



MONARCH WATER

Scaleout Success Story – Food Service

Date of Report: 24th April 2013

Objective: To ascertain the effectiveness of Monarch Scaleout within a Food Service environment. Protecting equipment that generated very hot water and including steam.

Water Hardness: 570ppm – source Walpole water treatment works – Essex & Suffolk Water.

pH level: 7.1

Equipment to be protected: Automatic coffee machine (HLF – 4600i) used directly by the public within a busy diner and service station.

Evaluation period: 10th July 2012 to 24th April 2013 – a total of 40 weeks (9+ mths).

Application:

The coffee machine was previously protected by a de-alk resin based calcium treatment unit. It was experiencing two water related problems. One being scale from the high level of water hardness (570ppm) and two, dissolving of the brass temperature probe that was suspected of being eroded by a change in pH levels post calcium treatment unit. Monarch Scaleouts produce pH stable water.

The calcium treatment unit was removed on the 10th July 2012 and replaced with a Scaleout S15V. A high capacity carbon block in line filter was used as a post filter. See Pic 1.

The Scaleout S15V was installed by Monarch Water Ltd overseen by Graham Salter of Freshpac Teas & Coffees. At the time of the changeover, Mr Salter fitted a new temperature probe. The removal of the calcium treatment unit and installation of the Scaleout took approx. 20 minutes (no flushing required).



Pic 1

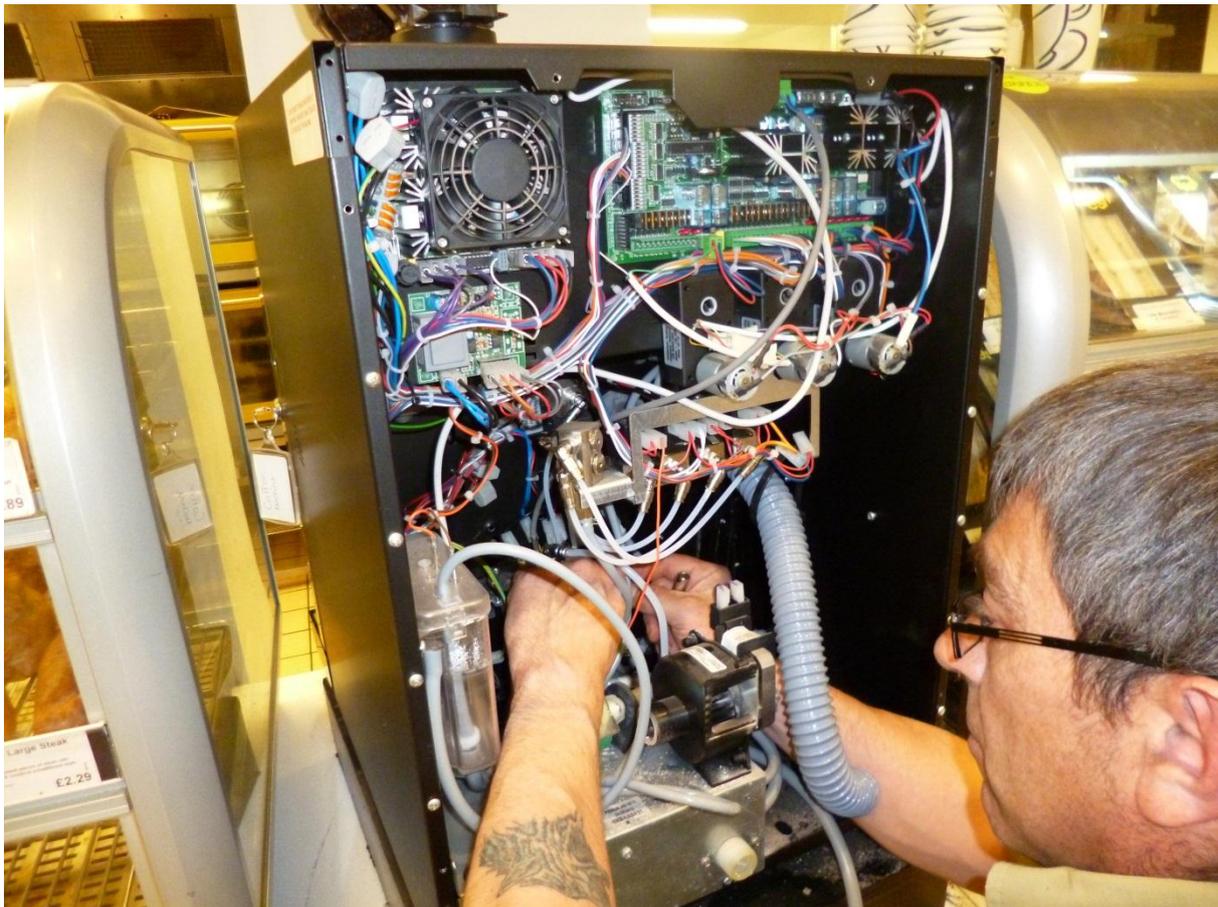
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24th April 2013.

