



Schedule Reference	Equipment	Supplied From	Power Supply		Fire alarm interface
			Phase	Amps	
1	AHU	Local Distribution Board	Three	3.5	No
2	Sprinkler Flow Switch (Riser)	n/a	n/a	n/a	Yes
3	AC - BC Box	Local Distribution Board	Single	6	No
4	AC - BC Box	Local Distribution Board	Single	6	No
5	VRF Twin Condensors Supply 1 (PURY-P350YNW-A)	Local Distribution Board	Three	8	No
6	VRF Twin Condensors Supply 2 (PURY-P350YNW-A)	Local Distribution Board	Three	8	No
7	VRF Single Condensor (PURY-P200YNW-A)	Local Distribution Board	Three	8	No

P1	04.02.19	AMcG	MMcM	FIRST ISSUE
REV	DATE	BY	CHKD	DESCRIPTION



Job Title  
4 WILD COURT  
LONDON  
WC2B 4AU

Drawing Title  
5TH FLOOR  
POWER SUPPLIES FOR MECHANICAL EQUIPMENT

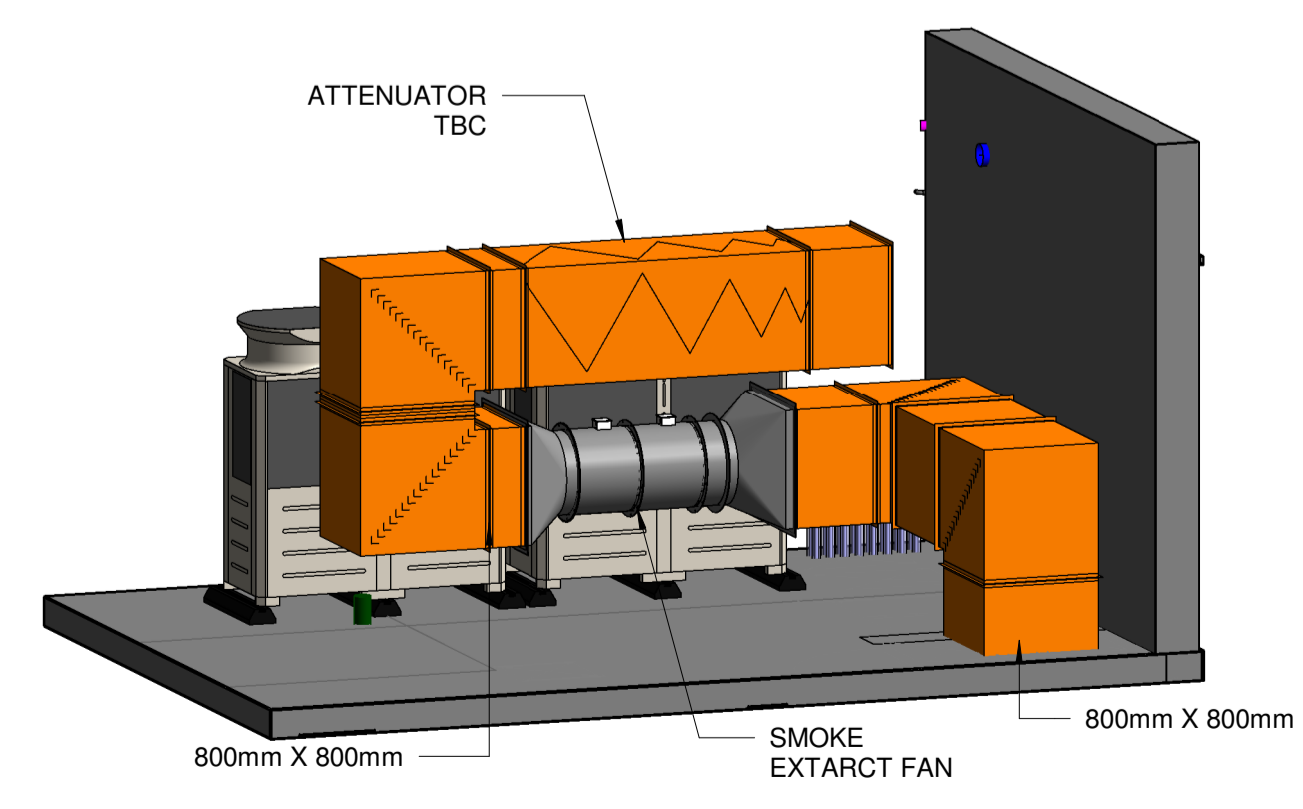
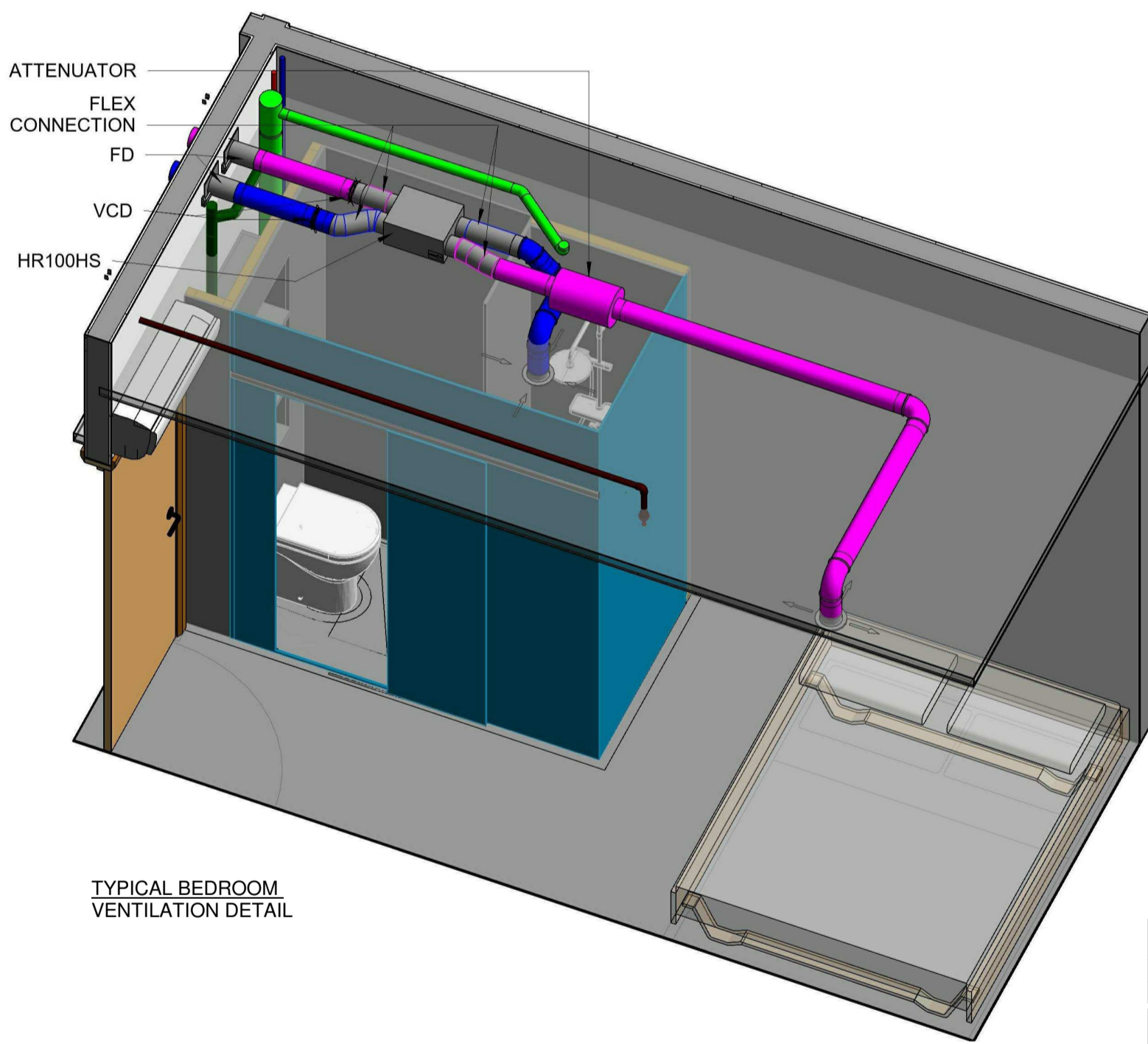
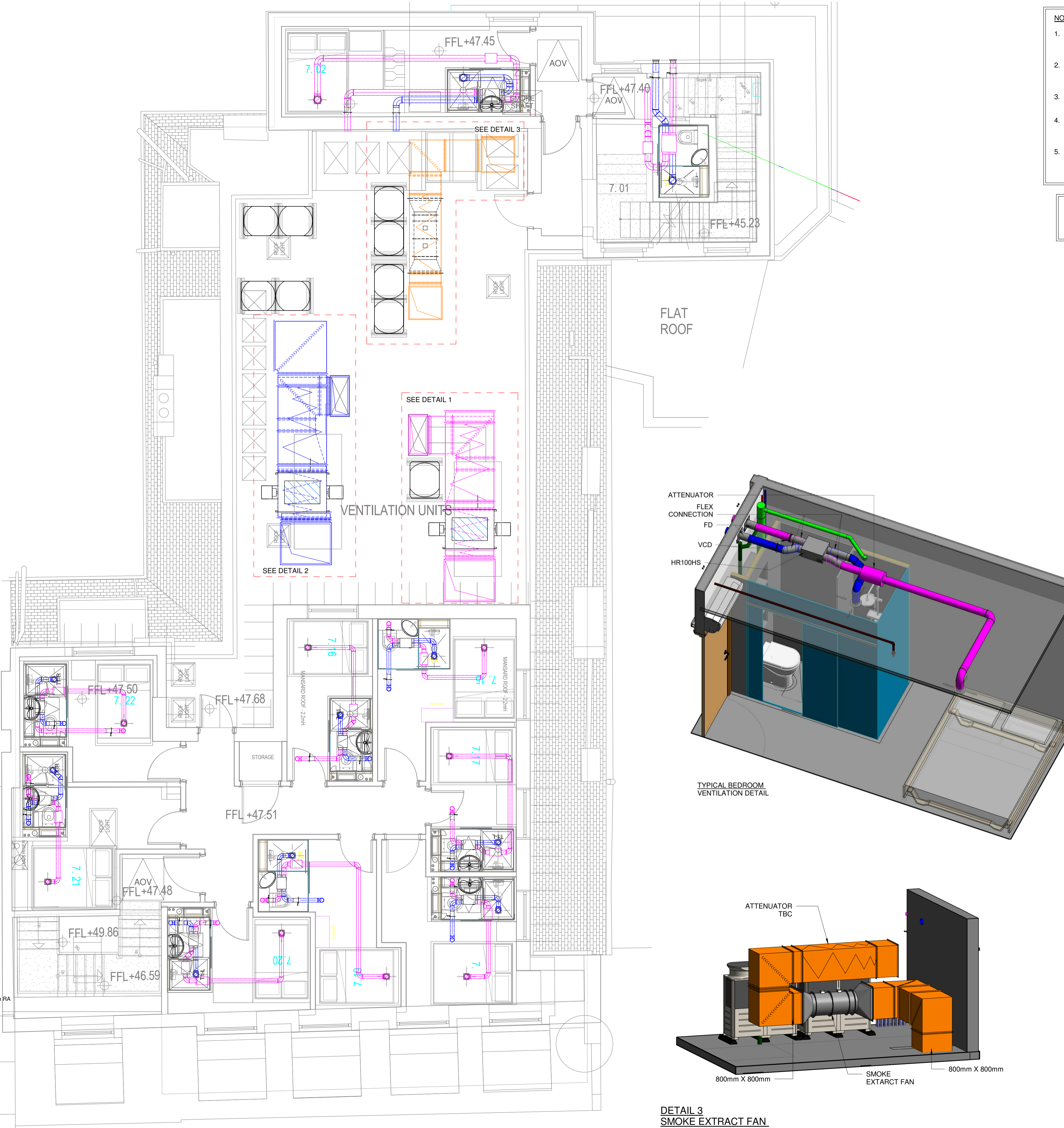
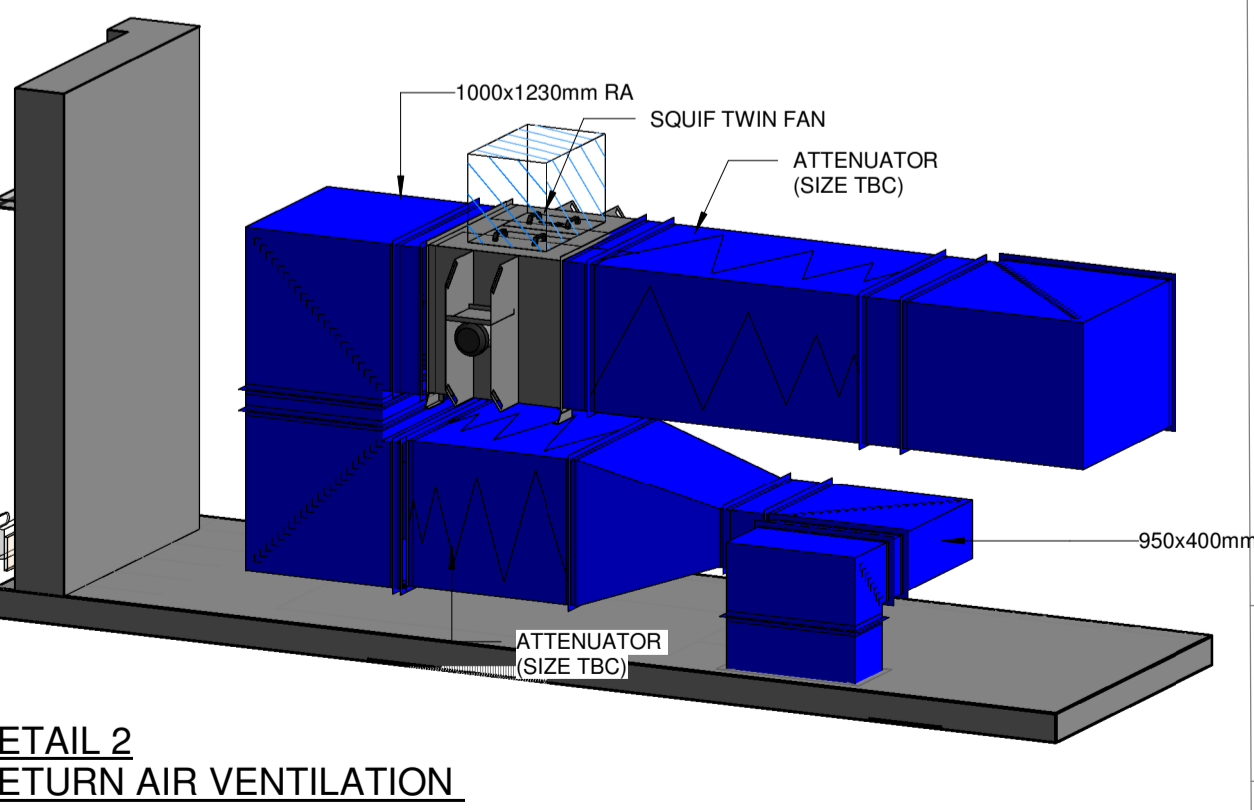
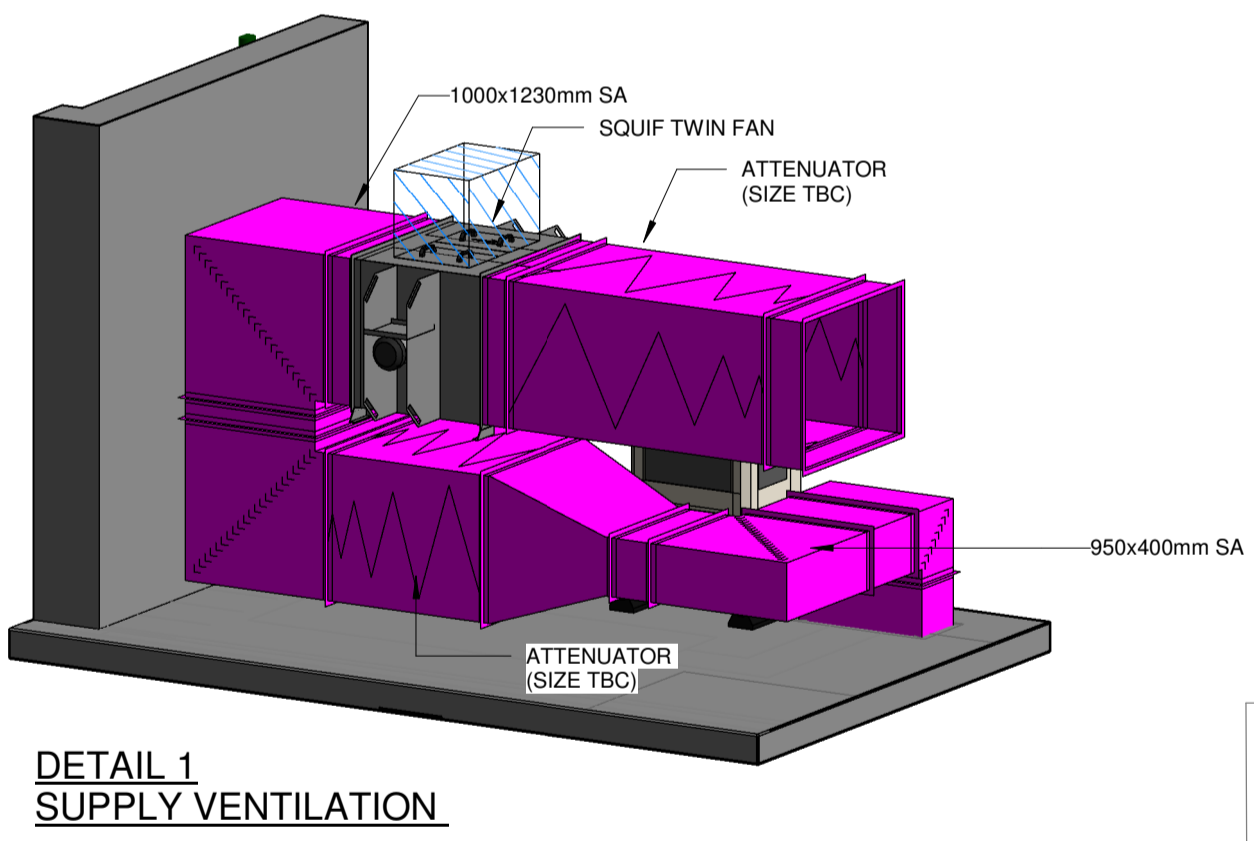
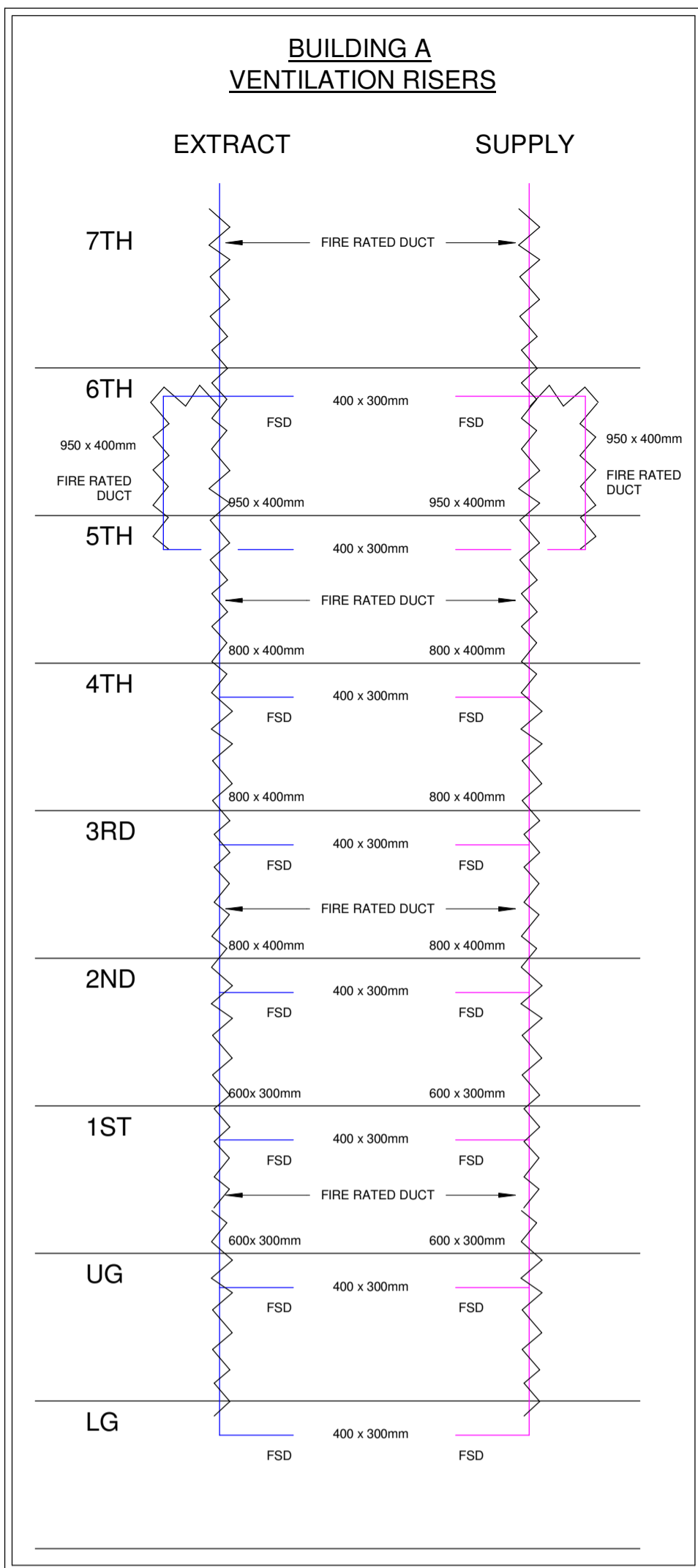
Client  
Z HOTELS

