

# UAT™

## Seawater Reverse Osmosis Membrane Filtration Systems

Series SW36 - up to 36,000 ppm Total Dissolved Solids

Series SW45 - up to 45,000 ppm Total Dissolved Solids

Severn Trent Services offers the UAT™ Series SW seawater reverse osmosis (RO) systems for potable, commercial and light industrial applications. These engineered systems are designed for ease of operation and long service life. UAT Series SW systems offer outstanding value by using quality components, advanced engineering capabilities and a strict quality control program. These systems are fully skid-mounted to minimize installation and hook-up costs. UAT Series SW systems effectively produce treated water with low TDS.

### Application

The UAT Series SW systems are available in a wide range to suit your application needs.

- Potable water for resorts, remote sites, coastal areas
- Primary treatment (before polishing) for boiler feed water
- Process/cooling water for industrial applications



### Standard Features:

- FRP 5-micron cartridge sediment prefilter housing
- SS316L high pressure piping for Series SW36; duplex 2205 high pressure piping for Series SW45
- PVC SCH 80 low pressure piping
- Instrumentation includes: permeate conductivity meter, permeate and reject flowmeters, pressure gauges on low and high pressure side, safety switches to prevent over pressurization and to protect the high pressure pump, high pressure switch on the permeate side
- NEMA 12 rated control panel with starters, PLC, HMI and instrumentation
- Sampling valves for membrane housings
- Variable frequency drive included for better system control
- For units 150 M<sup>3</sup>/Day and above, energy recovery device included for maximum energy conservation
- Carbon steel epoxy coated skid frame for maximum durability in harsh operating conditions



UAT-SW-36 (up to 36,000 ppm TDS)						
Model Number	Permeate Capacity M <sup>3</sup> /DAY (GPM)	Feed Flow Rate, M <sup>3</sup> /Day (GPM)	High Pressure Pump, kW (HP)	Feed Tie in Pipe Size, ANSI 150# Flange, mm (in)	Product Tie in Pipe Size, ANSI 150# Flange, mm, (in)	CIP Tie in Pipe Size, ANSI 150# Flange, mm (in)
50	50 (9)	125 (23)	15 (20)	38 (1-1/2)	25 (1)	25 (1)
75	75 (14)	169 (31)	15 (20)	51 (2)	25 (1)	25 (1)
100	100 (18)	223 (41)	22 (30)	51 (2)	38 (1-1/2)	25 (1)
150	150 (28)	333 (61)	19 (25)	64 (2-1/2)	38 (1-1/2)	38 (1-1/2)
200	200 (37)	447 (82)	22 (30)	76 (3)	51 (2)	38 (1-1/2)
300	300 (55)	665 (122)	37 (50)	76 (3)	51 (2)	38 (1-1/2)
400	400 (73)	889 (163)	45 (60)	102 (4)	51 (2)	51 (2)
500	500 (92)	1112 (204)	56 (75)	102 (4)	64 (2-1/2)	51 (2)
750	750 (138)	1668 (306)	93 (125)	152 (6)	76 (3)	76 (3)
1000	1000 (183)	2224 (408)	112 (150)	152 (6)	76 (3)	76 (3)

UAT-SW-45 (up to 45,000 ppm TDS)						
Model Number	Permeate Capacity M <sup>3</sup> /DAY (GPM)	Feed Flow Rate, M <sup>3</sup> /Day (GPM)	High Pressure Pump, kW (GPM)	Feed Tie in Pipe Size, ANSI 150# Flange, mm (in)	Product Tie in Pipe Size, ANSI 150# Flange, mm (in)	CIP Tie in Pipe Size, ANSI 150# Flange, mm (in)
50	50 (9)	142 (26)	30 (40)	38 (1-1/2)	25 (1)	25 (1)
75	75 (14)	213 (39)	37 (50)	51 (2)	25 (1)	25 (1)
100	100 (18)	283 (52)	30 (40)	51 (2)	38 (1-1/2)	25 (1)
150	150 (28)	431 (79)	37 (50)	64 (2-1/2)	38 (1-1/2)	38 (1-1/2)
200	200 (37)	572 (105)	37 (50)	76 (3)	51 (2)	51 (2)
300	300 (55)	856 (157)	56 (75)	102 (4)	51 (2)	51 (2)
400	400 (73)	1145 (210)	93 (125)	102 (4)	51 (2)	51 (2)
500	500 (92)	1428 (262)	93 (125)	102 (4)	64 (2-1/2)	51 (2)
750	750 (138)	2142 (393)	149 (200)	152 (6)	76 (3)	76 (3)
1000	1000 (183)	2856 (524)	186 (250)	152 (6)	102 (4)	76 (3)

## Ordering Guide

UAT-SW- \_\_\_\_\_

### Feed Water TDS

36  
45

### Model Number

50,75,100,150,200,300,400,500,750,1000

Reference table above

### Voltage

3 - 230V/3ph/60 Hz  
5 - 380V/3 ph/50 Hz  
6 - 460V/3 ph/60 Hz

### Optional Accessories

0 - Not needed  
1 - Feed Condition Monitor

### Notes:

1. Influent feed water should not contain Iron, any oxidizing agents such as chlorine & permanganates; sulphides; BOD/COD, organics and other heavy metals. SDI should be < 3. Please consult membrane manufacturer's literature or STS for guidelines on feed water for RO.
2. Capacities are based on nominal recoveries of 45% (for SW36 Series) and 35% (for SW45 Series).
3. Permeate TDS of 500 PPM based on typical water analysis and at 25C. Please consult factory for typical water analysis. Permeate water quality will vary based on actual feed analysis and temperature.
4. Feed Inlet pressure at the skid limit to be 25-30 PSI.

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