



Airflow Design Services Ltd

Specialist Ventilation and Mechanical Contractors.

808 – 810 Tottenham High Street

Mechanical Equipment Schedule



Airflow Design Services Ltd

Specialist Ventilation and Mechanical Contractors.

Mechanical Design

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1.1 - Heat Recovery Units



Unit Ref	Area Served	Manufacturer	Model Number	Flowrate (l/s)	ESP (Pa)	SFP (W/L/S)
MVHR B.01	Basement Gallery	Nuaire	XBC25HA-NNNE-LB1S	250	150	1.4
MVHR B.02	Basement Gallery	Nuaire	XBC25HA-NNNE-LB1S	250	200	1.4
MVHR G.01	Café Entrance	Nuaire	XBC15HA-NNNE-LB1S	150	150	2
MVHR G.02	Café Seating Area	Nuaire	XBC25HA-NNNE-LB1S	250	150	1.4
MVHR G.03	Ground Floor Gallery	Nuaire	XBC25HA-NNNE-LB1S	250	150	1.4

Notes

- All units are controlled by a Nuaire ES-LCD wall mounted controller per unit
- All units come complete with integral electric heater battery
- All units have internal condensate pump
- All units have 230v single phase 50Hz electrical supply
- All units have been sprayed black by the main contractor



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1.2 – Extract fans



Unit Ref	Area Served	Manufacturer	Model Number	Flowrate (l/s)	ESP (Pa)
EF / B.01	Basement W/C	Solar and Palau	TD – 160/100 N Silent	8	75
EF / B.02	Server room	Solar and Palau	TD – 160/100 N Silent	20	75
EF / GF.01	Accessible W/C	Solar and Palau	TD – 160/100 N Silent	8	75
MEV / 1.01	808 1 st floor toilets	Nuaire	MEV-ECO	31	75
MEV / 1.02	810 1 st floor toilet and shower	Nuaire	MEV-ECO	31	75

Notes

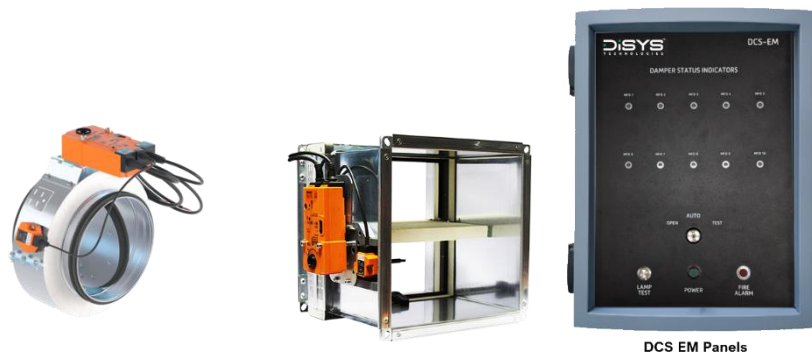
- All units are controlled by a Vent Axia PIR Sensor
- All units have 230v single phase 50Hz electrical supply



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1.3 – Fire damper's



Unit Ref	Area Served	Manufacturer	Model Number	SIZE
MFD – B.01	Basement Gallery	Lindab	WK25 24v	250 x 250
MFD – B.02	Basement Gallery	Lindab	WK25 24v	400 x 550
MFD – B.03	Basement Gallery	Lindab	WK25 24v	400 x 550
MFD – B.04	Basement Gallery	Lindab	WK25 24v	550 x 400
MFD – B.05	Basement Gallery	Lindab	WK25 24v	550 x 400
MFD – B.06	Store room	Lindab	WK25 24v	315 diameter
MFD – B.07	Boiler room	Lindab	WK25 230v	125 diameter
MFD – B.08	Boiler room	Lindab	WK25 230v	150 diameter

Notes

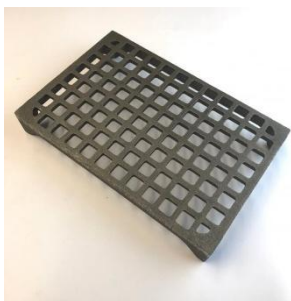
- All dampers are controlled via DiSYS DCSEM24V control panel located in the basement cupboard below the staircase



