

SAP Appendix Q Testing Results
Central mechanical supply and exhaust ventilation system
packages with heat recovery used in a single dwelling

| | | |
|---|------------------|---|
| Brand Name | | Nuaire |
| Model | | LPXBOX DC-2 |
| Model Qualifier (if applicable) | | |
| Current Manufacturer and Contact Details | Name | The Nuaire Group |
| | Address | Western Industrial Estate Caerphilly CF83 1NA |
| | Telephone | 029 2085 8200 |
| | Website | www.nuaire.co.uk |
| Original Manufacturer (if different) | | |
| First Year of Manufacture | | 2008 |
| Last Year of Manufacture | | |
| Testing Body | | BRE |
| Date of test | | 17/07/2008 |
| Serial Number of Product Tested | | 1599824 |
| MVHR to outside grille duct types and size | | 150 & 125mm diameter rigid plastic & 200mm rectangular rigid plastic |
| Duct types and sizes used for supply and exhaust | | 150mm & 125mm diameter rigid plastic & 200mm diameter rectangular rigid plastic for kitchen and main living room. 100mm & 80mm diameter rigid plastic & 100mm rectangular rigid plastic for all other wet and living rooms |

Results of leakage tests

Table Q1

| | |
|-----------------|-------------|
| Internal | Pass |
| External | Pass |

Results for SAP calculations (at minimum flow rate condition)

This product has only been tested with rigid ductwork and the data are not applicable for SAP calculations if installed with flexible ductwork.

Table Q2 – Systems with rigid ductwork only

| Exhaust terminal configuration | Fan speed setting | Specific fan power (W/l/s) | Heat exchange efficiency (%) | Energy Saving Trust Best Practice Performance Compliant |
|----------------------------------|-------------------|----------------------------|------------------------------|---|
| Kitchen + 1 additional wet room | 100% variable | 0.80 | 66 | No |
| Kitchen + 2 additional wet rooms | 100% variable | 0.76 | 65 | No |
| Kitchen + 3 additional wet rooms | 100% variable | 0.79 | 64 | No |
| Kitchen + 4 additional wet rooms | 100% variable | 0.89 | 62 | No |
| Kitchen + 5 additional wet rooms | 100% variable | 1.04 | 61 | No |
| Kitchen + 6 additional wet rooms | 100% variable | 1.37 | 60 | No |
| Kitchen + 7 additional wet rooms | 100% variable | 1.69 | 59 | No |

These figures are entered into either:

- (a) In the case of SAP software amended to SAP 2005 version 9.81 allowing direct entry of MVHR data, the SAP software, or
- (b) In the case of SAP software amended to SAP 2005 version 9.81 not allowing direct entry of MVHR data, the SAP Q MVHR Calculation Spreadsheet v9.81 and the results from the spreadsheet into the Special Features part of the SAP 9.81 software, or
- (c) In the case of SAP software to SAP 2005 version 9.80 , the SAP Q MVHR Calculation Spreadsheet v9.80 and the results from the spreadsheet into the Special Features part of the SAP 9.80 software. They must **NOT** be entered directly into SAP 2005 version 9.80 software

Table Q3 – Systems with flexible ductwork only

| Exhaust terminal configuration | Fan speed setting | Specific fan power (W/l/s) | Heat exchange efficiency (%) | Energy Saving Trust Best Practice Performance Compliant |
|---------------------------------|-------------------|----------------------------|------------------------------|---|
| Kitchen + 1 additional wet room | N/A | N/A | N/A | N/A |

Results for Approved Document F (at maximum flow rate condition)

Table Q4

| Exhaust terminal configuration | Fan speed setting | Total exhaust flow rate (l/s) | Total supply flow rate (l/s) |
|----------------------------------|-------------------|-------------------------------|------------------------------|
| Kitchen + 1 additional wet room | 100% variable | 15.0 | 15.0 |
| Kitchen + 2 additional wet rooms | 100% variable | 21.0 | 21.0 |
| Kitchen + 3 additional wet rooms | 100% variable | 27.0 | 27.0 |
| Kitchen + 4 additional wet rooms | 100% variable | 33.0 | 33.0 |
| Kitchen + 5 additional wet rooms | 100% variable | 39.0 | 39.0 |
| Kitchen + 6 additional wet rooms | 100% variable | 45.0 | 45.0 |
| Kitchen + 7 additional wet rooms | 100% variable | 51.0 | 51.0 |

Comments

Only figures from Table Q2 or Table Q3, not both, should be used with the SAP Q Calculation Spreadsheet for this technology type.

Table Q4 results are only applicable for Approved Document F requirements.