

Section 6



Commerical Reverse Osmosis
Systems & Accessories

Commercial RO Systems

Fully assembled systems in cartons or crates ready for immediate shipment



RO300G-FL, RO500G-FL



Units with 4" OD membranes



RO10800G-FL model for 10,800 GPD

Standard Features

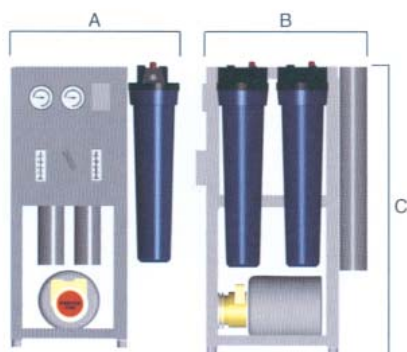
- High rejection thin film RO membranes
- Stainless steel frames (powder coated)
- Efficient, high pressure pumps & motors
- Electronic controls
- Continuous TDS monitoring
- Level controls (on / off)
- Flow meters (product water & concentrate)
- Pressure regulator valves
- Pressure gauges for inlet and concentrate
- Stainless steel membrane housings
- Automatic fast rinse flush
- Heavy-duty pressure tubing
- Recycled water flow meters (recycle models)
- Low pressure shut-off and restart
- Pre-filter housings & cartridges*
- Recycle lines on most models
- Starter motor box
- On / off switch
- Solenoid valves (pump & flush)
- Factory tested and sterilized
- Comprehensive limited warranty

Models

Part Number	GPD	Inlet Pipe	No. of Membranes	Membrane Size	Recycle Line	Motor	Electrical H.P.	Phase (Volts)
RO300G-FL	300	3/4"	1	2.5" x 21"	Yes	0.5	110	Single
RO500G-FL	500	3/4"	2	2.5" x 21"	No	0.5	110	Single
RO1000G-FL	1,000	3/4"	1	4" x 21"	Yes	1.0	110	Single
RO1800G-FL	1,800	3/4"	1	4" x 40"	Yes	3.0	200	Single
RO3600G-FL	3,600	3/4"	2	4" x 40"	Yes	3.0	200	Single
RO5400G-FL	5,400	3/4"	3	4" x 40"	No	3.0	230	Three
RO7200G-FL	7,200	3/4"	4	4" x 40"	Yes	3.0	230	Three
RO10800G-FL	10,800	1"	6	4" x 40"	Yes	4.0	230	Three
RO15000-W	15,000	1-1/4"	8	4" x 40"	Yes	5.0	230	Three
RO22500-W	22,500	1-1/4"	12	4" x 40"	Yes	7.5	230	Three

Note: 300, 500 and 1000 GPD models are packaged in shipping cartons. 1800 GPD models and up are packaged in shipping crates.

** 300, 500 and 1000 GPD systems.



Dimensions

Model	A (Front)	B (Side)	C (Height)	Ship. Wt.
RO300G-FL	20"	18"	37"	70 lbs.
RO500G-FL	20"	18"	37"	80 lbs.
RO1000G-FL	20"	18"	37"	104 lbs.
RO1800G-FL	20"	18"	37"	180 lbs.
RO3600G-FL	26"	18"	59"	262 lbs.
RO5400G-FL	26"	18"	59"	341 lbs.
RO7200G-FL	26"	18"	59"	349 lbs.
RO10800G-FL	30"	24"	59"	509 lbs.

Minimum Feed Water & Electrical Requirements

Model	Capacity (GPD)	Minimum Feed (GPM)	Voltage / Hertz	Phase	Amps
RO300G-FL	300	2.0	110 v / 60 hz	Single	7
RO500G-FL	500	2.0	110 v / 60 hz	Single	7
RO1000G-FL	1,000	4.5	110 v / 60 hz	Single	14
RO1800G-FL	1,800	9.3	200 v / 60 hz	Single	14
RO3600G-FL	3,600	13.7	200 v / 60 hz	Single	14
RO5400G-FL	5,400	13.9	230 v / 60 hz	Three	9
RO7200G-FL	7,200	13.9	230 v / 60 hz	Three	9
RO10800G-FL	10,800	18.5	230 v / 60 hz	Three	12

*Specifications have changed; please consult factory.

