



KELLEN
HOMES

Ventilation Strategy

Bennett Street, Manchester



Contents

Introduction	3
Accommodation Schedule.....	3
Housing Ventilation	3
Apartment Ventilation	4
Apartments Smoke Ventilation	4
Community Building Ventilation	4
Appendix 1	5
Appendix 2	8



Introduction

- 1.1 The purpose of this report is to confirm Kellen Homes' ventilation strategy for the 272 dwellings and community building to be constructed at Bennett Street, Manchester.

Accommodation Schedule

- 1.2 Below is a detailed accommodation schedule of the properties to be delivered, however it can be summarised as, 172 homes, 100 apartments and 1 community building:

Kellen Homes						
House Type	Bed No.	Type	No.	Sqft	Total Sqft	Split
2 Bed Apts (Apartment B)	2	4 Storey	100	754	75400	36.76%
Larch	3	2.5 Storey	18	1118	20124	6.62%
Hickory	2	2 storey	40	766	30640	14.71%
Olive	2	2 storey	1	768	768	0.37%
Acacia	3	2 storey	10	958	9580	3.68%
Cedar	3	2 storey	71	958	68018	26.10%
Palm	4	3 Storey	32	1262	40384	11.76%
Total			272		244914	100.00%

Housing Ventilation

- 1.3 All houses will be fitted with Vent-Axia Positive Input Ventilation (PIV).
- 1.4 PIV is a whole house ventilation system with no requirements for trickle vents fitted into window frames and no external ventilation grill, therefore, the house can be ventilated without any open windows/doors
- 1.5 The unit itself is a continuous fan located within the roof space. The unit generates little noise and it is mounted on anti-vibration feet to eliminate flanking.
- 1.6 **Appendix 1** provides more information on the Vent-Axia Positive Input Ventilation system.

Apartment Ventilation

- 1.7 All apartments will be fitted with Centralised Mechanical Extract Ventilation (MEV)
- 1.8 MEV is a whole dwelling ventilation system that extracts into a single exhaust grill per dwelling that can, depending upon location, can be upgraded to an acoustic exhaust grill.
- 1.9 The unit itself is a continuous fan located within the roof space above the utility storage room. The unit holds an 'Ultra low noise' classification, and it is mounted on anti-vibration matting to eliminate flanking.
- 1.10 **Appendix 2** demonstrates a comparable system to the details above

Apartments Smoke Ventilation

- 1.11 The protected lobby at each floor level is to be provided with a means of ventilation which is activated upon detection of smoke within the relevant common corridor. The smoke ventilation should comply with one of the following arrangements:
 - a. A system that is located on an external wall (at every floor) with a minimum free area of 1.5m² .
 - b. A system that is discharged into a vertical smoke shaft.
- 1.12 Upon completion of design a decision shall be made of what arrangement Kellen Homes will adopt. This will be designed by a specialist to conform to the requirements outlined in the fire strategy report and current building regulations.

Community Building Ventilation

- 1.13 The design and specification of the community building is to be agreed during the planning process. At the detailed designs stage the ventilation for the building will be agreed and will be in accordance with all appropriate building regulations.

Appendix 1





Vent-Axia

The UK's Leading Ventilation Company

Positive Input Ventilation

Edition 1.2

www.vent-axia.com/piv



PoziDry Pro™ Spec

Models

PoziDry Pro™ with G4 filter, 2m of flexi duct and a Ø200mm Smart Airflow™ discreet diffuser †

Positive input ventilation for whole house mould and condensation control. Smart Sense™ control allows quick and accurate set up. Fully adjustable between 11l/s - 60l/s. Automatic summer shut off stops warm air coming back into the property. Wireless control ready.

Stock Ref

476310

PoziDry Pro™ with Heater, G4 filter, 2m of flexi duct and a Ø200mm Smart Airflow™ discreet diffuser †

Positive input ventilation with heater for whole house mould and condensation control. Smart Sense™ control allows quick and accurate set up. Fully adjustable between 11l/s - 60l/s. Automatic summer shut off stops warm air coming back into the property. Wireless control ready.

Stock Ref

476311

PoziDry Pro™ FD with Heater, G4 filter, 2m of flexi duct & Ø200mm Fire rated diffuser (Multi-storey Compliant) † and ††

Positive input ventilation with heater and fire damper for whole house mould and condensation control. Smart Sense™ control allows quick and accurate set up. Fully adjustable between 11l/s - 60l/s. Automatic summer shut off stops warm air coming back into the property. Fire Damper model supplied with relay to fire alarm cut off and intumescent fire protective ducting. Wireless control ready.

