ComX-DH

SINGLE-ROOM

HEAT RECOVERY VENTILATION

VEHUM

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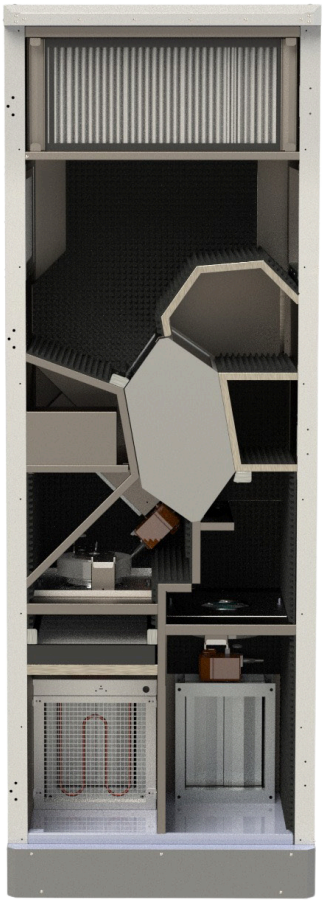
COMX-DH



The VEHUM ComX-DH range is a decentralised heat recovery ventilation solution designed for single-room commercial and public applications.

ComX-DH units provide an efficient and practical ventilation solution where conventional ducted systems are difficult, impractical, or cost-prohibitive.

Typical applications include:

- Simplified installation without complex duct systems
- Ideal for retrofit and refurbishment projects
- High-efficiency EC fan technology
- Quiet operation for occupied spaces
- Integrated heat recovery for improved energy efficiency
- Built-in filtration for improved indoor air quality
- Compact vertical floor-mounted design
- Low maintenance access
- Integrated electric preheater and reheater
- Optional CO_2 demand control and BMS integration

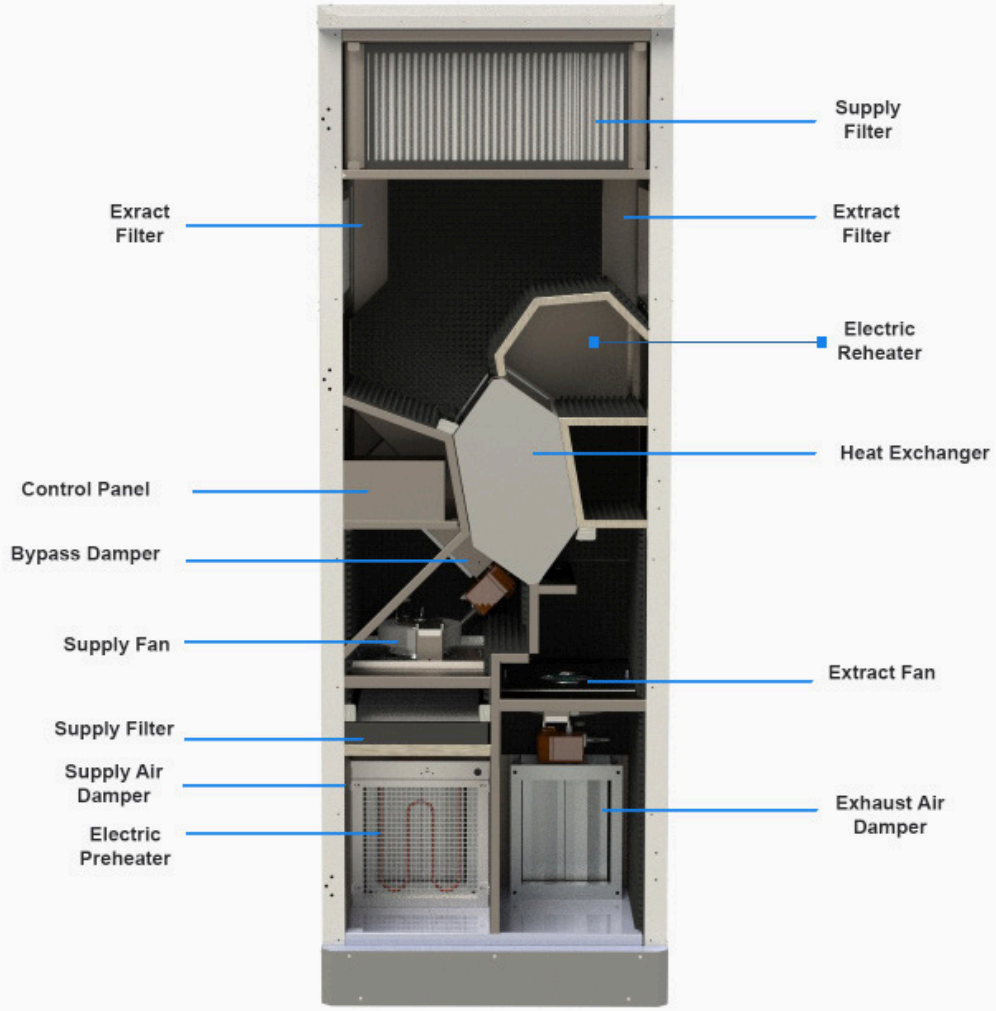
The self-contained vertical design allows fresh air ventilation and heat recovery without extensive ductwork, significantly simplifying installation and reducing project costs.