Architect  
TT ARCHITECTS

Drawn	Checked	Approved	Issue Date
AMcG	MMcM	MMcM	04.02.19

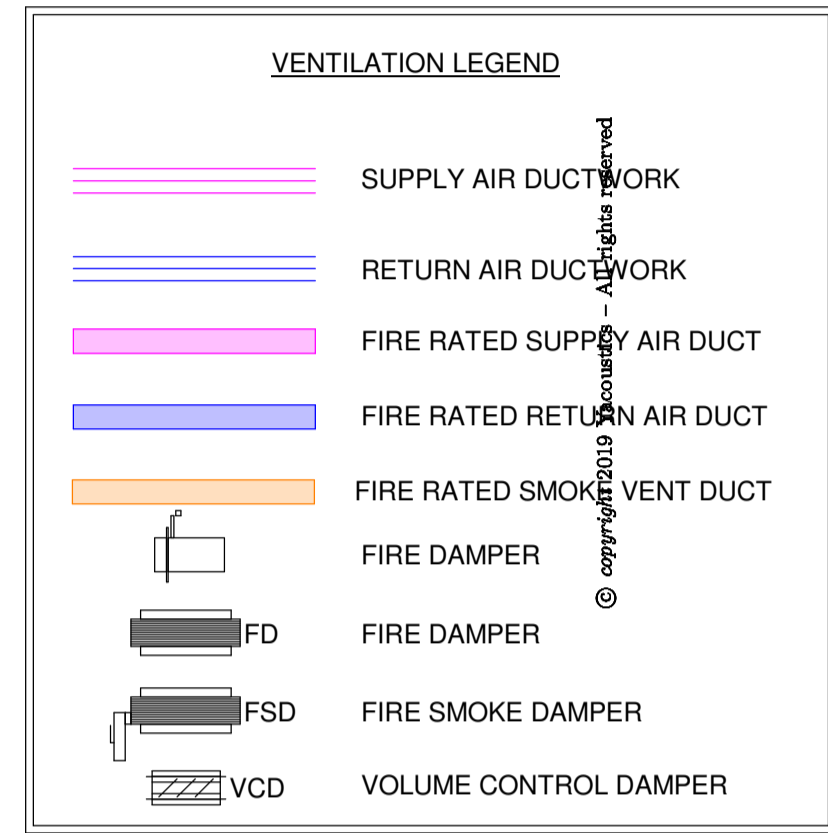
Scale@A1	Drawing Status	PAS
1:50	FOR APPROVAL	

Project	Originator	Zone	Level	Type	Role	Number	Rev
C0694	KG	XX	05	DR	M	67_001	P1



- NOTES:**
- ALL DUCTWORK ENTERING ROOMS TO BE TYPICALLY 100mmØ DUCT (TYPICALLY 150mmØ SERVING FAMILY ROOMS)
  - ACCESS DOORS REQUIRED AT ALL FIRE DAMPER AND FIRE SMOKE DAMPER LOCATIONS FOR DUCT COMMISSIONING PURPOSES
  - WHERE SUPPLY AND EXTRACT DUCTS GO TO ATMOSPHERE FIRE DAMPERS ARE REQUIRED
  - VCDs TO BE FITTED TO THE SUPPLY & EXTRACT DUCTWORK TO EACH HRU ON ATMOSPHERE SIDE SERVED FROM CENTRAL VENTILATION SYSTEM
  - THIS DRAWING TO BE READ IN CONJUNCTION WITH VENTILATION SCHEMATICS:  
C0694-KG-XX-XX-DR-M-57001  
C0694-KG-XX-XX-DR-M-57002

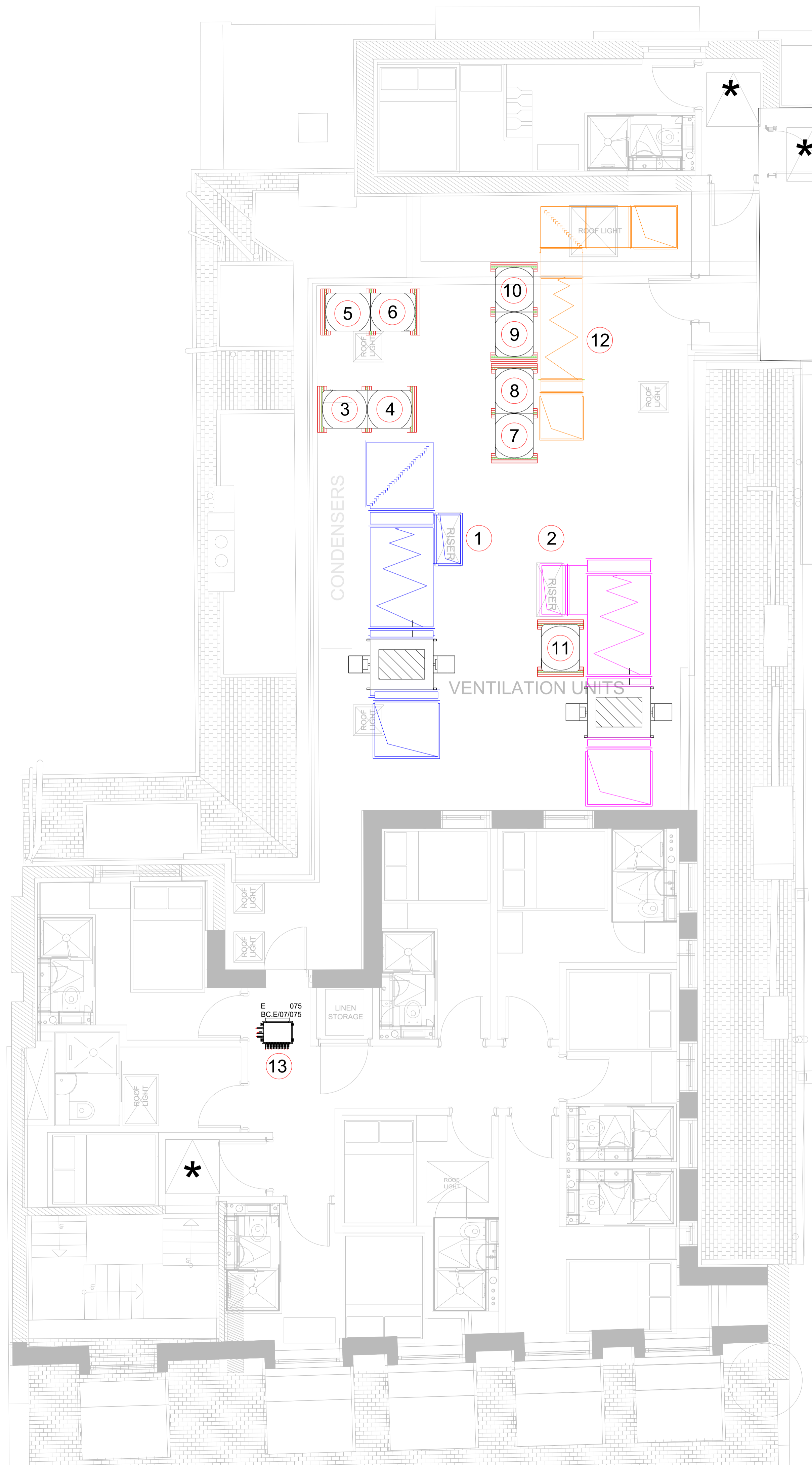
**DRAWING REFERENCE**  
LAYOUT CURRENT WITH TT ARCHITECTS LEVEL 07 GA PLAN: 005-GA07-15



C1	29/01/19	AF	MMcM	MMSE SERVICES UPDATED TO 3D REVIT COORDINATED LAYOUT
P1	16/11/18	AMcG	MMcM	FIRST ISSUE
REV	DATE	BY	CHK	DESCRIPTION



Job Title			
Z HOTEL WILD COURT			
Drawing Title			
7TH FLOOR LEVEL VENTILATION LAYOUT SHEET 1 OF 1			
Client			
Z HOTEL			
Architect			
TT			
Drawn	Checked	Approved	First Issue Date
AF	MMcM	MMcM	16/11/18
Scale @ A1			PAS
1:50			A4
Drawing Status			CONSTRUCTION
Project	Originator	Zone	Level
C0694	KG	XX	07
Type	Role	Number	Rev
DR	M	57_001	C1



