

Warewashing: what you need to know about...

Water Treatment



Water: the appliance assassin

For the vast majority, the water quality in the UK and Ireland is medium or hard. That means it contains dissolved minerals, such as calcium and magnesium. These minerals not only affect the taste of the water, but they can also have a catastrophic impact on appliances that use the water. In warewashing, that impact covers two areas: damage to the machine itself, and reducing the cleaning performance.

Nearly everyone will be familiar with the results of using hard water in an appliance: it causes the limescale that builds up in your domestic kettle. If a warewasher uses



untreated water then limescale build up will occur – and it can kill the machine if untreated, as it can lead to metal erosion, blocked pipes and damaged elements. Even with water treatment, you'll need to descale the machine

regularly. Without it you're asking for trouble.

Untreated water will also impact on your warewasher's ability to deliver effective cleaning. It may lead to spotting or staining on glasses and crockery, for example. It can also leave unpleasant odours, which will taint glasses, cups and bowls.

Even for those fortunate enough to have soft water, water treatment can still have a positive effect on wash results.

To sum up: if you've got a warewasher, you need a water treatment system to look after it. Some have them built in, some require an external unit.

Turning cola into pure water...

Check out Winterhalter's YouTube channel for the the 'cola into water' video showing how effective Reverse Osmosis is for generating pure water – even out of cola!



Watch Video

Water treatment for warewashers

There are two main types of water treatment for warewashers: Water Softening and Reverse Osmosis.

Water Softening

This is the most common type of water treatment. It's a simple system that uses ion-exchange resins to remove calcium, magnesium and other minerals from the water. It prolongs the life of the machine because there is less limescale build up. It will also deliver better wash results. Plus it will reduce running costs, since treated water helps the cleaning chemicals work better, so you use less of them.

They are usually pretty straightforward to look after, you simply need to keep the unit topped up with granular or tablet salt available from most chemical suppliers.

Reverse Osmosis

Reverse Osmosis (RO) forces water through a special membrane, removing more impurities than a standard water softener can. This magnifies the benefits of softening considerably – so much so that crockery and especially glassware don't require additional polishing after washing. The downside is that RO systems cost more to buy and more to run, since the process wastes a lot of water. However, for the very best results RO is the answer. Plus, it will save on staff time and, since there is less handling, it will reduce breakages.

The RO membrane will need replacing periodically, by your service engineer.

What do I need?

If you want the best possible results, go for a Reverse Osmosis system. If you are happy with a decent level of cleaning, and want a simple, low cost solution, go for water softening.

However, if you do a lot of glass polishing then RO will be a better solution as you'll save time and reduce breakages.

In terms of the warewasher itself, those with integral water treatment are the best options, since they will tell you if there are any issues with their water treatment system, such as the need to regenerate it.

The latest advances in water treatment for warewashers include a hybrid system that combines RO and water softening. It allows you to switch between the two – so if best results are required, you use RO. If results are less critical, and to save water, you use water softening. An added benefit is that the water softener protects the RO membrane, so it lasts longer. Winterhalter developed this hybrid system for its UC Excellence-iPlus undercounter warewasher, which went on to win the FCSI sustainable catering equipment award.



What you need to know about warewashing... from Winterhalter

'Warewashing: what you need to know about...' is a series of brief reports that give users the information they need to understand various aspects of warewashing. Winterhalter aims to advise customers on every aspect of warewashing – because there's a whole lot more to it than a stainless steel box.

Installing a warewasher, whether it's a backbar glasswasher or a flight conveyor system, needs to take account of, for example, getting the dirties to the wash area, storing them after cleaning, and so on. The systems we build may include tabling and other fabrication, all of it designed to help staff do the job safely and efficiently.

Winterhalter provides a total solution for warewashing, from pre-sales advice to after-sales service, training and maintenance. Alongside its market-leading dish and glasswashers, the company's range includes utensil washers, advanced water treatment machines, cleaning chemicals and detergents. For further details, call Winterhalter on 01908 359000, see www.winterhalter.co.uk, or www.winterhalter-scout.biz or email info@winterhalter.co.uk.

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