

aerofresh

Creating Healthier Indoor Air Quality



The **Aerofresh 300 & 450** are next-generation heat recovery ventilation systems designed to create healthier, more comfortable indoor environments. Ideal for small to large homes, they feature a high-efficiency counter-flow heat exchanger that delivers up to 90% energy recovery.



Healthy Home Ventilation

High Efficiency Heat Recovery System

The Aerofresh 300 & 450 are high-performance heat recovery ventilation systems that ensure a continuous supply of fresh, filtered air with stable humidity control. Delivering market-leading efficiency, they achieve up to 90% heat recovery, operate quietly, and minimise power consumption. Equipped with intelligent temperature sensors, the units automatically adjust to changing conditions for reliable, low-maintenance operation. By capturing heat energy normally lost through exhaust air, the Aerofresh transfers it to the incoming fresh air stream, maximising comfort and energy savings.

How it works

- The Aerofresh 300 & 450 units recover thermal energy from air inside the building to preheat or precool the incoming fresh air
- Reduces moisture and pollutant levels to maintain a healthy indoor air quality
- Extracts the condensation to reduce mould growth risk
- Easy-to-fit air distribution system ensures each room is well ventilated
- The recovered thermal energy reduces the demand for additional heating and cooling



High quality G4 & F7 filters are standard



Front access for easy servicing and maintenance



European Made



Heat Exchanger



Energy Saver



Quiet Operation

Features

- High thermal efficiency – up to 90%
- Smart control via app and wireless-enabled sensors
- Advanced filtration – G4 & F7
- Fully automatic summer bypass
- Active frost protection to -20°C
- Integral humidity and temperature sensors
- Replace filter indicator
- Constant volume flow control
- Left/right handing can be set during commissioning
- Passivhaus certified performance
- Independently tested to BS EN 13141-7:2010 for acoustic performance
- Can be connected via a Modbus interface



Acoustic enclosure ensures low noise levels

Multi-function on-board display allows users to adjust ventilation rates all year round

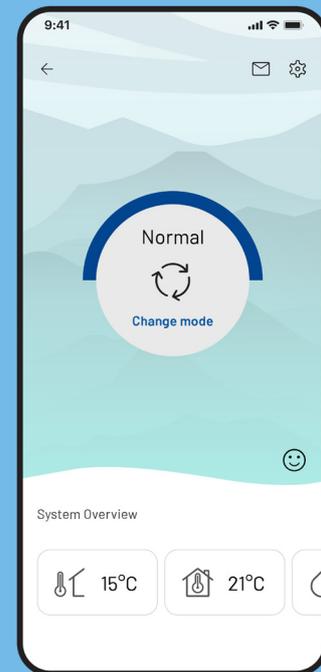


App control for ventilation control, anywhere anytime



Aerofresh 300 & 450 Controllers

- 4 adjustable air flow levels
- 7 day scheduler enables set-up of operational periods
- Filter replacement and servicing alerts
- Bypass mode (automatic)
- Frost protection mode
- App available on IOS and Android



