

ZeoSorb®

FILTRATION SYSTEM

THE ULTIMATE PRETREATMENT FOR
SEA WATER DESALINATION (RO)

WATCH WATER®
GERMAN TECHNOLOGY 

ENGINEERED FOR
EXTREME
PERFORMANCE
BUILT FOR
RELIABILITY

MAXIMIZE RO PERFORMANCE.
MINIMIZE COSTS.

ZeoSorb® advanced natural zeolite filter media delivers unmatched filtration and protection for seawater desalination systems. It removes suspended solids, organic matter, colloids, oil & grease, and reduces biofouling potential – ensuring longer membrane life, lower energy consumption, and consistent high-quality permeate.



WHY ZEOSORB® ?

- ✓ High Dirt Holding Capacity
- ✓ Excellent Turbidity Removal
- ✓ Reduces SDI to < 3.0
- ✓ Removes Organic Matter & Colloids
- ✓ Minimizes Membrane Fouling
- ✓ Enhances RO System Recovery
- ✓ Resistant to Sea Water Conditions
- ✓ Naturally Occurring & Eco-Friendly
- ✓ Proven in Thousands of Installations



MAXIMUM
PROTECTION



LOWER
OPEX



LONGER
LIFE



SUSTAINABLE
SOLUTION

FILTRATION PERFORMANCE

Tested in Real Sea Water Conditions

PARAMETER	TYPICAL REMOVAL EFFICIENCY
TSS (Suspended Solids)	> 98%
Turbidity	> 95%
SDI (15 min)	< 3.0
Oil & Grease	> 90%
TOC (Organic Carbon)	> 50%
Colloids & Fine Particles	> 95%
Bacteria (attached)	> 99%
Algae & Microorganisms	> 99%

* Performance may vary based on raw water quality and operating conditions.

TECHNICAL SPECIFICATIONS

Media	Natural Zeolite (Clinoptilolite)
Grain Size	0.6 – 1.5 mm (18x35 Mesh) or 1.5 – 2.5 mm (14x30 Mesh)
Bulk Density	0.85 – 0.95 kg/L
Uniformity Coefficient	≤ 1.6
pH Range	6.5 – 9.0
Max. Operating Temp.	60 °C
Max. Operating Pressure	10 bar
Bed Depth	1000 – 1500 mm
Freeboard	40 – 50%
Backwash Expansion	25 – 30%
Service Flow Rate	10 – 20 m³/h/m²
Backwash Flow Rate	25 – 30 m³/h/m²
Backwash Duration	10 – 15 min
Rinse Rate	10 – 15 m³/h/m²
pH During Backwash	6.5 – 8.5

