

HELTY

Pure air for your home



Made in Italy



Flow HRV Systems

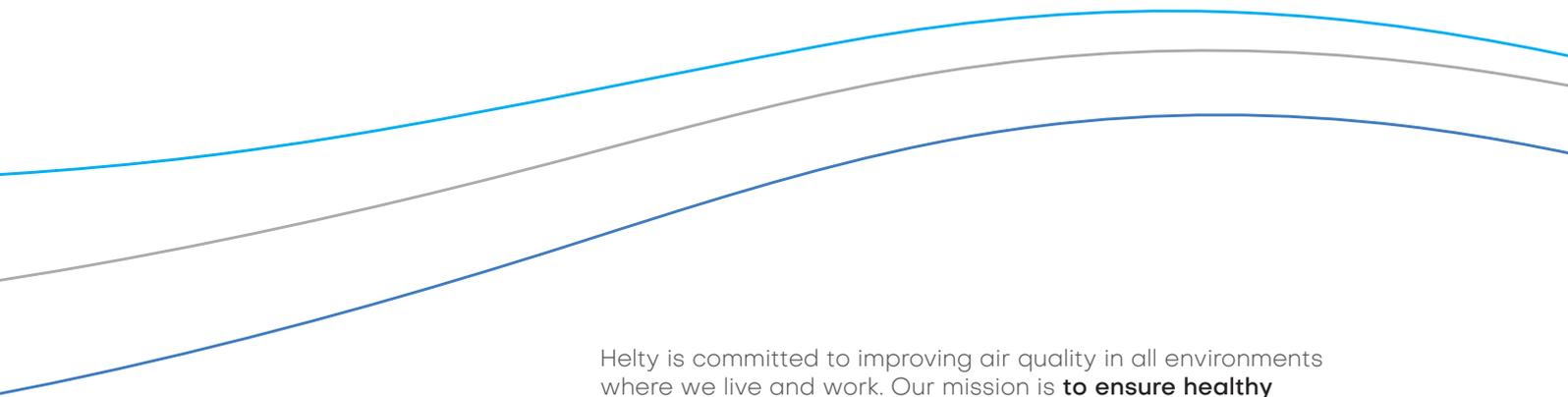
2021 Catalogue

April 2021

A breath of healthy living in every room

A healthy life is inextricably linked to what we breathe. Air is the first and most important nourishment for all life forms. On average, a person breathes more than 12,000 litres of air per day.

Choosing to breathe healthy air, because it is constantly replenished and purified, is essential.



Helty is committed to improving air quality in all environments where we live and work. Our mission is **to ensure healthy clean air in every room – in homes, offices, classrooms and public places.**

We do this by offering those who design and install systems a range of innovative **Controlled Mechanical Ventilation solutions:** decentralised systems with dual continuous flow, carefully designed and easy to install, energy efficient and with proven effectiveness in reducing pollutants.

We make indoor areas, where people spend most of their time, healthier, more liveable and more comfortable.





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Who is HELTY?

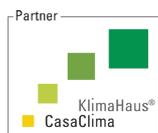
Decentralised HRV, focus on healthy living and energy saving.

Helty is the Alpac Group company specialised in **decentralised solutions for Controlled Mechanical Ventilation**. We work side by side with heating technicians, planners and system installers, wholesalers of plumbing and heating materials, energy consultants and building health experts to **spread the culture of healthy air in living and working environments**. We deal exclusively with mechanical ventilation controlled mechanical ventilation (HRV) systems with superior air filtration and heat recovery: a **technology**

that is **indispensable** in energy-efficient buildings and necessary in the field of renovation to **prevent building-related ailments, increase building value and safeguard people's comfort and health**. The **HRV solutions developed and produced by Helty entirely in Italy** are exclusively of the **dual continuous flow type**: they enable the air in the rooms to be constantly renewed in a balanced manner and with variable flow rates, purifying it of pollutants, pollen and fine dust.

Certifications and partnerships

In homes equipped with Helty ventilation, in addition to comfort, it also improves energy efficiency. The special enthalpy heat recovery unit ensures **thermal recovery performance equal to 91%, as certified by TUV**. The performance of Helty ventilation systems is recognised by the **HRV CasaClima Quality Seal**. The effectiveness of Helty Flow technology in reducing indoor pollutants such as PM10, PM2.5 and VOCs is **scientifically validated by SIMA – the Italian Society of Environmental Medicine**. Helty is a **member of AiCARR, the Italian association of air conditioning heating and refrigeration**, engaged in spreading the culture and techniques for energy, people and the environment.





ALPAC

*The Alpac Group:
technology for advanced construction*

In the world of construction and design, the Alpac Group has always been synonymous with quality, research and innovation. In **over 35 years of activity**, we have built, brick by brick, a solid well-structured company capable of continuously expanding its horizons and responding proactively to the needs of any construction site.

We have taken part in several major challenges – such as the **CityLife project in Milan** – born out of collaborations with

companies and professionals who have chosen us because we have demonstrated our ability to provide high-performance technologies, custom-designed for every situation. Experiences that required commitment, courage, willpower to think outside the box and expand the field of action from time to time. Thanks to our well-defined organisational structure and our cutting-edge technological proposal, we can manage complex construction sites in

a timely manner, supplying all the required documentation and progress reports in line with other construction site operators. Once the construction work has been completed, Alpac's After-Sales Service ensures minimum intervention times whenever required, with contact within a single day from the notification and problem resolution in the shortest possible time.

Case history

Citylife Libeskind Residences

Milan, architect
Daniel Libeskind



The Maggiolina Complex

Milan, energy efficiency
for an urban regeneration
project

Porto Fluviale 71

Rome, urban redevelopment
of a Class A complex





*The Mezzocammino
Residential Complex*

Rome, Studio Transit,
contractor Atlantico
Costruzioni



The Symphony Project

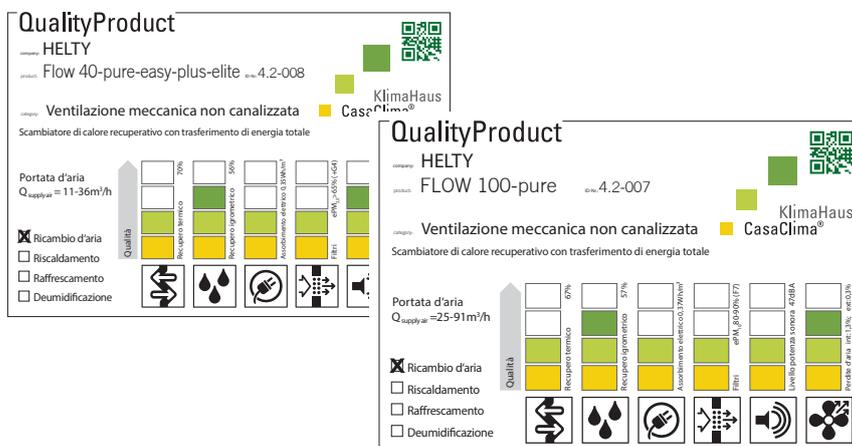
Bolzano

CasaClima Quality Seal

A guarantee of Quality
for clients and designers

Helty's FlowEASY/PLUS/ELITE, Flow40/100 ventilation systems have been awarded the Product Quality mark by the CasaClima Agency in Bolzano.

The purpose of the CasaClima Product Quality Seals is to assess equipment and **transparently inform clients and designers about the best solutions on the market** and present a reliable and authoritative certification in the building sector. It is awarded only to construction-related products that meet high quality criteria.



Specifically, the **CasaClima HRV Quality Seal** evaluates the five main ventilation system characteristics listed in the **UNI EN13141-7/-8 standards**: thermal and hygrometric recovery, electrical consumption, filtration, acoustics and air leakage, assigning each of them a value according to the performance level. The description of the product, the values attributed, and any further characteristics of the machine are included in a summary label, which helps users choose the most suitable solution for their needs.

The SIMA Verified brand

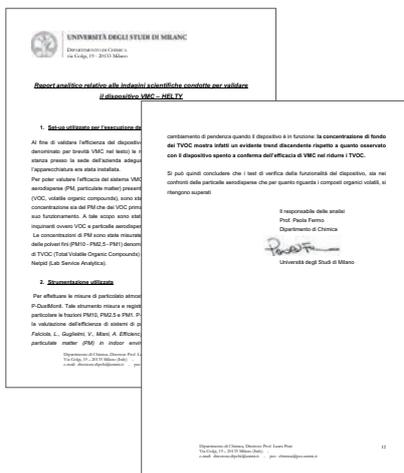
The first HRV validated by the Italian Society of Environmental Medicine

Helty Flow technology has successfully passed scientific validation by the Italian Society of Environmental Medicine and has been licensed to use the **SIMA VERIFIED** trademark.

The brand identifies and acknowledges **technologies capable of reducing the impact of pollutants on human health**, providing professionals and end buyers with an authoritative guarantee that the products are truly effective. Tests conducted by **the University of Milan, Department of Chemistry**, have confirmed the effectiveness of the Helty Flow HRV in **reducing fine dust and volatile pollutants** that can accumulate in indoor air.

The analyses conducted confirmed:

- // the high **dispersion in the concentration of fine PM10 and PM2.5 airborne dust**
- // the effectiveness of the HRV system in **reducing volatile pollutants (VOCs)**, with clearly decreasing values and concentrations remaining within safe thresholds when the device is switched on.



Indoor air quality

What do we breathe?

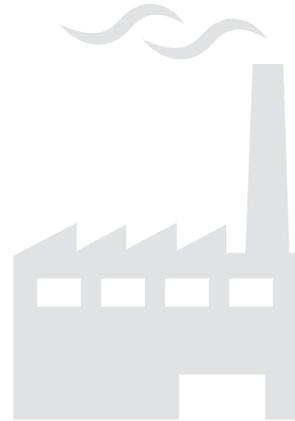
Every day, **we spend about 90% of our time indoors**, mainly at home and in the workplace. Confined environments have a limited amount of air, which we consume with every breath. People take on average **22,000 breaths a day**, processing about **12,000 litres of air through their lungs**.



Indoor air is up to 20 times more polluted

It is important for our health to breathe air that is clean, rich in oxygen and free of the pollutants that unfortunately accumulate and concentrate in closed, stuffy rooms. As confirmed by numerous studies, **indoor air can be 5 to 20 times more polluted than outdoor air**. Without proper ventilation, indoor air tends to deteriorate, becoming saturated with harmful substances that can be very dangerous to health. Harmful elements include **ultra-fine dust, fumes, combustion gases, formaldehyde, volatile organic compounds** released by chemical detergents, glues and furniture materials. Then there are pollutants of biological origin – microorganisms such as **allergens, moulds, bacteria and viruses** carried by aerosols – and those of physical origin such as the dreaded **radon gas**.

**Main pollutants
and health impacts**



Particulates

cause eye, nose and throat irritation and breathing problems, headaches, fatigue and low concentration. Prolonged contact can lead to heart and respiratory diseases.

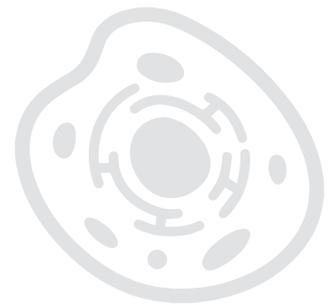
Viruses

viral agents can be emitted simply by coughing or breathing and circulate in the air in the form of bioaerosols for some time



Mould

releases spores that are harmful to health and cause allergies



Humidity

causes condensation, mould and proliferation of dust mites



VOCs

airborne substances, including formaldehyde, which can cause respiratory tract irritation or central nervous system disorders

Radon

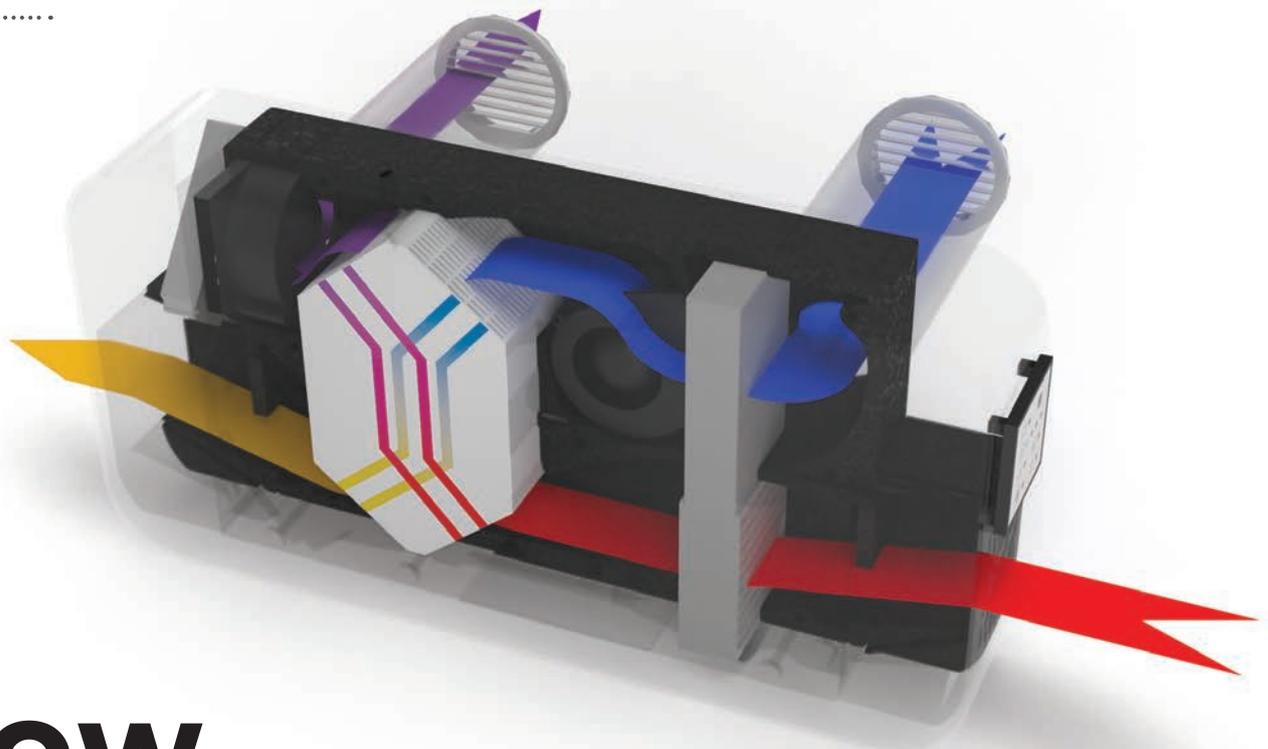
an odourless natural gas released from the ground; it is highly carcinogenic in cases of prolonged exposure



CO₂

in excessive concentrations, such as when experiencing the sensation of stale air, it causes headaches and difficulty in concentration





- stale indoor air is extracted
- stale air is expelled outside
- fresh outside air is conveyed inside
- intake air is filtered and pre-heated

How it works

Helty Flow: continuous air renewal and filtration

All Helty ventilation units are **decentralised HRVs with dual continuous flow** and counter-current crossed airflows. **Stale air, saturated with humidity and CO₂, is extracted from indoor** areas and forced to flow into the heat exchanger where – without contact between the two flows – its heat is transferred to the incoming airflow simultaneously pumped in from outside.

