

envirovent®

# HEATSAVA

Intelligent Single Room Heat Recovery Unit



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## About

The heatSava is an intelligent through the wall single room heat recovery unit ideal for bathrooms, kitchens, WC's and utility rooms achieving up to 75% efficiency.

- Long life, low watt ball bearing DC motors
- Intellitrac® humidity controls
- Tubular heat recovery cell
- High thermal efficiency
- Ingenious cleaning and maintenance features
- Cell available in 8 different sizes
- Lowest life-cycle costs
- Automatic summer mode (as standard)
- Frost protection function (as standard)
- Time elapse meter
- Pullcord (as standard)
- Optional wireless controller
- Ideal for replacement of existing extract fans
- Designed to fit into any existing 100mm or 150mm wall sleeve
- Delivering up to 75% efficiency
- 5 year renewable warranty
- Saves on-going maintenance and replacement costs
- Rapid conversion to SELV on-site



## Sufficient Ventilation

Modern living has now become increasingly energy conscious, and as the UK strives for net-zero Carbon Homes by 2050, energy efficient products such as the heatSava are helping to address the reduction in energy wastage.

It is important to recognise, however, that by sealing up our homes, making them warmer and more energy efficient, we must ensure that we sufficiently ventilate them to maintain good, healthy indoor air quality.

**What if there was a way to help our homes breathe whilst at the same time being able to recover energy?**

## Now there is...

The heatSava is an energy efficient, through-the-wall mini ventilation unit called a Single Room Heat Recovery unit (SRHR). It has been designed for people who are looking for new and innovative ways to save energy. Recovering up to 75% of heat from the air that would normally be lost through extraction, the heatSava reduces carbon emissions, whilst providing continuous all year round ventilation. It is available in 100mm and 150mm for mounting through external walls in WCs, kitchens, bathrooms and utility rooms, to either replace existing extract fans or for new installations.



**It's like having the window open without losing any heat**

## How does the heatSava work?

The heatSava extracts air from the kitchen or bathroom, which passes over a high efficiency tubular heat exchange cell. The unique design of the cell enables the air to cyclone around the barrel, just like a corkscrew.

As it does so, the heat from the extracted air is retained in the cell before it reaches atmosphere. At the same time, fresh air from outside is supplied through the tubes, collecting up to 75% of the heat from the extracted air before returning it into the room, providing savings on energy costs.

The heatSava runs continuously 24 hours a day on a low background trickle rate to provide constant all year round good indoor air quality, controlling humidity levels and reducing condensation.



## Back to the Future

Within the heatSava, EnviroVent have applied a technology found in early 20<sup>th</sup> century steam locomotives. In its original form, steam passed through 'fire tubes', transferring through the tube wall into the water. By heating the water to high temperatures, steam was generated. Instead of water and steam, the heatSava utilises this same principle for air.

It extracts waste heat from the property, which is transferred around the tube wall to heat the incoming fresh air. At best a locomotive would be 30% efficient, however with modern materials and improvements to this technology the heatSava can now achieve up to 75% efficiency.

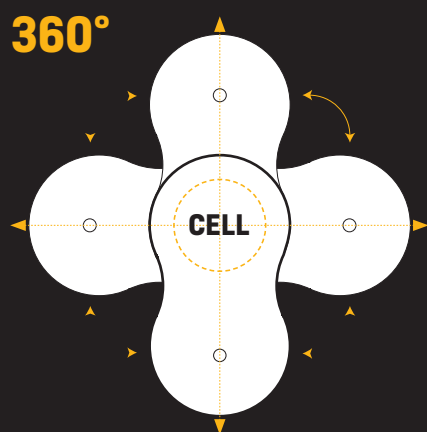


## Rapid conversion to SELV

The heatSava is IPX4 rated and can be installed in Zone 1 with RCD protection. It can be quickly and safely converted to an SELV version on-site when necessary with the use of the separate power supply unit box included.

## Exceptionally Versatile

The direct replacement of an existing traditional extract fan can be simply and quickly achieved, whilst the innovative design also allows the unit to be installed to uneven walls. It is also high-rise friendly, easily installed from inside the building, without the need for scaffolding. It can be installed in four different positions through 360°, horizontally or vertically to fit into tight spaces or where an existing hole is located just below the ceiling. With its stylish symmetrical design it looks attractive in any position.



