

AQUARIUS

5 stage Reverse Osmosis Water Purifier

Advanced membrane
technology to effectively
remove chlorine, pesticides,
heavy metals, organics and
Nitrate.



AQUARIUS RO UNIT

- For people living in rural areas, who are worried about the increasing Nitrate levels in the ground water available to them.
- The Aquarius Reverse Osmosis Unit provides an economical solution to reducing Nitrates, along with other agricultural chemicals.
- Dimensions W 38.5cm, H 44cm, D15.0 cm
- Modern matte finish faucet

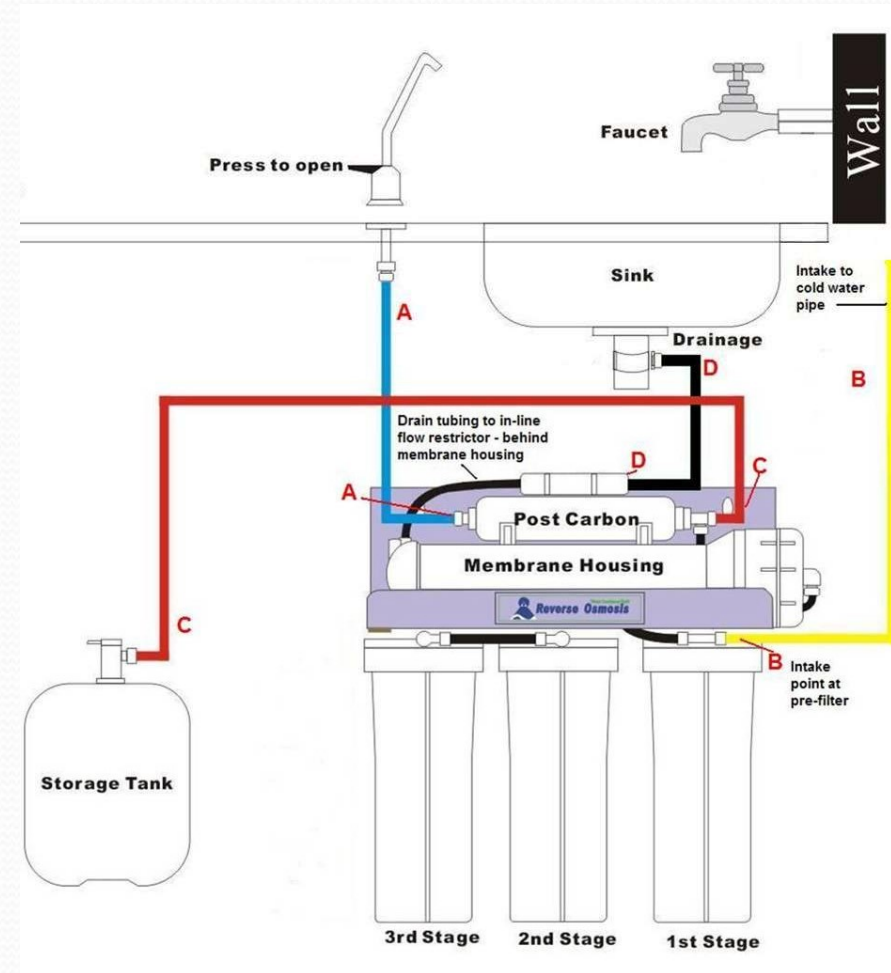


Nitrate Reduction

- RO is internationally recognised as the most effective “point of use system” to safely reduce Nitrate in ground water.
- Nitrate affects the transfer of oxygen in the haemoglobin and is most dangerous for pregnant women and bottle-fed babies.
- Increasingly present in ground water subjected to effluent spreading, often from piggeries, dairying operations, and intensive farming in the catchment area.
- Adults may experience adverse reactions to high Nitrate levels including intestinal problems. There is also information in research papers it may be linked with up to **15** different types of cancer.
- The Danish 2018 study of 1.7million adults over 33 years noted significant increase in bowel cancer rates when the level of Nitrate in drinking water was 3.87mg/L - well below the current NZ Maximum Acceptable Value of 11.3g/m³

Typical Installation

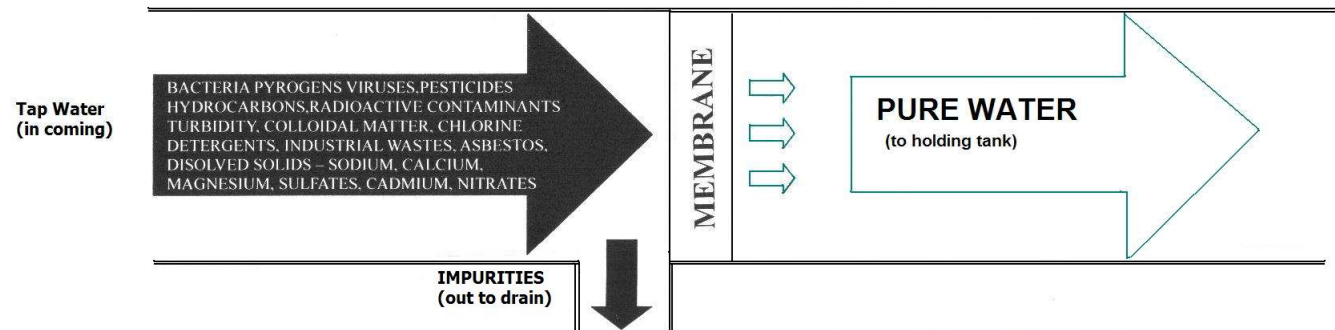
- The Aquarius Reverse Osmosis Unit has 5 passes so is designed for situations where extra preliminary filtering is an advantage.



