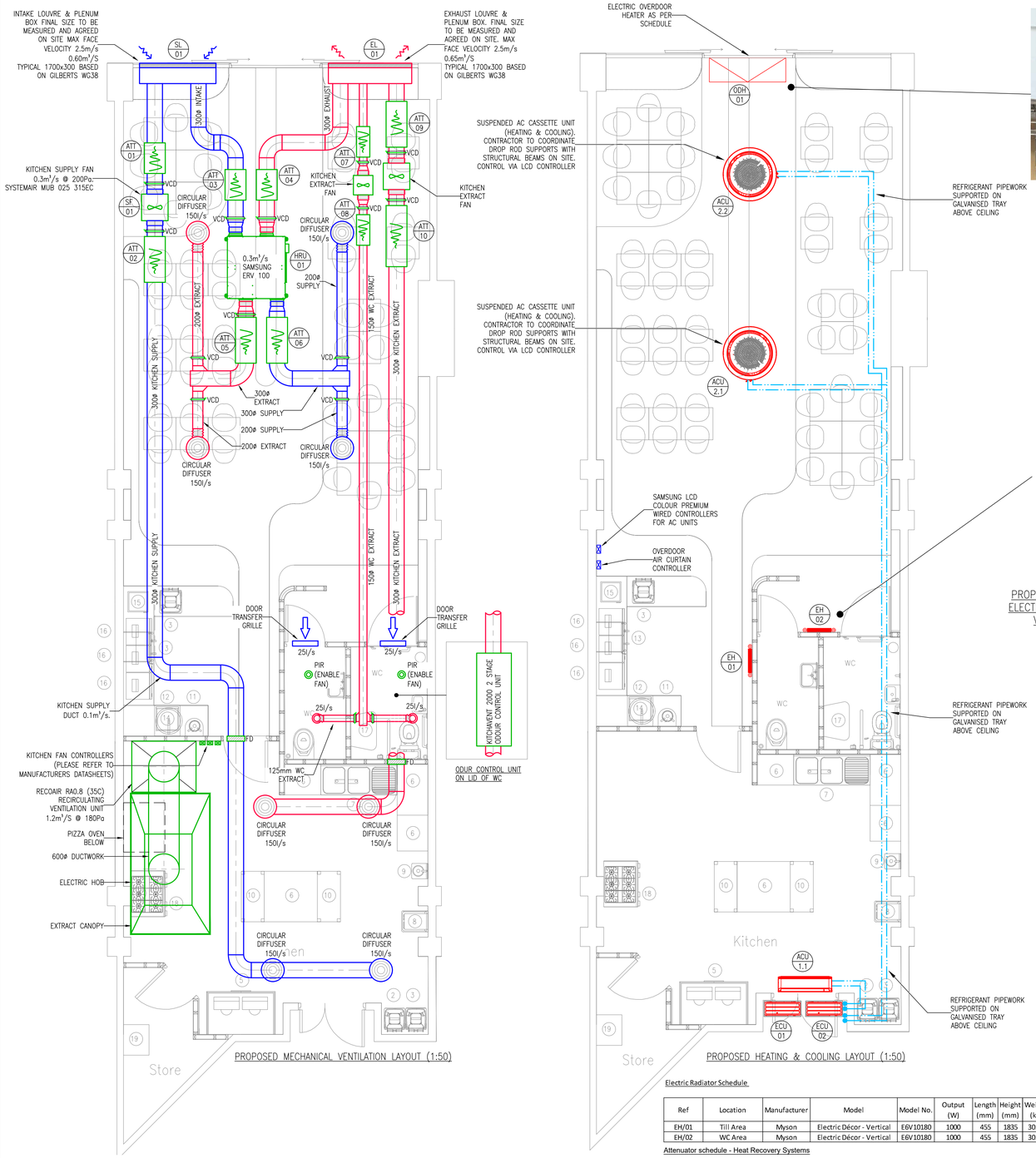


PROPOSED MECHANICAL VENTILATION LAYOUT (1:50)

PROPOSED HEATING & COOLING LAYOUT (1:50)



