



Fume, Vapour and Odour Statement

Sandilands Primary School, Wendover Road, Manchester

Prepared for:
Tilbury Douglas Construction Limited
30 Eastcheap
London
EC3M 1HD

May 2025

Omnia ref: C11249/OA/1.0

ISO Accredited Certification (UKAS)



QUALITY ASSURANCE

Project Number: C11249 Date: May 2025					
 Air Quality	Fume, Vapour and Odour Statement				
	Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
	Remarks	-			
	Date	May 2025			
	Prepared By	C. Haines Redmore Environmental			
	Contractor Ref No.	9502			
	Issued on Behalf of Omnia	Huw Thomas			
	Signature	<i>H Thomas</i>			
	Position	Director			
	Project Number	C11249			

North Office
First Floor,
Swan Buildings,
20 Swan Street,
Manchester
M4 5JW

01772 963 024

Midlands Office
Office 203,
St Nicholas House,
31 Park Row,
Nottingham,
NG1 6FG

0115 7043 492

South Office
Suite 1, Pure Offices,
One Port Way,
Port Solent,
Portsmouth
PO6 4TY

01489 808088

Executive Summary

Site Address

Sandilands Primary School, Wendover Road, Manchester, M23 9JX

A Fume, Vapour and Odour Statement has been prepared to support a discharge of condition application for the redevelopment of Sandilands Primary School, Manchester.

The proposals comprise redevelopment of the school, including relocation of the main buildings, playing fields and the installation of new kitchens to serve breakfasts, snacks at breaktime and hot and cold lunches for students.

Factors including the scale of the development, proposed extract scheme, flue termination, cooking type and distance to sensitive receptors have been considered. The extraction and flue termination are considered satisfactory for a development of this nature. It is therefore suggested the relevant condition is discharged.

TABLE OF CONTENTS

Quality Assurance	ii
1.0 INTRODUCTION	1
1.1 Background	1
1.2 Proposed Development	1
1.3 Acronyms	2
1.4 Confidentiality	2
2.0 ODOUR BACKGROUND	3
2.1 Odour Definition	3
2.2 Odour Legislative Control	3
2.3 National Planning Policy	3
2.4 Local Planning Policy	4
3.0 FUME, VAPOUR AND ODOUR EXTRACT SCHEME	5
3.1 Introduction	5
3.2 Extract Scheme	5
3.3 Flue Termination	5
4.0 CONCLUSION	6
5.0 ABBREVIATIONS	7

APPENDIX

Appendix I Drawings

1.0 INTRODUCTION

1.1 Background

This report has been prepared to support a discharge of condition application for the redevelopment of Sandilands Primary School, Manchester.

The Fume, Vapour and Odour Statement was prepared by Omnia's partner Redmore Environmental Ltd.

1.2 Proposed Development

The site is located at Sandilands Primary School, Wendover Road, Manchester, M23 9JX, at approximate National Grid Reference (NGR): 379605, 389635. Reference should be made to Figure 1 for a map of the site and surrounding area.

The proposals comprise redevelopment of the school, including relocation of the main buildings, playing fields and the installation of new kitchens to serve breakfasts, snacks at breaktime and hot and cold lunches for students. Cooking methods will include the use of three combi ovens, an electric three-plate hob and a bain-marie. Emissions associated with hot food preparation will be extracted via a dedicated canopy. Extract air will then be transferred via internal ducting to dedicated plant situated at first floor level. Air will then be discharged horizontally.

Planning consent for the development was approved by Manchester City Council (MCC) in September 2023, subject to a number of conditions (reference: 137074/FO/2023). These include the following in relation to fumes, vapours and odours:

"11) a) Fumes, vapours and odours shall be extracted and discharged from the premises in accordance with a scheme to be submitted to and approved in writing by the City Council as local planning authority before the use commences.

Mixed use schemes shall ensure provision for internal ducting in risers that terminate at roof level. Schemes that are outside the scope of such developments shall ensure that flues terminate at least 1m above the eave level and/or any openable windows/ventilation intakes of nearby properties.

b) Prior to commencement of the use hereby approved confirmation shall be submitted for the approval of the City Council as local planning authority that the approved scheme has been implemented.

Reason - In the interests of the amenities of occupiers of nearby properties pursuant to Core Strategy policy DM1."

A Fume, Vapour and Odour Statement has been prepared in order to address the above condition. This is provided in the following report.

1.3 Acronyms

All acronyms used within this report are defined in the Abbreviations listings, set out in Section 7.

1.4 Confidentiality

This report has been prepared solely for the use of the Client. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from Omnia; a charge may be levied against such approval.

2.0 ODOUR BACKGROUND

2.1 Odour Definition

The Institute of Air Quality Management (IAQM) guidance¹ defines odour as:

"[...] the human olfactory response (perception followed by psychological appraisal) to one, or more often a complex mixture of, chemical species in the air."

The stated definition is considered to be relevant in the context of this assessment.

2.2 Odour Legislative Control

The main requirements with respect to odour control from premises not regulated under the Environmental Permitting (England and Wales) Regulations (2016) and subsequent amendments, such as education facilities, is that provided in Section 79 of Part III of the Environmental Protection Act (1990). The Act defines nuisance as:

"any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance."

Enforcement of the Act, in regard to nuisance, is currently under the jurisdiction of the local Environmental Health Department, whose officers are deemed to provide an independent evaluation of nuisance. If the LA is satisfied that a statutory nuisance exists, or is likely to occur or happen again, it must serve an Abatement Notice under Part III of the Environmental Protection Act (1990). The only defence is to show that the process to which the nuisance has been attributed and its operation are being controlled according to best practicable means.

2.3 National Planning Policy

The revised National Planning Policy Framework² (NPPF) was published in December 2024 and sets out the Government's planning policies for England and how these are expected to be applied.

The purpose of the planning system is to contribute to the achievement of sustainable development. In order to ensure this, the NPPF recognises three overarching objectives, including the following of relevance to air quality:

"c) an environmental objective - to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."

¹ Guidance on the Assessment of Odour for Planning V1.1, IAQM, 2018.

² NPPF, Ministry of Housing, Communities and Local Government, 2024.

Chapter 12 of the NPPF details objectives in relation to achieving well-designed places. It states that:

"Planning policies should ensure that developments:

[...]

f) create places that are safe, inclusive and accessible and which promote health and well-being, with a high standard of amenity for existing and future users; and where crime and disorder, and the fear of crime, do not undermine the quality of life or community cohesions and resilience"

The implications of the NPPF have been considered throughout this assessment.

2.4 Local Planning Policy

The Core Strategy³ was adopted by MCC on 11th July 2012. A review of the Core Strategy indicated the following policy of relevance to this assessment:

"Policy DM1 - Development Management

All development should have regard to the following specific issues for which more detailed guidance may be given within a supplementary planning document:

[...]

- *Effects on amenity, including privacy, light, noise, vibration, air quality, odours, litter, vermin, birds, road safety and traffic generation [...]."*

The above policy was taken into consideration throughout the undertaking of the assessment.

The Places for Everyone Plan (PfEP)⁴ was produced by the Greater Manchester Combined Authority (GMCA) and became part of the statutory development plan for MCC on 21st March 2024. Review of the PfEP was undertaken. No policies of relevance were identified for use in this assessment.

