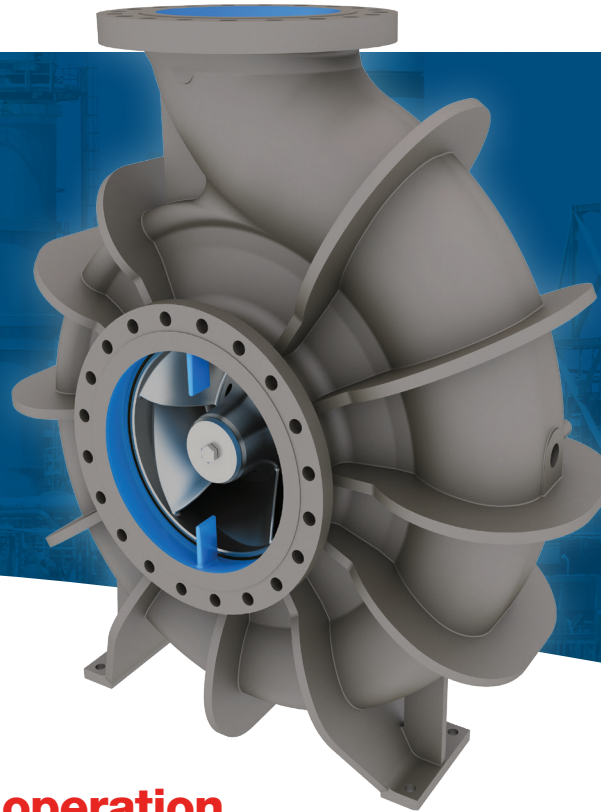




DS-RO

Horizontal, end-suction, radially split, double volute pump for reverse osmosis desalination



The DS-RO pump is based on the widely used Flowserve DS pump, which is designed for high-efficiency operation and long-term reliability.

High-efficiency operation with increased uptime

The Flowserve DS-RO single-stage, end-suction, foot-mounted pump is engineered specifically for auxiliary applications found in reverse osmosis (RO) desalination processes. This versatile pump is well-suited for any RO service that needs the next generation of end-suction pumps for desalination. Optimized hydraulics and desalination specific materials of construction provide high-efficiency performance and long-term reliability that result in increased uptime with low cost of ownership.

A comprehensive portfolio

The DS-RO pump is one of a number of pumps offered by Flowserve designed to meet the specific pumping requirements of the desalination industry. With a pump portfolio that includes a variety of high-efficiency models for source water intake, high-pressure membrane feed, ERD boosters and auxiliary applications, Flowserve has solidified its position as a single-source supplier to the desalination industry.



Watch the video!

Main features

Rigid shaft and double volute casing provide stable operation and enable sustained efficiency. Shaft deflection and radial thrust loads are minimized, reducing vibration and mechanical loads on all components.

The **end-suction design** with a choice of three alternative discharge nozzle locations provides system flexibility.

Materials of construction are designed to withstand the corrosive environments typical of desalination processes.

Parts interchangeability over a range of pump sizes lowers spare part inventories and costs.

A **spacer type coupling** allows full inspection of the back pull-out type pump in minimum time, without disturbing suction and discharge connections.

The **closed impeller** utilizes three-dimensionally contoured blades extending into the impeller, combining high efficiencies and low NPSHR.

A **mechanical seal** assures proper shaft sealing under all operating conditions.

Typical applications

- Seawater and brackish water reverse osmosis processes
- Filtered seawater
- Low- and high-pressure feed boosters
- Product services
- Potable water
- Backwash

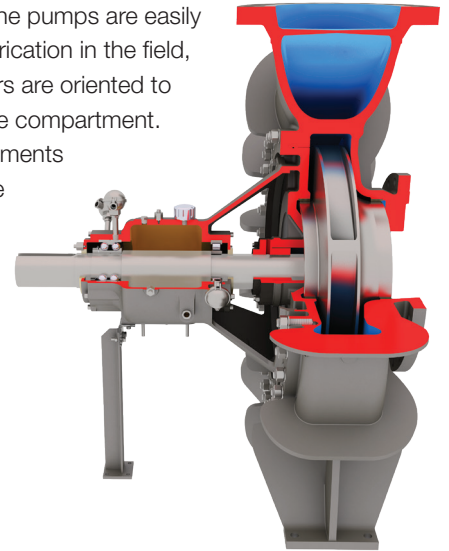
Operating parameters*

- Flows to 11,000 m³/h (48,432 gpm)
- Heads to 180 m (591 ft)
- Pressures to 27 bar (392 psi)
- Temperatures to 45°C (113°F)
- Frequency of 50 or 60 Hz; VFD compatible
- Sizes from 200 to 700 mm (8 to 28 in.)

*For extended range, please consult with our specialists.

Available bearing configurations

The DS-RO pump comes standard with antifriction-type, oil-lubricated bearings. A constant-level oiler ensures adequate oil levels are maintained for proper lubrication. The pumps are easily converted to grease lubrication in the field, if desired. Bearing covers are oriented to allow nipples and grease compartment. Bearing cooling arrangements are available for extreme conditions of service.



Optional instrumentation



REDRAVEN™

The DS-RO pump is compatible with advanced internet of things (IoT) solutions such as RedRaven condition monitoring from Flowserve. Flowserve RedRaven IoT solutions give you the insights and

tools you need to monitor, analyze and predict equipment performance — so you can improve pump uptime while reducing maintenance and energy costs.



Ask your Flowserve representative about optional RedRaven IoT monitoring packages or visit flowserve.com/iot to learn more.

Flowserve Corporation
5215 North O'Connor Blvd.
Suite 700
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.

©2022 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.

PUFLY000055-04 (EN/A4) May 2022