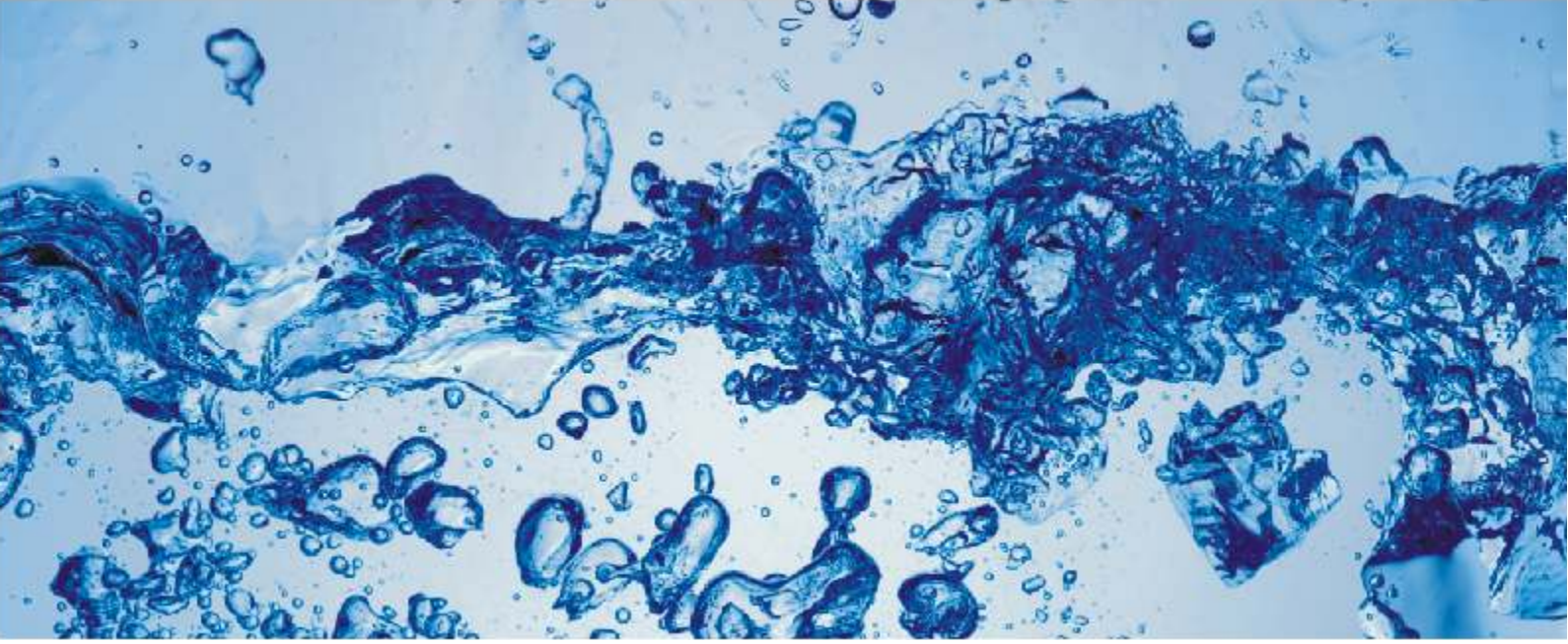


Customised Solutions

for Water &

Waste Water Treatment

ALPHA

ALPHA WATER TECHNOLOGIES INDIA PVT. LTD.

Committed to gift a pollution free environment for present and future generation

Profile

Alpha Water Technologies (AWT) - started with a team of highly qualified and experienced personnel more than a decade in water and wastewater treatment. It delivers the purification technology with a variety of environment friendly treatment options based on membrane separation processes, biological separation processes, ozonisation etc.

With the innovative ideas and continuous experience people at *AWT* are specialised in Membrane Separation Processes viz. Microfiltration, Ultrafiltration, Nanofiltration and Reverse Osmosis treatments. And they also implemented a variety of specialised membrane processes with energy efficient multiple effect evaporators for Zero Liquid Discharge (ZLD) for various industries in various applications.

