Reverse Osmosis Desalination Product Portfolio

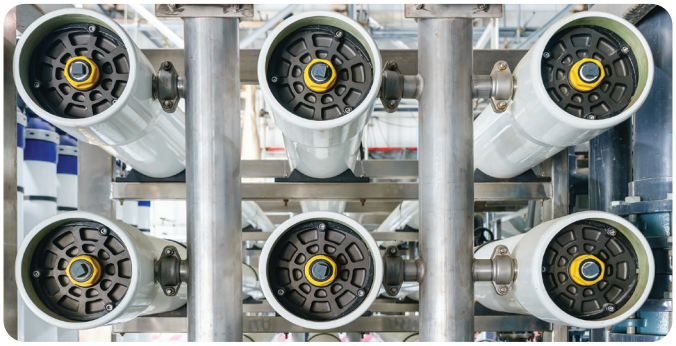
As the global demand for clean water continues to accelerate, safe and reliable desalination solutions are becoming increasingly important to many communities. Flowserve offers a variety of products designed to meet the specific requirements of the desalination industry. You'll find Flowserve pumps and energy recovery devices (ERDs) in more than two-thirds of the world's mega seawater reverse osmosis (SWRO) projects.

Experience that counts

A history of innovation

Flowserve has been a leader in desalination since the process was commercialized on a large scale. The lessons we have learned during our long history in the desalination industry have led to more reliable, durable, efficient, and longer-lasting equipment and systems.

Flowserve solutions utilize the latest technology and are designed using computational fluid dynamics to provide the best system performance. We manufacture our pumps and energy recovery devices using corrosion-resistant materials to ensure long performance life without degradation.



Customer benefits

- **Lower energy costs —** Flowserve focuses on creating the most hydraulically efficient and technologically advanced systems.
- **Avoid disruptions —** We provide monitoring and preventative maintenance services that can ensure plant availability and throughput goals are achieved.
- **Deal with one supplier —** For new projects or major upgrades, our dedicated global project managers and engineering experts offer a comprehensive desalination product portfolio and can help streamline installation and commissioning.
- **Minimize risks —** We invest in aftermarket services and supporting infrastructure to deliver spare parts and local support through a global network of Quick Response Centers (QRCs).
- **Reduce total cost of ownership —** We provide competitive pricing, an optimized footprint and reliable long-term operation.

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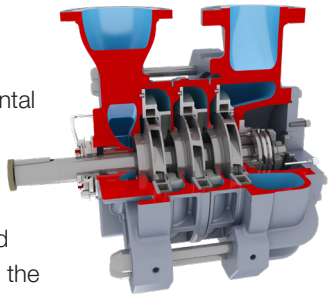
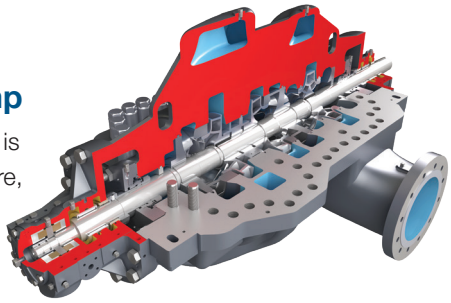
Key products

CSX pump



The CSX multistage, segmental ring, diffuser-style, high-pressure membrane feed pump is designed for high-efficiency operation and long-term reliability, meeting the industry's need for low lifecycle cost equipment. It features advanced hydraulics and high-efficiency impellers, keeping both energy consumption and costs low. The result is a highly reliable and cost-effective feed pump for the heart of any RO system.

DMX-RO pump

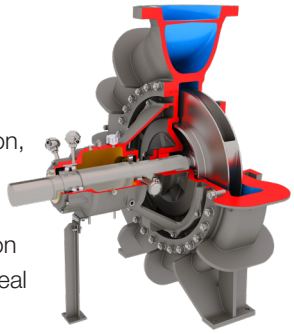


The DMX-RO pump is built for high-pressure, membrane feed services used in SWRO applications. Its comprehensive hydraulic range permits precise selection to deliver the best hydraulic fit, operating efficiency and stability, all of which help to extend mean time between repair.

DVSH-RO pump

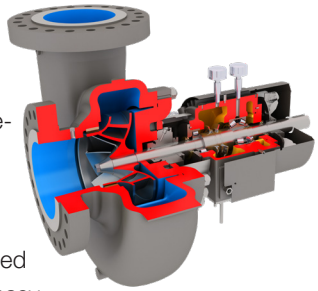
The DVSH-RO single-stage, high-pressure membrane feed pump is engineered to deliver high-efficiency operation and long-term reliability in heavy-duty SWRO processes. A side-by-side nozzle configuration and optimized hydraulics provide the best hydraulic fit to maximize operating efficiency and stability.

DS-RO pump



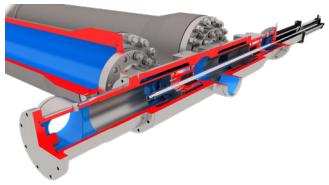
The DS-RO single-stage, end-suction, foot-mounted pump is engineered specifically for auxiliary applications found in reverse osmosis desalination processes. This versatile pump is ideal for plant support services such as pretreatment, boosting and product water supply.

HHPX pump



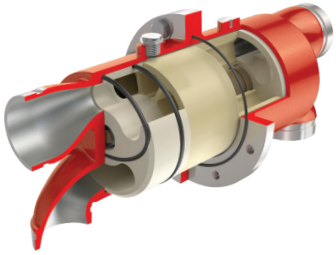
The HHPX is an end-suction, single-stage, radially split pump designed for high-suction pressure SWRO desalination applications, such as ERD boosters. It is specially designed to deliver increased efficiency and easy maintenance, helping desalination plants lower energy and maintenance costs.

DWEER™



The DWEER dual work exchanger energy recovery device is capable of recovering up to 98% of the energy in brine waste streams. Desalination plants can use recovered energy to pressurize raw water, reducing the energy input needed for high-pressure feed pumps by 55%.

Flowserve FLEX™



The Flowserve FLEX pressure exchanger is the most efficient and compact device of its type. It is able to recover more than 98% of hydraulic energy and boasts the highest unit capacity available on the market. As a result, it helps plant operators to drive down the cost of desalination by substantially reducing operating and capital costs.

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