

Ventilation and Extraction Statement

Proposed Residential Care Home

Land off Blackmoorfoot Road,
Huddersfield

LNT Care Developments
Helios 47
Leeds
LS25 2DY
Tel: 0113-385-3858

September2026

Ref: VES/LNT/01

1.0 INTRODUCTION

1.1 This Ventilation and Extraction Statement has been produced to provide technical details of ventilation and extraction systems within the proposed development to demonstrate that the proposed equipment to be installed will give rise to no unacceptable/adverse amenity impacts. This report is provided to support the Reserved Matters application in relation to outline planning permission 2020/60/92546/W (as amended under s73 application ref. 2024/70/92614/W) and to address the validation requirement.

1.2 The principal ventilation/extract system is the kitchen extract system and to a much lesser degree the air extract fan installed to the proposed Battery Housing. In the case of the former, it is understood that there may be issues of potential noise to address and in the latter, only a potential noise issue.

1.3 This Ventilation and Extraction Statement provides details of proposed fume extraction systems, including details of the size, design, siting, finish, acoustic treatment and abatement techniques. Elevation drawings are also provided showing the size, location and external appearance of the proposed plant and equipment.

2.0 VENTILATION AND EXTRACTION IN LNT CARE HOMES

2.1 There will be no externally accommodated plant, machinery, or equipment associated with the proposed kitchen extract system. The system will only manifest itself external to the building, in the form of 2 No. louvred openings.

2.2 In respect of the Battery Housing, a small extract fan is proposed, of a size akin to that of a domestic bathroom and thermostatically controlled, so this is only operational in particularly warm weather conditions.

2.3 The kitchen is situated within the northern elevation of the building to the north side of the central corridor facing out over the car park.

2.4 The Battery Housing will be situated detached from the main building and positioned towards the north-eastern corner of the plot.

