

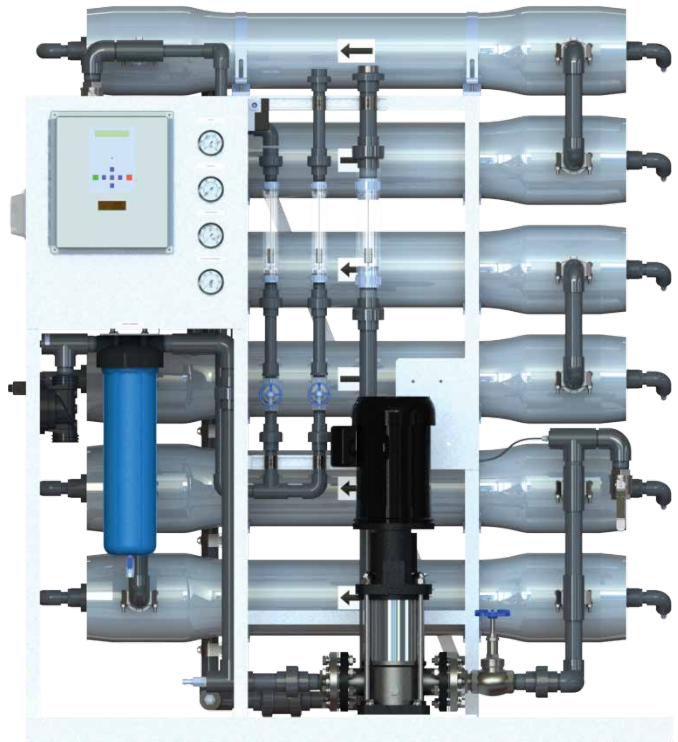
8.0 Inch Membrane Diameter

FEATURES

- S-150 Computer Controller
 - LCD Backlit Display
 - Pre-Treatment Lockout
 - Tank Level Input
 - Low Pressure Monitoring and Alarm
 - Hour Meter
 - TDS Monitoring
 - Feed Flush
- 8 inch Low Energy Membrane Elements
- 8 inch Fiberglass Membrane Housings with Stainless Steel Side Ports (300 psi)
- 5-Micron Sediment Bag Filter
- Permeate and Concentrate Rotameters
- Concentrate Recycle Loop with Rotameter
- Pre and Post Filter Pressure Gauges
- Pump Pressure and Concentrate Pressure Gauges
- Feed and Permeate TDS
- Composite Feed Solenoid Valve
- Stainless Steel Globe Throttling Valves
- Low Pressure Shut-Off Switch
- Efficient Vertical Stainless Steel Multi-Stage Pump
- Powder-Coated Carbon Steel Frame
- Sch80 PVC Piping
- Clean-In-Place (CIP) Ports and Valves
- Permeate Sample Valves
- Chemical Feed Port
- Chemical Feed Power Outlet
- 220VAC 3PH 60Hz