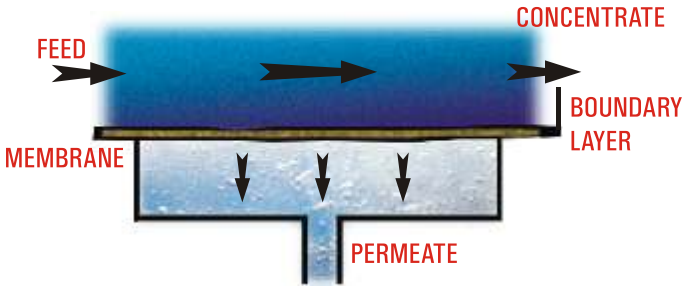
AWT takes pride in setting industry standards for technical excellence and product innovation in manufacturing, erecting and servicing various applications.

Objectives

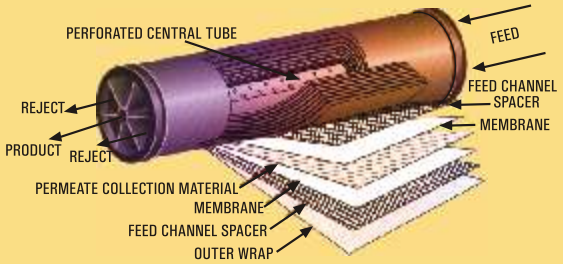
- To disseminate the knowledge & latest technology in its true shape across Industrial and Domestic clients there by technology is used at its best.
- To provide right, cost effective, timely delivery of plant and machineries for efficient utilisation.
- To identify the problems with the existing plants and revamp / service them to give the designed productivity and optimising for the energy consumed.
- To take up the burden of Operation and Maintenance of water and effluent treatment plants from the clients whose main business is of-course not treating the water / effluent.
- To conserve water by implementing the concept of recycling the treated effluent.
- To provide the total solution for all the water treatment needs.

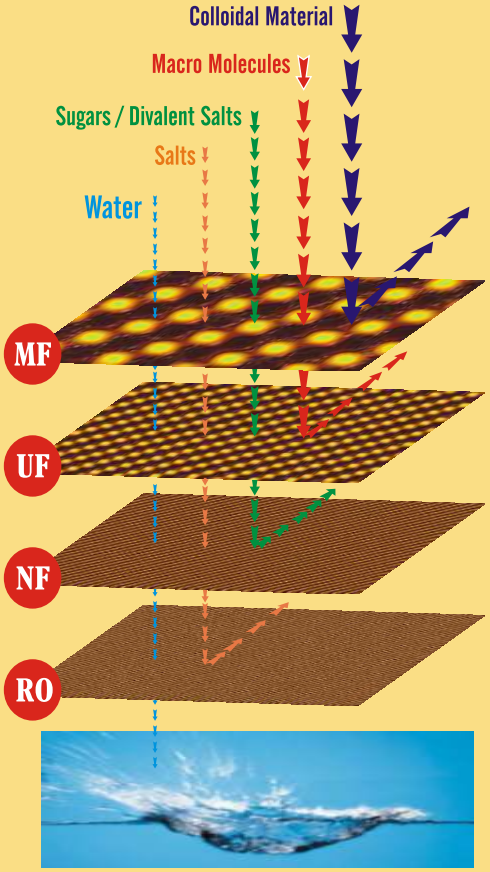
Membrane Filtration

In “crossflow” membrane filtration, liquid flowing tangential to the membrane surface inhibits the formation of deposits. The membrane retains dissolved and suspended solids. The retained fraction is known as the concentrate or retentate. The fraction passing through the membrane, driven by pressure, is the permeate or filtrate. The product may be the permeate (e.g. Clarification of fruit juices, effluent purification) or the concentrate (e.g. Concentration of antibiotics) or both. Depending on the size and type of the particles or solutes contained in a liquid there is wide range of separation processes available. Crossflow membrane filtration covers a range from 2 micron down to the molecular level below 0.001 micron (approx.). There are four main classifications of membranes, Microfiltration (MF), Ultrafiltration (UF), Nanofiltration (NF) and the finest of these, Reverse Osmosis (RO).

