



Description



TV-6000

	TV-2000	TV-4000	TV-6000 - 12000
Frame	Welded stainless steel tube		
Membranes	Low energy, thin-film (high rejection option)		
Vessels	Stainless Steel		
Pump	SS Multi-stage Centrifugal		
Gauges	Filter inlet/outlet, Vessel inlet/outlet, SS case, bronze internals, glycerine filled		
Valves	Brine and Recirculation control valves		
Switches	Low feed pressure cut-out		
Filters	10 micron, 20" pre-filter and housing		
Electrical*	110/208-220V 60 Hz 1-Phase	208-220V 60 Hz 1-Phase	
Connections Feed/Drain/Product	3/4" FPT/1/2" QC/1/2" QC	3/4" FPT/1/2" hose/1/2" hose	
Control System	Microprocessor based		
Standard Panel Instruments	TDS Monitor, Recirculation flowmeter, Brine flowmeter, Product flowmeter		

*For 220/380/480 voltage/phase options and power specifications, please see the Tomar Electrical Datasheet

Specifications

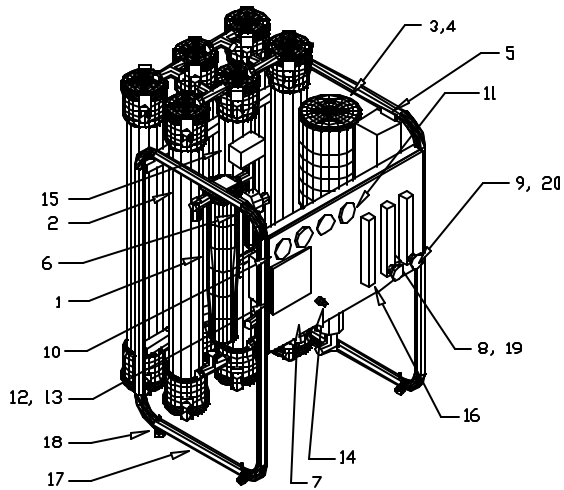
Production rate and TDS rejection are based on membrane performance after 24 hours at 115 psig (10.3bar) net operating pressure, 77°F (25°C), pH 7.5, 15% recovery on feed water containing 1000 ppm TDS. Flow tolerance is +/- 15%

Potential membrane foulants such as excessive Iron and Manganese must be removed from the feed stream prior to the system.

	TV-2000	TV-4000	TV-6000	TV-8000	TV-10000	TV-12000
Capacity	2000 GPD (7.6m ³ /d)	4000 GPD (15.1m ³ /d)	6000 GPD (22.7m ³ /d)	8000 GPD (30.2m ³ /d)	10000 GPD (37.8m ³ /d)	12000 GPD (45.3m ³ /d)
Membranes	1	2	3	4	5	6
Nominal/Maximum Operating Pressure	150/200 psi (10.3/13.8 bar)					
Min. Conc. Flow - Discharge + Recirc	3 gpm (0.68m ³ /h)			6-9 gpm (1.36-2.04m ³ /h)		
Nominal Recovery (with Recirc Valve)	75%					
Typical TDS Rejection	98%					
Max Feed Temp	110°F (43°C)					
Feed pH	3-10					
Feed Chlorination	Dechlorination reqd. if >0.1 ppm					
Maximum Feed TDS	5,000 ppm					
Motor Rating	.75HP	1.0HP	1.0HP	1.5HP	2.0HP	2.0HP



TV-2000 to TV-12000 System Diagram (TV-12000 shown)



- | | |
|--------------------------------|-----------------------------|
| 1. Prefilter | 11. Vessel In/Out Gauges |
| 2. Pressure Vessel Assembly | 12. Conductivity Monitor |
| 3. Pump | 13. Tank & PTL Switch Leads |
| 4. Motor | 14. Main Power Switch |
| 5. Motor Contactor & Ovl. Rly. | 15. Low Pressure Switch |
| 6. Solenoid Valve | 16. Product Flowmeter |
| 7. Monitoring Panel | 17. Frame |
| 8. Brine Control Valve | 18. Levelling Feet |
| 9. Conc. Recirc. Valve | 19. Brine Flowmeter |
| 10. Prefilter In/Out Gauges | 20. Recirc. Flowmeter |

System Options

Accessories and options for the TV series of water purification systems include Cleaning Skids • Product Storage Tanks • Tank Level Controls • Repressurization systems • Automatic Flush • Pre/Post Treatment among others. The most typical options available for TV systems are as follows:

PUREFLUSH OPTION The standard flush feature provided with all TV systems is a timed flow of low pressure feed water to the membrane pressure vessel each time the system completes a tank filling operation. The Pureflush option operates similarly but uses permeate water to flush the membrane instead of feed water. This leaves the membrane soaking in purified water during down times.

HIGH PRESSURE SWITCH The high pressure switch option includes a special pressure switch installed on the main pump output that signals the controller to shut down the system in the event pressure over 225 psi is reached at the pump output.

BLEND VALVE The blend valve option adds a metering valve to the system to allow blending of filtered feed water to the permeate output flow allowing a specific permeate TDS level to be achieved.

BASE FRAME & CASTERS The base frame and caster option is useful when system mobility is needed.

NANO MEMBRANE OPTION Each of the TV systems can be equipped with NANO membranes instead of the standard reverse osmosis membranes. NANO membranes provide a significant electric power savings (up to 40% less) than reverse osmosis membranes with only a moderate increase in permeate TDS level. NANO membrane work especially well when the principal feed water mineral problem is hardness.

TV-Series System Data

Dimensions and weight are for the system only. Systems shipped by common carrier motor freight require a wood crate.

	TV-2000	TV-4000	TV-6000	TV-8000	TV-10000	TV-12000
Weight lbs. (kg)	150 (68)	170 (77)	190 (86)	220 (100)	250(114)	280(127)
Dimensions	22"W x 26"D x 49"H (56 x 64 x 125cm)		28"W x 32"D x 49"H (56 x 81 x 125cm)			