UNIT SPECIFICATIONS

CASING
The ComX-DH casing is constructed from high-quality polymer-coated galvanised steel with integrated thermal and acoustic insulation.

50 mm mineral wool insulation provides excellent sound attenuation and thermal performance.

AIR DAMPERS
Automatic supply and exhaust dampers close when the unit is switched off to minimise unwanted drafts and heat loss.



PREHEATING
Integrated electric preheaters provide freeze protection for the heat exchanger during low ambient temperature operation.

BYPASS
Automatic summer bypass operation allows free cooling during suitable outdoor conditions.

REHEATING
Integrated electric reheaters assist in maintaining comfortable supply air temperatures during winter operation.

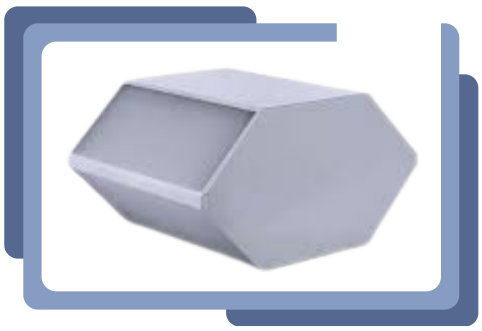
AIR FILTRATION
ComX-DH units incorporate:
- F7 supply air filtration; and
- G4 exhaust air filtration

to improve indoor air quality and protect internal components.

UNIT SPECIFICATIONS

Casing

- Double-skin galvanised steel construction
- Powder-coated external panels
- 50 mm mineral wool thermal and acoustic insulation
- Corrosion-resistant construction
- Designed for low-noise operation



Exchanger

ComX-DH units utilise Eurovent-certified aluminium counterflow heat exchangers tested in accordance with EN308 standards.

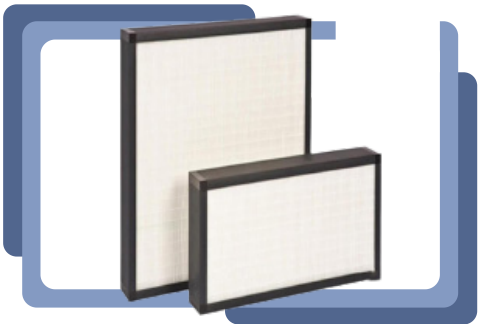
The counterflow design provides high thermal recovery efficiency while maintaining low pressure drop characteristics.

Fans

ComX-DH units utilise high-efficiency EC plug fans with backward-curved impellers.
Benefits include:

- Low energy consumption
- Quiet operation
- Low Specific Fan Power (SFP)
- Fully variable speed control
- Stable airflow performance

Compared with conventional AC motors, EC technology provides significantly improved operating efficiency and reduced operating costs.