Schedule Reference	Equipment	Supplied From	Power Supply		Fire alarm interface
			Phase	Amps	
1	Extract Fan	Local Distribution Board	Three	5.9	No
2	Supply Fan	Local Distribution Board	Three	5.9	No
3	VRF Twin Condensers Supply 1 (PURY-P500YNW-A)	Local Distribution Board	Three	8	No
4	VRF Twin Condensers Supply 2 (PURY-P500YNW-A)	Local Distribution Board	Three	8	No
5	VRF Twin Condensers Supply 1 (PURY-P500YNW-A)	Local Distribution Board	Three	8	No
6	VRF Twin Condensers Supply 2 (PURY-P500YNW-A)	Local Distribution Board	Three	8	No
7	VRF Twin Condensers Supply 1 (PURY-P500YNW-A)	Local Distribution Board	Three	8	No
8	VRF Twin Condensers Supply 2 (PURY-P500YNW-A)	Local Distribution Board	Three	8	No
9	VRF Single Condensers Supply 1 (PURY-P350YNW-A)	Local Distribution Board	Three	8	No
10	VRF Single Condensers Supply 2 (PURY-P350YNW-A)	Local Distribution Board	Three	8	No
11	VRF Single Condensers (PURY-P250YNW-A)	Local Distribution Board	Three	8	No
12	Smoke Fan	Smoke Vent Panel	Three	3	Yes
13	AC - BC Box	Local Distribution Board	Single	6	No

P1	04.02.19	AMcG	MMcM	FIRST ISSUE
REV	DATE	BY	CHKD	DESCRIPTION
<b>kanegroup</b> Building Services				
Job Title				
4 WILD COURT LONDON WC2B 4AU				
Drawing Title				
7TH FLOOR POWER SUPPLIES FOR MECHANICAL EQUIPMENT				
Client				
Z HOTELS				
Architect				
TT ARCHITECTS				
Drawn	Checked	Approved	Issue Date	
AMcG	MMcM	MMcM	04.02.19	
Scale@A1	Drawing Status			PAS
1:50	FOR APPROVAL			
Project	Originator	Zone	Level	Type
C0694	KG	XX	07	DR
Role	Number	Rev		
M	67_001	P1		

# ANNEX B – Proposed mechanical units

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 21 Feb 2019 17:05 using software version 4.1.2851.0

## Project Details

Location: AHU - Cafe/ Reception area - Horizontal option.

## Technical Data

**BPS Horizontal Plate, Connect Control, Electric Heater, No Cooling**

Fan Code: **B810H/EN/CO-L**

### Supply

Required duty: 0.66 m<sup>3</sup>/s at 200 Pa  
 Addition for ancillaries: +21.78 Pa  
 Actual duty: 1.024 m<sup>3</sup>/s at 534 Pa  
 Actual at required flow: 0.66 m<sup>3</sup>/s at 816 Pa

### Extract

Required duty: 0.66 m<sup>3</sup>/s at 200 Pa  
 Addition for ancillaries: +21.78 Pa  
 Actual duty: 1.071 m<sup>3</sup>/s at 584 Pa  
 Actual at required flow: 0.66 m<sup>3</sup>/s at 871 Pa

**When speed controlled to required duty:**

**Motor input power: 0.753 kW**

**Specific Fan Power: 1.1 W/(l/s)**

Motor input power: 3.005 kW

Specific Fan Power: 4.6 W/(l/s)

Nominal Fan Speed: 4 pole, 2,450 RPM

Electrical Supply: 3 Phase 50 Hz

Nominal Motor Rating: 2.8 kW

Motor Current (flc): 13 A

Motor Current (sc): 13 A

Heater Power: 18 kW

Heater Current (flc): 27 A

Heater+Motor Current (flc): 40 A

Max. operating temp: 60°C

Weight: 1,324 kg

Starting currents are nominal.

## Sound Data

Noise calculated speed controlled to required duty (61.62%)

Sound Power Levels re 1 pWatts (Hz):

Hz	63	125	250	500	1k	2k	4k	8k	dBA
Breakout	68	56	64	52	45	32	24	<16	36
Open Intake	62	59	67	60	55	50	45	41	41
Open Supply	68	65	74	72	72	66	61	57	54
Open Extract	62	59	67	60	55	50	45	41	41
Open Discharge	68	65	74	72	72	66	61	57	54
For 100% speed:	+3	+4	+6	+8	+11	+11	+11	+11	

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

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.

## Selected Ancillaries

1 x ESCO-LCD Ecosmart Connect touch screen display

1 x B10AH/FRTD-L Roof terminal & damper

1 x B10AH/FRTD-L Roof terminal & damper

### B10AH/FRTD-L - Roof terminal & damper

Resistance at required duty 21.78 Pa @ 0.66 m<sup>3</sup>/s (Supply)

Size: 780 mm (L) 920 mm (W) 780 mm (H)

Weight: 40.0 kg

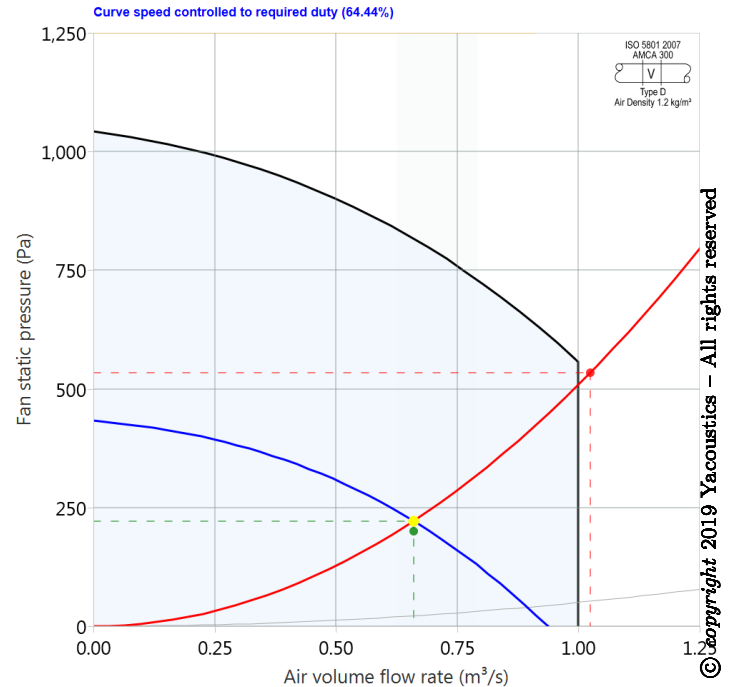
### B10AH/FRTD-L - Roof terminal & damper

Resistance at required duty 21.78 Pa @ 0.66 m<sup>3</sup>/s (Extract)

