

INDUSTRIAL GRADE WATER SOFTENERS

LWTS INDUSTRIAL SERIES

150,000 TO 900,000 GRAIN CAPACITY



(Single, Twin Alternating, Triple or Quadruple Demand Systems)



*“Designed, Tested and Approved for Shipment
by LWT Engineering Staff”*

“Industrial Performance and Proven Reliability”

CARBON STEEL PRESSURE VESSELS - Standard working pressure is 100PSI. Higher pressures are available with custom engineered systems. A standard epoxy lining of 10-12 DFT mils is applied internally and 6-8 mils DFT safety blue finish coating applied over the exterior of the vessel. The vessels are fabricated in non-code for standard products and ASME is optional. Alternative vessels 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 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 to reduce hardness leakage when saturated brine is not rinsed out in the bottom of the vessel during the regeneration process.** Boiler applications have very critical water quality requirements an often request this feature on their custom projects.

BRINE MAKER The non-toxic polyethylene rotationally molded brine tank provides the ultimate corrosion resistance and superior strength. Our standard grid plate and Lakeside’s special brine valve maintain precise brine saturation for optimum ion exchange. **Lakeside special brine valve is designed with four internal primary checks delivering proven and reliable industrial performance.**



Cast Iron diaphragm 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 piping material is standard.

Brine Eductors are constructed of PVC that deliver the correct brine concentration to the softener resin. These hydraulic eductors are pressure compensating and produce 10-14% brine concentration to the softener bed for proper ion exchange. Pumped brine systems and brine silos are available.



Flow Sensors are designed to interface with the controllers. The flow sensor 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 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 standard 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 have very critical water quality requirements and often request this feature on their custom projects.



The Optional 3214 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)





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Optional Allen Bradley PLC control packages come with a color HMI EZ Touch screen that is extremely user friendly. **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 programmed to display a variety of parameters such as current flow rates, online tank status and remaining gallons of each vessel. **The AB 10/100 IP Ethernet Network Connection port is standard for building management capabilities. Custom programming and alternate communication protocols are available.**



Operating Parameters Pressure 30-100psi. Temperature range 35F-100F Electrical: 120vac, 60Hz Electrical enclosures rated NEMA 12/4x **Drain piping limits: Max 10ft vertical and 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
- PVC, Copper and Stainless Steel Piping Options
- Brine Reclamation systems save up to 25% on salt usage
- Low flow recirculation pumps to prevent channeling during low service flows
- ASME code vessels available
- Brine pump skids and dilution stations available for pit and brine silo applications
- Hard water by-pass
- Catalog products, custom controls, programming and engineered systems available