OPTIONS AND UPGRADES

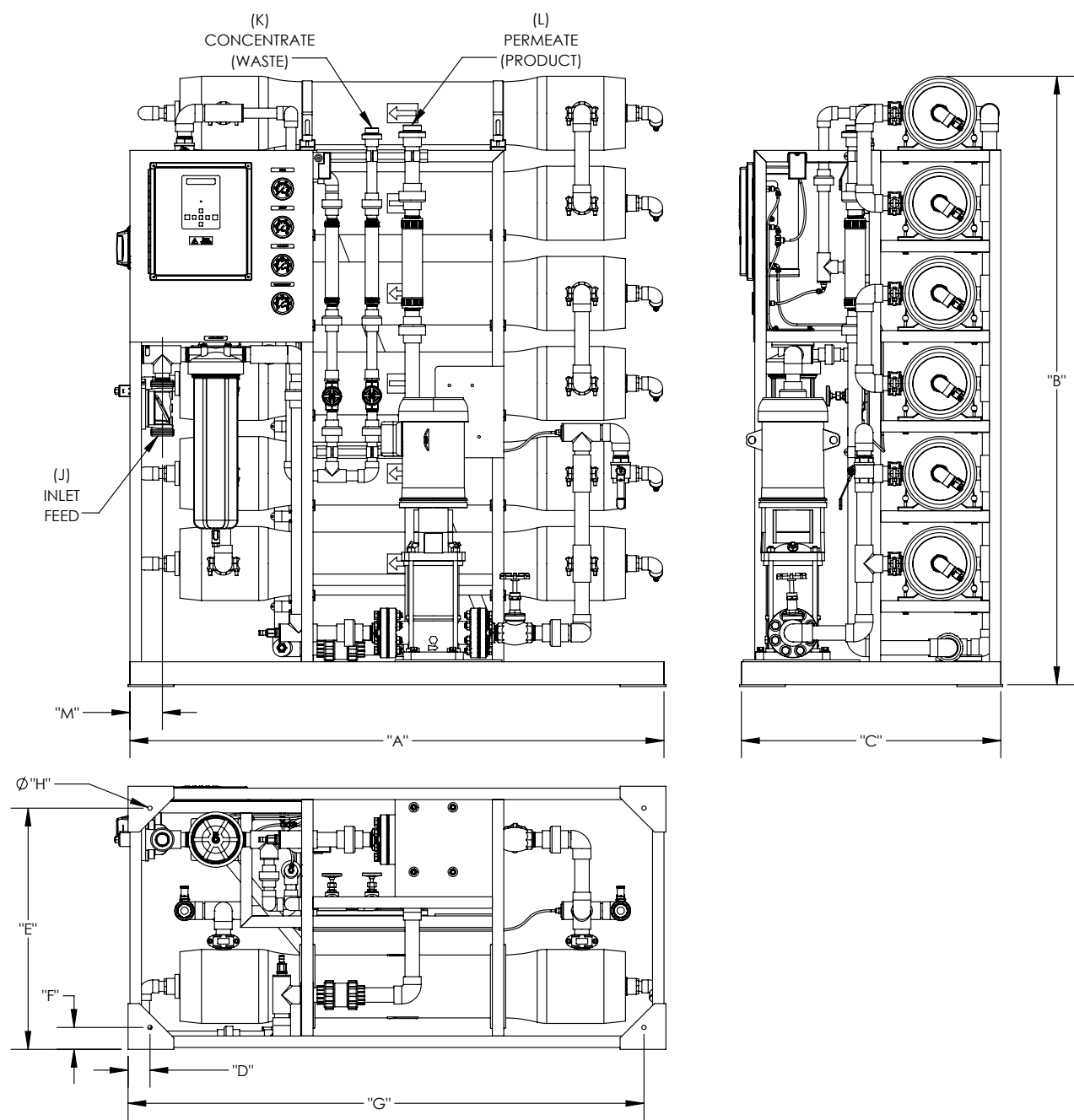
- VFD
- Programmable Logic Controller (PLC) with Touch Screen
- AX-9000 Controller With Permeate and Concentrate Digital Flow Sensors
- PVC Feed Motorized Ball Valve
- PVC Permeate Divert Motorized Ball Valve
- Permeate Flush
- pH Sensor
- ORP Sensor
- Chemical Feed System
- Clean-In-Place Skid-Mounted System
- Voltage Options: 220VAC 3PH 50Hz, 380VAC 3PH 50Hz, 460VAC 3PH 60Hz



X1-6180
Reverse Osmosis System

DIMENSIONS

Dimensions	X1-2180	X1-3180	X1-4180	X1-5180	X1-6180
"A" DIM	70"	70"	70"	70"	70"
"B" DIM	70.06"	70.06"	70.06"	70.06"	79.80"
"C" DIM	34"	34"	34"	34"	34"
"D" DIM	2.88"	2.88"	2.88"	2.88"	2.88"
"E" DIM	31.63"	31.63"	31.63"	31.63"	31.63"
"F" DIM	2.88"	2.88"	2.88"	2.88"	2.88"
"G" DIM	67.63"	67.63"	67.63"	67.63"	67.63"
"H" DIM	0.56" DIA	0.56" DIA	0.56" DIA	0.56" DIA	0.56" DIA
"J" DIM	1.5" FNPT	1.5" FNPT	1.5" FNPT	1.5" FNPT	1.5" FNPT
"K" DIM	1.0" FNPT	1.0" FNPT	1.0" FNPT	1.0" FNPT	1.0" FNPT
"L" DIM	1.0" FNPT	1.0" FNPT	1.5" FNPT	1.5" FNPT	1.5" FNPT
"M" DIM	4.25"	4.25"	4.25"	4.25"	4.25"



