

**HOBART**701 S Ridge Avenue, Troy, OH 45374  
1-888-4HOBART • www.hobartservice.com**WATER SOFTENING SYSTEMS –  
WS-500****HOBART****FEATURES:****Operating Profile**

Softener will remove hardness to less than 1/2 gpg when operated in accordance with the operating instructions. The system will include two tanks. The duplex configuration will be flexible to operate in alternating or parallel mode depending on installed programs disc. In alternating mode, one tank will be on-line during service. In parallel mode, both tanks will be on-line during service. With either mode, during regeneration cycles, one tank will provide water to service and to the regenerating tank. A water meter will initiate system regeneration. The water meter will measure the processed volume and be adjustable. Service flow will be down-flow and regeneration flow shall be up-flow.

**Regeneration Control Valve**

The regeneration control valve will be top mounted (top of media tank), and manufactured from non-corrosive materials. Control valve will not weigh more than four pounds. Control valve will provide service and regeneration control for two media tanks. Inlet and outlet ports accept a quick connect, double o-ring sealed adapter. Interconnection between tanks are made through the regeneration valve with a quick connect adapter. Control valve will operate using a minimum inlet pressure of 25 psi. Pressure is used to drive all valve functions. No electric hook-up is required. Control valve will incorporate four operational cycles including; service, brine draw, slow-rinse, and a combined fast rinse and brine refill. Service cycle operates in a down-flow direction. The brine cycle will flow up-flow, opposite the service flow, providing countercurrent regeneration. Control valve will prevent the bypass of hard water to service during the regeneration cycle.

**Media Tanks**

The tanks are designed for a maximum working pressure of 125 psi and hydrostatically tested at 300 psi. Tanks are made of polyethylene and are reinforced with a fiberglass wrapping. Each tank includes 2.5 in. threaded top opening. Each tank is NSF approved. Upper and lower distribution system is a slot design. Distributors provide even flow of regeneration water and the collection of processed water.

**Conditioning Media**

Each softener includes a non-solvent, high capacity resin having a minimum exchange capacity of 30,000 grains/ft<sup>3</sup> when regenerated with 15.0 lbs/ft<sup>3</sup>. The media is solid, of a proper particle size and contains no plates, shells, agglomerates or other shapes, which might interfere with the normal function of the water softener.

**Brine System**

A combination salt storage and brine production tank is manufactured of corrosion resistant, plastic. The brine tank has a chamber to house the brine valve assembly. The brine float assembly allows for adjustable salt settings and provides for a shut-off to the brine refill. The brine tank includes a safety overflow connection to be plumbed to a suitable drain.

**Salt Alarm**

Salt alarm consists of an alarm box and a brine sensor. Brine sensor is mounted internally on the grid plate and operates on the specific gravity of proper brine concentration. An alarm condition is triggered when the concentration falls below acceptable level for more than 15 minutes. The alarm is both an 80-db audible alarm every 3 seconds and a red LED flash every 7 seconds. The alarm box operates on three AA batteries and connects to the brine sensor with a standard 2-wire phone cord (7' phone cord supplied).

**MODEL:** **Model WS-500.**

Specifications, Details and Dimensions on Back.



Model WS-500

Salt Alarm

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# WATER SOFTENING SYSTEMS – WS-500



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## System Components

Media Vessel (qty) Size .....(2) 13 x 54"  
 Media Vessel Construction .....Wrapped Polyethylene  
 Empty Bed Volume .....3.68 ft<sup>3</sup>  
 Media .....2.50 ft<sup>3</sup> Non Solvent Cation Resin  
 Bed Depth/Free Board.....42"/12"  
 Riser Tube .....1" ABS  
 Distributor Upper .....0.014" Slots, ABS Basket  
 Lower .....0.014" Slots, ABS Basket  
 Under bedding .....0.24 ft<sup>3</sup> (24 lbs), 1/4 x 1/8 Gravel  
 Regeneration Control .....Non-electric Use Meter  
 Regeneration Type .....Countercurrent  
 Meter Type .....0.75 - 40.00 gpm Polypropylene Turbine  
 (Hobart Full Louver Flow Nozzle)

## Inlet Water Quality

Pressure Range .....25 – 125 psi Dynamic Pressure  
 Temperature Range .....35 – 120° F  
 pH Range .....5 – 10 SU  
 Free Chlorine Cl<sub>2</sub> (Max.) .....2.0 mg/l  
 Hardness as CaCO<sub>3</sub> (Max.) .....51 gpg

## Operating Specs

Flow Range - Overdrive (15 / 30 psig) .....28.0 – 40.0 gpm  
 Flow Range - Alternating (15 / 30 psig) .....20.0 – 30.0 gpm  
 Dimensions (width x depth x height) .....27 x 13 x 60"  
 Weight (Operating / Shipping) .....450 / 300 lbs.

