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Date: **05-03-2020**

Our Ref: **15909**

Revision **0**

Estimator C Barrington - 01274 987830

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Complete Pipework Services Ltd
Unit 28 Shortwood Business Park
Shortwood Way
Hoyland
Barnsley
South Yorkshire S74 9LH

For the attention of: Geoff Walker

Project name: AHU Pressure Drops

Thank you for the opportunity to provide you with a proposal for air handling equipment and please find enclosed our quotation complete with technical specification and sketch drawing.

Your units have been specifically selected to maximise operational performance, energy efficiency and reliability.

As one of the UK's leading manufacturers of air handling equipment for the last 150 years, you can rely on us to deliver a complete solution with uncompromising quality.

We trust that our quotation meets with your approval and should you require any further assistance or clarification please do not hesitate to contact myself direct.

For and on behalf of Mansfield Pollard & Co. Ltd

We would raise your awareness that the unit is not compliant with HTM in the following areas:

- The AHU should be arranged so that most items are under positive pressure. Any item of plant requiring a drain should be on the positive pressure side of the fans. Currently the fan positions place the drain trays in the PHE section under negative pressure.
- The plant and distribution system must not contain any material or substance that could cause or support combustion. It should be noted that : the droplet eliminator blades fitted to the cooling coil are PPTV, the standard dampers offered are fitted with polypropylene gear mechanism and TPE-V+PP blade seals, inspection windows offered are constructed from acrylic sheet with EPDM seals and the lighting cabling offered is wired in SY cabling with bulkhead light fixings of a clear prismatic diffuser and plastic base. All of these items are standard fitted items for a HTM AHU manufacturer but do not comply with HTM.
- Batteries that are significantly wider than 1m should be split to permit withdrawal from both sides.

Units selected with duty direct drive plug fans with thermistors fitted. Door guards fitted to the fan assemblies.

Motors are of the high efficiency IE2 type wired to an external isolator switch included on each fan set. Motors have been selected taking dirty filter conditions into account. Motors are suitable for frequency inverter control by others (not applicable to EC fans).

We have provided an additional cost for spare motors as an optional extra cost.

To be in accordance with HTM 03-01 clause 3.43, the units have been quoted to have a maximum face velocity of 2.0m/s for all coils. Coil details as technical data sheets.

Heating coils selected from copper tubes with copper fins. Frost coils selected as bare tubed. Cooling selected from copper tubes with polyester coated aluminimum fins.

LPHW coils casework constructed from pre-galvanised steel. Cooling coils casework constructed from 304 grade stainless steel and fitted with a removable moisture eliminator section on each coil.

Plate heat exchanger selected to achieve the minimum efficiency of 73% as required by EU directive 2009/125/EC Eco-design and fitted with a face and bypass damper for motorised control by others.

Plate heat exchanger, and cooling coil, sections include for white laminate internal panels. 304 stainless steel drain trays quoted are removable or fixed and fully accessible for cleaning in situ.

Dampers selected as opposed blade manufactured from aluminium. Atmospheric-side dampers suitable for motorisation by others. Room-side dampers suitable for a manual operation.

Filtration included as per attached data sheet. Minihelic pressure gauges would be fitted across each filter section. We have provided a cost for spare filters as an additional cost option.

All access will be from one side of the unit. Access sections include for a double-glazed viewing window with a bulkhead light. Internal lights quoted are our standard fitting IP65 bulkhead lights with polycarbonate cases suitable for internal maintenance.

Costs given for spare filters and fan motors/fan/motor assemblies assumed ordered with the units. These would be supplied loose to be fitted on-site by others when required.

All AHU controls, control valves, actuators, sensors, differential pressure switches, etc., to be included for within the CONTROLS SPECIALIST package (by others).

We have not included for any attenuation/acoustic equipment, condensing units, external pipework or traps, coil drain/vent connections, run around coil pump packs, testing or commissioning. Anything not specifically referred to within this quotation has been excluded.