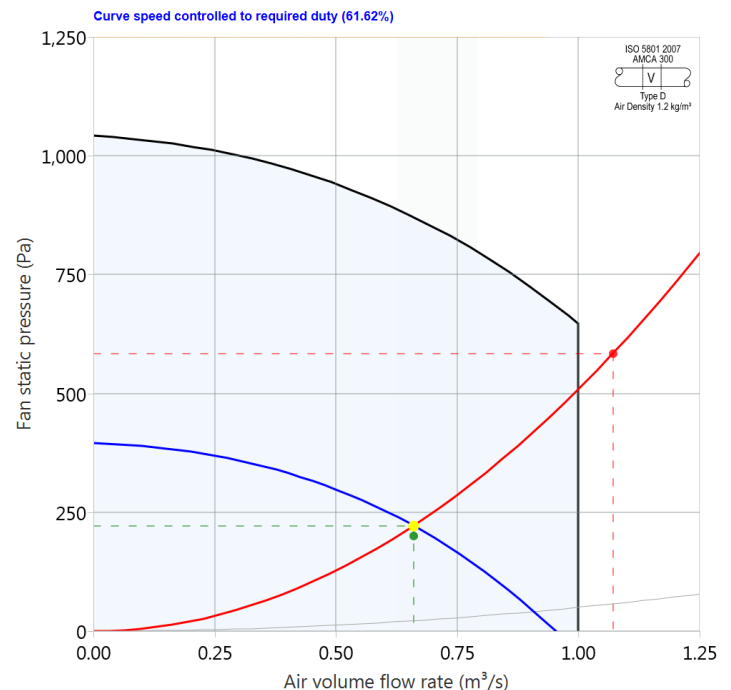
Size: 780 mm (L) 920 mm (W) 780 mm (H)

Weight: 40.0 kg

## Performance Chart (supply)



## Performance Chart (extract)



## Additional Notes

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

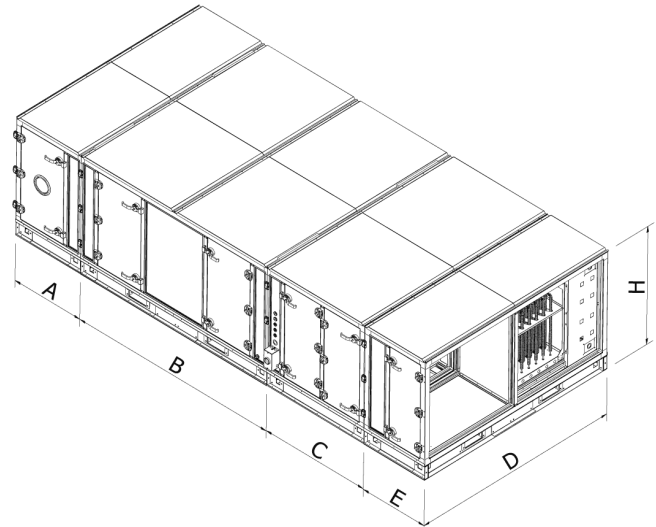
UK Commercial enquiries T:029 2085 8200 UK Residential enquiries T:029 2085 8500 International enquiries T:+44.29 2085 8497

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 21 Feb 2019 17:05 using software version 4.1.2851.0

## Specification

BOXER packaged supply and extract unit. Manufactured from Aluzinc corrosion resistant steel, with 50mm double skinned panels and anodized aluminium frame of a totally thermally-broken design, complying with the following specification in accordance with BS EN 1886: Mechanical strength, D1; Leakage class, L1; Thermal transmittance, T2; Thermal bridging, TB1. A high efficiency heat exchanger is present with automatic power saving bypass, complete with internal condensate tray and pump offering 20m of head pressure. Supply G4 pre-filter and F7 main filters are standard, with M5 filtration of the extract air and pressure drop monitoring for maintenance notification. Performance optimised backward curved impellers and IP54 EC motors shall be used to provide low specific fan powers and stepless speed control without tonal noise generation. Extract fan pressure transducers shall be fitted (Connect & Adapt control only) for constant pressure/flow control and energy monitoring. Internal lighting and inspection portholes shall be present on all fan modules. Hinged access panels are lockable and removable (with a common key for all) allowing full maintenance access from the side. Structural baseframes shall be fitted, powder coated with covered forklift slots and 50mm square lifting bar holes for site manoeuvrability. Three axis alignment clamps shall be fitted externally. All modules and ancillaries shall be individual weatherproofed with nanotech hydrophobic roofing, providing unparalleled corrosion resistance and aesthetic longevity. An IP65 lockable isolator shall be present for power connection on main and electric heater modules. Sealing grommets will be present for control cable access to the unit internals without the need for drilling on site. Module electrical interconnection shall be made using pre-fitted plug and socket arrangements. An electric heater module shall be present, complete with power controller to allow output modulation from the unit control. A fail-safe auto-reset safety device shall be present. Selected control option = Connect Control

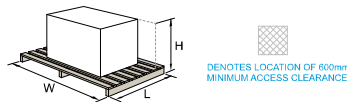
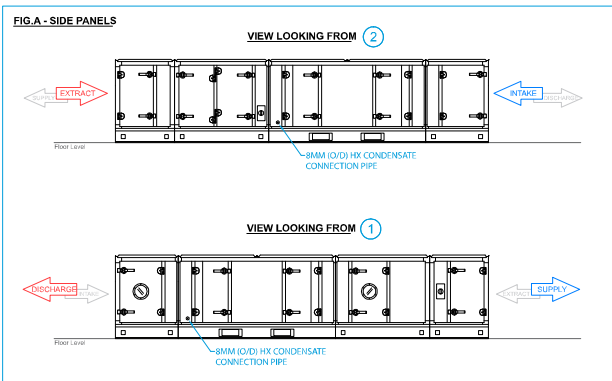
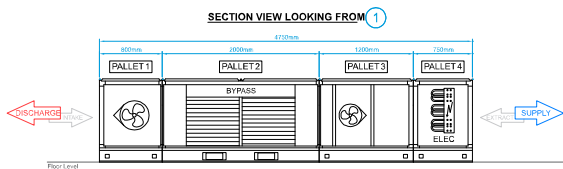
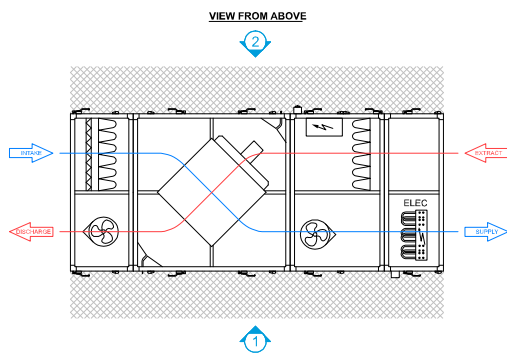
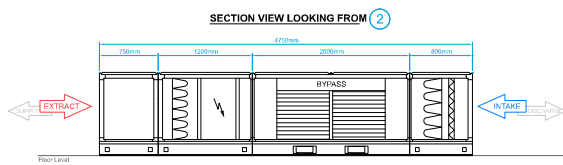
## Fan Dimensions



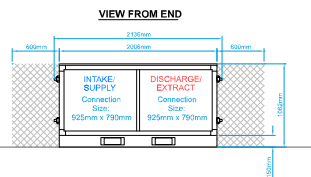
A	B	C	D	E	H	kg
800	2000	1200	2000	750	1062	1324
Length: Width:		Height:				
4750 2000		1062				

Drawing is for dimensional purposes only. Dimensions in mm

KANE GROUP BUILDING SVCS LTD / WILDCOURT HOTEL - Z HOTEL / 1508366 / AHU - Cafe/ Reception area - Horizontal option. / B810H/EN/CO-L (left handed)



Pallet No.	Name	Dimensions	Weight
1	Extract Module	950(L) x 2150(W) x 1185(H)	230kg
2	Heat Exchanger	2150(L) x 2150(W) x 1185(H)	860kg
3	Supply Module	1300(L) x 2150(W) x 1185(H)	318kg
4	Electric Heater	950(L) x 2150(W) x 1185(H)	219kg



You can download this CAD drawing from <http://int.nuaire.info/CAD/b10hen-l.dwg>

**Please Note:** This drawing details the factory-standard unit ONLY (unless silencers are shown too). The total length or footprint may differ from that shown depending on the additional ancillaries offered on the quote or if the unit code ends in -QA\*\*\*\*\*