Filters

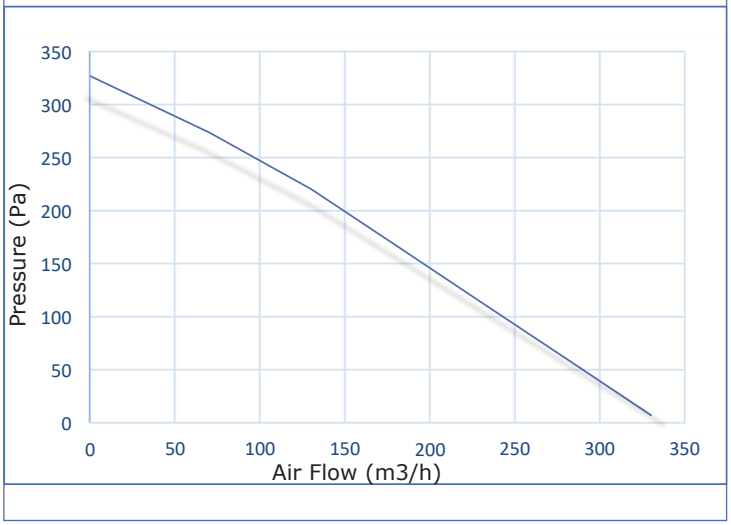
- F7 Filter on the fresh air side and G4 filter on exhaust side are used.
- Maintenance covers offer easy access to the filters.
- Blockage and dirtiness of the filters are followed by electrical boards.

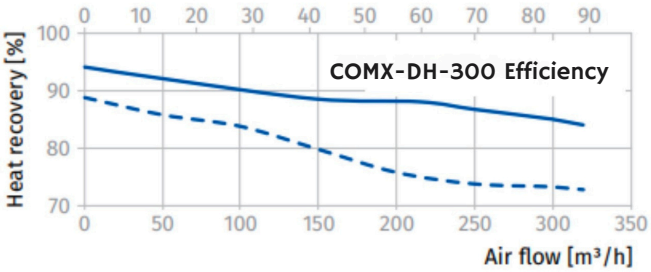
DATA

COMX-DH 300

Technical Specifications	
Nominal Air Flow (m^3/h)	330
Weigth (kg)	95
Filter (Vant.)	ePM1 55% (F7)
Filter (Asp.)	ePM10 60% (G4)
Operating Temperature (°C)	-20/60
Protection Class	IP31
Nominal Voltage (VAC)	230
Current (A)	0,4x2
Fan Power Input (W)	49x2
Preheater Power Input (W)	700
Reheater Power Input (W)	1050
Sound Level dB(A) Sound levels are measured at 250Hz and at 1,5 distance.	39

