

A121 HUMIDITY CONTROLLED EXTRACT GRILLE

The A121 humidity controlled extract grille is designed for 'wet rooms' and responds automatically to changes in relative humidity, opening and closing to meet demand, working in harmony with a central mechanical extract fan to boost individual room extraction.

Operation

The A121 extract grille incorporates a number of nylon strands which expand and contract in line with relative humidity, releasing tension within a set of springs inside the extract, varying the size of the opening of the extract.

When relative humidity is below 30%, the extract allows a low level of ventilation ($15\text{m}^3/\text{hr}$). When relative humidity increases, the A121 opens gradually to increase ventilation in line with relative humidity. When relative humidity is above 60%, the extract is fully open and allows a ventilation rate of $75\text{m}^3/\text{hr}$.

The extract forms part of a whole-house mechanical ventilation solution, and is located in 'wet rooms' such as kitchens, utility rooms, bathrooms, en-suites etc.

By upgrading standard MEV extracts to 'intelligent' A121, the dwelling becomes more energy efficient as the extract only responds where there is increased ventilation demand.

The extract is ducted to a centrally located, continuously running extract fan which drives the ventilation system.

The A121 is particularly suited to applications where occupant control is not desired e.g. special needs, care homes, student accommodation etc.



BENEFITS

- **Fully automatic**
Being controlled by the relative humidity of the room, the occupant does not need to worry about the level of ventilation.
- **Energy efficiency**
Being non-electrical, the A121 extract grille is ideal as part of an energy efficient ventilation system.
- **Ease of installation**
As there are no electrical connections to be made, installation is made as simple as possible; simply connect the extract to the ducting.
- **Flexibility**
The ceiling or wall mounted A121 extract grille can be retrofitted to upgrade most existing MEV fan systems, making them 'intelligent'.
- **Simple maintenance**
With no electrical parts to malfunction, the A121 requires minimal maintenance.
- **Visually unobtrusive**
The attractive design ensures that the extract is aesthetically pleasing to the occupant.



DESCRIPTION

Humidity controlled extract grille requiring no mains or battery power. No need for additional boost or boost switch.

Dimensions

External diameter: 180mm
Thickness: 58mm
Spigot diameter: 125mm

Airflow (at 80Pa)

Minimum: 15m³/hr (4l/s)
Maximum: 75m³/hr (21l/s)

Opening area

Minimum: 170mm²
Maximum: 840mm²

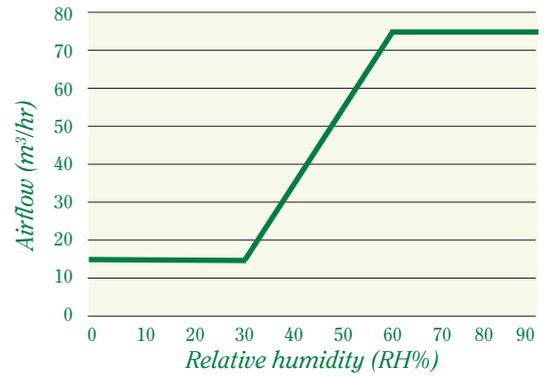
Control method

Humidity controlled.

Relationship between relative humidity and ventilation rate (at 80Pa)

RH (%)	Airflow (m ³ /hr)
0	15
30	15
60	75
90	75

Humidity controlled extract 15 / 75m³/hr



Extract grille	Standard operation range	Additional boost	Use with boost switch	Power supply	
				Mains	Battery
A121	Humidity controlled 15m ³ /hr to 75m ³ /hr (4l/s to 21l/s)	None	None	No power required	

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