SPECIFICATION AND QUOTATION



T: 0845 026 1266 F: 0845 026 1267 W: www.ensys.co.uk

BETTER ENVIRONMENT BETTER BUSINESS

QUOTATION REF

13636syst 002/tc

DATED

28th February 2007

CLIENT

System Construction Ltd Greenways Cottage Bryants Bottom Great Missenden Buckinghamshire HP16 0JS

PROJECT

Acoustic Attenuation

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Ensys Limited

Head Office - Unit 10, Rivermead, Thatcham, Berkshire RG19 4EP Tel: 01635 872227 Fax: 01635 872206 Woking Office - Thornash House, 37a High Street, Horsell, Woking, Surrey GU21 4UR Tel: 01483 771677 Fax: 01483 771516 Registered in UK No: 2316311



We have pleasure in submitting the following quotation for the acoustic treatment to lower the noise from the roof mounted Daikin VRF condensing unit at the back of 101 Bayham Street, based on our site findings.

Having looked at the manufacturer's technical information, we believe there is a concern with regard to the actual noise level from the Daikin unit in question. The manufacturer's technical data states that the unit has a rated sound pressure level of 60dB(A) at 1m and a sound power level of 80dB(A), which does not tally given the difference should be around 10/11dB and not 20dB. Looking further into their information it shows that the measurements are taken to the front of unit, which Daikin class as the blind side, i.e. the side not incorporating a coil. This would suggest that the noise level on the other side facing the larger coil face would be up to 10dB higher. On this project the nearest windows face the large coil area.

Therefore we will carry out an additional noise test when the Daikin unit is in operation to enable us to clarify the figures.

The condensing unit is supported on raised steels spanning the lower roof, which we have assumed is a non-load bearing structure. We are, therefore, proposing an enclosure basically supported off the existing steelwork (subject to confirmation of the structural design). The enclosure would be constructed from 50mm acoustic panels to an overall size of approximately 2000mm wide x 1900mm long x 2700mm high to allow access around inside the unit, complete with all necessary additional support steelwork.

An inlet air attenuator would be fitted on the side facing the largest coil area with an overall size of approximately 1800mm wide x 1800mm high x 900mm long and fitted with a bird-guard on the intake end. A separate discharge attenuator would be fitted on the roof of the enclosure with a transformation/plenum section onto the top of the condensing unit with a nominal size of 1400mm wide x 1300mm high x 1200mm long. The attenuators selected would impose a resistance including entry and dump losses of no more than 20Pa. A removable panel for access would be fitted in one of the other walls. The enclosure and attenuators would be finish painted to an agreed and available RAL colour.

1.0 Scope of Work

1.1 New Acoustic Screen

To supply, deliver and install:

A new acoustic enclosure located at roof level and all constructed from 50mm thick acoustic panel work, based on the dimensions as detailed earlier.

The acoustic enclosure and screen will be self supporting, utilising new support steelwork etc. No allowance for any penetrations through the enclosure or screen is included at this stage.

Our scope of work does <u>not</u> include for the clearance/preparation of the area, weather proofing, installation of new or dismantling, removal/relocation of any existing equipment, plant and pipework etc.



1.2 Construction & Finish

The solid outer face of the panel work will utilise a galvanized steel sheet finish painted to a standard RAL colour - exact colour to be agreed - with a perforated galvanised steel inner face (facing towards the plant). The infill will be an inorganic, non-toxic inert mineral fibre. Panel work will be supplied in suitable modules to ease both manufacture and installation.

Site Survey & Approval Drawing preparation: From receipt of Approval, Manufacture: Installation: Approx. 2 weeks Approx. 4/5 weeks Up to 1/2 week

General Conditions

We have based our quotation on the following assumptions:-

- a. that you have obtained any necessary approvals for the works from the relevant statutory bodies, local authorities or landlords.
- b. that the information we have obtained relating to the design of the works is correct and complete. Should any differing or further information be obtained, we reserve the right to revise our prices.
- c. that our engineers are able to carry out the installation in one continuous operation, during normal working hours, without excessive waiting time on other trades or works outside our control.
- d. that the quoted works are ordered in their entirety. Should the works be part ordered, we reserve the right to revise our prices.
- e. that a free supply of adequate lighting, heat and power is made available to our engineers.
- f. that no provision for protection of the works or safe storage facilities are required from us.
- g. that the area for our works is not obstructed, in order that we may achieve a prompt and efficient installation.

Builderswork

Our cost includes for the minor builderswork associated with our installation, such as drilling holes up to 80mm diameter. Should specialist builderswork be required, such as diamond drilling or redecoration, this would be subject to an additional charge.

Access/Hoisting

From the information we were able to obtain during our survey, we consider that all works can be completed using standard access/hoisting equipment. Should specialist access equipment be required, this may be subject to an additional charge.



Payment Terms

a. New Accounts or Accounts exceeding their credit limit

A deposit invoice will be raised for 35% of the order value plus VAT, for payment prior to commencement of work.

To enable a prompt and efficient service, please send your payment with the order. Upon receipt of your payment, a VAT invoice will be raised and sent to you for your records.

Credit checks will be carried out and once these have been approved and the deposit payment has been received, work can commence on site.

Interim invoices will be raised for work carried out to date/materials sent to site for immediate payment, to avoid unnecessary delays in the work.

A final invoice will be raised upon completion of our works for payment within 30 days. Deposit and interim invoice payments will be offset against the final contract value.

b. Approved Accounts

Future work may be carried out without the 35% deposit payment, provided you are within your credit limit. Credit limits are reviewed regularly and may be increased/decreased depending on individual circumstances, level of business and payment history.

Interim invoices will be raised for work carried out to date/materials sent to site for payment within 30 days. A final invoice will be raised upon completion of our works for payment within 30 days.

If the project value exceeds your credit limit, the payment terms will be the same as those for new accounts, see above.

c. Discounts/Retentions

Unless otherwise stated, no allowance has been made for discounts or retentions. All figures shown are strictly nett.

Guarantee

Provided they are correctly maintained, all Ensys installations are guaranteed for twelve months from date of delivery/commissioning and any relevant equipment manufacturers' extended warranty for parts and labour allowance will apply.

<u>Validity</u>

Our quotation remains open to acceptance for a period of 60 days, and prices will be those ruling at date of despatch.





To supply and install the proposed Acoustic Screen

£17,219.00

In order to avoid any misunderstandings, we would recommend that you check that the above specification meets with your requirements. Please contact us if any point is at all unclear.

If your client decided to install the new system, the unit we propose is approved under the Government's Enhanced Capital Allowance Scheme for energy saving appliances and it may qualify for tax relief. For more information, see the Government's website <u>www.eca.gov.uk</u>.

<u>V.A.T.</u>

The quoted price does not include V.A.T., which will be added at the appropriate rate.

Conditions

This quotation is based on our standard terms and conditions of sale, which are enclosed.

Yours sincerely for ENSYS Ltd

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Ian Wintle <u>Sales Manager</u>

ian.wintle@ensys.co.uk