



MECHANICAL EQUIPMENT SCHEDULE

1620002535
Museum of Oxford Hidden Histories

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Revision History

Rev	Date	Purpose/Status	Comments
T01	14/11/2018	TENDER	TENDER ISSUE

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EQUIPMENT SCHEDULE

AIR- CONDITIONING UNITS - PACKAGED SPLIT

Reference	AC.01			
Internal Unit				
Location	B.18 COMMS (IT)			
Unit Type	Wall mounted			
Unit Dimensions w mm x d mm x h mm	811 X 272 X 294			
Sound Pressure Levels dB (Hz 63 to 8K)	57 dB(A) SOUND POWER			
Noise Criteria	-			
Ventilation m3/s high / low / silent	0.185 / 0.100 / 0.073			
Fresh Air Volume (l/s)	-			
Cooling Mode:				
Air On Condition (db/wb(°C))				
Sensible Cooling (kW)	1.7 kW			
Total Cooling (kW)	2.0 kW			
Heating Mode:				
Air On Condition (°C)				
Nominal Heating (kW)	-			
Outdoor Condenser Unit	AC-EX:01			
Location	BASEMENT COURTYARD			
Design Ambient Temperature (°C)	35dB°C			
Maximum Ambient Temperature (°C)	40dB°C			
Unit Dimensions H(mm) x W(mm) x D(mm)	550 x 765 x 285			
Sound Pressure Levels dB (Hz 63 to 8K)	59 dB(A) SOUND POWER			
Refrigerant Type	R32			
Electrical Power Input (kW)				
Running Current (Amps)	2.10 Amps			
Starting Current (Amps)	N/A (MAX FUSE 10A)			
Electrical Supply (V,Ø,HZ)	SINGLE PHASE			
Weight (kg)	32 kg			
Supplier Details				
Manufacturer	DAIKIN			
Indoor Unit Model / Reference	FTXM20M - AC-EX:01			
Outdoor Condenser Unit Model / Reference	RXM20M9 - AC:01			
Controls / Accessories / Notes	LOCAL CONTROLLER			

EQUIPMENT SCHEDULE

FANS - EXTRACT

Reference	EF:B1	EF:B2	EF:G1	EF:G2				
Level	BASEMENT	BASEMENT/GROUND	GROUND	GROUND				
Location	LEARNING SPACE STORE	ADJACENT TO LIFT	ROOFLIGHT	ROOFLIGHT				
System	STORE EXTRACT / SUMMER BOOST	SUMMER EXTRACT / PURGE	SUMMER EXTRACT	SUMMER EXTRACT				
Min Air Volume Flow Rate (l/s)	10 l/s							
Max Air Volume Flow Rate (l/s)	50 l/s	360 l/s	100 l/s	100 l/s				
Static Pressure (Pa)	25 Pa	100 Pa	30 Pa	30 Pa				
Fan Type								
Fan Speed (rpm)		2,705						
Specific Fan Power (W/l/s)	0.4 W/l/s	0.4 W/l/s	0.4 W/l/s	0.4 W/l/s				
Weight (kg)	6 kg	5 kg	6 kg	6 kg				
Number of Fans		0						
Unit Size (mm l x mm w x mm h)	342 X 342 X 158	215 X 245 X 254	342 X 342 X 158	342 X 342 X 158				
Sound Power Level @ 3m - SPHERICAL	32	29	39	39				
Sound Power Level dB re 10 ⁻¹² W	Open Inlet 44 61 50 46 48 47 44 35	Induct Inlet 0 36 47 57 63 66 67 56 Induct Outlet 0 41 57 63 69 69 65 54 Breakout 0 36 35 34 45 44 41 35	Open Inlet 46 63 54 50 55 54 51 42 Open Outlet 45 60 56 51 53 54 49 40	Open Inlet 46 63 54 50 55 54 51 42 Open Outlet 45 60 56 51 53 54 49 40				
(63), 125, 250, 500, 1k, 2k, 4k, 8k Hz	Open Outlet 43 58 52 47 46 47 42 33							
Electrical Details								
Electrical Power Input (W)	0.02 kW	0.16 kW	0.06 kW	0.06 kW				
Running Current (Amps)	0.24 Amps							
Starting Current (Amps)	0.72 Amps							
Electrical Supply (V,Ø,HZ)	230 V 1 Phase 50 Hz	230 V 1 Phase 50 Hz	230 V 1 Phase 50 Hz	230 V 1 Phase 50 Hz				
Type of Starter								
Supplier Details								
Manufacturer	NUAIRE	ELTA	NUAIRE	NUAIRE				
Model Reference	XS9GL	SEL250/2-1AC	XS9GL	XS9GL				
Acoustic Treatment		LINE HEADER DUCT 25 MM OPEN-CELL/MELAMINE FOAM ON TWO PARALLEL EDGES (WIDEST). REFER TO BASEMENT VENTILATION DRAWING						
Accessories								
Controls	SPEED CONTROLLER	SPEED CONTROLLER. LINK TO FA	SPEED CONTROLLER. LINK TO FA	SPEED CONTROLLER				
MCP	N/A	N/A	N/A	N/A				
Notes		INSTALLED ADJACENT TO LIFT. ACCESS REQUIRED. NOT FIRE RATING TO BE MAINTAINED THROUGH PARTITION.	MASTER OF BOTH UNITS. EF:G1 & G2 TO BE RUN BALANCED, CONTROLLED MASTER/SLAVE	SLAVE OF BOTH UNITS. EF:G1 & G2 TO BE RUN BALANCED, CONTROLLED MASTER/SLAVE				

