

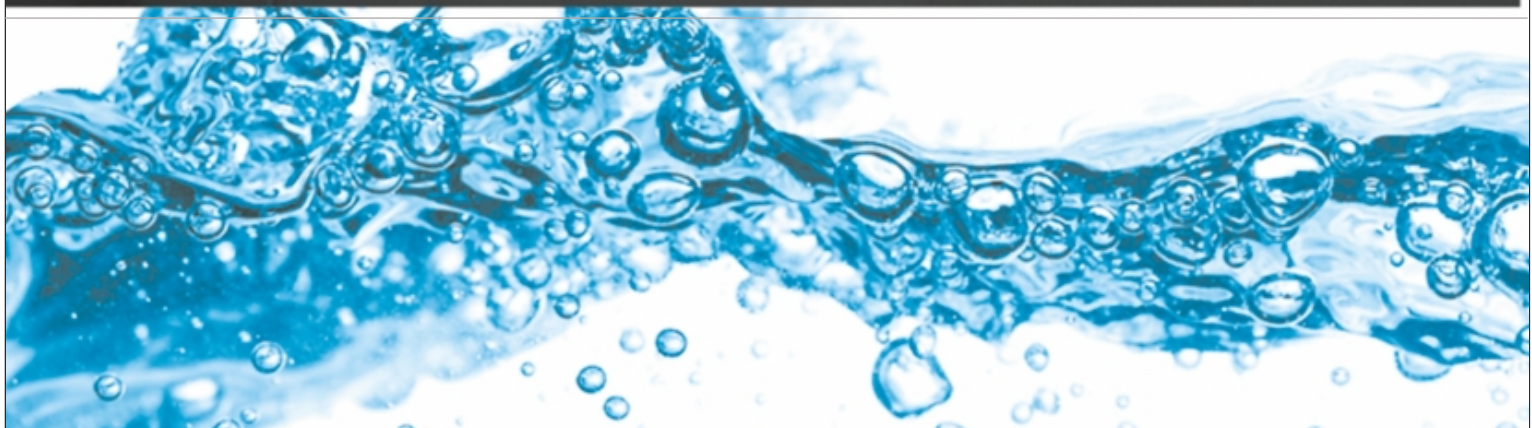


WATER MANAGEMENT
Innovative and Sustainable Solutions

Aquatherm Water Treatment Private Limited



Aquatherm : A Profile in Growth





Aquatherm was established with an objective to meet the growing need for top-of-the-line products and services in the field of Water and Waste Water Treatment. Consistent product quality, timely execution, competitive pricing and prompt after sales service have enabled it to carve a niche in the market.

With a host of blue chip corporate houses as its clientele, Aquatherm has a sizable installation base across India, Nepal, Bangladesh, Myanmar and East Africa.

The Team Aquatherm

It has at its helm a multi-disciplinary, technology-driven team of professionals with extensive experience in design engineering, manufacturing, project management, and quality assurance.

The Technological Edge

Committed to excellence, Aquatherm has successfully adopted latest technologies and advanced manufacturing practices in the field of water and waste water treatment. A focused training and development of human resources has helped in a smooth transition.

A fully CADD based design- engineering facility and a laboratory for comprehensive analysis of water and waste water provides a crucial backup.

The Quality Edge

Quality, in every aspect of operation, is a companywide passion at Aquatherm. It strives to attain the highest degree of technological excellence through innovation, continuous upgradation, zero defects in products and processes and finally through an uncompromising commitment to ethical standard.