This quotation is subject to our standard terms and conditions and excludes VAT which shall be charged extra at the rate ruling at date of invoice.
Unless otherwise stated the quoted units shall be of our standard construction and submittal of this quotation does not imply full compliance with the specification. All technical and physical data within this quotation should be considered as provisional and may be subject to change when working drawings are produced.
Copies of our standard terms and conditions or standard construction are available on request.
We have not included for any equipment or services unless they are specifically noted within this quotation.

Commissioning:
Commissioning when quoted includes a site visit for the purpose of placing a specific component of the AHU into operation and will only be carried out at the request of the customer. All service connections and system airflow balancing must be completed by others prior to the arrival of our personnel on site. Safe and adequate access is required and must be in accordance with prevailing codes of practice and legislation. Any additional site visits required due to incomplete services or inadequate or unsafe access will be charged extra.

Delivery:
Unless otherwise stated costs are based on delivery to site during normal working hours, utilising our standard transport with no facility for offloading of equipment. Offloading and positioning of our equipment is excluded from this quotation. Please note that costs allow for a maximum of 2 hours standing time on site. Failure to offload within this period will result in additional charges being levied. Please advise us of any specific requirements due to access site restrictions prior to order as these may involve additional costs.

Payment Terms:

Subject to approved account facility, payment shall be strictly 30 days from date of invoice unless otherwise agreed in writing. In the event of delivery being delayed beyond the date agreed at time of drawing approval, we reserve the right to invoice at that time, the value in full of such goods affected. The goods will be placed into storage and indemnified in the name of the owner. Storage charges will be levied at the rate 1.5% of the goods value per week or part thereof. These charges will be advised prior to delivery and their acceptance agreed in writing before release of the affected goods.

Terms & Conditions

1 GENERAL. Unless arranged in writing, acceptance of this tender includes the following terms and conditions which will override any terms or conditions stipulated, incorporated or referred to by the buyer and except as herein provided, all guarantees, warranties, conditions or terms are excluded.

2 VALIDITY. Unless previously withdrawn the tender is valid for 30 days after which it is subject to confirmation or amendment and subject to approval of credit facilities by the seller.

3 DRAWINGS. All specifications, drawings, dimensions and weights in tenders are approximate only and descriptions, illustrations, prices and other matters in catalogue and literature are subject to alteration without notice according changes and improvements in design.

4 PRICE VARIATION. Quotations are based on current costs at the time of the tender the uncertainties of future costs of manufacture compel as to accept orders only on condition that goods are paid for at the current rates at the date of despatch unless fixed on price basis.

5 INSPECTION. All required inspections of goods not delivered to site will take place at our works. Inspection of delivered goods should be signed for immediately as an acceptance of received goods. Deviation of quantity, type, dimensional variation, damage and Such-She should be communicated to the seller within 3 days of receipt, otherwise the seller will not necessarily accept responsibility.

6 DELIVERY. Estimated periods for manufacture based on works loading at the time of tender will be effective from receipt of order with full details enabling us to put all works in hand. Time lost by delay in providing such details will be added to the original period. If the work is delayed by reasons beyond our control or modifications made by the buyer or his agents, we shall be entitled to an extension of the time stipulated for completion of work.

Valid reasons for extensions shall include (but not limit to) strikes, lock-out, transport delays outside our control, Acts of God and political action affecting either our own work or that of the sub-contractors. Delay In despatch does not give the buyer the right to cancel the order nor will we be Sable for resulting loss or damage.

We shall not be liable for any penalty for late delivery nor for any payment of liquidated damages unless our agreement to the payment and amount of such penalty or damages shall have been given previously in writing.

The seller reserves the right to deliver- goods by instalments and where delivery is made this way each delivery shall constitute a separate contract. Failure by the Seller to deliver any one delivery will not give the Buyer the right to cancel the order or any remaining part of the contract still to be delivered.

