

Major Reverse Osmosis System Components for Water Treatment: The Global Market

Market Research Report | 2024-11-28 | 165 pages | BCC Research

AVAILABLE LICENSES:

- Single User License \$4650.00
- 2-5 Users License \$5580.00
- Site License \$6696.00
- Enterprise License \$8035.00

Report description:

Description

Report Scope:

This report on the global market for major RO system components for water treatment includes a market study for the period of 2023 through 2029. The base year of the analysis is 2023, with 2024 through 2029 serving as the forecast period. The revenue calculated in this report is in \$ million. This report is an in-depth analysis of the RO system components industry in a qualitative and quantitative manner. The market is segmented by:

- Component type: cartridge prefilters, ancillary components, RO membrane modules, RO pumps and pressure vessels/housings.
- Operating pressure: 10-100 psi, 100-400 psi and 400 psi and above.
- Application: municipal water purification, brackish and seawater desalination, wastewater treatment and others.
- By end user: industrial, municipal and agriculture.

Report Includes:

- 70 data tables and 59 additional tables
- Analysis of the global major reverse osmosis (RO) system components for water treatment and water purification processes
- Analyses of global market trends, with market revenue data for 2023, estimates for 2024, and projected CAGRs through 2029
- Estimates of the market size and revenue growth prospects of the global market, along with a market share analysis by component type, operating pressure, application, end user, and region
- Facts and figures pertaining to the market dynamics, technical advances, regulations, and the impact of macroeconomic factors
- A Porter's Five Forces model, and global supply chain and PESTLE analyses
- Analysis of patents, emerging trends, and new developments
- Analysis of the industry structure, including companies' market shares, strategic alliances, M&A activity and a venture funding

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

outlook

- Overview of sustainability trends and ESG developments, with emphasis on consumer attitudes, and ESG scores and practices of leading companies
- Profiles of the market leaders, including Veolia Environment S.A., 3M, Parker Hannifin Corp., and Flowserve Corp.

Executive Summary

Summary:

RO membranes are pressure-driven, membrane-based separation technology used to filter and retain particles and molecules. The RO system consists of five major components, including cartridge prefilters, ancillary components, RO membrane modules, RO pumps and pressure vessels/housings. Cartridge prefilters have dominance in terms of revenue, as this component is used as a prefiltration technology for RO systems. The other segments, such as RO pumps and pressure vessels/housings, are growing at almost similar CAGRs due to their low replacement rate and following the same rates at which initial demand of RO systems has been recorded.

The report's scope includes categories of operating pressure: 10-100 psi, 100-400 psi and 400 psi and above, which are related to applications and end users. The high range of operating pressure is associated with industrial end users and for some parts of brackish and seawater desalination, wastewater treatment and others.

The market's application segment includes municipal water purification, brackish and seawater desalination and wastewater treatment. Among these, brackish seawater desalination has the highest share in 2023, 36.9%, followed by wastewater treatment with a 35.0% market share. The municipal water purification segment is expected to record the highest CAGR of 13.2% during the forecast period. The regional analysis of the major RO system components industry shows the highest holding of the APAC region at 33.2% in 2023, which has recorded a growth trend of 13.7% during the forecast period 2024 to 2029 and will maintain the significant shareholding in the global marketplace at a rate of 37.8% by 2029. The regional growth is supported by the high adoption of RO systems in all three major segments (municipal, industrial and agricultural) in APAC countries. The ASEAN countries and Australia are actively adopting RO systems, while China is continually working on improving water extraction through desalination methods. Therefore, the individual performance of countries, depending upon geographical locations, adoption rate, awareness related to freshwater usage and availability of freshwater resources, are all acting as growth drivers for cumulative performance of the market of APAC RO system components for water treatment.

Companies like 3M, Veolia Environment S.A., Parker Hannifin Corp. and Flowserve Corp. are some of the major companies around the world that are performing well on the RO components front. Largescale companies are focusing more on product innovation and investment in R&D for RO components to make them energy efficient and to cater to the broader range of customers that are using RO systems at municipal and industrial levels. For instance, in March 2023, Veolia Water Technologies & Solutions partnered with Facens University Center to open a laboratory for R&D, academic learning and professional training with the goal of developing sustainability projects involving both Veolia employees and Facens students. Meanwhile, small-scale companies like Entegris, Flowserve, Grundfos, Hydranautics (A Nitto Group Company) and Parker Hannifin Corp. are catering to a narrow range of demand for RO components through competitive strategies like product launch and business expansion.

