## AQUARIUS Drilling & Water Treatment

Servicing all your bore, dam, rain & town water treatment needs.

## **FULLY AUTO DOMESTIC & COMMERCIAL WATER SOFTENERS**

## **UNDERSTANDING WATER SOFTENING:**

To understand the process and the need for water softening, first we need to understand what makes hard water.

Hard water is caused by an excess of calcium and magnesium ions in a water supply that mix with oxygen in water and the calcium precipitates to a white crystal quite readily.

Calcium and magnesium ions are the cause of water to be considered hard and are actually major base ions and also called metals in water chemistry.

It is generally considered in most uses that water becomes hard at about 100ppm of total hardness and the problem shows in these ways:

- The water is difficult to lather
- The water leaves white marks
- The water coats elements when heated such as the kettle or Jets
- The hard water supply can cause calcium build up in pipes and hot water services
- It is the heart of most salinity problems in irrigation.
- It is unpleasant to drink

Water softening is the best-known method using cation exchange resin.

This method removes the calcium and magnesium ion to very low levels and will also oxidize other metals such as iron, manganese, copper and silver. Cation exchange resin is placed into a pressurized vessel and the hard water is passed through.

The resin is coated with sodium beads Na+ and what then occurs in the exchange process is known as the action of a competitive environment. We use the Fleck Pentair control valves as they are the world leaders in reliability and performance in electric control valves and sheer simplicity.

We use Structural pressure vessels for reliability and build. Fine mesh cation resin is used in the vessels. The systems are built in Melbourne and warranty is national and support is excellent. We have a full range of water softeners from 20mm systems to 100mm in single or twin tanks. We are offering the widest and the most reliable range of water softeners on the market.