ComX-DH 300

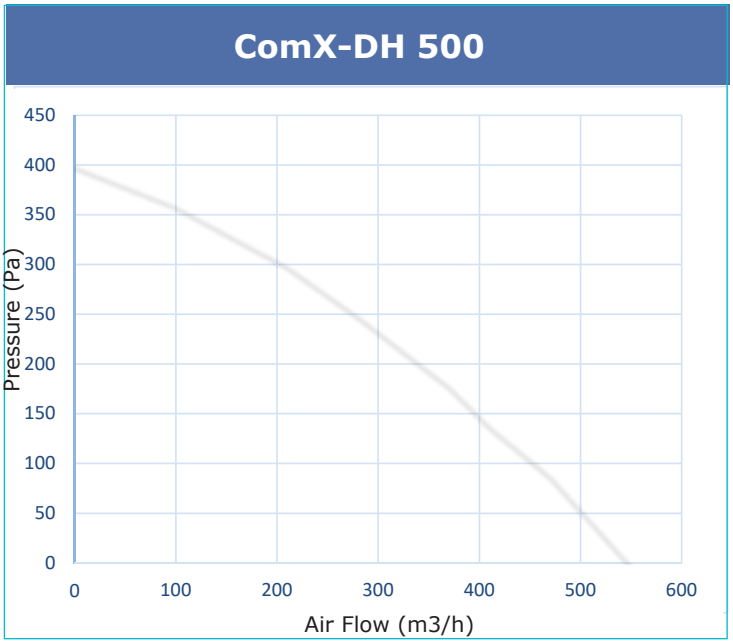


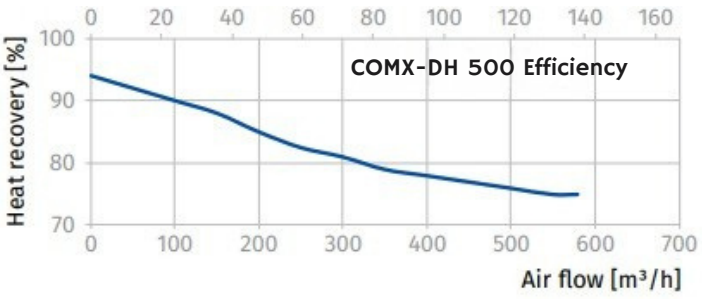


DATA

COMX-DHN 500

Technical Specifications	
Nominal Air Flow (m^3/h)	550 120 ePM1
Weigth (kg)	55% (F7) ePM10
Filter (Vant.)	60% (G4) -20/60
Filter (Asp.)	
Operating Temperature (°C)	
Protection Class	IP31
Nominal Voltage (VAC)	230
Current (A)	0,7x2
Fan Power Input (W)	87x2
Preheater Power Input (W)	750
Reheater Power Input (W)	1500
Sound Level dB(A) Sound levels are measured at 250Hz and at 1,5 distance.	42



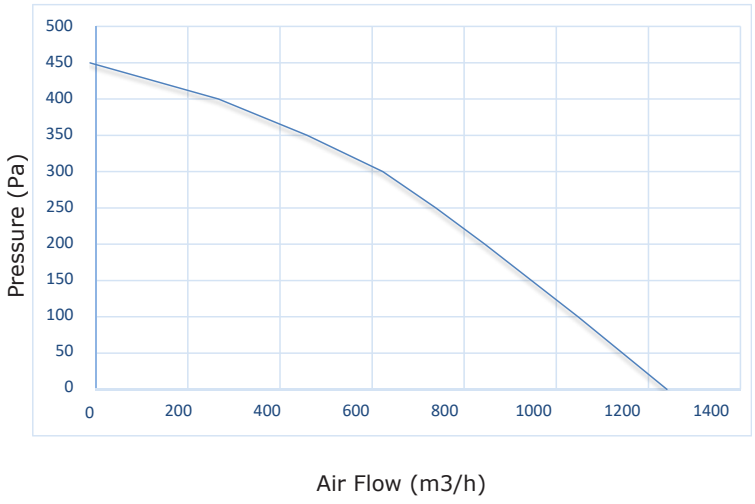


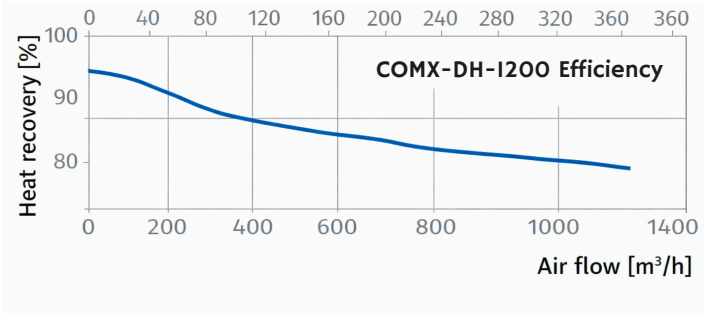
DATA

COMX-DH I200

Technical Specifications	
Nominal Air Flow (m^3/h)	1200
Weigth (kg)	160
Filter (Vant.)	ePM1 55% (F7)
Filter (Asp.)	ePM10 50% (M5)
Operating Temperature (°C)	-20/50
Protection Class	IP31
Nominal Voltage (VAC)	230
Current (A)	1,4x2
Fan Power Input (W)	182x2
Preheater Power Input (W)	2000
Reheater Power Input (W)	3150
Sound Level dB(A) Sound levels are measured at 250Hz and at 1,5m distance.	47