The fresh air, which is richer in oxygen, is **pre-heated and purified** by a high-performance filter that traps smog, particulates and pollen. This technology provides **constant and balanced air exchange** in closed environments, ensuring **superior performance** in terms of energy efficiency, air purification and indoor comfort.

Healthy living and energy saving

Energy saving is optimised by the enthalpy heat exchanger, which **recovers up to 91% of the heat of the expelled air** at the outlet. Performance is certified by TÜV SÜD according to the EN 13141-8 standard. The **F7 filter (ePM 65%)** prevents the entry not only of dust and pollen but also of PM10 and PM2.5 particles, safeguarding the **healthy quality of the air** you breathe in your home. The silent operation and proven noise reduction performance on external building walls contribute to **optimal acoustic comfort**.



The benefits of HRV

it ensures that ambient air is always renewed and rich in oxygen

it counteracts the airborne spread of viruses and bacteria

it filters outdoor air from fine dust and pollen

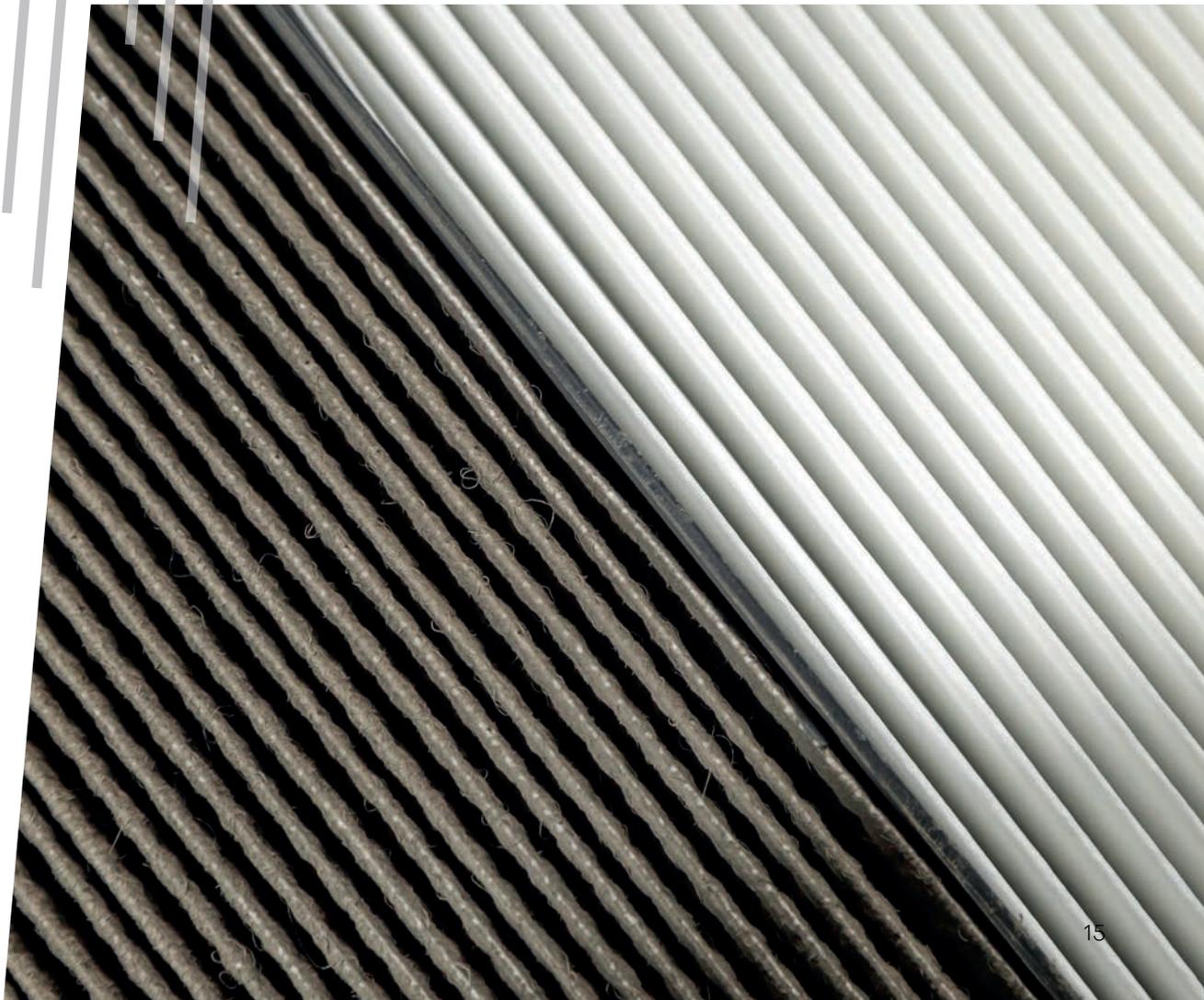
it removes excess humidity, counteracting condensation and mould problems

it disperses indoor CO₂ and airborne pollutants

it decreases allergens and mites

it reduces fumes and bad smells

it mitigates the risk of radon gas



The Flow range

Wall-mounted HRV



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FlowEASY

.....
FlowEASY-UV



.....
FlowPLUS

.....
FlowELITE

Built-in recessed HRV

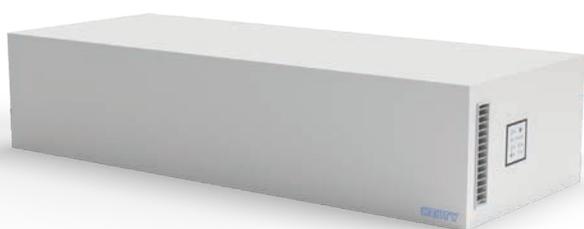


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Flow40

.....
Flow70

.....
Flow100

Community HRV



.....
: **FlowM70/100/150**



.....
: **FlowM800**



.....
: **Flow800**

.....

Wall-mounted HRV

Point-wise systems for retrofit projects on existing buildings



Flow model	EASY	EASY-UV	PLUS	ELITE
Night function	✓	✓	✓	✓
Hyperventilation	✓	✓	✓	✓
Filter replacement alert	✓	✓	✓	✓
Remote control	✓	✓	✓	✓
Paintable cover	-	✓	-	-
UV-C Lamp	-	-	✓	-
Free Cooling	-	-	✓	✓
On/Off LED panel	-	-	✓	✓
Humidity sensor	-	-	-	✓
Air Guard App	-	-	-	✓
Color Trust	-	-	-	✓
CO ₂ and VOC sensor	-	-	-	✓
LED interface	-	-	-	✓
TÜV tested (std EN 13141-8)	✓	✓	✓	✓





Flow EASY

Compact and functional

Hely FlowEASY is a point-wise controlled residential ventilation system that extracts stale air from indoor environments and introduces new, oxygenated and clean air thanks to dedicated standard-compliant F7+G4 filters. The extremely compact dimensions of Hely FlowEASY make it **suitable for installation even in small spaces. Ideal for a worry-free retrofit.**

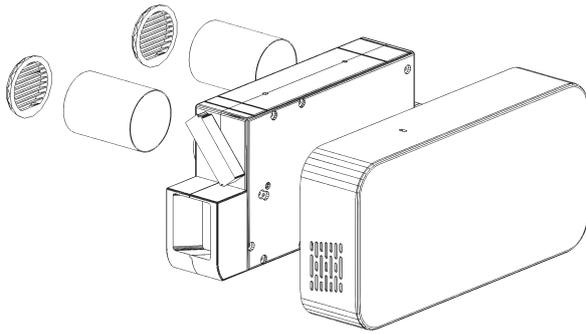
FlowEASY is designed to bring the advantages and comfort of **continuous dual-flow HRV** to individual rooms in lived-in buildings, where it is necessary to ensure an adequate air renewal, even at night thanks to the night mode.

It is ideal for rooms of up to 20 square metres. Installation is quick and easy: **two 8 cm through-holes in the external wall and a power connection** are all that is required. Maintenance is reduced to the bare essentials: simply **replace the filter of each individual unit** when alerted to do so by the panel warning LED – no need to call a service technician.



*Paintable
cover*

Units are also available with a special, paint-ready surface, designed for personalisation and perfect integration into any space or environment.



Thanks to the infrared remote control, it may be easily operated from anywhere in the room.



It is also available with a cover which may be coloured to match any space and environment.

 91% Heat recovery efficiency	 18 dB(A) Sound pressure level	 42 m ³ /h Maximum airflow	 F7+G4 Air intake filtration	 -36.7 kWh/m ² a SEC energy consumption (moderate climates)
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Technical data

Energy Class

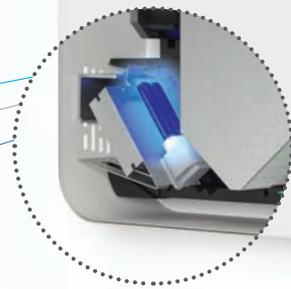
A

Specifications	UoM	Value
Airflow	m ³ /h	10/17/26/37/42 ⁽¹⁾
Airflow adjustment		4 stages + hyperventilation
Power consumption	W	3.6/5.5/9.0/17.5/20.0 ⁽¹⁾
Specific Power Input	W/m ³ /h	0.35/0.32/0.35/0.49/0.48 ⁽¹⁾
Power supply	Vac	230
Operating voltage ⁽²⁾	Vdc	24
Max. current consumption ⁽³⁾	A	0.17
Mass	kg	3
Dimensions (H x W x D)	mm	560 x 280 x 120
Heat exchanger		enthalpy with cross-flow counter flow
Heat recovery efficiency	%	91
Sound power level ⁽⁴⁾	dB(A)	29.5/34.9/42.0/50.7
Sound pressure level ⁽⁵⁾	dB(A)	18.0/23.4/30.5/39.2
Facade noise abatement Dn, e, w	dB	45
Intake and Extraction filters		F7+G4 / G2
Energy class (cold / temperate / hot)		A+ / A / E
SEC (cold / temperate / hot)	kWh/m ² a	-73.8 / -36.7 / -13.3
Unit type		Bidirectional RVU-B
Specific Power Input SPI ⁽⁶⁾	W/m ³ /h	0.35
Internal leakage rate ⁽⁶⁾	%	0.8
External leakage rate ⁽⁶⁾	%	0.9
Airflow sensitivity to pressure variation (+20Pa to -20Pa)		Class S1
Indoor/outdoor air tightness		Class S1

1. In hyperventilation mode
 2. The supplied power converter ensures that the unit can run on 230 Vac (to be connected during installation).

3. When powered by 230 Vac.
 4. According to UNI 3744: 2010

5. Measured in a 30 m² semi anechoic environment at a distance of 3 m
 6. In accordance with EN 13141-8: 2014-09



Flow EASY-UV

*The wall-mounted HRV
that renews and purifies your home's air*

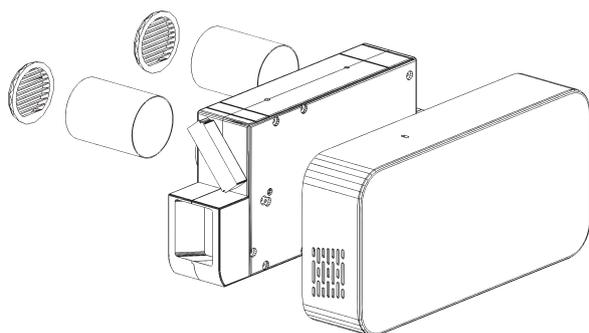
Hely FlowEASY-UV is an **automatic air exchange and sanitising** technology that integrates the advantages of a HRV with the sterilising and microbe-killing power of UV technology. In addition to the dual filter, this unit incorporates a **259 nm UV-C lamp** which uses ultraviolet radiation to combat viruses and volatile substances to purify the air. The high level of purity of the intake air and the abatement of pollutants ensures **a combined action against viruses, bacteria and contaminants**, improving the healthy quality of the confined environment.

The enthalpy heat recovery system optimises **thermal comfort in every season**. The unit **does not require ducting** and can be easily installed on any external wall. Its simplicity of use, compact dimensions and dual ventilation-purification feature make Hely Flow Easy-UV the **all-in-one retrofit solution to increase health and safety** in existing homes.



*Healthy air at home
thanks to UV*

UV lamps are commonly used in hospital settings for their strong germicidal effect. UV-C radiation wavelengths counteract even the smallest microorganisms like viruses, reducing their infectious load and blocking their reproductive cycles.



Thanks to the infrared remote control, it may be easily operated from anywhere in the room.



UV lamps that counter even the smallest microorganisms such as viruses.

 91% Heat recovery efficiency	 18 dB(A) Sound pressure level	 42 m ³ /h Maximum airflow	 F7+G4 Air intake filtration	 -36.7 kWh/m ² a SEC energy consumption (moderate climate)
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Technical data

Energy Class

A

Specifications	UoM	Value
Airflow	m ³ /h	10/17/26/37/42 ⁽¹⁾
Airflow adjustment		4 stages + hyperventilation
Power consumption (excluding UV lamp)	W	3.6/5.5/9.0/17.5/20.0 ⁽¹⁾
Specific Power Input (excluding UV lamp)	W/m ³ /h	0.35/0.32/0.35/0.49/0.48 ⁽¹⁾
UV Power consumption	W	7.5
Power supply	Vac	230
Operating voltage ⁽²⁾	Vdc	24
Max. current consumption ⁽³⁾	A	0.83
Mass	kg	3
Product dimensions (horizontal W x H x D)	mm	560 x 280 x 120
Heat exchanger		enthalpy with cross-flow counter flow
Heat recovery efficiency	%	91
Sound power level ⁽⁴⁾	dB(A)	29.5/34.9/42.0/50.7
Sound pressure level ⁽⁵⁾	dB(A)	18.0/23.4/30.5/39.2
Facade noise abatement Dn, e, w	dB	45
Intake and Extraction filters		F7+G4 / G2
Energy class (cold / temperate / hot)		A+ / A / E
SEC (cold / temperate / hot)	kWh/m ² a	-73.8 / -36.7 / -13.3
Unit type		Bidirectional RVU-B
Specific Power Input SPI ⁽⁶⁾	W/m ³ /h	0.35
Internal leakage rate ⁽⁶⁾	%	0.8
External leakage rate ⁽⁶⁾	%	0.9
Airflow sensitivity to pressure variation (+20Pa to -20Pa)		Class S1
Indoor/outdoor air tightness		Class S1

1. In hyperventilation mode
 2. The supplied power converter ensures that the unit can run on 230 Vac. (to be connected during installation).

