ENERGY

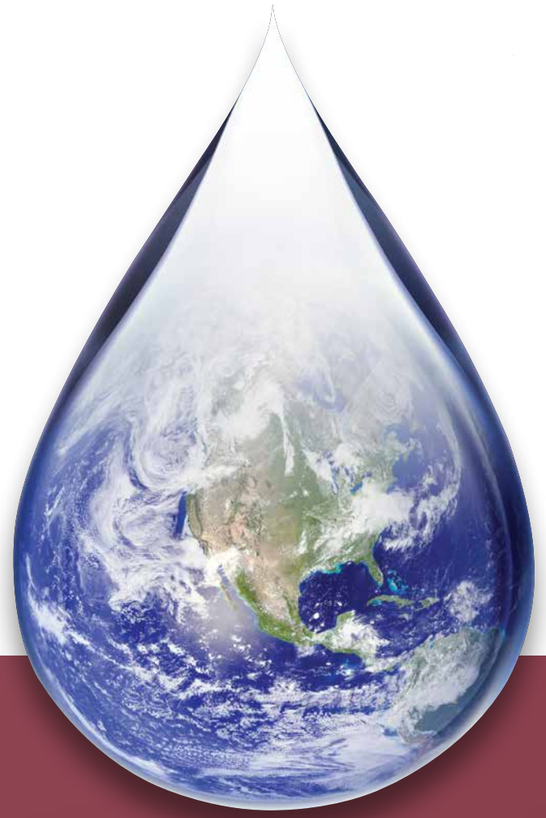
professional treatment solutions
turning your water into benefit



aquamatch®

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with our quality, we are everywhere there is water



Asia

Afghanistan
Azerbaijan
Bangladesh
Georgia
India
Japan
Kazakhstan
Kyrgyzstan
Myanmar
Nakhichevan
Nepal
Uzbekistan
Pakistan
Russia
Sakhalin Island
Tajikistan
Turkmenistan

Europe

Albania
Bulgaria
Cyprus
Greece
Ireland
Latvia
Malta
Moldova
Romania
Slovakia
Ukraine

Africa

Algeria
Cameroon
Djibouti
Egypt
Ethiopia
Ghana
Guinea
Libya
Maldives
Morocco
Niger
Nigeria
Sierra Lione
Sudan
Tunusia
Zambia

Middle East

United Arab Emirates
Iraq
Iran
Israel
Jordan
Oman
Palestine
Qatar
Syria
Saudi Arabia
Yemen

Our company, which has been serving in the treatment sector since 1989, has entered into a joint investment with Aquamatch Inc. in 1996 and started designing and producing in Turkey. Since 2003, it has been an engineering and treatment company with 100% Turkish capital.

Our company has become one of the world's leading companies of water and wastewater treatment sector by signing big references and projects in 4 continental and more than 50 countries.

Professional treatment solutions

Turning your water into benefit

- 9000 m^2 indoor production facilites in Aydın
- Installation of mega desalination and wastewater recovery facilites
- Over 20 years of deep knowledge and manufacturing experience in membrane technologies
- Sales and technical services with 16 dealers in 10 different cities
- Installation and operation of turnkey water & waterwater treatment systems at home and abroad
- Engineering, design, manufacturing, sales and after sales services staff of about 300 people together with our dealers





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Aksa / Yalova

Capacity:

877 m³/h Ultrafiltration System

477 m³/h SWRO System

437 m³/h 2. Pass RO System

134 m³/h Electrodeionization System

Eren Energy / Zonguldak

Capacity:

1800 m³/h Ultrafiltration System

880 m³/h SWRO System

700 m³/h BWRO System

200 m³/h MBDI System





EnerjiSA / Bandırma

Capacity:

120 m³/h Ultrafiltration System

60 m³/h SWRO System & Activated Carbon Filter

Filtration Systems

Filtration systems are used to remove physical impurities such as sediment, turbidity, suspended solids, colour, odour and smell.



Filters remove particulates/ediments with various sizes and density by holding them with different media layers inside the tank. Filters are backwashed automatically in order to remove these paticulates/sediments from filter bed.

General Features

- FRP / Epoxy Coated Carbon Steel Tanks / Carbon Steel Tanks - Neopren Coated Inside
- 4- 6 Bar Operating Pressure
- Pneumatic Actuated Butterfly Valves
- HDPE / PE / Galvanise Face Piping
- PLC Control Panel
- Electricity 220 V / 50 Hz / 1 pH
- Anthracite, Sand and Graded Gravel Media for Multi Media Filters
- Granular Activated Carbon and Graded Gravel for Activated Carbon Filters
- Standard Products up to 450 m³/h Capacity

Applications

- Pre treatment of process water
- Pre treatment of boiler make up
- Filtration of cooling tower make up
- Filtration of condensate



Essentials for System Design

- Various velocity rattes for different feed water quality
- SDI, Turbidity, Total Suspended Solids, Organic Matter, Total Iron and Manganese values in feed water
- Chemical dosing systems according to different water quality

Ultrafiltration Systems Vertical Series

Ultrafiltration (UF) systems are used for filtration of especially sea water, river water, well water and spring water that have dense and variable physical impureness load by membrane technology.

Bacteria, viruses and turbidity in the water can be removed at high rates by hollow fiber membranes with a pore size of 0.02 microns.

UF systems are operated according to the vertical flow principle. The impurities that are held membranes are removed by automatic backwash. Membranes are also periodically chemically enhanced backwash with chemical. Average system recovery is %85-90.



