



# PX U Series for UHPRO

## The key to low-cost ZLD/MLD wastewater treatment

To improve water sustainability, governments have mandated zero or minimal liquid discharge (ZLD or MLD) requirements for wastewater treatment, aimed at reducing wastewater discharge and reusing water from industrial applications. The PX<sup>®</sup> Pressure Exchanger<sup>®</sup> (PX) drives ZLD/MLD operational efficiency by using cutting-edge energy recovery technology to reduce energy use in ultra-high-pressure reverse osmosis (UHPRO) for wastewater treatment.

Our PX U Series, when paired with our UHP Circulation Pump, delivers an end-to-end energy recovery solution that maximizes efficiency and cost savings. The UHP Circulation Pump is designed to complement the PX U Series for ZLD and MLD applications in ultra-high pressure environments. The PX U series is tailored for UHPRO applications with operating pressures up to 120 bar (1,740 psi) and its modular design makes it ideal for small or large plants.



*\*Projected benefits for the PX U Series are based on Energy Recovery's PX Pressure Exchanger, which is installed in HPRO and LPRO plants around the world.*

# BENEFITS\*

- Designed to recover up to 65% of otherwise wasted energy
- Industry leading reliability
- Industry leading efficiency in all flow conditions
- Low OPEX and fast payback
- Compact, modular, and scalable

# FEATURES

- Operates at pressures up to 120 bar (1,740 psi)
- One moving component
- Corrosion resistant alumina core
- No scheduled maintenance



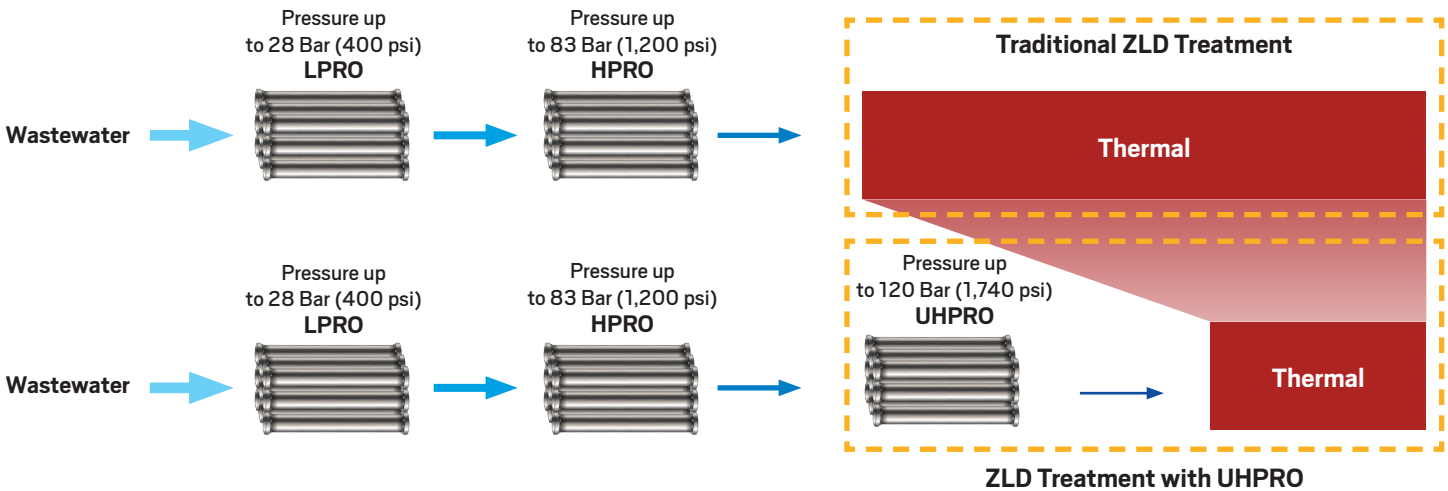
## REDUCING ENERGY COSTS IN WASTEWATER TREATMENT

In wastewater treatment plants incorporating ZLD/MLD, 50% of overall treatment costs are often driven by the last 10% of the water treatment process due to the use of high-cost treatment technologies. UHPRO moves high capital and operating cost technologies, such as mechanical vapor compression (MVC), forward osmosis (FO), and electrodialysis (ED), further downstream. Energy Recovery's PX U Series further reduces the energy waste of the UHPRO process by returning that pressure energy to the system, ultimately reducing overall energy costs.

## PX U Series SPECIFICATIONS

Maximum Operating Pressure: 120 bar (1,740 psi)

	Flow Range m <sup>3</sup> /hr (gpm)	HP / LP Port Connections	Ceramic Cartridge
<b>PX U20</b>	2.3 - 4.5 (10 - 20)	1.5" (DN40) / 1.5" (DN40) Grooved-end Flexible Pipe Coupling	4"
<b>PX U40 (Ultra PX)</b>	4.5 - 9.1 (20 - 40)	1.5" (DN40) / 1.5" (DN40) Grooved-end Flexible Pipe Coupling	4"
<b>PX U80</b>	9.1 - 18.2 (40 - 80)	1.5" (DN40) / 1.5" (DN40) Grooved-end Flexible Pipe Coupling	4"
<b>PX U250</b>	38.6 - 56.8 (170 - 250)	3" (DN80) / 4" (DN100) Grooved-end Flexible Pipe Coupling	8"



## ENERGY RECOVERY — TRUSTED PARTNER FOR DESALINATION

Energy Recovery is the leader in energy recovery technology, with over 30 years of industry experience and over 30,000 PX devices installed in seawater reverse osmosis (SWRO) and low pressure reverse osmosis (LPRO) plants across the world. Our PX has revolutionized desalination by reducing SWRO energy costs by up to 60%, contributing to the overall affordability of the treatment process and making SWRO the industry standard compared to thermal desalination.

The PX delivers the same best-in-class energy recovery efficiency and performance for UHPRO wastewater treatment.