3. When powered by 230 Vac.
 4. According to UNI 3744: 2010

5. Measured in a 30 m² semi anechoic environment at a distance of 3 m
 6. In accordance with EN 13141-8: 2014-09



Flow PLUS

Automatic and silent

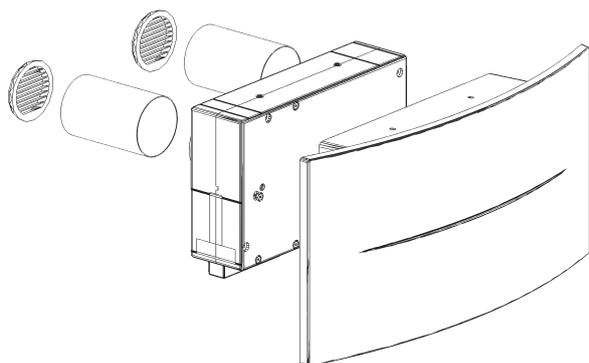
Helly FlowPLUS is a point-wise HRV with dual continuous flow, enthalpy heat recovery and high-performance air filtration. The unit is equipped with a **sensor that monitors the level of humidity in the air and automatically adjusts ventilation to counteract the formation of condensation and mould.** Featuring a **clean minimal design**, it can be easily installed on external walls without invasive renovation work.

Thanks to the enthalpy heat exchanger, the system recovers up to 91% of the heat of the outgoing air, using it to heat the incoming air before introducing it into the rooms. With a **sound pressure level of 18 dB at minimum speed**, it is incredibly quiet. It is imperceptible even during sleeping hours thanks to the night function.



Humidity under control.

In addition to the panel interface and remote control, the unit can be managed via smartphone using the **Air Guard app**, which enables you to adjust its operation and monitor the temperature and humidity levels in your home.



Humidity sensor for automatic ventilation regulation.



Thanks to the infrared remote control, it may be easily operated from anywhere in the room.



91%

Heat recovery efficiency



18 dB(A)

Sound pressure



42 m³/h

Maximum airflow



F7+G4

Air intake filtration



-36.7 kWh/m²a

SEC energy consumption (moderate climate)

Technical data

Energy Class

A

Specifications

Specifications	UoM	Value
Airflow	m ³ /h	10/17/26/37/42 ⁽¹⁾
Airflow adjustment		4 stages + hyperventilation
Power consumption	W	3.6/5.5/9.0/17.5/20.0 ⁽¹⁾
Specific Power Input	W/m ³ /h	0.35/0.32/0.35/0.49/0.48 ⁽¹⁾
Power supply	Vac	230
Operating voltage ⁽²⁾	Vdc	24
Max. current consumption ⁽³⁾	A	0.17
Mass	kg	6
Product dimensions (horizontal W x H x D)	mm	695 x 353 x 152
Heat exchanger		enthalpy with cross-flow counter flow
Heat recovery efficiency	%	91
Sound power level ⁽⁴⁾	dB(A)	29.5/34.9/42.0/50.7
Sound pressure level ⁽⁵⁾	dB(A)	18.0/23.4/30.5/39.2
Facade noise abatement Dn, e, w	dB	45
Intake and Extraction filters		F7+G4 / G2
Modbus RTU rs485		Yes ⁽⁶⁾
Energy class (cold / temperate / hot)		A+ / A / E
SEC (cold / temperate / hot)	kWh/m ² a	-74.1 / -37.9 / -14.6
Unit type		Bidirectional RVU-B
Specific Power Input SPI ⁽⁷⁾	W/m ³ /h	0.35
Internal leakage rate ⁽⁷⁾	%	0.8
External leakage rate ⁽⁷⁾	%	0.9
Airflow sensitivity to pressure variation (+20Pa to -20Pa)		Class S1
Indoor/outdoor air tightness		Class S1

1. In hyperventilation mode

2. The supplied power converter ensures that the unit can run on 230 Vac. (to be connected during installation).

3. When powered by 230 Vac.

4. According to UNI 3744: 2010

5. Measured in a 30 m² semi anechoic environment at a distance of 3 m

6. This excludes control via the interface panel

7. In accordance with EN 13141-8: 2014-09



Flow ELITE

Elegant and smart

FlowELITE is equipped with a humidity sensor, CO₂ and VOC sensors, 'Color Trust' technology, LED lighting kit, mobile app control.

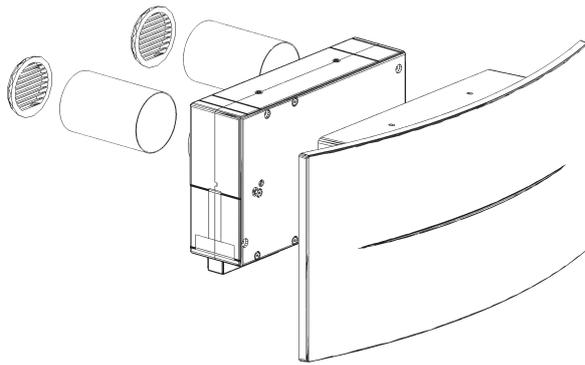
Like the other Flow models, it ensures superior heat recovery and pollutant filtration performance, also adding advanced features that enable it **to blend into room decor, providing comfort and well-being.**

The design cover incorporates **dimmable and timer-controlled LEDs on the sides** to create atmospheric accessory lighting, particularly suitable for living room installations. Operation is automatically regulated by the **humidity, CO₂ and VOC sensors**, to prevent excessive pollutant concentrations, increase air renewal and improve oxygenation.



Healthy air within reach of your app

The 'Color Trust' light sensor **indicates the air quality in the home**, intuitively informing you when indoor pollutant levels are acceptable or too high. The Air Guard app makes the HRV even easier to use by providing **integrated management of controlled mechanical ventilation systems** and also providing air quality level readings detected by sensors.



Sensors for automatic control of humidity, CO₂ levels and VOCs



Thanks to the infrared remote control, it may be easily operated from anywhere in the room.



Dimmable LED lighting kit.



91%

Heat recovery efficiency



18 dB(A)

Sound pressure level



42 m³/h

Maximum airflow



F7+G4

Air intake filtration



-36.7 kWh/m²a

SEC energy consumption (moderate climate)

Technical data

Energy Class

A

Specifications	UoM	Value
Airflow	m ³ /h	10/17/26/37/42 ⁽¹⁾
Airflow adjustment		4 stages + hyperventilation
Power consumption (excluding LED lighting)	W	3.6/5.5/9.0/17.5/20.0 ⁽¹⁾
Specific Power Input (excluding LED lighting)	W/m ³ /h	0.35/0.32/0.35/0.49/0.48 ⁽¹⁾
LED consumption	W	12
Power supply	Vac	230
Operating voltage ⁽²⁾	Vdc	24
Max. current consumption ⁽³⁾	A	0.35
Mass	kg	6
Product dimensions (horizontal W x H x D)	mm	695 x 353 x 152
Heat exchanger		enthalpy with cross-flow counter flow
Heat recovery efficiency	%	91
Sound power level ⁽⁴⁾	dB(A)	29.5/34.9/42.0/50.7
Sound pressure level ⁽⁵⁾	dB(A)	18.0/23.4/30.5/39.2
Facade noise abatement Dn, e, w	dB	45
Intake and Extraction filters		F7+G4 / G2
Modbus RTU rs485		Yes ⁽⁶⁾
Energy class (cold / temperate / hot)		A+ / A / E
SEC (cold / temperate / hot)	kWh/m ² a	-74.1 / -37.9 / -14.6
Unit type		Bidirectional RVU-B
Specific Power Input SPI ⁽⁷⁾	W/m ³ /h	0.35
Internal leakage rate ⁽⁷⁾	%	0.8
External leakage rate ⁽⁷⁾	%	0.9
Airflow sensitivity to pressure variation (+20Pa to -20Pa)		Class S1
Indoor/outdoor air tightness		Class S1

1. In hyperventilation mode
2. The supplied power converter ensures that the unit can run on 230 Vac. (to be connected during installation).

3. When powered by 230 Vac.
4. According to UNI 3744: 2010
5. Measured in a 30 m² semi anechoic environment at a distance of 3 m

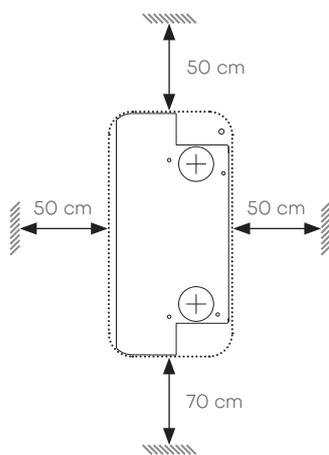
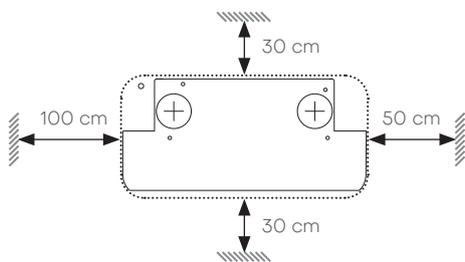
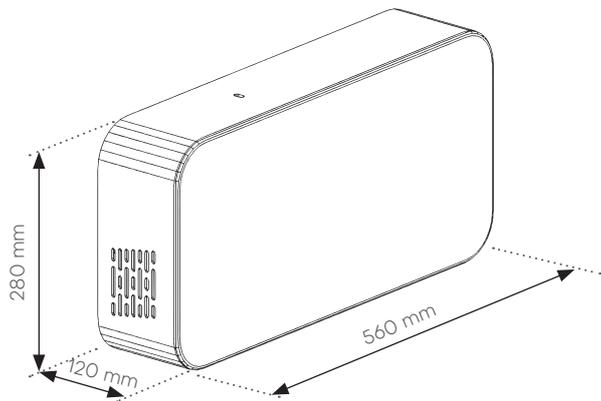
6. This excludes control via the interface panel
7. In accordance with EN 13141-8: 2014-09

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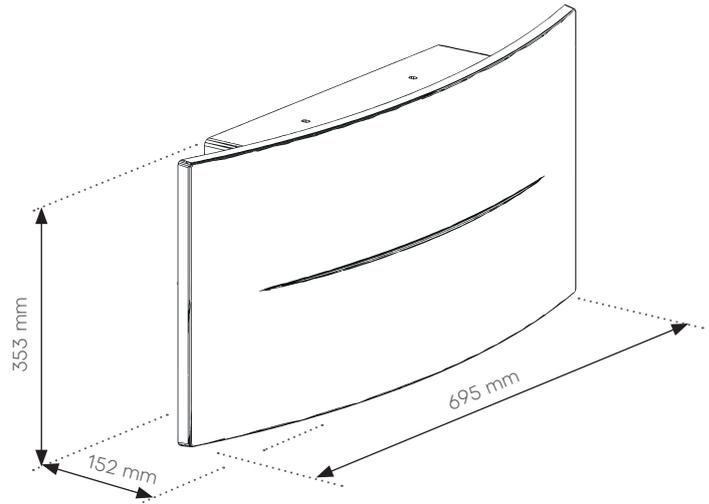


Dimensions Flow wall-mounted HRV

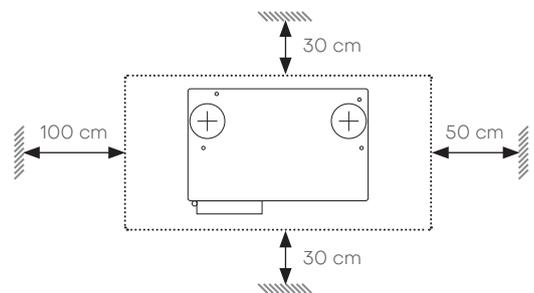
FlowEASY



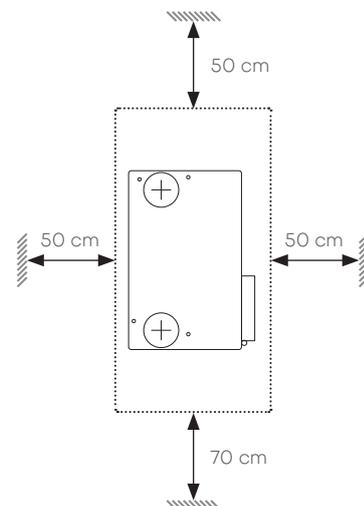
FlowPLUS - FlowELITE



Horizontal
orientation



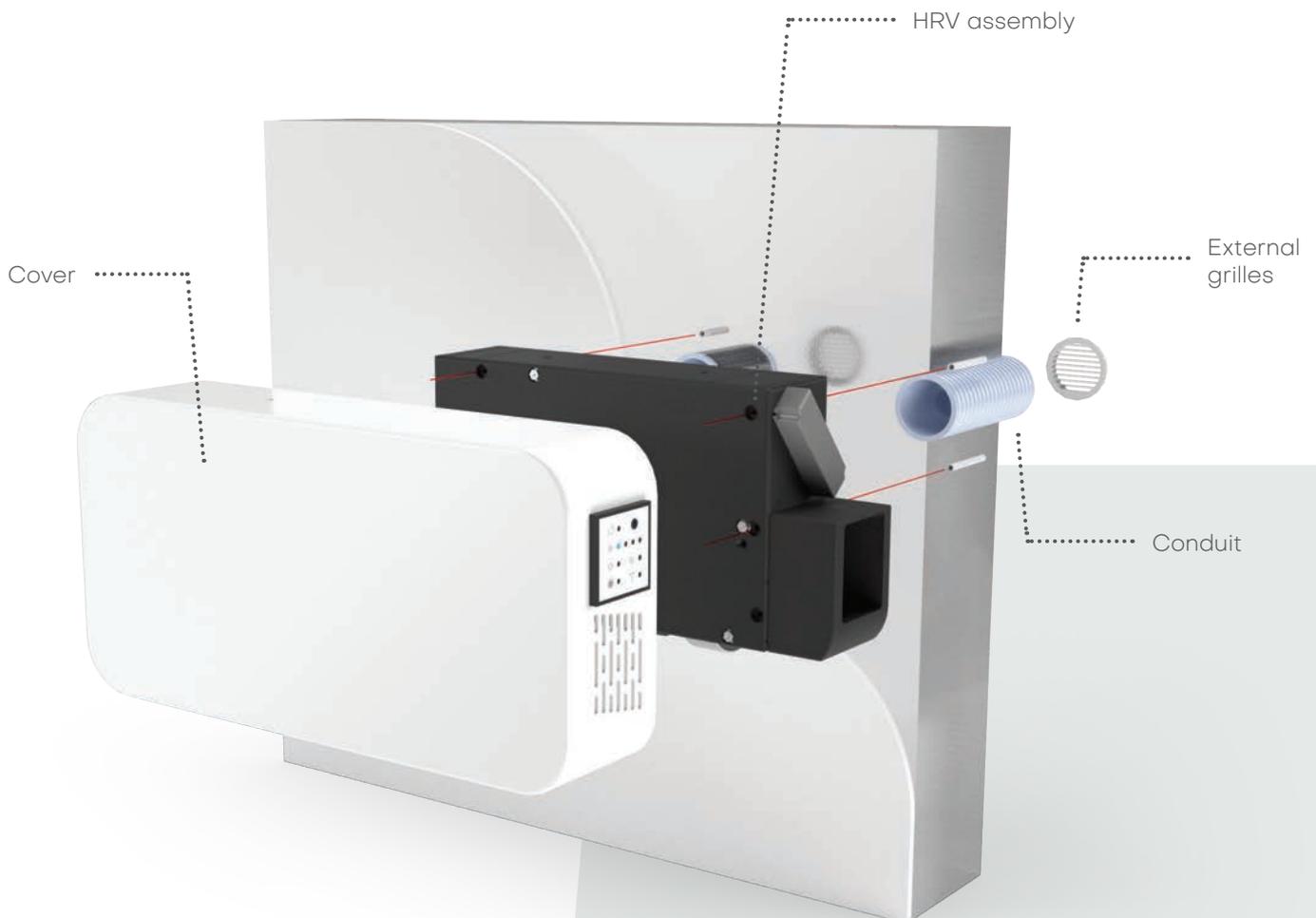
Vertical
orientation



Installation Flow wall-mounted HRV

With wall-mounted HRV systems, installation is plug & play. Fitting requires two small 8 cm core-drilled holes in the masonry, insertion and sealing of the conduit in the masonry section, fixing the unit to the wall with pressure screws, electrical connection and positioning the external grilles. If the optional 10 cm conduit kit is used, the grilles can be installed directly from inside the house.

