

Engineering Specification

Job Name _____

Contractor _____

Job Location _____

Approval _____

Engineer _____

Contractor's P.O. No. _____

Approval _____

Representative _____

Series LC-150

Commercial Water Softening Systems

Connection Size: 1 1/2"**Flow Rates: Up to 55 gpm (208 lpm)**

Watts Series LC-150 water softening systems are highly efficient conventional cation exchange type water softeners. They are suitable for commercial applications ranging from 60,000 to 300,000 grains of hardness removal and flow rates up to 55 gallons per minute. Regeneration is meter demand initiated. All cycles of regeneration are fully automatic and do not require manual actuation.

Series LC-150 water softeners are designed for point of use or point of entry applications where the benefits of softened water are required. These systems exchange scale forming calcium and magnesium ions with non-scale forming sodium ions to create soft water for a variety of applications. Commercial kitchens, water heater pretreatment, reverse osmosis pretreatment, sterilizer make up water, washing, and process water are all common applications for the Series LC-150 water softeners.

Softened water provides a wide variety of benefits such as preventing lime scale formation in pipes, valves, water heating equipment, heat exchangers, and cooling towers to reducing mineral build up in areas that see excessive splashing such as food preparation counters and sink areas. Softened water also conserves soaps and cleaning agents by eliminating the formation of soap curd, so your cleaners can work on cleaning not reacting with the hardness in your water.

Features

- Durable brass bodied control valve for years of service
- Fully automatic metered demand control valve certified to NSF/ANSI standards
- Sophisticated digital electronic controls that store operating history that can be accessed by the user
- Fully adjustable regeneration cycles
- Dry contact lock out switch for remote interface is standard
- High capacity resin certified to NSF/ANSI standards
- Highly corrosion resistant fiberglass tanks certified to NSF/ANSI standards
- Durable polypropylene lower distribution system

Standards

Control Valve- Certified to NSF/ANSI Std. 61 and 372
 Ion Exchange Resin- Certified to NSF/ANSI Std. 61 and 372
 Mineral Tank- Certified to NSF/ANSI Std. 44 or 61



Series LC-150

Specifications

A Series LC-150 water softening system shall be installed on the building's main water line just after it enters the building. The installation point shall be after any backflow prevention or pressure regulating valves. Other installation options are to install a system just before the water heater or other types of equipment needing the protection of softened water. In installations where dedicated cold water make up to a water heater is the installation point, a backflow preventer and a thermal expansion tank must be installed as well. The system shall be installed with a bypass valve to allow for the shut down and removal of the unit without interrupting the water supply to the building.

The water softener shall be a down flow regenerated, metered demand, sodium cycle cation exchange type system with all components necessary for proper operation. Electrical requirements are 120 volt 60 hertz. A local drain is required to accept drain water from the system. The feed water pressure must not fall below 25psi or exceed 125psi. Water temperature must not fall below 34°F or exceed 110°F (1 - 43°C).

The system shall provide softened water measuring less than one grain per gallon of hardness as Calcium Carbonate when operated within the manufacturers operational specifications.

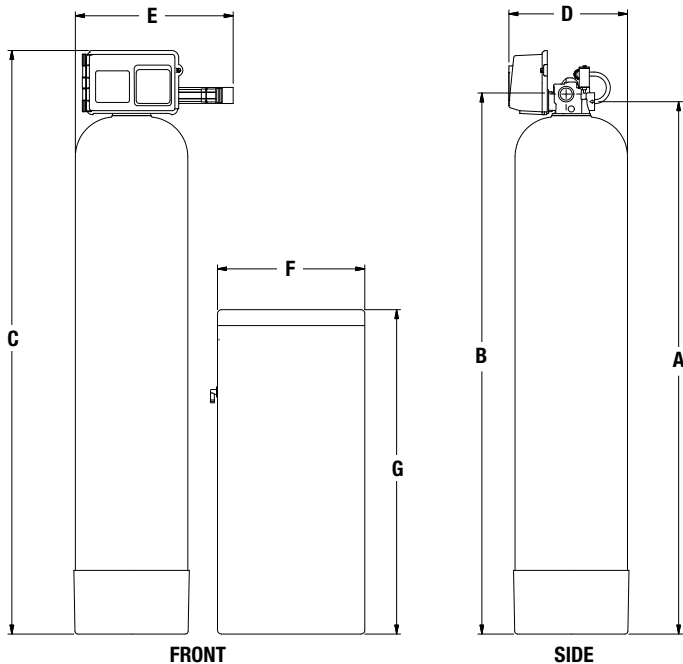
⚠ WARNING

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

Watts product specifications in U.S. customary units and metric are approximate and are provided for reference only. For precise measurements, please contact Watts Technical Service. Watts reserves the right to change or modify product design, construction, specifications, or materials without prior notice and without incurring any obligation to make such changes and modifications on Watts products previously or subsequently sold.