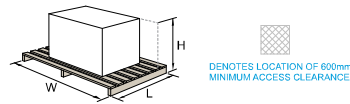
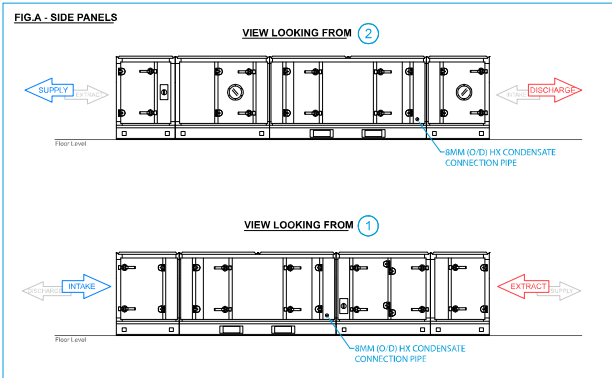
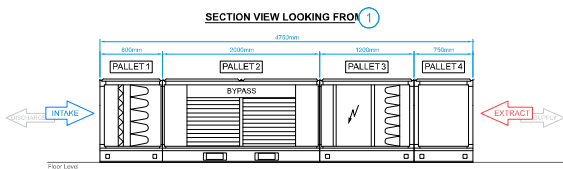
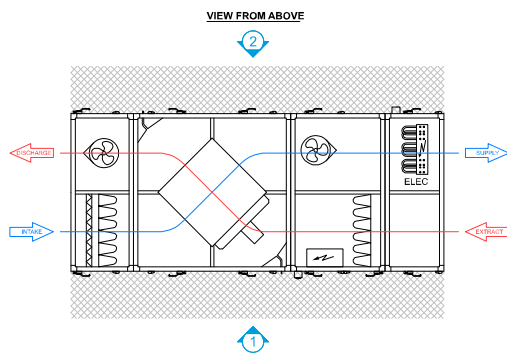
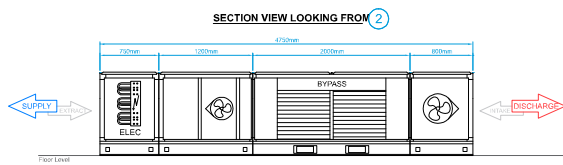
Please DO NOT sign this drawing to confirm handings. Please request the official handing drawings from Nuaire.

Drawing generated automatically by Nuaire Selector

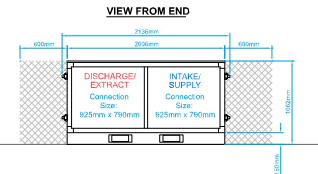
Do NOT scale from this drawing.



Nuaire, Western Ind Est, Coerphilly, Wales, CF83 1NA  
Tel: 02920 858 8200 <https://www.nuaire.co.uk>



Pallet and Section Details		
Pallet No.	Name	Weight
1	Extract Module	234kg
2	Heat Exchanger	600kg
3	Supply Module	218kg
4	Electric Heater	215kg



You can download this CAD drawing from <http://int.nuair.info/CAD/b10hen-r.dwg>

**Please Note:** This drawing details the factory-standard unit ONLY (unless silencers are shown too). The total length or footprint may differ from that shown depending on the additional ancillaries offered on the quote or if the unit code ends in -QA\*\*\*\*\*

Please DO NOT sign this drawing to confirm handings. Please request the official handing drawings from Nuaire.

Drawing generated automatically by Nuair Selector

Do NOT scale from this drawing.

**nuaire**  
 Nuair, Western Ind Est, Coerphilly, Wales, CF83 1NA  
 Tel: 02920 858 8200 <https://www.nuair.co.uk>



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 21 Feb 2019 17:05 using software version 4.1.2851.0

## Project Details

Location: Supply Fan -

## Technical Data

### SQFT - Squif In-line Twinfans

In Line Twinfan

Fan Code: **SQFTA63ES**  
 Installation Manual Links: 671392

Required duty: 2.64 m<sup>3</sup>/s at 200 Pa  
 Actual duty: 2.983 m<sup>3</sup>/s at 255 Pa  
 Actual at required flow: 2.64 m<sup>3</sup>/s at 324 Pa

#### When speed controlled to required duty (88.49%):

**Fan Input Power: 1.191 kW**  
**Motor Input Power: 1.568 kW**  
**Specific Fan Power: 0.6 W/(l/s)**  
 Velocity at required duty: 2.933 m/s  
 Fan Total Efficiency: 45%

#### At full speed:

Fan Input Power: 1.719 kW  
 Maximum Fan Input Power: 1.728 kW  
 Motor Input Power: 2.24 kW  
 Specific Fan Power: 0.8 W/(l/s)

Nominal Fan Speed: 6 pole, 960 RPM  
 Electrical Supply: 400V 3 Phase 50 Hz  
 Nominal Motor Rating: 2.2 kW  
 Motor Current (flc): 5.9 A  
 Motor Current (sc): 5.9 A  
 Motor Efficiency: IE2 / High Efficiency

Max. operating temp: 90°C  
 Weight: 426 kg

All Ecosmart fans feature soft-starting and stepless variable speed control. A switch disconnector is required to isolate the fan from the electrical supply.

## Sound Data

Acoustic performance to ISO 13347 and AMCA 300.

Noise calculated speed controlled to required duty (88.49%)

Sound Power Levels re 1 pWatts (Hz):

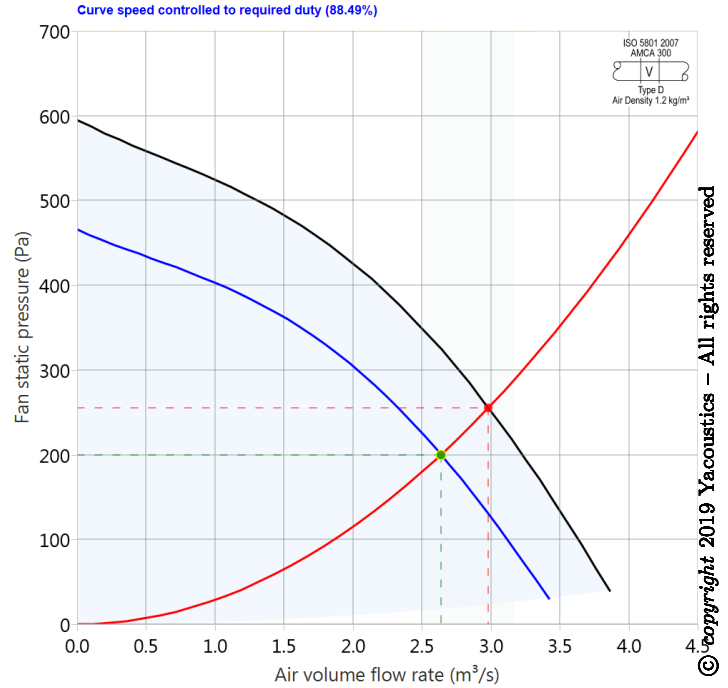
Hz	63	125	250	500	1k	2k	4k	8k	dBA
Induct Inlet	89	102	85	77	73	73	74	70	
Induct Outlet	86	103	80	75	77	77	75	72	
Breakout	83	96	77	69	64	64	59	49	60
For 100% speed:	+1	+1	+2	+2	+3	+3	+3	+3	

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

Please Note: Filters and Quickfit Double flanged flexible connector will be by others.

## Selected Ancillaries

- 1 x NAV50 Anti-vibration mounting kit
- 1 x ES-ISCT-WP Weatherproof Enclosure for Inverter

## Specification

In-line centrifugal fan suitable for both vertical (upwards) & 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. The unit shall have an Ecosmart speed control as standard.