For more details, please refer to the instruction manual. For improved air distribution and optimal acoustic comfort, the recommended installation position a central point of a wall of the room to be ventilated, as high as possible (compatibly with the minimum recommended distances) and preferably in a horizontal configuration.



Point-wise HRV: solution comparison

Point-wise HRV is the ideal solution for the renewal of air in rooms and homes where it is either impossible or inconvenient to create a ducted air distribution system. The alternative in these cases is between single alternating flow HRV systems and dual continuous flow HRV systems. Here are some aspects to consider carefully in order to make an informed choice.

Point-wise HRV with single alternating flow (push-pull)

Decentralised devices with single alternating cyclic flow are also called "push-pull" because of their operation which consists of two phases in which the air is alternately pushed out of and pulled into the rooms in which they are installed. In the first phase, extracted air passes through a porous ceramic regenerative recuperator, yielding its waste heat.

In the following phase, cold external air travels through the ceramic element and absorbs part of the previously accumulated heat. Studies and experiments recently conducted on this category of equipment have shown that **the average heat recovery efficiency is rather low**, in the order of about 20%, compared to peak values measured during the very first seconds of each cycle, which can reach 90%. These systems are very simple and inexpensive but they have **low air intake filtration capacity**.

In addition, since they operate with two phases, one for intake and one for extraction, this category of equipment is permanently unbalanced, i.e. it alternately generates depression and over-pressure in the rooms.

To overcome this drawback, the equipment **must be installed in pairs** with the operating cycles reversed and synchronised so that when one intakes the other extracts and vice versa, with the inevitable **doubling of costs**. Only by installing the two devices in this way can the effective flow rates be equal to those of a single device, with two balanced flows.



Example of point-wise single-conduit alternate single-flow HRV, also known as push-pull type

Point-wise HRV with dual continuous flow

The most modern decentralised controlled mechanical ventilation systems are those with dual continuous flow, equipped with a high efficiency heat exchanger, preferably of the enthalpy type and with forced filtration of intake air. They are built around **two electric fans of equal capacity** serving the same room, one extracting stale air and the other simultaneously taking in fresh air. **The two airflows, extraction and intake, are simultaneous and pass through the heat exchanger without ever coming into contact or contaminating each other.**

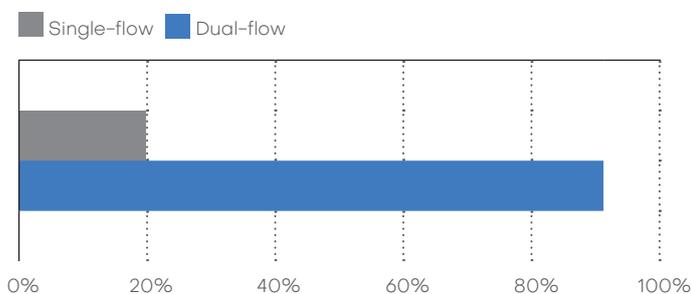
This category of equipment offers **more efficient and constant heat recovery efficiency**, which reaches and even exceeds values of 90%. They are usually designed and built to correctly serve the ventilation needs of a single room or of rooms with a maximum surface area of 20 or 30 square metres, but they have the undoubted advantage of being easy to install and maintain.

Today's decentralised dual-flow balanced systems represent **the best combination of functionality, low consumption as well as ease and economy of installation, maintenance and operation.**



Dual F7 + G4 filter

Average heat transfer efficiency



Scan the QR code and download the HRV Guide



Wall-mounted HRV

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FlowEASY



FlowELITE



FlowPLUS



.....

Built-in recessed HRV

Built-in systems for renovations and energy re-qualification projects



Flow model	40	40 ^{PURE}	70	70 ^{PURE}	100	100 ^{PURE}
Night function	✓	✓	✓	✓	✓	✓
Hyperventilation	✓	✓	✓	✓	✓	✓
Filter replacement alert	✓	✓	✓	✓	✓	✓
Power supply	✓	✓	✓	✓	✓	✓
Humidity sensor	✓	✓	✓	✓	✓	✓
On/Off LED panel	✓	✓	✓	✓	✓	✓
Free Cooling	✓	✓	✓	✓	✓	✓
Air Guard App	-	✓	-	✓	-	✓
CO ₂ and VOC sensor	-	✓	-	✓	-	✓
TÜV tested (std EN 13141-8)	✓	✓	-	-	✓	✓



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Flow40

Zero bulk, maximum comfort

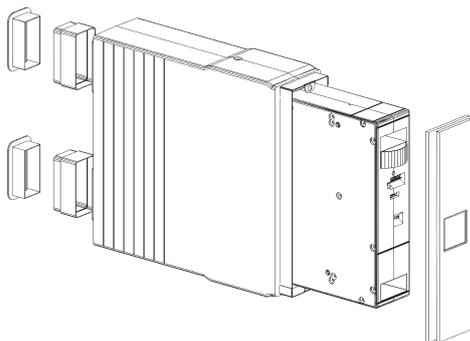
Hely Flow40 is a **decentralised solution built into masonry**; it is an ideal solution for renovation contexts and energy re-qualification projects. The HRV becomes invisible, combining excellent air renewal performance with **no footprint: Flow40** does not require ducting or false ceilings and **leaves only the cover visible**, available in a white pre-painted metal version or in white or black Plexiglas. The concealed system is housed **in a prepared Expanded Polystyrene recess, adaptable to walls of varying thickness**, which can be fitted during construction and completed with HRV units and covers at a later date.

The HRV unit is equipped with a dual cross-flow counter-current enthalpy heat exchanger, with 91% recovery efficiency and **dual F7 + G4/G2 filter** that purifies the fresh air and safeguards system performance. It has a **sensor which continuously monitors humidity** to provide automatic ventilation regulation. The **electronic free-cooling function** contributes to passive cooling by introducing fresh air into the home in favourable outdoor temperature conditions.



Flow40^{PURE}

The PURE versions also include a **sensor for detecting CO₂ and VOC levels** with automatic adjustment of the airflow to maintain the sensation of well-being in the room. This version enables management of all functions and monitoring of air quality values via the **Air Guard app**.



Sensors for automatic control of humidity, CO₂ levels and VOCs



Zero footprint solution: completely recessed in masonry.



91%

Heat recovery efficiency



18 dB(A)

Sound pressure



42 m³/h

Maximum airflow



F7+G4

Air intake filtration



-36.7 kWh/m²a

SEC energy consumption (moderate climate)

Technical data

Energy Class

A

Specifications

Specifications	UoM	Value
Airflow	m ³ /h	10/17/26/37/42 ⁽¹⁾
Airflow adjustment		4 stages + hyperventilation
Power consumption	W	3.6/5.5/9.0/17.5/20.0 ⁽¹⁾
Specific Power Input	W/m ³ /h	0.35/0.32/0.35/0.47/0.48 ⁽¹⁾
Power supply	Vac	230
Operating voltage ⁽²⁾	Vdc	24
Max. current consumption ⁽³⁾	A	0.17
Mass of HRV unit	kg	4
Unit dimensions (vertical W x H x D)	mm	108 x 408 x 268
Fitting area dimensions (vertical W x H x D)		145 x 473 x 517
Heat exchanger		enthalpy with cross-flow counter flow
Heat recovery efficiency	%	91
Sound power level ⁽⁴⁾	dB(A)	26.5/32.4/37.8/46
Sound pressure level ⁽⁵⁾	dB(A)	15/20.9/26.3/34.5
Facade noise abatement Dn, e, w	dB	45
Intake and Extraction filters		F7+G4 / G2
Modbus RTU rs485		Yes ⁽⁶⁾
Energy class (cold / temperate / hot)		A+ / A / E
SEC (cold / temperate / hot)	kWh/m ² a	-74.1 / -37.9 / -14.6
Unit type		Bidirectional RVU-B
Specific Power Input SPI ⁽⁷⁾	W/m ³ /h	0.35
Internal leakage rate ⁽⁷⁾	%	0.8
External leakage rate ⁽⁷⁾	%	0.9
Airflow sensitivity to pressure variation (+20Pa to -20Pa)		Class S1
Indoor/outdoor air tightness		Class S1

1. In hyperventilation mode

2. The supplied power converter ensures that the unit can run on 230 Vac. (to be connected during installation).

3. When powered by 230 Vac.

4. According to UNI 3744: 2010

5. Measured in a 30 m³ semi anechoic environment at a distance of 3 m

6. In the PURE versions, this excludes control via the interface panel

7. In accordance with EN 13141-8: 2014-09



Flow 70/100

*Increased airflow
and automatic by-pass*

The recessed built-in Flow70 and Flow100 systems provide a space-saving, high-performance solution for controlled mechanical ventilation in medium-sized rooms requiring **airflow rates of up to 70 or 100 m³/hour**. They are ideal for use **in residential and small service sector premises**.

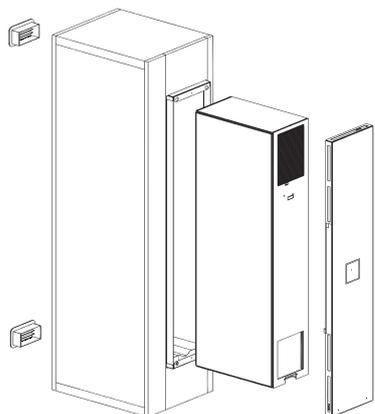
The **free-cooling** function can be **activated automatically by by-passing the heat exchanger**.

In favourable outside temperature conditions, the unit contributes to heating or cooling at zero cost, lightening the load on existing air conditioning systems. Comfort is ensured by ensuring reduced sound pressure levels and particular attention to sound insulation. The special EPS preparatory recess that can be installed in the perimeter walling ensures **certified façade noise reduction up to Dn,e,w = 54dB**.



Flow70/100^{PURE}

The PURE versions also include a **sensor for detecting CO₂ and VOC levels** with automatic adjustment of the airflow to maintain the sensation of well-being in the room. This version enables management of all functions and monitoring of air quality values via the **Air Guard app**.



Sensors for automatic control of humidity, CO₂ levels and VOCs



Zero footprint solution: completely recessed in masonry.



87 %

Heat recovery efficiency



24.3 dB(A)

Sound pressure



100 m³/h

Maximum airflow



F7

Air intake filtration



-37.33 kWh/m²a

SEC energy consumption (moderate climate)

Technical data

Energy Class

A

Specifications	UoM	Flow70	Flow100
Airflow	m ³ /h	20/40/55/70/85 ⁽¹⁾	25/50/70/100/110 ⁽¹⁾
Airflow adjustment		4 stages + hyperventilation	4 stages + hyperventilation
Power consumption	W	5.8/11.3/171/24.7/35 ⁽¹⁾	6.4/14.6/24.7/43.4/52 ⁽¹⁾
Specific Power Input	W/m ³ /h	0.29/0.28/0.31/0.35/0.41 ⁽¹⁾	0.26/0.29/0.35/0.43/0.47 ⁽¹⁾
Power supply	Vac	230	230
Tensione di funzionamento ⁽²⁾	Vdc	24	24
Max. current consumption ⁽³⁾	A	0.25	0.45
Mass of HRV unit	kg	10	10
Unit dimensions (vertical W x H x D)	mm	186 x 920 x 340	186 x 920 x 340
Fitting area dimensions (vertical W x H x D)		340 x 1277 x 523	340 x 1277 x 523
Heat exchanger		enthalpy with cross-flow counter flow	enthalpy with cross-flow counter flow
Heat recovery efficiency	%	90	87
Sound power level ⁽⁴⁾	dB(A)	35.8/39.6/43.3/46.7	35.8/42.2/46.7/49.0
Sound pressure level ⁽⁵⁾	dB(A)	24.3/28.1/31.8/35.2	24.3/30.7/35.2/37.5
Facade noise abatement Dn, e, w	dB	54	54
Intake and Extraction filters		F7 / G4	F7 / G4
Modbus RTU rs485		Yes ⁽⁶⁾	Yes ⁽⁶⁾
Energy class (cold / temperate / hot)		A+ / A / E	A+ / A / E
SEC (cold / temperate / hot)	kWh/m ² a	-74.98 / -38.72 / -15.32	-72.96 / -37.33 / -14.29
Unit type		Bidirectional RVU-B	Bidirectional RVU-B
Specific Power Input SPI ⁽⁷⁾	W/m ³ /h	0.31	0.35
Internal leakage rate ⁽⁷⁾	%	0.3	0.3
External leakage rate ⁽⁷⁾	%	1.3	1.3
Airflow sensitivity to pressure variation (+20Pa to -20Pa)		Class S1	Class S1
Indoor/outdoor air tightness		Class S1	Class S1

1. In hyperventilation mode
2. The supplied power converter ensures that the unit can run on 230 Vac. (to be connected during installation).

3. When powered by 230 Vac.
4. According to UNI 3744: 2010
5. Measured in a 30 m³ semi anechoic environment at a distance of 3 m

6. In the PURE versions, this excludes control via the interface panel
7. In accordance with EN 13141-8: 2014-09

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Adaptable cover may be customised to blend in with any decor

These concealed recessed HRV systems may be finished with different covers, depending on their installation context. The **cover is available in white pre-painted sheet metal**, which can also be painted if required to blend with the room decor. Or you can opt for the **plexiglass cover**, which **features a convenient magnetic clip system** for easy filter replacement. The plexiglass cover is available in either white or black.

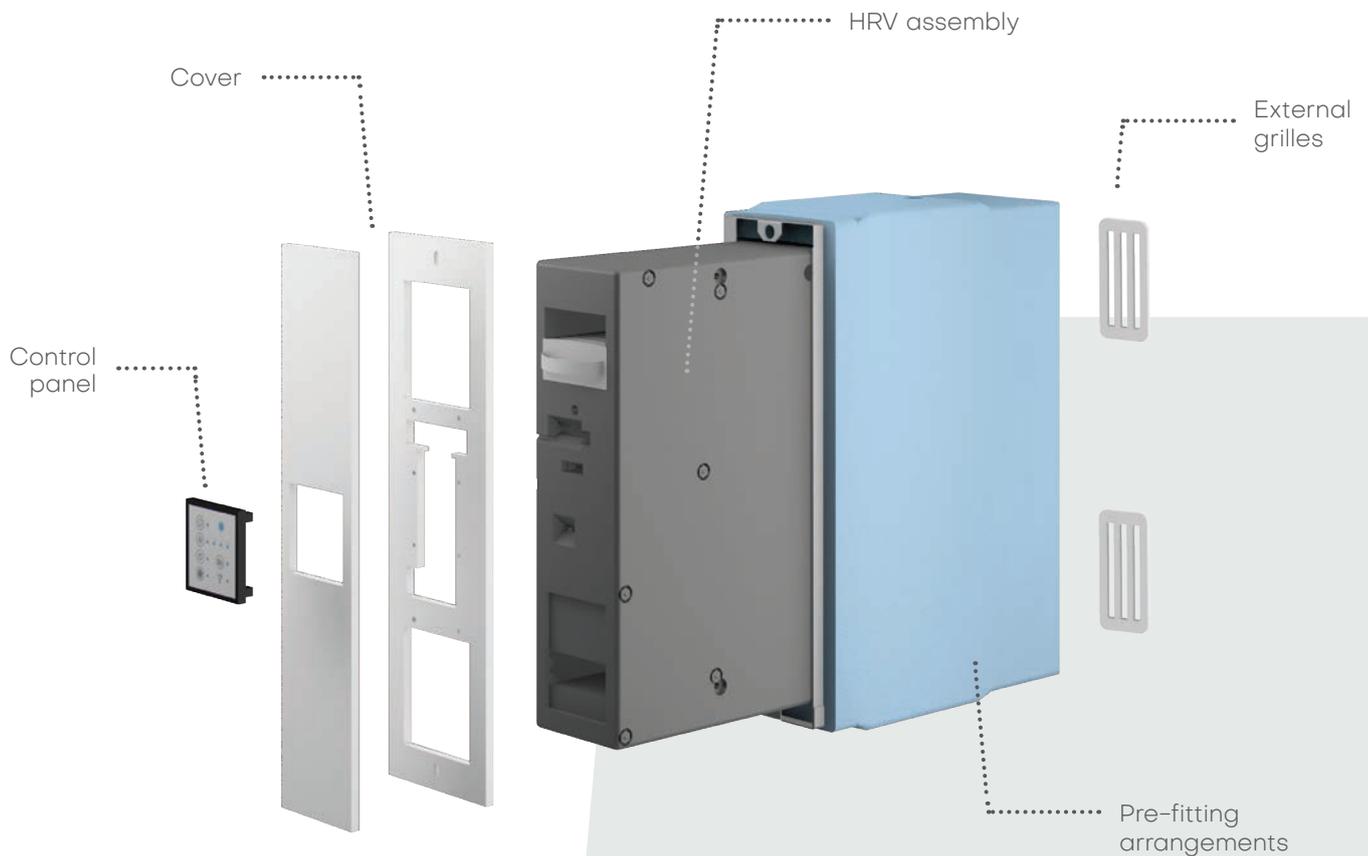


Installation Built-in recessed HRV

Preparing for the installation of Helly Flow HRV devices is a three-step process:

1. a rectangular hole is cut into the wall according to the shape required by the type of device to be installed (see pages 42 and 43);
2. the recess casing is fitted in the wall, including external vents and the edges are then sealed with flexible polyurethane foam;
3. the HRV unit is connected to the power supply and the inner cover is fitted.

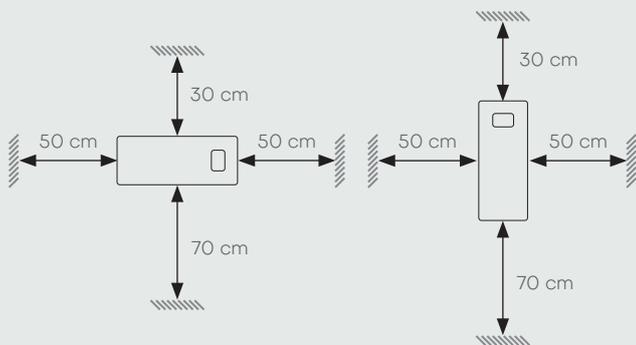
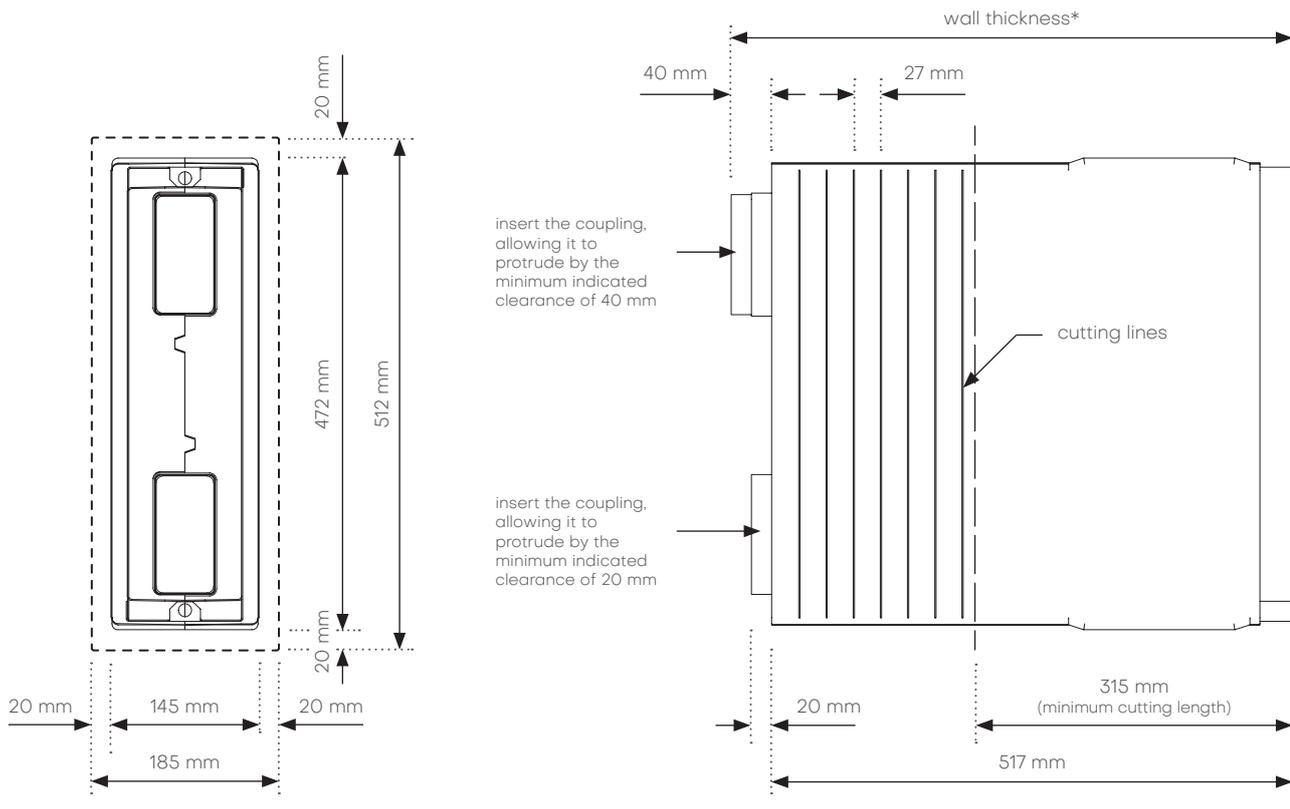
For more details, please refer to the instruction manual. The preparatory housing can be purchased separately for prior installation in the masonry during the construction phase; it can then be completed at any time later with the assembly of the HRV device and cover.



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Preparatory core drilling details and dimensions for Flow40 installation



Minimum recommended dimensions

Horizontal	Vertical
30 cm above	30 cm above
70 cm below	70 cm below
50 cm left	50 cm left
50 cm right	50 cm right

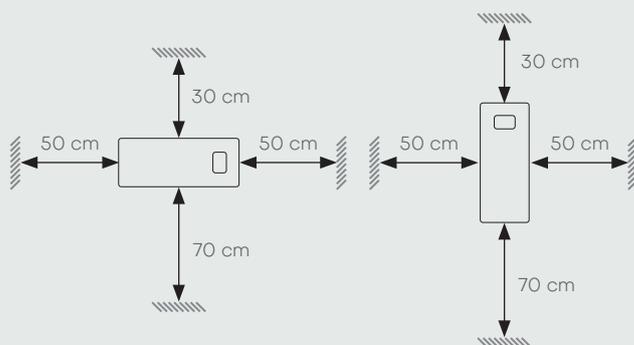
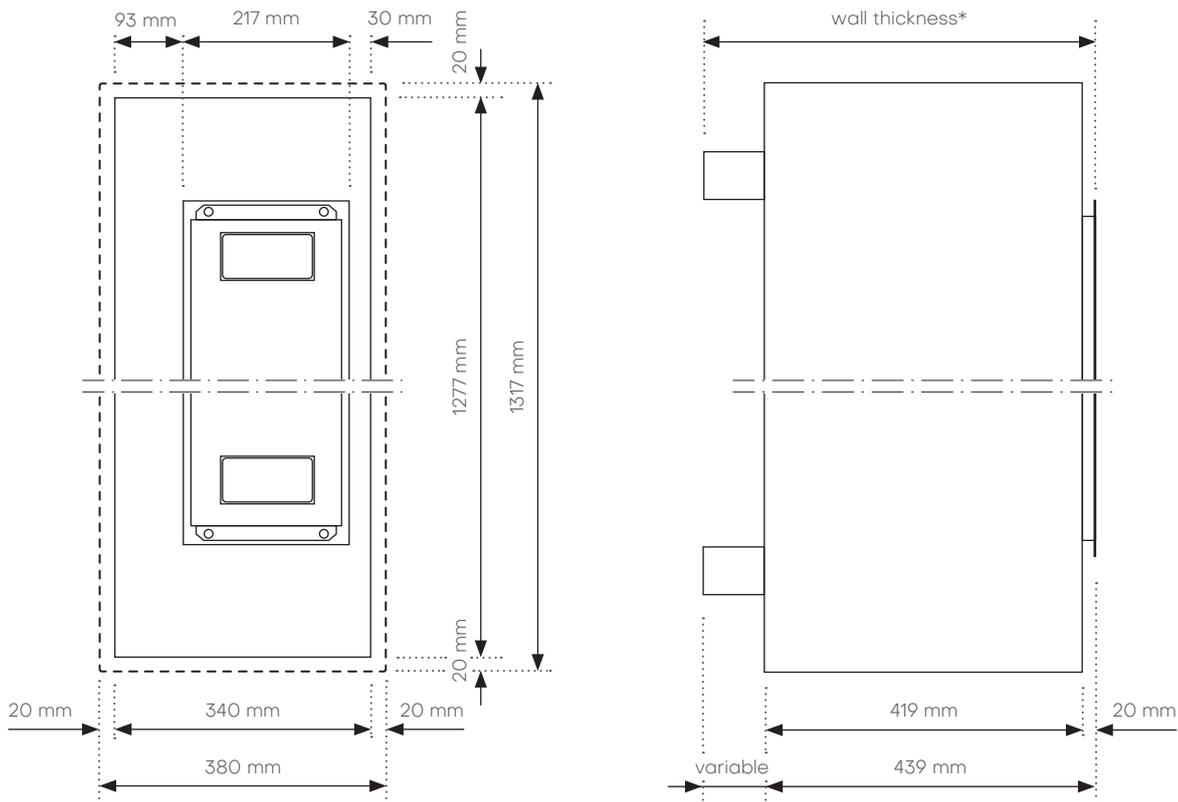
Masonry hole measurements

Position	Masonry hole L x H
Horizontal	512 x 185 mm
Vertical	185 x 512 mm

Wall thickness limits*

Plaster	
Minimum wall thickness	335 mm
Maximum wall thickness	535 mm
Cladding	
Minimum wall thickness	355 mm
Maximum wall thickness	550 mm

Preparatory core drilling details and dimensions for Flow70/100 installation



Minimum recommended dimensions

Horizontal	Vertical
30 cm above	30 cm above
70 cm below	70 cm below
50 cm left	50 cm left
50 cm right	50 cm right

Masonry hole measurements

Position	Masonry hole L x H
Horizontal	1317 x 380 mm
Vertical	380 x 1317 mm

Wall thickness limits*

Plaster	
Minimum wall thickness	460 mm
Maximum wall thickness	543 mm
Cladding	
Minimum wall thickness	480 mm
Maximum wall thickness	564 mm

Comparative analysis of HRV systems

The design of NZEB structures and the energy re-qualification of the existing building heritage confirm HRV devices as **an indispensable element in the options related to the air conditioning and health quality of buildings**. Energy sustainability goals cannot ignore the economic sustainability of investments, i.e. a **comparative approach aimed at defining the overall cost of a plant solution**, taking into account not only the initial purchase price but also the costs to be incurred for maintenance and use throughout the life of the system.

An analysis by AI studio

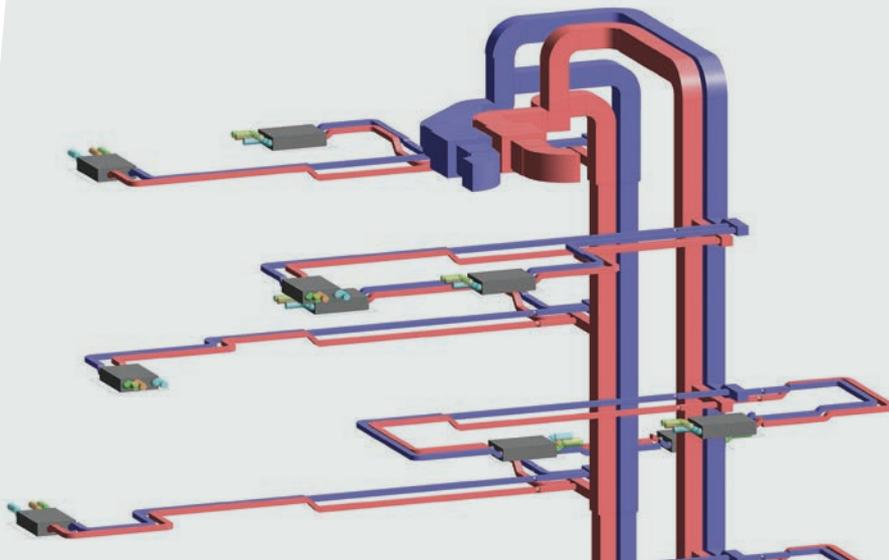
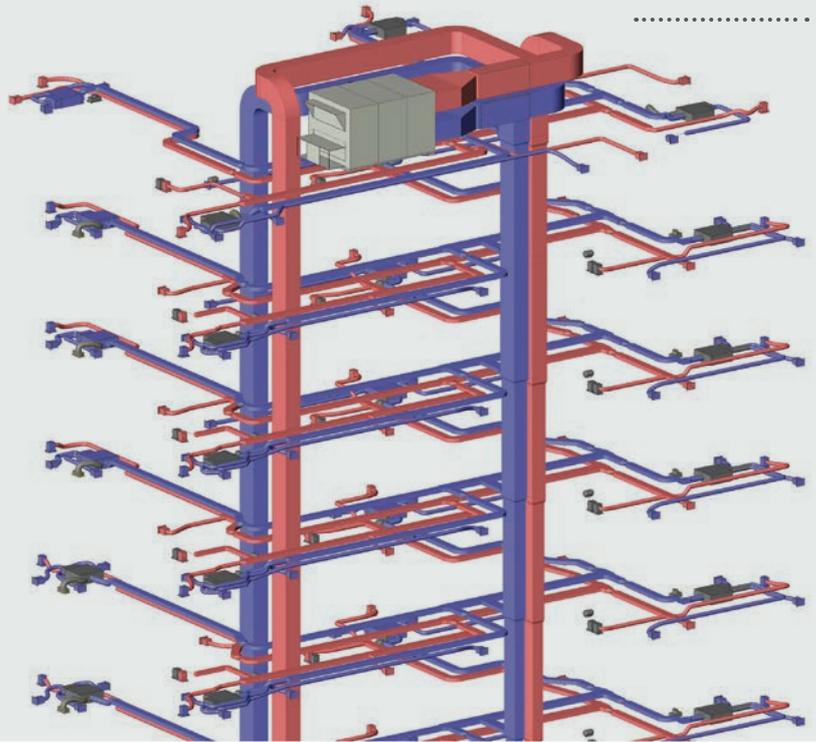
A comparative technical and financial analysis was carried out to compare the **decentralised point-wise HRV** system with the two main alternative types of HRV on the market: **centralised ventilation and stand-alone ducted ventilation**. The assessment was conducted by **AI Studio**, a leading design company specialising in consulting, management and application of sustainability standards in buildings.

The study outlines the characteristics of the HRV systems considered by examining their technical aspects – system architecture, air ducts, filtration, regulation systems, acoustic aspects, system maintenance – and economic aspects in the case of **different types of buildings: two-roomed apartments, three-roomed apartments, small villas and multi-occupancy buildings up to 64 units**.

The assessments were carried out for a "typical floor" and, within the standard floor, for the 4 individual apartments of which it is composed. For the assessment to be representative, the analysis was conducted considering the climate data of four cities with **different climates: Bolzano, Milan, Rome and Palermo**.

Centralised HRV plant

A ventilation unit with heat recovery, generally located on the roof; it serves several housing units with air distribution and extraction networks, each connected to its own fan.



Centralised HRV plant with independent ducting

One ventilation unit with heat recovery for each dwelling, with dual air supply network for intake and extraction.

Decentralised HRV point-wise plant

A dual-flow point-wise ventilation unit for each room with heat recovery and air filtration, without air ducts.



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Comparison parameters and results

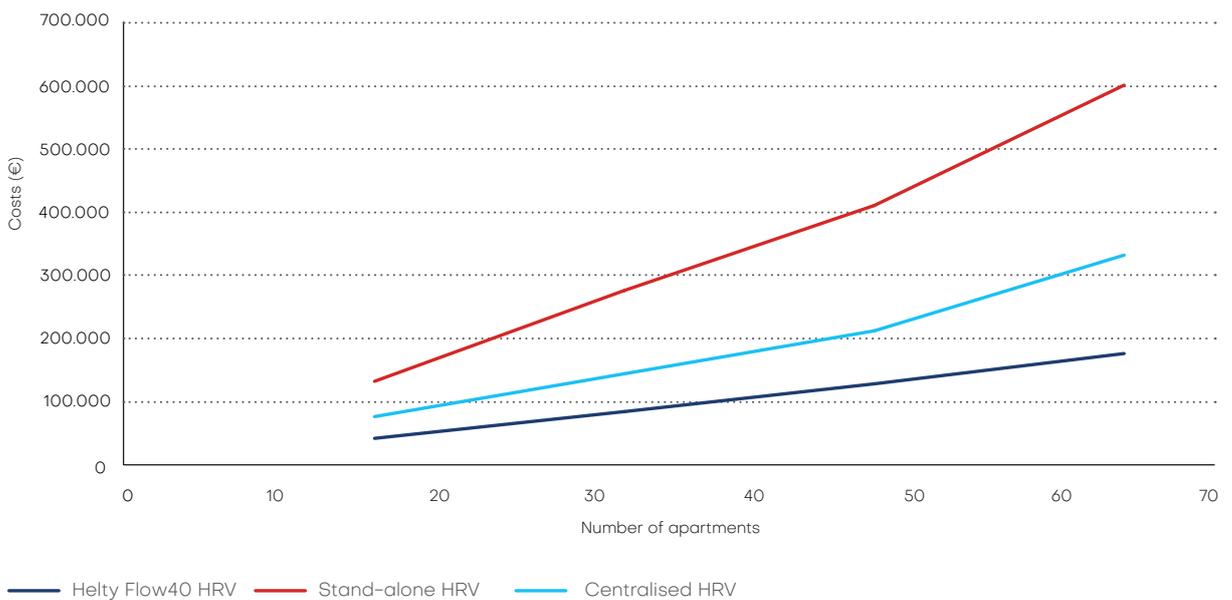
For each of the three types of controlled mechanical ventilation, the system was simulated in terms of the materials and labour required for its construction. To ensure a comparable assessment, the review addressed equipment with similar overall airflow rates, filtration levels and energy recovery efficiency.

The economic indicators considered are:

- // **construction cost** (plant and structural works for both common areas and individual apartments of salable surface area per shaft)
- // **running cost** (electrical and thermal energy for ventilation; maintenance, including extraordinary charges)
- // **NPV – Net Present Value** (calculated on 5 and 10 years of plant life)

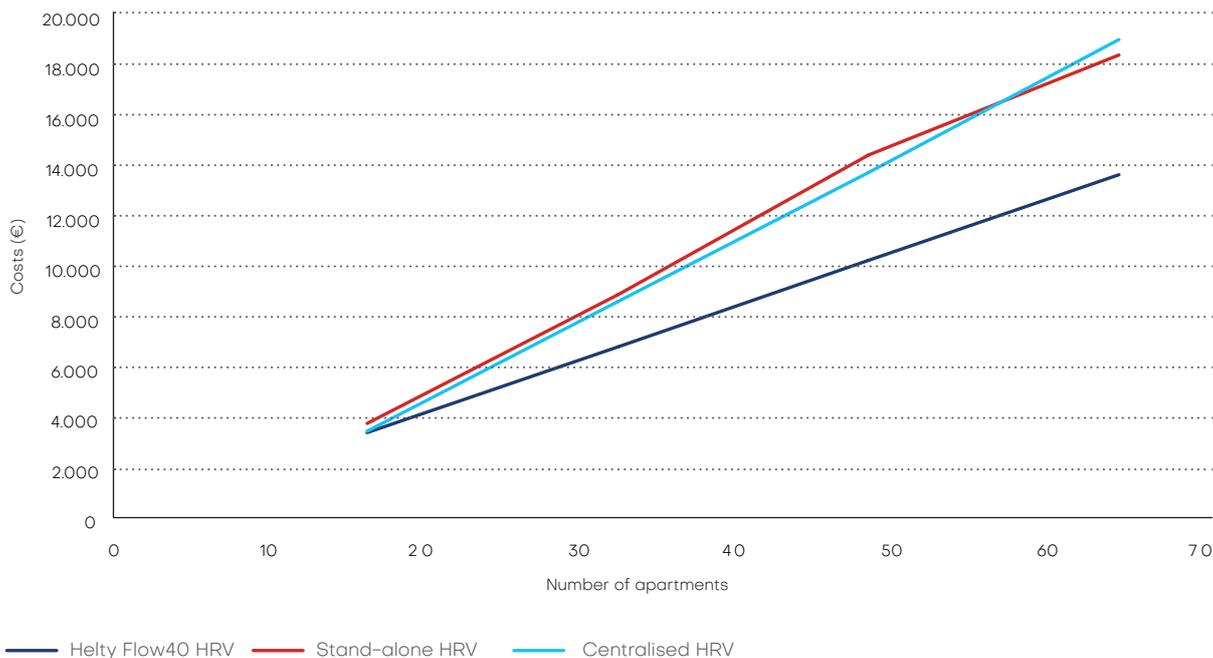
The data analysed shows that in each of the situations taken into consideration, the decentralised point-wise HRV solution is the one that enables **significant savings to be made both on the initial construction costs of the system** – where the decentralised point-wise HRV is respectively 39% and 67% more competitive than centralised and ducted stand-alone systems – and **on running and maintenance costs**, where the decentralised point-based solution is on average between 20% and 26% more competitive than centralised and ducted stand-alone HRV solutions.

Estimate of initial construction costs



Graphic representation of initial costs for the various types of HRV and building size. These values do not depend on the installation site's climatic factors.

Running costs



Graphical representation of the running costs of the various types of HRV depending on building size (referred to Milan).

The possibility of **smart ventilation with a "room by room" approach and only when needed, i.e.**, based on the actual air renewal needs of the individual rooms of a given building and its purpose, is in line with EU Directive 2018/844 which introduced the "Smartness Indicator" concept. Adapting systems to the actual purpose of individual rooms is an advantage when ensuring proper ventilation yet avoiding unnecessary energy waste.

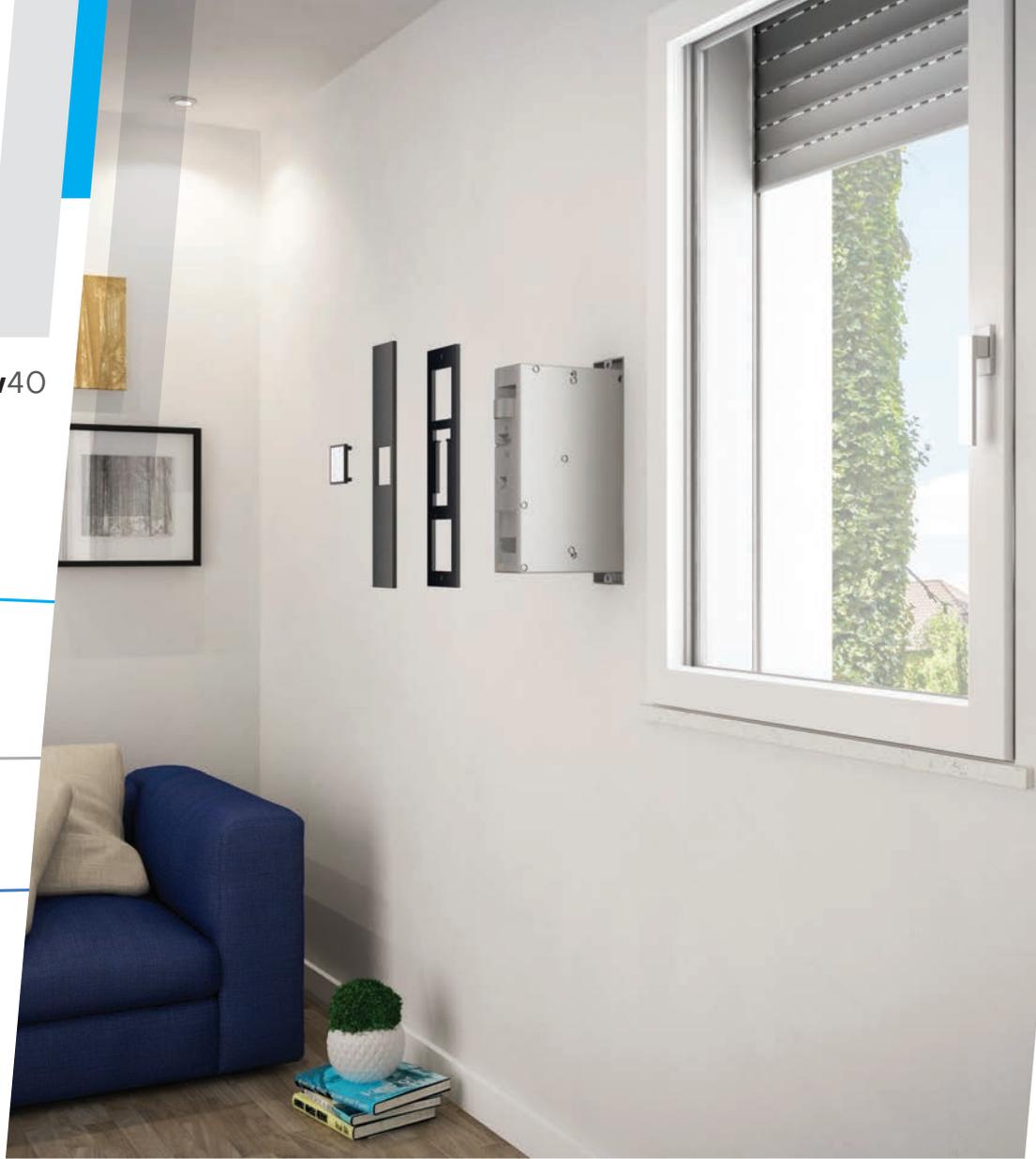
Scan the QR Code and download the Comparative Analysis on HRV systems



Built-in recessed HRV

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Flow40



Flow100



Flow70



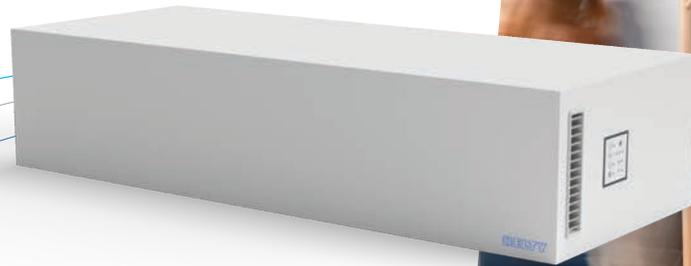
Community HRV

Air exchange systems
for medium and large environments



Flow model	M70/100/150	M70/100/150 ^{PURE}	800	M800
Night function	✓	✓	-	-
Hyperventilation	✓	✓	-	-
Filter replacement alert	✓	✓	-	-
Filter replacement pressure sensor	-	-	✓	✓
Remote control	✓	✓	-	-
Detachable remote control panel	-	-	✓	✓
Humidity sensor	✓	✓	-	-
On/Off LED panel	✓	✓	-	-
Free Cooling	✓	✓	✓	✓
Air Guard App	✓	✓	-	-
CO ₂ and VOC sensor	✓	✓	-	-
Cabinet with grilles and inspection hatch	-	-	-	✓





FlowM 70/100/150

Cabinet-mounted HRV: rational design, ultimate air renewal performance.