The Timeline of Growth



1991

First Water Treatment Plant commissioned



1995

First Water Recycling Project commissioned



2000

First Reverse Osmosis Plant commissioned



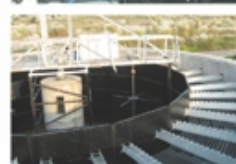
2005

First Paste Recovery System commissioned



2008

400 cubic meter per hour RO Plant commissioned



2011

5 MGD River Water Clarifier commissioned



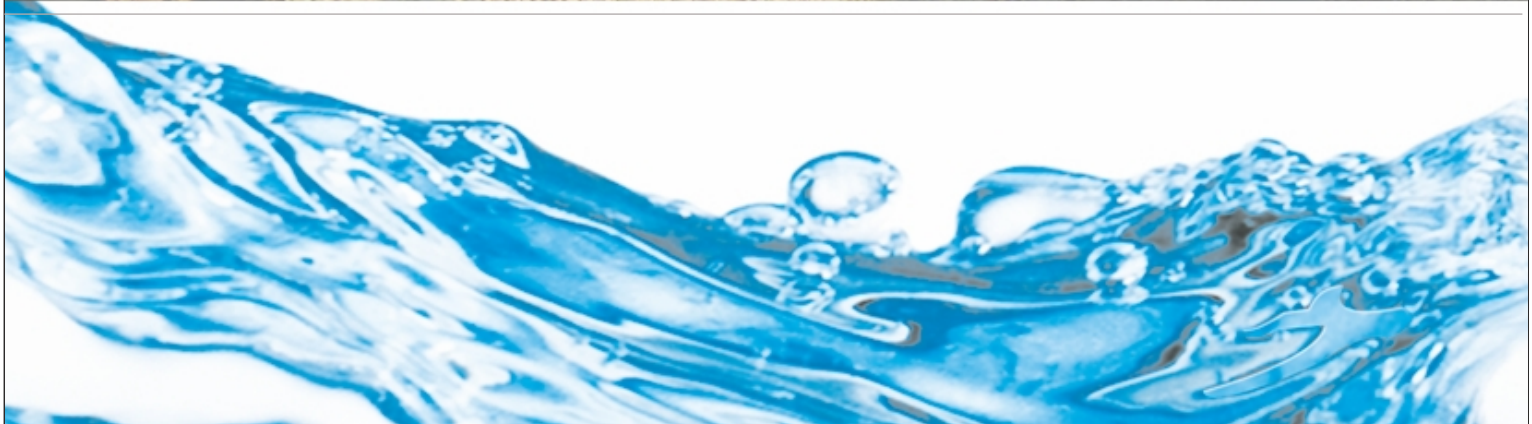
2014

Zero Liquid Discharge Project commissioned





Clarification & Filtration Systems



Clarification is the essential solid-liquid separation system for muddy, river water, while filtration is the final method to render the water free of solids. Both are classical water treatment methods that have undergone refinements but have essentially remained the same over the years and are still widely in use.

Static Clarifier

- ◆ Low maintenance and operating cost
- ◆ Smaller area required
- ◆ Modular design for low cost, flexible and easy installation
- ◆ Chemically resistant tubes - longer life of the system

Multimedia Filter

- ◆ Effective for high turbidity surface or ground water
- ◆ Media of Dual Density for more efficient filtration
- ◆ Compact Double Decker design for saving space

Iron Removal Filter

- ◆ Removes dissolved iron
- ◆ Prevents fouling of resins and membranes
- ◆ Prevents depositions in pipelines and tanks
- ◆ Prevents staining of clothes, toilet fittings etc

Activated Carbon Filter

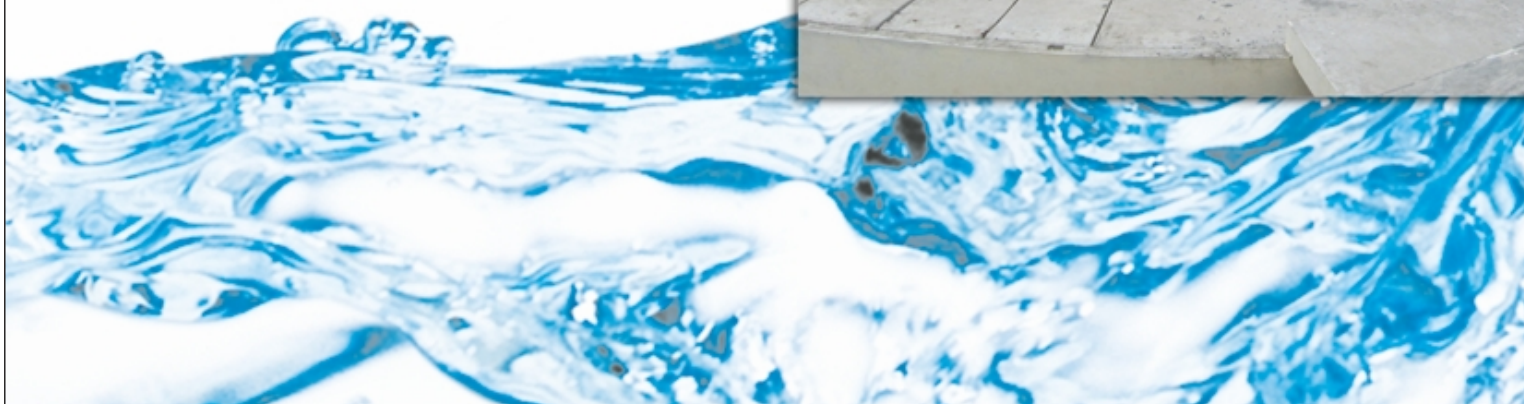
- ◆ Removes colour and free chlorine
- ◆ Eliminates odour
- ◆ Absorbs traces of oil and grease

Micron Filter

- ