

Job Title:	Macdonald Buchanan House Sports Institute			Job Number:	218598-01
Job Stage:	Contract	Status:	Contract Issue	Made by:	JP
Revision:	C1	Date:	22/10/2012	Checked by:	MA
Revision Description:					

Specification Type Reference	AHU-03					
Type	Supply	Extract				
Quantity	1	1				
Air Flow Rate	m ³ /s	1.3	1.3			
Unit External Resistance	Pa	200	200			

Construction Data

Cladding	50mm double-skin infil panels				
Air Leakage Class (DW144)	Class A				
Inner Panel Material	Corrosion resistant steel				
Outer Panel Material	Corrosion resistant steel				

Overall Data

Overall Length	mm	3900			
Overall Width	mm	1400			
Overall Height	mm	1500			

Performance Data

Filter Section

Filter Type	Panel/Bag	Panel			
Filter Group & Class	G4/F7	G4			

DX Coil

Total Coil Cooling Capacity	kW	10			
Entering Air Temperature	°C	28			
Leaving Air Temperature	°C	22			
Total Coil Heating Capacity	kW	20			
Entering Air Temperature	°C	8			
Leaving Air Temperature	°C	18			
Max Evaporating temperature	°C	4 to 8			
Min condensing temperature	°C	60			
Liquid pipe size	In				
Gas pipe size	In				
Refrigerant type		R410A			

Plate Heat Exchanger

Air on summer	°C	30			
Air on winter	°C	-4			
Return air temp summer	°C	25			
Return air temp winter	°C	22			
Heat exchanger material		note 1			
Minimum Efficiency	%	60			
Summer by-pass		No			

Fan

		Supply	Extract			
Fan Type		Centrifugal	Centrifugal			
Speed Control		Variable	Variable			
Drive Type		Inverter	Inverter			
Total Fan Pressure	Pa					
Fan Speed						
Electrical Supply	V/Ø/Hz	415/3/50	415/3/50			
Fan Efficiency	%					
Total Efficiency	%					
Absorbed Power	kW					
Motor Rating	kW	1.5	1.1			
Motor Speed	rpm	1430	1420			
Starting Method						
Starting Current	A	3.3	2.5			
Full Load Running Current	A	3.3	2.5			

Job Title:	Macdonald Buchanan House Sports Institute			Job Number:	218598-01
Job Stage:	Contract	Status:	Contract Issue	Made by:	JP
Revision:	C1	Date:	22/10/2012	Checked by:	MA
Revision Description:					

Noise & Vibration Data

		Supply	Extract					
Inlet	63 Hz	62	54					
	125 Hz	64	55					
	In Duct	250 Hz	78	69				
	Sound Power Level	500 Hz	71	62				
		Lw dB	1 kHz	70	61			
		2 kHz	67	57				
		4 kHz	62	52				
		8 kHz	62	52				

Discharge	63 Hz	53	59					
	125 Hz	56	64					
	In Duct	250 Hz	66	74				
	Sound Power Level	500 Hz	64	73				
		Lw dB	1 kHz	63	72			
		2 kHz	58	69				
		4 kHz	52	64				
		8 kHz	50	62				

Casing Radiated	63 Hz	53	53					
	125 Hz	55	55					
	250 Hz	62	62					
	Sound Power Level	500 Hz	46	46				
		Lw dB	1 kHz	41	41			
		2 kHz	45	45				
		4 kHz	39	39				
		8 kHz	30	30				

Anti-Vibration Mountings

Fan Anti Vibration Mount (AVM) Type	Yes	Yes				
-------------------------------------	-----	-----	--	--	--	--

Particular Data

Accessories

	Required	Offered	Required	Offered	Required	Offered
Weatherproof Construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Glazed Viewing Ports in Access Doors	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bulkhead Luminaires in Access Sections	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Magnahelic Pressure Gauges on Filters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Photohelic Pressure Gauges on Filters	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Manometers on Filters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Motors Wired to External Isolators	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fan Motor Located Out of Airstream	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access Door Security Locks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Testing

Performance Type Tests	<input checked="" type="checkbox"/>
Works Performance Tests	<input type="checkbox"/>

Works Performance Tests

Noise Performance Tests	<input checked="" type="checkbox"/>	Duty Performance Tests	<input type="checkbox"/>
Pressure & Leakage Performance Tests	<input checked="" type="checkbox"/>		
	<input type="checkbox"/>		

Additional Information

Manufacturer

Selection Based	Alternative	Alternative
Flaktwoods	Systemair	Moducel