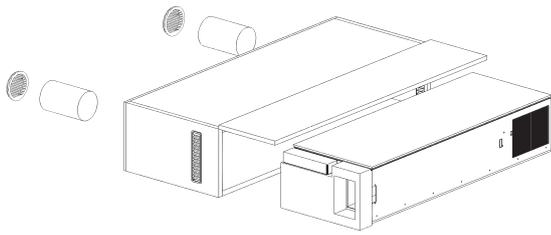
With the FlowM series, **the HRV is completely housed within a piece of furniture.** The ventilation unit is built into a wall-hung cabinet with white lacquered finish and lift-up front door. The control panel and air intake and extraction vents are discreetly positioned on both sides. The system, which can be installed on an external wall with two 100 mm core-drilled holes, is available in the three models **FlowM70/100/150**, which respectively provide an **airflow rate of up to 70, 100 and 150 cubic metres per hour.**

It is ideal for ensuring that air is healthy with optimal energy saving in closed places such as **offices and professional premises, small classrooms in kindergartens and schools.** The **external renewal air is purified; fine dust, smog and pollen are removed** by an F7 filter. In addition, the **87% efficient enthalpy heat recovery** unit preheats the air before introducing it into the environment, significantly reducing air conditioning costs. All models provide **automatic free-cooling** and are fitted with a **humidity sensor** which enables the unit to **automatically adjust the ventilation** if humidity becomes excessive.



FlowM70/100/150^{PURE}

The FlowM70/100/150 models are also available in PURE versions with CO₂ and VOC sensors for monitoring important indoor air quality parameters and the possibility of controlling the HRV from iOS and Android mobile devices using the Air Guard app.



Sensors for automatic control of humidity, CO₂ levels and VOCs



It completely disappears into a furniture element to seamlessly blend with the surroundings.



87%

Maximum thermal recovery efficiency



32.6 dB(A)

Sound pressure level



150 m³/h

Maximum airflow



F7

Air intake filtration

Technical data

Energy Class

A

Specifications	UoM	FlowM70	FlowM100	FlowM150
Airflow	m ³ /h	20/40/55/70/85 ⁽¹⁾	25/50/70/100/110 ⁽¹⁾	40/60/80/120/150 ⁽¹⁾
Airflow adjustment		4 stages + hyperventilation	4 stages + hyperventilation	4 stages + hyperventilation
Power consumption	W	5.8/11.3/17.1/24.7/35 ⁽¹⁾	6.4/14.6/24.7/43.4/52 ⁽¹⁾	11.3/20/31/59.2/86 ⁽¹⁾
Specific Power Input	W/m ³ /h	0.29/0.28/0.31/0.35/0.41 ⁽¹⁾	0.26/0.29/0.35/0.43/0.47 ⁽¹⁾	0.28/0.33/0.39/0.49/0.57 ⁽¹⁾
Power supply voltage	Vac	230	230	230
Operating voltage ⁽²⁾	Vdc	24	24	24
Max. current consumption ⁽³⁾	A	0.25	0.45	1.2
Mass of HRV unit	kg	10	10	10
Mass of cabinet	kg	19	19	19
Cabinet dimensions (W x H x D)	mm	1090 x 245 x 445	1090 x 245 x 445	1090 x 245 x 445
Heat exchanger		enthalpy flow type with cross-flow counter-current	enthalpy flow type with cross-flow counter-current	enthalpy flow type with cross-flow counter-current
Heat recovery efficiency	%	90	87	87
Sound power level ⁽⁴⁾	dB(A)	35.8/39.6/43.3/46.7	35.8/42.2/46.7/49	44.1/45.5/46.8/58.3
Sound pressure level ⁽⁵⁾	dB(A)	24.3/28.1/31.8/35.2	24.3/30.7/35.2/37.5	32.6/34/35.3/46.8
Intake and Extraction filters		F7 / G4	F7 / G4	F7 / G4
Modbus RTU rs485		Yes ⁽⁶⁾	Yes ⁽⁶⁾	Yes ⁽⁶⁾
Energy class (cold / temperate / hot)		A+ / A / E	A+ / A / E	A+ / A / E
SEC (cold / temperate / hot)	kWh/m ² a	-74.98 / -38.72 / -15.32	-72.96 / -37.33 / -14.29	-68.6 / -34.1 / -11.7
Unit type		Bidirectional RVU-B	Bidirectional RVU-B	Bidirectional RVU-B
Specific Power Input SPI ⁽⁷⁾	W/m ³ /h	0.31	0.35	0.49
Internal/external leakage rate ⁽⁷⁾	%	0.3 / 1.3	0.3 / 1.3	0.3 / 1.3
Airflow sensitivity to pressure variation (+20Pa to -20Pa)		Class S1	Class S1	Class S1
Indoor/outdoor air tightness		Class S1	Class S1	Class S1

1. In hyperventilation mode
2. The supplied power converter ensures that the unit can run on 230 Vac. (to be connected during installation).

3. When powered by 230 Vac.
4. According to UNI 3744: 2010
5. Measured in a 30 m³ semi anechoic environment at a distance of 3 m

6. In the PURE versions, this excludes control via the interface panel
7. In accordance with EN 13141-8: 2014-09



Flow800

Comfort and healthy living,
without wasting energy

Highly effective and silent, Flow800 decentralised mechanical ventilation is designed to complement any existing space. In this version, the air renewal and filtration system can **also be installed on the ceiling, always adjacent to external walls.**

The heat recovery unit and **distribution plenum** are enclosed in a white painted metal casing that caters for either **two 250 mm or four 125mm core-drilled through holes.**

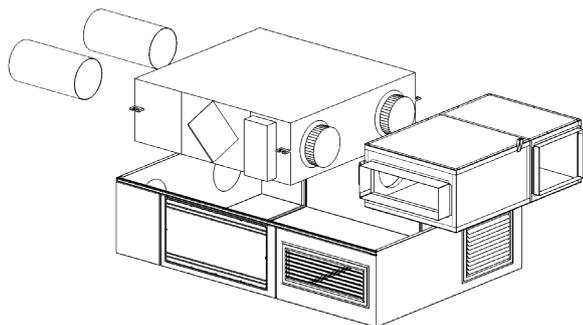
Ventilation can be regulated with ten speeds **for airflow rates up to 800 m³/h**, ideal for de-concentrating pollutants in closed environments. Inlet air is pre-treated by a **dual G3+F9 filter**, which rids it of PM 10 and PM2.5 fine particulates, smog, pollen and other outdoor pollutants. The cross-flow **counter-current enthalpy heat exchanger** has an **efficiency of up to 82%**: it ensures comfortable room temperatures in winter and helps regulate indoor temperature even in the hottest months.



The opinion of AiCARR

Ventilation is all the more necessary the more crowded the rooms are. AiCARR, trade association of the HVAC sector states that

“the provision of external air via ventilation not only improves the quality of the internal environment, but can improve hygienic conditions and deliver health benefits by reducing the quantity of pollutants in the environment by dispersion and filtering.”



Detachable remote control panel for controlling the unit and configuration setting.



Operational timer and automatic by-pass setting.



82%

Maximum thermal recovery efficiency



30.5 dB(A)

Sound pressure level



800 m³/h

Maximum airflow



G3+F9

Air intake filtration

Technical data

Energy Class

A+

Specifications	UoM	Value
Airflow		100/180/260/340/420/500/580/640/720/800
Airflow adjustment	m ³ /h	10-speed
Power consumption	W	188
Power supply voltage	Vac	220-240
Max. current consumption	A	2.54
HRV unit dimensions (L x H x P)	mm	1360 x 390 x 1230
Cover dimensions Ø125 (L x H x P)	mm	2040 x 470 x 1321
Cover dimensions Ø250 (L x H x P)	mm	1981 x 470 x 1321
Heat exchanger		enthalpy cross-flow
Heat recovery efficiency	%	76-82
Automatic/Programmable		Bypass
Sound power level	dB(A)	42
Sound pressure level ⁽¹⁾		30.5
Intake and Extraction filters		G3+F9 / G3
Automatic filter check		with pressure sensor
Control		Timer-controlled weekly schedule/Modbus
Energy class (cold / temperate / hot)		A+ / A / E
SEC (cold / temperate / hot)	kWh/m ² a	-79.9 / -42.03 / -17.7
Unit type		Bidirectional RVU-B
Specific Power Input SPI ⁽²⁾	W/m ³ /h	0.21

1. Measured in a 30 m² semi-anechoic environment at a distance of 3 m
 2. In accordance with EN 13141-8: 2014-09



Flow M800

The ideal solution to convey healthy air and comfort with elegance

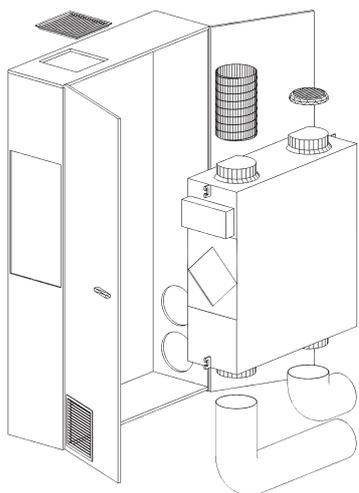
FlowM800 is a high-airflow controlled mechanical ventilation system **housed in a vertical cabinet**. The housing of the HRV unit in the cabinet makes it **a rational choice for upgrading classrooms by incorporating a decentralised air renewal and filtration system**. The installation requires two 250 mm core-drilled holes on the external wall and can be set up in a short time, not requiring the design or fitting of any complex air ducting.

It is available in versions with **air channels on the right or left side** to offer maximum system integration flexibility. The white-finished cabinet with hinged doors ensures easy access and an aesthetically pleasing appearance. Access to the filters for routine maintenance is made easy by a **lateral inspection hatch**.



The opinion of SIMA

“The critical issue to be addressed is how to ensure optimal air quality in the classroom in terms of chemical-physical composition and microbiological (virus-free) purity. This can already be achieved with complete air replacement on an hourly basis, but also by investing in controlled mechanical ventilation technologies with air intake filtration and indoor air purification.”



Quick assembly and versatile installation according to the available spaces.



Detachable remote control panel for controlling the unit and configuration setting.



Operational timer and automatic by-pass setting.



82%

Maximum thermal recovery efficiency



30.5 dB(A)

Sound pressure



800 m³/h

Maximum airflow



G3+F9

Air intake filtration

Technical data

Energy Class

A+

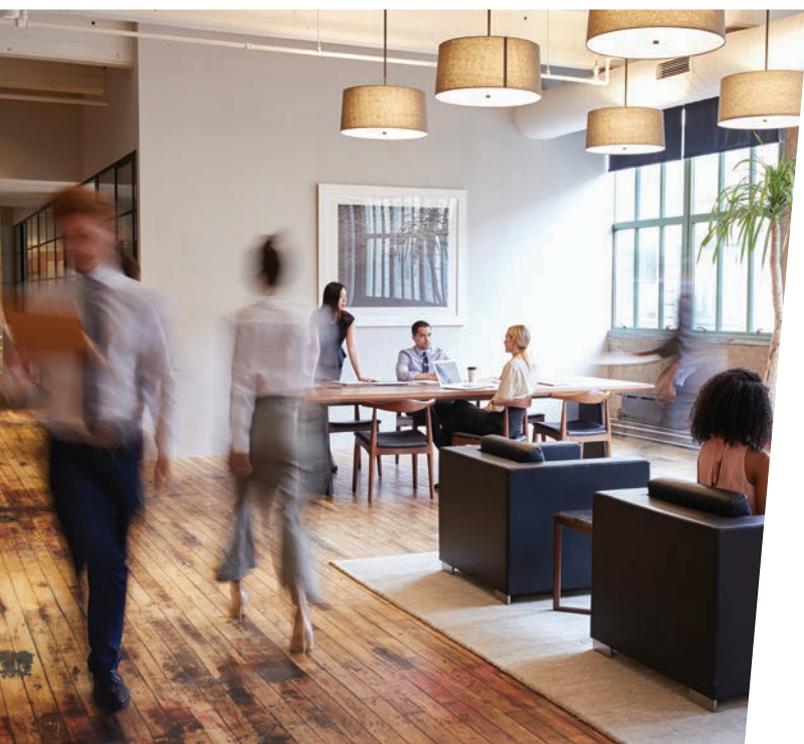
Specifications

Specifications	UoM	Value
Airflow		100/180/260/340/420/500/580/640/720/800
Airflow adjustment	m ³ /h	10-speed
Power consumption	W	188
Power supply voltage	Vac	220-240
Max. current consumption	A	2.54
HRV unit dimensions (L x H x P)	mm	1360 x 390 x 1230
Flow800 cabinet dimensions (W x H x D)	mm	1390 x 2390 x 450
Heat exchanger		enthalpy cross-flow
Heat recovery efficiency	%	76-82
Automatic/Programmable		Bypass
Sound power level	dB(A)	42
Sound pressure level ⁽¹⁾		30.5
Intake and Extraction filters		G3+F9 / G3
Automatic filter check		with pressure sensor
Control		timer-controlled weekly schedule / Modbus
Energy class (cold / temperate / hot)		A+ / A / E
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Unit type		Bidirectional RVU-B
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Ventilation and risk reduction in indoor environments

Indoor spaces are contaminated by a broad spectrum of biological pollutants, including plant pollen and spores, bacteria, fungi, algae and a number of protozoa species. Their presence can be linked to excessive humidity and inadequate ventilation. Indoor air pollution by chemical, physical, and biological agents **affects the respiratory system, causes allergies and asthma, immune system disorders, and damages cardiovascular and nervous systems**, exposed skin, and mucous membranes.



Primary air quality deterioration factors

Human activities indoors also produce **CO₂**; **when present in excess, it causes drowsiness** (at times, pupils at their school desks appear lazy because of insufficient air renewal in the classroom). According to a study published by the universities of Harvard and Syracuse **in the Environmental Health Perspectives journal, cognitive performance decreases with rising ambient CO₂ levels**. The abilities to use information, respond to crises and develop strategies are particularly affected.



And now, **having to live with Covid-19** obliges us to rethink even more and redesign indoor areas where people can find themselves crowded in confined spaces. **Ensuring effective air replacement and purified air in school classrooms, kindergartens, hotels, offices, bars and restaurants, cinemas, and theatres** is essential to counteract infection risks. Bioaerosol particles (**droplets**) of **less than 10 microns** produced by simply breathing, talking, singing, coughing or sneezing can circulate in the air for hours in enclosed spaces lacking adequate air renewal. If such droplets are emitted by positive, yet asymptomatic, individuals, they can be inhaled by others and cause infection (this applies to Covid-19 but also to ordinary seasonal influenza). In addition to health risks linked to the possible spread of pathogens, air quality also deteriorates due to factors such as fine dust, VOCs and possible underground radon gas emissions.

