

# INDUSTRIAL

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 m<sup>2</sup> 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





## Tüpraş İzmir Refinery/İzmir Waste water Recovery System

### Capacity:

780 m<sup>3</sup>/h Cooling Water  
480 m<sup>3</sup>/h Cooling Water  
156 m<sup>3</sup>/h Fire Water

### System Content:

- Coagulation & Flocculation & Sedimentation System
- Activated Carbon Filtration System
- Ultrafiltration System
- 1.Pass Reverse Osmosis System
- 2. Pass Reverse Osmosis System
- Electrodeionization System
- Multi Media Filtratio System

## Kos/Konya

### Capacity:

1100 m<sup>3</sup>/h Filtration System  
850 m<sup>3</sup>/h Ultrafiltration System  
534 m<sup>3</sup>/h Reverse Osmosis System  
166 m<sup>3</sup>/h Nanofiltration System



## Greeneco/Denizli

### Capacity:

430 m<sup>3</sup>/h Coagulation – Flocculation –  
Sedimentation System  
416 m<sup>3</sup>/h Filtration System

## Çolakoğlu Metallurgy/İzmit

### Capacity:

700 m<sup>3</sup>/h Ultrafiltration System  
400 m<sup>3</sup>/h SWRO Seawater Reverse Osmosis  
System  
600 m<sup>3</sup>/h BWRO Reverse Osmosis System



## → Face Piping Multi Media & Activated Carbon Filters

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
- 4 – 6 Bar Operating Pressure
- Pneumatic Actuated Butterfly Valves
- HDPE / PE / Galvanise Face Piping
- PLC Control Panel
- Electricity 220 V / 50 Hz / 1 pH

### Epoxy Coated Multi Media & Activated Carbon Filters Technical Features

Model	Capacity m <sup>3</sup> /h			Tank Dimensions cm	Body/ Dome Thickness mm	Activated Carbon Filters	Multi Media Filters			Area m <sup>2</sup>
	Filtration Velocity					Activated Carbon & Gravel	Gravel	Sand	Anthracite	
	20 m/h	25 m/h	30 m/h			kg	kg	kg	kg	
YMMF/YACF 95 AS	14	18	21	95 x 320	6/8	325 + 150	150	500	252	0,7
YMMF/YACF 125 AS	25	31	37	125 x 320	8/10	575 + 300	300	850	414	1,23
YMMF/YACF 160 AS	40	50	60	160 x 340	8/10	900 + 450	450	1350	648	2
YMMF/YACF 190 AS	57	71	86	190 x 340	8/10	1300 + 675	675	2350	720	2,83
YMMF/YACF 220 AS	76	95	114	220 x 360	10/10	1725 + 875	875	3150	975	3,8
YMMF/YACF 285 AS	128	160	192	285 x 380	10/12	2900 + 1500	1500	5300	1602	6,38

### FRP Multi Media & Activated Carbon Filters Technical Features

Model	Capacity m <sup>3</sup> /h			Tank Dimensions cm	Activated Carbon Filters	Multi Media Filters			Area m <sup>2</sup>
	Filtration Velocity				Activated Carbon & Gravel	Gravel	Sand	Anthracite	
	20 m/h	25 m/h	30 m/h		kg	kg	kg	kg	
MMF/ACF 30 AF	10	12	15	78 x 214	175 + 150	150	175	162	0,48
MMF/ACF 36 AF	14	18	21	94 x 215	200 + 225	225	200	198	0,7
MMF/ACF 42 AF	19	24	28	109 x 240	225 + 300	300	225	196	0,93
MMF/ACF 48 AF	24	30	36	123 x 240	250 + 450	450	250	234	1,19
MMF/ACF 63 AF	42	53	63	163 x 249	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 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
- PE Piping
- PLC Control Panel & Operator Pane

Surface Water & Sea Water Pre Treatment UF Systems Vertical Series Technical Series

Model	Turbidity	Capacity	Membrane Area	Flux
	NTU	m <sup>3</sup> /h	m <sup>2</sup>	lt/m <sup>2</sup> .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

## → Face Piping Softener Systems

Softening systems remove hardness by exchanging Calcium and Magnesium ions with sodium based resin.

When the resin's is exhausted, it is regenerated with brine which is stored in the brine tank automatically.

