

## For Commercial Applications

Job Name \_\_\_\_\_

Contractor \_\_\_\_\_

Job Location \_\_\_\_\_

Approval \_\_\_\_\_

Engineer \_\_\_\_\_

Contractor's P.O. No. \_\_\_\_\_

Approval \_\_\_\_\_

Representative \_\_\_\_\_

# Series PWS15

## Commercial Water Softening Systems

**Connection Size: 1½" (40 mm)**  
**Flow Rates: Up to 55 gpm (208 lpm)**

Watts Pure Water Series PWS15 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.

Watts Pure Water Series PWS15 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. Steam boiler make up water, water heater pretreatment, reverse osmosis pretreatment, sterilizer make up water, washing, and process water are all common applications for the Watts Pure Water Series PWS15 water softeners.

Softened water provides a wide variety of benefits from not introducing scale into 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
- WQA Certified fully automatic metered demand control valve
- 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
- WQA Certified high capacity resin
- Highly corrosion resistant WQA or NSF Certified fiberglass tanks
- Durable polypropylene lower distribution system

### Standards

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

## PURE WATER



Series PWS15

### Specifications

A Watts Pure Water Series PWS15 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.

#### NOTICE

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.

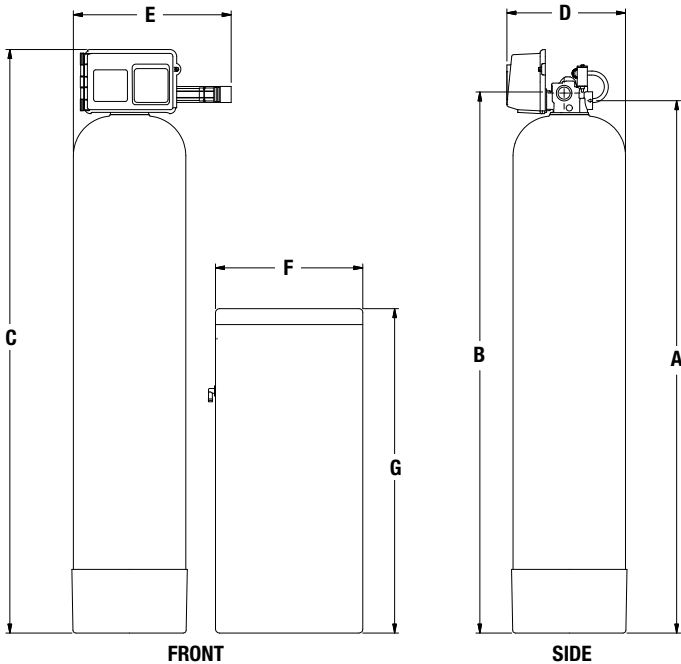
#### WARNING

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 customers 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 H <sub>2</sub> S	None Allowed
Turbidity	Less than 5.0 NTU

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		in.	mm
	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm	in.	mm
PWS15121C11	54 <sup>7</sup> / <sub>8</sub>	1394	55 <sup>3</sup> / <sub>4</sub>	1416	61	1549	13 <sup>15</sup> / <sub>16</sub>	353	19	483	18	457	40	1016	210	95
PWS15121D11	66 <sup>15</sup> / <sub>16</sub>	1699	67 <sup>7</sup> / <sub>8</sub>	1724	73 <sup>3</sup> / <sub>8</sub>	1864	14 <sup>15</sup> / <sub>16</sub>	378	19 <sup>13</sup> / <sub>16</sub>	503	18	457	40	1016	240	109
PWS15121E11	66 <sup>3</sup> / <sub>8</sub>	1686	67 <sup>1</sup> / <sub>4</sub>	1708	72 <sup>3</sup> / <sub>4</sub>	1848	15 <sup>15</sup> / <sub>16</sub>	405	20 <sup>13</sup> / <sub>16</sub>	528	18	457	40	1016	320	145
PWS15121F11	68	1727	69	1753	74 <sup>7</sup> / <sub>16</sub>	1890	18 <sup>1</sup> / <sub>8</sub>	460	21 <sup>13</sup> / <sub>16</sub>	554	24	610	41	1041	380	173
PWS15121G11	70	1778	71	1803	76 <sup>7</sup> / <sub>16</sub>	1941	21 <sup>1</sup> / <sub>8</sub>	536	23 <sup>5</sup> / <sub>16</sub>	592	24	610	50	1270	585	266
PWS15121H11	76 <sup>3</sup> / <sub>8</sub>	1940	77 <sup>1</sup> / <sub>4</sub>	1962	82 <sup>3</sup> / <sub>4</sub>	2102	24 <sup>1</sup> / <sub>8</sub>	613	24 <sup>13</sup> / <sub>16</sub>	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 <sup>3</sup>	GRAVEL	TANK SIZE	SALT FILL	MAX	MIN	MAX	MIN	SERV GPM	DROP PSI	BKW GPM
PWS15121C11	12" x 52"	2.0	30 lbs.	18x40	400	60 K	40 K	30	12	15/20	15/25	4.0
PWS15121D11	14" x 65"	3.0	60 lbs.	18x40	400	90 K	60 K	45	18	17/22	15/25	5.0
PWS15121E11	16" x 65"	4.0	80 lbs.	18x40	400	120 K	80 K	60	24	25/40	15/25	7.0
PWS15121F11	18" x 65"	5.0	100 lbs.	24x41	600	150 K	100 K	75	30	30/50	15/25	11.0
PWS15121G11	21" x 62"	7.0	100 lbs.	24x50	800	210 K	140 K	105	42	35/53	15/25	13.0
PWS15121H11	24" x 72"	10.0	200 lbs.	30x50	1400	300 K	200 K	150	60	40/55	15/25	15.0

## Ordering Information

MODEL NO.	DESCRIPTION	PIPE SIZE	SPACE REQUIRED D x W x H	WEIGHT	
				LBS	KGS
PWS15121C11	2 Cubic Foot Simplex Softener with Flow Meter	1.5"	18" x 42" x 75"	210	95
PWS15121D11	3 Cubic Foot Simplex Softener with Flow Meter	1.5"	18" x 44" x 87"	240	109
PWS15121E11	4 Cubic Foot Simplex Softener with Flow Meter	1.5"	18" x 46" x 87"	320	145
PWS15121F11	5 Cubic Foot Simplex Softener with Flow Meter	1.5"	24" x 50" x 87"	380	173
PWS15121G11	7 Cubic Foot Simplex Softener with Flow Meter	1.5"	24" x 52" x 84"	585	266
PWS15121H11	10 Cubic Foot Simplex Softener with Flow Meter	1.5"	39" x 60" x 96"	710	323

**Notes:** 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 25 psi drops are for intermittent peak flow rates and are not to be used as continuous flows.



A Watts Water Technologies Company

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