



# Certificate

[www.bsria.co.uk](http://www.bsria.co.uk)

**Certificate No: 55201/2**

**Issue No: 1**

**Date of issue: 14 October 2011**

BSRIA has tested a sample of the product described below in accordance with the test methods contained within BS EN 1886:2007 "Ventilation for buildings-Air handling units-Mechanical performance" and have determined the item met the requirements of the standard for those aspects shown. For further details see page 2 of this certificate.

<b>Manufacturer/Agent</b>	VES Andover Ltd Eagle Close Chandlers Ford Industrial Estate Chandlers Ford Eastleigh Hampshire S053 4NF
<b>Product</b>	Air Handling Unit 'Model Box' (25mm Frame)
<b>Date of test</b>	29 September 2011
<b>Test Engineer</b>	Tom Garrigan/Rebecca Hogg
<b>Expiry date</b>	29 September 2014
<b>Quality Approved</b>	MARK ROPER Senior Test Engineer

This certificate relates to type testing and does not imply BSRIA's endorsement, approval, certification or on-going control of the product(s), either in terms of performance, design, manufacture or materials used. This certificate and the results stated herein relate solely to the sample product(s) tested and to the specific tests undertaken. The certificate will remain valid for the stated period providing no changes are made to the product, production method etc. This certificate is only valid when an electronic copy is also displayed at [www.bsria.co.uk/certificates](http://www.bsria.co.uk/certificates) or contact BSRIA Ltd

This certificate must not be reproduced except in full without the written approval of an executive director of BSRIA. It is only intended to be used within the context described in the text

## **PRODUCT DETAILS**

The air handling unit 'model box' had a 25 mm frame and overall dimensions of 2520 mm by 1030 mm by 1150 mm, as per drawing VRD-083-005. The unit was manufactured and supplied by VES Andover Ltd. The frame of the unit was constructed from extruded aluminium and held together with knock-in joints, while the panels were steel sheets with mineral wool sandwiched between them. The unit was supplied in two halves with a fan mounting plate and two filter mounting plates, which had a bag filter installed. The filter bulkhead was constructed as per drawing VRD-083-010.

It was necessary to repeat the thermal bridging tests after the model box had been returned. A new model box, of exactly the same dimensions and build were supplied by VES Andover Ltd. The only exceptions were that it was not supplied with filter mounting plates and a different construction of extruded foam was used on the internal joins of the panels and frame. The extruded foam was constructed as per drawing VRD-083-007. The foam construction of the previous model boxes was a manual attempt to build a similar profile out of multiple 25 mm by 7 mm strips, as the extruded foam was not available when the first model boxes were constructed.

## **RESULTS**

The AHU model box attained a class rating of D1 during the deflection test.

The AHU model box showed some slight signs of structural deformation around the frame joints during the strength test at a positive and negative downstream pressure of 2500 Pa. The deformation was within the allowable deformation stated within the BS EN 1886:2007 of  $\pm 2$  mm.

The AHU model box attained a class rating of L2 during the casing air leakage test at 700 Pa positive downstream and 400 Pa negative pressure downstream.

The AHU model box attained a filter bypass leakage class of F9 at 400 Pa positive and negative pressure, upstream and downstream.

The AHU model box attained a class rating of T5 during the thermal transmittance test and TB3 during the thermal bridging test.

Full details of results and test methods can be found within BSRIA report 55201/1 dated September 2011.