General Features

- Hollow Fiber UF Membranes
- Automatic Backwash & Chemical Washing Unit
- Backwash & CEB Pumps
- PE/PVC Piping
- PLC Control & Operator Panel
- Standart Products up to 220 m3/h capacity

Applications

- Pre treatment of desalination systems
- Fine filtration of river and well water
- Pre treatment of boiler make up
- Filtration of condensate
- Filtration of waste water treatment effluent
- Removal of bacteria and virus



Essentials for System Design

- Various flux rates for different feed water quality
- SDI, Turbidity, Total Suspended Solids, Total Organic Carbon, Total Iron, Manganese and Oil & Gress values in feed water

Reverse Osmosis Systems

Reverse Osmosis (RO) systems are used to seperate dissolved ions from water with membrane seperation in order to get low conductivity fresh water.

Reverse Osmosis systems are crossflow membrane seperation units without backwash. Membranes are claned in place with chemicals time to time.



General Features

- TFC Spiral Wound Membranes
- FRP Membrane Housings
- SS 316 Stainless Steel High Pressure Pump
- Low Pressure Piping, PVC or SS 316 Optional
- High Pressure Piping, SS 316
- Cartridge Filter PVC / Stainless Steel Body
- Standart Products up to 108 m^3/h Capacity

Applications

- Ion removal, mainly Conductivity and Silica
- Boiler make up



Essentials for System Design

- Chemical analysis of feed water, mainly Conductivity, pH, Bicarbnate, Silica, Total Hardness
- Pre treatment system design
- Design for various flux rates
- Membrane ve Antiscalant projections
- Proper chemical usage according to projections

Degassifier Systems

Degassifier systems are used to remove CO_2 from water by forced aeration using fan and packing material.

Filling materials inside degassifier tower increase surface of the water in order to achieve better aeration and efficient CO_2 removal.



General Features

- FRP / Epoxy Coated Carbon Steel / SS 316 Stainless Steel Tank and Tower
- Radial Type Fan
- PP Filling Materials
- Standart Products up to 200 m^3/h Capacity

Membrane Cleaning Units

Reverse Osmosis systems operate continiously. Membranes are cleaned in place to remove contaminants and concentrated salts from membrane surface.



General Features

- SS 316 Stainless Steel Cleaning Pump
- SS 304 Stainless Steel Bag Filter
- PE Cleaning Tank
- SS 304 Stainless Steel Chassis

Mixed Bed Demineralization Systems

Mixed Bed Demineralization Systems (MBDI) are used to produce demineralized water from low conductivity preated water.

MBDI Systems are ion exchange resin units designed and operated according to co-current principle. Cation and Anion resins mixed in one tank are exchanging ions by binding them and then regenerated with acid and caustic in order to be reused.



General Features

- FRP / Epoxy Coated Carbon Steel Tanks - Neopren Coated Inside
- SS 316 Stainless Steel Feed & Circulation Pumps
- Pneumatic Actuated Butterfly Valves
- 4 - 6 Bar Operating Pressure
- PVC / PE Piping
- PLC Control Panel
- Blower
- Strong Cationic and Anionic Resins
- Acid & Caustic Regeneration System
- Dilution Pump
- Neutralization System
- Standart Product sup to 100 m^3/h Capacity

Applications

- Boiler make up
- Condensate polishing
- Ultra pure & Low silica production

Essentials for System Design

- Pre treatment requirement
- Feed water cationic & anionic load
- Silica and CO_2 values of feed water
- Service run time

Electrodeionization Systems

Electrodeionization Systems (EDI) are used to produce ultra pure water using the most advanced technology.

EDI Systems contain semi-permeable membrane and resin fillings. Under direct current, ions are moved to cathode "+" and anode "-" poles, so the water is purified.

EDI Systems operate continuously and have neighter regeneration nor backwash requierements. EDI reject having lower conductivity than raw water can be returned to RO system inlet.



General Features

- EDI Cells
- Rectifier
- 3-4 Bar Operating Pressure
- PVC/PE Face Piping
- PLC Control Panel & Operator Panel
- Recirculation Pump & Salt Dosage Unit
- Standart Products up to 100 m^3/h capacity

Applications

- Ultra pure & Low Silica water production
- Boiler make up



Essentials for System Design

- Feed water that preated with Double Reverse osmosis systems
- Feed water Hardness, Silica, CO_2, Total Organic Carbon, Total Iron and Manganese values

Bernoulli / Sweden

Bernoulli filters are self-cleaning filters with a cleaning operation based on the Bernoulli principle, which ensures continuous filtration of water in pressurized systems. The most important part of Bernoulli Filter is the disc mounted on a pneumatic cylinder that is . The Bernoulli filter filtration range is 100-2000 microns.



Usage Ares

- Pre filtration of sea, well and river waters
- UF sytem input
- Cooling tower lines

STF Filtros / Spain

STF filters are used for filtration in drinking water facilities, seawater treatment plants, agricultural irrigation and physical barrier against to zebra mussels, cogeneration facilities, cooling towers. STF filter filtration range is 10-1000 microns.



Accessories

Various treatment equipments are used to help main treatment systems Iin power plants.



Measurement stations

- In UF, RO, MBDI ve EDI systems
- Measurement of turbidity and Silica



Cartridge & Bag Filters

- Sensitive filtration required





Chemical Dosing Systems

- Pre Filtration, UF, RO systems.

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