

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		MRXBOX70
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		
Last Year of Manufacture		
Testing Body		BRE
Date of test		23/02/2007
Serial Number of Product Tested		1175980
MVHR to outside grille duct types and size		150mm & 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 step-less	0.79	69	No
Kitchen + 2 additional wet rooms	100% variable step-less	0.75	69	No
Kitchen + 3 additional wet rooms	100% variable step-less	0.81	69	No
Kitchen + 4 additional wet rooms	100% variable step-less	0.92	67	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 step-less	15	15
Kitchen + 2 additional wet rooms	100% variable step-less	21	21
Kitchen + 3 additional wet rooms	100% variable step-less	27	27
Kitchen + 4 additional wet rooms	100% variable step-less	33	33

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.