Filter Sequence

- If a water supply is clean but heavily chlorinated or vulnerable to chemical leaching, an extra different grade of carbon cartridge is used.
The sequence would be;
- A 5-micron sediment filter followed by the two different grades of carbon filters then the Reverse Osmosis membrane. This line-up of filters is best for the longest and most effective chemical removal in the purified water.
- Where the in-coming water may be discoloured and dirty, the sequence could be;
- A 20 micron pleated washable sediment filter in the first housing, followed by a 5 micron polypropylene dense sediment filter, then a carbon filter followed by the Reverse Osmosis membrane.
- NSF certified 50GPD membrane
- The last carbon filter in the line is located between the reservoir tank and the drinking tap supplied with the unit.

How Your Unit Works



ADVANTAGES:

- * Improves taste, odour and appearance
- * Highly effective purification process. Will remove the pollutants listed above and more!
- * Consumes no energy
- * Very convenient
- * Flushes away pollutants, does not collect them
- * Easy to keep clean
- * Low production cost, gives you water of a guaranteed quality for less than a cent per litre.

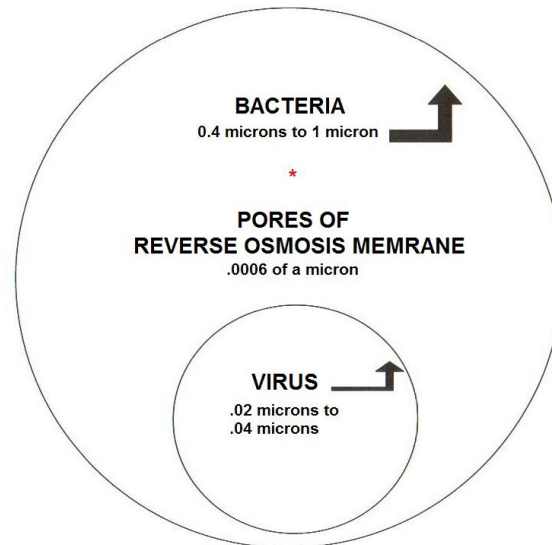
OPERATING PARAMETERS:

- * Must have water pressure of at least 40 p.s.i.
- * Cannot use hot water
- * Must not be frozen

Particle Sizes

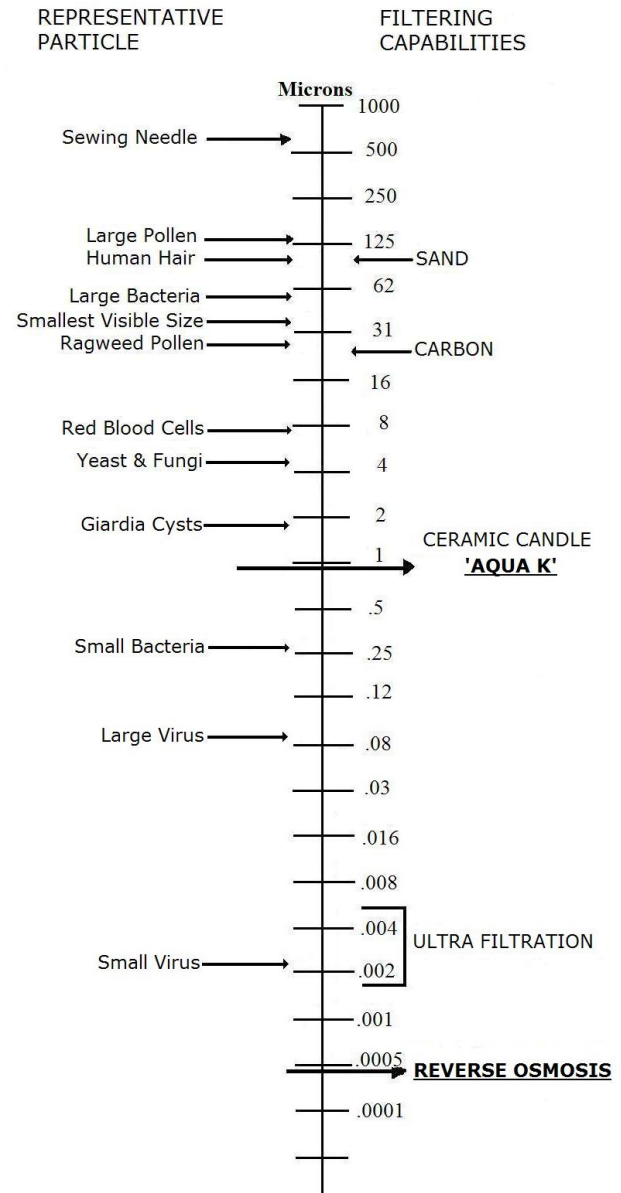
COMPARATIVE SIZES OF MATERIALS REJECTED BY A REVERSE OSMOSIS MEMBRANE

Smallest visible size is 40 times greater than the 'Bacteria' circle on the same scale.