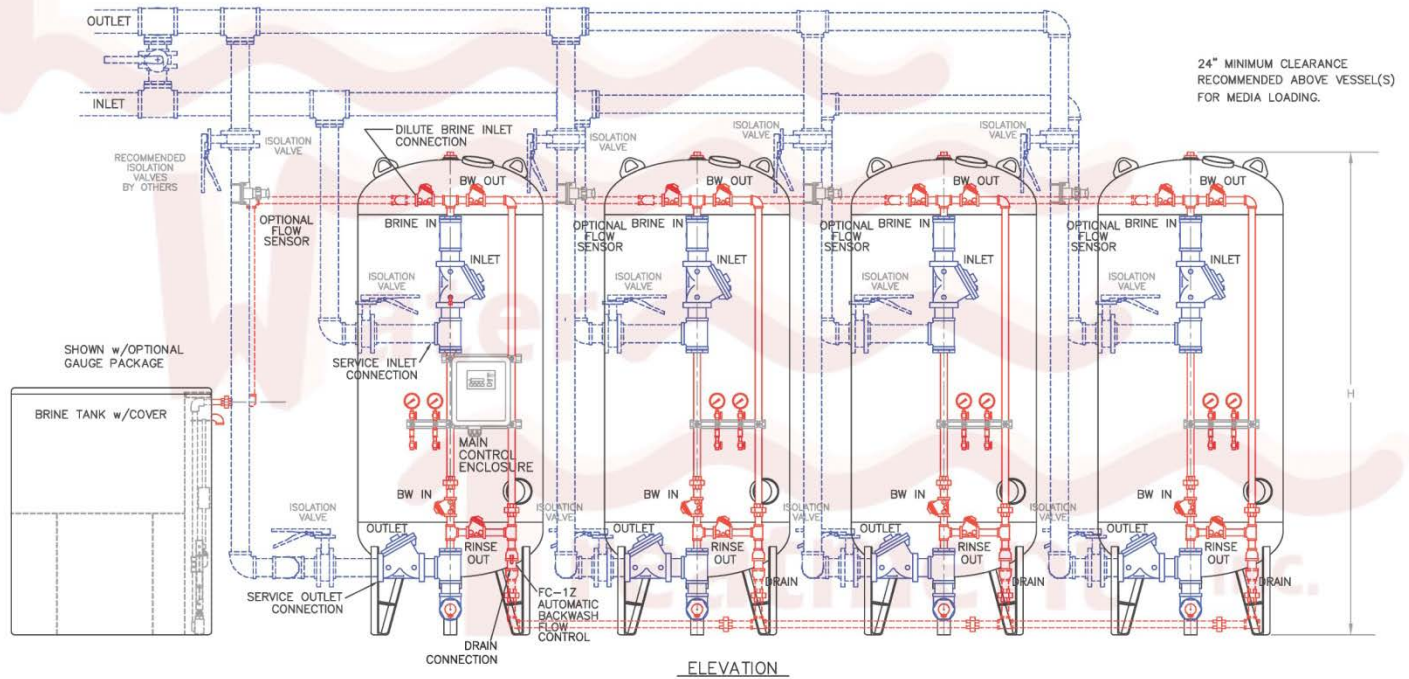
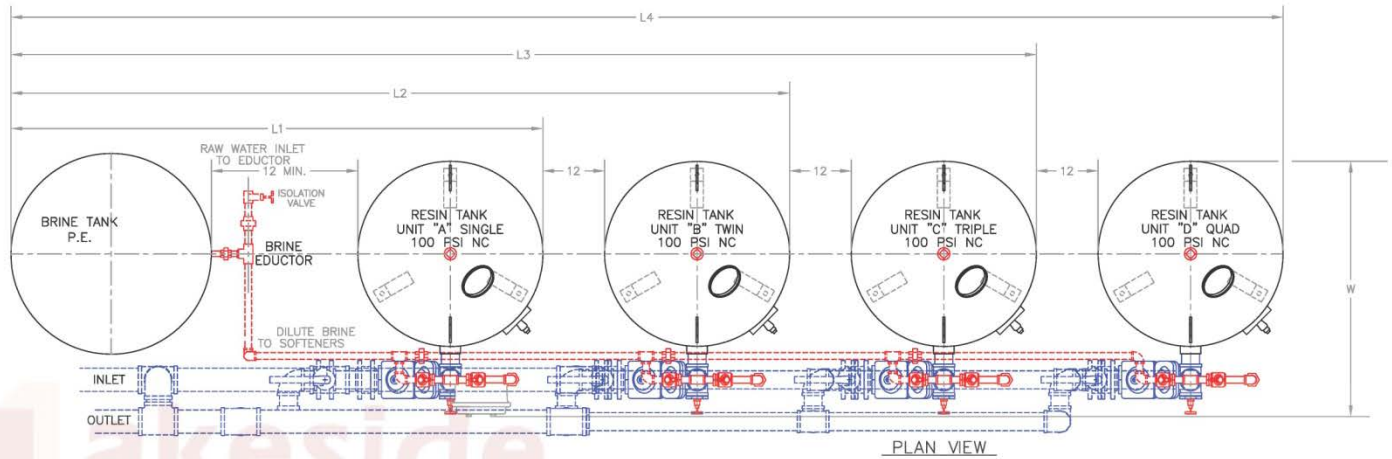