³ Core Strategy Development Plan Document, MCC, 2012.

⁴ PfEP, GMCA, 2024.

3.0 FUME, VAPOUR AND ODOUR EXTRACT SCHEME

3.1 Introduction

A scheme has been prepared for the extraction and discharge of fumes, vapours and odours from the kitchen associated with the Primary School. This is detailed in the following Sections.

3.2 Extract Scheme

The kitchen is located in the eastern portion of the school building. Cooking methods include three combi ovens and an electric three-plate hob for the reheating of pre-prepared food. Emissions will be extracted from the kitchen via a dedicated canopy situated above the hot food cooking area. The canopy is supplied by Inox and measures 4.8m x 1.6m, covering the combi ovens and electric hob and will extract air at a rate of 1.867m³/s.

A Nuaire Squif in-line fan with an extraction rate of 1.11m³/s will remove air from the kitchen. Included within the extraction system is an M6 Carbon Filter, capable of handling an air flow of 1.06m³/s. Reference should be made to Appendix 1 for a specification of the extract fan.

Extract air will then be transferred via internal ducting to dedicated plant situated at first floor level. Air will then be discharged horizontally. Further details of the flue termination point are detailed in the following Section.

Based on the scale of the proposals, as well as the cooking type consisting of reheating food with a very low potential for odour and grease, this system is considered suitable for a development of this nature.

3.3 Flue Termination

The proposed extract point will be located at first floor level. The flue will not terminate within 1m of any openable windows or louvres which may allow for ingress of vapours, fumes or odours in to the school. In addition, the nearest residential dwellings are located approximately 80m to the east of the kitchen.

Reference should be made to Figure 2 for an elevation drawing detailing the location of the extract point at first floor level of the building.

In accordance with the requirements of the planning condition, the flue terminates at least 1m from any openable windows and ventilation intakes. As such, the arrangement of the flue is considered to be satisfactory when the scale of the development, cooking type and distance from sensitive receptors is considered.

4.0 CONCLUSION

A Fume, Vapour and Odour Statement has been prepared to support a discharge of condition application for the redevelopment of Sandilands Primary School, Manchester.

The proposals comprise redevelopment of the school, including relocation of the main buildings, playing fields and the installation of new kitchens to serve breakfasts, snacks at breaktime and hot and cold lunches for students.

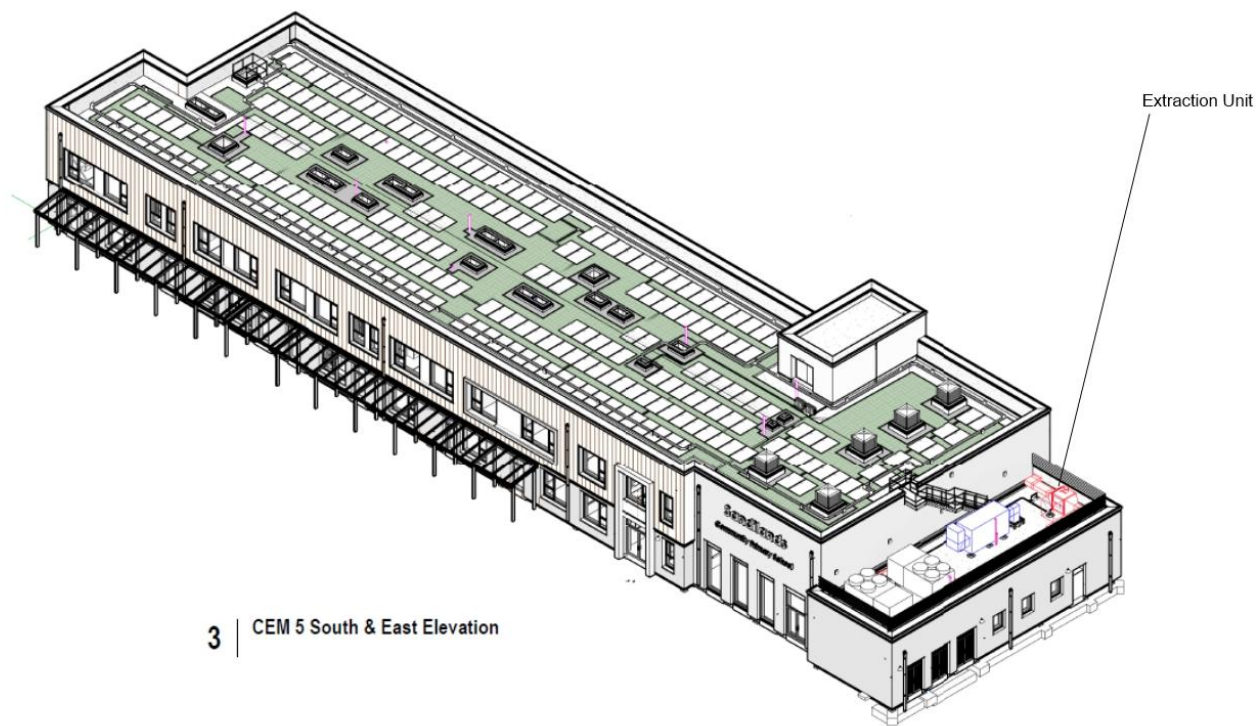
Factors including the scale of the development, proposed extract scheme, flue termination, cooking type and distance to sensitive receptors have been considered. The extraction and flue termination are considered satisfactory for a development of this nature. It is therefore suggested the relevant condition is discharged.

5.0 ABBREVIATIONS

GMCA Greater Manchester Combined Authority
IAQM Institute of Air Quality Management
MCC Manchester City Council
NGR National Grid Reference
NPPF National Planning Policy Framework
PfEP Places for Everyone Plan

APPENDIX I

Drawings



3 | CEM 5 South & East Elevation

Legend

Title
Figure 2 - Extraction Point Location

Project
Fume, Vapour and Odour Statement
Sandilands Primary School



SUMMARY FAN DATA SHEET

Nuaire, Western Industrial Estate, Caerphilly, CF83 1NA, United Kingdom. email:info@nuaire.co.uk

UK Commercial enquiries T:029 2085 8200 UK Residential enquiries T:029 2085 8500 International enquiries T:+44.29 2085 8497

Whilst the information given on this data sheet is fan specific, it is in summary and reference to the product selection catalogue and installation & maintenance documents is recommended.