7 STORAGE. Any delivery will be delayed to meet Buyers wishes, where possible without charges, but the Seller will be entitled to recover storage charges from the Buyer for goods which are retained at the Buyer's request The Seller reserves the right to Invoice the goods so stored.

8 LOSS OR DAMAGE IN TRANSIT. The Seller will replace or repair free of charge goods damaged in transit providing the Seller and Carriers are notified within three days. The Seller accepts no liability for damage incurred during unloading of delivery vehicles which will be the responsibility of the Buyer.

9 ERECTION. Unless otherwise arranged tenders, which include erection cover only for work carried out during normal working hours of our men. The Buyer will indemnify and keep us indemnified always in respect of damages to material or property caused by his employees or sub-contractors in the execution of the work and in respect of the death or injury to third parties caused by any act or negligence of such employees in the execution of the contract.

10 CANCELLATION. Where cancellation of an order or part of an order is made, a charge assessed on costs incurred will be made.

11 RISK IN PROPERTY. All title so property and goods supplied by the Seller shall not pass to the Buyer until all goods have been paid for in full. Risk in respect of goods supplied shall pass upon delivery. Delivery shall be deemed to have taken place by Seller's transport the moment the goods are lifted from the delivery vehicle.

When goods are delivered by other transport delivery shall be deemed to take place when goods are loaded onto such other vehicle.

11a The buyer may sell such goods in the ordinary course of its business if the proceeds of sale shall belong to the seller to whom the Buyer shall account on demand. The Seller reserves the right in its absolute discretion at any time to revoke the Buyers power of sale forthwith by notice in writing and shall thereupon be entitled to enter any premises for the purpose of removing its goods.

12 CARRIAGE. Carriage will be charged as appropriate to the circumstances or otherwise agreed.

13 TERMS OF PAYMENT. The contract price shall be the total price of goods supplied without tax or other additions which may be imposed by government or other agencies from time to time.

13a. Payment of approved accounts shall be 30 days nett. From data of invoice.

13b. Payment by interim monthly claims may be made on extended contracts.

13c. Payment may be by prior arrangement.

13d. The Seller shall be entitled to withhold delivery of goods until monies due are paid in full.

13e. Interest at the rate of 3% above maximum basic lending rate shall be payable by the Buyer in respect of all overdue accounts.

14 DEFECTS. The Buyer shall not be entitled to withhold payment of any sums due to the Seller by reason of any disputed claim of the Buyers for defective or not as ordered goods or alleged breach of contract by the Seller and shall not form the subject of any claim for injury, loss, damage, work done or any expense howsoever incurred whether rising directly or indirectly from such alleged defects.

15 GUARANTEE. We guarantee to make good by repair or renewal at our option any part of equipment made by as which fails by defect in material or workmanship in a period terminating 12 months from the date of despatch from our works. The guarantee does not apply to failures caused by wear and tear, corrosion, erosion, damaged caused by carelessness, incompetence or improper use in operation of the plant, or faulty erection unless supervised by our own staff.

1. Defects in equipment not of our manufacture are subject only to the respective maker's guarantees.
2. Our liability under this clause shall be in lieu of any warranty or condition implied by laws as to the quality or fitness of the goods for any particular purpose.
3. The cost of manufacture and installation relating to defective goods replaced under maker's guarantee will be charged at cost.
4. To effect such repairs under guarantee, reasonable accessibility not entailing extraordinary cost or procedures, must be available and in any event not exceeding three times the cost of the contract.
5. The Seller's will not be responsible for the repair of defects where, through lack of forethought, design, or accident, such repairs or the replacement of goods, is deemed impractical because of extraordinary cost of procedures.
6. Where a replacement is deemed required (at our discretion) for defective goods of a supply-only nature i.e. delivered only or ex-works, goods not entailing the company's involvement in application, installation or incorporation, the Company will replace only the said goods in the same manner as originally supplied, and will bear no responsibility for the removal or extraction of the faulty goods in-situ, nor for the installation or incorporation of the replacement item or items.
7. All the claims (including claims for consequential loss but excluding claims for death or personal injury) relating to any express or implied warranties as to merchantable quality or fitness for purpose shall be excluded.

