

WORKING PRESSURE

Pressure System Safety Compliance in the coffee trades - Issue 5

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This publication is produced by Espress Test, the leading independent supplier of compliance solutions for the coffee trade.

Softly, softly, catchee monkey

A problem that we find more frequently than we would like around parts of the UK that have soft water, is the use of water softeners. Water softening is essentially the removal of calcium, magnesium, and certain other metal cations in hard water. Removing these substances from water that is already soft, means that the water becomes acidic and therefore corrosive. This can be terminal for espresso machine boilers which are made of metals that can be corroded to point of failure.



Group Pre-infusion Chamber



Group Jet & Filter



Inside a Coffee Boiler

Many people seem to believe that espresso machines need softer water, but the use of aggressive softeners can cause corrosion problems in hard water areas as well. Customers foot the bill when they fail to test their water, fit the cheapest (or no) cartridge, while ignoring the importance of getting water right for espresso machines and coffee. First, they see coloured deposits and corrosion and then they see the bill to repair and replace expensive internal components.

We wanted to understand in more detail why this happens, so we talked to Will Hinton at BWT UK Ltd.

Will explained, "It's not just a matter of using soft water – if it is softened the 'wrong' way the result can be aggressive for both ferrous and non-ferrous metals. Few people realise, soft, low-mineral water can encourage 'leeching' from internal machine components. This can make water unhealthy and regulations are being reviewed even as we speak".

Leeching shows as black, rust-like marks or rough patches but also, green, brown, and even red coloured deposits can occur due to other naturally occurring substances like Chlorides, Nitrates and Sodium (see pictures above).

"Furthermore", he said, "when you factor in chemical catalysts like heat and pressure, it's no wonder what seems to be 'safe' soft water can create unexpected problems!"

Here at Espress Test, we come across all sorts of problems but it is always a shame to see an expensive machine with corroded internal components that could have been protected just by getting the water right.

A Matter of Taste

Incorrectly treated water can impact the taste of your coffee and destroy your machine

"The irony is that when people use the wrong water for machines, they often spoil their coffee too – it's well known that water is a key ingredient for flavour and extraction but it is about balance – too soft can be just as bad for your machine as too hard!!"

**Will Hinton
BWT UK Ltd**

We Are Officially Number 1

We are expanding all the time

Being the leading independent supplier of Pressure Vessel Inspections for espresso machines and water boilers for the coffee trade, means that we have outgrown our offices and moved to a unit which is double the size. So, we're just a few doors down in Unit 1 on the same Trade Park. We are lucky enough to have brand new purpose-built offices, a larger workshop, kitchen/staff room and show room, with (distant) sea views and air conditioning.



Pictured: The main office, during and after re-fit

Safer Food, Better Business

Missed additions could result in a failed Food Safety inspection

The Food Standards Agency have created 'Safer Food, Better Business' packs to help small businesses with food safety management procedures and food hygiene regulations. In Plymouth City Council, they have made an addendum to include details of the Pressure System Safety Regulations 2000 and the legal requirements for testing, without which, business could fail their Food Safety Inspections.

For details, please follow the link web.plymouth.gov.uk/coffee_boiler.pdf

As Local Authorities continuously strive for cooperation and consistency, it is quite possible that these additions to the Safer Food, Better Business packs will soon be found across other Local Authority websites.

Guess the machine



Just a bit of fun. Send your guesses to:

info@espresstest.co.uk

You won't get anything for your guess except the smug feeling of knowing your stuff!

Contact Us

Espress Test
1 Cardrew Trade Park South
Redruth
Cornwall
TR15 1SW

(01209) 216847

admin@espresstest.co.uk

www.espresstest.co.uk

facebook.com/espresstest/

twitter.com/EspressTest