

# INDUSTRIAL GRADE WATER SOFTENERS

## LWT INDUSTRIAL SERIES

1,200,000 to 5,400,000 GRAINS CAPACITY



**Water Solutions \* Custom Engineering \* Industrial Performance**

Single, Twin, Triple, or Quadruple Demand Systems Available

## Industrial Performance and Proven Reliability

**Carbon Steel Pressure Vessels (NON-Code & ASME Code)** - Standard working pressure is 100 PSI. Higher pressures are available with custom engineered systems. A standard epoxy lining is applied internally and safety blue finish coating is applied over the exterior of the vessel. The vessels are fabricated in NON-code for standard products, and ASME Code is optional. Alternative vessel material, such as stainless steel and fiberglass are available.

**Lakeside Provides Resins** that are manufactured using full 8 % DVB. This process provides high chemical and physical stability, lower pressure drop, and greater resistance to bead breakage. Lakeside resins are shipped in the sodium form providing immediate soft water for your customer. High tolerance resins are available for chlorine, high temperature, increased flow rates or lower hardness leakage applications.



**Underdrain** - The radial hub underdrain construction uses high quality schedule 80 PVC pipe and fittings, delivering high performance standards. The .010" PVC slotted laterals provide high flow rates and reliable service. **Lakeside also features a standard hide-out preventer in all vessels to reduce hardness leakage when dilute brine is not rinsed out in the bottom of the vessel during the regeneration process.** Boiler applications that have very critical water quality requirements often request this feature on custom products.

**Brine Maker** The polyethylene or FRP brine tank provides the ultimate corrosion resistance and superior strength. Our dry salt system with shelf or wet salt system maintain precise brine saturation for optimum ion exchange. **The dry salt system brine valve is designed with four internal primary checks, delivering proven and reliable industrial performance. The wet salt system has separate brine draw and refill diaphragm valves.**



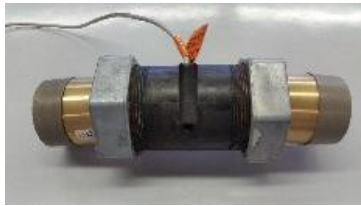
**Cast Iron diaphragm or EPDM lined butterfly valve nest** design allows each valve to be exactly designed and sized for the required functions, providing the most cost effective, efficient and serviceable system in the market. Numerous piping and valve configurations such as Copper, PVC, or Stainless steel are also available. Galvanized steel piping material is standard for 4" and smaller.



**Brine Eductors** are constructed of PVC and deliver the correct brine concentration to the softener resin. These hydraulic eductors are pressure compensating and produce 8-12% brine concentration to the softener bed for proper Ion exchange.



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**Flow Sensors** are designed to interface with the controllers. The meter sends a pulse signal to the controller that converts into gallons. The correctly programmed K-Factor will ensure the correct batch count and deliver continuous soft water 24/7.



**The Standard Lakeside 2001 Programmable Microprocessor** automatically controls the regeneration cycles by utilizing a pilot valve to operate the diaphragm valves. These valves can be hydraulically or pneumatically operated for your operational requirements. **The 2001 microprocessor also features a pre-rinse cycle to prevent hardness leakage at the beginning of the service run on twin alternating systems.** Boiler applications typically have very critical water quality requirements and often request this feature.



**The Optional AQMatic Programmable Microprocessor** provides single, twin, triple or quadruple system capabilities. The controller features twin alternating, progressive demand, or parallel application options. Multiple tank applications, progressive demand and the diagnostic capabilities are premiere features of this controller. **The progressive demand application allows one to four softeners to be online in proportion to the service demand.** One softener is always in service, and the other units automatically come online as the flow increases. As the flow rate decreases, softeners will be removed from service based on the pre-programmed GPM settings. This feature provides uninterrupted flow of soft water 24/7 during variable and peak flows *(One auxiliary output is provided to start a chemical feeder, pump or motor application).*

**Optional Allen-Bradley® PLC** control packages come standard with a color screen HMI which has user friendly programming. **Lakeside PLC solenoid system features a hold, advance, resume, termination, or close of all valves function, for fast, easy, field service.** The main screen can be designed to display a variety of parameters such as current flow rates, online tank status and remaining gallons of each vessel. Custom programming available.





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**Operating Parameters:** Pressure 30-100 PSI. Temperature range 35F-100F Electrical: 120VAC/60Hz Electrical enclosures rated NEMA 12/4X Drain piping limits: Max. 10ft. vertical discharged to an atmospheric floor drain sized to handle the backwash rate of the system (Max. proven length is 25ft.).

**OPTIONS AVAILABLE:**

- Skid mounted, pre-piped, pre-wired for faster and cost effective installations
- ASME code vessels are available. Pressure ratings above 100 PSI available.
- Low flow recirculation systems to prevent channeling during low service flow periods
- Hard water by-pass (single units)
- Brine Reclamation systems can save up to 25% on salt usage
- Pumped brine and dilution stations are available for pit or silo applications
- Pre-engineered systems and custom engineered systems are available
- Separate brine distribution headers

### LWT Series Water Softener Specifications

Model LWT	Grains Capacity Max.	Grains Capacity Min.	Resin Qty. Cu. Ft.	Flow Cont. GPM	PSID	Flow Peak GPM	PSID	Mineral Tank Size DxOAH (Inches)	Serv. Pipe Size	BW Flow Rate GPM	Brine Maker Size D x H (Inches)	Salt Storage Cap. (Lbs.)	Salt Usage Max. Dosage (Lbs.)	Salt Usage Min. Dosage (Lbs.)
1200-3	1,200,000	800,000	40	185	11	230	16	48 X 72	3"	60	50 X 60	2400	600	240
1200-4	1,200,000	800,000	40	250	7	350	11	48 X 72	4"	60	50 X 60	2400	600	240
1500-3	1,500,000	1,000,000	50	185	10	230	14	54 X 72	3"	70	60 X 64	3750	750	300
1500-4	1,500,000	1,000,000	50	315	8	400	12	54 X 72	4"	70	60 X 64	3750	750	300
1950-3	1,950,000	1,300,000	65	185	10	230	14	60 X 72	3"	90	72 X 54	2925	975	390
1950-4	1,950,000	1,300,000	65	315	7	400	11	60 X 72	4"	90	72 X 54	2925	975	390
2400-3	2,400,000	1,600,000	80	185	10	230	14	66 X 72	3"	110	72 X 64	3600	1200	480
2400-4	2,400,000	1,600,000	80	315	7	400	10	66 X 72	4"	110	72 X 64	3600	1200	480
3000-3	3,000,000	2,000,000	100	185	9	230	13	72 X 72	3"	140	90 X 54	4500	1500	600
3000-4	3,000,000	2,000,000	100	315	6	400	9	72 X 72	4"	140	90 X 54	4500	1500	600
3000-6	3,000,000	2,000,000	100	550	8	800	11	72 X 72	6"	140	90 X 54	4500	1500	600
3600-3	3,600,000	2,400,000	120	185	9	230	13	78 X 72	3"	170	90 X 54	3600	1800	720
3600-4	3,600,000	2,400,000	120	315	7	400	9	78 X 72	4"	170	90 X 54	3600	1800	720
3600-6	3,600,000	2,400,000	120	650	8	900	12	78 X 72	6"	170	90 X 54	3600	1800	720
4050-3	4,050,000	2,700,000	135	185	9	230	13	84 X 72	4"	190	90 X 54	2025	2025	810
4050-4	4,050,000	2,700,000	135	315	7	400	8	84 X 72	6"	190	90 X 54	2025	2025	810
4050-6	4,050,000	2,700,000	135	700	9	900	11	84 X 72	8"	190	90 X 54	2025	2025	810
5400-4	5,400,000	3,600,000	180	315	5	400	7	96 X 72	4"	250	90 X 60	2700	2700	1080
5400-6	5,400,000	3,600,000	180	700	7	900	9	96 X 72	6"	250	90 X 60	2700	2700	1080
5400-8	5,400,000	3,600,000	180	1000	8	1400	11	96 X 72	8"	250	90 X 60	2700	2700	1080

2020-09 Valves 4", 6", and 8" are butterfly. \*PSID slightly higher for Sch. 80 PVC piping.

## LWT Series Water Softener Dimensions

MODEL NO.	RESIN TANK	BRINE TANK	OAH	Width	Length-Inches			
					Single	Twin	Triple	Quad
LWT-1200	48" X 72"	50" X 60"	115	68	113	173	233	293
LWT-1500	54" X 72"	60" X 64"	112	74	129	195	261	327
LWT-1950	60" X 72"	72" X 54"	114	79	147	219	291	363
LWT-2400	66" X 72"	72" X 64"	116	85	153	231	307	387
LWT-3000	72" X 72"	90" X 54"	118	94	177	261	345	429
LWT-3600	78" X 72"	90" X 54"	118	100	183	273	363	453
LWT-4050	84" X 72"	90" X 54"	118	106	189	285	381	477
LWT-5400	96" X 72"	90" X 54"	118	118	201	309	417	525

- Dims. are approximate. • Add 6" to OAH for skid mounted. • ASME tanks add additional height.
- OAL includes 12" clearance between tanks. • Clearance above tanks required to load resin
- Brine Silos with Brine Measuring Tank Systems Available