16 SELLERS RESPONSIBILITIES.

Save as provided above.

(I). The sellers are not responsible for any death or injury caused to any person arising from any defect in the goods save in so far as such death or injury results from negligence on the sellers Farces defined in The Unfair Contract Terms Act 1977 and

(ii),The sellers are not responsible for any direct loss or damage to any property of the Buyer or any subsequent owner or user of the goods arising from any defects in the goods or failure of the goods caused by the ordinary wear and tear, corrosion or erosion, negligence, carelessness, incompetence, improper use or faulty erection or installation of the Buyer, his servants or agents, malicious damage, overloading, neglected lubrication, fire, flood, explosion, or damage in transfer (when delivery is not made by the sellers own transport), mechanical, electrolytic, galvanic or other destructive action (unless it is specifically mentions in the Sellers tender), or in any other case where such loss or damage has been caused by negligence on the Sellers parses defined in The Unfair Contact Terms Act 1977 and

(III) The Sellers are not responsible for any loss of profit or other indirect or consequential loss or damage arising from any defect in or failure of the goods, which the Sellers could not have reasonably foreseen and which the Buyer has not specifically drawn to the attention of the Sellers prior to the Buyers acceptance of the Sellers tender and

(iv)The Sellers are not responsible for ensuring that the goods are suitable for the purpose required by the Buyer unless agreed in writing between the parties that the Sellers are responsible for selection and

(v) The sellers are not responsible for ensuring that the goods are suitable or fitted in accordance with local bye-laws or other regulations which shall be the sole responsibility of the buyer and

(vi)All terms, conditions and warranties, expressed, implied, statutory, collateral or otherwise relating in any way to the description, state, quality or condition of the goods, their fitness for any purpose of their correspondence with sample or description are hereby negative, excluded and extinguished.

(vii) If the Contract provides for testing and/or commissioning on site, and if the Buyer erects, installs or otherwise provides services necessary for the Goods' effective working, the Buyer shall notify the Seller In reasonable time (at least one week) that the Goods are ready for testing to enable the Seller to plan for attendance on site. Should the test tailor the result of the test not come within the margin specified, as part of the Sellers responsibilities (not as a result of the Buyer or his agent(s) failure to

provide correct enabling works) the Seller will make the appropriate alterations under the terms of the contract to ensure a successful outcome. The Seller will not be responsible for the consequential costs.

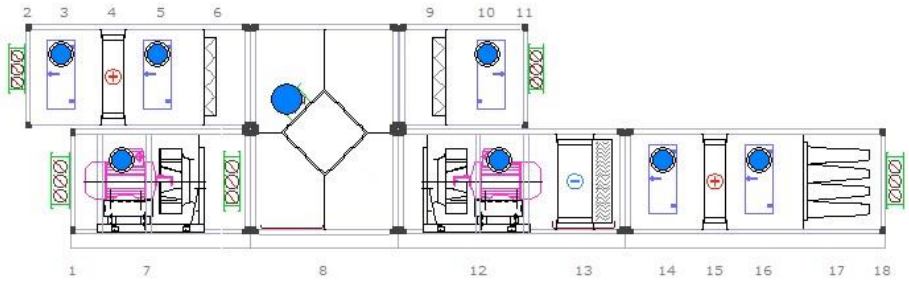
TERMINATION OF CONTRACT. Without prejudice to any of its other rights the Seller may terminate the Contract or suspend further deliveries to the Buyer in the event of the Buyer falling to make due payment for any distress, execution or other legal process shall be levied upon the Buyer or if the Buyer becomes insolvent or being a body corporate has passed a resolution for voluntary winding-up or is subject to a winding-up Order of the Court or has had a Receiver appointed. In the event of the Buyer being an individual or a firm becoming Insolvent or having a receiving order made against him or being a limited company having a receiver appointer or going into liquidation (other than for the purpose of reconstruction or amalgamation wish a solvent company) the contract shall forthwith determine without prejudice to the Sellers right to payment of the price of delivered goods and any damage it might suffer in consequence of determination and of its rights under condition II and lie hereof.