This data sheet produced on 25 Nov 2024 12:40 using software version 5.8.4595.0

Project: 21/03956/COM

SANDILANDS PRIMARY SCHOOL (SCHOOL REBUIL

Location: Extract fan unit

Technical Data

SQF - Squif Single In-line Fans

Fan Code: **SQFA44ES**

Installation Manual Links: **671175**

Required duty: **1.06 m³/s at 695 Pa**

Actual duty: **1.11 m³/s at 762 Pa**

Actual at required flow: **1.06 m³/s at 771 Pa**

When speed controlled to required duty (95.52%):

Fan Input Power: **1.633 kW**

Motor Input Power: **2.015 kW**

Specific Fan Power: **1.9 W/(l/s)**

Velocity at required duty: **1.893 m/s**

Fan Total Efficiency: **45%**

At full speed:

Fan Input Power: **1.874 kW**

Maximum Fan Input Power: **2.17 kW**

Motor Input Power: **2.303 kW**

Specific Fan Power: **2.1 W/(l/s)**

Fan Total Efficiency: **41%**

Maximum Fan Speed: **4 pole, 1,450 RPM**

Electrical Supply: **400V, 3 Phase, 50 Hz**

Nominal Motor Rating: **2.2 kW**

Motor current (flc): **4.58 A**

Motor starting current (sc): **4.58 A**

Motor Efficiency: **IE3 / Premium Efficiency**

Max. operating temp: **90°C**

Weight: **100 kg**

Starting currents are nominal for D.O.L. starting.

Sound Data

Acoustic performance to ISO 13347 and AMCA 300.

Noise calculated speed controlled to required duty (95.52%)

Sound Power Levels re 1 pWatts (Hz):

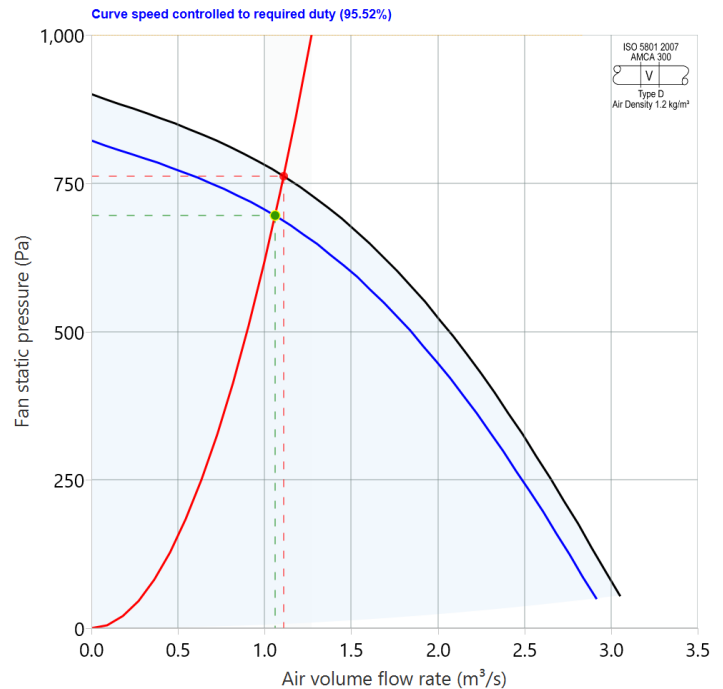
Hz	63	125	250	500	1k	2k	4k	8k	dBA
Induct Inlet	82	92	88	81	76	79	79	70	
Induct Outlet	83	86	85	86	80	81	81	67	
Breakout	78	83	80	77	67	68	64	46	57
For 100% speed:	+1	+1	+1	+1	+1	+1	+1	+1	

dBA is spherical at 3 metres. For hemi-spherical add 3 dBA.

Values shown are for inlet Lw, outlet Lw sound power & breakout levels for Installation Type D: ducted inlet, ducted outlet. Ratings include the effects of duct end correction.

Please note that the noise data stated on this data sheet for the unit and/or silencer is tested in accordance with UK, European and International industry laboratory standards. However onsite conditions may vary and we would recommend that this information is verified by an acoustic specialist in order to ensure its suitability for the intended application.

Performance Chart



Additional Notes

Selected Ancillaries

1 x NAV5

Anti-vibration mounting kit

2 x SQFF4

Square flexible connector double flanged

Specification

In-line centrifugal fan suitable for both vertical & horizontal mounting. The unit casing shall be heavy gauge galvanised steel. The fans shall be of high efficiency backward curved centrifugal design, manufactured in galvanised steel. Fans shall be direct drive with IE2 high efficiency motors to BS5000 as standard, where appropriate. The unit motor shall be positioned outside the ventilation airflow path. The unit shall be capable of continuous operation at 90°C.

Unit fitted with full Ecosmart controls, BMS interfaces and commissioning controls. Ecosmart fans incorporate (in a convenient separate enclosure) a control package providing full Ecosmart functionality. The fan shall have the following energy saving functions integrally mounted within the fan unit on a purpose made PCB, all components pre-wired by the manufacturer: integral maximum and minimum speed adjustment/setting; integral adjustable run on timer; integral BMS interfaces, 0-10v and volt free failure indication.

NAV5

Resilient rubber anti-vibration mountings, supplied as a set of 4.

SQFF4

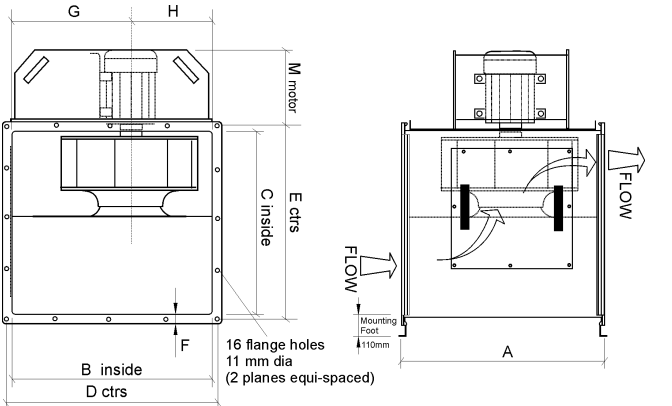
Double flanged flexible connector manufactured from flame proof material. Heat resistant to 400°C with excellent resistance to chemicals, ozone, oil and grease. The connector is air-tight, waterproof and tested to BS476 Part 7.



SUMMARY FAN DATA SHEET

Nuaire, Western Industrial Estate, Caerphilly, CF83 1NA, United Kingdom. email:info@nuaire.co.uk
UK Commercial enquiries T:029 2085 8200 UK Residential enquiries T:029 2085 8500 International enquiries T:+44.29 2085 8497
Whilst the information given on this data sheet is fan specific, it is in summary and reference to the product selection catalogue and installation & maintenance documents is recommended.
This data sheet produced on 25 Nov 2024 12:40 using software version 5.8.4595.0

Fan Dimensions



A	B	C	D	E	F	G	H	M
820	800	700	830	730	32	440	360	290

kg
100.0
Length: Width: Height:
820 830 1020

Drawing is for dimensional purposes only. Dimensions in mm.
Please see selected ancillaries section for additional dimensions for any requested additional ancillaries.



