

March 2021

Anabel Hoult  
CEO  
Which?  
2 Marylebone Road London NW1 4DF

Dear Anabel

**Re: Which? Review of Ebac Dehumidifiers**

Over the past 6 years Ebac has been in discussions with you and members of your team regarding the inaccurate reviews of Ebac dehumidifiers and the dehumidifier category in general.

Despite our interventions, Which? has refused to collaborate or change your testing protocols that, in our opinion, are misleading consumers. We therefore write this open letter to allow consumers to reach their own decision regarding the accuracy of your dehumidifier tests.

Ebac have been designing and manufacturing dehumidifiers for almost 50 years. Over that time, we have completed a substantial amount of research to try and better understand how customers use their dehumidifiers and the nature of the damp and condensation problems they face. We consider ourselves experts in this field.

We believe your testing protocol is fundamentally flawed in 3 ways.

- 1. Which? prioritise high extraction rate as the most important factor when buying a dehumidifier.**
- 2. Which? mislead consumers on dehumidifier running costs by not showing comparative data on water extracted per KWh.**
- 3. Which? place little importance on the critical factor of control systems and how poor control further increases running costs.**

**1. Which? prioritise high extraction rate as the most important factor when buying a dehumidifier.**

All of the Which? dehumidifier reviews place an over weighting on the absolute amount of water extracted – making this the most important factor. You project the view that the more water a dehumidifier can extract – the better it is. This viewpoint is incorrect and highly misleading.

Your advice to consumers could result in a consumer spending £100 per year more on energy than is necessary to solve their damp and condensation problems. By encouraging people to purchase high extraction and poor energy efficient models – you are also contributing to energy waste and climate change that is entirely unnecessary.

There is an optimal amount of water to extract in a UK home to prevent damp and condensation. The optimal amount of moisture to remove does vary – but on average this is between 1 and 2 litres per day. By recommending units that remove 7 litres of water per day, you are wilfully telling consumers to waste very large amounts of money in running costs with literally zero benefit. Ebac manufactures very high extraction dehumidifiers – up to 100 litres per day – but that technology is completely inappropriate for UK domestic homes.

## 2. Which? misleads consumers on dehumidifier running costs by not showing comparative data on water extracted per KWh

In terms of the efficiency of a dehumidifier - there is only one creditable comparative number. This is the amount of water extracted per KWh of energy used. This is the **ONLY** like for like data that can meaningfully allow consumers to accurately compare how efficient one dehumidifier is compared to another.

Despite this being widely recognised by all dehumidifier manufacturers as a reliable and fair way to compare dehumidifiers, you do not publish these figures. We believe you do collect this data in your tests. You are therefore misleading consumers by suggesting 'Low Energy' desiccant dehumidifiers are as efficient as compressor dehumidifiers when they are not. It is our view that no UK home should use a desiccant dehumidifier due to the exorbitant running costs.

A representative example at conditions 21C 59% RH, assuming both units extract the same amount of water each day gives the following running costs:

	Water Extraction	Energy Used	Energy Cost
Ebac 2650e	400 litres	380 kwh	£57.00
Desiccant	400 litres	940kwh	£141.00

In reality because the desiccant removes moisture at a higher rate and the humidistat control is crude - the desiccant unit will run unnecessarily and could easily remove double the optimum water increasing electricity consumption by 200%. ie £280 per annum.

We make this statement completely independently as Ebac also manufactures desiccant dehumidifiers - but only recommend them for specific industrial applications and not domestic use. The critical factor of control systems and how poor control further increases running costs.

## 3. Which? place no importance on the critical factor of control systems and how poor control further increases running costs

When controlling damp and condensation in an occupied UK home – there is no fixed optimum Relative Humidity (RH) – it changes frequently throughout the day. Therefore, by not prioritizing the control system of a dehumidifier in your scoring – you are ignoring one of the most critical parts of the machine and again misleading consumers.

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The RH required to prevent damp and condensation varies with the behaviour of the household and the temperature. An RH of 50% may be optimal on one day but could actually be creating damp and condensation on another day because the conditions have changed.

After thousands of hours of research, we understood this 20 years ago and developed Smart Control to ensure that whatever the conditions, Smart Control would still control the dehumidifier appropriately to prevent damp and condensation and to minimise running costs. We even achieved a patent on the technology which means that Smart Control remains the only way to automatically control damp and condensation. No other dehumidifier has this feature.

The same effect can be replicated by constant manual monitoring and manual changes to the control system. But this is impractical for a number of reasons. Some dehumidifiers only have a humidistat with 3 preset RH levels. This is completely useless if trying to control damp and condensation and minimise running costs – the RH settings are far too broad to allow meaningful control. Other dehumidifiers have a humidistat that is controlled in 5% steps – again this is useless as the optimum RH often needs to be controlled with more precision - in 1% steps. Neither of these crude humidistats, found on other brands of dehumidifier, can effectively handle changing optimal Relative Humidity settings and as such either run too much – costing the customer hundreds of pounds in wasted running costs, or worse, still do not run when they should, meaning the damp and condensation problems are not solved.

May I take this opportunity to remind you that Ebac have sold over 1 million dehumidifiers and we are in almost constant contact with thousands of our customers who give us real-time feedback on the performance of our machines. We are the highest rated brand on Trustpilot, and we have an extremely high repeat purchase rate. All of this would not be possible if we didn't understand the needs and requirements of UK consumers and dehumidifiers.

Once again, we urge you to reconsider changing your test protocols for dehumidifiers and stop misleading consumers. We estimate that up to £30 million per year is wasted by Which? Best Buy dehumidifiers with unnecessary running costs. You are perpetuating this issue and we urge you to stop.

By writing this open letter, we hope that consumers can see for themselves how much we have tried to help you improve your tests on dehumidifiers and that our arguments are based on hard fact.

Yours sincerely,

John Elliott MBE DL