

basiia

REVERSE OSMOSIS WATER TREATMENT SOLUTIONS

SWRO • BWRO • NF

BASIIA delivers advanced, reliable and energy-efficient membrane systems for the production of high-quality water for municipal, industrial and process applications.



SWRO SEA WATER REVERSE OSMOSIS

- 35,000 – 45,000 ppm TDS
- High salt rejection (>99.7%)
- Desalination for municipalities, resorts, islands and industry
- Robust design for harsh marine conditions



BWRO BRACKISH WATER REVERSE OSMOSIS

- 1,000 – 15,000 ppm TDS
- Recovery up to 85%
- Low energy consumption
- Ideal for wells, agriculture and industrial applications



NF NANOFILTRATION

- Hardness removal
- Color and organic reduction
- Heavy metals reduction
- Partial demineralization
- Surface water and reuse applications

THE RO PROCESS



FEED WATER
Raw water
intake



PRETREATMENT
Filtration & chemical
treatment



**HIGH PRESSURE
PUMP**
Pressurization



RO MEMBRANES
Salt & impurity
removal



PERMEATE
High quality
product water



CONCENTRATE
Recovery or
disposal

KEY FEATURES

- ✓ High Recovery & High Efficiency
- ✓ Low Energy Consumption
- ✓ Modular & Scalable Design
- ✓ Premium Membranes
- ✓ SS316L / Duplex Construction
- ✓ Advanced Automation (PLC + SCADA)
- ✓ Remote Monitoring & Diagnostics
- ✓ Automatic CIP System

TYPICAL CAPACITY RANGE



SWRO
1 – 10,000 m³/day



BWRO
5 – 5,000 m³/day



NF
2 – 2,000 m³/day



RECOVERY
35 – 85%



SALT REJECTION
>99.7%

INDUSTRIES SERVED



Municipal



Oil & Gas



Power
Generation



Mining



Food & Beverage



Pharmaceutical



Hospitality



Commercial



Agriculture



Marine & Offshore



Military



Industrial

OUR SOLUTIONS

- Water Treatment
- Reverse Osmosis (SWRO, BWRO, NF)
- Wastewater Treatment
- Odor Control
- Pumping Systems
- Process Engineering

WE DELIVER

- Engineering
- Design
- Manufacturing
- Installation
- Commissioning
- Operation & Maintenance

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Kingdom of Saudi Arabia

basiia

ENGINEERING SUSTAINABLE
WATER SOLUTIONS



basiia

Solutions

SWRO • BWRO • NF

Engineered for Performance.
Built for Reliability.



High Quality
Water



Energy
Efficient



Reliable
Operation



Lower Life
Cycle Cost

SWRO

Sea Water Reverse Osmosis

- ✓ Designed for seawater desalination
- ✓ TDS 35,000 – 45,000 ppm
- ✓ High salt rejection up to 99.7%
- ✓ Recovery up to 50%
- ✓ Robust & Corrosion Resistant



BWRO

Brackish Water Reverse Osmosis

- ✓ TDS 1,000 – 15,000 ppm
- ✓ High recovery up to 85%
- ✓ Low energy consumption
- ✓ Flexible & Modular Design
- ✓ Ideal for municipal & industrial use



NF

Nanofiltration

- ✓ Hardness & Color Removal
- ✓ Organic Matter Reduction
- ✓ Heavy Metals Removal
- ✓ Partial Demineralization
- ✓ Perfect for Surface Water



TYPICAL RO PROCESS



Raw Water
(Intake)



Screening



Pretreatment
(MMF / ACF / CF)



High Pressure
Pumping



RO Membranes
(SWRO / BWRO / NF)



Clean Water
(Permeate)



Concentrate
(Disposal / Reuse)



KEY BENEFITS

- ✓ High Quality Water
- ✓ High Recovery & Efficiency
- ✓ Low Chemical Consumption
- ✓ Advanced Automation
- ✓ Compact & Modular Design
- ✓ Energy Recovery Options
- ✓ Long Membrane Life
- ✓ Easy Operation & Maintenance
- ✓ International Standards
- ✓ Turnkey EPC Solutions

APPLICATIONS



Municipal



Industrial



Oil & Gas



Power Plants



Mining



Hospitality



Agriculture



Marine & Offshore

OUR SERVICES

- ✓ Engineering & Design
- ✓ Manufacturing
- ✓ Installation & Commissioning
- ✓ Operation & Maintenance
- ✓ Performance Optimization

WHY BASIIA?



Engineering
Excellence



Quality
Components



Proven
Performance



Global
Standards

basiia

Engineering Sustainable
Water Solutions