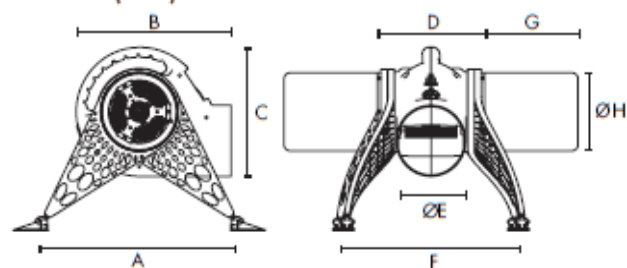
Stock Ref

476312

Accessories

Model	Stock Ref
Twin Spigot Kit includes:	449071
• 1 x Ø200mm 6m Duct	436592
• 2 x Worm Clips	561707
• 1 x Ø200mm equal Y Piece	452085
• 1 x Diffuser	478228
F7 Filter Set	477957

Dimensions (mm)



A*	B	C	D	ØE	F**	G	ØH
300-650	447	364	310	200	400-600	300	220

*Variable to allow for adapting product height. **Variable to adapt to differing joist widths. Height will vary as A dimension changes

Performance Guide

Bedroom	Extract Performance (l/s) - FID		Power (W)	
	Trickle	Normal	Trickle	Normal
1	13	25	2.2	3.6
2	17	31	2.6	4.8
3	21	38	3.2	5.5
4	25	44	3.6	7.5
5	29	50	4.3	11.5
Adjustable	10-60	10-60	Up to	14.5

PoziDry Compact Pro Spec

Models

PoziDry Compact Pro with integral heater

Positive input ventilation with heater for whole house mould and condensation control. Smart Sense™ control allows quick and accurate set up. Variable speed control allows the unit to be effective in apartments with up to 4 bedrooms. Foam construction for minimum noise levels and removable cartridge for quick and environmentally friendly repairs and replacement.

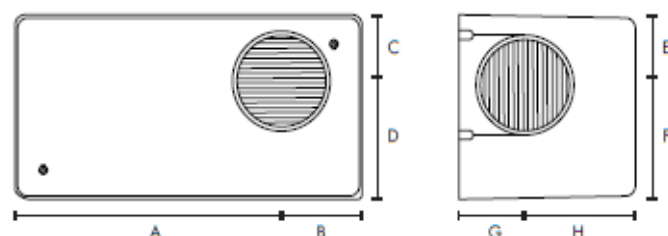
Stock Ref

479188

Accessories

Model	Stock Ref
ABS Spare Cover	479843
Spare Boxing Cover	479849
Spare Boxing Cover with Grille right	479850
Spare Boxing Cover with Grille left	479851
Boxing 200mmx200mm 2m	479852
Boxing End Stop	479853
Boxing End Stop with Grille	479854
Boxing Inner Bend	479855
Boxing Outer Bend	479856
Silencer kit	479857
Acoustic flexi duct	443273
Spare Scroll cartridge	479859
Spare PM10 filter	479860
Spare PM2.5 filter	479861

Dimensions (mm)



A	B	C	D	E	F	G	H	Spigot Ø	Unit Weight
302	91	74	132	79	127	75	125	100	6kg

Performance Guide

Speed	FID (l/s)	Power (W)	No. Bedrooms	Breakout dB(A) @ 3m
1	13	4.0	1	11.6
2	17	8.3	2	18.9
3	21	12.5	3	25.4
4	25	18.3	4	29.7

Appendix 2



INTRODUCING THE NEXT GENERATION OF MEV...



NEW MEV-ECO

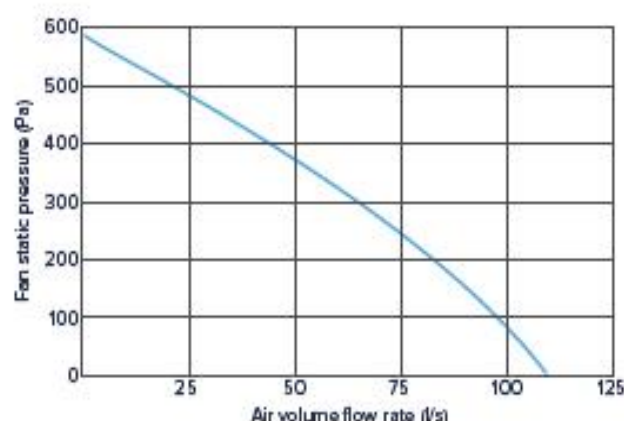


WHAT MAKES THE MEV-ECO DIFFERENT

The new MEV-ECO is a centralised extract system capable of extracting air from multiple wet rooms in a property.

Units are SAP recognised and have been designed to meet the most current building regulations, both Part F and Part L. MEV-ECO utilises market-leading technology to achieve high performance, high efficiency and low noise all in a low depth and compact case size.