The Italian National Institute of Health (ISS) has issued specific guidelines on the careful management of air renewal following reports drawn up by its National Indoor Pollution Study Group and recommendations published by the UNESCO Chair for Health Education and Sustainable Development in collaboration with the Italian Society of Environmental Medicine (SIMA). However, natural ventilation by opening windows has several disadvantages: opening windows for at least 5 minutes every hour means letting in air that is very cold in winter or very hot in summer, unnecessarily dissipating energy expended for ambient heating or cooling. Furthermore, opening windows does not hinder smog, pollen and allergens that make indoor air unhealthy.

The positive effects of HRV in classrooms and offices

- // A comfortable micro-climate, with stable temperature and properly controlled humidity, contributes to physical well-being and improves learning
- // The reduction of excess CO₂ avoids drowsiness, fatigue and headaches, improving concentration and attention
- // The dispersal and extraction of volatile organic compounds, fine dust and biological pollutants (moulds) reduces the risks of allergies and respiratory problems

FlowM150



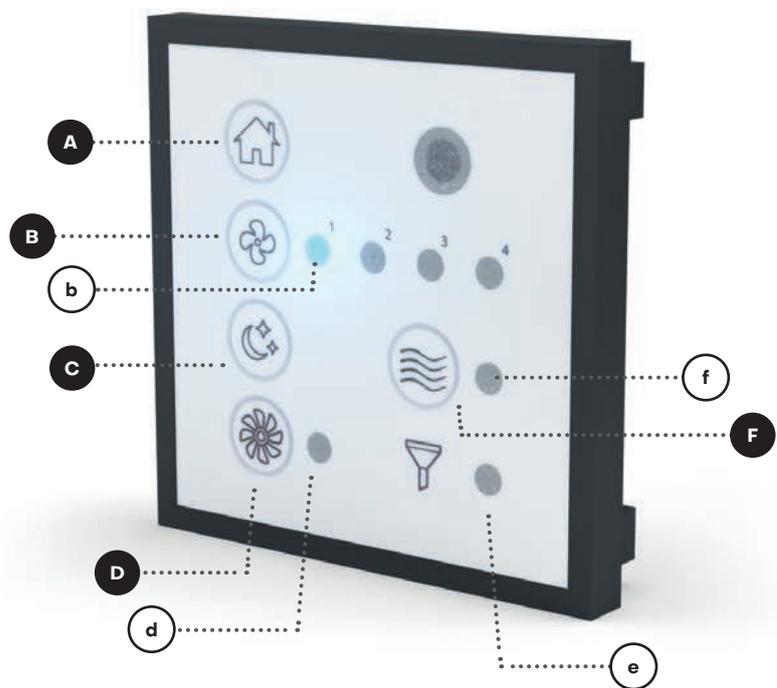
Flow800

FlowM800



Control panel

Ultimate ease of use



Pos.	Description
A	Timer On/Off ⁽¹⁾ and LED dimmer ⁽²⁾
B	Ventilation adjustment
b	Fan speed LED
C	Night mode
D	Hyperventilation
d	Hyperventilation function LED
e	Filter replacement alert LED
F	Free Cooling ⁽³⁾
f	Free cooling function LED

1. Available on FlowEASY
2. Available on FlowELITE
3. Available for all models except FlowEASY

The control panel is present in all Flow models except Flow800 and FlowM800, which have a remote control panel.

Functions



HRV On/Off and LED dimmer: it activates the automatic shutdown timer function⁽¹⁾. It enables you to turn on the LEDs and adjust their intensity⁽²⁾.



Ventilation adjustment: it enables you to set the 4 different air renewal speeds according to the room's ventilation requirements.



Night mode: HRV fan speed and LED brightness are reduced to minimum, providing continuous and silent air renewal and ensuring high-quality rest. Keeping the button pressed completely deactivates the LEDs.



Hyperventilation: airflow is boosted to the maximum for faster air renewal and forced room ventilation for short periods.



Free Cooling/Free Heating: an intelligent technology that provides natural indoor cooling: if the outside air has a lower temperature than inside, the HRV suspends the heat recovery function before air is introduced into the room, thus maintaining optimal thermal conditions. This way, naturally fresh air is conveyed indoors to create a natural air conditioning effect. This technology is particularly beneficial during summer nights and between seasons when outdoor temperatures are more agreeable. Conversely, with Free Heating you can take advantage of the warmer air outside between seasons or on warm winter days.



Filter replacement alert: this warns you when it is time to replace the filter to safeguard the unit's operational performance.

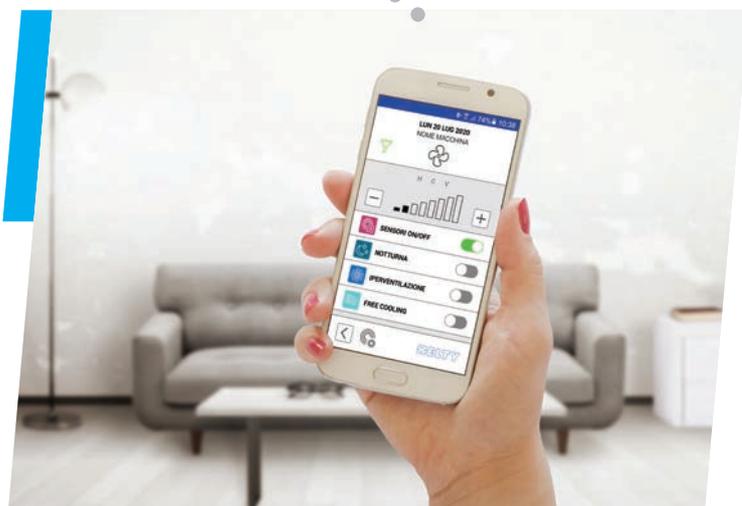
App Air Guard

For smart management!



The Hely Air Guard Smart App is designed for the integrated management of Hely Controlled Mechanical Ventilation systems; with the possibility of differentiating the management of the air renewal in each room. The system is compatible with smartphones and tablets,

for maximum comfort in just one touch. The user-friendly interface makes using the Hely Smart App easy and intuitive and provides information about indoor air quality, indicating current values of humidity, temperature, VOC concentration and CO₂* levels.



Download Hely App

The Hely Air Guard App is available on the Apple Store for IOS operating system devices and on the Google Play Store for Android users.



No internet connection is required once you have downloaded the App; it works within the perimeter of the home.



It indicates air quality data: humidity, temperature, VOC and CO₂*



It enables all HRVs to be controlled simultaneously.

*if the HRV units are equipped with sensors

Filters and spare parts

Helty Flow non-ducted systems reduce maintenance needs to a minimum

The user must only **replace the air filter**, conveniently indicated by the device's LED or by the app and then **reset the filter alert**. For all wall-mounted, built-in recessed and cabinet systems, this operation, which is necessary on average every 6 to 12 months, can be managed in full autonomy in a few minutes and does not require external service personnel.

// Replacement filters can also be conveniently purchased online from the shop.alpac.it filter store.



Point-wise HRV: design tips

Healthy HRV systems adapt to any environment. The range includes a series of differentiated solutions designed specifically for both new buildings, major renovations and non-invasive redevelopment works.



One-room apartment

Surface area (s): 26 m²

Volume (v): 26 x 2.7 = 70.2 m³

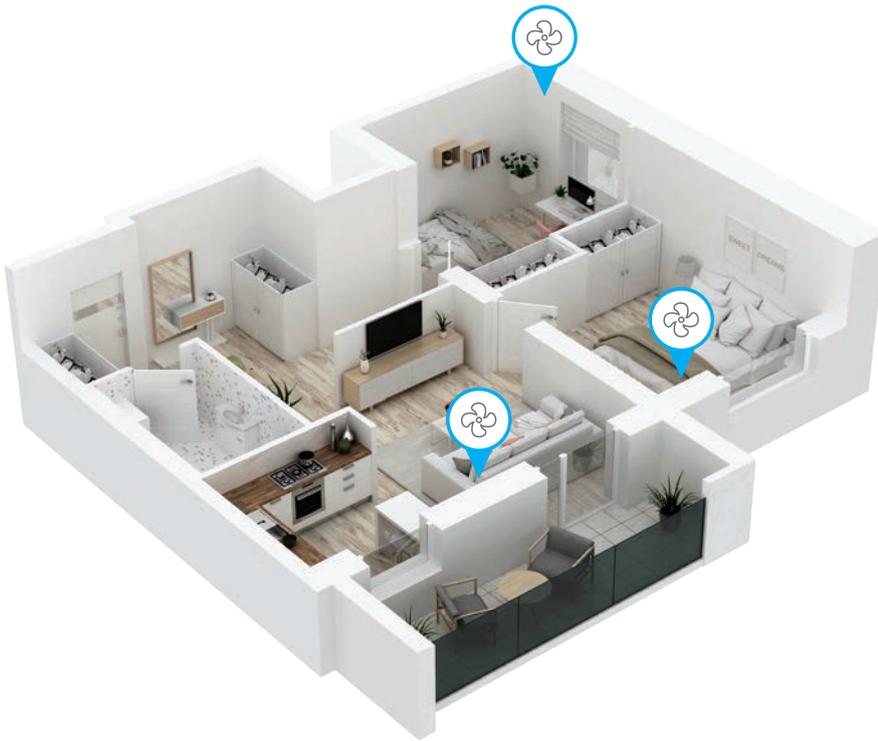
Air Renewal (R): $R = v/2 = 35.1$ m³/h

Suggested installation:

1 HRV device

(+ 1 optional unit for the bathroom)





Two rooms

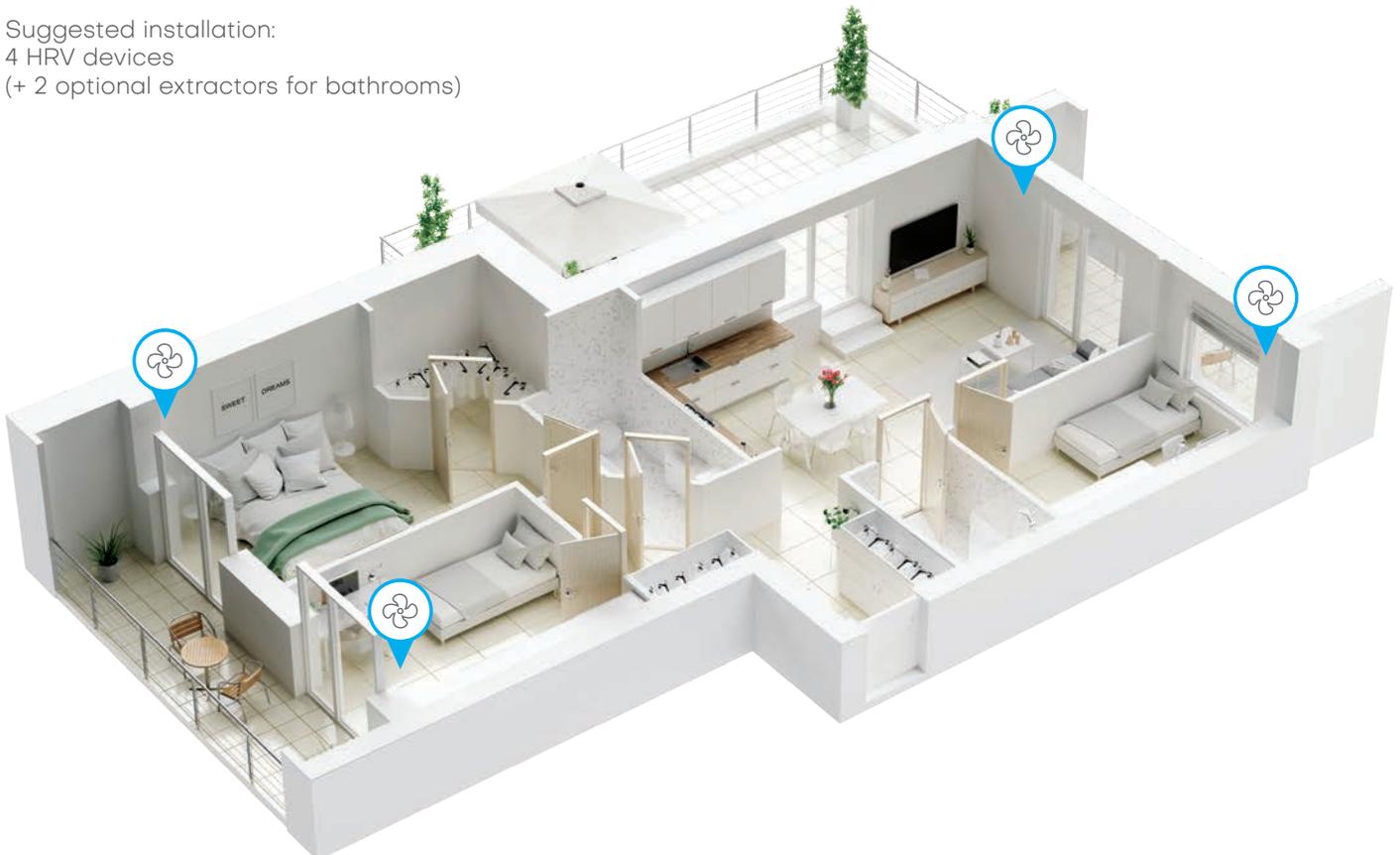
Surface area (s): 48 m²
 Volume (v): 48 x 2.7 = 129.6 m³
 Air Renewal (R): $R = v/2 = 64.8 \text{ m}^3/\text{h}$

Suggested installation:
 3 HRV devices
 (+ 1 optional unit for the bathroom)

Three rooms

Surface area (s): 96 m²
 Volume (v): 96 x 2.7 = 259.2 m³
 Air Renewal (R): $R = v/2 = 129.6 \text{ m}^3/\text{h}$

Suggested installation:
 4 HRV devices
 (+ 2 optional extractors for bathrooms)



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Useful resources: The Helty guides



Guide to HRV

Financial-technical analysis HRV Systems



Comparison between push-pull and dual flow HRV

Guide to allergies and pollen





Guide to mould

The five anti-mould solutions



Air pollution guide

Guide to indoor pollution remedies



Manuals and technical documentation

Frame the QR Code, register and access the reserved area of the Hely website where you can find installation and user manuals, installation templates and other useful documentation



The Environment: let's not waste energy

The environment, sustainability and well-being are all subjects of major concern for Helty. This is why we promote not only the creation of **healthier and more comfortable homes and offices**, but also a culture of **energy saving**, and this is manifested in the high performance of our products. Indeed, Helty Flow recovers up to 91% of the thermal energy that would normally be dispersed by opening windows for adequate room ventilation.

This heat is then used to warm up the incoming air, thus providing **significant savings on air conditioning costs, both for winter heating and summer cooling**.



Minimal energy consumption

The enthalpy heat exchanger also recovers any latent heat contained in air humidity, thus achieving even greater savings. Furthermore, Helty Flow technology consumes less than 150 Wh per day, a quantity of electricity so low that keeping them running constantly costs **less than 3 cents a day**.

With a Controlled Mechanical Ventilation system with high-efficiency heat recovery such as Helty Flow, optimal indoor air management is achieved, without wasting energy and reducing consumption and environmental pollution.

HELTY
Pure air for your home

HELTY

Pure air for your home

A breath of healthy living in every room



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