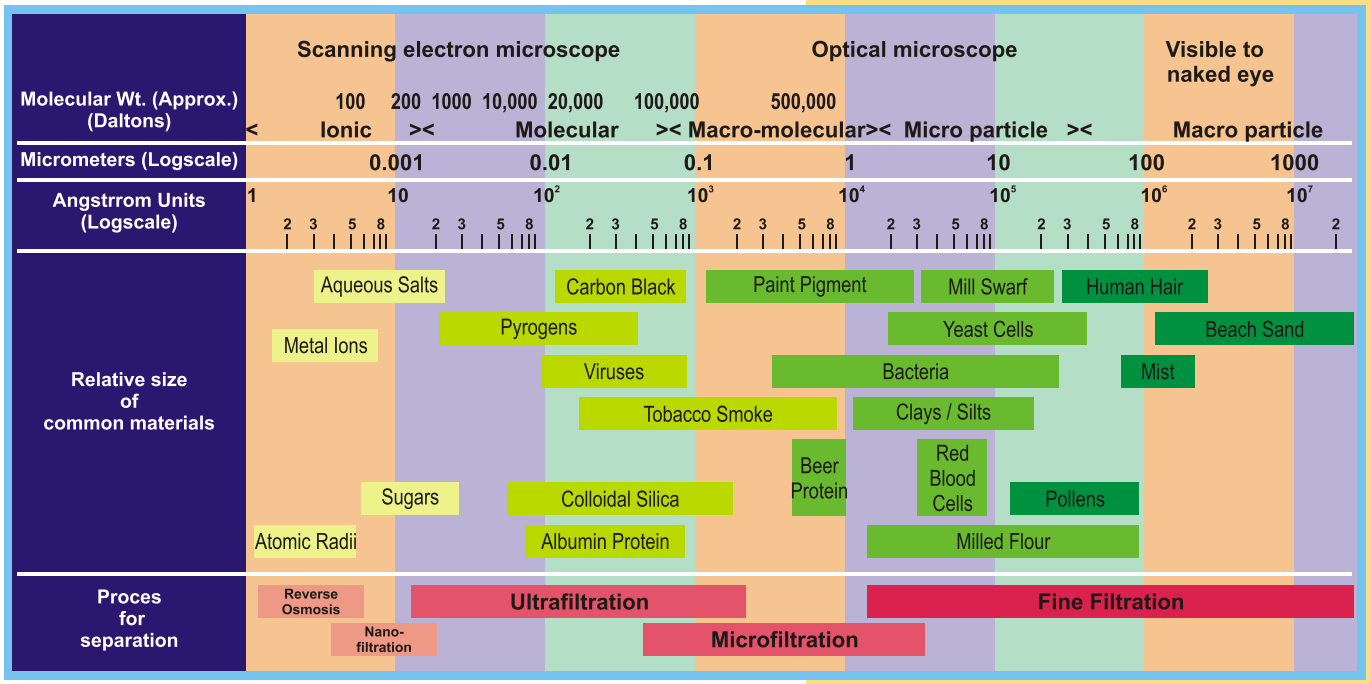


Cross sectional view of spiral wound membrane





The Filtration Spectrum



Services

- Filters
- Softeners
- Iron Removal Systems
- Chlorinators
- Automatic pH Controllers
- Ozonators
- DM Plants
- Clarifiers
- Aeration Systems
- Ultraviolet Systems
- Ultrafiltration Plants
- Nanofiltration Plants
- Reverse Osmosis Plants
- Evaporators
- Dryers
- Effluent Treatment Plants
- Sewage Treatment Plants
- Mineral Water Plants

- AMCs
- Consulting
- Servicing

Industries we serve...


Textiles


Food & Beverage


Tannery


Domestic

Zero Liquid Discharge (ZLD)

Due to the growth in industrial activity level of contamination or pollution in water bodies and ground water increased. Hence the latest statutory requirement is Zero Liquid Discharge (ZLD). i.e industry should treat and reuse the entire effluent within their premise.

To achieve the ZLD, effluent needs to be treated in series of steps like primary, secondary, tertiary and fed to water recovery plant (RO plant). The reject from the final recovery plant need to be evaporated and converted into solids.

AWT have installed these ZLD - ETP for many industries and are in successful operation.