Dimensions - Weights



Feed Water Guidelines

pH 6 to 10
 Hardness (maximum) Depends on customer's acceptable hardness leakage level.
 Water Pressure 25psi to 125psi (171 kPa to 8.5 bar)
 Temperature 34 - 110°F (1 - 43°C)
 Free Chlorine (maximum) . . . 1mg/L
 Iron (maximum) 1mg/L
 Oil and H₂S None Allowed
 Turbidity Less than 5.0 NTU
 Total Dissolved Solids Must be below 750mg/l for the softener to produce less than 1 grain per gallon soft water.

For all other guideline information please contact your Watts representative.

NOTICE

The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.

MODEL NO.	DIMENSIONS														WEIGHTS	
	A		B		C		D		E		F		G		lbs.	kgs
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm		
M4210B-285NT	54 ⁷ / ₈	1394	55 ³ / ₄	1416	61	1549	13 ¹⁵ / ₁₆	353	19	483	18	457	40	1016	210	95
M4214B-285NT	66 ¹⁵ / ₁₆	1699	67 ⁷ / ₈	1724	73 ³ / ₈	1864	14 ¹⁵ / ₁₆	378	19 ¹³ / ₁₆	503	18	457	40	1016	240	109
M4218B-285NT	66 ³ / ₈	1686	67 ¹ / ₄	1708	72 ³ / ₄	1848	15 ¹⁵ / ₁₆	405	20 ¹³ / ₁₆	528	18	457	40	1016	320	145
M4222B-285NT	68	1727	69	1753	74 ⁷ / ₁₆	1890	18 ¹ / ₈	460	21 ¹³ / ₁₆	554	24	610	41	1041	380	173
M4226B-285NT	70	1778	71	1803	76 ⁷ / ₁₆	1941	21 ¹ / ₈	536	23 ⁵ / ₁₆	592	24	610	50	1270	585	266
M4230B-285NT	76 ³ / ₈	1940	77 ¹ / ₄	1962	82 ³ / ₄	2102	24 ¹ / ₈	613	24 ¹³ / ₁₆	630	30	762	50	1270	710	323

Specifications

MODEL NO.	MINERAL TANK			BRINE TANK		SOFTENING CAPACITY		LBS. SALT PER REGENERATION		FLOW RATE & PRESSURE		
	TANK SIZE	RESIN Ft ³	GRAVEL	TANK SIZE	SALT FILL	MAX	MIN	MAX	MIN	SERV GPM	DROP PSI	BKW GPM
M4210B-285NT	12" x 52"	2.0	30 lbs.	18" x 40"	400	60 K	40 K	30	12	15/20	15/25	3.5
M4214B-285NT	14" x 65"	3.0	60 lbs.	18" x 40"	400	90 K	60 K	45	18	17/22	15/25	5.0
M4218B-285NT	16" x 65"	4.0	80 lbs.	18" x 40"	400	120 K	80 K	60	24	25/40	15/25	7.0
M4222B-285NT	18" x 65"	5.0	100 lbs.	24" x 41"	600	150 K	100 K	75	30	30/50	15/25	11.0
M4226B-285NT	21" x 62"	7.0	100 lbs.	24" x 50"	800	210 K	140 K	105	42	35/53	15/25	13.0
M4230B-285NT	24" x 72"	10.0	200 lbs.	30" x 50"	1400	300 K	200 K	150	60	40/55	15/25	15.0

Ordering Information

MODEL NO.	ORDERING CODES	DESCRIPTION	PIPE SIZE	SPACE REQUIRED D x W x H	WEIGHT	
					LBS	KGS
M4210B-285NT	68105530	2 Cubic Foot Simplex Softener with Flow Meter	1.5"	18" x 42" x 75"	210	95
M4214B-285NT	68105535	3 Cubic Foot Simplex Softener with Flow Meter	1.5"	18" x 44" x 87"	240	109
M4218B-285NT	68105540	4 Cubic Foot Simplex Softener with Flow Meter	1.5"	18" x 46" x 87"	320	145
M4222B-285NT	68105545	5 Cubic Foot Simplex Softener with Flow Meter	1.5"	24" x 50" x 87"	380	173
M4226B-285NT	68105549	7 Cubic Foot Simplex Softener with Flow Meter	1.5"	24" x 52" x 84"	585	266
M4230B-285NT	68105553	10 Cubic Foot Simplex Softener with Flow Meter	1.5"	39" x 60" x 96"	710	323

NOTICE

Capacities are based on resin manufacturer's data and are dependent upon influent water TDS, temperature, bed depth, and flow rates. Feed water must be free of oil and color. Pipe size, tank size, and space requirements are in inches. Flow rates listed at 25psi drops are for intermittent peak flow rates and are not to be used as continuous flows.



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