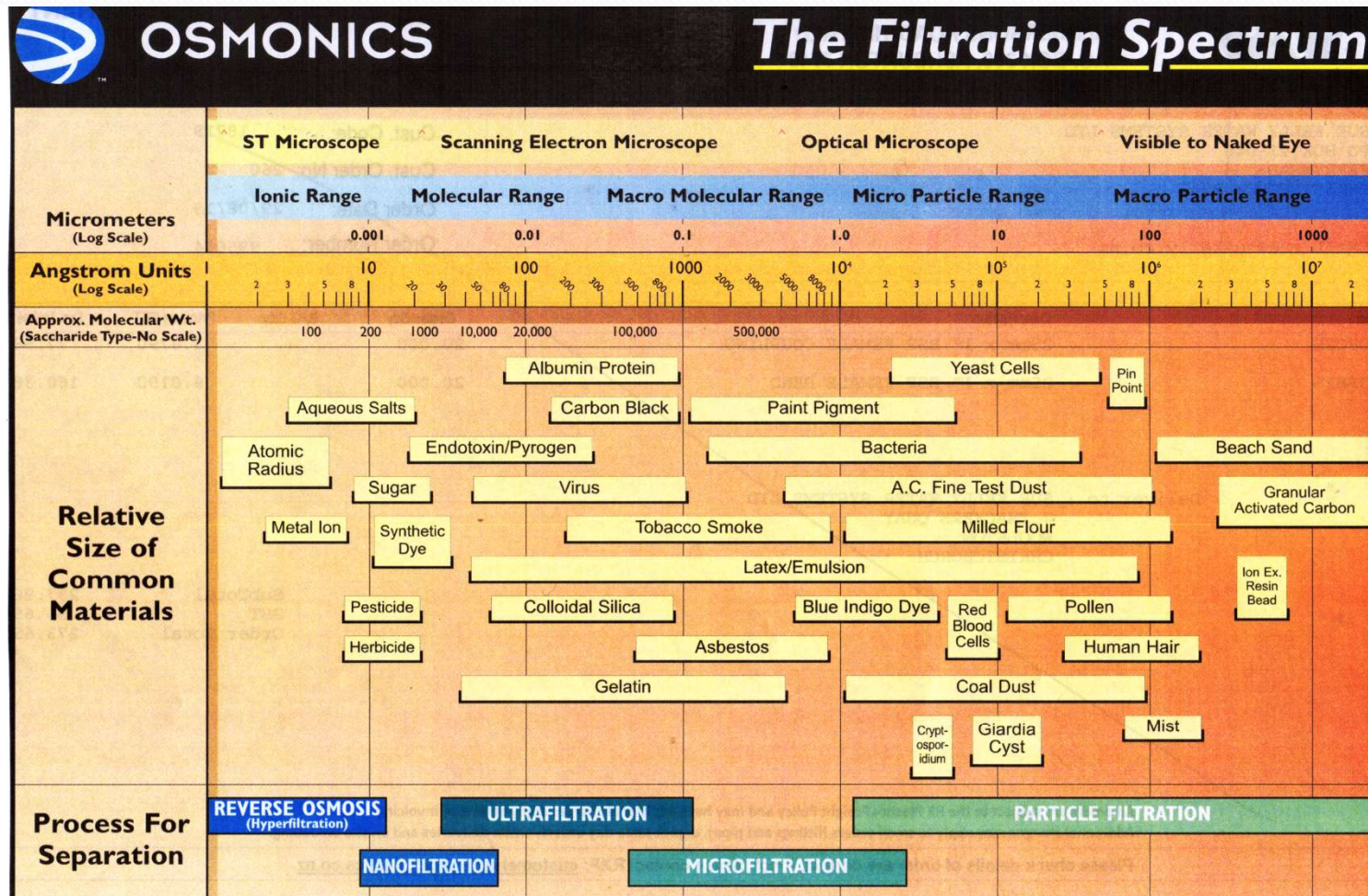


PARTICLE SIZES

1 MICRON = 1 Millionth of a Metre



Comparative Sizes



Maintenance Requirements

Maintenance requirements for this Reverse Osmosis unit are as follows:

- 1 x sediment filter – this only needs to be changed when discoloured. 6 to 12 months
- 2 x carbon filters (for taste/smell) - typically changed 6 monthly
- 1 x Inline carbon filter – usually changed annually
- 1 x Reverse Osmosis Membrane – usually changed 2 – 3 yearly.