TYPICAL INSTALLATION OF PROPOSED OVERDOOR HEATER

SR S-150-E								
Nominal unit length	m	1,5						
Door height	m	2 - 2,4						
Electrical supply	V/ph/Hz	400/3N/50						
Max. Cable size allowed (solid/stranded)	mm²	16/10						
Max. Current consumption (unit)	A	23,8						
Max. Fan power	kW	0,3						
Max. Power consumption, heating	kW	15,6						
Max. Specific fan power	W/l/s	0,63						
Max. Heating capacity	kW	14,8						
Weight casing style F / R / C	kg	76/92/87						
Air inlet temperature	°C				20			
Discharge air temperature	°C				35			
Speed		1	2	3	4	5	6	
Air volume	m³/h	660	910	1020	1320	1520	1700	
Heating capacity	kW	3,3	4,5	5,1	6,6	7,6	8,5	
Sound pressure level at 3m	dB(A)	28	35	39	43	47	50	



PROPOSED MYSON DECOR ELECTRIC STYLE RADIATORS VERTICAL OPTION

1	KITCHAVENT 2000 - 2 Stage - Odour Control Casing This system can be operated at various contact times: * 0.3 second : Duty Air Flow = 0.35m3/s, PD Clean=99Pa Dirty=327Pa - Approx Dimensions : 688H x 681W x 1182Dmm (Including 40mm External Flanges) - Access Both Sides - Welded Construction - Painted Finish - Internal Unit (Waterproof Roof Available, Quotations upon request) Air Filters Required: - 2x General Purpose Bag Filter, F5 to EN779 (1410624) - 2x Extra Duty Activated Carbon Filter, Gr50 (1620606) Approx Unit Weight (incl. Filters) = 173kg Note: Maximum operating temperature should be no more than 40 Degrees Centigrade, and Humidity should be no more than 80% RH.	£963.56
2	M5 General Purpose Bag Filter Size: 598H x 309W x 292mm Actual FP5.2P.22mmH , M5 to EN779	£35.15
2	Activated Carbon Discarb Cells , Grade 50 EXTRA DUTY , Size: 595H x 292W x 595Dmm ACTUAL , Rating: 0.53m3/s @ 225 Pa	£450.22
1	Carriage and Packing Charges, Small Pallet	£85.00
1	Anticipated Delivery 2-3 working weeks	£0.00
1	At an airflow of 0.3m3/s this system will achieve a 0.3 second contact time which meets the requirements of High Level Odour Control by DEFRAs "Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems" (Jan 2005) This system uses multiple Kitchavent or ESP Modules. These are typically mounted in parallel (piggy backed or side by side). This filtration system is designed for the reduction of grease and odour only. If the establishment will be generating smoke (chargrilling etc) we recommend the use of HEPA Filters or Electrostatic Precipitators. Please advise technical of this requirement.	£0.00

KITCHAVENT CARBON FILTER SYSTEM SPECIFICATION

External AC Unit Schedule

Ref	Location	Manufacturer	Model	Cooling Duty (kW)	Heating Duty (kW)	Width (mm)	Height (mm)	Depth (mm)	Weight (kg)
ECU-01	Service Corridor	Samsung	AC052RXADKG/EU	5.09	5.98	880	638	310	43
ECU-02	Service Corridor	Samsung	AC140RXADNG/EU	14.00	14.00	940	1210	330	92

Indoor Air Conditioning Unit Schedule

Ref	Location	Manufacturer	Model	Cooling Duty (kW)	Heating Duty (kW)	Length (mm)	Width (mm)	Depth (mm)	Colour
ACU-1.1	Kitchen	Samsung	AC052TNXDKG/EU	5.09	5.98	1055	299	215	White
ACU-2.1	Restaurant	Samsung	AM071KN4DEH/EU	7.10	8.00	947 Dia		281	White
ACU-2.2	Restaurant	Samsung	AM071KN4DEH/EU	7.10	8.00	947 Dia		281	White

Please refer to the latest version of Samsung Quotation Reference: ENQ-4136/2City Tower Manchester
Lee Darbyshire
Airway Solutions Ltd
Tel: 0151 600 6000
Mob: 07903 788 461
Email: lee@airwaysolutions.co.uk

Heat Recovery Unit Schedule

Ref	Location	Manufacturer	Model	Duty (l/s)	Pressure (Pa)	Length (mm)	Width (mm)	Height (mm)	Control
HRU/01	Above restaurant ceiling	Samsung	AN100JSKLKN/EU	218	200	1220	1135	340	Remote Controller