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1.4 – Louvre's



Unit Ref	System Served	Manufacturer	Model Number	SIZE W x H (mm)
EL .B01	Basement Gallery	JC Vents	OJ	580 x 540
EL .B02	Basement Gallery	JC Vents	OJ	440 x 535
EL .B03	Basement Gallery	JC Vents	OJ	455 x 540
EL .B04	Basement Gallery	JC Vents	OJ	625 x 320
EL .B05	Basement server room extract	JC Vents	OJ	245 x 295
EL .B06	Basement WC extract	Cast Iron Grille company	Max6	225 X 150
EL .B07	Boiler room supply	Cast iron grille company	Max6	225 X 150
EL .B08	Boiler room extract	Cast Iron Grille company	Max6	225 X 150
EL .B09	High level passive gas meter room	Cast iron grille company	Max6	225 X 150
EL .B10	Low level passive gas meter room	Cast iron grille company	Max6	225 X 150

Notes

- All Louves have been powder coated
- All Gilberts louvres have come complete with 40mm flange



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1.5 – Supply Grilles



Grille Ref	System Served	Manufacturer	Model Number	SIZE W x H (mm)	Flowrate (l/s)
SG/B01,02,03,08,08,10 SG/GF04, 05, 06, 07, 08, 09	Heat recovery units for Basement and ground floor Gallery and café seating area	Gilberts	Series C	625 x 125	83 l/s per grille
SG/B04, 05, 06, 07	Basement gallery fan coil unit's	Gilberts	Series C	625 x 125	100 l/s per grille
SG/GF01, 02, 03	Heat recovery café entrance	Gilberts	Series C	625 x 125	50 l/s per grille
EG/B01	Basement server room	Waterloo	VB	100dia	20 l/s
EG/B02	Basement W/C	Waterloo	VB	100dia	8 l/s
EG/G01	Ground floor WC	Waterloo	VB	100dia	8 l/s
EG/1.01, 02, 04, 05	First floor toilets	Waterloo	VB	100dia	8 l/s
EG/1.03	First floor shower room	Waterloo	VB	100dia	15 l/s

Notes

- All waterloo grilles are painted RAL 9010
- All gilberts series C grilles are RAL 9004 signal black complete with opposed blade dampers



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2.1 Cold Water Booster sets



Unit Ref	System Served	Manufacturer	Model Number	Air Gap	Design Head (Bar)	Flow Rate (l/s)	Associated break tank	Location
WTBS/B01	Potable	Duty Point	WX1-3040-490	AF	3.5	0.61	490 litres	Basement plantroom
CAT 5 / B01	CAT 5	Duty Point	Uni Break	AB	2	0.14 – 1.25	100 litres	Basement plantroom

Notes

- Both booster sets come with integral controls



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2.2 Water conditioners



Unit Ref	System Served	Manufacturer	Model Number	Pressure drop	Flow Rate (l/s)	Type
WC/B1/01	Mains cold water	Honeywell	F76S-11/4	1.5	0.65	Fine filter
WC/B1/03	Booster cold water	Hydrotec	HY-MAGDN25	4	0.55	Electromagnetic conditioner

Notes

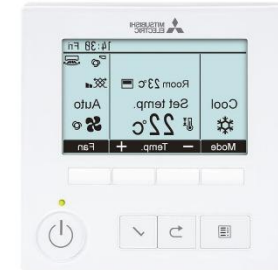
- Both have a 230volt single phase 50hz electrical supply



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3.1 - Air conditioning system



Outdoor unit

Unit Ref	Area Served	Manufacturer	Model Number	Heat / cooling duty KW	Refrigerant	Electrical supply (v/ph/hz)
CU/B01	Basement gallery	Mitsubishi	PUMY SP112VKM2	14 / 9.8	R410A	230/1/50

Indoor unit's

Unit Ref	Area Served	Manufacturer	Model Number	Heat / cooling duty KW	Flowrate (l/s)	Pressure drop
FCU/B1.01 and 02	Basement gallery	Mitsubishi	PEFY-P50VMS1-E	3.7 / 1.4	158	35

Notes

- Both indoor units are controlled via a PAR41MAA Controller located by the door of the basement gallery



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3.2 – Boiler



Unit Ref	Area Served	Manufacturer	Model Number	Water flow rate	Water temp	Flue pressure	Water pressure drop
B/B.01	Whole building	Ideal	Evomax 2 – 80Kw	0.91 kg/s	80 / 60 degrees centigrade	17.5 – 20 mbar	18Kpa

