

# How can I benefit from a Metafix RO Water System?

## Reverse Osmosis (RO), what is it?

Reverse Osmosis is a process that removes impurities from water by applying pressure to a solution on one side of a semi permeable membrane. To make reverse osmosis work consistently and efficiently, a number of different pre- filters are required along with a pressure boosting pump.

## What is the result after this process?

Impurities are kept on one side of the membrane, whilst purified water permeates through to the other side. The RO water then passes through a DI resin creating deionised water which is held in storage for on-demand use.

## Reverse Osmosis (RO) Water Uses

- Filling DUWL bottles
- Holding of instruments prior to decontamination
- Filling ultrasonic cleaner baths
- Rinsing of instruments after manual or ultrasonic cleaning
- Filling an autoclave reservoir (water is not required for High Velocity Hot Air sterilisers)

Reverse Osmosis water systems are an attractive proposition to dental practices, being able to automatically produce large quantities of purified water efficiently and at low cost.

## Alternatives to Reverse Osmosis (RO)

- Water distiller
- Bottled deionised water

## Disadvantages of using a water distiller

Water distillers require manual filling as well as regular cleaning and removal of calcium deposits in hard water areas. They also create high levels of humidity and heat even in well ventilated rooms. Production rates are typically less than 1 litre per hour which may cause backlogs in your practice. Perhaps most importantly is the cost of production which is at least £600.00 a year for a small distiller based on business electricity rates.

## Disadvantages of using bottled deionised water

A 5 Litre container of deionised water is on average about £4.50 dependent on volumes and delivery charges. Storing quantities of water occupies a lot of space, plus there is the manual handling. If this sounds expensive, also factor in the HTM01-05 requirement of throwing away any open bottles of water at the end of each day!

## The Metafix RO Water System Advantage

By using the Metafix RO Water System you can overcome these problems and automatically produce low cost medical grade water on-demand, saving time and money. The Metafix RO Water System is compact and neatly fits under the sink cabinet and feeds water to the sink via its own chrome swan neck dispensing tap. Professionally installed and validated by Metafix engineers, the system also comes with a hand held TDS meter so water quality checks can be made by staff easily and quickly, providing quality assurance protocol.