REFRIGERATION INSTALLATION

1. THE SPECIALIST AIR CONDITIONING CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLY, INSTALLATION AND COMMISSIONING OF THE VRF SYSTEMS IN ACCORDANCE WITH BS EN 378.
2. AIR CONDITIONING SPECIALIST TO SUPPLY, INSTALL, TEST AND COMMISSION ALL INTERCONNECTING REFRIGERATION PIPEWORK BETWEEN THE OUTDOOR AND INDOOR UNITS.
3. ALL PIPEWORK TO BE CARRIED OUT IN REFRIGERATION QUALITY SOFT/MEDIUM DRAWN COPPER TUBING TO BS2871 PART 2: 1972 COMPLETE WITH THE APPROPRIATE JOINT PIPES FOR TWIN AND TRIPLE SYSTEMS.
4. PIPEWORK SHALL BE CARRIED OUT BY AN APPROVED (CERTIFICATE APPROVAL MUST BE SUBMITTED PRIOR TO INSTALLATION COMMENCEMENT) REFRIGERANT ENGINEER AND IN ACCORDANCE TO BS–EN 378 2000 SPECIFICATION. R410A TOOLS REQUIRED FOR ALL PIPEWORK, TORQUE SPANNERS, FLARING BLOCKS ETC.
5. LONGEST POSSIBLE LENGTHS OF COPPER PIPE SHOULD BE UTILISED TO MINIMISE JOINTS ON SITE.
6. APPROPRIATE REFRIGERATION INSTALLATION TOOLS MUST BE UTILISED. DRY NITROGEN MUST BE UTILISED AT ALL TIMES IN THE SYSTEM DURING BRAZING.
7. ALL PIPEWORK (SUCTION AND LIQUID LINES) TO BE INSULATED WITH SLIP ON CLOSE CELL ELASTOMERIC PIPE INSULATION (AS MANUFACTURED BY ARMAFLEX OR EQUAL AND APPROVED) WITH A FIRE PERFORMANCE CLASS O OF THE 1985 BUILDING REGULATIONS, HAVING A WALL THICKNESS OF NOT LESS THAT 13mm.

   AFTER INSTALLATION OF PIPEWORK, AND PRIOR TO SEALING OF INSULATION JOINTS AND STARTING OF EQUIPMENT, PIPEWORK SHOULD BE PRESSURE STRENGTH TESTED TO 42 BAR, CHECKED FOR DEFORMATION, AND THEN LEAK TESTED AT 33 BAR AND HOLD FOR 24 HOURS AND CHECKED FOR LEAKS. THEN VACUUMED/DEHYDRATED TO (–752MM HG) 2 TORR, AND HELD AT THAT SETTING FOR 12 HOURS (MINIMUM). HSE DOCUMENT GS4 SHOULD BE FOLLOWED DURING PRESSURE TESTING PERIOD.
8. REFRIGERANT CHARGE WEIGHT MUST BE CALCULATED, TO THE ACTUAL INSTALLED LENGTH OF PIPEWORK IN ACCORDANCE TO MANUFACTURERS RECOMMENDATIONS.
9. THE CHARGING SHOULD BE CARRIED OUT WITH AN APPROPRIATE CHARGING STATION.
10. PIPEWORK TO BE PROPERLY FIXED AND SUPPORTED AT A MINIMUM OF 1.5 METRE CENTRES AND WHERE REQUIRED SHOULD BE RUN ON GALVANISED TRAYS. ALL PIPEWORK TO BE LABELLED WITH ID NUMBER (CONDENSING UNITS REF.) AT 3 METRE INTERVALS.
11. JOINTS IN COPPER PIPE SHALL BE BRAZED. BRAZING SHALL BE CARRIED OUT TO THE REQUIREMENTS OF THE HVCA CODE OF PRACTICE – BRAZING AND BRONZE WELDING OF COPPER PIPE AND SHEET.
12. WHERE VRF AND VENTILATION PLANT IS INSTALLED ABOVE SOLID CEILINGS I.E. PLASTERBOARD SUITABLY SIZED ACCESS HATCHES ARE TO BE INSTALLED TO ALLOW ACCESS FOR INSTALLATION, COMMISSIONING, MAINTENANCE, CLEANING AND REMOVAL.
13. A CONDENSATE LINE SHALL BE INSTALLED TO EACH AC UNIT. THIS SHALL BE INSTALLED AND INSULATED ALL AS PER THE STANDARD SPECIFICATION. MINIMUM SIZE OF CONDENSATE PIPES TO BE 25mm COPPER OR PLASTIC, INSULATED AND PUMPED OR BY GRAVITY FROM EACH FAN COIL / CASSETTE, DRAINS TO RUN 1:80 MIN FALLS.
14. CONDENSATE PIPEWORK FROM VRF UNITS SHALL RUN WITHIN THE CEILING VOID TO THE NEAREST DRAINAGE POINT AND SHALL BE COMPLETE WITH IN LINE SELF SEALING TRAP.
15. THE TENDERING CONTRACTOR'S AIR CONDITIONING SPECIALIST SHALL BE RESPONSIBLE FOR THE INTERCONNECTING CONTROL WIRING BETWEEN THE INDOOR AND OUTDOOR UNITS AND CONTROL WIRING BETWEEN REMOTE CONTROLLER AND RELEVANT COMPONENTS. THIS WORK SHALL BE CO–ORDINATED WITH THE ELECTRICAL SUB CONTRACTOR FOR THE ROOTING AND TRUNKING OF THE CABLES.
16. CONTROL WIRING SHALL NOT BE RUN NEXT TO POWER WIRING. A MINIMUM SPACE OF 100mm BETWEEN BOTH CONTROL AND POWER CABLES SHALL APPLY.