### General Features

- FRP / Epoxy Coated Carbon Steel Tanks
- 4 – 6 Bar Operating Tanks
- Pneumatic Actuated Butterfly Valves
- HDPE / PE / Galvanise Face Piping
- PLC Control Panel
- Electricity 220 V / 50 Hz / 1 pH



### Epoxy Coated Carbon Steel Softener Systems Technical Features

Model	Capacity m <sup>3</sup> /h			Resine lt	Gravel kg	Tank Dimensions cm	Body/Dome Thickness mm	Salt Consumption kg/reg	Brine Tank cm
	Filtration Velocity								
	35 m/h	40 m/h	45 m/h						
<b>YSTF 95 AS</b>	22	25	30	625	225	95 x 330	6/8	100	100 x 95
<b>YSTF 125 AS</b>	43	50	61	1225	450	125 x 320	8/10	196	120 x 127
<b>YSTF 160 AS</b>	70	80	100	2000	875	160 x 340	8/10	320	150 x 175
<b>YSTF 190 AS</b>	102	117	145	2925	225	190 x 340	8/10	468	150 x 175
<b>YSTF 240 AS</b>	137	157	195	3925	300	220 x 360	10/10	628	180 x 200

### FRP Softener Systems Technical Features

Model	Capacity m <sup>3</sup> /h			Resine lt	Gravel kg	Tank Dimensions cm	Salt Consumption kg/reg	Brine Tank cm
	Filtration Velocity							
	35 m/h	40 m/h	45 m/h					
<b>STF 30 AF</b>	13	15	17	375	150	78 x 214	60	100 x 95
<b>STF 36 AF</b>	16	18	21	450	225	94 x 215	72	100 x 95
<b>STF 42 AF</b>	32	36	41	900	300	109 x 240	144	120 x 127
<b>STF 48 AF</b>	42	48	54	1200	450	123 x 240	192	150 x 175
<b>STF 63 AF</b>	62	70	79	1750	825	160 x 287	280	180 x 200

\* The filtration speeds in the table may vary depending on inlet water hardness and water capacity.

\* For 1 lt of resin, 160 g salt consumption is accepted. For 1 lt resin 6000 lt F soft water was accepted.

\* Tank height is total height including feet, sizes vary according to the manufacturer.

## → Reverse Osmosis Systems

Reverse Osmosis (RO) systems are used to separate dissolved ions from water with membrane separation in order to get low conductivity fresh 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 Membranes
- FRP Membrane Housing
- 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



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



TFE Series RO Systems Technical Features

Model	Capacity	Recovery	Vessel Quantity	Membrane Quantity	Power	Connection
	m <sup>3</sup> /h	%				
<b>TFE - 002</b>	2,1 - 2,3	70 - 75	2	2	7,5	DN40/DN25
<b>TFE - 004</b>	4,3 - 4,7	75 - 77	2	4	7,5	DN40/DN40
<b>TFE - 006</b>	6,5 - 7,0	58 - 60	2	6	11	DN50/DN40
<b>TFE - 008</b>	8,5 - 9,5	65 - 70	2	8	11	DN50/DN40
<b>TFE - 012</b>	13 - 14	70 - 68	3	12	15	DN65/DN50
<b>TFE - 018</b>	19 - 21	75 - 80	3	18	18,5	DN80/DN65
<b>TFE - 024</b>	25 - 27	75 - 80	4	24	18,5	DN80/DN65
<b>TFE - 030</b>	32 - 35	75 - 80	5	30	30	DN80/DN80
<b>TFE - 036</b>	38 - 42	75 - 80	6	36	37	DN100/DN80



TFX Series RO Systems Technical Features

Model	Capacity	Recovery	Vessel Quantity	Membrane Quantity	Power	Connection
	m <sup>3</sup> /h	%				
<b>TFX - 04</b>	2,5	45 - 54	1	4	7,5	DN40/DN25
<b>TFX - 08</b>	5	45 - 54	2	8	15	DN50/DN40
<b>TFX - 12</b>	7,5	45 - 54	3	12	18,5	DN65/DN40
<b>TFX - 16</b>	10	45 - 54	4	16	30	DN80/DN50
<b>TFX - 20</b>	12,5	45 - 54	5	20	30	DN80/DN65
<b>TFX - 24</b>	15	45 - 54	6	24	37	DN80/DN65
<b>TFX - 36</b>	25	60 - 64	6	36	45	DN100/DN80



TFK Series RO Systems Technical Features

Model	Capacity	Recovery	Vessel Quantity	Membrane Quantity	Power	Connection
	m <sup>3</sup> /h	%				
<b>TFK - 150</b>	6	57	2	6	11	DN50/DN40
<b>TFK - 200</b>	8	65	2	8	11	DN50/DN40
<b>TFK - 300</b>	12,5	65	3	12	15	DN50/DN50
<b>TFK - 450</b>	19	75	3	18	18,5	DN80/DN65
<b>TFK - 550</b>	23	75	4	24	18,5	DN80/DN65
<b>TFK - 750</b>	31	75	5	30	37	DN80/DN80
<b>TFK - 900</b>	37,5	75	6	36	37	DN80/DN80



