

# Mechanical Extract Ventilation (cMEV)



SAP approved Energy Efficient  
Mechanical Extract Ventilation  
- Rigid Pipe  
- Semi-Rigid Pipe



## About

The PHS MEV-H unit from Passive House Systems is a low energy, continuous mechanical extract ventilation system designed with multiple extract points to simultaneously draw moisture-laden air out of the wet rooms, whilst minimising the migration of humidity to other rooms.

## Features & Benefits

- German manufactured Low Watt EC motor.
- SAP PCDB tested:  
 $K+1 = 0.19$  to  $K+6 = 0.30$  for rigid pipe.  
 $K+1 = 0.22$  to  $K+6 = 0.30$  semi-rigid pipe.
- Variable control humidity tracking.
- 5 X 125mm connection points.
- Low specific fan power.
- Easy installation on ceiling, floor or wall.
- Vertical or horizontal installation.
- Ease of maintenance.
- Low profile of just 250mm.
- Acoustic foam lining.
- 2 year warranty.
- Recognised by TGD Part L.

## Operation

- One speed (humidity tracker disabled).
- Two speed (Default setting).
- Variable speed with wired controller.
- 3 speed with wired selector.

## Humidity Controls

The system continuously operates at a low level to ensure that the home is correctly ventilated, providing all year round good indoor air quality. Incorporated within the MEV unit is the variable humidity control as standard, which constantly monitors the humidity level, meaning no user intervention is required. As humidity rises and falls, the motor speed rises and falls in direct correlation. This controls condensation quietly and efficiently, reducing the periods of time when the system operates on maximum speed, saving energy.

## System Design and Supply

We will design and supply a whole house/apartment extract system which will provide continuous renewal of the air and meet building regulations. We have a large range of MEV & HRV machines, pipe-work and accessories to choose from. Visit our website for further details.

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## AGENT DETAILS:

## Indoor Air Quality

- ♦ We can spend as much as 90% of our time indoors. We take up to 20,000 breaths each day and on average 18,000 of these are taken indoors!
- ♦ Indoor Air is 2 to 5 times more polluted than outdoor air. (EPA)
- ♦ 72% of toxic chemicals are found indoors (UL)
- ♦ An average household produces 30 kilos of dust and dirt per year. (dust mites, allergens, fungi and bacteria)
- ♦ An average family produces 10-12 liters of moisture per day.
- ♦ People who may be exposed to indoor air pollutants for the longest periods are often those most at risk to the effects of indoor air pollution, including children, older adults, and people with long-term (chronic) illnesses.



## Common Indoor Air Hazards

### **Live sources:**

These include mold, mildew and dust mites.

### **Carbon monoxide:**

CO is an odourless, colourless gas, which can block the movement of oxygen in the body. Depending on how much you breathe in, CO can affect coordination, make heart conditions worse, and cause extreme tiredness, headaches, confusion, nausea, and dizziness. Very high levels can cause death. Older adults, babies, pregnant women, and people with heart and lung diseases are even more sensitive to high CO levels.

### **Radon:**

Radon is a radioactive gas that seeps from the soil and rocks under your home. Radon can enter a home through cracks in the foundation, walls, drains, and other openings. Exposure to radon in the home is the second leading cause of lung cancer.

### **Household products.**

These include personal care products, pesticides, household cleaners, solvents, and chemicals used for hobbies. Exposure to these products can cause dizziness, nausea, allergic reactions, cancer, and irritated eyes, skin, and lungs. Some cleaning products can produce poisonous fumes.

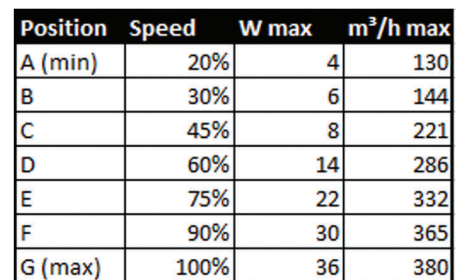


### Example of a complete ventilation system



**Application:** New Build or Retrofit.

### Performance curve

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**MAINFRANKEN**

LÜFTUNGSTECHNIK

# Product List

## Semi- Rigid Ducting

Semi Rigid ducting used for connecting Manifolds to Ceiling Plenums. Anti-Static/Anti-Bacterial.

Available Sizes:	75mm x 50m 75mm x 25m	Product Code:	HRV001F1
	90mm x 50m 90mm x 25m	Product Code:	HRV002A HRV002A1



## Connection Sleeve for Semi Rigid Ducting

Straight connector for connecting semi rigid ducting.

