

Reverse Osmosis Brochure

Model: MRO/30

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The MRO30K Reverse Osmosis System will provide a constant supply of contaminant and mineral free drinking and cooking water.

What is Reverse Osmosis?

Reverse Osmosis is the method of purifying liquid by pushing it through a semi-permeable membrane. In the case of tap water, the membrane allows pure water molecules through it, whilst impurities are flushed away.

Why the MRO30K Ticks All The Right Boxes?

- ✓ Improves the taste, odour and appearance of your water.
- ✓ Unlimited supply of pure, fresh water for less than 3p a litre.
- ✓ Use 30% less coffee and still enjoy the taste you like
- ✓ Concentrated fruit drinks are fresher and tastier.
- ✓ No more limescale in your kettle or coffee machine.
- ✓ Improves the taste and texture of vegetables, soup and sauces.



What will Reverse Osmosis Remove?

Using R.O. membrane technology, it is possible to remove suspended solids, up to 98% of all dissolved solids, as well as virtually all bacteria, pesticides, insecticides and viruses.



The Membrane

The term reverse osmosis is the opposite of osmosis. Osmosis is the means by which water and nutrients are supplied to living cells. Cell walls are natural semi-permeable membranes. They are selective allowing only certain materials to pass through the membrane while rejecting others. The natural flow is from the dilute solution to the concentrated solution. Reverse Osmosis is the process of utilising pressure to reverse the natural flow through a semi-permeable membrane.

Description

The membrane module is the heart of an RO system. There is an activated carbon pre-filter and a post-filter to “polish” the water. As the filtered RO water is produced very slowly it is necessary to store the treated water in a small pressurised tank. This is linked to a separate drinking faucet (Tap) which will supply the filtered RO water as and when it is required.

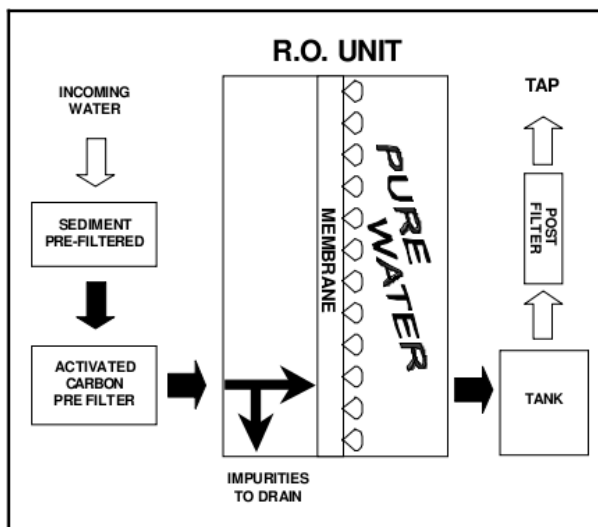
In RO systems water pressure is used to separate water into 2 streams. One part is forced through the membrane and emerges through the unit to drain.

The membrane in an RO is exceedingly fine. The pore sizes are about 5 angstroms (five hundred millionths of a centimetre). As productivity of the membrane is proportional to size, the membrane is packaged into a spiral wound element. Our thin film composite (TFC) membranes are the most effective.

Installation

An in-home RO system can be installed under a kitchen sink.

Softened water can prolong the life of the system. The minimum water pressure required is 2.7 bar (40 psi). Small RO pumps are available to provide the correct incoming pressure if it is insufficient.



Specifications

| | |
|----------------------------------|--------------------------------------|
| Position | Undersink |
| Daily system capacity | 60galls (270 L)/day at 4 bar (60psi) |
| Storage capacity | 3.2 galls (14.5 L) |
| Operation | Automatic |
| Watersource | Potable water only |
| Feedwater pressure | 35 psi -100 psi |
| Standard module | 2.45 bar - 7 bar |
| Feedwater temperature | 4°C - 25°C/ 40°F - 80°F |
| Feedwater pH range | 4.0 min - 9.0 max |
| Max total dissolved solids (TDS) | 2000 PPM |
| Recovery | 20 - 25 % |
| Filter cartridge replacement | At least every 6 months |
| Dimensions of main unit: | |
| Height | 15" (380 mm) |
| Width | 14" (355 mm) |
| Depth | 7" (177mm) |
| Weight | 3.5 kg |
| Dimensions of tank: | |
| Height | 15" (380mm) |
| Diameter | 11" (279mm) |

Efficiency

Specific elements that are controlled:

| Metals | | Pesticides | |
|-----------|-----|-----------------|-----|
| Fluoride | 95% | Lindane | 99% |
| Copper | 99% | Endrin | 99% |
| Lead | 99% | Deldrin | 99% |
| Cadmium | 99% | Aldrin | 99% |
| Sodium | 99% | | |
| Zinc | 99% | | |
| Aluminium | 99% | Bacteria | 99% |
| Chlorine | 99% | | |
| Nitrate | 99% | | |

For Advice call 020 8539 4707