CONTINENTAL WATER

Pure Water Solutions for you

A Pure Water System Installed, Serviced & Upgraded Without Huge Setup Costs.

Deionised water, also known as demineralised water, is highly purified water which has undergone a process to remove dissolved mineral ions which makes it suitable for applications using water as an ingredient or rinse.

INDUSTRY

- HOSPITALS & HEALTH
- VEHICLE WASH
- FOOD & BEVERAGES
- LABORATORY & RESEARCH
- PHARMACEUTICAL
- COSMETICS

APPLICATIONS

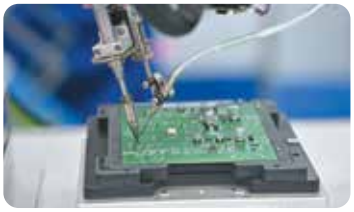
Laboratories and Research

Cosmetic And Pharmaceutical

Food & Beverage Processing

Plating & Other Industrial Processes

Commercial Laundries & Kitchens



Electronics Manufacturing

Car, Truck & Window Wash

Bottling

Industrial Processes using Water

HOW DOES DEIONISATION WORK?

The Deionisation process passes water through ion exchange resins to exchange non-desirable cations and anions with hydrogen and hydroxyl, respectively, forming pure water (H_2O), which is not an ion.

Ions Most Frequently Found in Drinking Water	
Cations	**Anions**
Calcium (Ca++)	Chlorides (Cl-)
Magnesium (Mg++)	Sulfates (SO4=)
Iron (Fe+++)	Nitrates (NO3=)
Manganese (Mn++)	Carbonates (CO3=)
Sodium (Na+)	Sillica (SiO2-)
Hydrogen (H+)	Hydroxyl (OH-)

Depending on the quality and volume of product water required, a typical deionisation plant may consist of single resin bed tanks– either Cation, Anion or one of each – or one or more mixed bed tanks, containing both Cation and Anion resins.

FAQ

How is the media regenerated?

All exhausted deionisation resin media is regenerated with a six-stage process including; separation, backwash, chemical regeneration, rinse, mix, and fast rinse. Media backwash removes fines and debris to media bed to maximise capacity. Regeneration chemical quality (hydrochloric acid and sodium hydroxide) is technical grade or better to assure quality regeneration, and minimise any contamination from the regeneration chemicals. Rinse water is processed through regenerated tanks until residual chemical is flushed from the system as confirmed by conductivity measurement. All tanks are thoroughly rinsed to quality specification before leaving the regeneration facility and prior to activation on-site.

How durable and transportable are the tanks?

The tanks are designed for a maximum working pressure of 860 kPa, hydrostatically tested at 2000 kPa and de-rated for service to 340 kPa. Tanks are made of fibreglass-reinforced polyester with a 2½" threaded top opening. Upper and lower distribution system are of a slot or mesh strainer design to provide even distribution of water throughout the exchange column.

What conditioning media do you use?

Each tank contains around 6.5 litres of high-capacity, 40:60, strong acid cation to strong base anion mixed bed resin. The media is solid, of uniform particle size and contains no plates, shells, and agglomerates or similar that might interfere with the normal function of the water purification system.

WHY A CWS DEIONISATION SYSTEM?

A fully serviced Deionisation System from Continental Water Systems:

- Extends your **equipment life** by removing scale and mineral deposits.
- Is **designed** specifically for your needs
- Is **scalable** as your business grows.
- Is **fully tax-deductible** and off Balance Sheet
- Is **fully serviced & maintained** by our highly trained team
- Requires **minimal input** from your staff
- Complies with all **environmental regulations**
- Uses resin which is totally regenerated at our **highly sophisticated** plant.

WHAT'S YOUR NEXT STEP?
Call us on 1300 166 253.
One of our expert team will discuss your needs.

Every 90 days (or earlier depending on your usage) a highly skilled CWS technicial will swap your tanks for ones containing clean, fresh resin. They will check the operation of the system, replace any pre or post filters that are required and report on the condition of the system.
And, in the case of an emergency, we have a same day emergency service available.
This means your staff can concentrate on what they do best.

How easy is it to connect the system?

The system is quick and simple. Inlet and outlet ports accept a ½" quick connect inert, double "O" ring sealed adapter. Compression fittings and ferrules suitable for use with ½" or ¾" high-pressure flexible LLDPE tubing are used to interconnect pre filtration, deionisation and post filtration stages and provide for easy replacement and movement of the tanks.

Is the water pre treated and if so how?

The feedwater supply shall be pressure regulated to a maximum 350 kPa and made available for connection through a ¾" or ½" female thread ball valve. Prior to entering the deionisation resin stages, the feedwater is pre-treated by passage through a disposable nominal 5 micron filter element (blown polypropylene type) for sediment removal.