Date	**05-03-2020**
Project reference	**15909**
Revision	**0**
Air handling units	**AHU01**
Customer	**Complete Pipework Services Ltd**
Project	**AHU Pressure Drops**

For the attention of **Geoff Walker**

UNIT TYPE: MP60W.10

SUPPLY AIR FLOW	m³/s	**3.011** SUPPLY EXTERNAL STATIC PRESSURE Pa	**210**
RETURN AIR FLOW	m³/s	**2.926** RETURN EXTERNAL STATIC PRESSURE Pa	**282**
SPECIFIC FAN POWER, VALIDATION	w/l/s	**1.64** CLASS SFPV,VALIDATION	**SFP4**



Width **2297 mm** **Height** **2294 + mm**
Length **7243 mm**

AHU's dimensions, weight and divisions are approximate and will be confirmed on manufacturing drawing

STRUCTURAL FEATURES

Profile thickness	**60 mm**	Panels thickness	**50 mm**
Insulation	**Mineral wool 60kg/m3**	Panel internal side	**Galvanised steel 0.9 mm**

Internal structure	**Galvanised steel**	Panel external side	**Plastisol - goosewing grey 0.9 mm**
Without roof			
Hospital base 300 mm			

PANELS ACOUSTIC ATTENUATION - FREQUENCY ANALYSIS								
F [Hz]	63	125	250	500	1000	2000	4000	8000
[dB]	18	18	35	41	45	44	40	40

MECHANICAL PROPERTIES				
	Casing Strength	Air Leakage	Thermal Transmittance	Thermal Brinding
25mm Model Box	**D3**	**L2**	**T3**	**TB3**
50mm Model Box	**D2**	**L2**	**T2**	**TB3**

2	**DAMPER SECTION**
Regulation damper aluminium aerofoil with a sealing gasket L1900xH900. Air flow 3.011 m³/s.	

3	**INSPECTION SECTION**
Inspection section	
With viewport	
Light wired	

4	**HEATING COIL**				
AIR SIDE DATA			FLUID SIDE DATA		
Air flow	3.011	m³/s	Water		
Entering temperature	-5	°C	Entering temperature	80	°C
Leaving temperature	5	°C	Leaving temperature	60	°C
Capacity	**36.55**	**kW**	Fluid flow rate	0.4460	l/s
Air pressure drop	5	Pa	Pressure drop	19	kPa
Air velocity	1.67	m/s			

ADDITIONAL INFORMATION:	
Coil Frame	Pre-galvanised sheet steel
Tubes	5/8” o.d. tube copper
Fins	None
Bare Tube	

5	INSPECTION SECTION
Inspection section With viewport Light wired	

6	SYNTHETIC/METALLIC FILTER
Panel filter, pleated synthetic type, efficiency Course 65% (G4) Clean filter pressure drop 21 Pa Calculated filter pressure drop 150 Pa Dirty filter pressure drop 150 Pa	
ADDITIONAL INFORMATION:	
With minihelic gauge **Galvanised steel front withdrawal filter frame**	