EQUIPMENT SCHEDULE

FANS - AHU / HEAT RECOVERY UNITS

Reference	MVHR:01					
AREA	BASEMENT					
Location	WCs					
System	WC BALLANCED EXTRACT					
Supply Air Volume Flow Rate (l/s)	82 l/s					
Supply Static Pressure (Pa)	90 Pa					
Supply Approx Speed Setting	70%					
Air On Winter (°C db, °C wb)	-4 °C db					
Extract Air Volume Flow Rate (l/s)	82.0 l/s					
Extract Static Pressure (Pa)	90 Pa					
Extract Approx Speed Setting	70%					
Extract Air On Winter (°C db, °C wb)	24 °C db					
Heat Exchanger Type	PLATE					
Approximate Heat Exchanger Efficiency	<90%					
Specific Fan Power (W/l/s)	1.2					
Weight (kg)	69 kg					
Number of Fans						
Unit Size (HeightxWidthxDept mm)	294 X 985 X 1136					
Sound Power Level @ 3m - SPHERICAL	38 dBA					
Sound Power Level dB re 10 ⁻¹² W (63), 125, 250, 500, 1k, 2k, 4k, 8k Hz	Open Inlet 60 57 66 56 47 48 36 31 Open Outlet 55 54 63 54 48 45 35 25 Breakout 64 66 64 58 44 39 30 25					
Electrical Details						
Electrical Power Input (W)	0.10 kW					
Running Current (Amps)	2.00 Amps					
Starting Current (Amps)	2.00 Amps					
Electrical Supply (V,Ø,HZ)	230, 1, 50					
Type of Starter	INVERTER					
Mechanical Details						
Heater type	N/A					
Air Off Winter (°C db, °C wb)	-					
Coil Kw (max)	-					
Coil l/s (20dT) (MAX)	-					
Filters	G3 (SUPPLIED)					
Supplier Details						
Manufacturer	NUAIRE					
Model Reference	UNI-X580					
Acoustic Treatment						
Acoustic Treatment	N/A					
Accessories	DRAIN CONNECTION & WATERLESS TRAP. 3-SPEED CONTROL					
Controls	LOCAL ONLY. LINK TO FA					
MCP	N/A					
Notes	INSTALLED IN CV. ACCESS REQUIRED					



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GRILLES - SUPPLY

Ref		Air Volume (l/s)		Type	Size mmØ or mm x mm	Plenum Box		Connection Size to Grille mmØ or mm (h) x mm (w)	Noise Criteria (NR)	Pressure Drop (Pa)	Throw to 0.25m/s m	Finish	Fixing	Manufacturer	Model	Notes
		Min	Max			Size l x h x d	Conn. Size									
SG:B1	REFRESHMENTS	40 l/s	-	CIRCULAR - HORIZONTAL RADIAL	250Ø		-	150 mmØ		15 Pa				TROX	ADLR	
SG:B2	REFRESHMENTS	40 l/s	-	CIRCULAR - HORIZONTAL RADIAL	250Ø		-	150 mmØ		15 Pa				TROX	ADLR	

- Notes:
1. The contractor **must** confirm the size of all linear grilles from on site dims prior to ordering

2. Volume flow rates shown on Ventilation Schematic

3. All flexible ductwork to be installed fully extended at 500mm max

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EQUIPMENT SCHEDULE

GRILLES - TRANSFER AIR

[illegible]

Notes:

1. The contractor **must** confirm the size of all linear grilles from on site dims prior to ordering
2. Volume flow rates shown on Ventilation Schematic
3. All flexible ductwork to be installed fully extended at 500mm max