Filtered feedwater is then dechlorinated by passage through a disposable activated carbon filter element or tank. Both filter elements are contained in filter housings rated for a maximum working pressure of 860 kPa and de-rated for routine operation to 350 kPa. Filter housings are interconnected with a ¾" double thread 3.5 litre per minute flow restrictor.

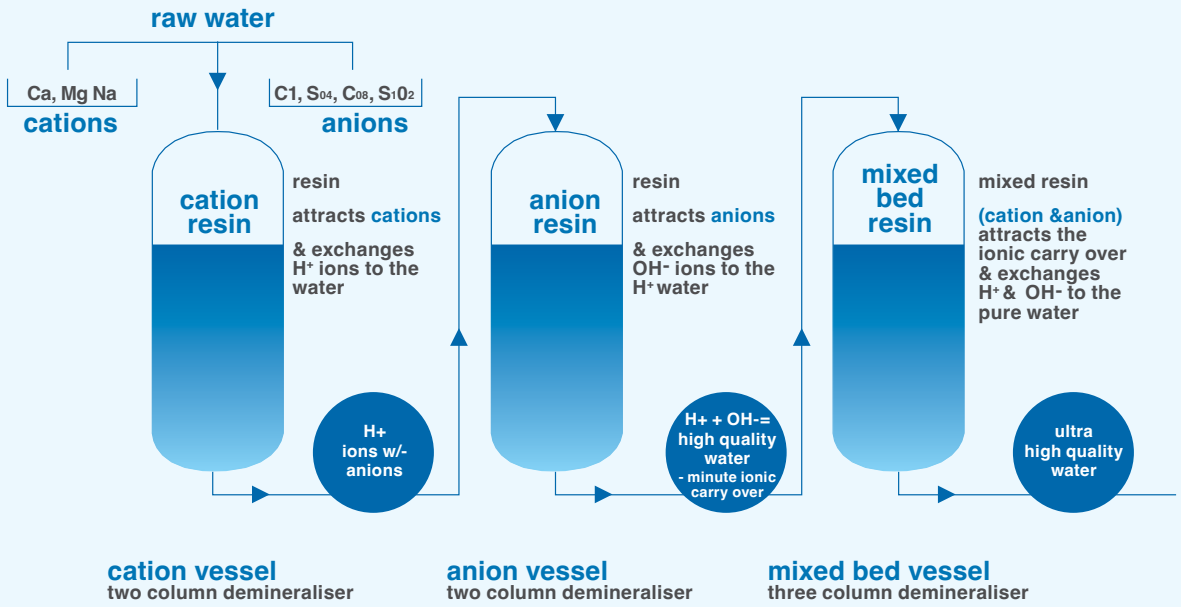
How is post filtration done?

Product water exiting the Deionisation system is filtered to a nominal 1 micron using a disposable filter element housed in a standard filter housing.

How often does my system need to be serviced?

Filter elements are changed every 90 days (maximum) or earlier if blockage occurs.

DEIONISATION PROCESS FLOW DIAGRAM



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TECHNICAL SPECIFICATIONS?

SDI – System description and specifications Separate and Mixed Bed					
Model	**Flow rate**	**Water Resistivity**	**Power**	**Service**	**Feedwater**
SDI MB007	3 LPM	1.0MΩ/cm	240V/10A	90 days	40-60 psi
SDI MB012	4 LPM	1.0MΩ/cm	240V/10A	90 days	40-60 psi
SDI MB015	7.5 LPM	1.0MΩ/cm	240V/10A	90 days	40-60 psi
SDI MB022	11.7 LPM	1.0MΩ/cm	240V/10A	90 days	40-60 psi
SDI MB034	20 LPM	1.0MΩ/cm	240V/10A	90 days	40-60 psi
SDI MB060	30 LPM	1.0MΩ/cm	240V/10A	90 days	40-60 psi
SDI MB100	50 LPM	1.0MΩ/cm	240V/10A	90 days	40-60 psi

Model	Tanks Installations Specs WxDxH (mm)	Pre Filters Installation Specs WxDxH (mm)	Post Filter Installation Specs WxDxH (mm)
SDI MB007	600x300x550	400x180x500	250x180x500
SDI MB012	600x300x550	400x180x500	250x180x500
SDI MB015	650x210x1400	400x180x500	250x180x500
SDI MB022	620x210x900	400x180x500	250x180x500
SDI MB034	1034x300x1450	250x180x500	250x180x500
SDI MB060*	1200x350x1800	250x180x500	250x180x500
SDI MB100*	1200x350x1500	400x180x500	250x180x500

*Specifications are based on single tank in each combined system not on the entire system.

- ½" female thread ball valve adjacent to installation site and within 0.5 metre of pre-filter inlet. Inlet feedwater pressure regulator (adjustable) fitted to supply line
- Drainage is not required, floor drain and bunding near tank installation is recommended for spillage control.