1	DAMPER SECTION
Regulation damper aluminium aerofoil with a sealing gasket L1900xH900. Air flow 2.926 m³/s.	

7	RETURN FAN			
FAN			MOTOR	
Fan type	Double fan - Plug fan		Installed power	IE2 112MT 2x4 kW
Air flow	**2.926**	**m³/s**	Source	400/3/50 V/ph/Hz
External static pressure	**282**	**Pa**	Poles	4
Internal pressure drops of AHU	313	Pa	Insulation Class	F
Total pressure	695	Pa	Protection	IP 55
Total static pressure	595	Pa	Freq. at the operation point of the fan	63 Hz
Dynamic pressure	100	Pa	Maximum frequency of inverte	72 Hz
Number of revolutions	1825	rpm	Nominal current	8.30 A
Absorbed power	2x2.7	kW		
Sound power level	84.5	dB(A)		

Octave bands sound power level (dB)								
F [Hz]	63	125	250	500	1000	2000	4000	8000
Supply [dB]	76	77	91	89	88	82	80	80
Inlet [dB]	71	73	85	81	77	77	75	78

ADDITIONAL INFORMATION:
With viewport
Light wired
Motor Electrical Isolator
Spring AV
Fan intake mesh guard
PTC motor thermistor
Door Guard Fitted
Non return double damper in aluminium aerofoil with a sealing gasket 435x435. Air flow 2.926 m³/s.

8	PLATE HEAT EXCHANGER			
External air flow	**3.011**	**m³/s**	**Exhaust air flow**	**2.926** **m³/s**
External air temperature in	5	°C	Exhaust air temperature in	21 °C

External relative humidity in	80	%	Exhaust relative humidity in	50	%
External air temperature out	17.5	°C	Exhaust air temperature out	9.2	°C
External relative humidity out	34.7	%	Exhaust air humidity out	100	°C
External air side pressure drop	162	Pa	Exhaust air side pressure drop	158	Pa
Recovery capacity	46	kW	Efficiency/Temp ratio	81/78	%

ADDITIONAL INFORMATION:

Aluminium recovery unit Twin
stainless steel drain tray With
bypass damper
Light wired With
viewport
White Laminate/Green Coat Inner Panel Skin

9	SYNTHETIC/METALLIC FILTER
Panel filter, pleated synthetic type, efficiency Course 65% (G4)	
Clean filter pressure drop 19 Pa Calculated	
filter pressure drop 150 Pa	
Dirty filter pressure drop 150 Pa	
ADDITIONAL INFORMATION:	
With minihelic gauge	
Galvanised steel front withdrawal filter frame	

10	INSPECTION SECTION
Inspection section	
With viewport	
Light wired	

11	DAMPER SECTION
Regulation damper aluminium aerofoil with a sealing gasket L1900xH900. Air flow 2.926 m³/s.	
Manual Control	

12	SUPPLY FAN				
FAN			MOTOR		
Fan type	Double fan - Plug fan		Installed power	IE2 112MT 2x4	kW
Air flow	**3.011**	**m³/s**	Source	400/3/50	V/ph/Hz
External static pressure	**210**	**Pa**	Poles	4	
Internal pressure drops of AHU	621	Pa	Insulation Class	F	
Total pressure	937	Pa	Protection	IP 55	
Total static pressure	831	Pa	Freq. at the operation point of the fan	69	Hz
Dynamic pressure	106	Pa	Maximum frequency of inverte	71	Hz
Number of revolutions	1993	rpm	Nominal current	8.30	A
Absorbed power	2x3.63	kW			
Sound power level	85.2	dB(A)			

Octave bands sound power level (dB)								
F [Hz]	63	125	250	500	1000	2000	4000	8000
Supply [dB]	77	77	89	89	89	83	81	80
Inlet [dB]	71	72	85	80	78	78	76	78

ADDITIONAL INFORMATION:
With viewport
Light wired
Motor Electrical Isolator Spring
AV
Fan intake mesh guard
PTC motor thermistor
Door Guard Fitted
Non return double damper in aluminium aerofoil with a sealing gasket 435x435. Air flow 3.011 m³/s.