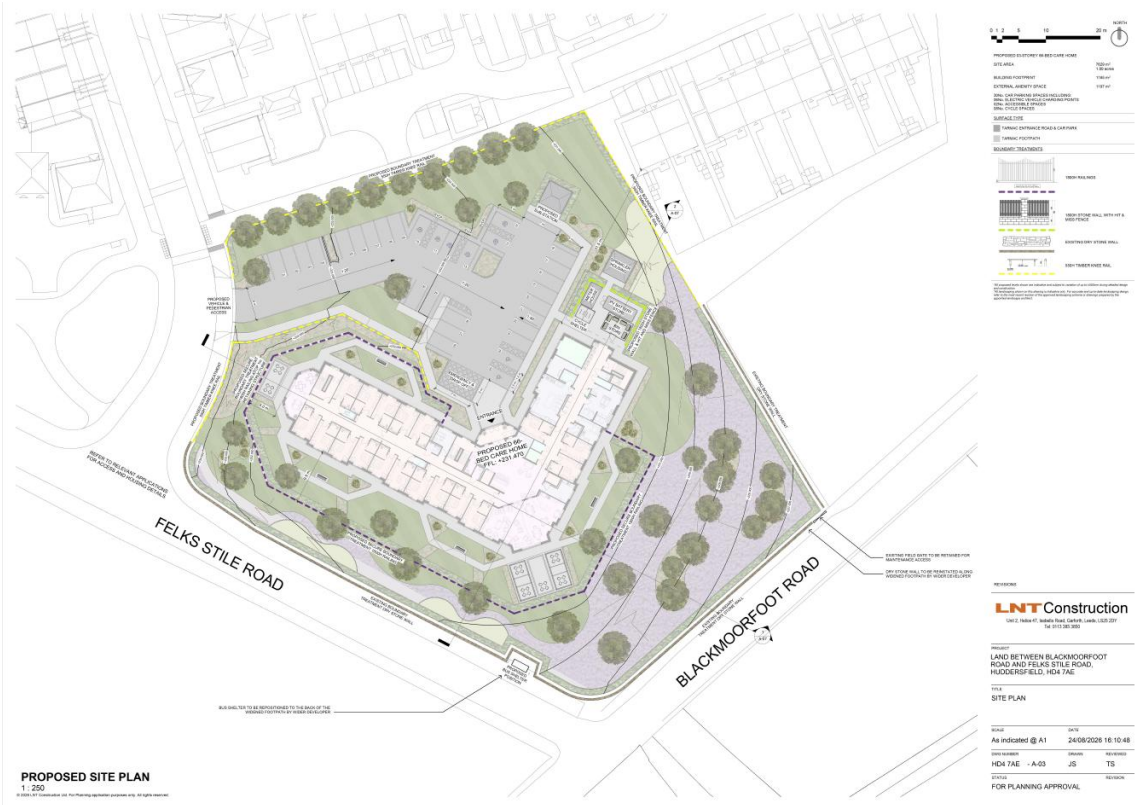


Figure 1: Proposed Site Layout Plan

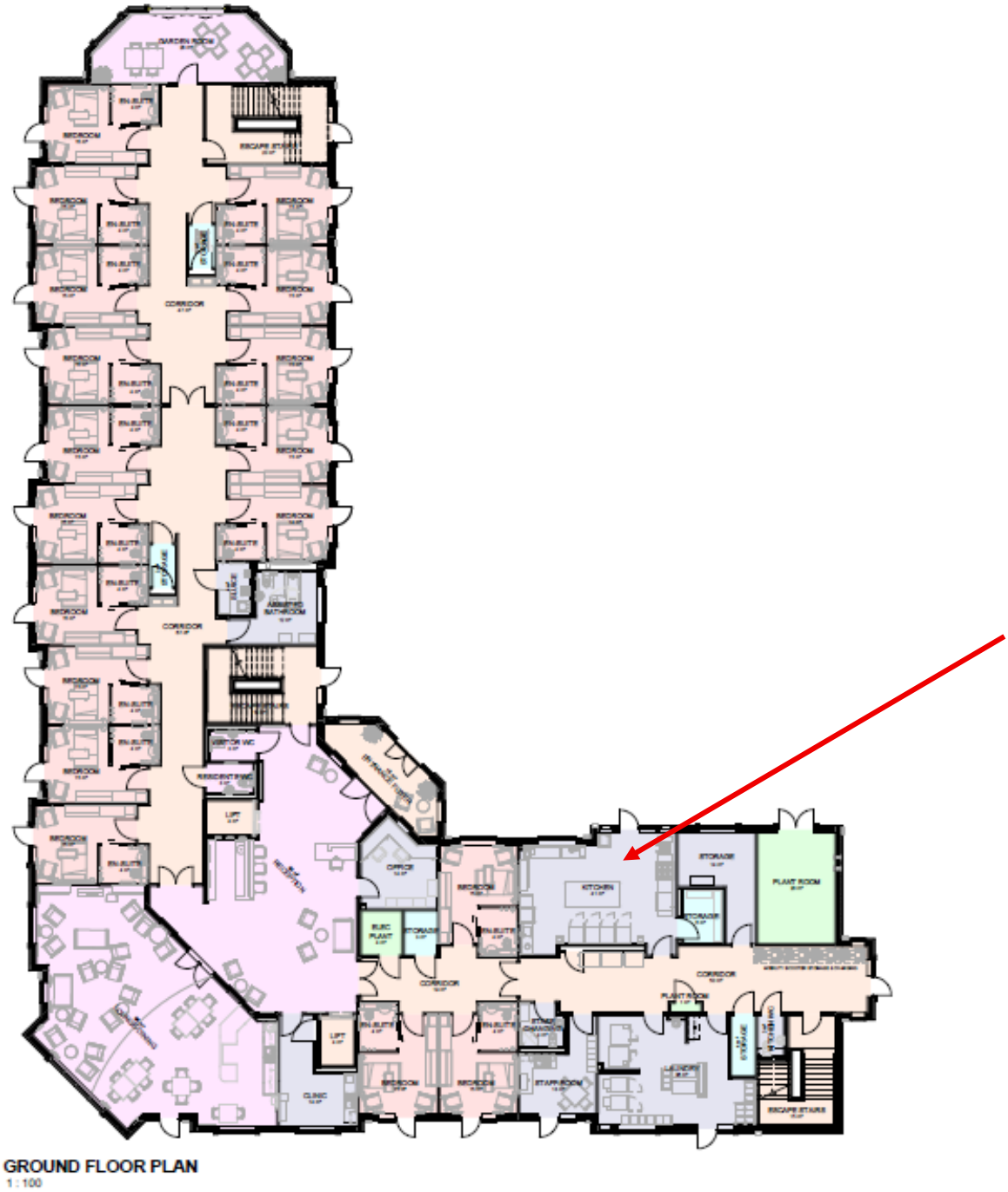


Figure 2: Ground Floor Plan showing location of kitchen on northern elevation of building

Kitchen Extract System

2.3 A ventilation and extraction system is proposed within the kitchen of the care home, which is intended to deal with cooking fumes when required. The extraction system takes the form of a linear extraction hood (see attached image at Figure 3 below) and detailed kitchen layout drawing at Figure 4 overleaf) with extract fan above the cooking range.

