

AGAPE WATER SOLUTIONS, INC PROVIDES FIRST COMMERCIAL EDR SYSTEM

## A NORTHEAST GLASSWARE COMPANY ADOPTS NEW TECHNOLOGY WITH HIGH WATER RECOVERY ADAPTIVE DESALTING CAPABILITIES TO INCREASE WATER SAVINGS

### NEXED® ELECTRODIALYSIS REVERSAL MODULES

Commercial EDR system uses Evoqua's NEXED modules to recover and reuse industrial wastewater

A new installation of Evoqua's NEXED® Electrodialysis Reversal (EDR) module, an expansion of Ionpure® EDI products, is up and running. The EDR system recovers Reverse Osmosis (RO) wastewater which was previously sent to drain.

Much of the plant water is already recycled and varies during production phases. The system treats RO concentrate with varying salinity and recovers 83% of the wastewater. The recovered 83% is of equal or better quality than the RO feed water and is returned to the RO inlet.

In a typical RO system, about 25% of the water treated is discharged as wastewater. Some reduce this loss by feeding the reject water directly into a second RO system. However, RO has restrictions due to biofouling, silt fouling and scaling, which then limit the recovery possible.

Automatic controls are programmed using Evoqua's proprietary automatic current algorithm for its NEXED modules. This continuously and automatically adjusts power applied to the modules to maintain product conductivity, without wasting more power.

The system was placed in operation in January 2017. Preventative maintenance cleanings have been established annually and as of May 2018, the system has been in stable operation over 1 year. Low maintenance, high recovery and adaptability to changing feedwater has created a more sustainable future.

### Customer Location

New Hampshire, USA

### Business Challenge

Increase water recovery to reduce feed water consumption and reduce overall plant wastewater to reduce costs

### Keys to Success

Identified a solution that allows increase RO system recovery from 75% to 93% that is adaptable to variable feed water and has a small floor space footprint

### Results

Saving 15,000 gallons per day which annualizes to 4.5 million gallons per year



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