SUMMARY FAN DATA SHEET

Nuaire, Western Industrial Estate, Caerphilly, CF83 1NA, United Kingdom. email: info@nuaire.co.uk

UK Commercial enquiries T:029 2085 8200 UK Residential enquiries T:029 2085 8500 International enquiries T:+44.29 2085 8497

Whilst the information given on this data sheet is fan specific, it is in summary and reference to the product selection catalogue and installation & maintenance documents is recommended.
This data sheet produced on 25 Nov 2024 12:40 using software version 5.8.4595.0

Attached documents

Additional file

TECHNICAL SPECIFICATION SHEET

File: Q3033143-01-0

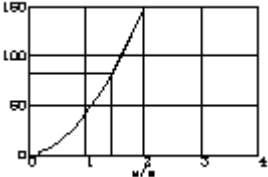
PROJECT DETAILS			
Date	Project no	Project Reference	Unit No
13 Nov 2024	3033143	21/03956/COM SANDILANDS	Q3033143-01-0
Customer	Rev date	Unit Reference	Unit Model
	13 Nov 2024	Supply	Non-standard
Supply Air Flow	Supply External Static	Extract Air Flow	Extract External Static
.900 m ³ /s	350 Pa	0.000 m ³ /s	0 Pa

UNIT CONSTRUCTION			
Panel Thickness	Panel Insulation	Aluminium frame work	Frame Coating
30mm Thick (Nom.) Double Skinned	Rockwool 23mm (1000x600) RW3 Semi Rigid Slab	30mm Pentapost Corner Extrusion	Natural Finish
Panel external Sheet	Panel internal Sheet	Base frame	Unit Location
Magnelis (0.9mm) DX51D+ZM310 - 5110094 (BS EN 10346:2015)	Magnelis (0.9mm) DX51D+ZM310 - 5110094 (BS EN 10346:2015)	100x50x1.5 Fabricated Base	Internal
Access side	Unit Model	Roof type	Leakage Class
Right	Non-standard /	None	Class B L2
Thermal Bridging	Thermal Transmittance	Deflection Class	Environment
TB4	T4	D2M	Standard

SECTION WEIGHTS AND DIMENSIONS - (NOT including transport packaging and pallets)				
Section No	Length	Width	Height	Weight
A	2705 mm	1000 mm	1100 mm	490 kg

OVERALL UNIT DIMENSIONS			
Length	Width	Height	Total Weight
2705 mm	1000 mm	1100 mm	490 kg

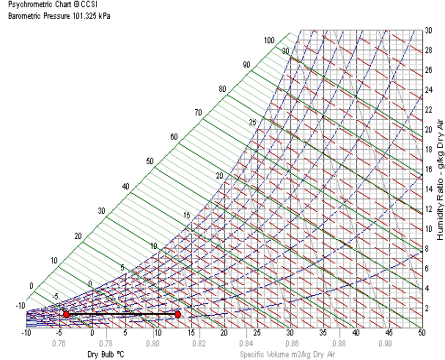
001 DAMPER/FLEX.CONN/LOUVRE							
Flow	Dimensions	Model	Air vel.	Damper	Spigot connection	Louvre	Actuator
0.9000 m3/s	540 x 540 mm	165	3.09 m/s	Yes	No	No	No

002 FILTERS								
Stage #	Air Volume	class	Type	Model	Media	Qty.Size 1	Qty.Size 2	Length mm
1	0.9000 m3/s	G4	Panel	EnergySaver M7	Intrepid	1x495x495	1x292x495	50
1						Qty.Size 3	Qty.Size 4	
Clean	Final	Average						
14 Pa	150 Pa	82 Pa						
								

002 Accessories	
● Magnehelic pressure guage 0-500Pa surface mounted	

002 REMOVABLE PANEL	
Dimensions	Type
170 x 940 mm	Removable panel

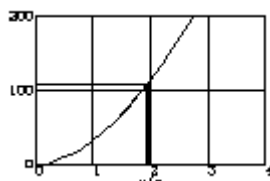
003 COIL

Flow	Qty	Model						Rows	Fin Spacing	Face Area	
0.9000 m3/s	1	LW-5/8-15-9-12-700(2)-H-RHS LIDAF-Cu 0.41/Al/Galv-1" Screwed BSP-28mm'Y'+4mm Cap-No Elims-AHU mounted-o/a 842H 885W 423D -MaxW.P.x6-T.P.x17						9	2.12mm (12/inch)	700 x 762	
Air side	DB	WB	RH	Total Load	Sensible Load	Face velocity	Pressure Drop	Psychrometric Chart © CC51 Barometric Pressure 101.325 kPa 			
On	-4.0 °C	-	-	18.40 kW	18.40 kW	1.69 m/s	67 Pa				
Off	12.9 °C	-	-								
Water	Temp.	Water flow		Water P.D.	Glycol Type	Glycol Percentage	Connection Size				
In	17.3 °C	1 x 0.28 L/s		52.0 kPa	None	0 %	1" x 1off				
Out	1.6 °C						1" x 1off				
Circuits	Duty Margin		Fin Material		Tube Material	Treatment Type	Case Material	.			
2	20%		Aluminium		5/8"	Copper	Galvanised	-			

003 COIL PANEL

Dimensions	Type
543 x 940 mm	Coil Panel

004 FILTERS

Stage #	Air Volume	class	Type	Model	Media	Qty.Size 1	Qty.Size 2	Length mm
1	0.9000 m3/s	F7	Bag	CP7 Bag	synthetic	1x592x492	1x592x289	600
1						Qty.Size 3	Qty.Size 4	
Clean	Final	Average						
64 Pa	150 Pa	107 Pa						
								

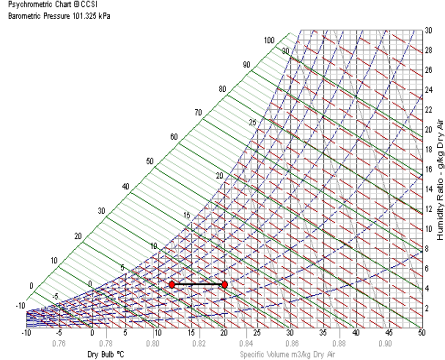
004 Accessories

- Magnehelic pressure guage 0-500Pa surface mounted

004 HINGED ACCESS DOOR

Dimensions	Type
500 x 940 mm	Hinged door

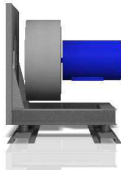
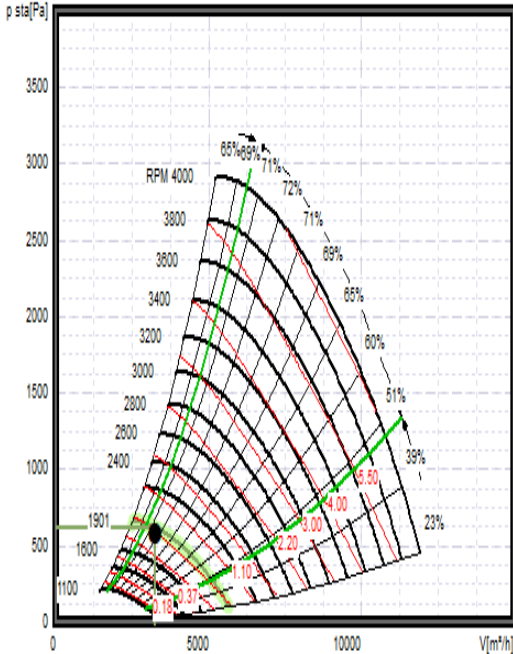
005 COIL

