AHU 1.

Manufacturers of Bespoke Air Handling Units and Associated Equipment for Air Conditioning Applications

Ventilation Equipment Limited

10 East Park, Crawley, West Sussex RH10 6AS Tel: 01293 521201 Fax: 01293 521881
Email: sales@airhandlingunits.co.uk Web: www.airhandlingunits.co.uk

EMAIL TRANSMISSION

To: Atkins	Attention of: Mr Ganesh Lingham
Date: Monday, 12 March 2007	Email address: Ganesh.Lingam@atkinsglobal.com
From: Nik Lye	No of pages: 10

If you do not receive all the following pages please telephone: 01293-521201

PROJECT: JUDD STREET – KELVIN HOUSE - OUR REF: Q 6879 / 07 / GP / REV 1

We thank you for your recent enquiry and take pleasure in submitting our quotation for the Air Handling Units required on the above project. A summary of our prices follow with individual data sheets and sketches attached.

The prices quoted will remain open for acceptance for 4 weeks and subject to our standard terms and conditions of sale.

PRICING SCHEDULE:

Unit	Description	Model	Cost	Qty	Total
001	AHU 1	L 2060 sp	£ 8,569	1	£ 8,569
002	AHU 2	L 2040 sp	£ 7,410	1	£ 7,410
				Total	£ 15,979

ADDITIONAL COSTS:

Cost of delivery to London	Included
Matching DX condensing units (installation, pipework, wiring, valves and commissioning by others)	£ 3,784

CONSTRUCTION/SPECIFICATION NOTES + DETAILS OF INCLUSIONS AND EXCLUSIONS

- Unit manufactured to our standard construction specification, with our standard materials, door furniture and finish.
- Delivery cost quoted above at Monday to Friday rate.
- Delivery cost quoted above assumes all goods supplied in one shipment.
- Standard delivery vehicle 40-foot trailer.
- Off loading & final positioning by others.
- Maximum of 2 hours standing / offloading included per vehicle
- Current delivery period 6 weeks from drawing approval (up to date period should be confirmed at time of order placement).
- See the attached additional information page for specification, inclusions and exclusions.
- **NOTE** - The design of the inter-connecting pipework, positioning of valves etc between the condensing unit and AHU cooling coil is the responsibility of the contractor and is excluded from this tender.
- Technical data sheets attached are for quotation only. Details are subject to revision when final selections are made for procurement of suppliers.

Regards

Commercial Contact – Brett Wilson
Tel : 01293 521201
E-mail : *brett.wilson@myventiltaion.co.uk*

PROJECT: JUDD STREET – KELVIN HOUSE - OUR REF Q 6879 / 07 / BW / REV 1

ADDITIONAL INFORMATION

1. Unit framework will be assembled from extruded aluminium section, which will have a plain finish.

2. Panels will be double skinned with 50 mm of high density insulation sandwiched between an inner skin formed from galvanised steel and an outer skin formed from pre-painted steel. Our standard colour is *Grey C26 Magona.*

3. The casing complies with Eurovent regulations having the following:

   - Casing Strength – 2A
   - Thermal Transmittance – Class T4
   - Thermal Bridge – TB3
   - Air leakage – Class A

4. Fan motors will be pre-wired to externally isolators.

5. Vee belts will be protected by a wire mesh door guard.

6. All access doors will be hinged/lift off.

7. Fan casings will be formed from galvanised steel and remain unpainted.

8. Filters will be supplied suitable for either front or side withdrawal and fitted with inclined gauge manometers.

9. Cooling coils will be constructed from copper tubes with aluminium fins. In addition the cooling coil will be fitted with polypropylene eliminators to prevent the carryover of moisture.

10. The electric heaters will be suitable for either step or thyristor control (controller excluded). The elements will be pre-wired to an externally mounted terminal box.

11. The recuperator section will be fitted with face & bypass dampers (suitable for motorisation by others) and a drain tray.