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LWTS Model	Capacity Grains Max	Capacity Grains Min.	Tank Inches	Backwash GPM	Resin Qty.	Flow GPM @ 15 PSID	Flow GPM @ 25 PSID	Brine Tank Size Inches	Bine Tank Storage Max. LBS.	Salt Dosage LBS. Max.
LWTS – 150 - 1	150,000	100,000	20 x 54	10	5	25	33	24 x 40	450	75
LWTS - 150 - 1.25	150,000	100,000	20 x 54	10	5	42	59	24 x 40	450	75
LWTS - 150 - 1.5	150,000	100,000	20 x 54	10	5	48	67	24 x 40	450	75
LWTS - 150 - 2	150,000	100,000	20 x 54	10	5	64	91	24 x 40	450	75
LWTS – 210 - 1.25	210,000	140,000	24 X 54	15	7	47	64	24 x 54	610	105
LWTS – 210 - 1.5	210,000	140,000	24 X 54	15	7	55	76	24 x 54	610	105
LWTS– 210 - 2	210,000	140,000	24 X 54	15	7	81	114	24 x 54	610	105
LWTS – 210 - 2.5	210,000	140,000	24 X 54	15	7	95	135	24 x 54	610	105
LWTS – 300 - 1.5	300,000	200,000	30 X 54	20	10	61	82	30 X 48	850	150
LWTS - 300 - 2	300,000	200,000	30 X 54	20	10	100	138	30 x 48	850	150
LWTS – 300 – 2.5	300,000	200,000	30 X 54	20	10	128	179	30 x 48	850	150
LWTS – 300 – 3	300,000	200,000	30 X 54	20	10	150	213	30 x 48	850	150
LWTS – 450 - 1.5	450,000	300,000	30 X 60	20	15	58	79	30 x 60	950	225
LWTS – 450 – 2	450,000	300,000	30 X 60	20	15	92	131	30 x 60	950	225
LWTS – 450 – 2.5	450,000	300,000	30 X 60	20	15	116	167	30 x 60	950	225
LWTS - 450 – 3	450,000	300,000	30 X 60	20	15	134	196	30 x 60	950	225
LWTS – 600 - 1.5	600,000	400,000	36 X 60	20	15	61	83	39 X 48	1250	300
LWTS – 600 -2	600,000	400,000	36 X 60	30	20	104	144	39 x 48	1250	300
LWTS – 600 -2.5	600,000	400,000	36 X 60	30	20	139	197	39 x 48	1250	300
LWTS – 600 -3	600,000	400,000	36 X 60	30	20	172	249	39 x 48	1250	300
LWTS – 750 -2	750,000	500,000	36 X 72	30	25	100	141	39 x 60	1630	375
LWTS – 750 -2.5	750,000	500,000	36 X 72	30	25	132	190	39 x 60	1630	375
LWTS – 750 -3	750,000	500,000	36 X 72	30	25	161	237	39 x 60	1630	375
LWTS – 900 -2	900,000	600,000	42 X 60	45	30	110	151	42 x 60	1840	450
LWTS – 900 -2.5	900,000	600,000	42 X 60	45	30	153	214	42 x 60	1840	450
LWTS - 900-3	900,000	600,000	42 X 60	45	30	199	286	42 x 60	1840	450

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LWTS Series Water Softener Dimensions

MODEL NO.	RESIN TANK	BRINE TANK	L1 L X W X H	L2 L X W X H	L3 L X W X H	L4 L X W X H
LWTS-150	20" X 54"	24" X 40"	57" X 32" X 69"	89" X 32" X 69"	121" X 32" X 69"	153" X 32" X 69"
LWTS-210	24" X 54"	24" X 54"	61" X 36" X 70"	97" X 36" X 70"	133" X 36" X 70"	169" X 36" X 70"
LWTS-300	30" X 54"	30" X 48"	72" X 42" X 75"	114" X 42" X 75"	156" X 42" X 75"	198" X 42" X 75"
LWTS-450	30" X 60"	30" X 60"	72" X 42" X 81"	114" X 42" X 81"	156" X 42" X 81"	198" X 42" X 81"
LWTS-600	36" X 60"	39" X 48"	87" X 50" X 89"	135" X 50" X 89"	183" X 50" X 89"	231" X 50" X 89"
LWTS-750	36" X 72"	39" X 60"	87" X 50" X 101"	135" X 50" X 101"	183" X 50" X 101"	231" X 50" X 101"
LWTS-900	42" X 60"	42" X 60"	96" X 55" X 90"	150" X 55" X 90"	204" X 55" X 90"	258" X 55" X 90"