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EQUIPMENT SCHEDULE

GRILLES - EXTRACT AIR 1 OF 2

Ref		Air Volume (l/s)		Type	Size			Connection Size to Grille mmØ or mm (h) x mm (w)	Noise Criteria (NR)	Pressure Drop (Pa)	Finish	Fixing	Manufacturer	Model	Notes
		Min	Max		mmØ or mm x mm	Size l x h x d	Conn. Size								
TEG:B1	WC	17.5 l/s		VALVE GRILLE	125 mmØ			125 mmØ		15 Pa			TROX	LVS/125/0	
TEG:B2	WC	17.5 l/s		VALVE GRILLE	125.0 l/s			125.0 l/s		15 Pa			TROX	LVS/125/0	
TEG:B3	BABY CHANGE	12.5 l/s		VALVE GRILLE	100 mmØ			100 mmØ		15 Pa			TROX	LVS/100/0	
EG:B4	COMMS	15 l/s		VALVE GRILLE	125 mmØ			125 mmØ		15 Pa			TROX	LVS/125/0	
EG:B5	STAFF KITCHEN	20 l/s		VALVE GRILLE	125 mmØ			125 mmØ		15 Pa			TROX	LVS/125/0	
EG:B6	MAKERS WORKSHOP		90 l/s	SIDEWALL - DUCT MOUNTED	325 x 125			325 x 125		<15			TROX	AE-AG	
EG:B7	MAKERS WORKSHOP		90 l/s	SIDEWALL - DUCT MOUNTED	325 x 125			325 x 125		<15			TROX	AE-AG	
EG:B8	MAKERS WORKSHOP		90 l/s	SIDEWALL - DUCT MOUNTED	325 x 125			325 x 125		<15			TROX	AE-AG	
EG:B9	MAKERS WORKSHOP		90 l/s	SIDEWALL - DUCT MOUNTED	325 x 125			325 x 125		<15			TROX	AE-AG	

Notes:

1. The contractor **must** confirm the size of all linear grilles from on site dims prior to ordering
2. Volume flow rates shown on Ventilation Schematic
3. All flexible ductwork to be installed fully extended at 500mm max

EQUIPMENT SCHEDULE

GRILLES - EXTERNAL LOUVRES

Ref	EL:FA1	EL:EA1	-	EL:EA2				
Location	BASEMENT WCs	BASEMENT WCs		GROUND FLOOR				
System	MVHR:01 FRESH AIR	MVHR:01 EXHAUST AIR		MAKERS WORKSHOP EXHAUST				
Max Air Volume Flow Rate (l/s)	82 l/s	82 l/s		360 l/s				
Pressure Drop (Pa)	<10 Pa	<10 Pa		30 Pa				
Min Free Area (m²) (at 2.0m/s Face Vel.)	0.041 m²	0.041 m²		0.180 m²				
Sound Pressure Level (dB(A))								
Width (mm)	300 mm	300 mm		600 mm				
Height (mm)	300 mm	300 mm		330 mm				
Duct connection (mmø / mm (w) x mm(h))	150Ø	150Ø						
Manufacturer/Model				TROX WG-AL				
Fire Damper	N/A	N/A						
Notes	WEATHERPROOF, WITH INSECT SCREEN	WEATHERPROOF, WITH INSECT SCREEN		WEATHERPROOF, WITH INSECT SCREEN				

Ref	EXISTING NATURAL VENT LOUVRES; EL:NV					
Location	BASEMENT & GROUND FLOOR					
System	LL FRESH AIR INLETS					
Max Air Volume Flow Rate (l/s)	-					
Pressure Drop (Pa)	-					
Min Free Area (m²) (at 2.0m/s Face Vel.)	-					
Sound Pressure Level (dB(A))	-					
Width (mm)	VAR					
Height (mm)	VAR					
Duct connection (mmø / mm (w) x mm(h))	VAR					
Manufacturer/Model	N/A					
Fire Damper	N/A					
Notes	ALL EXISTING VENTILATION OPENINGS TO FCs TO BE CLEANED & SET TO WORK. ALL EXISTING OPENING WINDOWS TO BE SERVICED & SET TO WORK.					

- Notes:
1. Plenums onto Louvres to be co-ordinated on site to allow for transition from ducts as shown on drawings

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EQUIPMENT SCHEDULEHEAT EMITTERS