13	COOLING COIL				
AIR SIDE DATA			FLUID SIDE DATA		
Air flow	3.011	m³/s	Water		
Entering temperature	28	°C	Entering temperature	6	°C
Relative humidity	50	%	Leaving temperature	12	°C
Leaving temperature	22	°C	Fluid flow rate	0.9540	l/s
Relative humidity	70.4	%	Pressure drop	11.2	kPa
Capacity	**24.02**	**kW**			
Air pressure drop	26	Pa			
Air velocity	1.90	m/s			

ADDITIONAL INFORMATION:

Coil Frame	Stainless steel
Tubes	1/2” o.d. tube copper
Fins	Coated aluminium

Drop eliminator PVC - 1 fold
Drop eliminator pressure drop 66.6 Pa
Stainless Steel Drain Tray: Coil integrated

14	INSPECTION SECTION
Inspection section	
With viewport	
Light wired	
White Laminate/Green Coat Inner Panel Skin	

15	HEATING COIL				
AIR SIDE DATA			FLUID SIDE DATA		
Air flow	3.011	m³/s	Water		
Entering temperature	5	°C	Entering temperature	80	°C
Leaving temperature	22	°C	Leaving temperature	60	°C
Capacity	**62.11**	**kW**	Fluid flow rate	0.7580	l/s
Air pressure drop	7	Pa	Pressure drop	12.2	kPa
Air velocity	1.66	m/s			

ADDITIONAL INFORMATION:	
Coil Frame	Pre-galvanised sheet steel
Tubes	1/2” o.d. tube copper
Fins	Copper

16	INSPECTION SECTION
Inspection section	
With viewport	
Light wired	

17	SOFT BAG FILTER
Soft bag filter efficiency ePM2.5 70% (F7)	
Clean filter pressure drop 56 Pa	
Calculated filter pressure drop 200 Pa	
Dirty filter pressure drop 200 Pa	
ADDITIONAL INFORMATION:	
With minihelic gauge	
Galvanised steel front withdrawal filter frame	

18	DAMPER SECTION
Regulation damper aluminium aerofoil with a sealing gasket L1900xH900. Air flow 3.011 m³/s.	
Manual Control	

SOUND POWER LEVEL AT AHU									
Octave band (Hz)	63	125	250	500	1000	2000	4000	8000	**Tot. dBA**
Lw at O.A. Inlet [dB]	65	66	79	74	73	71	68	70	79
Lw at S.A. Outlet [dB]	73	73	84	83	82	74	70	67	85
Lw at E.A. Inlet [dB]	65	67	79	75	71	70	67	70	78
Lw at E.A. Outlet [dB]	76	77	91	89	88	82	81	80	92
Lw to enviroment [dB]	59	59	54	48	44	39	41	40	52

Ecodesign		
Manufacturer	MANSFIELD POLLARD	
Unit model MP60W.10 Typology NRVU;BVU		
SFPint / SFPint limit 2018 [W/(m³/s)]	659 / 665	
Type of HRS	Plate heat recovery unit	
Thermal efficiency of heat recovery [%]	73.5	
Nominal flow rate [m³/s]	2.97	
Maximum external leakage rate [%]	L2	
Maximum internal leakage rate [%]	NA	
	Supply	**Return** Nominal flow rate [m³/s] 3.01
2.93		
Type of drive	Speed Control Provided By Others	Speed Control By Others
Effective electric power input [Kw]	4.0	2.93
Face velocity [m/s]	1.31	1.27
Nominal external pressure [Pa]	210	282
Internal pressure drop of ventilation components [Pa]	232	168
Static efficiency of fan [%]	61.8	59.5
Efficiency of the filters	F7	M5

Internet address for disassembly instructions:
http://www.mansfieldpollard.co.uk/documents/MP-AHU-Recycling-Instructions.pdf

Ecodesign compliance 2018

If the unit includes a filter section, the AHU must be equipped with a visual signal or alarm in the control system which is activated if the pressure drop across the filter exceeds the maximum allowed final pressure drop.