The Flowserve 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 well-suited for plant support services such as pretreatment, boosting and product water supply. 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.

**Main Features**

- **A rigid shaft and double-volute casing** keep shaft deflection low, reducing radial load and promoting high sustained efficiency.
- **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.
- **Double-volute casing** provides stable operation. Radial thrust loads are minimized, reducing vibration and mechanical loads on all components.
- **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.
DS-RO
Horizontal end-suction radially split double volute pump

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

Available bearing configurations
DS-RO pumps come 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.

Sealing arrangements
A stuffing box with soft packing and mechanical seal configurations are available.

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 6000 m³/h (26,000 gpm)
- Heads to 180 m (530 ft)
- Pressures to 25 bar (365 psi)
- Temperatures to 45°C (113°F)
- Frequency of 50 or 60 Hz; compatible with VFD applications
- Sizes from 200 to 600 mm (8 to 20 in)

*For extended range, please consult with our specialists.

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

PUFLY000055 (EN/AQ) October 2019

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.

©2019 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.

flowserve.com