



# MARKEL

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## Reverse Osmosis Water Purifiers

# Markel Unit

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- There are many people living in rural areas, very worried about the increasing Nitrate levels in the ground water available to them. The Markel Reverse Osmosis Unit provides an economical solution to reducing the nitrates, along with other agricultural chemicals.
- Dimensions W 43cm, H 40cm, D13.5 cm
- Other faucets are available





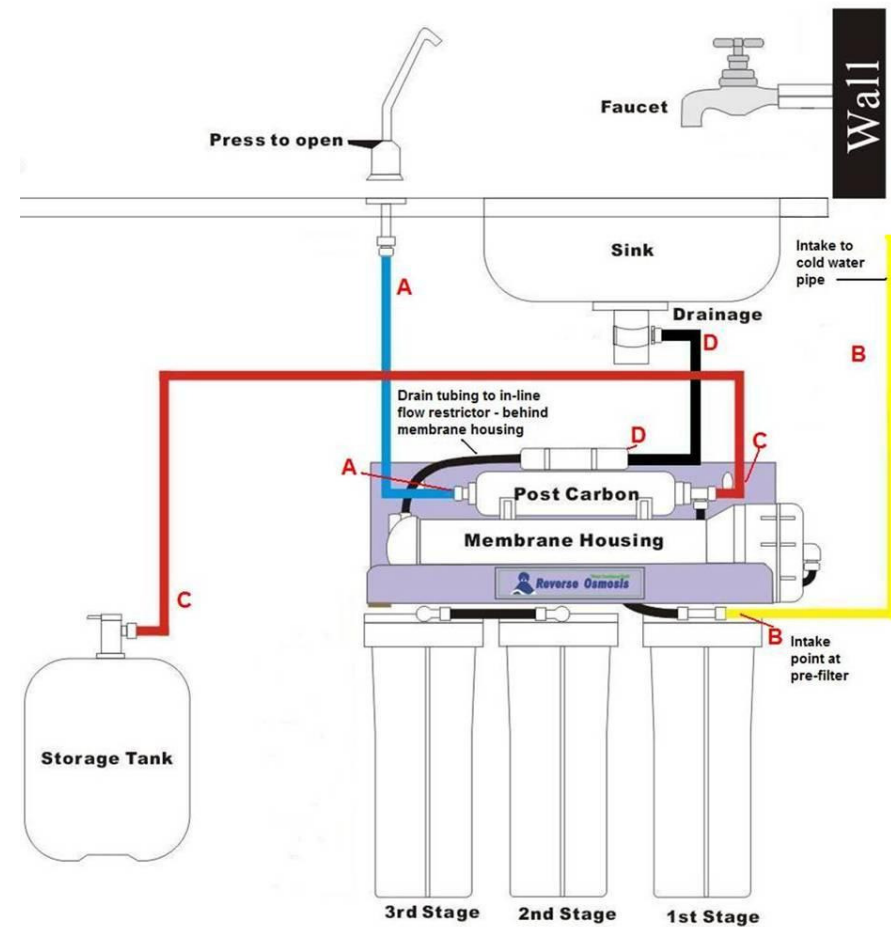
# Nitrate Reduction

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- This is the most effective “point of use system” to safely reduce **Nitrates**, (which affect the transfer of oxygen in the haemoglobin and is most dangerous for pregnant women and bottle-fed babies) from water subjected to effluent spreading, often from piggeries, dairying operations, general farming, or meat processing operations in the catchment area.
- Adults may experience adverse reactions to high Nitrate levels including intestinal problems. There have also been information in research papers it may be linked with up to **15** different types of cancer.
- For locations with less than 40 psi in-coming water pressure (required for Nitrate reduction) we have Reverse Osmosis booster pumps available which are very quickly and easily installed.