### NAV50

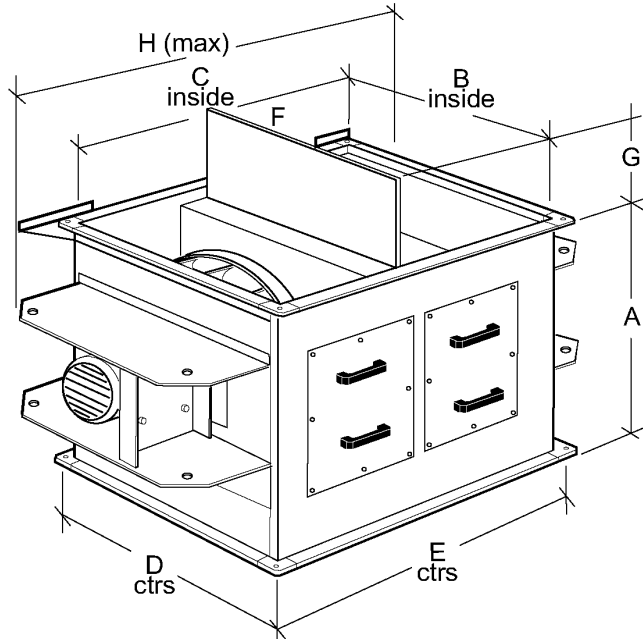
Spring type anti-vibration mountings, supplied as a set of 4.

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 21 Feb 2019 17:05 using software version 4.1.2851.0

## Fan Dimensions

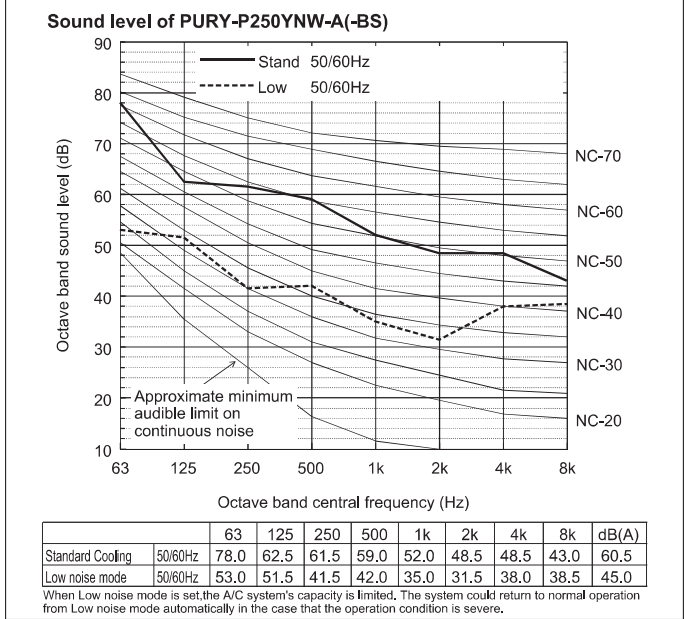
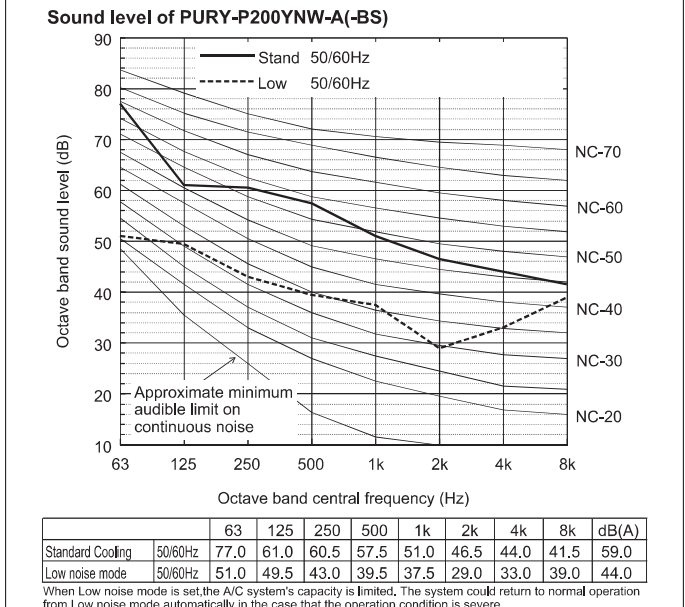
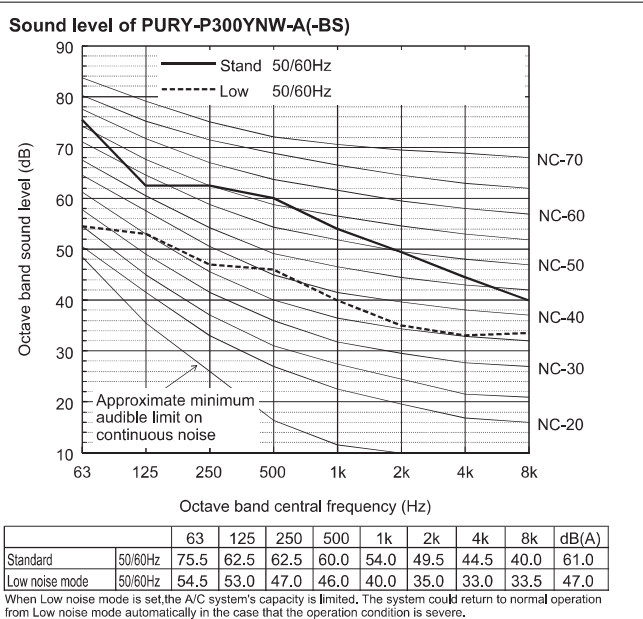
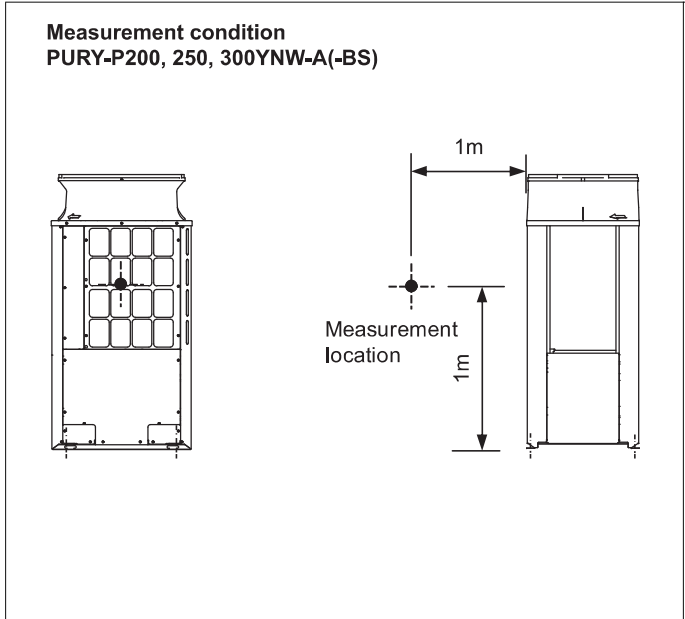


A	B	C	D	E	F	G	H	kg
994	1000	1230	1030	1261	32	383	2070	426

Length: 2070  
Width: 1030  
Height: 1377

Drawing is for dimensional purposes only. Dimensions in mm

5-1. Sound levels in cooling mode



♦ Depending on the operation conditions, the unit generates noise caused by valve actuation, refrigerant flow, and pressure changes when operating normally. Please consider to avoid location where quietness is required. For BC controller, it is recommended to be installed in places such as ceilings of corridor, rest rooms and plant rooms.

PURY-P-Y(S)NW-A

© copyright 2019 Yacoustics - All rights reserved