Twin Tank - 1.25" Commercial Twin Alternating Water Softeners

- Piston Operated Valve — Simply Assembled & Disassembled
- Valve Certified to NSF/ ANSI 44, 61 and 372
- Noryl® valve body
- Quiet Operation
- Metered Timer with Calendar Day Override
- Refills with Treated Water
- Fully Adjustable Programming
- 24/7 Treated Water

MASTER® Water Conditioning Corp

Specifications

Commercial Twin-Tank Metered 1.25” Alternating Water Softeners

Model Number	CF Media Per Tank	Capacity (Grains) @ 15 lbs Salting	Backwash Flowrate	Service Flowrate gpm @ psi	Service Flowrate gpm @ psi	Mineral Tank Size	Mineral Tank Height	Brine Tank Size	Salt Storage LBS	Total Height
MS-ME-60-1.25	2 CF	67,000	2.7 GPM	18 @ 15	20 @ 17	12” x 48”	57”	18” x 40”	400	57”
MS-ME-75-1.25	2.5 CF	75,000	3.2 GPM	22 @ 15	25 @ 18	13” x 54”	63”	18” x 40”	400	63”
MS-ME-90-1.25	3 CF	90,000	3.2 GPM	23 @ 15	30 @ 24	14” x 65”	73”	24” x 41”	640	73”
MS-ME-120-1.25	4 CF	120,000	4.2 GPM	23 @ 15	31 @ 25	16” x 65”	73”	24” x 41”	640	73”

Operating Pressures - Minimum/Maximum.....20 psi-125 psi

Operating Temperatures - Minimum/Maximum.....40°—110° F

You have the Application...

We have the Solution!

Electrical Specifications (US)

- Supply Voltage.....120V AC
- Supply Frequency.....60Hz
- Output Voltage.....12V AC
- Output Current.....500 mA

MASTER® Water Conditioning Corp

224 Shoemaker Road - Pottstown, Pennsylvania 19464

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1.25" - Twin Tank
Metered Alternating Water Softener

Scope:

Provide a factory assembled vertical pressure type water softening system as indicated. The system shall be of an approved design as fabricated by a manufacturer regularly engaged in the production of water treatment equipment. Qualified manufacturers of water treatment equipment of the type specified are Master Water Conditioning, Pottstown, PA 19464 or engineer's approved equal.

General Description:

The system is described as an automatic alternating twin tank, top-mounted multi-port valve water softener system meeting the equipment specifications as specified herein. Performance and design specifications for the designated Master Water Conditioning model are based upon specified performance requirements.

Tank Specifications:

Softener Tanks with Internal Vortech ® distributor tanks shall be vertical, fiberglass/composite, pressure-rated vessels, constructed of non-corrosive materials, with a pressure rating of 150 psi and a maximum operating temperature of 120 degrees F. Tank Support shall be of a tripod type design.

Tanks shall be lined with a blow-molded, fiber-free, FDA approved, UV inhibited polyethylene, and approved to NSF standard 44.

Internal Vortech ® distributor plate shall be incorporated into the bottom of the mineral tank with riser pipe locking hub. The Vortech ® plate will support the resin bed.

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Main Operating Valve:

The main operating valve shall be fully automatic and require no field adjustments. Automatic variable orifice flow control of backwash and flush rates shall be included to prevent loss of media due to pressure variations. Provisions for manual regeneration shall be included. The valve shall not depend on water pressure for positioning and/or activation.

The main operating valve shall be a Noryl® body, electronic actuated, with screw-driven horizontal piston valve. The main operating valves shall be the Master model MCA125, 1.25-inch control valve.

A Motorized Alternating Valve will be added to prevent the release of untreated water to the valve outlet during the regeneration cycle (No Hard Water Bypass).

Controls:

Controls shall be an integral part of the control valve, factory mounted and wired. The microprocessor controls shall include selection of up to six cycles, including a second backwash. The controls shall provide adjustable timing for all cycles. A capacitor backup provides up to two hours power carry over for power outages. An optical-electrical circuit shall be provided to assure the proper phasing of the controls and valve. Provision for pushbutton initiated regeneration shall be included. An electrical time switch control shall be fully adjustable to initiate regeneration at any hour of the day and any day of the week.

Alternation Operation (MS). The valves will have internal 1.25-inch meters to trigger the regeneration cycles. There will be one common Motorized Alternating Valve, and one single brine tank. One mineral tank will always be in service; one mineral tank will always be in regeneration or stand-by. As required, the stand-by tank will be placed on line, and the exhausted mineral tank will initiate regeneration.

The control shall be a Master electronic timer with digital display and easily accessible historical data.

Electrical lockouts shall be provided to prevent the operation of other devices during the regeneration cycle.

Exchange Resin:

The ion exchange resin shall be virgin high capacity sulfonate polystyrene type stable over the entire pH range with good resistance to bead fracture from attrition or osmatic shock. Each cubic foot of resin shall be capable of removing 30,000 grains of hardness as calcium carbonate when regenerated with 15 pounds of salt.

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Brine System:

A brine system will be provided for brine measuring ands dry salt storage. The brine system will be sized for at least four (4) regenerations at full salting. Brine dosage shall be easily adjusted in the field without revision to piping. The brine tank shall be constructed of molded polyethylene with a snug fitting cover, and will contain a safety valve with float, an air check assembly and a salt shelf. The air check shall provide a positive shut-off to prevent air from entering the system.

Instructions:

A complete set of installation and operating instructions shall be provided.

Guarantees:

Attrition loss of minerals is ion exchange resin is guaranteed not to exceed 3% per year for a period of three (3) years. All mechanical equipment is guaranteed for one (1) year against any defects in workmanship or materials. Any part proving defective will be replaced or repaired within this period at the manufacturer’s option. The manufacturer guarantees that under actual operating conditions the resin will not be washed out of the system during the service or backwash period; and that the turbidity and color of the effluent, by reason of passing through the softener system, shall not be greater than the incoming water; and that the underdrain system, gravel, and mineral shall not become fouled, either with turbidity or by dirt, rust, or scale from the softening system while operating as noted in manufacturer’s instructions.

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