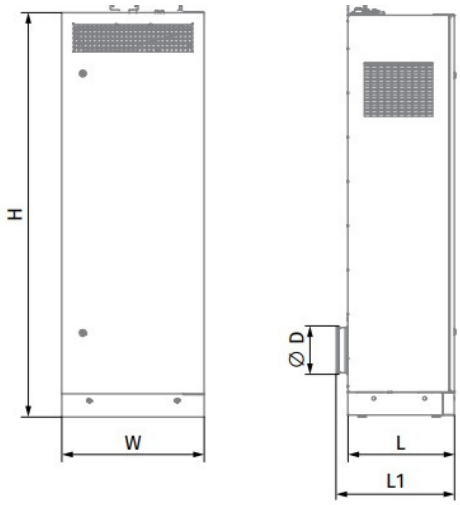
ComX-DH-1200

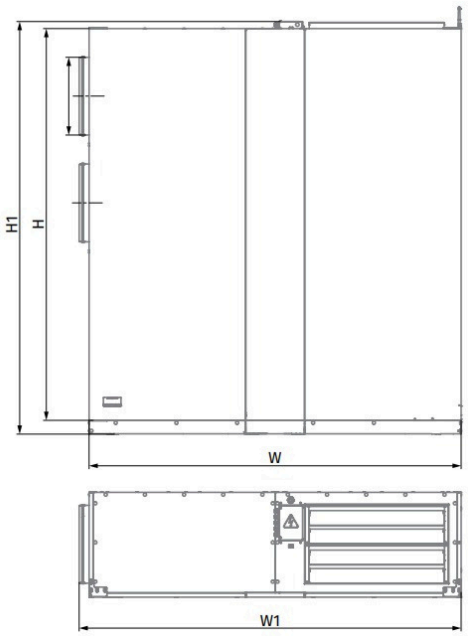




UNIT SPECIFICATIONS

Model	Ø D	H	L	W
ComX-DH 300	200	1785	480	620
ComX-DH 500	250	2177	760	650
ComX-DH 1200	400	2110	600	1900





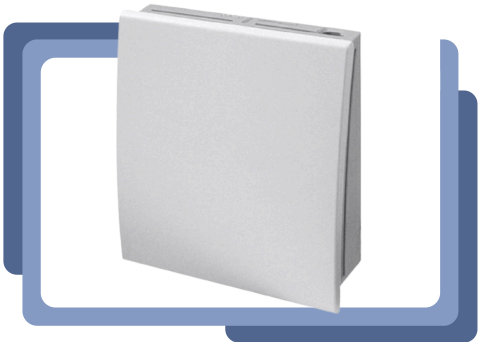
Functioning

ComX-DH units continuously supply filtered fresh air into the room while simultaneously extracting stale indoor air.

Heat energy from the exhaust air is transferred through the high-efficiency counterflow heat exchanger to the incoming fresh air stream, significantly reducing heating energy losses.

This process improves indoor air quality while maintaining energy-efficient operation.

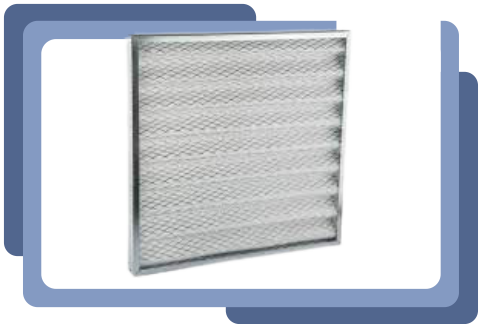
ACCESSORIES



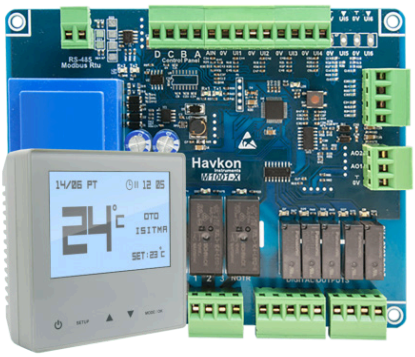
CO_2 sensor

F7 Filter

LCD Control panel



G4 Filtre



- 5-stage EC fan speed control
- Filter maintenance timer and service alarm
- Electric heater control
- Bypass damper control
- Fresh air damper control
- Heating and cooling valve control
- Device fault output signal
- Automatic freeze protection
- Heat exchanger protection logic
- Remote on/off control
- Optional CO_2 demand control
- Fire alarm interface
- Weekly scheduling functionality
- Modbus RTU communication
- Optional WiFi control panel

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