Notes

- Controlled via wall mounted controller located in the ground floor of 808



3.3 - Schedule of radiators

Notes

- All
- All radiators are painted RAL Colour - Little Green Traditional Oil Gloss-Lamp Black (228).
- All radiators sized on maintaining a room temperature of 22 degrees centigrade
- All radiators max working pressure is 3.3 barg
- All radiators sized on water temperature of 80 degrees centigrade flow and 60 degrees centigrade return
- All Radiators are provided with TRV – Belgravia – Antique Brass
- All Radiators are provided with Wall stay – Antique Brass (if and as required to suit)
- All Radiators are provided with Air Vent – Antique Brass
- All Radiators are provided with Pipe & Sleeves - Antique Brass
- All Radiators are provided with Brush End – Standard

Basement

Reference	Make / Model	Required output Kw	Water flow rate (kg/s)	Size
B.01	Paladin Bartholomew	1.199	0.01224	570 x 821 x 174
B.02	Paladin Bartholomew	1.199	0.01224	570 x 821 x 174
B.03	Paladin Bartholomew	1.199	0.01184	570x 821 x174
B.04	Paladin Bartholomew	1.199	0.01184	570x 821 x174
B.05	Paladin Bartholomew	1.525	0.01513	570x 1035 x174
B.06	Paladin Bartholomew	1.525	0.01513	570x 1035 x174
B.07	Paladin Bartholomew	0.872	0.00488	570x 606 x174
B.08	Paladin Bartholomew	0.763	0.00858	570x 535 x174
B.09	Paladin Bartholomew	0.545	0.01039	570x 392 x174



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Ground

Reference	Make / Model	Required output Kw	Water flow rate (kg/s)	Size
GF.01	Paladin Bartholomew	0.763	0.00718	570 x 535 x 174
GF.02	Paladin Bartholomew	0.763	0.00718	570 x 535 x 174
GF.03	Paladin Bartholomew	1.199	0.01077	570x 821 x174
GF.06	Paladin Bartholomew	0.763	0.00658	570x 535 x174
GF.07	Paladin Bartholomew	0.763	0.00648	570x 535 x174
GF.08	Paladin Bartholomew	0.872	0.00778	570x 606 x174
GF.09	Paladin Bartholomew	0.872	0.00778	570x 606 x 174
GF.10	Paladin Bartholomew	1.417	0.01316	570x 964 x174
GF.11	Paladin Bartholomew	4.37	0.04067	570x 2251 x174
GF.12	Paladin Bartholomew	1.974	0.01794	570 x 1035 x 174
GF.13	Paladin Bartholomew	1.974	0.01794	570 x 1035 x 174
GF.14		1.09	0.00957	
GF.15		1.09	0.00957	
GF.16	Paladin Bartholomew	1.199	0.01316	570 x 821 x 174



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First

Reference	Make / Model	Required output Kw	Water flow rate (kg/s)	Size
1.01	Paladin Bartholomew	0.545	0.00419	570 x 392 x 174
1.02	Paladin Bartholomew	0.545	0.00419	570 x 392 x 174
1.03	Paladin Bartholomew	0.545	0.00478	570 x 392 x 174
1.04	Paladin Bartholomew	1.199	0.01077	570 x 821 x 174
1.05	Paladin Bartholomew	1.09	0.00957	570 x 749 x 174
1.06	Paladin Bartholomew	1.09	0.00957	570 x 749 x 174
1.07	Paladin Bartholomew	0.545	0.00443	570 x 392 x 174
1.08	Paladin Bartholomew	0.545	0.00443	570 x 392 x 174
1.09	Paladin Bartholomew	0.545	0.00443	570 x 392 x 174
1.10	Paladin Bartholomew	0.763	0.00646	570 x 535 x 174
1.11	Paladin Bartholomew	0.763	0.00646	570 x 535 x 174
1.12	Paladin Bartholomew	0.763	0.00646	570 x 535 x 174
1.13	Paladin Bartholomew	1.833	0.01675	570 x 740 x 174
1.14	Paladin Bartholomew	0.436	0.00658	570 x 320 x 174
1.15	Paladin Bartholomew	1.199	0.01077	570 x 821 x 174
1.16	Paladin Bartholomew	0.545	0.00478	570 x 392 x 174
1.17	Paladin Bartholomew	0.654	0.00658	570 x 463 x 174
1.18	Paladin Bartholomew	0.654	0.00658	570 x 463 x 174