Spare Parts

Part No.	Description
CSVSHS203	Pressure switch (115v)
CSVNC06110	Pump inlet solenoid valve, 3/4"
CSVNC04110	Auto-flush solenoid valve. 1/2"
CSVNC03220	Solenoid valve, 3/8", 220 v
STS068	Controller (Specify 110 v or 230 v)
CSW09A220	Motor start box
ST2521	Stainless steel RO housing, 300 & 500 GPD
ST2521 CAP	Clamp, RO housing, 300 & 500 GPD
ST2521CLAMP	Clamp, RO housing, 300 & 500 GPD
ST2521ORING	O-ring, RO housing, 300 & 500 GPD
ST4021	Stainless steel RO housing, 1000 GPD
ST4021CAP	Cap,RO housing, 1000 GPD
ST4021CLAMP	Clamp, RO housing, 1000 GPD
ST4021ORING	O-ring, RO housing, 1000 GPD
ST4040	Stainless steel RO housing, 1200, 1800, 3600, 5400, 7200, 10800 GPD
ST4040CLAMP	Clamp, RO housing, 1200, 1800, 3600, 5400, 7200, 10800 GPD
ST4040ORING	O-ring, RO housing, 1200, 1800, 3600, 5400, 7200, 10800 GPD

Limited Warranty

Flowmatic® Commercial & Industrial Reverse Osmosis systems come with a one year limited warranty, covering materials and workmanship for one year from date of installation, subject to user's compliance with manufacturer's operating and maintenance instructions. Membranes are excluded by the warranty and seller's responsibility is limited to any warranty provided by membrane manufacturer. It is the purchaser's responsibility to immediately notify manufacturer in the event defects occur. Seller shall not be liable for any special, incidental or consequential damages, and will at its option repair or replace any defective components. Warranty excludes o-rings, membranes, pre-filter cartridges, freight charges, labor to remove and reinstall equipment, use with sea water filtration, alterations and systems which do not have seller's identification label.

Returns

All returns must be authorized and approved in writing. Systems, which are authorized for return are subject to a 25% restocking charge. Installed systems may not be returned. Any membrane, removed from sealed package may not be returned. For more information, please see Return Goods Policy.

Parts Description



1. Pre-filters
2. Power switch
3. High pressure pump
4. Solenoid valve (pump inlet)
5. Solenoid valve (auto flush)
6. Pressure regulator valve
7. Electronic control
8. Inlet pressure gauge
9. Concentrate pressure gauge
10. Recycle line flow meter
11. Permeate flow meter
12. Membrane housing
13. Membranes
14. Starter motor box
15. Recycle line (optional)
16. Low pressure switch
17. Power cord
18. Level switch connector for tank
19. Tube connector fittings



High rejection membranes are used for optimum performance. Rejection rates are typically 98% or more!

Commercial RO Membranes

Top quality membranes for commercial reverse osmosis systems.



Watts® commercial membranes

Part Number	Application	O.D.	Length	Capacity (GPD)	No. Per Case
W-2521-TW	Tap water	2-1/2"	21"	300	1
W-2540-TW	Tap water	2-1/2"	40"	800	1
W-4021-TW	Tap water	4"	40"	1,050	1
W-4040-TW	Tap water	4"	40"	2,200	1
W-4040-BW	Brackish water	4"	40"	2,200	1

Note: Watts commercial membranes are packaged in preservatives. Keep in cool environment if stored for prolonged periods of time.

Watts membrane specifications

Data	W-2521-TW	W-2540-TW	W-4021-TW	W-4040-TW	W-4040-BW
Membrane type	TFC	TFC	TFC	TFC	TFC
Material	Polyamide	Polyamide	Polyamide	Polyamide	Polyamide
Charge	Negative	Negative	Negative	Negative	Negative
Configuration	Spiral-wound	Spiral-wound	Spiral-wound	Spiral-wound	Spiral-wound
Salt rejection	99.5%	99.5%	99.5%	99.5%	99.5%
Max. operating temp.	113°F / 45°C	113°F / 45°C	113°F / 45°C	113°F / 45°C	113°F / 45°C
Max. operating pressure	400 psi	400 psi	400 psi	400 psi	600 psi
Maximum turbidity (NTU)	<1	<1	<1	<1	<1
Max. SDI	<5	<5	<5	<5	<5
pH range (cleaning)	2-11	2-11	2-11	2-11	2-11
Flux (GPD)	300	800	1,050	2,200	2,200

Note: Tap water membrane specifications are based on 225 psi pressure and 77°F temperature.