## Connections

Inlet / Outlet Connections .....Custom Adapter and E-Clip  
 (1 1/2" Brass Sweat Fittings Included)  
 Drain Connection .....0.625" Tube  
 Brine Line Connection .....0.375" Tube  
 Power .....None  
 Salt Alarm.....3 AA Batteries

## System Part Numbers

WS-500, .....913091-126

## Brine Tank Options

Tank Description .....24" x 40"  
 Material .....HDPE  
 Salt Capacity .....500 lbs.

## Regeneration Specifications

Regeneration / Time .....142 gallons / 90 minutes  
 Backwash Flow Control .....5.00 gpm  
 Brine Refill Flow Control .....0.70 gpm

## Overdrive Operation

Setting	Capacity	Efficiency	Dosing	Meter Disc	1	2	3	4	5	6	7	8
25 lbs.	70,000 grains	2,800 gr./lb.	10.0 lbs./ft <sup>3</sup>		6	12	16	20	24	30	35	40
			<b>Peak flow during regeneration:</b>		28.0	28.0	28.0	20.7	15.7	12.4	10.0	8.3

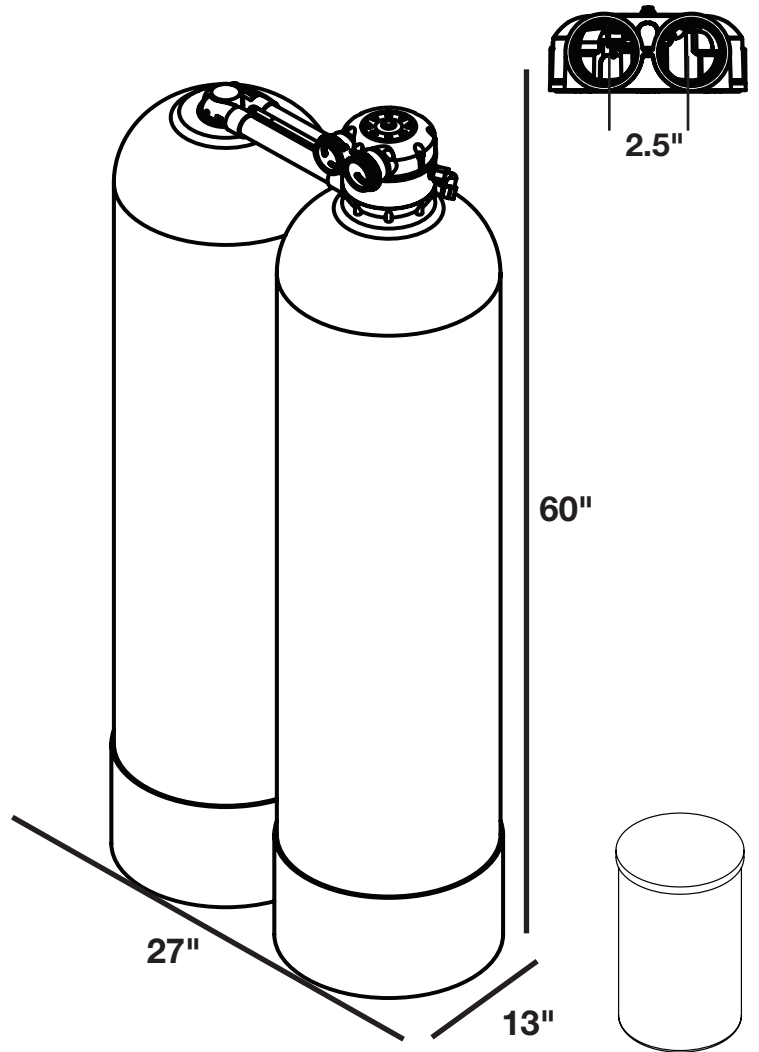
## Alternating Operation

Setting	Capacity	Efficiency	Dosing	Meter Disc	1	2	3	4	5	6	7	8
25 lbs.	70,000 grains	2,800 gr./lb.	10.0 lbs./ft <sup>3</sup>		7	14	21	28	34	40	45	51
			<b>Flow during regeneration (@ 15 psig):</b>		20	20	20	20	15.7	12.4	10.0	8.3
			<b>Gallons/Regeneration:</b>		8,922	4,461	2,974	2,231	1,784	1,487	1,275	1,115

### Disc Selection

(Compensated Hardness\*)

\*Compensated hardness in gpg = Hardness + (3 x Fe in mg/l)



As continued product improvement is a policy of Hobart, specifications are subject to change without notice.