SPECIFICATIONS

MODELS	X1-2180	X1-3180	X1-4180	X1-5180	X1-6180
Design					
Configuration	Single Pass	Single Pass	Single Pass	Single Pass	Single Pass
Feedwater TDS max (ppm) ^A	TDS < 2,000	TDS < 2,000	TDS < 2,000	TDS < 2,000	TDS < 2,000
Standard Recovery %	42	52	59	64	68
Rejection and Flow Rates					
Nominal Salt Rejection %	98	98	98	98	98
Permeate Flow Rate (gpm / lpm) ^B	10 / 37.85	15 / 56.78	20 / 75.71	25 / 94.64	30 / 113.56
Minimum Concentrate Flow Rate (gpm / lpm)	14 / 53	14 / 53	14 / 53	14 / 53	14 / 53
Connections					
Feed Connection (in)	1.5 FNPT	1.5 FNPT	1.5 FNPT	1.5 FNPT	1.5 FNPT
Permeate Connection (in)	1 FNPT	1 FNPT	1.5 FNPT	1.5 FNPT	1.5 FNPT
Concentrate Connection (in)	1 FNPT	1 FNPT	1 FNPT	1 FNPT	1 FNPT
Clean-In-Place Port (in)	1 1/2 FNPT	1 1/2 FNPT	1 1/2 FNPT	1 1/2 FNPT	1 1/2 FNPT
Chemical Feed Port (in)	1/2 NPT	1/2 NPT	1/2 NPT	1/2 NPT	1/2 NPT
Membranes					
Membranes Per Vessel	1	1	1	1	1
Membrane Quantity	2	3	4	5	6
Membrane Size	8040	8040	8040	8040	8040
Vessels					
Vessel Array	1:1	1:1:1	2:1:1	2:1:1:1	2:1:1:1:1
Vessel Quantity	2	3	4	5	6
Pumps					
Pump Type	Vertical Multi-Stage Centrifugal Pump	Vertical Multi-Stage Centrifugal Pump	Vertical Multi-Stage Centrifugal Pump	Vertical Multi-Stage Centrifugal Pump	Vertical Multi-Stage Centrifugal Pump
Motor HP	5	5	5	5	5
System Electrical					
Standard Voltage + Amp Draw	220V, 60Hz, 3PH, 12.8A ^C	220V, 60Hz, 3PH, 12.8A ^C	220V, 60Hz, 3PH, 12.8A ^C	220V, 60Hz, 3PH, 12.8A ^C	220V, 60Hz, 3PH, 12.8A ^C
System Dimensions					
Approximate Dimensions ^D L x W x H (in / cm)	70 / 177.8 x 34 / 86.4 x 70 / 177.8	70 / 177.8 x 34 / 86.4 x 70 / 177.8	70 / 177.8 x 34 / 86.4 x 70 / 177.8	70 / 177.8 x 34 / 86.4 x 70 / 177.8	70 / 177.8 x 34 / 86.4 x 70 / 177.8
Approximate Weight (lbs / kg)	600 / 272.2	600 / 294.8	700 / 317.5	750 / 340.2	800 / 362.9

Test Parameters: 550 TDS Filtered (5-Micron), Dechlorinated, Municipal Feedwater, 65 psi / 4.50 bar Feed Pressure, 100 psi / 6.9 bar Operating Pressure, 77°F / 25°C, Recovery as stated, 7.0 pH. Data taken after 60 minutes of operation.

- A. Low temperatures and feedwater quality, such as high TDS levels will significantly affect the systems production capabilities and performance. Computer projections must be run for individual applications which do not meet or exceed minimum and maximum operating limits for such conditions.
- B. Product flow and maximum recovery rates are based on feedwater conditions as stated above. Do not exceed recommended permeate flow.
- C. Varies with motor manufacturer.
- D. Does not include operating space requirements.

OPERATING LIMITS^E

Design Temperature (°F / °C)	77 / 25	Maximum SDI Rating (SDI)	< 3
Maximum Feed Temperature (°F / °C)	85 / 29	Maximum Free Chlorine (ppm)	0
Minimum Feed Temperature (°F / °C)	40 / 4	Maximum Hardness (gpg)	0
Maximum Ambient Temperature (°F / °C)	120 / 49	Maximum pH (continuous)	11
Minimum Ambient Temperature (°F / °C)	40 / 4	Minimum pH (continuous)	2
Maximum Feed Pressure (psi / bar)	85 / 6	Maximum pH (cleaning 30 minutes)	12
Minimum Feed Pressure (psi / bar)	45 / 3	Minimum pH (cleaning 30 minutes)	1
Maximum Piping Pressure (psi / bar)	200 / 18.7	Minimum pH (cleaning 30 minutes)	0

E. System pressure is variable due to water conditions. Permeate flow will increase at a higher temperature and will decrease at a lower temperature.