2.4 This will be ducted to the external wall via pleated panel filters. Details of the extraction fan can be seen at Appendix A, the pleated panel filters at Appendix B and the Technical Specification of the Extract Fan to Battery Housing at Appendix C.



Figure 3: Extract Hood

2.5 Externally, the system will involve two 600mm x 400mm colour co-ordinated louvred grills within the external walls, one providing a general air intake facility and the other utilised to expel warm air from the extract system after it has passed through the pleated filters. These will be within the north facing elevation of the building.

2.5 On the basis that all the kitchen extract/mechanical system is wholly accommodated within the masonry/building envelope, noise generated externally to the building will be negligible. Furthermore, the closest residential properties are those consented to the north (but not yet built), however due to the distance and separation provided by the car park, the chances of nearby residents being affected by the care home's kitchen extraction system is very low.

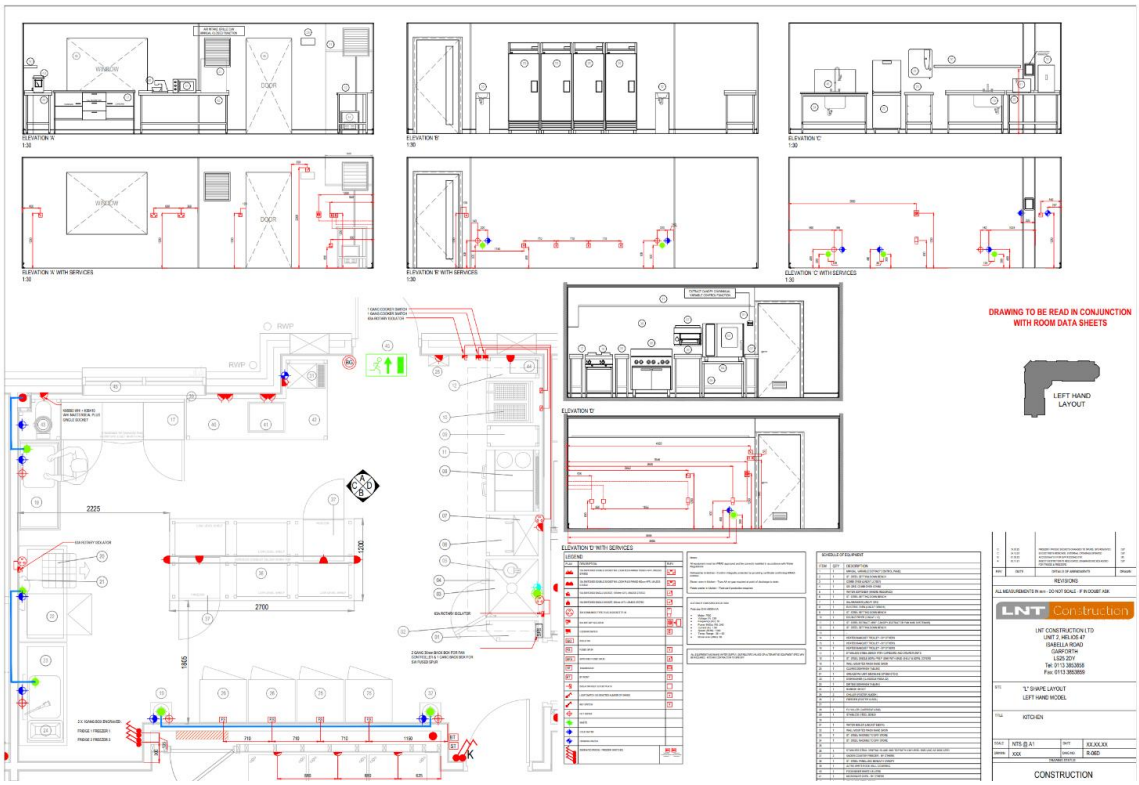


Figure 4: Proposed Kitchen Layout

2.6 The technical details of the extract fan, the only potentially noise generating element of the intended kitchen extract system, are provided at Appendix A to this statement. This states that the predicted noise level generated by the extract fan will be a maximum of 68 dB(A). Notwithstanding the stated specification, given the fan's location, suitable noise attenuation and mitigation are offered by the building envelope, such that there are no noise impacts external to the building and no resultant harm to general or residential amenity.