Flow	Qty	Model						Rows	Fin Spacing	Face Area	
0.9000 m3/s	1	LW-5/8-15-2-5-700(2)-H-RHS LIDAF-Cu 0.41/Al/Galv-1" Screwed BSP-28mm'Y'+4mm Cap-No Elims-AHU mounted-o/a 842H 885W 157D -MaxW.P.x6-T.P.x17						2	5.08mm (5/inch)	700 x 762	
Air side	DB	WB	RH	Total Load	Sensible Load	Face velocity	Pressure Drop	Psychrometric Chart © CC51 Barometric Pressure 101.325 kPa 			
On	12.0 °C	-	-	8.72 kW	8.72 kW	1.69 m/s	8 Pa				
Off	20.0 °C	-	-								
Water	Temp.	Water flow		Water P.D.	Glycol Type	Glycol Percentage	Connection Size				
In	43.0 °C	1 x 0.30 L/s		13.0 kPa	None	0 %	1" x 1off				
Out	36.0 °C						1" x 1off				
Circuits	Duty Margin		Fin Material		Tube Material	Treatment Type	Case Material	.			
2	20%		Aluminium		5/8"	Copper	Galvanised	-			

005 COIL PANEL

Dimensions	Type
277 x 940 mm	Coil Panel

006 PLENUM FAN

Volume per Fan	Ext Static	Fan Make	Motor Make						
.900 m3/s	350 Pa	Comefri							
Configuration	Unit static	Fan Type	Motor Poles						
Free Outlet	271 Pa	NPA355-IE3-0110-4P-3	4						
Outlet Velocity	Fan Static Pressure	Fan Blade Type	Motor Nom. speed						
1.0 m/s	621 Pa	Backward Curve	1425 rpm						
	Static Efficiency	Fan Speed	Motor Size		THIS FAN SECTION CONTAINS 1 FAN				
	69.3 %	1901 rpm	W1.10x19Ø						
Power Input	Fan 1	Fan 2	Total						
Power	1.10 kW	-	1.10 kW						
FLC	2.42 A	-	2.42 A						
Volts/Ph/Hz	380/3/50	-	-						
Inverter Freq	VSD		AV Mount Type						
			Comefri Spring	1	2	3	4		
66.70	Inverter	AVM Code	MSO1-B Green	MSO1-B Green	MSO1-B Green	MSO1-B Green			
		AVM Colour	Green	Green	Green	Green			
Frequency	63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Description
Inlet	67	66	79	75	68	65	64	60	SWL Inside the Inlet Duct (dB)
Outlet	77	72	79	76	75	74	67	62	SWL Inside the Outlet Duct (dB)

006 Accessories

- IP66 Metal terminal box fitted

006 HINGED ACCESS DOOR

Dimensions	Type
515 x 940 mm	Hinged door

AHU ACOUSTIC DATA SUPPLY SECTION									
Freq	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	Total A Weighted Sound Power Level (dB re 1pW)	Description
	59	69	62	59	48	44	30	64	Unit Induct Inlet A Weighted Sound Power Level (dB re 1pW)
	72	79	76	75	74	67	62	80	Unit Induct Outlet A Weighted Sound Power Level (dB re 1pW)
	61	62	46	46	48	40	29	56	Unit Casing Radiated A Weighted Sound Power Level (dB re 1pW)
								38	Non-Weighted dB level @ 3m

AHU SPECIFIC FAN POWER			
Supply Fan		Extract Fan	
Filter Conditions	Clean	Filter Conditions	
Absorbed Power	0.66 Kw	Absorbed Power	Kw
Drive Efficiency	100%	Drive Efficiency	NaN%
Invertor Efficiency	100%	Invertor Efficiency	NaN%
Motor Efficiency	84%	Motor Efficiency	NaN%
Air Volume	.9m ³ /s	Air Volume	m ³ /s
AHU SFP	0.8 Kw/m ³ /s		

Project: 21/03956/COM SANDILANDS

Client:

Quote No: 3033143

Please note: Overall height dimensions are for the unit only. Please allow up to 300mm additional for transport packaging.

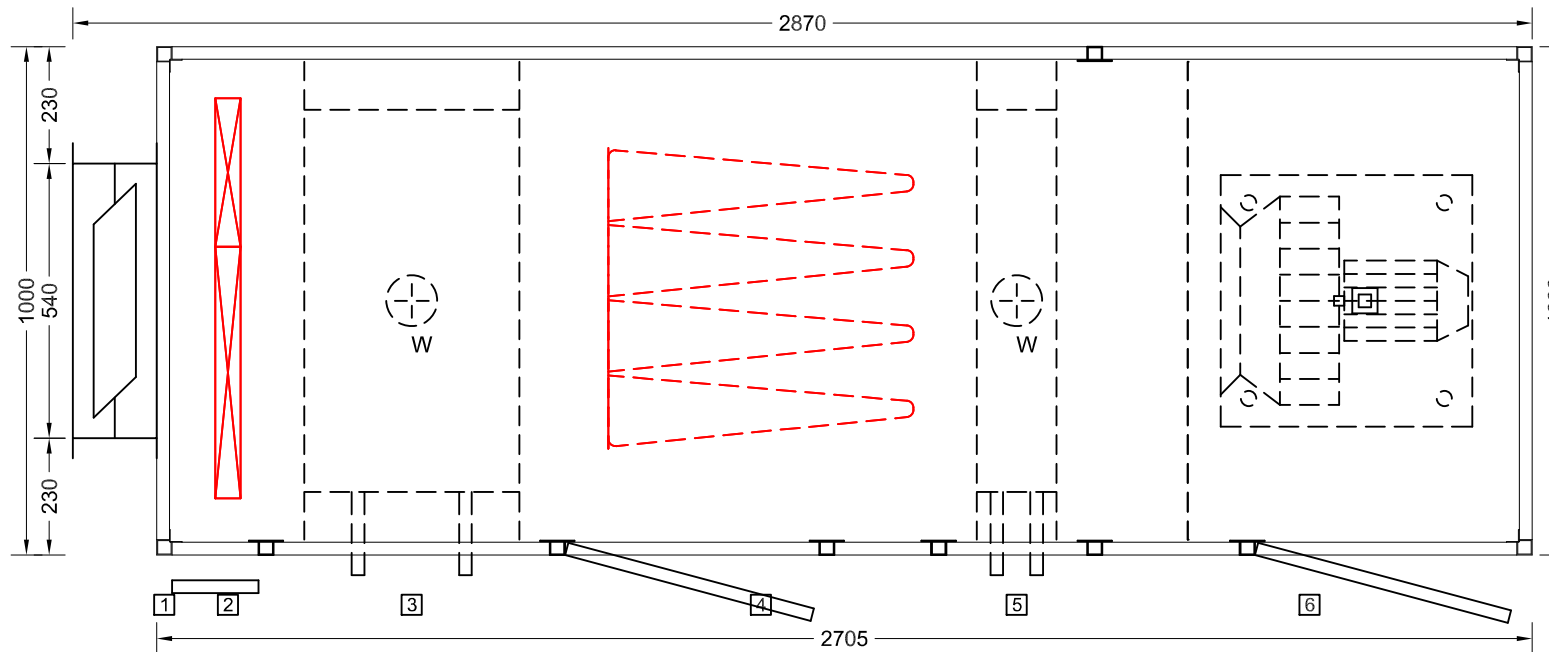
Supply:

Size: Non-standard

Airflow: 0.9000 m³/s

E.S.P.: 350 Pa

Unit Wgt: 489.58 kg



SECTION A-Q3033143-01-0-A:

Component	Length(mm)
1 Inlet Section	
2 Panel Filter	215
3 LPHW Heater	573
4 Bag Filter	750
5 LPHW Heater	307
6 Plenum Fan	860

PLAN DECK

NOTES:

1) Please refer to the Installation & Maintenance manual and the Nuair website www.nuair.co.uk for further information.

2) Please note that double deck sections of AHU's will leave Nuair already assembled where possible.

3) While the overall unit and section dimensions are accurate, the component and access locations are for illustration purposes only and may vary along the length of the unit. *Please contact Nuair if you require more detailed information.*

Nuair
Western Industrial Estate
Caerphilly CF83 1NA
United Kingdom
www.nuair.co.uk
(+44) 2920 858 200

AHU No.	1	Quantity	1	This Drawing is property of NUAIRE and should not be re-produced in any form	All dimensions are in mm Do Not Scale
Unit:	Q3033143-01-0			Initial	Date
Location:	Supply			Selected	
Model	Non-standard /			Approved	

Please Note: This drawing must be signed and returned with the official order for manufacturing to be scheduled. Nuair will then advise delivery detail with order acknowledgement. Approval refers to CAD drawing only and not any other images.

Arrangement Approval

Date: Signature:

Name (please print):

Project: 21/03956/COM SANDILANDS

Client:

Quote No: 3033143

Please note: Overall height dimensions are for the unit only. Please allow up to 300mm additional for transport packaging.

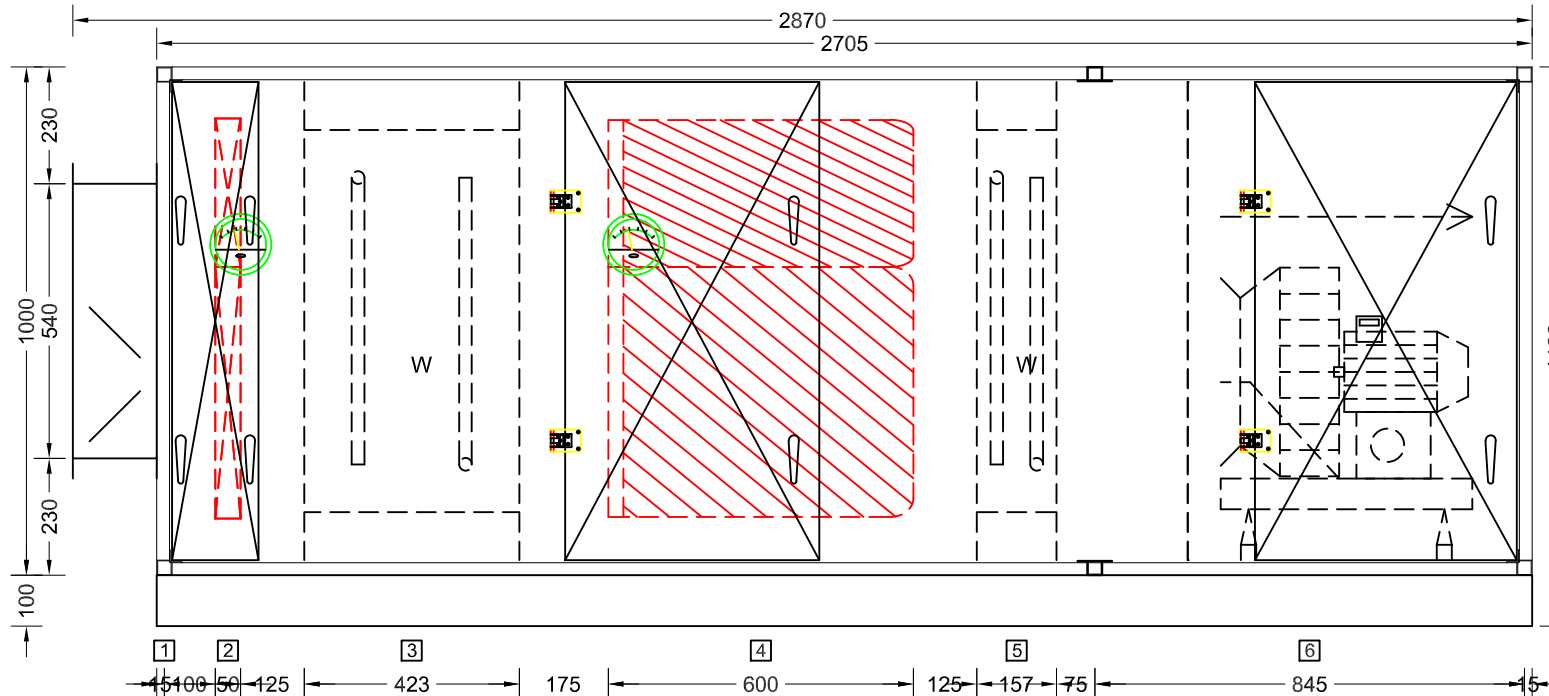
Supply:

Size: Non-standard

Airflow: 0.9000 m3/s

E.S.P.: 350 Pa

Unit Wgt: 489.58 kg



SECTION A-Q3033143-01-0-A:

Component	Length(mm)
1 Inlet Section	
2 Panel Filter	215
3 LPHW Heater	573
4 Bag Filter	750
5 LPHW Heater	307
6 Plenum Fan	860

ELEVATION

NOTES:

- 1) Please refer to the Installation & Maintenance manual and the Nuair website www.nuair.co.uk for further information.
- 2) Please note that double deck sections of AHU's will leave Nuair already assembled where possible.
- 3) While the overall unit and section dimensions are accurate, the component and access locations are for illustration purposes only and may vary along the length of the unit. *Please contact Nuair if you require more detailed information.*



Nuair
Western Industrial Estate
Caerphilly CF83 1NA
United Kingdom
www.nuair.co.uk
(+44) 2920 858 200

AHU No.	1	Quantity	1	This Drawing is property of NUAIRE and should not be re-produced in any form	All dimensions are in mm Do Not Scale
Unit:	Q3033143-01-0			Initial	Date
Location:	Supply			Selected	
Model	Non-standard /			Approved	

Please Note: This drawing must be signed and returned with the official order for manufacturing to be scheduled. Nuair will then advise delivery detail with order acknowledgement. Approval refers to CAD drawing only and not any other images.