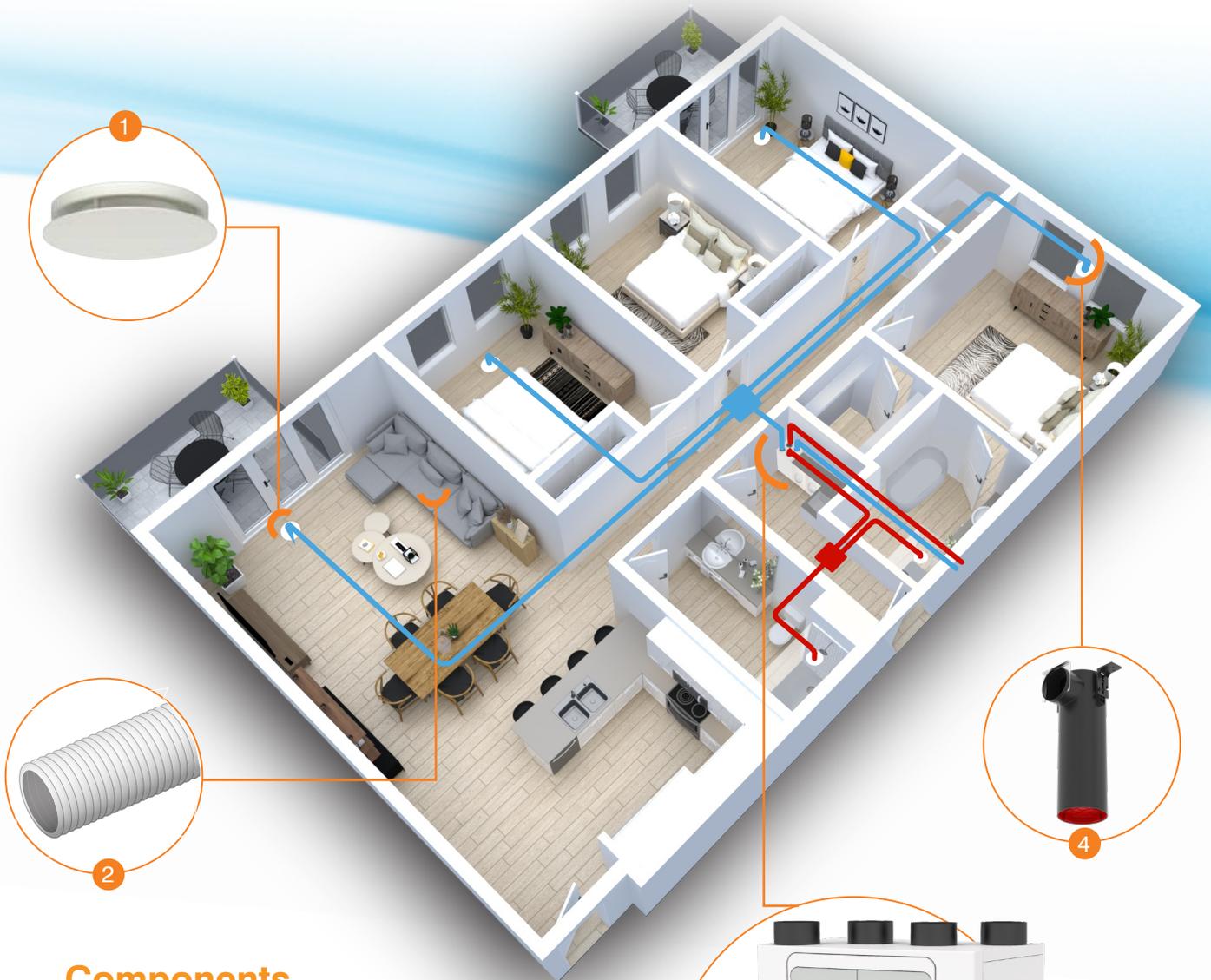
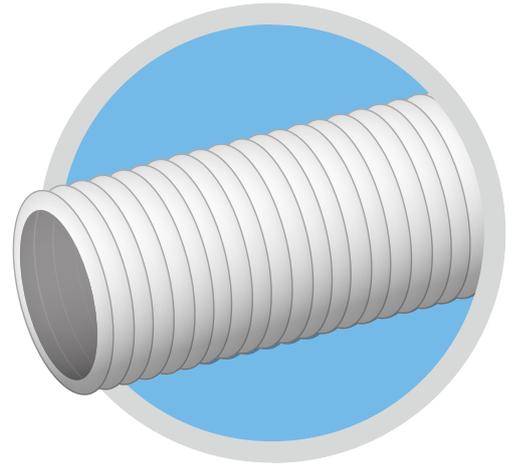
Wireless app control for use on smart devices



Multi-function on-board LCD display

Semi Rigid Un-insulated duct system

A semi rigid un-insulated duct system uses individual ducts connected directly from the HRV unit to each room. A ceiling service cavity of 140mm depth between the ceiling insulation and plaster board is required to distribute ductwork throughout the building. Although this system has a slightly higher cost, it is more airtight and eliminates duct heat gain / loss.