12. The unit sections will be mounted on 110mm high base frames.

We have excluded from our tender fitting of **all other** controls, wiring, trucking, pipework, traps, valves, works and site testing, off-loading, installation and commissioning. Any site work will be carried out during normal working hours only and requires continuity of works and access to all areas at all times. Any item not specifically mentioned in this quotation is excluded.

PROJECT: JUDD STREET – KELVIN HOUSE - OUR REF Q 6879 / 07 / BW / REV 1

UNIT REFERENCE: AHU 1 MODEL: L 2060 sp

UNIT TYPE: Horizontal / Internal NO OFF: One

Components in direction of airflow as follows: -

SUPPLY AIR

HEATER

Type	Electric
Air on	-4.00
Air off	5.00
Design output	16.00 kW
Operation / control	Suitable for thyristor
Manual reset cut out	Fitted
Electrical supply	415 Volts - 3 Phase - 50 Hertz - 4 wire

ACCESS

PRE-FILTER

Type	Panel
Arrangement	Flat bank
Withdrawal	Front
Grade	G4
Panel Depth	50mm
Manometer	Inclined type fitted

SECONDARY-FILTER

Type	Bag
Arrangement	Flat bank
Withdrawal	Front
Grade	F6
Bag Depth	535mm
Manometer	Inclined type fitted

RECUPERATOR

Type	Diagonal flow
Supply air on	-4.00
Supply air off	8.91
Efficiency	55%
Construction	Aluminium fins - Galvanised casing
Face & Bypass dampers	Fitted
Operation	Motorised
Motor	By others
Drain Tray Type	Fixed Galvanised Steel
Trap	By others

COOLING COIL

Type	Direct Expansion
Air on	26.90 DB – 47.0% RH
Air off	18.00 DB – 81.0% RH
Output	15.70 kW
Medium	R407C
Evaporating temperature	10.0'C
No interlaced Circuits	1
No of rows	5
Construction	Copper tubes – Aluminium fins
Face velocity	2.38 M/s
Eliminators	Fitted
Drain Tray Type	Fixed Galvanised Steel
Trap	By others
Recommended Trap size	230 mm

HEATER

Type	Electric
Air on	5.00
Air off	18.00
Design output	23.00 kW
Operation / control	Suitable for thyristor
Manual reset cut out	Fitted
Electrical supply	415 Volts - 3 Phase - 50 Hertz - 4 wire

SUPPLY FAN

Type	Double Inlet Double Width
Impellor	Backward Curved
Drive	Vee belt
Motor arrangement	Single
Motor & drive location	Inside Air Stream
Air volume	1.43 m3/s
External resistance	200 Pa
Total resistance	1051 Pa
Fan speed	3400 rpm
Total Efficiency	74 %
Fan absorbed power	2.04 kW
Motor power	3.00 kW
Motor type	T.E.F.C - single speed
Full load current	6.20 amps
Starting current	38.44 amps – D.O.L.
Electrical supply	415 Volts - 3 phase - 50 hertz
Fan size	280mm

Induct sound power levels (fan intake/outlet)

OBF	63	125	250	500	1000	2000	4000	8000
db	85	87	86	90	86	81	76	70
db	98	95	86	88	84	79	74	68

RETURN AIR

ACCESS

FILTER

Type	Panel
Arrangement	Flat bank
Withdrawal	Front
Grade	G4
Panel Depth	50mm
Manometer	Inclined type fitted

RECUPERATOR

Type	As detailed above
Extract air on	20.00 DB – 50.0% WB
Extract air off	8.97 DB – 93.0% WB

EXTRACT FAN

Type	Double Inlet Double Width
Impellor	Backward Curved
Drive	Vee belt
Motor arrangement	Single
Motor & drive location	Inside Air Stream
Air volume	1.43 m3/s
External resistance	200 Pa
Total resistance	615 Pa
Fan speed	2921 rpm
Total Efficiency	69 %
Fan absorbed power	1.28 kW
Motor power	2.20 kW
Motor type	T.E.F.C - single speed
Full load current	4.40 amps
Starting current	25.96 amps – D.O.L.
Electrical supply	415 Volts - 3 phase - 50 hertz
Fan size	280mm

