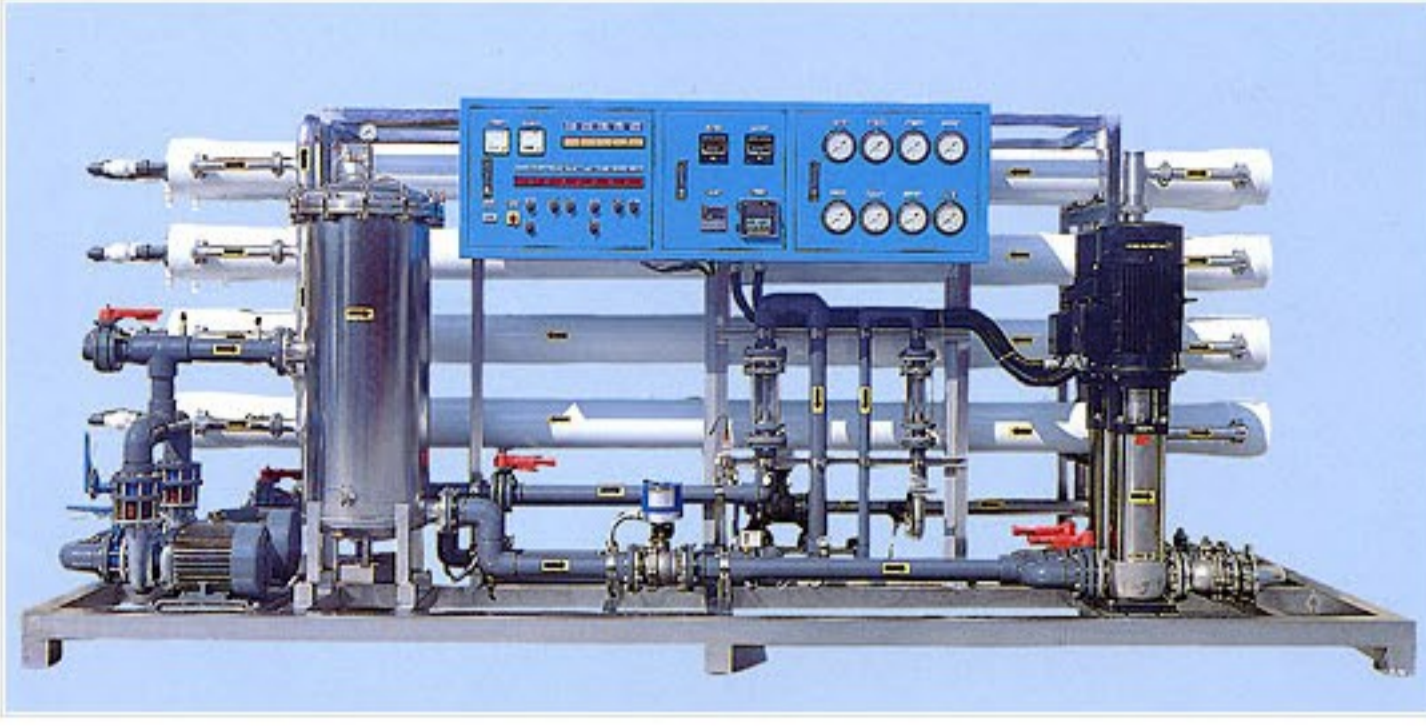


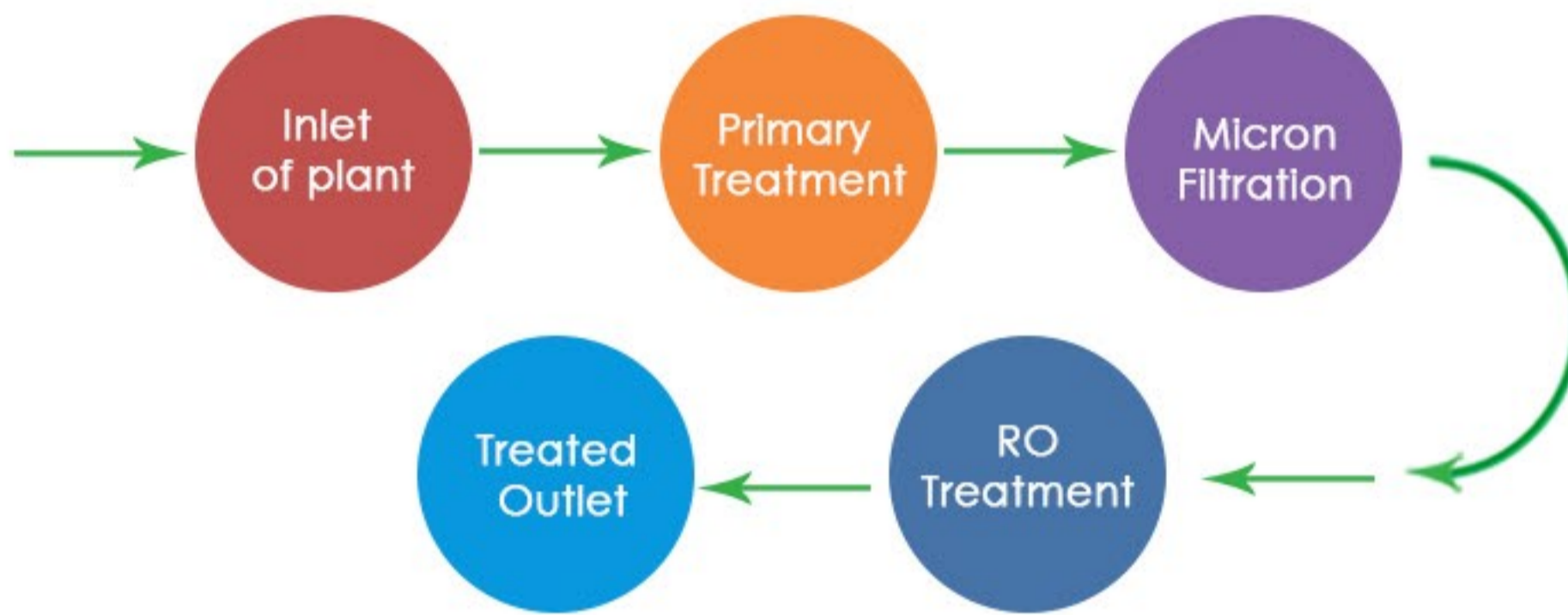


U. S. AQUATREAT CO.

REVERSE OSMOSIS PLANTS.



Process Flow Diagram:



Process Description :

Reverse Osmosis works by using a high pressure pump to increase the pressure on the salt side of the RO and force the water across the semi-permeable RO membrane, leaving almost all (around 95% to 99%) of dissolved salts behind in the reject stream. The amount of pressure required depends on the salt concentration of the feed water. The more concentrated the feed water, the more pressure is required to overcome the osmotic pressure.

The desalinated water that is demineralised or deionised, is permeate (or product) water. The water stream that carries the concentrated contaminants that did not pass through the RO membrane is the reject (or concentrate) stream.

The feed water enters the RO membrane under pressure, the water molecules pass through the semi-permeable membrane and the salts and other contaminants are not allowed to pass and are discharged through the reject stream, which goes to drain or can be fed back into the feed water supply in some circumstances to be recycled through the RO system to save water. The water that makes it through the RO membrane is called permeate or product water and usually has around 95% to 99% of the dissolved salts removed from it.

Application:

- | | | |
|-----------------------------|-----------------------------|----------------------------|
| 1) Textile Industry | 2) Food processing Industry | 3) Paper Industry |
| 4) Chemical Industry | 5) Solar cell Industry | 6) Pharmaceutical Industry |
| 7) Automobile Industry | 8) Rubber Industry | 9) Sugar Industry |
| 10) Steel Industry | 11) Power Plant: | 12) Leather Industry |
| 13) Hotel Industry | 14) Fertilizers | 15) Dairy product Industry |
| 16) Builders and Developers | 17) Agricultural Industry | 18) Beverage Industry |