## Controls

### Intellitrac® Technology

The heatSava incorporates Intellitrac® Technology, the unique humidity tracking controls. It has been engineered with intelligent controls to think for itself, meaning that you don't need to press any buttons or light switches to turn it on.

When the heatSava senses a rise in humidity, caused by increased moisture generation such as through cooking or showering, the extract and supply airflows will slowly begin to increase in direct proportion to the increase in humidity. It will then automatically track back down again when humidity falls. This controls condensation quietly and efficiently.

### Pullcord

The heatSava comes complete with a pullcord to activate the



boost for odour control if required. Pull once to activate the boost and again to deactivate.

### Summer Mode

During warmer days, the heatSava prevents warm air from entering the room and switches to provide extract ventilation only. As the temperature falls it automatically returns to supply.



### Frost Protection

The heatSava has an automatic built-in frost protection mechanism to prevent any damage to the heat exchange cell in cold conditions.



### Wireless Controller (Optional)

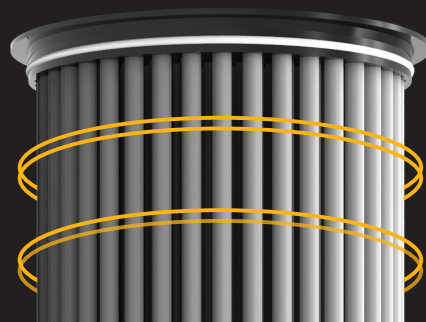
The heatSava can be supplied with an optional wireless controller to change the airflow speed - trickle or boost. It also indicates when the unit is in a specific mode (i.e. bypass, frost or humidity).



## Innovative Condensate Facility

The bi-product of any high efficiency heat exchange cell is condensation. This presents a challenge to design engineers to ensure that any condensate which forms inside the cell is directed outside the property and not inside the product, where it could mix with electronic components or damage decorations inside the room.

The unique design of the heatSava allows the heat exchange cell to be completely sealed within the cell casing, providing a totally air tight compartment. Should any condensate form, it would be held within the barrel and drain out directly to atmosphere through the holes located in the cowl at the rear of the unit. The unique configuration of the air movement through the cell means that no condensate can form within the tubes resulting in all year round quiet, high efficient performance.



## Ideal for Every Wall Depth

No matter how many different house types and how many different wall depths, the heatSava has it covered!



600mm

500mm

430mm

330mm

The heatSava is available in two cell diameters: 100mm for bathrooms and WC's and the 150mm for kitchens, ideal for both refurbishment and new build installations. Fitting neatly into almost any wall depth, the length of the cell is available to suit external wall depths of up to 330mm, 430mm, 500mm and 600mm.

## Balancing Act

The heatSava is the only unit on the market to be 100% balanced across both extract and supply airflows, operating in perfect symmetry to achieve optimum performance and efficiency in accordance with current EU Single Room Heat Recovery test methodology. The tubes have been intelligently engineered with a twist through 15 degrees. This increases the dwell time that the air cyclones around the barrel, improving thermal efficiency. The heatSava has undergone rigorous and extensive testing in world class laboratory facilities.

### Thermal efficiency testing in climatic chamber



### Sound testing in anechoic chamber



## Hassle-free cleaning and maintenance

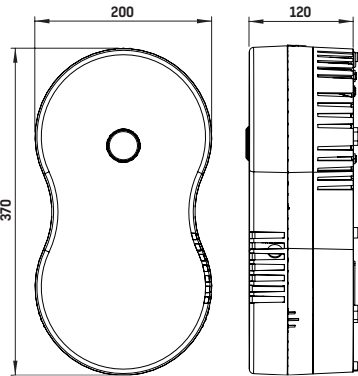
The heatSava can be easily cleaned and serviced completely hassle-free by the resident by vacuuming the side of the grilles to maintain efficiency and performance.

For ease of servicing by maintenance personnel when the front cover is removed the unit will stop operating to allow the unique plug out/plug in heat exchange cartridge to be removed using the service key provided. The cell can then be simply vacuumed or wiped clean with a cloth.

## Time Elapse Meter

The heatSava incorporates a time elapse meter as standard to monitor operational life.

