

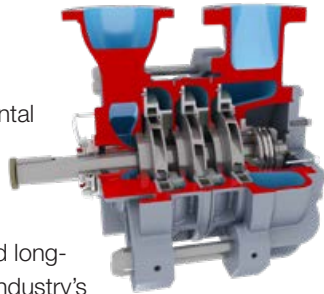


Reverse Osmosis Desalination Product Portfolio

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 in more than two-thirds of the world's mega seawater reverse osmosis (SWRO) projects.

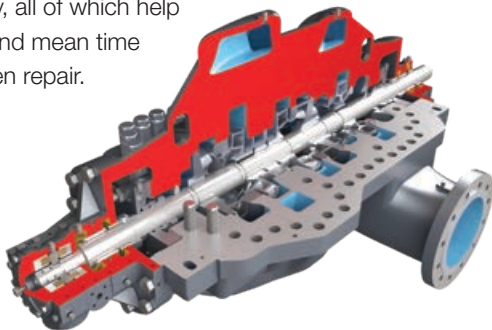
CSX pump

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. CSX pumps feature 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. The pump's 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.



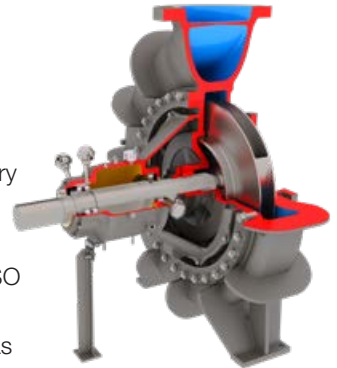
DVSH-RO pump

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.



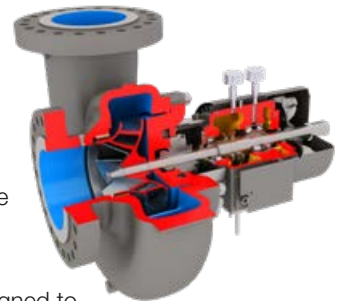
DS-RO pump

The DS-RO single-stage, end-suction, foot-mounted pump is engineered specifically for auxiliary applications found in reverse osmosis desalination processes. Developed in accordance with ISO 5199, this versatile pump is ideal for plant support services such as pretreatment, boosting and product water supply.



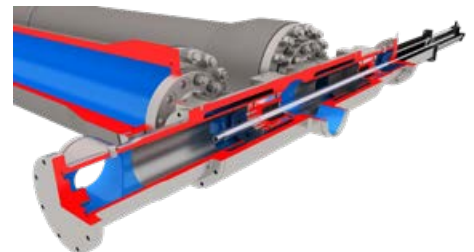
HHPX pump

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



DWEER™

The Dual Work Exchanger Energy Recovery (DWEER) is an isobaric energy recovery device 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%.



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 products.

Flowserve solutions utilize the latest technology and are designed using computational fluid dynamics to provide the best system performance. We manufacture our pumps 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.

Flowserve Corporation
5215 North O'Connor Blvd.
Suite 2300
Irving, Texas 75039-5421 USA
Telephone: +1 937 890 5839

Flowserve Corporation has established industry leadership in the design and manufacture of its products. When properly selected, this Flowserve product is designed to perform its intended function safely during its useful life. However, the purchaser or user of Flowserve products should be aware that Flowserve products might be used in numerous applications under a wide variety of industrial service conditions. Although Flowserve can provide general guidelines, it cannot provide specific data and warnings for all possible applications. The purchaser/user must therefore assume the ultimate responsibility for the proper sizing and selection, installation, operation, and maintenance of Flowserve products. The purchaser/user should read and understand the Installation Instructions included with the product, and train its employees and contractors in the safe use of Flowserve products in connection with the specific application.

While the information and specifications contained in this literature are believed to be accurate, they are supplied for informative purposes only and should not be considered certified or as a guarantee of satisfactory results by reliance thereon. Nothing contained herein is to be construed as a warranty or guarantee, express or implied, regarding any matter with respect to this product. Because Flowserve is continually improving and upgrading its product design, the specifications, dimensions and information contained herein are subject to change without notice. Should any question arise concerning these provisions, the purchaser/user should contact Flowserve Corporation at any one of its worldwide operations or offices.

©2020 Flowserve Corporation. All rights reserved. This document contains registered and unregistered trademarks of Flowserve Corporation. Other company, product, or service names may be trademarks or service marks of their respective companies.

PUFLY000139 (EN/AQ) March 2020