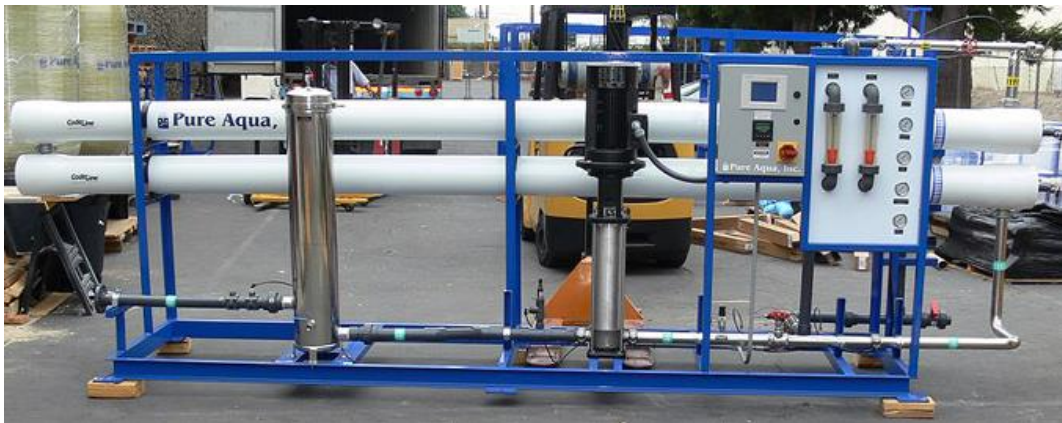


2008 Case Study

Industrial Brackish Water Reverse Osmosis Unit

Major Water Bottling Company, Algeria



INTRODUCTION

Reverse Osmosis is a pressure driven process that raises the water pressure on the high TDS (source water) side of the membrane to well above the osmotic pressure and forces the water to flow through the membrane to the low TDS (product water) side of the membrane.

Reverse Osmosis also known as hyper filtration, is used to purify water and remove salts and other impurities. It is also capable of rejecting bacteria, sugars, proteins, dyes, and other constituents.

SYSTEMS & PROCESS

In August 2008, Pure Aqua supplied Industrial Brackish Water Reverse Osmosis (BWRO) Unit for a major water bottling company in Algeria. The capacity of this Brackish Water Reverse Osmosis Unit is 100,000gpd with TDS less than 120ppm of product water.

The Brackish Water Reverse Osmosis Unit was selected from our RO-400 Series. The BWRO consists of FRP Codeline Pressure Vessels, BW30-400 Filmtec 8"x40" TFC Spiral Wound Membranes, SS multi stage CRN Grundfos pump and advanced PLC control panel.

The system included all pre and post treatment equipment such as prechlorination dosing, multi media filter, antiscalant dosing, dechlorination dosing, post pH dosing, and post UV sterilizer.

PERFORMANCE

From a feed TDS of about 5,000 mg/L at a temperature range of 19°C and 27°C, the BWRO skid produces 100,000gpd of drinking water with TDS less than 120mg/L. Since the time of its start-up in October 2008, the plant has been running smoothly with minimal trouble-shooting.

Pure Aqua is well known in supplying the highest quality RO systems within the water treatment industry, all stainless steel pipes are passivated and electro polished, the skid is sand blasted, primed and fused or powder coated. Pressure vessels and membranes are manufactured in USA.