

# CASE STUDY

## RO-400 Series

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### Industrial RO for Irrigation



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**Made in USA**

 **PURE AQUA, INC.**



## Industrial RO for Irrigation (Sulfate Reduction)

**Country:** USA | **Capacity:** 72,000 GPD

### Challenge

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Elevated sulfate levels in water contributes to multiple negative effects on soil. For the agriculture industry, the health of the soil is critical to maintain. From crop production to grazing flock, the soil plays a vital role in the cycle of this industry. Therefore, the water that is fed to the soil must also be cared for and purified to remove the contaminants that would otherwise jeopardize the quality of the soil and inevitably the product. Sodium absorption ratio (SAR) is a big factor of soil quality and directly increases with elevated levels of sulfate. If high accounts of SAR are present, the health of the soil is affected and the quality of products produced is threatened (i.e. crops, grass, etc.). Increased sulfate levels additionally contribute to electro conductivity which is another factor that endangers the health and quality of the soil. These factors have major affects to the product yield and overall production quality. Taking sulfate reduction measures is pertinent to optimize harvesting efforts and overall profitability.

### Solution

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This industrial RO was designed to purify well water and reduce sulfate for irrigational use. This particular customer already had the pre-treatment filters for the RO system in place. Therefore, we only provided the RO unit for this customer's application. The system provided had the capacity to produce 40 GPM while treating 1,000 PPM TDS. This RO was designed to operate at very low temperatures around 40 degrees Fahrenheit.

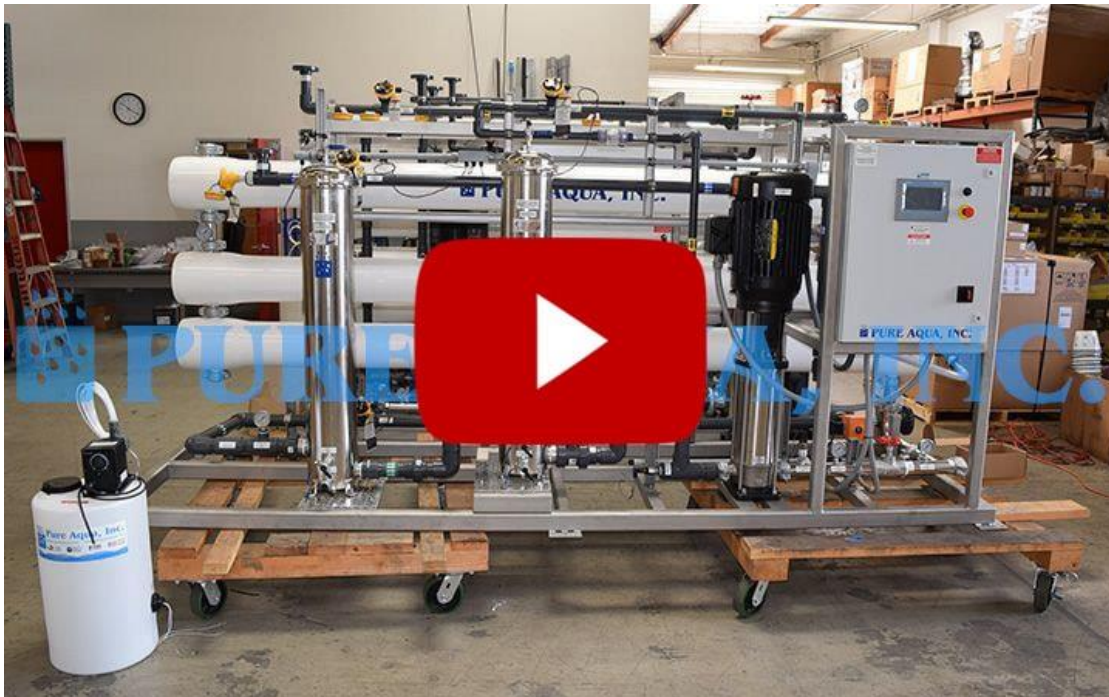
### Applied System

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This industrial RO was model #**TW-72K-3380** from our **RO-400 Series**.

## Project Video

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## Features

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- (3) FRP pressure vessels Protec rated at 300 PSI
- (9) 8" TFC spiral wound membranes (Hydranautics ESPA2-LD)
- GF conductivity sensor on product line
- Low- & high-pressure switches
- (2) Flow meters for reject and product line
- High pressure pump Grundfos CRN15-9
- 1-micron pre-filter with SS housing (SSC-20-316)
- 5-micron pre-filter with SS housing (SSC-20-316)
- PLC control panel (Siemens S7-1200).
- SS304 RO frame
- Recycle Flow Meter and valve to increase recovery rate
- System design to run at low temperature as low as 40F

## RO-400 Series Product Video

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



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