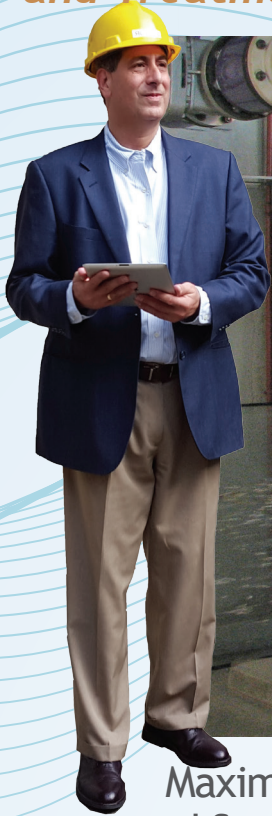


# eNPure Process Systems is Your Single Source Solution for All Your Boiler, Process, and Cooling Tower Feedwater Resources and Treatment Programs



## REVERSE OSMOSIS PRE-TREATMENT OF SOFTENED FEEDWATER REDUCES BLOWDOWN, SAVING WATER, FUEL AND CHEMICAL COSTS

Maximize your water resources with ReFlex™ Reverse Osmosis Products and Systems and **eliminate thousands of dollars in annual operating costs**

### RO PRE-TREATMENT OF SOFTENED WATER CAN:

- *increase boiler and cooling tower cycles up to tenfold*
- *reduce boiler and cooling tower blowdown*
- *save on water, chemical, electrical and operating costs*
- *reduce boiler and cooling tower maintenance.*

The challenge in the past has been to design an Reverse Osmosis system that could operate reliably and flexibly at high enough recovery and efficiency to justify the investment. Until now!

ReFlex™ Reverse Osmosis systems deliver the maximum recovery rate - guaranteed. ReFlex™ RO systems can meet the challenge, typically achieving recoveries up to 95% while reducing energy consumption by as much as 35 percent.

### BENEFITS

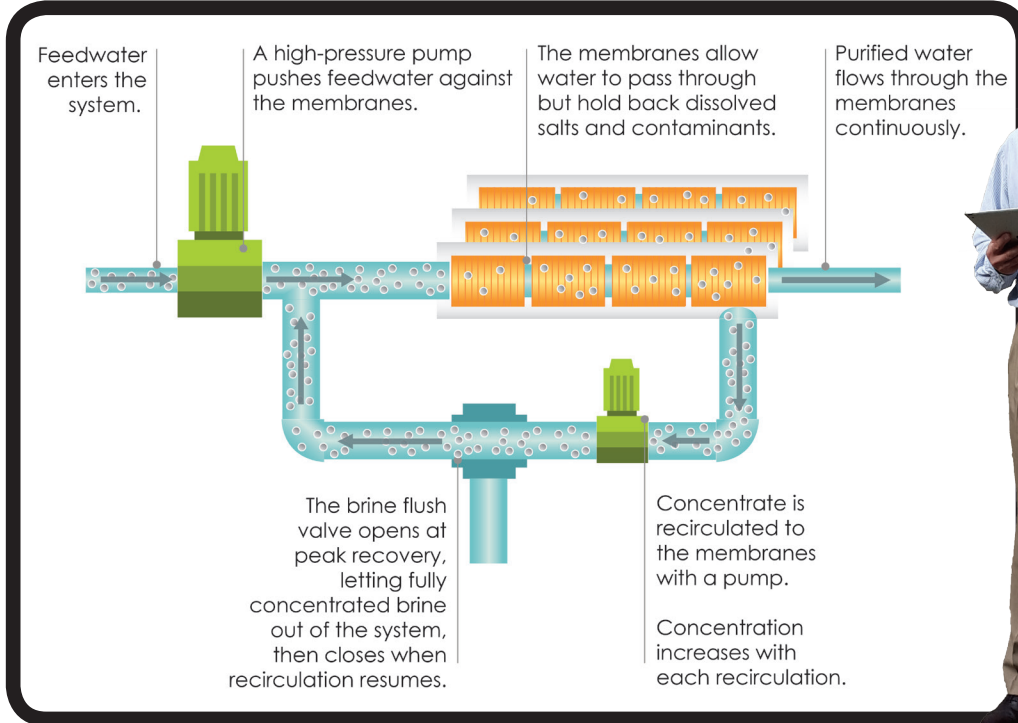
- QUICK PAYBACK, GENERALLY BETWEEN 18 TO 30 MONTHS
- INCREASE BOILER AND COOLING TOWER CYCLES
- REDUCED BLOWDOWN AND CHEMICAL CONSUMPTION
- INCREASE HEAT TRANSFER EFFICIENCY

**Call eNPure for an evaluation today.  
281-900-3842**



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*eNPure's water treatment experts can design a specific ReFlex™ RO System for customers utilizing advanced and proprietary process design and engineering*



Schematic Flow Diagram

ReFlex™ products work by recirculating pressurized brine until a desired recovery level is reached. Brine is replaced with fresh feed without stopping the flow of pressurized feed or permeate. The low initial pressure of each Closed Circuit Desalination (CCD™) sequence means a lower average operating pressure and less pump energy than required in traditional RO systems. ReFlex™ RO systems achieve recovery by re-circulation, not with multiple membrane elements and stages in series, and can therefore reach any desired recovery percentage in a single stage. Over 95% has been demonstrated, limited only by the scaling characteristics of the feed water. Recovery is adjustable at the system control panel, providing unmatched flexibility.

The high crossflow supplied by the circulation pump scours the membranes, greatly reducing scaling and fouling, while the higher salinity

cycles act as a natural biocide, disrupting biological fouling. Cycle times are often shorter than the induction time for scale deposition; frequent and complete brine rejection can stop and even reverse precipitation, making very high recovery rates possible even from difficult source waters. Short membrane arrays and high cross flow also allow ReFlex™ systems to operate at higher average fluxes without exceeding the membrane manufacturer's flow or recovery specifications.

Our solution will conserve water and save treatment expenses. ReFlex™ reverse osmosis systems reduce brine waste by up to 75% and energy consumption by up to 35% compared to traditional reverse osmosis designs. Our customers will enjoy superior performance, higher reliability and lower operating expenses.



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