

WATER SOFTENING SYSTEMS – WS-40

701 S Ridge Avenue, Troy, OH 45374 1-888-4HOBART • www.hobartservice.com

# **FEATURES:**

# **Operating Profile**

Softener will remove hardness to less than 1/2 gpg when operated in accordance with the operating instructions. The system includes two tanks. This duplex configuration operates with one tank on-line during service. During regeneration cycles, one tank will provide water to service and to the regenerating tank. A water meter initiates system regeneration. The water meter measures the processed volume and is adjustable. Service flow is up-flow and regeneration flow is down-flow.

# **Regeneration Control Valve**

The regeneration control valve is top mounted (top of media tank), and manufactured from non-corrosive materials. Control valve does not weigh more than four pounds. Control valve provides 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 operates using a minimum inlet pressure of 15 psi. Pressure is used to drive all valve functions. No electric hookup is required. Control valve incorporates four operational cycles including; service, brine draw, slow rinse, and a combined fast rinse and brine refill. Service cycle operates in an up-flow direction. The brine cycle flows down-flow, opposite the service flow, providing a countercurrent regeneration. Control valve contains a fixed orifice eductor nozzle and self-adjusting backwash flow control. The 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 engineered plastic with a 2.5 in. threaded top opening. Each tank is NSF approved. Upper distribution system is of a slot design. Lower distribution system is of a flat plate design. Distributors will provide even flow of regeneration water and the collection of processed water.

# **Conditioning Media**

Each softener will include uniform bead cation resin having a minimum exchange capacity of 30,000 grains/ft³ when regenerated with 15.0 lbs/ft³. 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-40

Specifications, Details and Dimensions on Back.





Model WS-40

Salt Alarm

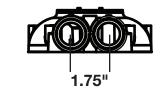
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**System Components** 

| Media Vessel (qty) | Size      | (2) 6 x 13"                              |
|--------------------|-----------|--|
| Media Vessel Cons  | struction | Fiberglass Wrapped Engineered Plastic    |
| Empty Bed Volume   | e         | 0.16 ft <sup>3</sup>                     |
| Media Type         |           | Uniform Bead Cation Resin                |
| Media Volume       |           | 0.16 ft <sup>3</sup>                     |
| Bed Depth          |           | Packed                                   |
|                    |           | None                                     |
| Riser Tube         |           | 1" CPVC                                  |
| Distributor        | Upper     | 0.012" Slots, Engineered Plastic Basket  |
|                    | Lower     | 0.009" Slots, Stainless Steel Flat Plate |
| Under bedding      |           | None                                     |
| Regeneration Con   | trol      | Non-electric Use Meter                   |
| Regeneration Type  | e         | Countercurrent                           |
| Meter Type         |           | 0.30 - 25.00 gpm Polypropylene Turbine   |
|                    |           |  |



# **Inlet Water Quality**

| Pressure Range           | 15 – 125 psi Dynamic Pressure |
|--------------------------|-------------------------------|
| Temperature Range        | 35 – 150° F                   |
| Temperature (Continuous) | < 150° F                      |
| pH Range                 | 5 – 10 SU                     |
| Free Chlorine Cl2 (Max.) | 2.0 mg/l                      |
| Hardness as CaCO3 (Max.) | 30 gpg                        |

# **Operating Specs**

| Flow Range (15 / 30 psig)           | 9.1 – 15.2 gpm |
|-------------------------------------|----------------|
| Flow Configuration                  | Alternating    |
| Dimensions (width x depth x height) | 14 x 14 x 22"  |
| Weight (Operating / Shipping)       | 110 / 60 lbs.  |

# **Connections**

| Inlet / Outlet Connections | Custom Adapter and Bracket |
|----------------------------|----------------------------|
| Drain Connection           | 0.375" Tube                |
| Brine Line Connection      | 0.375" Tube (internal)     |
| Overflow Connection        | 0.375" Tube                |
| Power                      | None                       |
| Salt Alarm                 | 3 AA Batteries             |



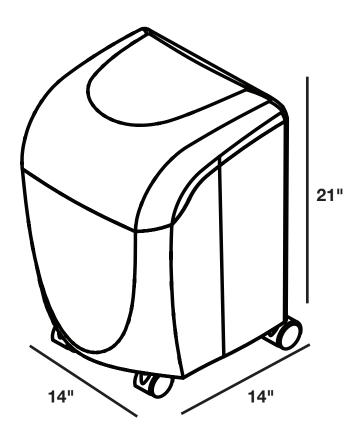
WS-40, Compact Cabinet Softener ......00-913091-00123

# **Brine Tank Options**

| Tank Description | 206 Cabinet |
|------------------|-------------|
| Tank Height      | 22"         |
| Tank Footprint   | 14 x 14"    |
| Material         |             |
| Salt Capacity    | 40 lbs.     |

# **Regeneration Specifications**

| Regeneration Volume       | 5 gallons  |
|---------------------------|------------|
| Regeneration Time         | 11 minutes |
| Backwash Flow Control     | 0.70 gpm   |
| Brine Refill Flow Control | 0.20 gpm   |



# **Disc Selection**

|          |              |               |                                       |               |  | (Compensated Hardness*) |     |     |     |     |     |     |
|----------|--------------|---------------|---------------------------------------|---------------|--|-------------------------|-----|-----|-----|-----|-----|-----|
| Setting  | Capacity     | Efficiency    | Dosing                                | Meter Disc    | 1  | 2                       | 3   | 4   | 5   | 6   | 7   | 8   |
| 1.0 lbs. | 2,527 grains | 2,527 gr./lb. | 5.5 lbs./ft <sup>3</sup>              |               | 4  | 8                       | 11  | 15  | 19  | 23  | 27  | 30  |
| •        | _            |               | Gallons/                              | Regeneration: | 583  | 282                     | 194 | 146 | 117 | 97  | 83  | 73  |
|          |              | Flow d        | Flow during regeneration (@ 15 psig): |               |  | 9.1                     | 9.1 | 9.1 | 8.4 | 6.6 | 5.4 | 4.4 |
|          |              |               |                                       |               | *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.