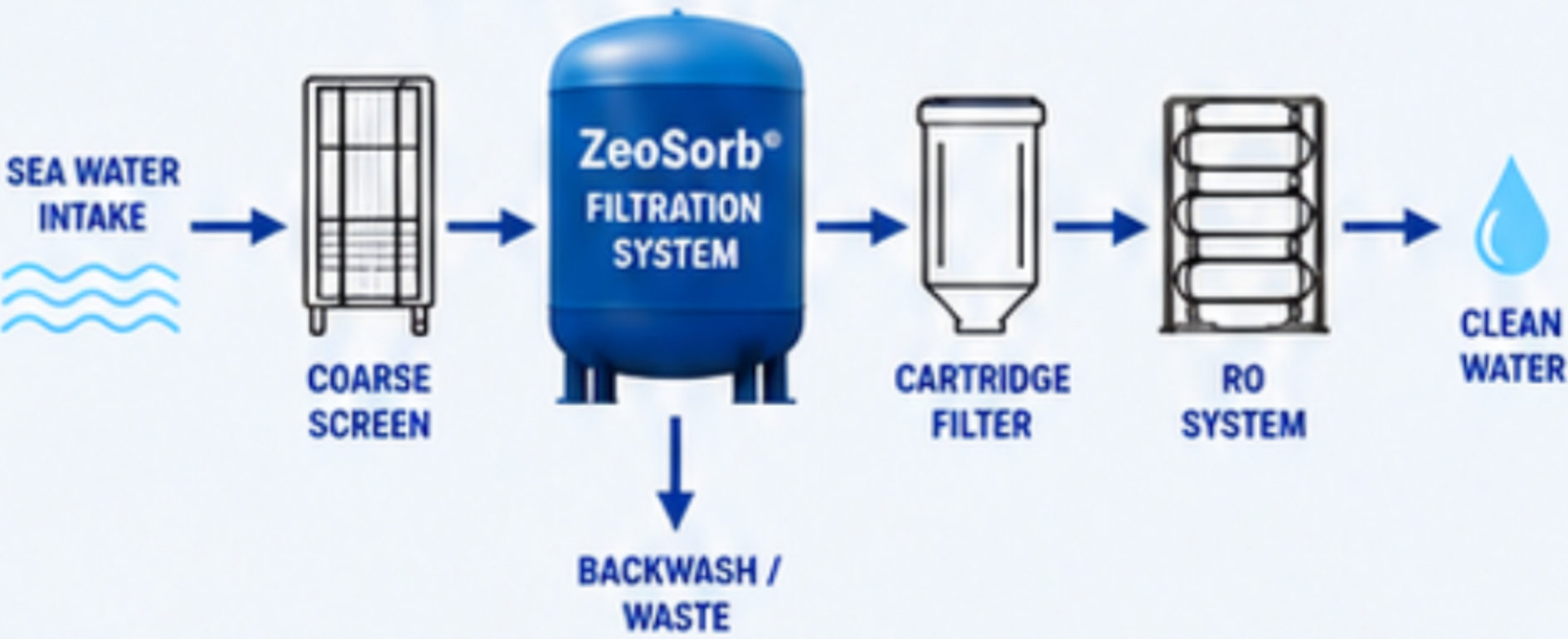
TYPICAL APPLICATIONS

-  Seawater RO Pretreatment
-  Brackish Water Treatment
-  Industrial Desalination Plants
-  Power Plant Desalination
-  Offshore & Marine Applications

MEDIA ADVANTAGES

- Naturally sourced – safe & non-toxic
- High mechanical strength
- Compatible with sea water chemistry
- Long service life
- Easy backwash and maintenance
- Reduces chemical consumption

SYSTEM FLOW DIAGRAM



DESIGN EXAMPLE

For 1000 m³/day SWRO Plant

No. of Vessels	3 (2 Duty + 1 Standby)
Vessel Size	Ø 2000 mm x 2500 mm H
Media Volume per Vessel	4.0 m³
Bed Depth	1200 mm
Freeboard	50%
Flow Rate per Vessel	80 m³/h
Backwash Flow per Vessel	200 m³/h
System Total Flow	160 m³/h (per train)

BUILT TO PERFORM
IN THE TOUGHEST
ENVIRONMENTS.

PROTECT YOUR RO.
PROTECT YOUR INVESTMENT.
CHOOSE ZEOSORB®.
CHOOSE WATCH WATER.

RECOMMENDED OPERATING CONDITIONS

Inlet Water Quality (Typical)	
Temperature	10 – 35 °C
pH	> 7
TSS	< 50 mg/L
Turbidity	< 10 NTU
SDI (15 min)	< 5.0

OPTIONAL COMBINATIONS

ZeoSorb® can be used as a single media or combined with:

- Anthracite (for additional turbidity removal)
- Quartz Sand (for heavy solid loading)
- Activated Carbon (for organic matter control)

CERTIFICATIONS

ZeoSorb® is tested and certified to NSF/ANSI Standard 61 for material safety.

 **MADE IN GERMANY**

COMMERCIAL INFORMATION

Indicative Price	On Request (Depends on quantity & specification)
Delivery Time	On Request
Packaging	25 kg Bags / Big Bags or as per request
Payment Terms	T/T Advance or as agreed
Minimum Order Quantity	On Request

ZeoSorb® – THE NATURAL CHOICE FOR HIGH-PERFORMANCE PRETREATMENT

WATCH WATER® GmbH
Fahrlachstraße 14, 68165 Mannheim, Germany
Telephone : +49 621 879510
Email : info@watchwater.de
www.watchwater.de

WATCH WATER®
a Water Company