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PROFESSIONAL HEATING & PLUMBING INSTALLER

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Aquabion water conditioner
Snickers knee pads



Product test

Bion-ic man

Roger Bisby tests the Aquabion scale reducer

PRODUCT TEST
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There is no doubt that limescale is a costly problem in hard water areas. Not only does it clog up pipes and valves, it also makes heating elements burn out prematurely and, because the heating element is coated in limescale, it takes longer to heat the water and therefore costs

more money in energy.

There are any number of electronic and magnetic devices on the market which claim to cure limescale, but they have never gained mainstream acceptance – mainly because they work in varying degrees from well to not at all. So why should we give any time

or space to a new device? The reason is that it works in a different way to those we have looked at in the past. The process is galvanic action which is produced by dissolving zinc into the water supply.

Galvanic or electrolytic action produced by copper and zinc is well known to plumbers. Dezincification of brass and brazing was a big problem back in the day when water would leach out the zinc, leaving a fragile honeycomb. To overcome this we used cylinders with sacrificial anodes to give the electrolytic action something to chew on.

The problem has been solved to some extent by the use of dezincification-free metals such as gunmetal and DZR brass. Brazing in cylinders is now done with zinc-free alloys. After all this work to remove zinc from systems, Aquabion, the German company that makes this device, offers the following explanation from an independent test report: "The zinc

sacrificial anode functions as a galvanic element, in order to turn aggressive limescale into neutral, non-adhering lime." The calcium and zinc ions react to form aragonite. In this form, no more hard desposits form and old limescale is reduced over a period of months.

The deposits at the tap and showerhead are at worst a brown soft sludge that is easy to wipe clean. The only place where scale still forms is in steam, because the steam evaporates the water but will not carry the calcium. You will therefore still see scale on the kettle spout, but not around the element.

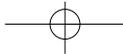
If you fit the unit on a system with a secondary return you need to fit a fine filter to catch any debris that is removed from the previously scaled up pipes and cylinder. That in itself should tell us something.



Where Aquabion goes one step further is in claiming that the device softens water. That means that it improves soap lather and gives you nice fluffy hair (assuming you have any) and softer skin. There are a number of test reports available which seem to back up these findings but the only way that we can verify these claims is to fit a unit and give it time to see how it works. The unit has been fitted to a solar cylinder which regularly runs at 75°C and is cooled to the taps with a blending valve. This is an extreme test because scale forms dramatically at such high temperatures. We will report back on our findings.

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Good condition

More than six months ago, Roger Bisby installed an Aquabion water conditioner to control the scale in a plumbing system. The sacrificial zinc conditioner was fitted to the cold supply of a 210l Megaflo. The unit has been in continuous use since then and there has been no scale build-up on the visible plumbing components. In particular, the shower head, WC float valves and tap ends have shown no sign of scale build-up.



How it works

According to the company, the Aquabion water softener system uses zinc sacrificial anodes that release zinc ions which react with calcium to form aragonite – which is a non-adhering lime – thus preventing limescale build-up and forming a thin protective layer. Water treated by the Aquabion water filter is drinkable and still includes the essential minerals that occur naturally.

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Put Aquabion to the test today

The patented water treatment system against limescale and corrosion.

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