Performance



Multi-Room Extract

Units have three inlets, capable of extracting from multiple wet rooms



Low Depth

Only 125mm depth, ideal for properties with limited ceiling void space

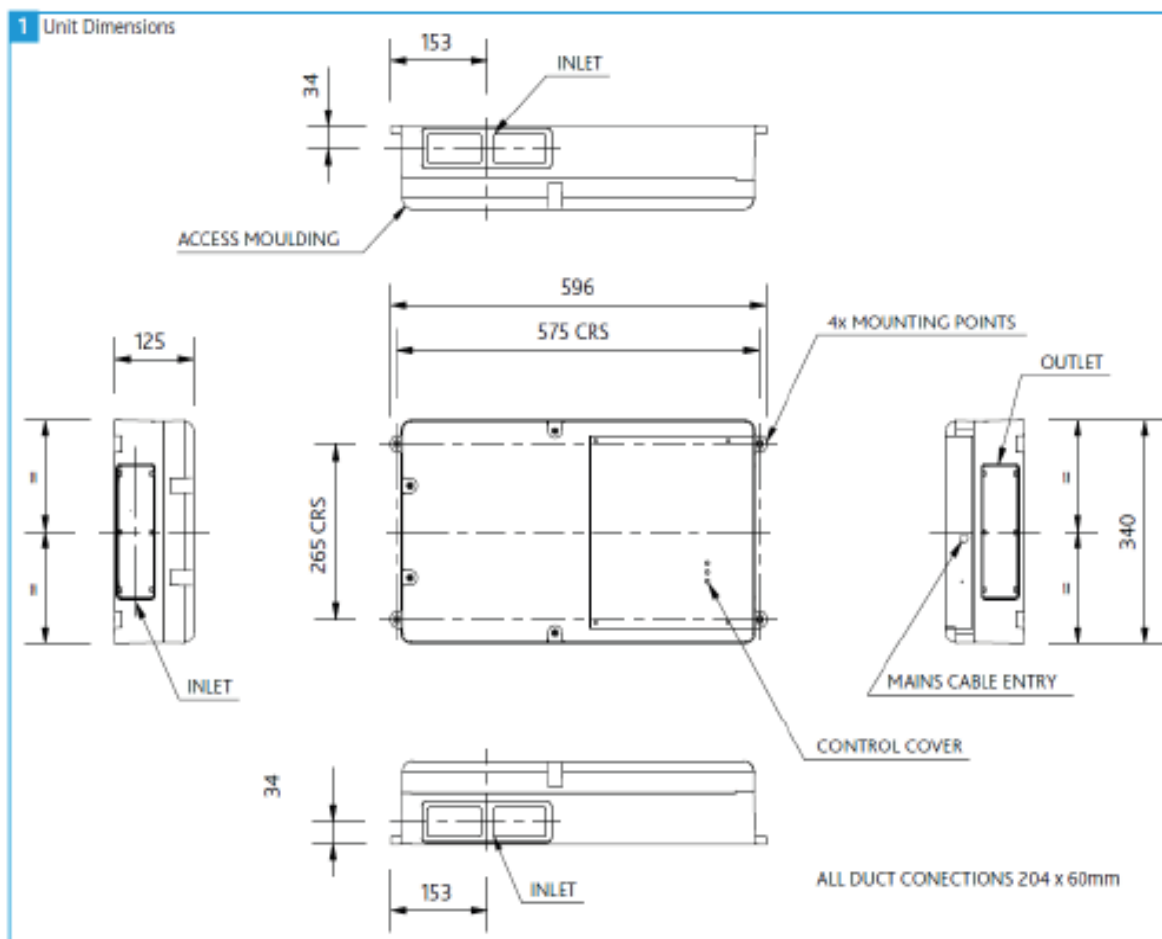


High Efficiency

Latest DC motor technology for market-leading energy efficiency levels

Kitchen + n wet room	SFP (w/l/s) [2012]
Kitchen + 1 wet room	0.17
Kitchen + 2 wet room	0.17
Kitchen + 3 wet room	0.20
Kitchen + 4 wet room	0.24
Kitchen + 5 wet room	0.30
Kitchen + 6 wet room	0.35

COMPACT DESIGN BUILT FOR EASY INSTALLATION



THE FULL BENEFITS OF MULTI-ROOM EXTRACTION

The MEV-ECO has three inlets which allow it to extract stale, pollutant-laden air from multiple wet rooms in the house.

Fresh air replaces the extracted air, entering via grilles and windows throughout the home. This method of ventilating will maintain a high standard of indoor air quality all year round.

**INTEGRAL
HUMIDISTAT UNIT
AVAILABLE**



Easy Installation

Units do not have spigots, ducts can be run directly to the unit for simple install



Low Maintenance

Units run continuously with minimal cleaning of air valves required



Quiet

Noise breakout at full speed is less than 37 dBA



Humidistat

Humidistat units monitor humidity levels and automatically adjust fan speed