



D. Brian's All Natural Deli and Catering- Case Study: Protecting Equipment from Hard Water Problems - Scale

February 2015

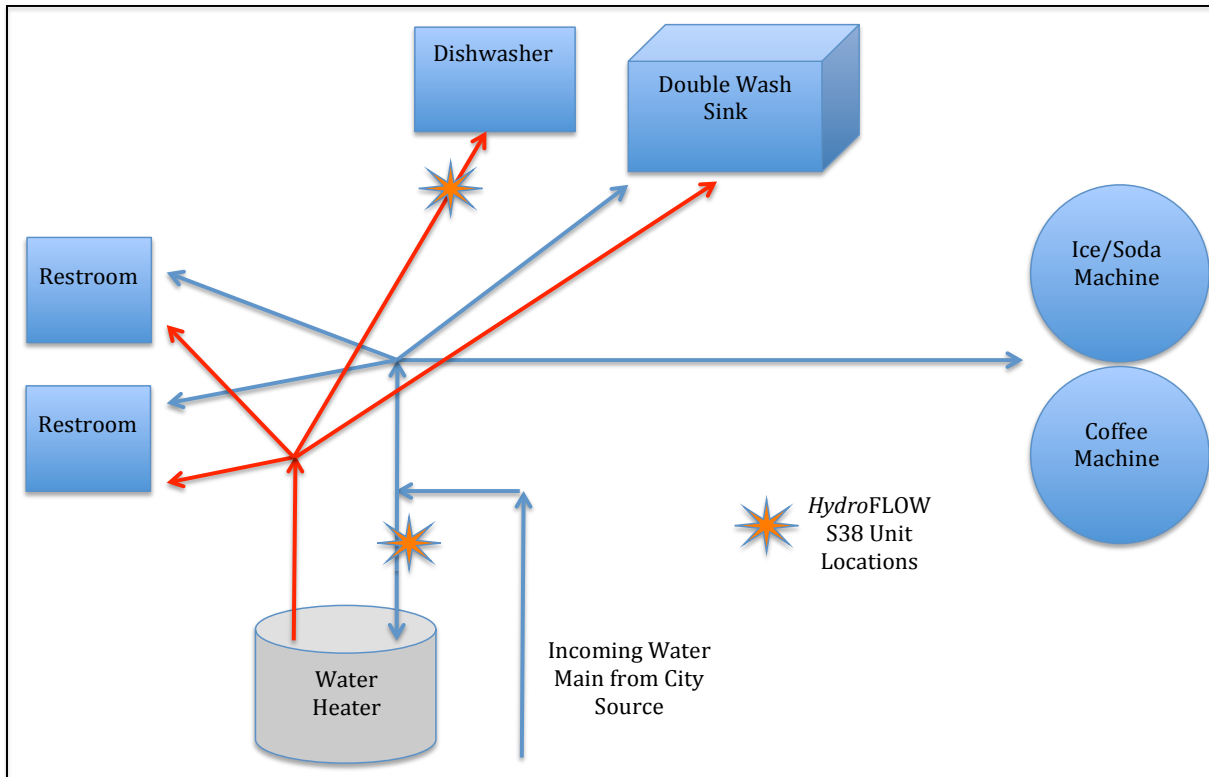


- Installer:** NorthStar Water Solutions, Minnetonka, MN
- Customer:** D. Brian's All Natural Deli & Catering, Minneapolis, MN (Edina Store Location).
Please contact Don Zalk, Manager at NorthStar Water Solutions, for customer information.
Phone: 612-310-9092 Email: don@nswatersolutions.com
- Application:** Store Kitchen: Water Heater, Two Bathrooms, One Dish Washer, Two – 8 Place Hot Well Tables for Soup
- Units:** Two *HydroFLOW* S38 units
- H2O Source:** City water with calcium carbonate hardness of 10-15 grains/gallon. No water softener.
- Timeline:** Sep 11th, 2014 to February 11th, 2015 (5 month evaluation)
- Background:** The VP of Operations decided to evaluate *HydroFLOW's* ability to descale the plumbing and mitigate the ongoing issue of hard scale collecting in equipment.
- Goal:** Gradually remove scale deposits from within the system to prolong facility equipment life, avoid adding a softener and reduce maintenance/improve performance across all equipment.
- Results:** At seven days... Scale throughout the system is dissolving and equipment is becoming easier to clean and running more efficiently. A rag was able to wipe off white dust left on surfaces. Hard existing scale is dissolved over the 22 weeks. At 20 weeks the hard scale was gone and residue on the element was powder that was able to be wiped off with a damp finger. At 22 weeks the dishwasher element is almost completely clean and free of scale, and should remain so going forward.

S38 Install on Dishwasher Hot Supply Line



S38 Install on Water Heater



**Dishwasher 09/11/14 - HydroFLOW Installation
Rock hard scale layers, cleaned one element loop with Steel Wool**



09/26/14 - Accumulated heater element scale is dissolving



10/30/14 - Scale is mostly dissolved



01/26/15 - White powder can be wiped off with a damp finger



02/11/15 - Heater element is almost completely free of hard water scale



8 Kettle Hot Well for Soup – Manually filled water evaporates and leaves baked on scale



9/11/14 – The manager chemically cleaned basin of 3 Hot Wells



09/17/14 - White calcium powder can now be wiped off with a finger



Special Notes:

1. In most cases an S38 would be needed to treat the ice and coffee machine. At time of trial, there were no issues reported.
2. The soup hot wells are not plumbed, water is manually dumped in each day. **Kitchen staff is now filling soup wells with HydroFlow treated hot water rather than untreated cold.** This change has resulted in soup wells being able to be wiped out with a sponge.

A SUCCESSFUL WATER SOLUTION!



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