For instance, in October 2022, Grundfos opened a new in-house testing facility for submersible pumps at its South Australian headquarters that has boosted its capacity to test more than 16,000 pumps annually. During the same period, Grundfos also opened a plant in Serbia. This extension adds an additional 17,000 sqm to its Serbian facilities. The expanded plant will serve a global market, primarily including circulator pumps, domestic wastewater pumps, domestic pressure boosters and integrated water circuits (IWCs).

Table of Contents:

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- Table of Contents
- Chapter 1 Executive Summary
 - Market Outlook
 - Scope of Report
 - Market Summary
- Chapter 2 Market Overview
 - Overview
 - Introduction to Membrane-based Filtration
 - Introduction to Reverse Osmosis Technology
 - RO System Components
 - RO Process Configuration
 - Key Terms Used in RO Systems
- Chapter 3 Market Dynamics
 - Market Dynamics
 - Market Drivers
 - Increasing Applications of RO Systems
 - Demand for Advanced Purification Methods
 - Restraints and Challenges
 - High Rate of Rejected Water During the RO Filtration Process
 - Regulations Related to the Use of Different Filtration Processes
 - Complexity in Treating Contaminants
 - Opportunity
 - Availability of Pre-Treatment Options
 - Growth in Number of Desalination Plants
- Chapter 4 Emerging Technologies and Developments
 - Zwitterionic Material for RO Membranes-Advance in Membrane Technology
 - Nanotechnology in RO Membranes
 - Patent Analysis
 - Significance of Patents
 - Patent Analysis Based on Country of Origin
 - Patent Analysis Based on Applicants
 - Patent Analysis Based on Year Issued
- Chapter 5 Market Segmentation Analysis
 - Segmentation Breakdown
 - Market Analysis by Components
 - Cartridge Prefilters
 - Ancillary Components
 - RO Membrane Modules
 - RO Pumps
 - Pressure Vessels/ Housings
 - Market Analysis, by Operating Pressure
 - 10-100 psi
 - 100-400 psi
 - 400 psi and above
 - Market Analysis by Application
 - Municipal Water Purification
 - Brackish and Seawater Desalination

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Wastewater Treatment
Other Applications
Market Analysis by End User
Industrial
Municipal
Agriculture
Geographic Breakdown
Market Analysis by Region
Asia-Pacific
North America
Middle East
Europe
South America and Africa
Chapter 6 Competitive Intelligence
Industry Structure
Global RO System Components Market: Market Share
Strategic Analysis
Expansion
Partnership and Acquisitions
Chapter 7 Sustainability in the RO System Components Industry: An ESG Perspective
Importance of ESG in the RO System Components Industry
ESG Practices in the Major RO System Components Industry
Future of ESG: Emerging Trends and Opportunities
Concluding Remarks from BCC Research
Chapter 8 Appendix
Methodology
Sources
Abbreviations
Company Profiles
3M
ENTEGRIS
FLOWSERVE CORP.
GRUNDFOS HOLDING A/S
HANGZHOU FUYANG BONA WATER PURIFICATION EQUIPMENT CO. LTD.
HYDRANAUTICS (A NITTO GROUP COMPANY)
HYDROPHILE RO COMPONENTS
KOVALUS SEPARATION SOLUTIONS
KSB SE & CO. KGAA
PARKER HANNIFIN CORP.
PENTAIR
SHAKTI PUMPS (INDIA) LTD.
TORAY INDUSTRIES INC.
VEOLIA
XYLEM

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Major Reverse Osmosis System Components for Water Treatment: The Global Market

Market Research Report | 2024-11-28 | 165 pages | BCC Research

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4650.00
	2-5 Users License	\$5580.00
	Site License	\$6696.00
	Enterprise License	\$8035.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-03-05"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