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Second

Reference	Make / Model	Required output Kw	Water flow rate (kg/s)	Size
2.01	Paladin Bartholomew	0.545	0.00478	570 x 392 x 174
2.02	Paladin Bartholomew	0.545	0.00478	570 x 392 x 174
2.03	Paladin Bartholomew	0.763	0.00718	570 x 535 x 174
2.04	Paladin Bartholomew	1.09	1.01005	570 x 749 x 174
2.05	Paladin Bartholomew	1.09	0.01005	570 x 749 x 174
2.06	Paladin Bartholomew	1.09	0.01005	570 x 749 x 174
2.07	Paladin Bartholomew	0.872	0.00778	570 x 606 x 174
2.08	Paladin Bartholomew	0.872	0.00778	570 x 606 x 174
2.09	Paladin Bartholomew	1.09	0.00957	570 x 749 x 174
2.10	Paladin Bartholomew	1.09	0.00957	570 x 749 x 174
2.11	Paladin Bartholomew	0.872	0.00778	570 x 606 x 174
2.12	Paladin Bartholomew	0.872	0.00778	570 x 606 x 174
2.13	Paladin Bartholomew	1.417	0.01316	570 x 964 x 174
2.14	Paladin Bartholomew	0.436	0.00359	570 x 320 x 174
2.15	Paladin Bartholomew	0.981	0.00837	570 x 678 x 174
2.16	Paladin Bartholomew	0.654	0.00538	570 x 463 x 174
2.16	Paladin Bartholomew	0.654	0.00538	570 x 654 x 174



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Third

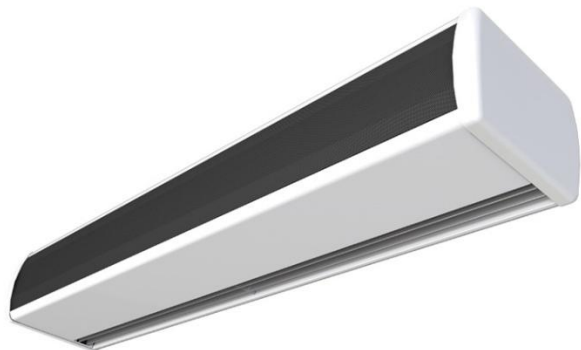
Reference	Make / Model	Required output Kw	Water flow rate (kg/s)	Size
3.01	Paladin Bartholomew	1.199	0.01077	570 x 821 x 174
3.02	Paladin Bartholomew	1.308	0.01196	570 x 892 x 174
3.03	Paladin Bartholomew	1.09	0.01017	570 x 749 x 174
3.04	Paladin Bartholomew	1.09	0.01017	570 x 749 x 174
3.05	Paladin Bartholomew	1.199	0.01077	570 x 821 x 174
3.06	Paladin Bartholomew	1.199	0.01077	570 x 821 x 174
3.07	Paladin Bartholomew	1.308	0.01196	570 x 892 x 174
3.08	Paladin Bartholomew	1.09	0.00957	570 x 749 x 174



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3.4 – Door heaters



Unit Ref	Area Served	Manufacturer	Model Number	Electrical supply v/ph/hz
OH/GF01	Café front entrance	JS air curtains	Mini Optima OPT 1000 E400	400/3/50
OH/GF02	Café rear entrance	JS air curtains	Mini Optima OPT 1000 E400	400/3/50

Notes

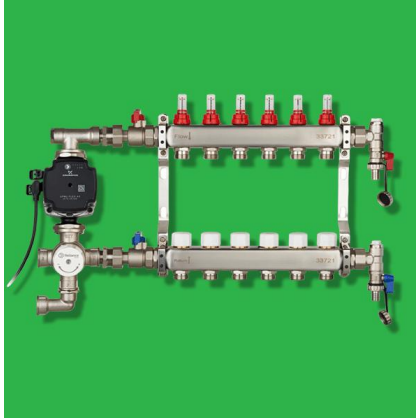
- Units have been sprayed black to match the ceiling
- Controllers are located on the collum behind the coffee counter



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3.5 – Underfloor heating



Unit Ref	Area Served	Zones	Manufacturer and specified contractor	Total required output	Water temp F / R	Primary water flowrate (kg/s)	Zone outputs (W)
UFH/B.01	Basement	Gallery Lobby 1 Lobby 2 WC	WMS UFH Ltd	3.51Kw	80 / 60	0.042	2000 470 700 340
UFH/G.01	Ground	Entrance Gallery	WMS UFH Ltd	1.82Kw	80 / 60	0.022	770 1050

Notes

- Units have a wall mounted thermostat per zone



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5.6 – Calorifier

Unit Ref	System	Primary heating	Capacity				
HWS/B.01	Domestic hot water	Boiler (LTHW)					

Notes

- Units have a wall mounted thermostat per zone