

It's time to treat coffee water **seriously**



Water treatment can pay dividends in many ways

Cafes and restaurants invest so much in their businesses but overlook the vital ingredient that can make a big difference to success. Water is 98% of the final product and, put simply, the better the water is treated the better it will treat the business.

We generally enjoy good-quality municipal water in the kitchen. Some of it may be partially treated already. However, coffee preparation is a special case. Softened water does not always brew the greatest tasting coffee, and contamination, corrosion and excessive scale can all have a negative impact on the health of consumers and coffee machines. So why does water treatment matter so much in the coffee business and what can be done to make it better?

Protect the customer – coffee and water are all you need

Consumer health should always be front and centre in any catering business and ideally there should be nothing in the cup except coffee and water. As most hot drinks machines dispense water at around 90°C, water-borne bacteria are unlikely to be an issue, however corrosion is more common when water is heated, especially if the source water has properties that can react with metal. Over time, heating water with higher acidity, excessive chlorides, sulphates or chlorine can corrode metal pipes and components. No one wants to find rust in their beverage and metal deposits in the cup could present a serious health risk.

Protect the coffee machine - corrosion is the killer

If the corrosive effects of poor-quality water don't get the customer, they will certainly get the coffee machine. While corrosion levels can vary greatly depending on factors like acidity, operating temperature, mineral salts and municipal disinfectants added, some things are certain. Metal corrosion is progressive, permanent and expensive to fix.

Once the protective layer of the coffee machine components is breached, the metal starts to disintegrate, meaning it cannot be properly cleaned or in some cases restored or replaced. It is why most coffee machine manufacturers specify a minimum water quality and exclude water damage from their warrantees.

Protect your business – scale is unsightly, damaging and inefficient

Limescale is a common enemy of the coffee machine and is frequently found when water contains an excessive combination of hardness-causing minerals such as calcium, magnesium, carbonates and sulphates at neutral or higher ph. However, some of these ingredients in the right quantity also help to make great coffee. That said, excessive limescale is definitely not welcome in a coffee machine. Apart from being unsightly, it can cause stress fractures in the boiler and promote corrosion. Scale build-up also creates an insulating layer around the heating element, making the machine inefficient and driving up energy bills.

Protect your reputation – it's only as good as the last brew

Last, but no means least, poor-quality water can produce sub-standard coffee. That can be as obvious as an off-taste or an unpleasant smell. For the more scientific, there is plenty of research on the optimal balance of chemical and physical water properties required to achieve the right body, balance, flavour and finish of espresso. While calcium, magnesium and carbonates (alkalinity) are important for coffee extraction during the brewing process, having an imbalanced mixture can be problematic. Getting it right – and consistently right – every day and potentially across multiple sites, is crucial to the reputation of the business.

The best coffee needs the best water



Pentair Everpure Cartridges

Pentair Everpure water treatment solutions for speciality coffee applications

Pentair has set the standard for foodservice water quality for over 85 years with a range of water softening, filtration and RO systems. For the speciality coffee business, Pentair Everpure has a range of solutions for every water issue, every application and every budget.

Pentair Everpure are one of the most trusted brands in water filtration systems and the most recognised brand when it comes to water filtration in coffee preparation. For water treatment, Everpure cartridges with scale inhibitor offer an outstanding level of scale minerals management where TDS are less than 100 ppm. This family of filter cartridges are highly effective at reducing chlorine tastes and odour along with other contaminants that may adversely affect the taste of beverages. The high-quality carbon filter removes extra fine dirt and particles as small as 0.2 microns.



Pentair Claris Cartridges

Specially designed for the coffee machine market, Claris Cartridges offer multi-stage treatment where TDS levels are higher and filtered acidic water poses the risk of corrosion. All Claris Cartridges feature a multi-stage treatment process including: prefiltration, carbonate hardness adjustment, fine filtration, carbon and solid membrane filtration.

CLARIS ULTRA

Higher TDS levels can be reduced through ion exchange and, using DuoBlend technology, Claris Ultra can be used to accurately adjust the pH and hardness, reducing amounts of calcium and magnesium whilst preserving levels essential for making a premium cup of coffee. Claris Ultra brings breakthrough technology through the combination of partial hydrogen softening and sequestering.

CLARIS N

Based on sodium softening technology, Claris N offers an alternative solution for controlling scale and gypsum found in water while reducing the risk of corrosion.

CLARIS PRIME

Claris Prime cartridges add additional corrosion inhibition to the mix with a chloride and sulphate reduction and long-term protection from scale in areas with higher TDS levels.



Reverse Osmosis –Pentair Everpure Conserv 75E

The Everpure Conserv 75E is a solution that brings the benefits of reverse osmosis (RO) water to coffee applications. RO forces water through a semipermeable membrane, separating pure water from any substances dissolved within it, virtually eliminating all impurities and toxins.

The highly-efficient Everpure Conserv 75E combines a carbon filter, scale inhibition, calcite feeder and blending to create the right balance of minerals to prevent both corrosion and scale formation.

And, whereas conventional RO systems are known to waste more than 80% of the water, the Everpure Conserv 75E Green RO membrane effectively provides 50% water recovery. Reliable, simple to install and easy to operate and water efficient, the reverse osmosis Everpure Conserv 75E is the ultimate in water treatment for the coffee business.

Next steps

The better the water, the better the coffee, the better the business - it's that simple.

If you are ready to have a conversation about water treatment for your coffee business, talk to your local Pentair dealer about an Everpure system that meets the needs of your business and falls within your budget.

We know our water; you know your beans.

As a team we can make it happen. It's why so many leading speciality coffee brewers insist on Pentair.

WATER TREATMENT SOLUTIONS

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You can't treat what you don't know

Every water problem has a solution and finding it starts with a detailed analysis of the water being used.

A good start to evaluating your tap water could be your local municipal water authority and, in many countries, they will provide online, a detailed water quality report which is averaged out over a period of time.

But you should also consider the distribution network weakness and that might make it more appropriate to commission a specialist to determine the exact levels of particulates, chemicals and contaminants in the water heading to your kitchen. Based on the analysis results, the appropriate level of water treatment will depend on the specific operation's needs such as equipment type, connection size, desired capacity and flow rate.



Since 1933, Pentair[®] Everpure has served hundreds of thousands of customers worldwide, including many top restaurant chains.

We are a leading supplier to the foodservice industry and a trusted provider of commercial water treatment solutions and services worldwide. We provide the widest range of solutions to protect and enhance all foodservice applications such as coffee, beverage fountains, ice, drinking water, dish washing, steam and more.

We are backed by a global network of distributors offering pre- and post-sales support, and so always ensure that someone is there to help.

For more information on our full range, please see our foodservice catalogue/price list or contact your Pentair sales representative.



Space reserved for the stamp of your local distributor

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