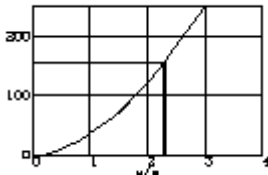
Arrangement Approval

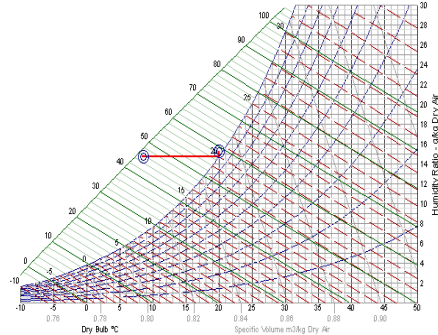
Date: Signature:

Name (please print):

TECHNICAL SPECIFICATION SHEET

File: Q3033143-02-0

PROJECT DETAILS								
Date	Project no	Project Reference	Unit No					
13 Nov 2024	3033143	21/03956/COM SANDILANDS	Q3033143-02-0					
Customer	Rev date	Unit Reference	Unit Model					
	13 Nov 2024	Extract						
Supply Air Flow	Supply External Static	Extract Air Flow	Extract External Static					
.000 m ³ /s	Pa	1.060 m ³ /s	350 Pa					
UNIT CONSTRUCTION								
Panel Thickness	Panel Insulation	Aluminium frame work	Frame Coating					
30mm Thick (Nom.) Double Skinned	Rockwool 23mm (1000x600) RW3 Semi Rigid Slab	30mm Pentapost Corner Extrusion	Natural Finish					
Panel external Sheet	Panel internal Sheet	Base frame	Unit Location					
Magnelis (0.9mm) DX51D+ZM310 - 5110094 (BS EN 10346:2015)	Magnelis (0.9mm) DX51D+ZM310 - 5110094 (BS EN 10346:2015)	100x50x1.5 Fabricated Base	Internal					
Access side	Unit Model	Roof type	Leakage Class					
Right	/ Non-standard	None	Class B L2					
Thermal Bridging	Thermal Transmittance	Deflection Class	Environment					
TB4	T4	D2M	Standard					
SECTION WEIGHTS AND DIMENSIONS - (NOT including transport packaging and pallets)								
Section No	Length	Width	Height	Weight				
A	1268 mm	1000 mm	1100 mm	291 kg				
OVERALL UNIT DIMENSIONS								
Length	Width	Height	Total Weight					
1268 mm	1000 mm	1100 mm	291 kg					
001 FILTERS								
Stage #	Air Volume	class	Type	Model	Media	Qty.Size 1	Qty.Size 2	Length mm
1	1.0600 m3/s	M6 / Carbon	Bag	RPC Companct	Carbon	1x592x492	1x592x287	300
1						Qty.Size 3	Qty.Size 4	
Clean	Final	Average						
60 Pa	250 Pa	155 Pa						
								
001 Accessories								
● Magnehelic pressure guage 0-500Pa surface mounted								
001 HINGED ACCESS DOOR								
Dimensions	Type							
420 x 940 mm	Hinged door							

002 COIL											
Flow	Qty	Model						Rows	Fin Spacing	Face Area	
1.0600 m3/s	1	CW-1/2-22-15-11-700(5)-H-RHS LIDAF-Cu 0.35/Al/Galv-1" Screwed BSP-28mm'Y'+4mm Cap-No Elims-AHU + d/tray-o/a 803H 885W 493D -MaxW.P.x6-T.P.x17-DrainSize=3/4"						15	2.31mm (11/inch)	700 x 698	
Air side	DB	WB	RH	Total Load	Sensible Load	Face Velocity	Pressure Drop	Psychrometric Chart (©CCSI) Barometric Pressure 101.325 kPa 			
On	20.0 °C	20.4 °C	103.3 %	18.40 kW	14.72 kW	2.17 m/s	181 Pa				
Off	8.3 °C	7.7 °C	92.7 %								
Water	Temp	Water Flow		Water P.D.	Glycol Type	Glycol Percentage	Connection Size				
In	1.6 °C	1 x 0.29 L/s		34 kPa	Ethylene glycol	20 %	1" x 1off				
Out	17.3 °C						1" x 1off				
Circuits	Duty Margin		Fin Material		Tube Material	Treatment Type	Case Material	.			
5	20%		Aluminium		1/2"	Copper	Galvanised				

002 COIL PANEL	
Dimensions	Type
758 x 940 mm	Coil Panel

002 DRAIN PAN	
Material	Drain size
Galvanised Steel	940 mm

003 DAMPER/FLEX.CONN/LOUVRE							
Flow	Dimensions	Model	Air vel.	Damper	Spigot connection	Louvre	Actuator
1.0600 m3/s	540 x 540 mm	165	3.64 m/s	Yes	No	No	No

AHU SPECIFIC FAN POWER			
Supply Fan		Extract Fan	
Filter Conditions		Filter Conditions	
Absorbed Power	Kw	Absorbed Power	Kw
Drive Efficiency	NaN%	Drive Efficiency	NaN%
Invertor Efficiency	NaN%	Invertor Efficiency	NaN%
Motor Efficiency	NaN%	Motor Efficiency	NaN%
Air Volume	m ³ /s	Air Volume	1.06m ³ /s
AHU SFP	NaN Kw/m ³ /s		

Project: 21/03956/COM SANDILANDS

Client:

Quote No: 3033143

Please note: Overall height dimensions are for the unit only. Please allow up to 300mm additional for transport packaging.

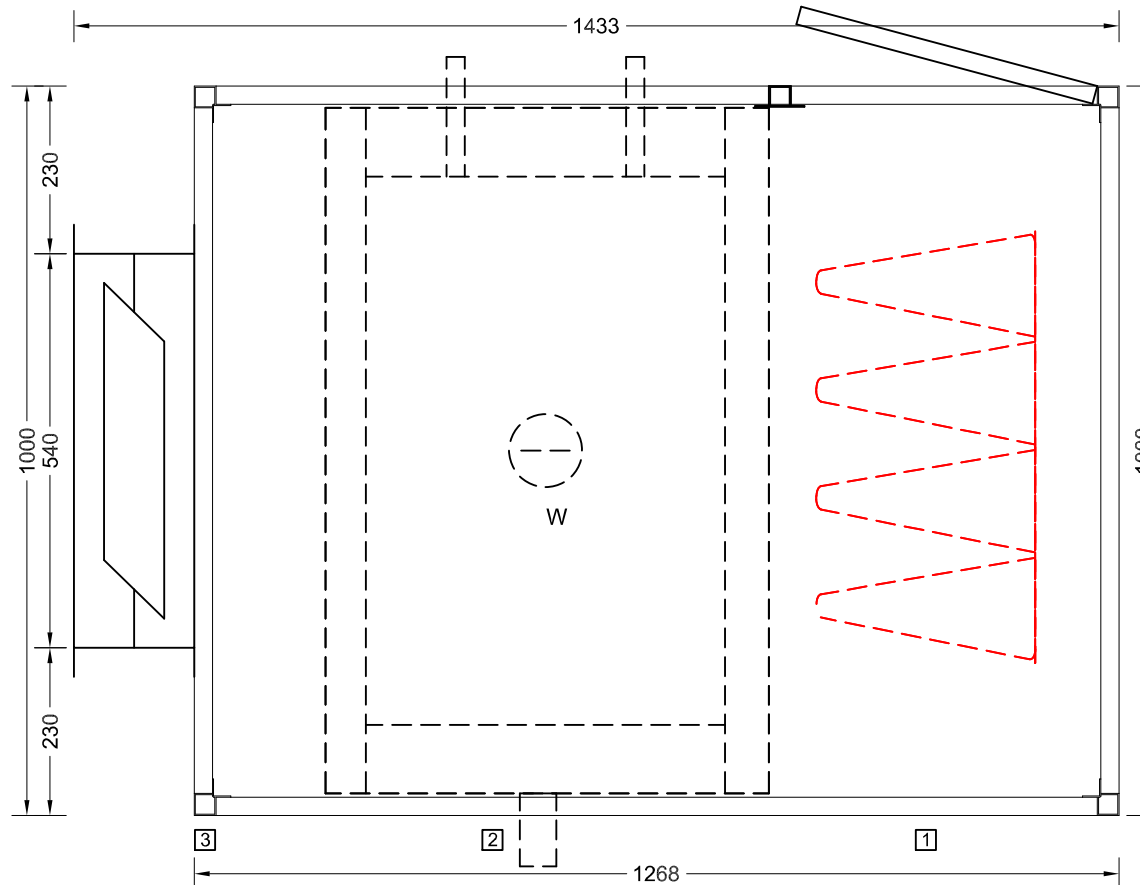
Exhaust:

Size: Non-standard

Airflow: 1.0600 m³/s

E.S.P.: 350 Pa

Unit Wgt: 290.64 kg



SECTION A-Q3033143-02-0-A:

Component	Length(mm)
1 Bag Filter	465
2 CW Coil	803
3 Outlet Section	

PLAN DECK

NOTES:

- 1) Please refer to the Installation & Maintenance manual and the Nuair website www.nuair.co.uk for further information.
- 2) Please note that double deck sections of AHU's will leave Nuair already assembled where possible.
- 3) While the overall unit and section dimensions are accurate, the component and access locations are for illustration purposes only and may vary along the length of the unit. *Please contact Nuair if you require more detailed information.*



Nuair
Western Industrial Estate
Caerphilly CF83 1NA
United Kingdom
www.nuair.co.uk
(+44) 2920 858 200

AHU No.	2	Quantity	1	This Drawing is property of NUAIRE and should not be re-produced in any form	All dimensions are in mm Do Not Scale
Unit:	Q3033143-02-0	Initial		Date	
Location:	Extract	Selected			
Model	/ Non-standard	Approved			

Please Note: This drawing must be signed and returned with the official order for manufacturing to be scheduled. Nuair will then advise delivery detail with order acknowledgement. Approval refers to CAD drawing only and not any other images.

Arrangement Approval

Date: Signature:

Name (please print):

Project: 21/03956/COM SANDILANDS

Client:

Quote No: 3033143

Please note: Overall height dimensions are for the unit only. Please allow up to 300mm additional for transport packaging.

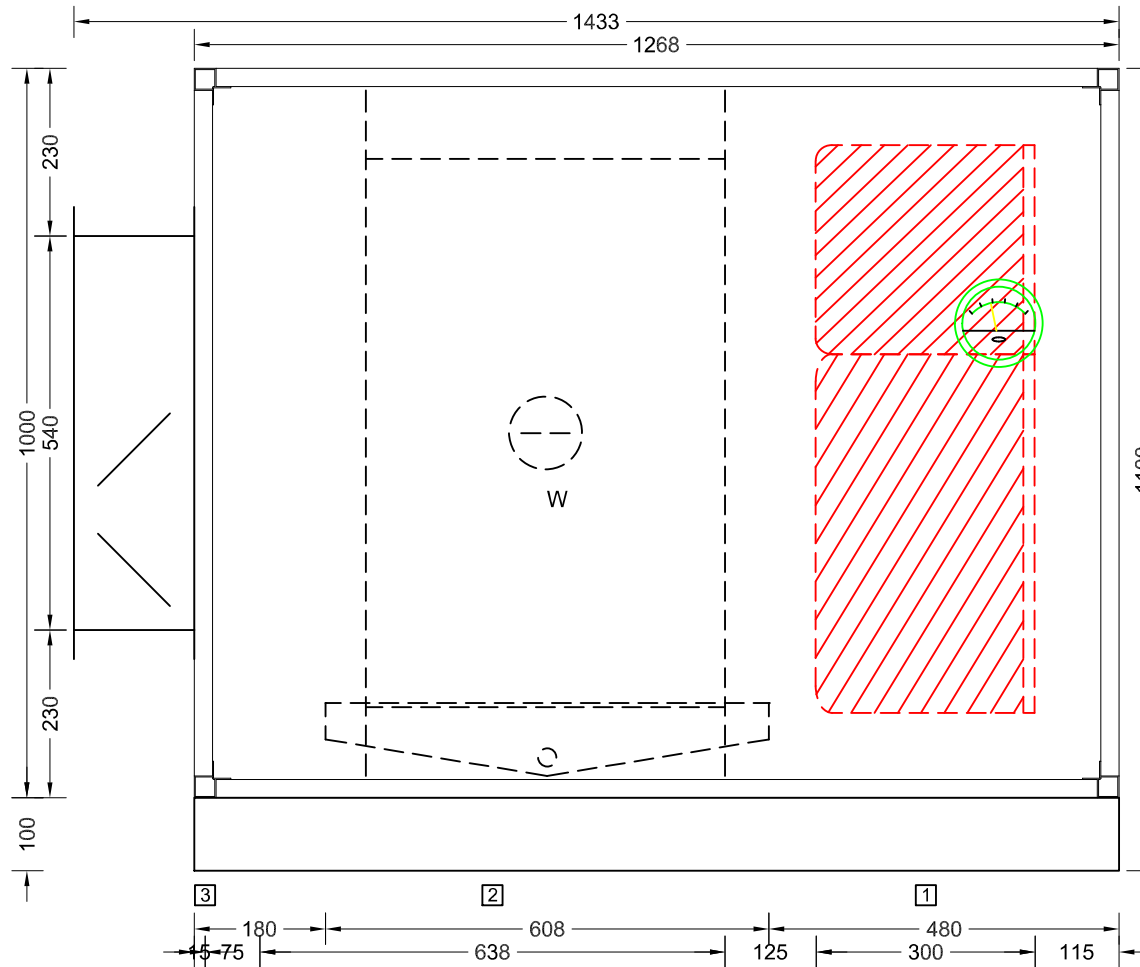
Exhaust:

Size: Non-standard

Airflow: 1.0600 m³/s

E.S.P.: 350 Pa

Unit Wgt: 290.64 kg



ELEVATION

NOTES:

- 1) Please refer to the Installation & Maintenance manual and the Nuair website www.nuair.co.uk for further information.
- 2) Please note that double deck sections of AHU's will leave Nuair already assembled where possible.
- 3) While the overall unit and section dimensions are accurate, the component and access locations are for illustration purposes only and may vary along the length of the unit. *Please contact Nuair if you require more detailed information.*



Nuair
Western Industrial Estate
Caerphilly CF83 1NA
United Kingdom
www.nuair.co.uk
(+44) 2920 858 200

AHU No.	2	Quantity	1	This Drawing is property of NUAIRE and should not be re-produced in any form	All dimensions are in mm Do Not Scale
Unit:	Q3033143-02-0			Initial	
Location:	Extract			Selected	
Model	/ Non-standard			Approved	

Please Note: This drawing must be signed and returned with the official order for manufacturing to be scheduled. Nuair will then advise delivery detail with order acknowledgement. Approval refers to CAD drawing only and not any other images.

Arrangement Approval

Date: Signature:

Name (please print):