

# Summary Report

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**Summary Report 55201/2**

**Issue No: 1**

**Date of issue: 15 September 2014**

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 Summary report.

<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>Quality Approved</b>	MARK ROPER Principal Test Engineer

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## 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.