

CASE STUDY

RO-400 Series

**Industrial Tap Water Reverse
Osmosis System for Boiler Feed**



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Made in USA

 **PURE AQUA, INC.**[®]



Industrial Tap Water Reverse Osmosis System for Boiler Feed (Silica Reduction)

Country: USA | **Capacity:** 87,000 GPD

Challenge

With industries like boiler feed, whose operations are dependent on water quality, it is important to ensure that the water supplied is free of elements that are directly problematic for the process of energy generation (including contaminants and organic matter). Silica is an element that is abundantly found compounded with other common elements like oxygen, iron and calcium; all of which are harmful to the boiler feed process. While some of these elements like iron and calcium can be removed by filtration, silica is a very soluble element and is much more difficult to remove. Therefore, a thorough purification system is necessary to reduce silica accounts for efficient operations.

Solution

An industrial tap water reverse osmosis system was recommended to reduce silica accounts of city water. This system included a carbon filter as pre-treatment to the RO unit. The carbon filter consisted of activated carbon meant to remove chlorine, dissolved organic chemicals, and suspended matter. Then, the water is fed into the RO system to purify the water and produce a capacity of 87,000 gallons per day. This particular RO machine was equipped to reduce the initial 600 PPM TDS to less than 20 PPM TDS overall in the product water. A microprocessor control panel was also included to facilitate operational control of the entire system.

Applied System

This industrial tap water reverse osmosis system is model **#TW-87K-2680** from our **RO-400 Series**.

Project Video



Features

- (2) FRP pressure vessels codeline rated at 300 PSI
- (12) 8" TFC spiral wound membranes (Hydranautics ESPA-2 MAX)
- Conductivity sensor on product line
- Low- & high-pressure switches
- (2) Flow meters for reject and product line
- High pressure pump Grundfos CRN15
- 5-micron pre-filter with SS housing (SSC-24-316)
- Microprocessor control panel

RO-400 Series Product Video

To learn more about our RO-400 Series product, watch this video!



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