

Filtration Media Systems – ADI Softeners



Water softeners are commonly used to reduce or eliminate dissolved hardness minerals such as calcium, magnesium and iron from feedwaters. These minerals cause scaling and/or staining if not removed and inhibit the action of soaps and calcium sensitive detergents.

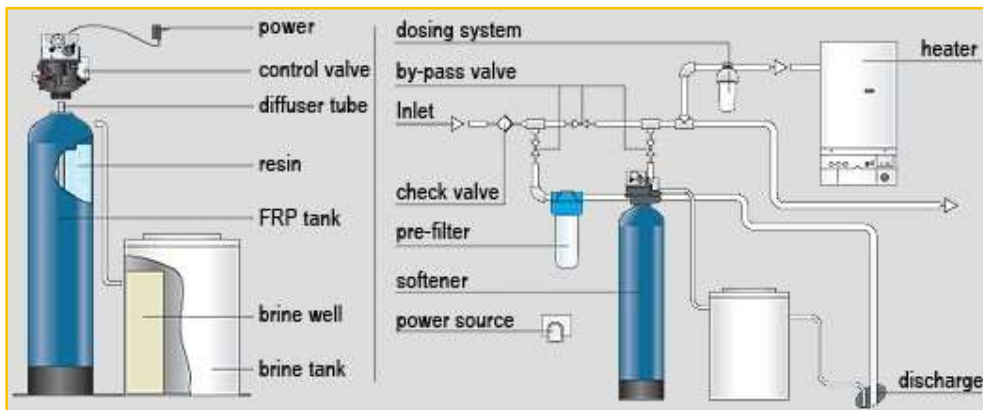
Softeners are widely used to improve water quality in hard mains feedwater areas, for treat bore waters and as pre-treatment for reverse osmosis systems, boilers, sterilisers, commercial washers and cooling towers.

To select a water softener, a feedwater analysis containing at least a total hardness measurement is required as well as typical flow rates and or total expected volumes of water to be treated per day. A choice of media pressure vessel sizes, flow control valves, controllers, single or dual tank formats and resin types enables us to match a softener system to best suit each application.

Model	Media Volume (Litres)	Service Flow Rate min/service/peak (lpm)	In/Out Thread	Tank Size (Dia x H)	Brine Tank Dimensions
ADI-1035	30	3/13/20	¾" or 1"	10 x 35"	38 x 43 x 84 cm
ADI-1054	50	5/27/40	¾" or 1"	10 x 54"	38 x 43 x 84 cm
ADI-1354	75	10/50/75	¾" or 1"	13 x 54"	38 x 43 x 84 cm
ADI-1465	100	11/57/85	1" BPST	14 x 65"	38 x 43 x 84 cm

Model (Cabinet)	Media Volume (Litres)	Service Flow Rate min/service/peak (lpm)	Colour Body/Cap	Tank Size (Dia x H)	Dimensions (L x W x H)
CMC-L	30	3/13/20	Blue/White	10 x 35"	48 x 32 x 114 cm
CMC-M	20	5/27/40	Blue/White	9 x 35"	48 x 32 x 101 cm
CMC-S	15	10/50/75	Blue/White	7 x 18"	48 x 32 x 71 cm

ADI System Typical Installation



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Flow Control Valve Options

Standard media pressure vessels used for softeners have 2.5", 4" or 6" top openings for installation of flow control heads and pipework. Flow control valves may be manual or automatic, electrical or non-electric, and functions may be initiated through a simple timer, volume of water treated, or an external contact closure from a PLC, differential pressure monitor or contact closure. Choose the flow control valve and controller according to the application, required flow rates, mode of operation and FRP tank size. Some valve types are shown here and details on additional valves to suit particular applications are available by request.

CLACK WS1CI Integrated Flow Control Valve and Controller



The WS1EI multi-cycle valves are simple, easy to use timer actuated 1" softener or filter flow control valves for 6" to 21" diameter FRP tanks with 2.5"-8 NPSM FRP openings. These versatile valves are primarily designed for commercial applications requiring flow rates up to 102lpm at 103kPa pressure drop. The valve uses a 1.05" riser tube and comes with an upper bayonet type screen. Standard supply includes a bypass assembly as standard to simplify service requirements.

NOTE: The WS1EI valve has untreated water bypass during regeneration.

AUTOTROL 268 Performa Valve – 700 Series



The 268 Performa model is an automatic 5-cycle 1" softener valve designed for larger residential and light commercial applications with higher service flow rates to 95 LPM at 103kpa drop and backwash flow rate of 76 LPM at 170kpa drop. The Performa valves are supplied complete with a 700 Series Control with transformer and has four external ports that allow the valves to be configured to suit most applications.

NOTE: The 268 valve has untreated water bypass during regeneration. Bypass valve assemblies are available to allow filter system isolation or blending operation.

AUTOTROL 255 Valve – Logix 700 Series Flow Control Valve and Controller Option



The 255 model is an automatic 5-cycle 3/4" softener valve designed for residential applications with service flow rates to 58 LPM at 103kpa drop. The 255 Valve uses a standard 1.05" riser tube. The 255 Valves are supplied complete with a 700 Series Control with transformer, Air-Check Assembly, Severe-Service Valve Disks and Tank O-ring as standard. The appropriate brine injector and backwash flow control restrictor are supplied to suit each assembled system.

OPTIONS: Connection options: are a piping boss 3/4" or 1" BSP Female or a Bypass valve. The bypass valve will require either a 3/4" or 1" BSP external PVC or stainless steel pipe adaptor kit.

NOTE: The 255 valve has untreated water bypass during regeneration.

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AUTOTROL Valve Controller Types

Logix 742 Time Clock controller for 255 and 268 Series Flow Control Valves

This simple time clock control provides the option of selected day of week and time of day regeneration or can be programmed from ½ a day up to 99-days regeneration frequency setting. The 742 has an adjustable backwash between 0 to 200 minutes and purge between 0 to 200 minutes.

Logix 762 Time Clock Controller for 255 and 268 Series Flow Control Valves

This electronic demand (volumetric) control initiates a regeneration cycle based on the volume of water treated. Programming is simple and uses a 28-day variable reserve feature with the ability to regenerate immediately once a volume of water is treated. The 762 has an adjustable backwash between 0 to 200 minutes and purge between 0 to 200 minutes.

Water Softener Resin

Our most recent development in water softener resins is the S 1567. This chlorine resistant water softener resin overcomes degradation issues that plague conventional water softener resins when treating municipal chlorine-treated feedwaters. Low pressure-drop and long service life makes this the resin-of-choice with new water softener installations or when re-packing existing water softener beds after resin failure.

Lewatit® S 1567 is a new developed food grade, strongly acidic cation exchange resin with beads of uniform size (monodisperse) based on a styrene-divinylbenzene copolymer. **Lewatit® S 1567** is manufactured without the use of solvent. The mono-disperse beads are chemically and osmotically very stable and can effectively be disinfected for drinking water processing.

Lewatit® S 1567 is especially applicable for:

- softening in special systems where regular disinfection is required
- softening of drinking water systems where chlorine and related sanitisers are used

Lewatit® S 1567 adds features to the resin bed including:

- high exchange flow rates during regeneration and loading
- good use of the total capacity of the system, low rinse water demand
- uniform flow through the resin bed for a homogeneous working zone
- linear pressure drop gradient through the depth of the filter bed allowing for increased bed depth and longer run-times between regenerations.