Battery Housing Fan

2.9 The only element of the installed equipment within the Battery Housing that may be considered a potential noise generator is the Xpeliar GX12 extractor fan. This fan is to be fitted at high level to the rear of the container (see Figure 5 overleaf) with the external face flush with the cladding. The fan has a sound pressure level of 50/55 dBA at 3m. Please refer to the datasheet in Appendix D.



Figure 5: End Elevation of Battery Housing (with Extract Fan).

2.10 The fan has a sound comparable to a quiet conversation or a boiling kettle. The fan would be positioned within the rear, east facing elevation of the Battery Housing, and as such, any impact from this small extract fan would have negligible to no impact on general or residential amenity within the immediate locality.

3.0 CONCLUSIONS

3.1 There is only limited plant, machinery and equipment associated with the proposed development and none that can be classed as external to the building. Noise from all internally accommodated plant, machinery and equipment will be contained by the masonry building envelope.

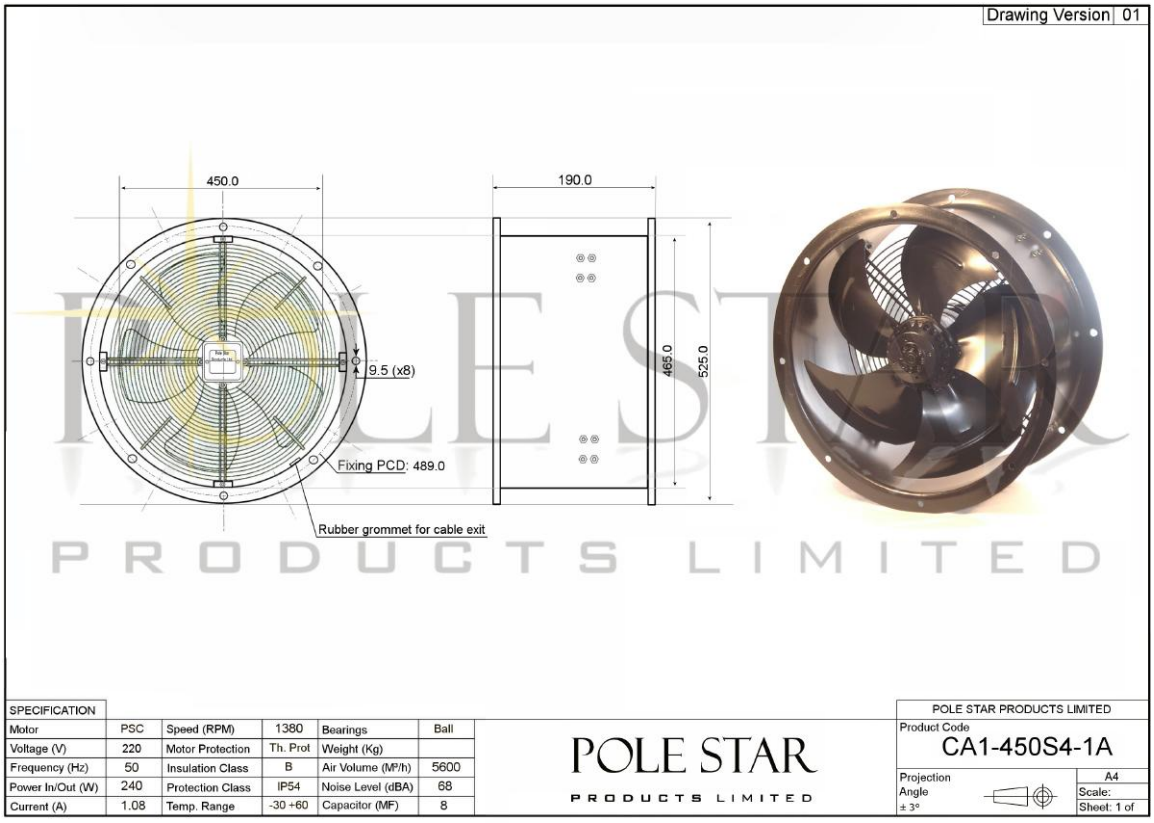
3.2 On account of the above and the 'back-of-house' arrangements, there will be no noise generated from the kitchen extract and ventilation system that will result in any impact on the amenity of any neighbouring residents. Further reassurance is provided here due to the distance of the kitchen and its extraction fan from any existing / recently developed residential or independently occupied properties.