SPECIFICATION NOTE:

ALL PLANT AND EQUIPMENT IS SHOWN FOR INDICATIVE PURPOSES ONLY. THE CONTRACTOR SHALL SELECT THE FINAL EQUIPMENT BASED ON AN EQUAL AND APPROVED SPECIFICATION TO THE ITEMS SUGGESTED ON THIS DRAWING.

THE CONTRACTOR WILL NOT BE BOUND TO THE PARTICULAR MANUFACTURERS / MODELS THAT ARE LISTED ON THIS DRAWING.

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GENERAL

1. DO NOT SCALE FROM THIS DRAWING
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL PREMIER CK INFORMATION.
3. ALL PLANT AND EQUIPMENT WILL BE INSTALLED AND COMMISSIONED FULLY IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

VENTILATION INSTALLATION

1. VENTILATION SYSTEMS TO BE COMPLETE WITH ALL ACCESSORIES, CONTROLS AND FITTINGS TO PROVIDE A COMPLETE AND FUNCTIONAL INSTALLATION
2. ALL VENTILATION SYSTEMS AND COMPONENTS TO BE INSTALLED, TESTED AND COMMISSIONED IN ACCORDANCE WITH BUILDING REGULATIONS APPROVED DOCUMENT F.
3. DUCTWORK SHALL BE INSTALLED IN GALVANISED STEEL WITH CIRCULAR PROFILE AND SPIRAL SEAMS WHERE POSSIBLE OR OTHERWISE STATED IN ACCORDANCE WITH HVCA DW 144 AND BS EN 1506, OTHERWISE RECTANGULAR GALVANISED STEEL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH HVCA DW 144 AND BS EN 1505.
4. VOLUME CONTROL DAMPERS IN ACCORDANCE WITH HVCA DW 144 ARE TO BE PROVIDED TO ALL DUCTWORK BRANCHES.
5. EXTERNAL LOUVRES ARE TO BE COMPLETE WITH REMOVABLE INSECT MESH.
6. ACCESS SHALL BE PROVIDED IN ALL DUCTWORK FOR INSPECTION, MAINTENANCE AND COMMISSIONING IN ACCORDANCE WITH HVCA DW 145 AND HVCA TR19.
7. FLEXIBLE DUCTING SHALL BE USED FOR THE FINAL UNIT / GRILLE / PLENUM CONNECTION, NO MORE THAN 300mm PER LEG SHOULD BE USED AS PER BPEC GUIDANCE.
8. ALL DUCTING WITHIN AN UNHEATED SPACE MUST BE INSULATED IN ACCORDANCE WITH PART F OF THE 2010 BUILDING REGULATIONS. EXHAUST AIR LEGS ARE TO BE FULLY INSULATED BACK TO THE UNIT.
9. SUPPLY AND EXTRACT GRILLES SHALL BE COMMISSIONED / TRIMMED AT THE GRILLE TO ENSURE THE CORRECT FLOW RATE IS ACHIEVED.
10. THE CONTRACTOR IS TO ENSURE ANY DUCTWORK PASSING THROUGH FIRE RATED WALLS IS PROVIDED WITH A FIRE DAMPER TO SUIT THE RATING OF THE FIRE WALL.
11. ALL FINAL POSITIONS OF CONTROLLERS TO BE AGREED ON SITE.
12. ALL MAINS WIRING TO BE CARRIED OUT BY THE APPOINTED ELECTRICAL CONTRACTOR.