Ref	Current Location	Proposed Location	Emmitter Length (mm)	Emmitter Height (mm)	Depth (mm)	Stated Output (W)	Conn. Size (mmØ)		Valves	Manufacturer	Model	Notes
EXR:B5	STAFF OFFICE(COMMS)	STAFF OFFICE	610 mm	610 mm			15 mmØ		NEW LSV, TRV & IVs			CUT BACK PIPEWORK & SEAL.
EXR:B6	LOBBY (RETAIN IN POSITION)		1,300 mm	762 mm	-	-	22 mmØ					
EXR:B7	WC LOBBY	WC LOBBY	680 mm	762 mm			15 mmØ		NEW LSV, TRV & IVs			CUT BACK PIPEWORK & INSTALL NEW TO B5 & B7.
EXR:B8	L.S. CORRIDOR (RETAIN IN POSITION)		740 mm	914 mm	-	-	15 mmØ					
EXR:B9	STORE (LIFT)	REFRESHMENTS	400 mm	610 mm			15 mmØ		NEW LSV, TRV & IVs			CUT BACK ALL PIPEWORK IN LIFT/STORE.
EXR:G27	WELCOME & RETAIL (RETAIN IN POSITION)		?	?	-	-	15 mmØ					
EXR:G56	LOBBY (RETAIN IN POSITION)		?	?	-	-	15 mmØ					
EXR:G57	ENTRANCE LOBBY (RETAIN IN POSITION)		?	?	-	-	15 mmØ					
EXR:G58	ENTRANCE LOBBY (RETAIN IN POSITION)		?	?	-	-	15 mmØ					
EXR:G59	STORE (LIFT)	L.S. (BASEMENT)	400 mm*	610 mm*			15 mmØ		NEW LSV, TRV & IVs			CUT BACK ALL PIPEWORK IN LIFT/STORE.
Ref	Current Location	Proposed Location	Case Length (mm)	Case Height (mm)	Depth (mm)	Estimated Output (W)	Conn. Size (mmØ)	Electrical Power (W)	Valves	Manufacturer	Model	Notes
				Outputs below stated on Medium speed, 80/70, 15° air on								
FC:B1	-	MAKERS WORKSHOP	700 mm	600 mm	250 mm	5,000	22 mmØ	27 (3A FUSE MAX)	NEW IVs	SPC	BEL 40 (32kg)	
FC:B2	-	MAKERS WORKSHOP	1,500 mm	600 mm	250 mm	14,600	22 mmØ	80 (3A FUSE MAX)	NEW IVs	SPC	BEL 150 (57kg)	
FC:B3	-	LEARNING SPACE	700 mm	600 mm	250 mm	5,000	22 mmØ	27 (3A FUSE MAX)	NEW IVs	SPC	BEL 40 (32kg)	
EXFC:G1	GALLERY 1 (RETAIN IN POSITION)		1,500 mm	600 mm	250 mm	14,600	22 mmØ	80 (3A FUSE MAX)	-	SPC	BEL 150 (57kg) *	
EXFC:G2	GALLERY 1 (RETAIN IN POSITION)		1,500 mm	600 mm	250 mm	14,600	22 mmØ	80 (3A FUSE MAX)	-	SPC	BEL 150 (57kg) *	
EXFC:G3	OFFICE (OUT OF SCOPE)		-	-	-	5,000 *	22 mmØ	-	-	?	?	FOR INFORMATION ONLY
FC:G4	-	GALLERY 2	700 mm	600 mm	250 mm	5,000	22 mmØ	27 (3A FUSE MAX)	NEW IVs	SPC	BEL 40 (32kg)	
FC:G5	-	GALLERY 2	700 mm	600 mm	250 mm	5,000	22 mmØ	27 (3A FUSE MAX)	NEW IVs	SPC	BEL 40 (32kg)	
				Outputs below stated on Normal speed 80/70/20								
EXPH:G1	WELCOME & RETAIL	WELCOME & RETAIL	603 mm	101 mm	309 mm	1,707	15 mmØ	40 (3A FUSE MAX)	NEW IVs	MYSON	KICKSPACE 800 *	
EXPH:G2	WELCOME & RETAIL	WELCOME & RETAIL	603 mm	101 mm	309 mm	1,707	15 mmØ	40 (3A FUSE MAX)	NEW IVs	MYSON	KICKSPACE 800 *	
EXPH:G3	GALLERY 1	GALLERY 1	603 mm	101 mm	309 mm	1,707	15 mmØ	40 (3A FUSE MAX)	NEW IVs	MYSON	KICKSPACE 800 *	RECONNECT IN NEW POSTION TO SUIT EXHIBITION LAYOUT
EXPH:G4	GALLERY 1	GALLERY 1	603 mm	101 mm	309 mm	1,707	15 mmØ	40 (3A FUSE MAX)	NEW IVs	MYSON	KICKSPACE 800 *	

Notes:

* DENOTES ASSUMED, DUE TO LACK OF RECORD INFORMATION
THE CONTRACTOR SHALL ALLOW FOR ISOLATING & DRAINING OF THE SYSTEMS & REBALLANCING WHERE REQUIRED
EX...' DENOTES EXISTING, '...:G' DENOTES GROUND, '...B' DENOTES BASEMENT

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ELECTRIC WATER HEATERS, BOILERS & SHOWER

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