3.3 There will be no visually obtrusive external consequences of the above with only two relatively limited in size, louvered openings, within the external (rear) elevation of the building, facing west. These will be colour co-ordinated with the external surfaces/colours and provide air intake and output of warm air only.

3.4 The small thermostatically controlled extract fan to the Battery Housing, would be such a scale in such a location that any negligible noise generated by this fan would also result in no significant general or residential amenity issues.

3.5 There are therefore no reasons in relation to ventilation, extraction and residential amenity why there should be any undue concern about this element of the proposed development.

APPENDIX A – Details of the Kitchen Extract Fan



SPECIFICATION					
Motor	PSC	Speed (RPM)	1380	Bearings	Ball
Voltage (V)	220	Motor Protection	Th. Prot	Weight (Kg)	
Frequency (Hz)	50	Insulation Class	B	Air Volume (M³/h)	5600
Power In/Out (W)	240	Protection Class	IP54	Noise Level (dBA)	68
Current (A)	1.08	Temp. Range	-30 +60	Capacitor (MF)	8

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Product Code
CA1-450S4-1A

Projection Angle ± 3°

A4

Scale:

Sheet: 1 of

Economy Pleated Intrepid Media

V LINE PANEL FILTER

The V Line pleated Panel filter is a standard capacity disposable product offering a better than basic level of filtration, or pre-filtration in HEVAC applications. This product is made using patented Kimberly Clark media which delivers a constant level of filtration over its life.



Construction

This product is constructed by bonding a pleat pack of Intrepid V Line media into a water repellent AquaKote card frame

FEATURES

The Frame is made from AquaKote card which has:

- Superior tear resistance when wet
- Great dry tear resistance and manufactured from a renewable source

KIMBERLEY CLARK PATENTED INTREPID MEDIA

Graduated Density for even dirt loading, resulting in greater dust holding

Hydrophobic will not load with moisture in the air

Constant efficient due to extra electrostatic charge

Superior Efficiency V's Particle size (see table)

Low pressure drop

Made form continuous fibres so will not shed

OPERATING TEMPERATURE

Continuous 80 °Centigrade

Test Comparing Filtration efficiency V's different sized particles. Intrepid Media V's Cotton Polyester Filters

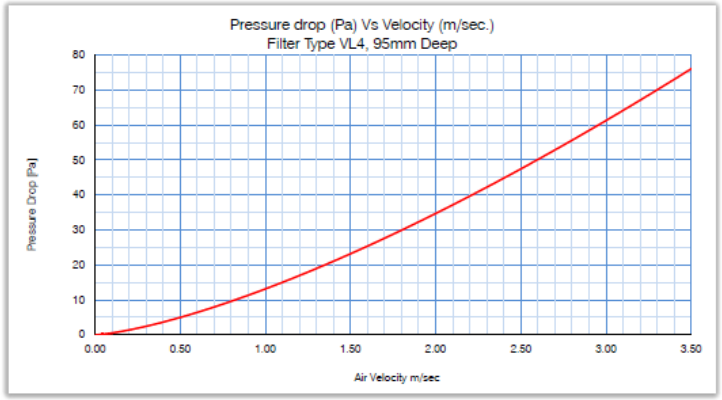
Particle Size Rang(mm)	Initial Fractional Efficiency(%) V Line Intrepid	The "best" Cotton Poly Alternative
0.3-0.4	7	2
0.4-0.55	15	6
0.55-0.7	26	11
0.7-1.0	41	19
1.0-1.3	52	24
1.3-1.6	58	28
1.6-2.2	63	32
2.2-3.0	67	36
3.0-4.0	70	37
4.0-5.5	71	38
5.5-7.0	72	38
7.0-10.0	73	39

Filter Class EN 779:2012		G4
Filter Depth	**Rated Airflow**	**Initial Pressure Drop**
20mm	1.5m/sec	45Pa
45mm	2.0m/sec	45Pa
95mm	2.7m/sec	53Pa
Final Recommended Pressure Drop		200Pa

purifiedair 01708 755 414 enq@purifiedair.com purifiedair.com
Lyon House, Lyon Road, Romford, Essex RM1 2BG

