

SEA WATER



professional treatment solutions
turning your water into benefit



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 Leone
Sudan
Tunisia
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 m² indoor production facilities in Aydın
- Installation of mega desalination and wastewater recovery facilities
- 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 & wastewater 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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Gaza / Palestin

Drinking & Usage Water

Capacity:

255 m³/h SWRO System

570 m³/h Multi Media Filtration System

Çolakoğlu Metallurgy / İzmit /Turkey

Process Water for Metal Industry

Capacity:

400 m³/h SWRO System

700 m³/h Ultrafiltration System



Avşa Island / Balıkesir / Turkey

Drinking & Usage Water

Capacity:

167 m³/h SWRO System

417 m³/h Coagulation System & Multi Media Filtration System

→ Sea Water Reverse Osmosis Systems

Sea Water Reverse Osmosis (SWRO) systems are used to separate dissolved solids from sea water with membrane separation in order to get low conductivity fresh water.

Sea Water Reverse Osmosis systems are crossflow membrane separation units without backwash. Membranes are cleaned in place with chemicals time to time.

General Features

- TFC Spiral Wound Membrane
- FRP Membrane Housing
- Duplex/SS 904 High Pressure Pump
- High Efficiency Energy Recovery System - Pressure Exchanger
- High Pressure Piping, Duplex
- Low Pressure Piping, PE
- Neopren Coated Carbon Steel / FRP Cartridge Filter
- PLC Control Panel & Operator Panel



SWRO Systems Technical Features

Model	TDS ppm	Capacity m ³ /h	Recovery %	Vessel Quantity	Membrane Quantity	Connection Inlet/Outlet
ASW 03	36.000 – 46.000	30	30	1	3	DN 40/DN20
ASW 06 + ERI	36.000 – 46.000	89 – 64	57 – 41	2	6	DN50/DN40
ASW 12 + ERI	36.000 – 46.000	172 – 125	55 – 40	4	12	DN50/DN40
ASW 18 + ERI	36.000 – 46.000	240 – 188	51 – 40	3	18	DN50/DN50
ASW 24 + ERI	36.000 – 46.000	320 – 249	51 – 40	4	24	DN80/DN50
ASW 30 + ERI	36.000 – 46.000	400 – 312	51 – 40	5	30	DN80/DN50
ASW 36 + ERI	36.000	445	50 – 48	6	36	DN80/DN50
ASW 42 + ERI	36.000 – 46.000	630 – 469	55 – 41	7	42	DN80/DN65
ASW 48 + ERI	36.000 – 46.000	750 – 539	55 – 41	8	48	DN80/DN80
ASW 60 + ERI	40.000	800	50	10	60	DN100/DN80
ASW 72 + ERI	36.500	1000	50	12	72	DN150/DN100
ASW 84 + ERI	36.000 – 46.000	1373 – 1036	53 – 40	14	84	DN150/DN150
ASW 96 + ERI	36.000 – 46.000	1561 – 1178	53 – 40	16	96	DN150/DN150
ASW 108 + ERI	36.000 – 46.000	1751 – 1321	53 – 40	18	108	DN150/DN150

* The product water capacities in the table are the projection datas obtained at 25 ° C design water temperature.

* The operating pressures and efficiencies of the systems vary for different TDS values.

* There is no energy recovery unit in ASW 03, ASW 06 and ASW 12 models.

→ Filtration Systems

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

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

General Features

- FRP / Epoxy Coated Carbon Steel Tanks - Neopren Coated Inside
- 4 - 6 Bar Operating Pressure
- Pneumatic Actuated Butterfly Valves
- HDPE / PVC Piping
- PLC Control Panel
- Electricity 220 V / 50 Hz / 1 pH



Epoxy Coated Carbon Steel –Inside Neopren Coated Multi Media & Activated Carbon Filters Technical Features

Model	Capacity m ³ /h			Tank Dimensions cm	Body/ Dome Thickness mm	Activated Carbon Filters Activated Carbon & Grave kg	Multi Media Filters			Area m ²
	Filtration Velocity						Gravel kg	Sand kg	Anthracite kg	
	20 m/h	25 m/h	30 m/h							
YMMF / YACF 95 AS	14	18	21	95x320	6/8	325 + 150	150	500	252	0,7
YMMF / YACF 125 AS	25	31	37	125x320	8/10	575 + 300	300	850	414	1,23
YMMF / YACF 160 AS	40	50	60	160x340	8/10	900 + 450	450	1350	648	2
YMMF / YACF 190 AS	57	71	86	190x340	8/10	1300 + 675	675	2350	720	2,83
YMMF / YACF 220 AS	76	95	114	220x360	10/10	1725 + 875	875	3150	975	3,8
YMMF / YACF 285 AS	128	160	192	285x380	10/12	2900 + 1500	1500	5300	1602	6,38

FRP Multi Media & Activated Carbon Filters Technical Features

Model	Capacity m ³ /h			Tank Dimensions cm	Activated Carbon Filters Activated Carbon & Grave kg	Multi Media Filters			Area m ²
	Filtration Velocity					Gravel kg	Sand kg	Anthracite kg	
	20 m/h	25 m/h	30 m/h						
MMF / ACF 30 AF	10	12	14,4	78x214	175 + 150	150	175	162	0,48
MMF / ACF 36 AF	14	18	21	94x215	200 + 225	225	200	198	0,7
MMF / ACF 42 AF	19	24	28	109x240	225 + 300	300	225	196	0,93
MMF / ACF 48 AF	23,8	29,7	35,7	123x240	250 + 450	450	250	234	1,19
MMF / ACF 63 AF	42	52,5	63	163x249	375 + 825	825	350	342	2,1

* The filtration speeds of the table may vary depending on the water quality and filter usage. * Speed for reverse rinsing capacity is 30 m/h.
* Tank height is total height including feet, sizes vary according to the manufacturer.

→ Ultrafiltration Systems

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.



Sea Water Pre Treatment UF Systems Vertical Series Technical Features

Model	Turbidity	Capacity	Membrane Area	Flux
	NTU	m/h	m ²	lt/m ² .h
CHZ UFD 03	10 – 30	13,9 – 10,0	192	51,9
CHZ UFD 06	10 – 30	27,8 – 19,9	384	51,9
CHZ UFD 08	10 – 30	37,1 – 26,6	512	51,9
CHZ UFD 12	10 – 30	55,6 – 39,9	768	51,9
CHZ UFD 14	10 – 30	64,9 – 46,5	896	51,9
CHZ UFD 18	10 – 30	83,4 – 59,8	1152	51,9
CHZ UFD 22	10 – 30	101,9 – 73,1	1408	51,9
CHZ UFD 24	10 – 30	111,2 – 79,7	1536	51,9
CHZ UFD 30	10 – 30	139,0 – 99,6	1920	51,9
CHZ UFD 36	10 – 30	166,8 – 119,6	2304	51,9
CHZ UFD 48	10 – 30	222,4 – 159,4	3072	51,9

→ 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 Filtras / Spain

STF filters are used for filtration in seawater treatment plants, drinking water facilities, 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 in 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.

→ Dolomite Systems

The low pH and conductivity values of RO product water are increased by using dolomite filter.