John Cooper of Freshpac Teas & Coffees (Service Technician with 16 years' experience on vending equipment) attended site to remove the pot boiler to ascertain scaling levels in HLF – 4600i vending machine – see Pic 2.



Pic 2

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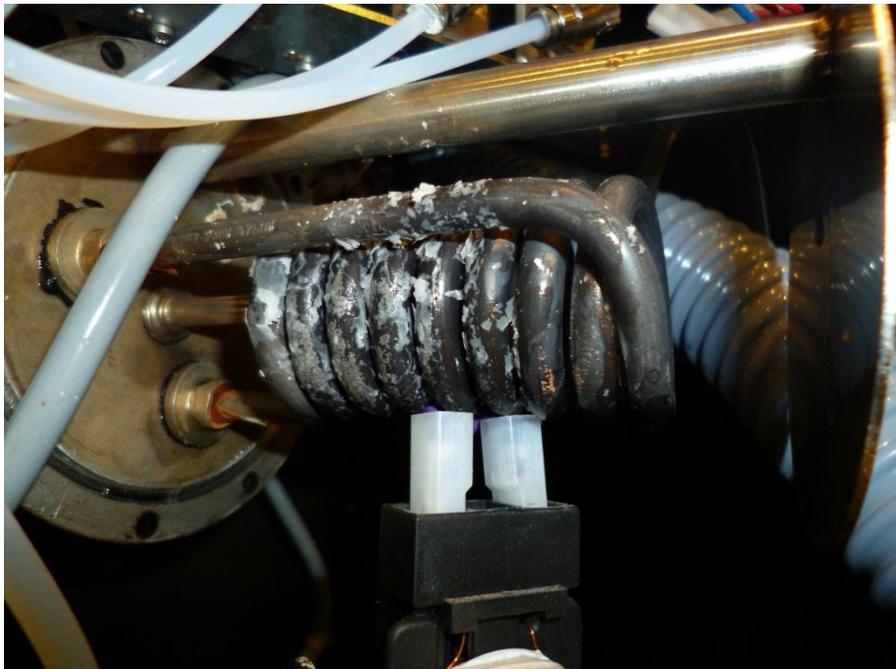


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Pic 3

The water reservoir was free of scale with exception of a small water level line – Pic 3