STANDARD SIZES VL4

No.	Nominal Size Inches	Height (mm)	Width (mm)	Depth (mm)	Rated Airflow m³/hr
VL4-1010	10x10x4	241	241	95	565
VL4-1020	10x20x4	241	495	95	1160
VL4-1212	12x12x4	292	292	95	829
VL4-1224	12x24x4	292	594	95	1686
VL4-1515	15x15x4	368	368	95	1316
VL4-1520	15x20x4	368	495	95	1771
VL4-1616	16x16x4	394	394	95	1509
VL4-1620	16x20x4	394	495	95	1896
VL4-1625	16x25x4	394	622	95	2382
VL4-1818	18x18x4	445	445	95	1925
VL4-1831	18x31x4	445	775	95	3352
VL4-2020	20x20x4	495	495	95	2382
VL4-2024	20x24x4	495	594	95	2858
VL4-2025	20x25x4	495	622	95	2993
VL4-2424	24x24x4	594	594	95	3404



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APPENDIX C – Technical Specification of Extract Fan to Battery Housing

GX9 & GX12

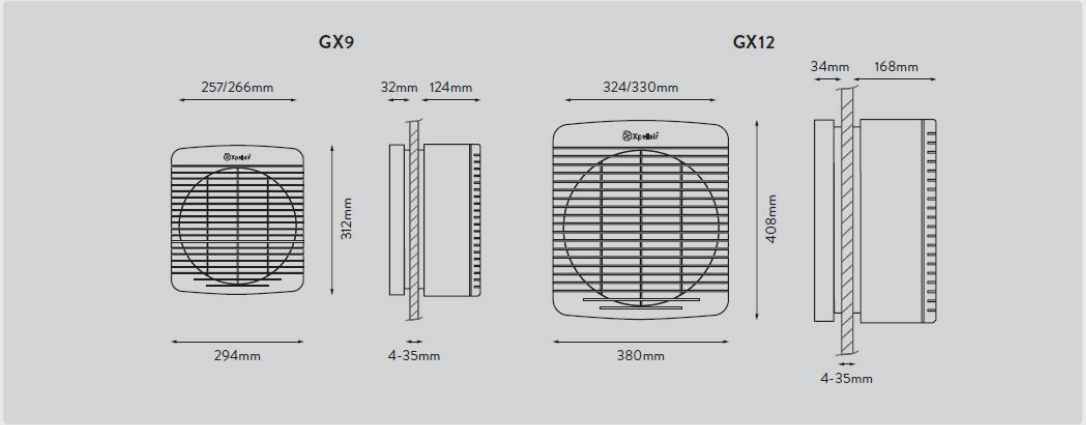
Commercial AC window fans

Commercial



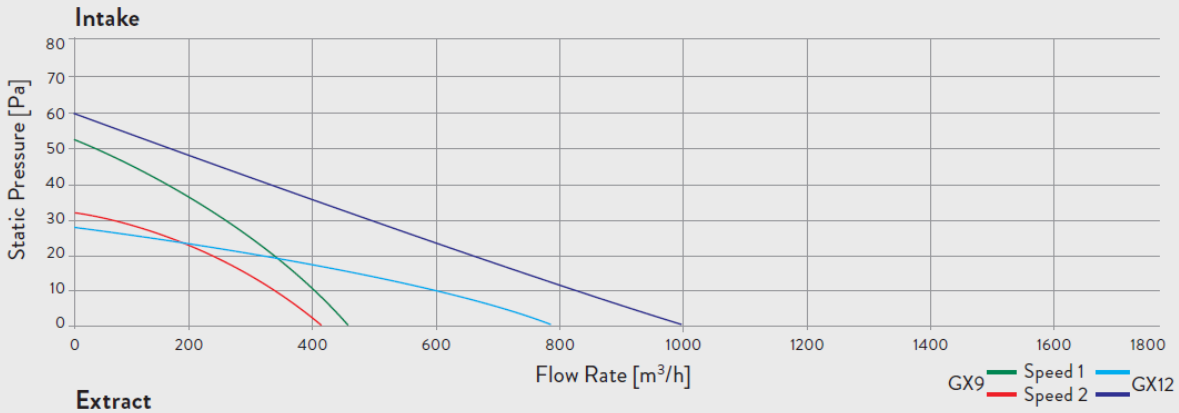
GX9 and GX12 window fans have remained a byword for commercial window fans for over 40 years. Supplied with longer ladder strips for ease of installation and with safety finger-guard integrated into the housing and the window grille. Plus, a tamper-proof positive plug and socket assembly provides a means of isolation for service access. Both 9" and 12" models are reversible and feature an enclosed external rotor motor providing constant volume outputs, even in gusty external conditions.