CONTRACTORS GENERAL SCOPE OF WORKS IN RELATION TO THIS DRAWING:

1) CONTRACTOR SCOPE OF WORKS GENERALLY BUT NOT LIMITED TO:PRE–ORDER SURVEY TO MARK OUT POSITIONS, DETERMINE ANY UNFORESEEN ISSUES AND ESTABLISH THE SITE CONSTRAINTS.
2) FULL CEILING SPACE COORDINATION AND SETTING OUT EXERCISE WITH ALL OTHER SERVICES.
3) PROVIDE SUITABLE METHOD OF INSTALLING HIGH LEVEL EQUIPMENT AND NEW EXTERNAL LOUVRES
4) INSTALLATION OF NEW VENTILATION UNITS, DUCTWORK, GRILLES, DAMPERS, SENSORS, CONTROLLERS
5) POWER SUPPLIES BY OTHERS.
6) FULL COMMISSIONING AND TO PROVIDE A FUNCTIONAL SYSTEM THROUGHOUT
7) MAKING GOOD OF ANY DAMAGE TO WALLS/FLOORS/CEILING
8) TRAINING TO CLIENT/SITE CARETAKER
9) O&M MANUAL/COMMISSIONING CERTIFICATES / AS FITTED DRAWING FOR ALL MODIFICATIONS AND NEW INSTALLATIONS

T11	HRU & ATTENUATOR SCHEDULES ADDED.	CP	CP	06.10.23
T10	KITCHEN AC REINSTATED. EXTRACT TO KITCHEN REINSTATED.	CP	CP	04.10.23
T9	KITCHEN EXTRACT CHANGED TO RECIRC. SUPPLY FAN REDUCED	CP	CP	26.09.23
T8	EXTRACT CANOPY LARGER TO COVER PIZZA OVEN.	CP	CP	07.09.23
T7	FAN SPEC CHANGED. ODOUR NEUTRALISER ADDED. SUPPLY AIR HEATER BATTERY OMITTED. ADDITIONAL RADIATOR ADDED TO KITCHEN	CP	CP	02.08.23
T6	INDICATIVE KITCHEN VENTILATION SYSTEM SHOWN	CP	CP	26.07.23
T5	CONFIRMED HEATER BATTERY AND FAN SIZES	CP	CP	16.06.23
T4	VENTIATION SYSTEM REVISED. KITCHEN AC SYSTEM OMITTED. NOTE FURTHER DEVELPMENT IS REQUIRED ON THIS DESIGN	CP	CP	06.06.23
T3	BUILDING LAYOUT UPDATED	MR	CP	13.02.23
T2	AC SCHEDULE UPDATED	CP	CP	12.09.22
T1	TENDER ISSUE	CP	CP	26.08.22
P1	ISSUED FOR COMMENTS	CP	CP	05.07.22
REV	DESCRIPTION	BY	CKD	DATE

STATUS
TENDER

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mechanical • electrical • utilities • design • specification • project management

CLIENT
CAROLYN REID – EAT ITALIAN LTD

SITE
UNIT 3, 39–41 PARKER STREET, CITY TOWER–MANCHESTER M1 4BT

PROJECT
EAT ITALIAN RESTAURANT FITOUT

TITLE
PROPOSED HVAC DETAILS

DATE APPOINTED	SCALE AT A1	DRAWN BY	CHECKED BY
JUNE 2022	1:50	C.PRATT	C.PRATT

PROJECT No.	DRAWING No.	REVISION
01497	01497–M–01	T11

Overdoor Heater Schedule

Ref	Location	Manufacturer	Model	Output (kW)	Width (mm)	Height (mm)	Depth (mm)
ODH/01	Entrance	Biddle	SR Comfort SR S150-E	15	1500	270	702

