

# PX Q400

Our most efficient, highest-capacity PX available for seawater reverse osmosis desalination facilities.

## The next evolution in PX<sup>®</sup> Pressure Exchanger<sup>®</sup> Technology

Building upon Energy Recovery's reputation for best-in-class performance, the PX Q400 is our next evolution in the trusted, leading PX<sup>®</sup> Pressure Exchanger<sup>®</sup> technology. Delivering energy and cost savings, the PX Q400 offers the lowest life cycle cost of any energy recovery device (ERD) for seawater reverse osmosis (SWRO) desalination, and it's possible thanks to high performance and lower maintenance.

## Reliable in even the harshest desalination environments

Constructed from corrosion-resistant ceramic and designed with only one moving part, the PX Q400 is easy to use, highly durable, and ideal for harsh desalination environments. These ceramic components are unique and machined in-house using our vertically integrated and highly specialized manufacturing processes, which create precision down to the micrometer level and a consistently high performing product. The PX Q400 supports a 25-year design life with no scheduled maintenance, leading to incredibly low design life costs and high uptime.

## By The Numbers



**25%** fewer devices needed to achieve the same output compared to the Q300\*



Capacity of **400 gpm** per module



**<3%** volumetric mixing

## PX Q400

# BENEFITS

- **Highly efficient** - Highest efficiency at the highest flow compared to our other PX Pressure Exchanger technology products
- **Lower mixing** - <3% volumetric mixing resulting in higher system performance
- **Higher capacity** - At 400 gpm, it's our highest capacity PX yet, which results in 25% fewer devices compared to the Q300\*
- **Ideal for harsh environments** - Industry-leading 25-year design life
- **Lowest life-cycle cost** - Offers the lowest life cycle cost of any ERD for seawater reverse osmosis (SWRO) desalination due to lower maintenance and operational expenditures

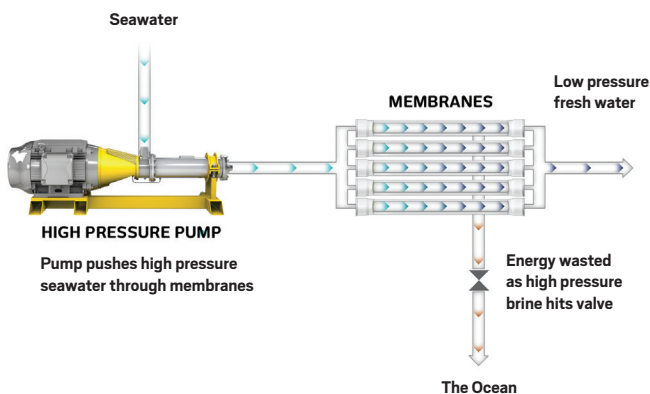


**For the last 30 years, we've pioneered technologies that have become the industry standard for energy recovery solutions.**

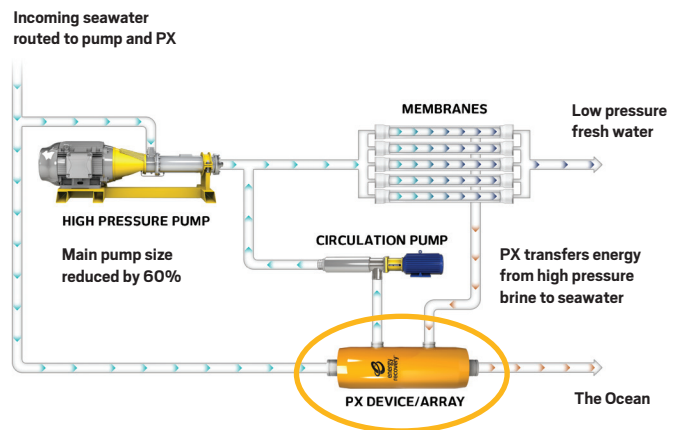
# How it Works

The PX Q400 uses our proprietary PX technology which directly applies hydraulic energy from the high pressure reject stream of SWRO processes to incoming low pressure seawater. With only one moving part driven by fluid pressure and a direct fluid to fluid energy transfer, nearly all unused hydraulic energy is recirculated in the SWRO process, minimizing the overall energy needed to desalinate seawater. At 400 gpm, the PX Q400 is our highest capacity PX yet which results in 25% fewer devices compared to the Q300.\*

## SWRO without Energy Recovery Devices (ERDs)



## SWRO with the PX Pressure Exchanger



## THE MOST TRUSTED ERD IN SWRO DESALINATION

Energy Recovery has spent decades perfecting the reliable, field-proven, and trusted PX Pressure Exchanger technology. Not only have we installed over 25,000 PX ERDs in over 100 countries, but we are the supplier of PX pressure exchangers to the largest floating desalination facility in the world. The PX Q400 further innovates and improves upon what came before—enhancing efficiency, capacity, reliability, and value to ensure it remains the most trusted ERD in seawater reverse osmosis desalination.

Ready to learn more about how our new flagship energy recovery device can benefit your operations? Contact us at [desalsales@energyrecovery.com](mailto:desalsales@energyrecovery.com).