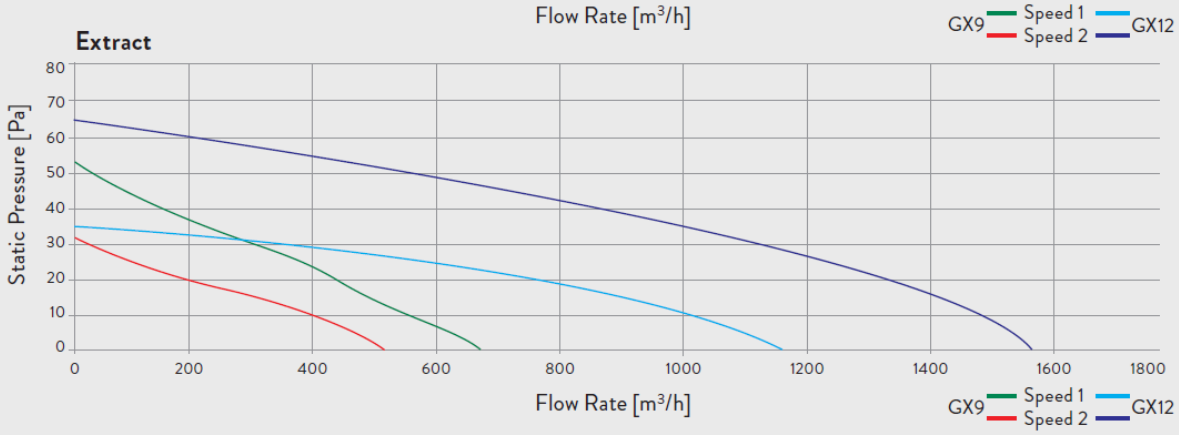


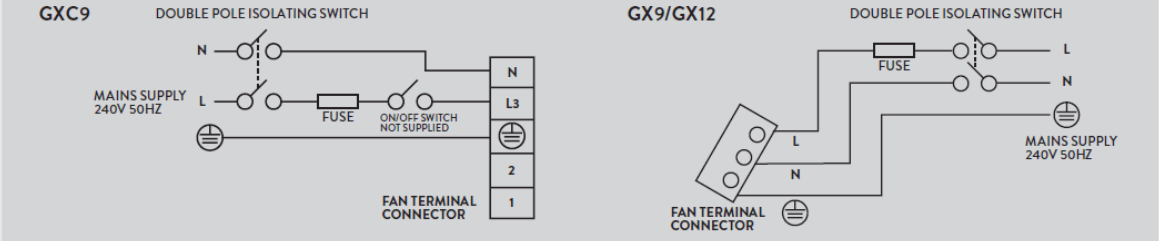


Product Features	GX9	GXC9	GX12
Reference Number	89994AW	89995AW	90012AW
Standard	✓		✓
Pullcord		✓	
9" Impeller	✓	✓	
12" Impeller			✓
Reversible Intake/Extract	✓		✓
Silent Electro-thermal Shutter	✓		✓
Safety Finger Guard	✓	✓	✓
Window Kit Supplied	✓	✓	✓

Product Selector	GX9	GXC9	GX12
Reference Number	89994AW	89995AW	90012AW
Remote Switch (supplied separately)	✓		✓
Selectable Intake, Extract or Controller Operation	✓		✓
Speeds	2	1	2
Extract Performance (m^3/h)	543/636	520	1091/1546
Extract Performance (l/s)	151/177	145	303/429
Intake Performance (m^3/h)	405/449		772/1117
Intake Performance (l/s)	113/125		215/310
Sound Pressure Level (dBA@3m)	48/50	44	50/55
Electrical Power Rating (W)	41	32	85
Hole Diameter (mm)	257	257	324
Hole Diameter with Wall Liner (mm)	266	266	330
Weight (kg)	4	3.9	7.9
UK Guarantee (years)	2	2	2







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