Extract Fan Schedule

Ref	Location	Manufacturer	Model	Type	Duty (l/s)	Pressure (Pa)	Length (mm)	Width (mm)	Height (mm)	Control
EF/01	Above restaurant ceiling	Systemair	MUB 025 315EC	Duct Fan	300	200	520	520	520	Speed Controller
EF/02	Above restaurant ceiling	Systemair	MUB 16 200EC	Duct Fan	50	150	378	378	378	Speed Controller / PIR enabler

Supply Fan Schedule

Ref	Location	Manufacturer	Model	Type	Duty (l/s)	Pressure (Pa)	Length (mm)	Width (mm)	Height (mm)	Control
SF/01	Above restaurant ceiling	Systemair	MUB 025 315EC	Duct Fan	300	200	520	520	520	Speed Controller

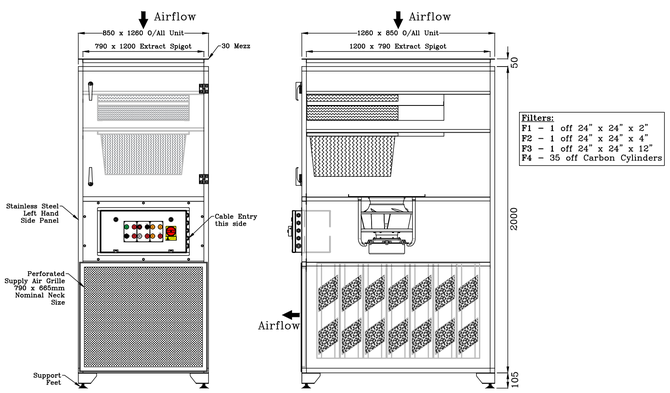
Electric Radiator Schedule

Ref	Location	Manufacturer	Model	Model No.	Output (W)	Length (mm)	Height (mm)	Weight (kg)
EH/01	Till Area	Myson	Electric Décor - Vertical	E6V10180	1000	455	1835	30.36
EH/02	WC Area	Myson	Electric Décor - Vertical	E6V10180	1000	455	1835	30.36

Attenuator schedule - Heat Recovery Systems

Item	System Reference	Code	Suffix	DWG	L1	L2/ID	W	H	Vol	PD	Wt	No.		Performance, dB							
					mm	mm	mm	mm	m³/s	Pa	kg	Off.		63	125	250	500	1k	2k	4k	8k
1	ATT01 SF/01 FAI	PLP	G	A13G	600	300			0.3	15	16	1	IL	3	10	15	24	30	30	28	24
2	ATT02 SF/01 SUPPLY	PLP	G	A13G	900	300			0.3	15	21	1	IL	4	12	19	29	34	34	32	28
3	ATT03 HRU FAI	PL	G	A13G	600	300			0.3	5	10	1	IL	1	2	6	15	20	15	14	10
4	ATT04 HRU EXHAUST	PL	G	A13G	600	300			0.3	5	10	1	IL	1	2	6	15	20	15	14	10
5	ATT05 HRU EXTRACT	PLP	G	A13G	900	300			0.3	15	21	1	IL	4	12	19	29	34	34	32	28
6	ATT06 HRU SUPPLY	PLP	G	A13G	900	300			0.3	15	21	1	IL	4	12	19	29	34	34	32	28
7	ATT07 EF/02 EXHAUST	PL	G	A13G	600	150			0.05	5	6	1	IL	1	2	6	16	23	19	17	12
8	ATT08 EF/02 EXTRACT	PL	G	A13G	600	150			0.05	5	6	1	IL	1	2	6	16	23	19	17	12
9	ATT09 EF/01 EXHAUST	PLP	GM	A13G	900	300			0.3	15	21	1	IL	4	13	16	23	26	24	26	24
10	ATT10 EF/01 EXTRACT	PLP	GM	A13G	1200	300			0.3	15	26	1	IL	6	16	20	28	29	27	30	27

Allaway Acoustics
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Project Ref: EAT ITALIAN RESTAURANT
Job Ref: 94464/Q1/GE/AS/WT100



RECOAIR RA0.8 (35C) RECIRCULATING VENTILATION UNIT (1:20)

Filters:
F1 – 1 off 24" x 24" x 2"
F2 – 1 off 24" x 24" x 4"
F3 – 1 off 24" x 24" x 12"
F4 – 35 off Carbon Cylinders