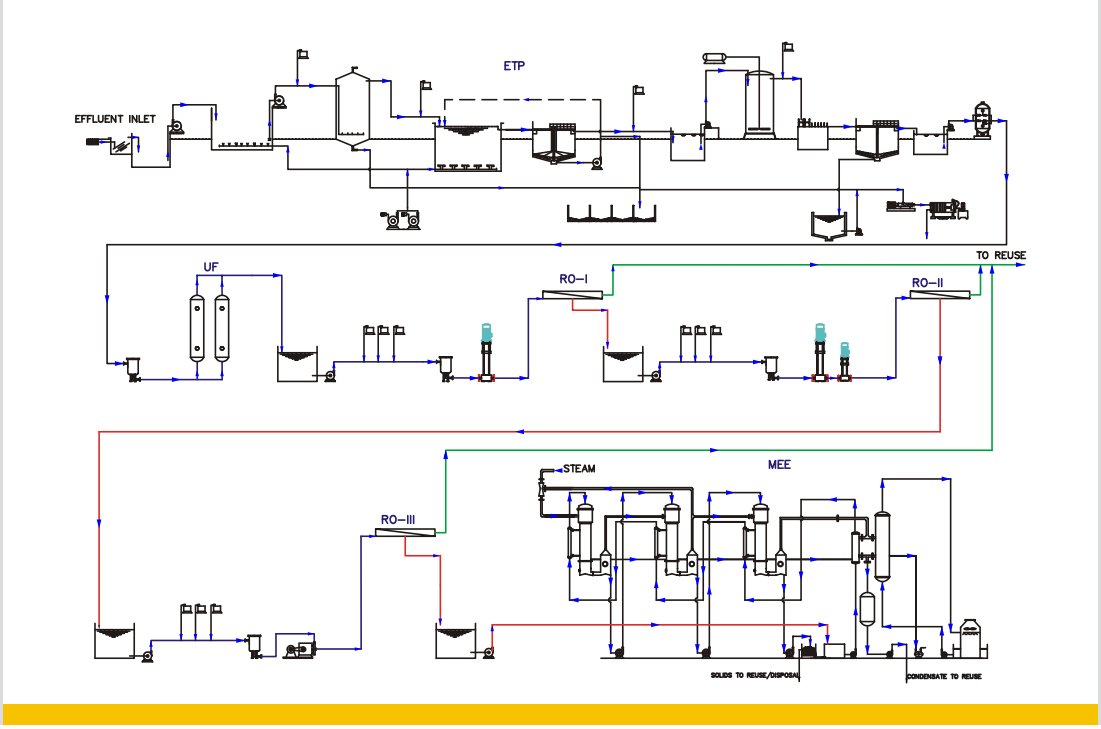
Primary: Collection, Screening equalization, Oil & Grease separation, colour removal, sedimentation using different machineries and techniques are in the primary part.

Secondary: Biological (Anaerobic and or Aerobic) treatment is called secondary treatment.

Tertiary: Disinfection, residual colour, TSS removal, Filtration (Media filters, Micro Filtration, Ultrafiltration) are called tertiary treatment.

Reverse Osmosis Plant: To reduce the Total dissolved solids in the treated effluent, to facilitate reuse of water in th e process. It can be of 2 or 3 stages to have high recovery and at the same time less reject,

Reject Handling: Reject from RO plant contains high amount of dissolved solids, hence need to be evaporated using Multiple effect evaporators (MEE). Condensate recovered is reused, solids are purified and reused in certain application or disposed into Secured Land Fills (SLF) meant for hazardous waste.



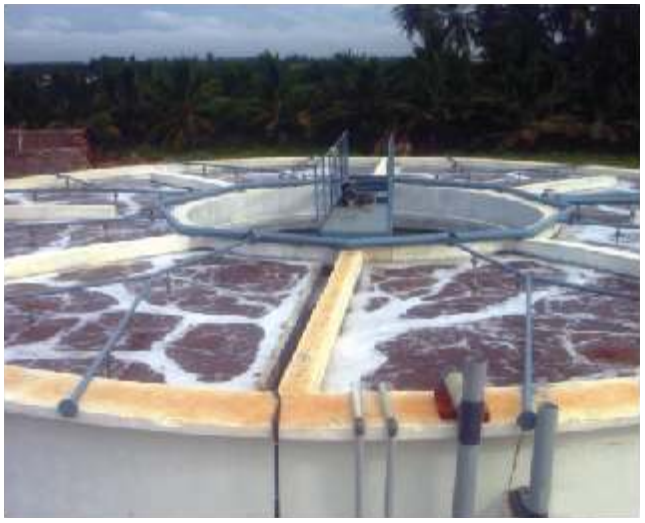
Chemicals

Pharmaceuticals

Water

Power

Few of our completed projects



ALPHA WATER TECHNOLOGIES INDIA PVT. LTD.

Plot No. 40, Kalyani Industrial Estate
Vanagaram Road, Athipet
Ambattur, Chennai 600 058

Tel: +91 44 2624 4885 / 6561 9378.
Fax: +91 44 2625 8653
E-mail: info@alphawater.in

www.alphawater.in