### Dimensions (mm)



#### CELL OPTIONS

330MM    430MM    500MM    600MM

The heat cell is available to suit external wall depths of 330mm, 430mm, 500mm and 600mm. If the intended wall depth exceeds one of these measurements please ensure that the next size is specified.

## Maximum Efficiency

heatSava 100	68%
heatSava 150	75%

## Performance Data

MODEL	Airflow (l/s)		Watts		Sound pressure Level dB(A) @ 3m	
	Trickle	Boost	Trickle	Boost	Trickle	Boost
HSA100/330	6.5	13	4.9	20.4	22	39
HSA100/430	6.5	13	5.2	21.9	22	39
HSA100/500	6.5	13	5.2	22.1	22	39
HSA100/600	6.5	13	5.8	23.7	22	41
HSA150/330	6.5	13	4.6	14.9	22	36
HSA150/430	6.5	13	4.9	15.5	22	36
HSA150/500	6.5	13	4.74	14.7	22	36
HSA150/600	6.5	13	5.1	16	22	37

## Technical Specification

### Product

The heatSava Single Room Heat Recovery Unit shall run continuously on background trickle, designed to comply with the Building Regulations Approved Document Part F: Ventilation. The energy-efficient unit shall be supplied in a 230V version with the facility to convert to SELV on site using the power supply unit included.

### Application Suitability

The heatSava 100 shall be suitable for through-the-wall new installations in bathrooms, WC's, kitchens and utility rooms and shall also be designed to directly replace 100mm existing traditional centrifugal and axial extract fan installations.

The heatSava 150 shall be suitable for through-the-wall new installations in kitchens, utility rooms, bathrooms WC's and shall also be designed to directly replace 150mm existing centrifugal and axial extract fan installations.

### Installation

The heatSava 100 shall be installed into an existing 100mm wall sleeve or a 107mm hole can be drilled if installing into a new wall. The heatSava 150 shall be installed into an existing 150mm wall sleeve or a 158mm hole can be drilled if installing into a new wall.

The heatSava shall have the capability to be installed in four orientations around 360° horizontally or vertically to suit the installation. The pullcord shall also be capable of being positioned in 4 different locations on the unit depending on the orientation in which the heatSava is installed.

### Motor

The motors shall be long life, low watt ball bearing DC motors. (Over 90,000 hours - depending on usage.)

### Fans

Extract - the unit shall incorporate a centrifugal fan.

Supply - the unit shall incorporate a centrifugal fan.

### Heat Exchange Cell

Shall be a tubular heat exchange cell designed to deliver up to 75% efficiency incorporating tubes that have been twisted through 15° to improve the dwell time and efficiency.

The design of the tubes shall minimise resistance and increase surface area to result in a higher heat transfer. There shall be four lengths of cell available to suit wall depths up to 600mm: 330mm, 430mm, 500mm or 600mm.

The extract and supply airflows shall be 100% balanced to achieve optimum performance and efficiency in accordance with current EU Single Room Heat Recovery test methodology.

### Construction

The external body shall be constructed out of ABS gloss plastic. The outside casing of the heat exchange cell shall be constructed out of PVC.

### Summer By-Pass

The unit shall have an automatic summer by-pass as standard to switch the unit to extract-only mode when the temperature reaches 25°C.

### Time Elapse Meter

The heatSava shall come as standard with a time elapse meter to monitor operational life.

### Warranty

The unit shall be covered by an on-going five year warranty subject to the specified maintenance and servicing.

### Controls

The heatSava shall run continuously on trickle providing all year round healthy indoor air quality. The Intellitrac® humidity controls constantly monitors the average humidity level over a two minute period. As the humidity rises and falls, the motor speed rises and falls in direct correlation.

This controls condensation quietly and efficiently, eliminating the problem of noisy extract fans and reducing the periods of time when the unit operates on maximum speed, saving energy. An integral pullcord for both models shall be for trickle to boost extract ventilation as standard.

A wireless controller shall be available as an option to change the airflow setting

### Manufacturer

The unit shall be the heatSava as manufactured by EnviroVent Ltd.

### Accreditation

Conforms to the requirements of the UK Building Regulations and the Technical Standards for Ventilation.

Conforms to requirements of the EC council directives relating to Electromagnetic Compatibility and Electrical Safety (LDV and EMC).

CE & UKCA Marked.





# envirovent®

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and sustainable ventilation

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