Available Sizes:	75mm 90mm	Product Code:	HRV001D HRV002B
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## Elbow for Semi Rigid Ducting

Suitable for 75mm semi rigid ducting. Allows for sharp 90 Degree bends.

Available Sizes:	75mm	Product Code:	HRV001J
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## Rubber Sealing Ring

Rubber sealing ring for 75mm ducting seals semi rigid ducting to ceiling plenums and manifolds.

Available Sizes:	75mm	Product Code::	HRV001C1
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## Air distribution boxes and ancillary parts

### 75mm Air Distribution boxes

Manifold for distributing air to each individual room. Connects to the unit with PVC rigid ducting and connected to ceiling plenums with semi rigid ducting.

Available Sizes:	150/75x 8 150/75 x 10x10	Product Code:	HRV005E HRV005C
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### 90mm Air Distribution boxes

Manifold for distributing air to each individual room. Connects to the unit with PVC rigid ducting and connected to ceiling plenums with semi rigid ducting.

Available Sizes:	150/90x-2-4-2-0 150/90X-3-3	Product Code:	HRV005D HRV005B
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### Left and Right Hand Side Air Distribution boxes

This manifold can be used for both supply and exhaust air and is available in several variations.

#### Right Hand Side

Available Sizes:	160x75mm (6 Port) 160x75mm (10 Port) 160 x75mm (12 Port) 160x90mm(8 Port) 160x90mm (10 Port)	Product Code:	HRV005G HRV005H HRV005I HRV005O HRV005P
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#### Left Hand Side

Available Sizes:	160x75mm (6 Port) 160x75mm (10 Port) 160 x75mm (12 Port) 160x90mm (8 Port) 160x90mm (10 Port)	Product Code:	HRV005J HRV005K HRV005L HRV005M HRV005N
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## Round Flange

Used for connecting semi-rigid ducting to manifold boxes.

Available Sizes:	75mm	Product Code:	HRV001G
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## Distribution Box Blanking Cap

Used for sealing off unused ports in air distribution boxes.

Available Sizes:	75mm 90mm	Product Code:	HRV001I HRV002D
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## Ceiling Plenums and ancillary parts

### Ceiling Plenum

Ceiling box required for each air valve. Connected to manifold with Semi Rigid ducting.

Available Sizes:	75mm 90mm	Product Code:	HRV004A HRV004B
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### Round Flange Plug

Used for sealing off unused ports on ceiling plenums.

Available Sizes:	75mm	Product Code:	HRV004C
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## Universal Diffusers

Universal ceiling valve for either extract or supply. Fitted into the ceiling plenums.

Available Sizes:	125mm	Product Code:	HRV003A
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### Supply Diffusers

Ceiling valve for supply only. Fitted into the ceiling plenums.

Available Sizes:	125mm	Product Code:	HRV003F
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### Extract Diffusers

Ceiling valve for extract only. Fitted into the ceiling plenums.

Available Sizes:	125mm	Product Code:	HRV003G
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### Fire Rated Diffusers

Fire rated ceiling valve. Fitted into the ceiling plenums.

Available Sizes:	125mm	Product Code:	HRV003I HRV003K
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## Rigid Ducting and ancillary parts

### uPVC Round Pipe

2m lengths of rigid round pipe, used for connecting the unit to manifolds and the unit to external vents.

Available sizes:	150mm 125mm 100mm	Product Code:	HRV007A HRV008A HRV009A
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### uPVC 45 Degree Bend

45 Degree bend for PVC rigid ducting.

Available sizes:	150mm 125mm 100mm	Product Code:	HRV007C HRV008C HRV009C
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### uPVC 90 Degree Bend

90 Degree bend for PVC rigid ducting.

Available sizes:	150mm 125mm 100mm	Product Code:	HRV007D HRV008D HRV009D
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### uPVC Connector

Used for connecting lengths of uPVC rigid pipe.

Available sizes:	150mm 125mm 100mm	Product Code:	HRV007E HRV008E HRV009E
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### uPVC T Piece

T piece for PVC rigid ducting. Usually used for 2 storey one off houses to facilitate additional manifolds.

Available sizes:	150mm 125mm 100mm	Product Code:	HRV007B HRV008B HRV009B
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## Vents

### External Wall Vent

Finishing supply and extract ducting externally.

Available sizes:	150mm 125mm 100mm	Product Code:	HRV006A HRV006A1 HRV006B
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### G5 Slate Vent

Designed to ventilate through roof slope.

Product Code:	HRV006C
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### G5 Tile Vent

Designed to ventilate through roof slope.

Product Code:	HRV006E
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### G5 Vent Adaptor

Snap on adaptor for G5 vent to carry pvc pipe.

Available Sizes:	150mm 125mm	Product Code:	HRV006D HRV006F
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