

# **Du Vin Restaurant Commercial Dishwasher Field Test**

| Location:          | Honolulu, Hawaii - USA<br>[Installation performed by Nano Tek-On] | First Inspection:  | After 1 month  |
|--------------------|---|--------------------|----------------|
| Application:       | Commercial Dishwasher   | Second Inspection: | After 6 months |
| Purpose of         | Remove existing limescale deposits and                            |                    |                |
| Installation:      | inhibit new limescale accumulation                                |                    |                |
| Installation Date: | February 16, 2011   |                    |                |



#### **Installation Details** S38 (Fits pipes up to 1.5") Model of Water conditioner 3/4" Pipe Diameter (OD) Metal Pipe Material Incoming water line to the dishwasher Installation location

"Innovations that put nature to work for you!"



### **Overview**

#### 1. General

The restaurant has 2 water heaters that warm up the domestic incoming water to 120 degrees Fahrenheit. Each of the restaurant's 3 commercial dishwashers has an electric water heater that boosts the temperature to 150 degrees Fahrenheit.

#### 2. The Problem

In addition to standard limescale accumulation on all faucets, the restaurant's 3 dishwashers suffer from severe limescale accumulation that shortens their life cycle, cause waste of electricity, require constant maintenance and cause spotting on glassware and silverware.

#### 3. The Recommended Solution

Install an HS48 water conditioner before the 2 standard water heaters and an S38 water conditioner before the booster heater of each dishwasher. Total water conditioners required: 1 x HS48 and 3 x S38.

Note: In restaurants with a domestic water supply line of under 1.5", an S38 can be used instead of an HS48

### 4. Expected results

- a. Limescale will be gradually removed from the heating coils inside the 5 water heaters, extending their life cycle and efficiency.
- b. Limescale accumulation on the faucet heads and inside the dishwashers will immediately stop.
- c. Existing Limescale deposits will gradually dissolve over-time.
- d. Limescale spotting on glassware and silverware will reduce significantly.
- e. Maintenance costs will reduce significantly.

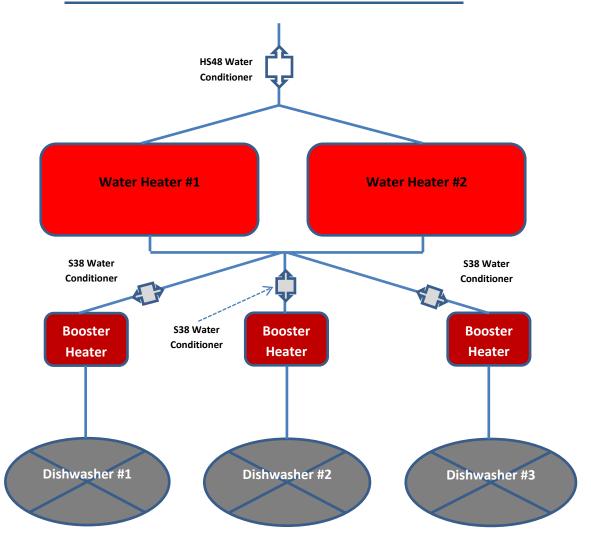
### **Dishwasher**







## **Recommended Installation Location**



## **Installed S38 water conditioner**



"Innovations that put nature to work for you!"



## **Inspections**



**Prior to installation** 



1 month after installation



6 months after installation



### **Results**

- Limescale immediately stopped accumulating on the faucet heads and inside the dishwashers.
- Limescale deposits gradually began to dissolve overtime, especially after a chemical descaling wash was performed (after the first inspection).
- The 2 standard water heaters and 3 booster water heaters are operating more efficiently.
- Significant spotting reduction on the glassware and silverware was achieved.
- Maintenance costs went down to a minimum.

## Important issue to note regarding the dishwashers

- Limescale accumulation stopped as soon as the water conditioners were activated.
- Severe cases of scaled-up dishwashers might require the assistance of a 1 hour chemical descaling wash. Such a process will soften the limescale and assist the water conditioner with performing its descaling task.
- In some rare cases, where the hindering of spotting on glassware and silverware is not achieved, a dishwasher detergent might be required. HydroFLOW USA recommends a product called Lemi Shine (www.lemishine.com).

### Referral

Name: Chef Marcus

Phone: 808-545-1115

Address: Brasserie Du Vin - 1115 Bethel St. Honolulu, HI 96813 USA