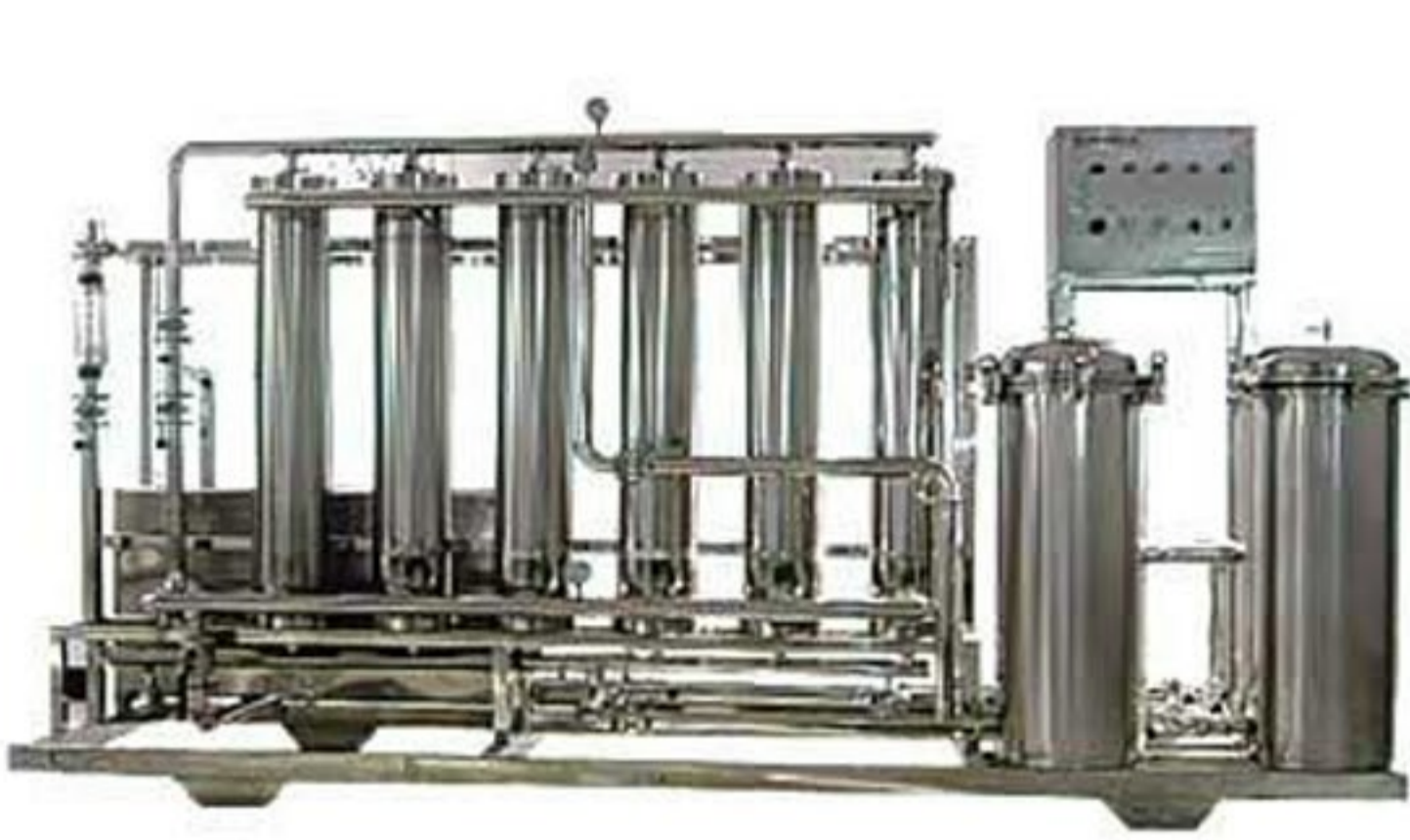


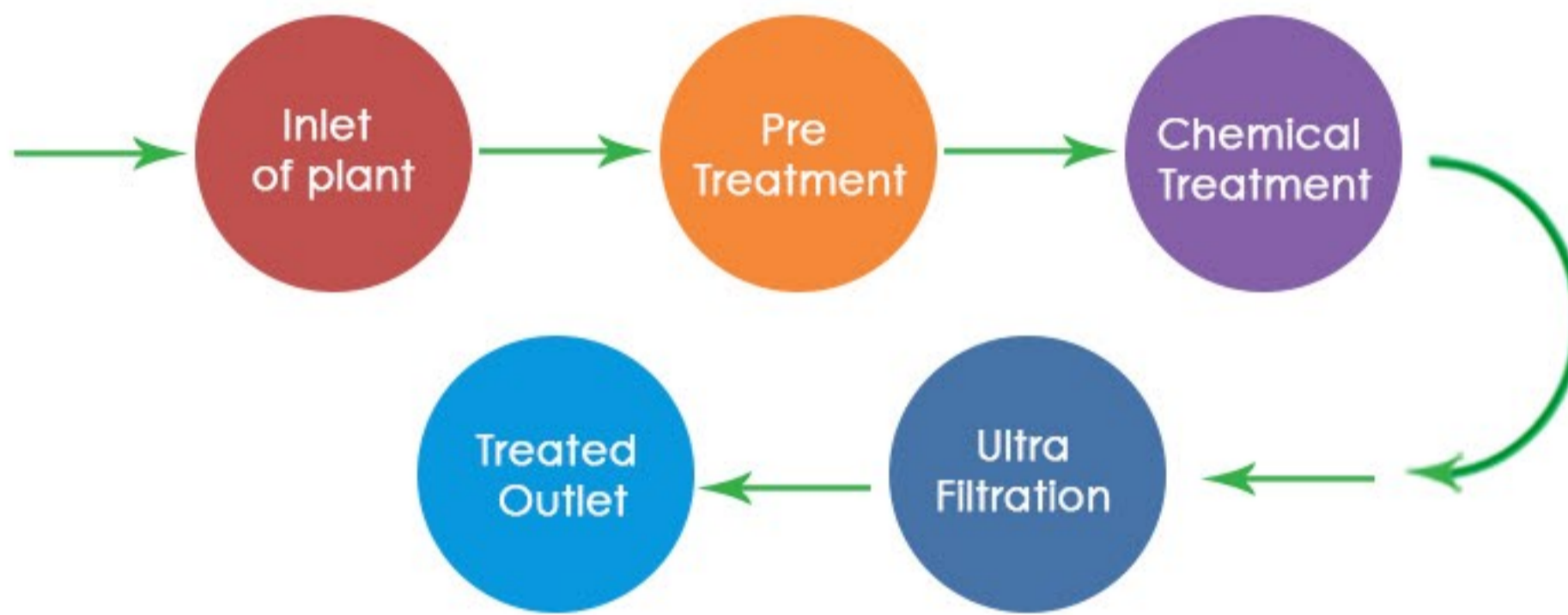


U. S. AQUATREAT CO.

ULTRA-FILTRATION SYSTEMS



Process Flow Diagram:



Process Description :

Ultra filtration is a separation process using membranes with pore sizes in the range of 0.1 to 0.001 micron. Ultra filtration removes high molecular-weight substances, colloidal materials, and organic and inorganic polymeric molecules. Low molecular-weight organics and ions such as sodium, calcium, magnesium chloride, and sulfate are not removed.

Ultra filtration is a cross-flow separation process. Liquid stream to be treated flows tangentially along the membrane surface, thereby producing two streams. The stream of liquid that comes through the membrane is permeate & the other liquid stream is concentrate.

Ultra filtration membrane modules available in plate-and-frame, spiral-wound, and tubular configurations. For high purity water, spiral-wound and capillary configurations are used. The configuration selected depends on the type and concentration of colloidal material or emulsion. For more concentrated solutions, more open configurations tubular are used. In all configurations the optimum system design, we take into consideration the flow velocity, pressure drop, power consumption, membrane fouling and module cost.

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 |