Components

- 1 Internal Grille
- 2 Semi Rigid Duct
- 3 HRV Unit
- 4 Grille Housing

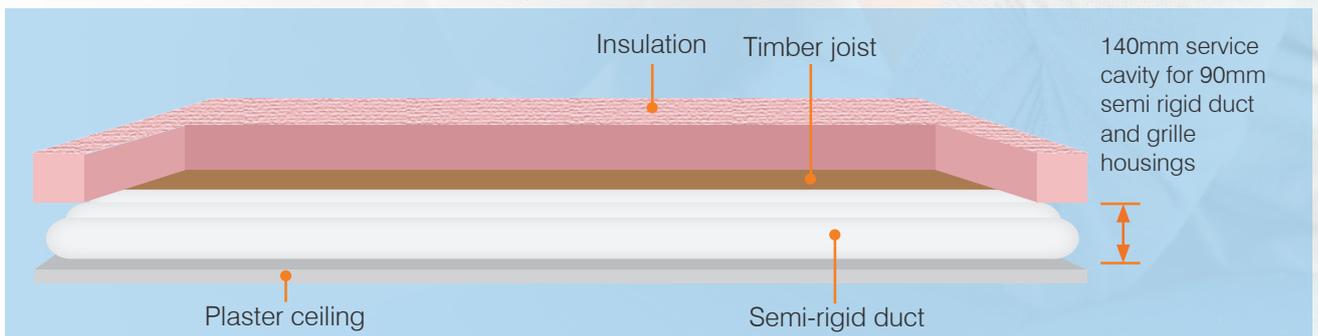


Floor Plan example



Service Cavity

A Semi-rigid duct system requires a customised service cavity (false ceiling) to house the duct system. This is needed as the ductwork is not insulated and would gain / lose too much heat if installed in the roof space. Additional expertise is required to complete the installation.



Branched Insulated Flexible Duct System

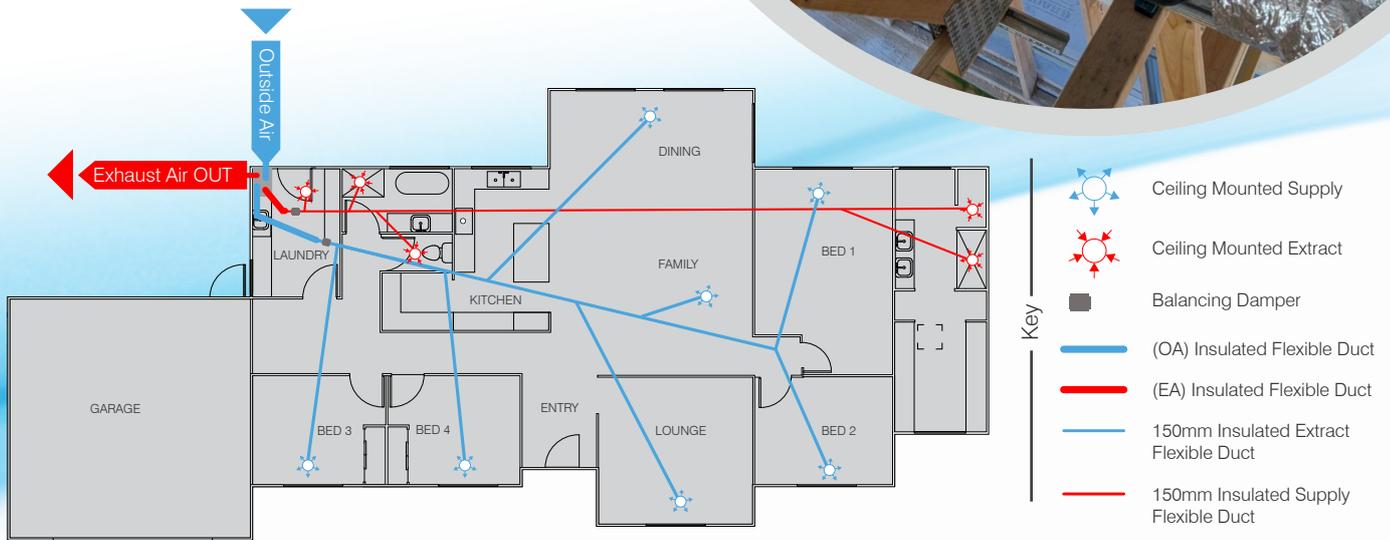
A branched insulated flexible duct system uses common duct components such as y-pieces, balancing dampers, insulated duct and grilles. The installation requires little prior experience with HRV installations, as the system is similar to a ducted air conditioning system, running directly in the roof space without the need for a dedicated service cavity.



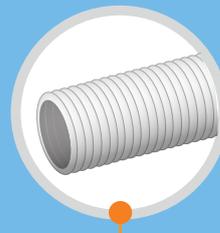
Components

- 1 Balancing Damper
- 2 Internal Grilles (Supply)
- 3 Y-Piece
- 4 HRV Unit
- 5 Internal Grille (Extract)
- 6 Insulated Flexible Duct