Filmtec® by Dow® commercial membranes for tap water

Part Number	Application	O.D.	Length	Capacity (GPD)	No. Per Case
TW30-2514	Tap water	2-1/2"	14"	170	1
TW30-2521	Tap water	2-1/2"	21"	300	1
TW30-2540	Tap water	2-1/2"	40"	660	1
TW30-4014	Tap water	4"	14"	480	1
TW30-4021	Tap water	4"	21"	900	1
TW30-4040	Tap water	4"	40"	2,200	1

Note: Specifications are based on 225 psi pressure and 77°F temperature.

Filmtec® by Dow® commercial membranes for brackish water

Part Number	Application	O.D.	Length	Capacity (GPD)	No. Per Case
BW30-2540	Brackish water	2-1/2"	40"	660	1
BW30-4040	Brackish water	4"	40"	2,200	1
BW30-400	Brackish water	8"	40"	10,500	1

Note: Brackish water membrane specifications are based on 225 psi pressure and 77°F temperature.

Filmtec® by Dow® commercial membranes for sea water

Part Number	Application	O.D.	Length	Capacity (GPD)	No. Per Case
SW30-2514	Sea water	2-1/2"	14"	100	1
SW30-2521	Sea water	2-1/2"	21"	200	1
SW30-2540	Sea water	2-1/2"	40"	540	1
SW30-4021	Sea water	4"	21"	600	1
SW30-4040	Sea water	4"	40"	1,500	1
SW30-8040	Sea water	8"	40"	6,000	1

Wall Mounted Commercial RO Systems



FMWM-450



FMWM-120-PT



Optional pressure tank



Optional atmospheric tank

FMWM-120-PT (pressure tank system)

1st stage	20" five micron sediment cartridge
2nd stage	20" carbon block cartridge (5 mic.)
3rd stage	20" carbon block cartridge (5 mic.)
4th stage	Two 75 GPD membranes (TFC)

Systems come with bracket, gauges, color coded tubing, flush valve for easy cartridge replacement, shut off valve and pre-filters (installed).

FMWM-450-PT (pressure tank system)

1st stage	10" five micron sediment cartridge (B-B)
2nd stage	10" carbon block cartridge (5 mic. B-B)
3rd stage	10" carbon block cartridge (5 mic. B-B)
4th stage	One 26" low energy membrane

Systems come with control box (not shown), bracket, gauges, pre-filters (installed), 1/2 HP booster pump, flush valve, electronic controller, SS tubing on pressure line, SS membrane housing and power cord.

Wall mounted RO models

Model Number	Type	Capacity (GPD)	Inlet	Drain	Product Water	Dimensions (Wt. x D x H)	Power
FMWM-120-PT	Wall mount	120	1/4"	3/8"	1/4"	25" x 8.5" x 26.5"	----
FMWM-450-PT-1	Wall mount	450	1/2"	1/4"	3/4"	36" x 12" x 26"	120/60
FMWM-450-PT-2	Wall mount	450	1/2"	1/4"	3/4"	36" x 12" x 26"	230/60

Spare parts

Part Number	Description	Model number
110012	75 GPD membrane	FMWM-120-PT
210007	26" membrane	FMWM-450-PT-1/2

Note: Production rates based on 65 psig pressure and 77°F water temperature. Tanks not included. Pressure requirements are 45-100 psi (120 model) and 20-85 psi (for 450 systems).

Accessories for Commercial RO Systems

Liquid level controls, pressure switches & metal pressure tanks.



Liquid level controls

Float switch used with atmospheric storage tanks to shut-off system when tank is full.

Part Number	Description
L75222	Control with single stage suction and 1/2" NPT PP fittings.

Important:

Install level control so the float will hinge upward (as shown). Not downward.

Pressure switch

Used with bladder pressure tanks to shut-off system with tank is full.



Part Number	Description
U217-2E	Switch pre-set 30-60 psi with 1/4" NPT fittings.



Metal storage tanks

Pressure tanks with bladders from 14 to 119 gallons capacity.

Note: Tanks are polypropylene lined for compatibility with RO water. Bladders are Butyl.

Metal storage tanks (packaged one per carton)

Part Number	Volume(Gals.)	Diameter	Height	Color	Pipe Fittings	Ship Weight (Lbs.)
FRO-1070-BL	14	15"	23"	Blue	1"	24
FWR-60	20	16"	29"	Blue	1/4"	36
FWR-100	32	21"	28"	Blue	1"	54
FWR-140	44	21"	36"	Blue	1-1/4"	67
FWR-260	85	26"	45"	Blue	1-1/4"	121
FWR-360	119	26"	60"	Blue	1-1/4"	153

Elbows

Part Number	Description	Size
FM412-010	PVC 90° elbow	1"
FM412-012	PVC 90° elbow	1-1/4"