

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

<b>Brand Name</b>		Utek
<b>Model</b>		HRE 350-EC-V CTR
<b>Model Qualifier (if applicable)</b>		
<b>Current Manufacturer and Contact Details</b>	<b>Name</b>	Utek s.r.l.
	<b>Address</b>	Via Provinciale 30 23030 Mazzo di Valtellina (SO) ITALY
	<b>Telephone</b>	+39 0342862031
	<b>Website</b>	<a href="http://www.utek.eu">www.utek.eu</a>
<b>Original Manufacturer (if different)</b>		
<b>First Year of Manufacture</b>		2008
<b>Last Year of Manufacture</b>		
<b>Testing Body</b>		BRE
<b>Date of test</b>		19/02/2009
<b>Serial Number of Product Tested</b>		02-0027
<b>MVHR to outside grille duct types and size</b>		125 & 150mm diameter rigid plastic & 200mm rectangular rigid plastic
<b>Duct types and sizes used for supply and exhaust</b>		125 & 150mm diameter rigid plastic & 200mm rectangular rigid plastic

**Results of leakage tests**

**Table Q1**

<b>Internal</b>	<b>Pass</b>
<b>External</b>	<b>Pass</b>

**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	31%	<b>0.97</b>	<b>88</b>	Yes
Kitchen + 2 additional wet rooms	37%	<b>0.88</b>	<b>89</b>	Yes
Kitchen + 3 additional wet rooms	44%	<b>0.93</b>	<b>89</b>	Yes
Kitchen + 4 additional wet rooms	50%	<b>0.98</b>	<b>88</b>	Yes
Kitchen + 5 additional wet rooms	56%	<b>1.09</b>	<b>87</b>	No
Kitchen + 6 additional wet rooms	62%	<b>1.23</b>	<b>87</b>	No
Kitchen + 7 additional wet rooms	69%	<b>1.38</b>	<b>86</b>	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 room	100% variable	33.0	33.0
Kitchen + 5 additional wet rooms	100% variable	39.0	39.0
Kitchen + 6 additional wet room	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.