# Typical Installation

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



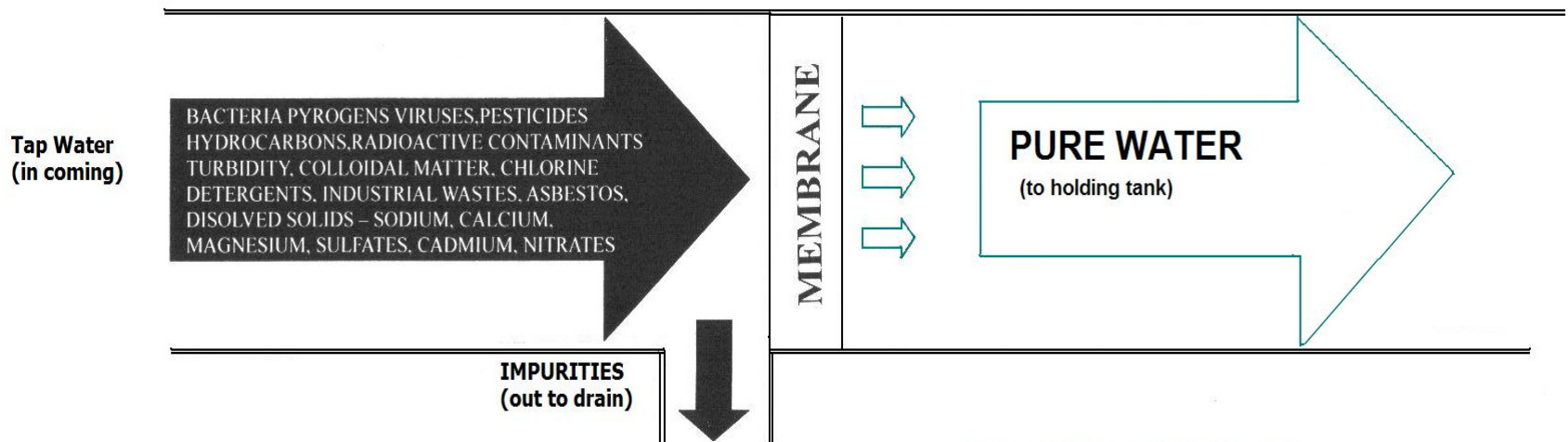


# Filter Sequence

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- If a water supply was relatively clean but heavily chlorinated, an extra different grade carbon cartridge could be used. The sequence would be;
- A 5-micron sediment filter followed by the two different grades of carbon filters then the RO membrane. This line-up of filters is best for longer and better chlorine removal throughout the purified water.
- In a rural situation where the in-coming water may be discoloured and dirty, the sequence would be;
- A 20 micron pleated washable sediment filter in the first housing, followed by a 5 micron polypropylene sediment filter, then a carbon filter followed by the Reverse Osmosis membrane.
- The last carbon filter is in the line 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.

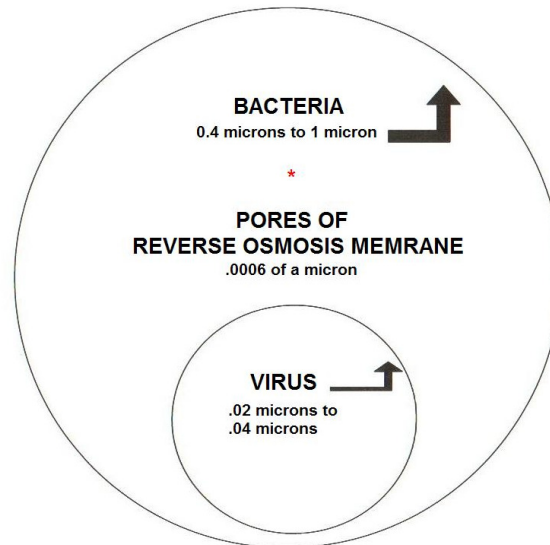
## OPERATING PARAMETERS:

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

# Particle Sizes

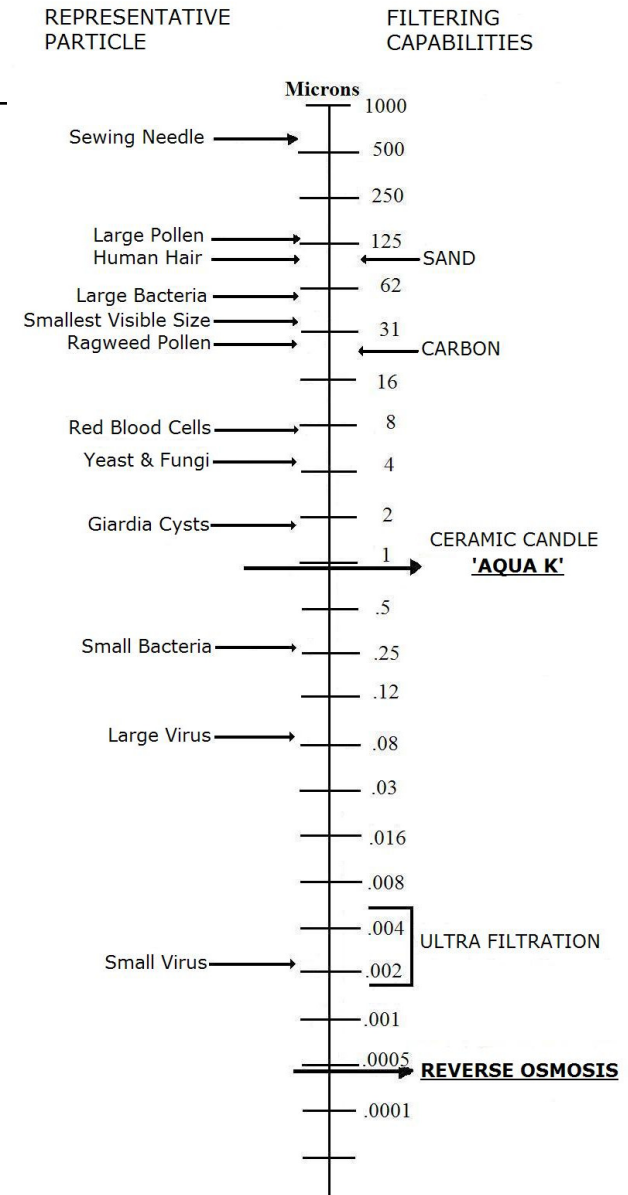
## COMPARATIVE SIZES OF MATERIALS REJECTED BY A REVERSE OSMOSIS MEMBRANE

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



## PARTICLE SIZES

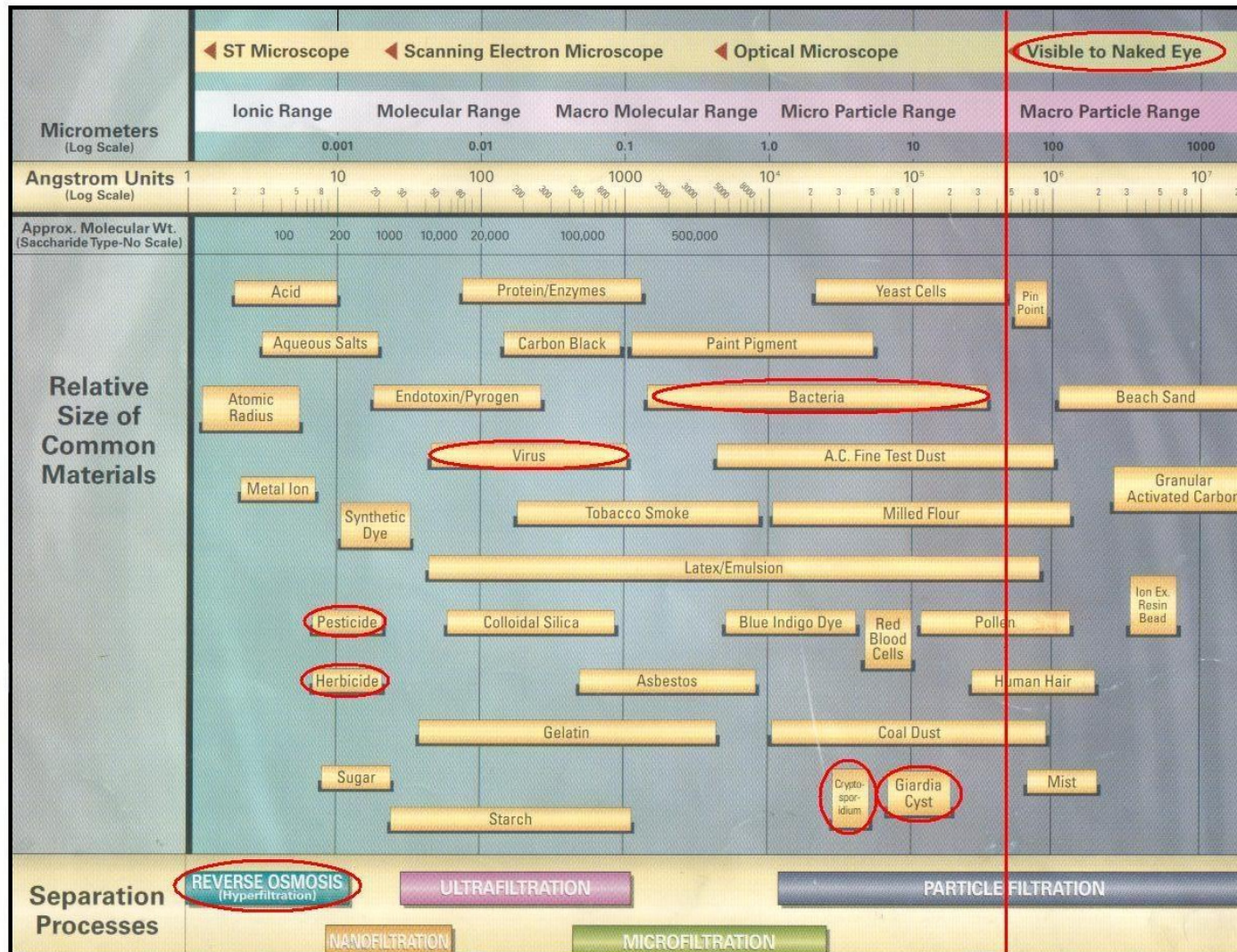
1 MICRON = 1 Millionth of a Metre





# Comparisons

## Filtration and Separation Spectrum







# Sue Kelly

## Water Systems Ltd

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- For any further enquiries or information please contact:
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### Client Comments:

'Just a short note to say that we are very pleased with our water conditioners and house filters, our water is just so good to drink now, I always thought it was good but now I hate to think what we might have been drinking, anyway now it is just perfect.' **KS Blenheim**

'We are very happy with the filter – the water tastes great. Thank you very much.' **SB Blenheim**

'Superb Service!' **AB Auckland**