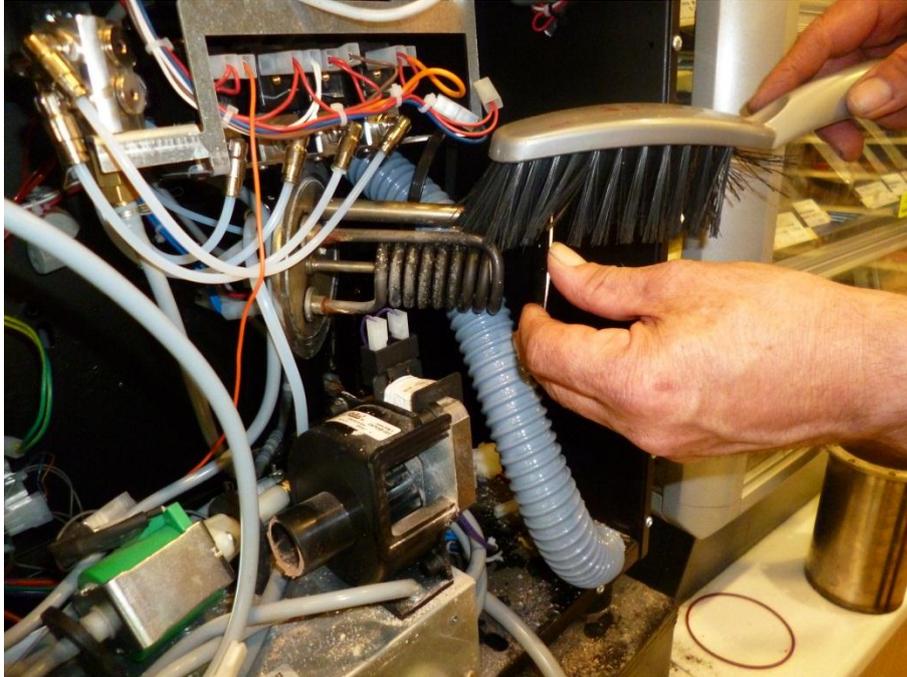
Pic 4

The element once removed, had a miniscule amount of 'soft scale' on approx. 60% of the surface – Pic 4

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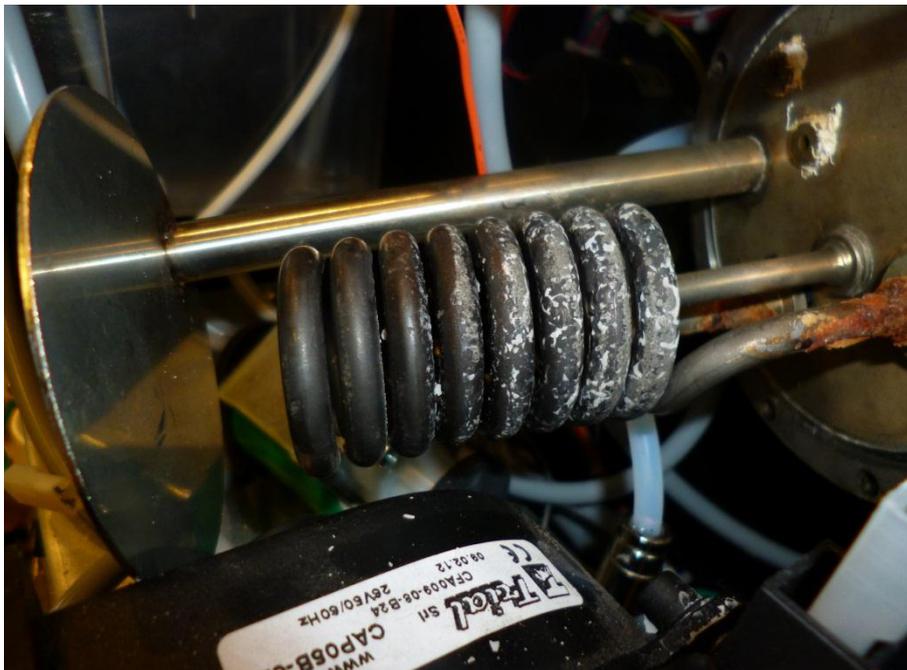


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Pic 5

This soft scale being easily removed with a soft brush – Pic 5



Pic 6

Element with soft scale removed and temperature probe in 'as new' condition – Pic 6

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Pic 7

The pot boiler had a small amount of non-adhesive loose soft scale in the bottom – Pic 7



Pic 8

The pot boiler after simply being rinsed with fresh water, to leave no scale at all – Pic 8

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Results:

The coffee machine had operated continuously for a period of 40 weeks without interruption and with no need of service or attention.

The Scaleout is based on Filtersorb SP3 resin with a CTO (Chlorine/Taste/Odour) in line post filter.

The Scaleout model was a S15V – 15mm mains supply suitable for a Vending application. Scaleout™ is a registered Trademark of Monarch Water Ltd.

Conclusion:

The Monarch Scaleout S15V...

- Removed existing scale on the element
- Provided exceptional protection against future scale deposits from water hardness of 570ppm
- Maintained new temperature probes 'as new' condition

The average water hardness in the UK is between 300-350ppm.

END:

With thanks to:

Mr Graham Salter
Freshpac Teas & Coffees,
Unit B Broadway Drive,
Halesworth,
IP19 8QR



Mr Chris Woodruff
Lily's Pantry
Darsham Service Station
Main Road
Darsham
Halesworth
Suffolk



And finally ...

Claire Foreman, manager of Lily's Pantry, having seen both the element and the internal condition of the pot boiler casing, stated 'I am extremely pleased with the results. All we wanted was a scale free machine, and that's what we got'.

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