

## CASE STUDY CARIBBEAN OFFSHORE CONNECTION Industrial Treatment Plant Caribbean

### Introduction

In January 2007, Pure Aqua successfully supplied an industrial steel tank twin softener system and filtration system in the Caribbean.

### Systems & Process

Model MLF-42A is selected from our MF-1000 Series industrial media filters. 42"x60" epoxy coated steel tank automatic multimedia filter complete with 2" steel diaphragm valve, 100# operating and media.

The overall process is briefly described below:

- Multiple layers of increasing grain size remove sediment to the 20-micron range.
- Continuous flow rate of 100gpm.

Model WS54-1500-2.5T is selected from our SF-100S Series steel tank water softeners. 54"x72" steel tank twin water softener complete with 50"x60" brine tank, 50 ft<sup>3</sup>. resin, 2.5" pipe size, steel diaphragm control valves, cast iron face piping, 100# operating, inlet and outlet pressure gauges and sample valve on each unit.

The overall process is briefly described below:

- Hard water ions replace sodium ions on resin beads then the process is reversed to flush away minerals.
- Exchange capacity at 1,500,000 grains per column

### Performance

- From a feed water of about 300 mg/L hardness at a temperature range of 19°C and 27°C, the softening plant produces 150gpm of softened water with TH less than 2mg/L.
- Since the time of its start-up in January 2007, the plant has been running smoothly with minimal trouble-shooting.

### Plant Design Summary

Location:	Caribbean
Project:	Caribbean Offshore Connection
Application:	General Use
Total Plant Design Capacity:	2x1,500,000 grains
Product Flow Rate per Train:	150gpm
Start Up Date:	2007
Feed Water Source:	Well Water
Typical Operating Conditions:	
▪ TDS feed:	300 ppm
▪ Maximum Design Pressure:	100 psi
▪ Feed SDI:	Less than 3
Resin:	High exchange capacity sodium form
Pre-Treatment:	Multi-media Filters
Plant Product TDS:	General Use