Induct sound power levels (fan intake/outlet)

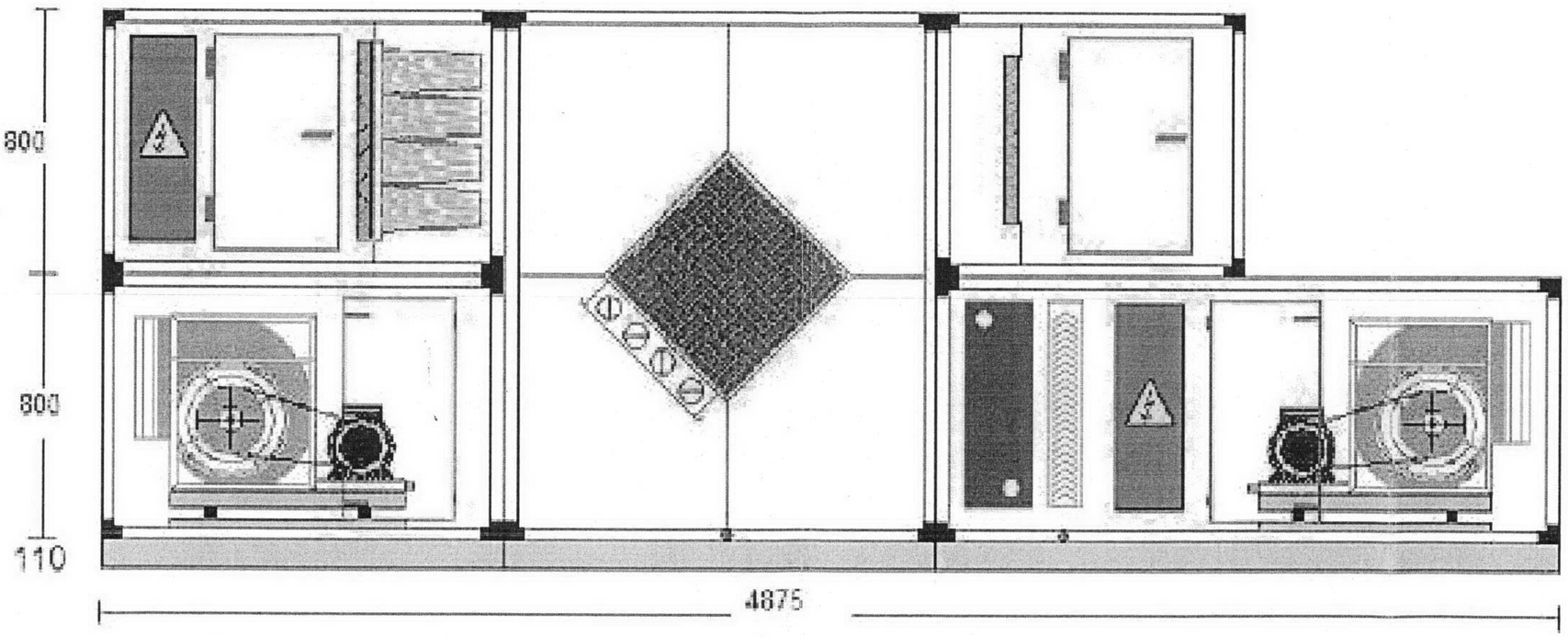
OBF	63	125	250	500	1000	2000	4000	8000
db	84	85	84	86	86	84	80	74
db	97	88	87	88	88	86	82	76

UNIT DIMENSIONS

Height	1600 mm plus 110 mm base
Width	1300 mm
Length	4875 mm
Weight	809 kg - (approximately)
No of sections	FIVE

DELIVERY PERIOD — 6 Working weeks from drawing approval.

Our Ref: Q 6879 / 07 / BW / REV 1



PROJECT: JUDD STREET – KELVIN HOUSE
UNIT REF: AHU 1 – Rated to handle 1.43 m3/s Supply
UNIT SIZE: 800 / 800 H plus 110mm base x 1300 W x 4875 L