

# Water Softeners

Whole Building & Light / Medium Commercial Applications

## The problem with hard water is that it contains minerals that cause build-ups of scale in water pipework and appliances.

Scale build-up will result in appliance downtime, reduced energy efficiency, higher maintenance and cleaning and repair costs.

By having one water softener to treat all incoming mains water, building running costs can be dramatically reduced. Maintenance costs can also be rationalised as only one softening unit will serve all the building's needs in comparison to many different individual softeners on varied water-using appliances. Whole store and light/medium commercial softeners will reduce costs and lead to more efficient functioning of a property.



Medium commercial resin & brine tanks



Filtration unit



Duplex resin tanks

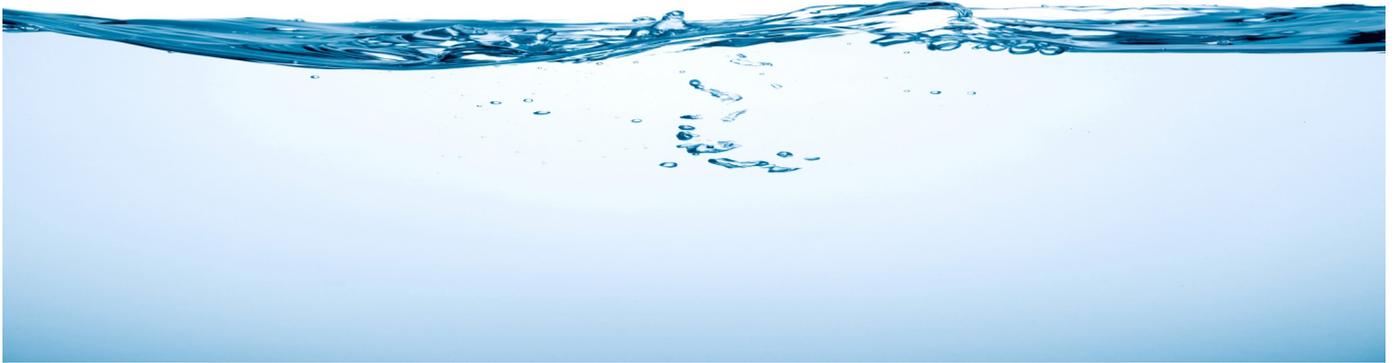


### Benefits

- Reduces repair costs
- Reduces maintenance costs
- Reduces use of cleaning products
- Reduces consumption of soaps
- Reduces energy costs
- More cost-effective than individual water softeners
- Promotes more efficient operation of building, plant & equipment.

### Features

- Duplex tanks give constant softened water
- One tank "in use", one tank "in standby"
- Continuous flow rate up to 21 gallons per minute
- 24,000-96,000 grain capacity dual tank system
- ¾ inch, 1 inch, 1¼ inch
- Highly efficient salt usage
- High capacity resin
- Can be programmed for low water usage
- Non-corroding glass fibre-reinforced polyester tanks
- By-pass valve switches easily from soft to mains
- Fully adjustable 5-cycle valve.



## Operating Principles

A water softener works by ion exchange. Incoming water from the cold water supply is directed through the vessel which contains a synthetic resin that absorbs scale-forming calcium and magnesium ions and releases sodium ions in their place.

When the synthetic resin is unable to absorb any more minerals salts, the softener automatically flushes the vessel with brine solution from the salt tank. This is called regeneration.

The regeneration process consists generally of backwash, brine and slow rinse, fast rinse and brine refill cycles. During the regeneration process, the hardness contaminants are removed from the resin bed and flushed to drain while the resin bed is regenerated with brine.

## Technical Specification

- Provides soft water up to volumes of 200,000 litres per day
- Operating voltage: 230 v ac
- Power consumption: 300 watts
- Less than 5 ppm hardness at all times.

Thickness of Scale		% Increase in Fuel
1/16" to 1/8"	=	15%
1/8" to 3/16"	=	25%
3/16" to 1/4"	=	39%
1/4" to 3/8"	=	55%
3/8" to 1/2"	=	70%

## Installation Requirements

- Drain: floor drain/gulley
- Water supply: building mains supply
- Power supply: 230 v ac.

## Servicing & Maintenance: Six-monthly

- Six-monthly service & maintenance visits
- Compliant with Water Supply (Water Fittings) Regulations 1999
- Water Regulations Advisory Scheme-approved (WRAS) materials
- WRAS-approved self-certification of installations
- HSE Approved Code of Practice and Guidance (L8) Control of Legionella bacteria in Water Systems: clean of resin bed and chlorination.

