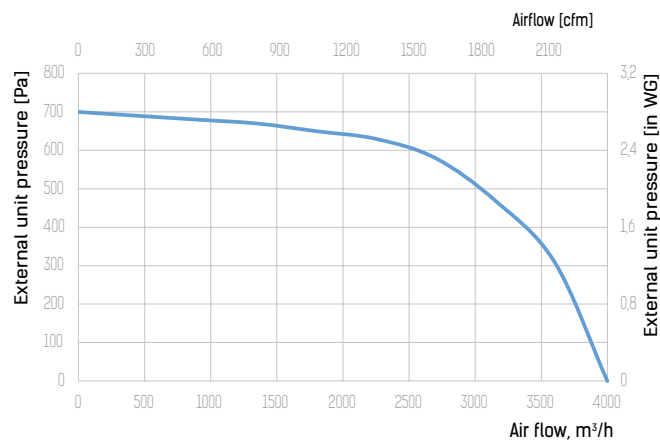
Additional pressure		CFV 1500
Water heater	Pa	50
Water cooler	Pa	82
Electric heater	Pa	30
DX cooler	Pa	82

CFV 2500



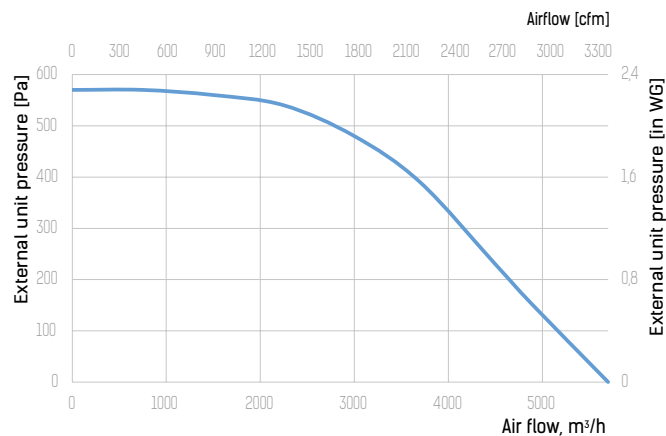
Additional pressure		CFV 2500
Water heater	Pa	55
Water cooler	Pa	197
Electric heater	Pa	30
DX cooler	Pa	197

CFV 3500



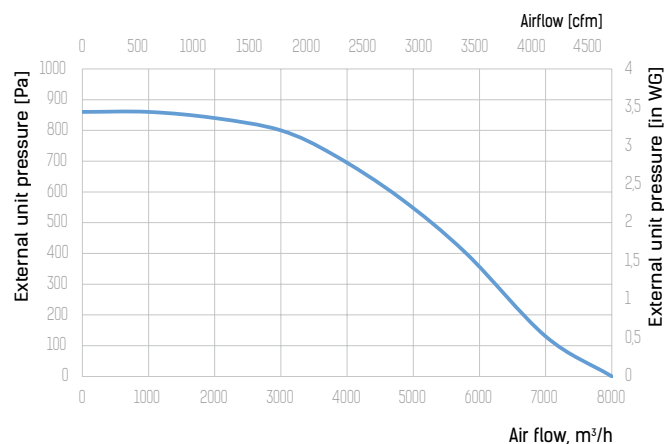
Additional pressure		CFV 3500
Water heater	Pa	60
Water cooler	Pa	286
Electric heater	Pa	30
DX cooler	Pa	286

CFV 5000



Additional pressure		CFV 5000
Water heater	Pa	75
Water cooler	Pa	123
Electric heater	Pa	35
DX cooler	Pa	123

CFV 6000



Additional pressure		CFV 6000
Water heater	Pa	90
Water cooler	Pa	207
Electric heater	Pa	50
DX cooler	Pa	207



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