MURUGAPPA membranes

BW Series

MEMBRANES

Enriching Lives With Purity

Murugappa Membranes
(A Division of Parry Enterprises India Limited)

Murugappa Membranes
RO Membrane Elements Product Brochure

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About Us

Murugappa Membranes is the membrane manufacturing division of Parry Enterprises India Limited (PEIL). One of the oldest company within Murugappa Group supplying time tested high performance membranes. PEIL has been manufacturing polymer-based products for more than 40 years in India. Murugappa Membranes has a world class membrane manufacturing facility located at Palej, Gujarat.

Our technical expertise lies in UF, MBR, direct-NF, RO and other membrane solutions. Murugappa Membranes supplies specialized high performance industrial RO membranes for a wide range separation and purification applications. Our brackish water RO membrane modules are designed to provide exceptional salt rejection and high permeate flow rates with minimal fouling, making it ideal for a wide range of brackish water treatment applications.

Product Overview

Brackish Water RO (BWRO) Membrane Module Series

Murugappa Membranes presents state-of-the-art BW Series RO membranes built for stable performance and optimal efficiency.

Leveraging cutting-edge advancements in membrane formulation and production technology, our modules feature:

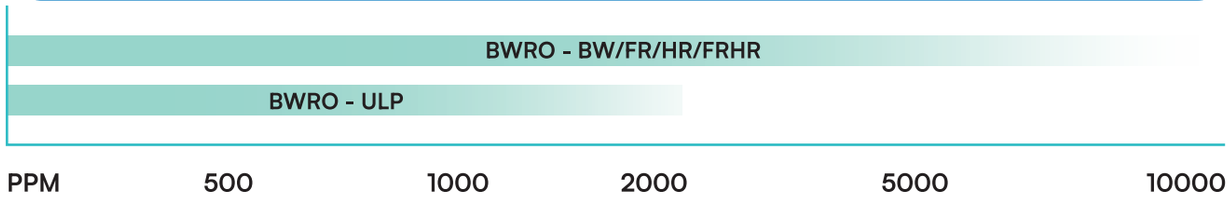
Low Operating Pressure: Reduces energy consumption and operational costs.

High Water Flux: Ensures efficient Feed water processing.

Superior Fouling Resistance: Minimizes maintenance and enhances longevity

Murugappa Membranes BW Series RO membrane modules can meet water quality standards and treat a variety of feed water types including but not limited to use in brackish water desalination, thermal power plant feedwater, pure and ultrapure water preparation, sewage treatment, recycle, chemical and petrochemical processes, food and beverage processing, municipal water treatment, and other industries.

SELECTION CHART ACCORDING TO FEED TDS



BW Series Nomenclature

Abbreviation	Membrane Type	Diameter	Length	Active Area
MM : Murugappa Membranes **BW :** Brackish Water Series	**ULP :** Ultra Low Pressure **FR :** Fouling Resistant **HR :** High Recovery **FRHR :** Fouling Resistant High Recovery	40: 4 Inch	40: 40 Inch	82 : 82 ft^2

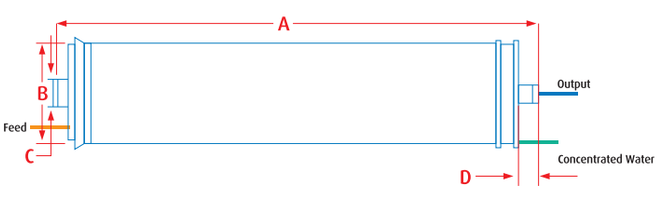
Technical Specifications

Technical Specifications of industrial BWRO membrane modules

Type	Membrane Model	Active Area ft^2 (m^2)	Flux GPD (m^3/day)	Minimum Rejection Rate %	Stabilized Rejection Rate %	Pressure psi (MPa)
BW	MM BW-4040-82	82 (7.6)	2250 (8.6)	99.3	99.7	225 (1.55)
BW ULP	MM BW ULP-4040-82	82 (7.6)	2250 (8.6)	99.3	99.6	150 (1.03)
BW FR	MM BW FR-4040-82	82 (7.6)	2000 (7.6)	99.3	99.5	225 (1.55)
BW HR	MM BW HR-4040-82	82 (7.6)	2250 (8.6)	99.3	99.5	225 (1.55)

Operating and Cleaning Limits

Parameters	Values
Maximum Operating Pressure psi (Mpa)	600 (4.14)
Operating Temperature Range (^{0}C)	0-45
Maximum Feed SDI	5
Free Chlorine Tolerance (mg/L)	0.1
pH Range (continous operation)	3-10
pH Range (short-term cleaning)	1 -13
Maximum Element Pressure Drop psi (Mpa)	15 (0.1)



Particular	40-40 Module (mm)	40-40 Module (inch)
A	1016	40
B	99	3.9
C	19	0.75
D	26.5	1.04

Applications

Municipal Water Treatment
RO Elements are used to remove dissolved salts, contaminants, and impurities from brackish water, ensuring safe, clean and drinking water for communities.

Agricultural Irrigation
Desalinate brackish water, providing clean, high-quality water for crops, improving yield, and reducing the risk of soil salinization caused by untreated or salty water.

Food and Beverage Industry
Ensuring purity of water for production processes, removing contaminants, ensuring product consistency, and meeting regulatory water quality standards.

Industrial Process
To purify water by removing salts, minerals, and contaminants, helping industries maintain water quality for processes like cooling, manufacturing, and cleaning while reducing scaling and fouling in equipment.

Power Generation
To treat and purify water for cooling systems, steam generation, and boiler feedwater, ensuring optimal performance of equipment by preventing scaling, corrosion, and mineral buildup.

Pharmaceutical and Healthcare
For safe and effective production, ensure the purity of water for manufacturing, cleaning, and sterilization processes, ensuring the removal of impurities and microorganisms.

Murugappa membranes BW RO Membrane Modules

Advanced Technology
Our membranes are developed using the latest advancements in membrane science.

Customer Support
Dedicated technical support and customer service to assist with your specific needs.

Quality Assurance
Rigorous testing and quality control ensure consistent performance and reliability.

Sustainability
Committed to provide eco-friendly solutions that reduce environmental impact.

Notes

1. Permeate flow for individual element may vary ±10% from the value specified.
2. Active membrane area guaranteed ±2%.
3. Stabilized salt rejection is generally achieved within 24-48 operational hours; depending upon feed water and operational parameters.
4. Flux and rejection rate is based on the following standard test conditions: 1.03 MPa (150 psi) pressure, 77°F (25°C), 2,000 ppm $MgSO_4$ solution and pH 8 for feedwater, and 15% recovery.

For more information or to request a quote, please contact us at

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