

# Steel Tank Water Softeners

## SOFTMATCH 500 Series

The SoftMatch 500 series softeners are designed as fully automatic units either with timer control or meter control. The timer control initiates softener regeneration at any predetermined time - on any or everyday. On the other hand, the meter models start the regeneration based on the total gallons.

### HOW TO SIZE A SOFTENER

A softener is sized on the basis of two different parameters, i.e.: Exchange capacity, that is the quantity of water delivered between regenerations and maximum flow rate, that is the quantity of water required for the highest water consumption during the day.

- + Exchange capacity depends upon the amount of ion exchange resin in the softener and upon the quantity of salt used for resin regeneration. The various exchange capacities of the different models of SoftMatch 500 series are measured in grains.
- + Maximum flow rate is an important datum in case of non-continuous water delivery. It is measured in gallons per minute (gpm).



### STANDARD FEATURES

#### CARBON STEEL TANKS

The carbon steel tank is engineered for a 100 psi working pressure and is tested to 150 psi. It is equipped with a manhole in the top head and handhole in the lower side shell as follows:

- + 24" - 30" tanks: 4" x 6" top handhole & 4" x 6" handhole.
- + 36" - 78" tanks: 11" x 15" top manhole & 4" x 6" handhole.

#### EPOXY LINING

The interior of the tank is coated with epoxy for protection against rust and corrosion. The exterior has a rust inhibiting primer coat.

#### RESIN

A premium grade sulfonated nonphenolic polystyrene type resin is contained in the tank. The resin will deliver 30,000 grains per cubic foot when brined at a rate of 15 lbs. Per cubic foot.

#### BRINE TANK

The brine tank is a combination of high density polyethylene brine measuring tank and brine valve including an air eliminator valve and a safety brine refill shut off to prevent tank overflow.

#### VALVE NEST

Regeneration of SoftMatch 500 softeners is controlled by a brass pilot stager (NEMA 1). This stager sends hydraulic or pneumatic signals to the factory assembled nest of diaphragm and/or butterfly valves connected by sch.80 PVC face piping. These valves open and close slowly to prevent hydraulic shock. The valve nest contains a self adjusting backwash flow control and an ejector for brine draw. Diaphragm valves are available in 1", 1-1/2", 2" & 2-1/2" line size models and butterfly are available in 3", 4" & 6" line size models.

#### REGENERATION CONTROLLER

The automatic regeneration controller features a choice of 7 or 12 day calendar wheels. Time of regeneration and length of time for each regeneration cycle are fully adjustable.

#### UNDERDRAIN

The underdrain utilizes either a hub & lateral or header & lateral system to support the mineral bed to prevent resin loss and insure minimal pressure drop at peak flow rates.

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**SOFTMATCH 500**  
Series

## AVAILABLE OPTIONS

- + Motorized valves with PLC controller
- + Fiberglass tanks rated at 150 psi
- + 316 Stainless steel, FRP or galvanized face piping
- + Meter initiated regeneration
- + Twin alternating tanks
- + Carbon steel or stainless steel tanks up to 120" dia.
- + ASME coded & stamped tank
- + Flanged piping connection
- + NEMA 4 or NEMA 4 x enclosures
- + Custom designed units

## SPECIFICATIONS

Model No.	Exchange Capacity Grains @ 15#/Cu. Ft.	Resin Volume Cu. Ft.	Flow Rates (GPM)			Pipe Size		Tank Sizes		Salt Storage lbs.
			Service		Backwash	Service	Drain	Softener	Brine	
			Cont.	Peak		In.	In.	In.	In.	
SM5-24-240-1.5	240,000	8	64	86	15	1.5	1	24x54	24x50	600
SM5-24-240-2			80	110		2	1			
SM5-24-240-2.5			115	160		2.5	1			
SM5-30-390-1.5	390,000	13	68	92	20	1.5	1	30x60	30x60	1000
SM5-30-390-2			92	125		2	1			
SM5-30-390-2.5			140	190		2.5	1			
SM5-30-390-3			165	230		3	1			
SM5-36-540-1.5	540,000	18	72	94	30	1.5	1.5	36x60	39x60	1700
SM5-36-540-2			110	125		2	1.5			
SM5-36-540-2.5			140	190		2.5	1.5			
SM5-36-540-3			175	250		3	1.5			
SM5-42-750-2	750,000	25	112	133	45	2	2	42x60	42x60	1900
SM5-42-750-2.5			150	218		2.5	2			
SM5-42-750-3			188	279		3	2			
SM5-48-990-2	990,000	33	112	133	60	2	2	48x60	52x60	2600
SM5-48-990-2.5			160	220		2.5	2			
SM5-48-990-3			215	300		3	2			
SM5-48-990-4			310	410		4	2			
SM5-54-1260-2	1,260,000	42	112	133	80	2	2	54x60	66x46	3300
SM5-54-1260-2.5			165	191		2.5	2			
SM5-54-1260-3			225	308		3	2			
SM5-54-1260-4			405	600		4	2			
SM5-60-1560-2	1,560,000	52	112	133	100	2	2.5	60x60	60x66	4000
SM5-60-1560-2.5			168	193		2.5	2.5			
SM5-60-1560-3			235	325		3	2.5			
SM5-60-1560-4			445	650		4	2.5			
SM5-66-1890-2.5	1,890,000	63	175	199	120	2.5	3	66x60	66x72	5800
SM5-66-1890-3			245	340		3	3			
SM5-66-1890-4			480	690		4	3			
SM5-66-1890-6			650	940		6	3			
SM5-72-2250-3	2,250,000	75	255	355	140	3	3	72x60	82x60	6000
SM5-72-2250-4			500	720		4	3			
SM5-72-2250-6			700	1050		6	3			
SM5-78-2640-3	2,640,000	88	260	360	165	3	3	78x60	82x60	6000
SM5-78-2640-4			520	748		4	3			
SM5-78-2640-6			750	1100		6	3			
SM5-84-3000-3	3,000,000	100	265	365	190	3	3	84x60	90x60	7500
SM5-84-3000-4			540	760		4	3			
SM5-84-3000-6			780	1130		6	3			

\* Specifications are subject to change without notice.

Metric Units	Flowrate (m <sup>3</sup> /h) = GPM / 4.4	Media (m <sup>3</sup> ) = ft <sup>3</sup> / 35.3	Weight (Kg) = lbs / 2.2	Dimensions (mm) = inch x 25.4
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