

AQUACURE RO190

Low Pressure Reverse Osmosis System

Reliable Efficient Economical
High Purity Water

PRODUCES UP TO 190 LITRES* OF
HIGH PURITY WATER PER DAY

What is Reverse Osmosis?

Reverse Osmosis (RO) is a process that occurs when water containing dissolved impurities is forced under pressure against a special synthetic semipermeable membrane. Molecular forces prevent the dissolved impurities from passing through the membrane surface. The impurities are repelled by the membrane and carried away to drain by the water flow. Water molecules, however, are strongly attracted to the membrane surface and, when pressure is applied (e.g. town water pressure), the water molecules pass through the pores of the membrane surface leaving high purity water on the other side.

Features

- All brass inlet hardware
- Stainless steel mounting bracket
- No rust all plastic storage tank
- Colour-coded tube connections for ease of installation.

System Components and Function

The Reverse Osmosis System has seven major components:

- 1. Inlet assembly:** comprised of a brass compression tee for copper pipe connection, a backflow prevention device to prevent back-siphoning of contaminants into the town water supply and a pressure limiting valve to prevent over-pressurising of the system.
- 2. Sediment Filter:** 5 micron filtration to remove dirt, silt, sediment and scale.
- 3. Carbon Filter:** Removes organic impurities e.g. chlorine, taste, odour, pesticides, herbicides
- 4. Reverse Osmosis Membrane:** to remove, or significantly reduce, (a) Dissolved solids e.g. barium, chloride, sodium, nitrates, selenium, fluoride, copper, zinc, chromium, sulfates (b) Heavy metals and their complexes e.g. lead, mercury, silver, arsenic (c) Microorganisms e.g. bacteria, virus, cysts, pyrogens.
- 5. Storage Tank:** The reverse osmosis membrane makes water relatively slowly. A pressurised storage tank is used to collect the treated water and deliver it to the outlet faucet at high flow.
- 6. Post carbon Filter:** In-line carbon filter to give the water a 'final polish' before delivery.
- 7. Faucet:** A goose-neck faucet delivers the water from the storage tank - hold the lever down for small amounts of water or flick it up for larger amounts e.g. jug filling.

Operating Parameters

Inlet Water: Pressure 280-600kpa • Temp.4-38°C • pH 4-11 • TDS < 2000mg/l • Total Hardness <150mg/l • Iron, manganese, hydrogen sulphide should be removed prior to R.O.

*Based on 25°C water temperature and <500mg/l TDS.