Floor Plan example



Duct System Comparison Chart

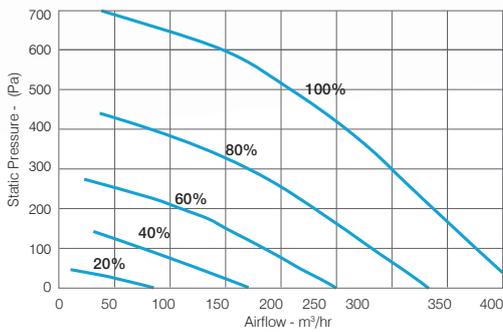


	Branched insulated flexible duct	Semi rigid un-insulated duct
Insulation	 Individually insulated duct.	 Service cavity below ceiling insulation.
Duct Size	150mm & 200mm duct.	90mm internal distribution.
Air Distribution Method	 Branched using Y pieces.	 individual ducts running from the HRV unit directly to each room.
Service Cavity	Not required.	A ceiling service cavity of 140mm depth below the ceiling insulation is required to distribute ductwork throughout the building. This is needed as the ductwork is not insulated and would gain / lose too much heat if installed in the roof space.
Cost	Lower product cost.	Higher cost.
Grilles	Wider choice of grilles available.	Less choice of grilles available.
Duct Cleaning	Difficult to clean duct system.	Relatively easy to clean duct with a purpose-built cleaning tool.
Ease Of Installation	Easy to install, similar to a branched exhaust fan system.	Requires greater expertise to install.
Heat Loss/Gain	Some heat loss/gain to the roof space that results in slightly lower efficiency.	Extremely airtight and high resistance to damage. No heat loss.
Noise Transfer	Care is needed to avoid noise transfer between rooms via the branched ductwork.	Eliminates the risk of noise transfer between rooms (crosstalk).
Airflow Balancing	Care with damper positioning and adjustment needed.	Fast and flexible.

Aerofresh 300



Performance Data



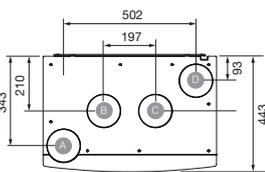
Sound Data

	(dBA) @ 3m			
Operating Speed	40%	60%	80%	100%
Supply	38.4	45.7	51.7	56.2
Extract	27.3	34.2	41.1	42.0
Breakout	26.0	34.0	40.5	43.0

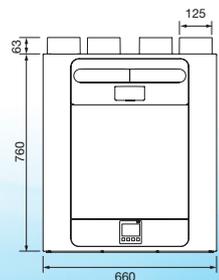
Unit Specifications

Weight	27kg		
Ducting	4 X 125mm spigots		
Condensate Connection	32mm drain connection		
Construction	Internal Body	EPS (Expanded Polystyrene)	
	Unit Housing	ABS	
Voltage	220-240		
Fan Motor	EC		
Filters	Extract - G4		
	Supply - G4 (F7 Optional)		

Dimensions



- A** Supply air to inside
 - B** Extract air from inside
 - C** Extract air from inside
 - D** Exhaust air to outside
- Based on right handed configuration

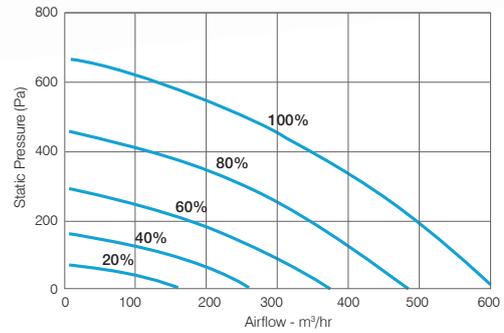


All dimensions in mm

Aerofresh 450



Performance Data



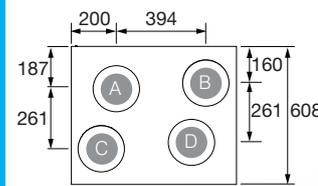
Sound Data

	(dBA) @ 3m			
Operating Speed	40%	60%	80%	100%
Supply	37	45	50	53
Extract	21	28	34	35
Breakout	22	29	34	38

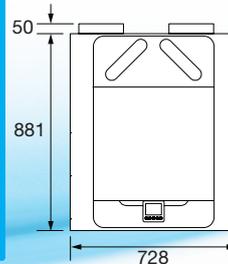
Unit Specifications

Weight	50kg		
Ducting	4 X 160mm spigots		
Condensate Connection	32mm drain connection		
Construction	Internal Body	EPS (Expanded Polystyrene)	
	Unit Housing	ABS	
Voltage	220-240		
Fan Motor	EC		
Filters	Extract - G4		
	Supply - G4 (F7 Optional)		

Dimensions



- A** Extract air from inside
 - B** Exhaust air to outside
 - C** Supply air to inside
 - D** Intake air from outside
- Based on right handed configuration



All dimensions in mm

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Specifications and design subject to change without notice.