TFM Series RO Systems Technical Features

Model	Capacity	Recovery	Vessel Quantity	Membrane Quantity	Power	Connection
	m <sup>3</sup> /h	%				
<b>TFM - 42</b>	37 - 50	75	7	42	37	DN100/DN80
<b>TFM - 60</b>	52 - 65	75	10	60	45	DN150/DN100
<b>TFM - 72</b>	65 - 85	75	12	72	75	DN150/DN150
<b>TFM - 90</b>	77 - 100	75	15	90	75	DN150/DN150
<b>TFM - 108</b>	98 - 125	75	18	108	75	DN150/DN150



## → Degassifier Systems

Degassifier systems are used to remove CO<sub>2</sub> 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<sub>2</sub> 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<sup>3</sup>/h Capacity

Model	Capacity	Tower Dimensions	Tank Dimensions
	m <sup>3</sup> /h	m	m
AD 20	20	0,64 x 3	1,9 x 1
AD 45	45	0,96 x 3	1,9 x 1
AD 70	70	1,27 x 3	1,9 x 1
AD 145	145	1,6 x 3	1,6 x 1,5
AD 200	200	1,6 x 4,5	1,6 x 1,5



## → Membrane Cleaning Units

Reverse Osmosis systems operate continuously. 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



Model	Cleaning Pump		Bag Filter	Cleaning Tank
	Capacity	Pressure		
	m <sup>3</sup> /h	bar		lt
CUTFZ	2,3	3,5	FLT 207 - A	250
CUTFK - 2	18	4	TF 716	1500
CUTFK - 3	36	4	TF 732	3000
CUTFK - 4	54	4	TF 732	5000
CUTFK - 5	54	4	TF 732	8000

## → Dolomite Systems

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



## → Coagulation Flocculation Sedimentation Systems

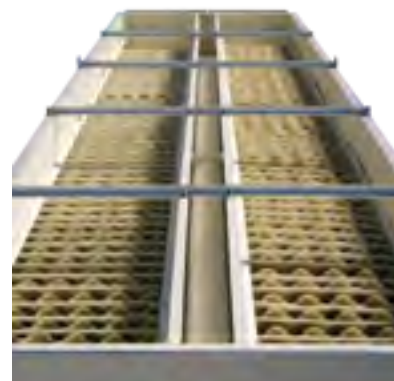
Coagulation Flocculation Sedimentation systems are used mainly for the physical treatment of surface waters with high physical impurities.

### General Features

- Epoxy Coated Carbon Steel Tanks
- Mechanical Parts For Concrete Tanks
- Coagulation Unit
- Flocculation Unit
- Lamella Sedimentation Unit
- Coagulant & PE Dosing Unit
- PLC Control Panel

### CFS Systems Technical Features

Model	Capacity	Tank Dimensions		
		Width x Length x Height (m)		
	m <sup>3</sup> /h	Coagulation	Flocculation	Sedimentation
CFS 25 ST / BT	25	1,2 x 1,2 x 1,2	2,3 x 2,2 x 2	2,3 x 2,2 x 2,5
CFS 50 ST / BT	50	1,2 x 1,2 x 1,2	2,3 x 2,2 x 4	2,3 x 2,2 x 4
CFS 75 ST / BT	75	1,2 x 1,2 x 1,2	2,3 x 2,2 x 6	2,3 x 2,2 x 6
CFS 100 ST / BT	100	1,2 x 1,2 x 1,2	2,3 x 2,2 x 8	2,3 x 2,2 x 8



## → Chemical Dosing Systems

Dosing systems include dosing pumps, measurement-control equipments and accessories used for conditioning in the water and wastewater treatment industry.

### General Features

- 0,4–54 lt/h, 0,1–20 bar capacity standard dosage pump models
- 100 lt Vertical PE solution tank
- Constant/Proportional/Analog/Flow/pH,/ORP(redox) controlled dosing alternatives
- Special mixers for various chemicals
- Measurement and control equipments
- \* Please consult us for specific capacities and specifications.



## → Cooling Tower Control Systems

Sedimentation, corrosion, deposit, microbial pollution and sludge are removed from cooling water by water conditioning in cooling tower applications,

### General Features

- 1000x500x10 mm Panel
- pH / Conductivity and pH / ORP / Conductivity Measurement Options on Panel
- 2/3 Pumps Options for Chemical Dosing on the System
- Modbus Compability
- pH/ORP/iletkenlik Probes
- 9" 80 Micron Pre Filter on Panel
- 5" 80 Micron Filter for pH Probe
- pH Measurement Range: 1-14
- Conductivity Measurement Range: 100-20.000 µS/cm
- 4-20 mA Signal Output for pH Measurement
- IP 65 Protection Class Equipments
- \* Please consult us for specific capacities and specifications.



→ **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 lin 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.

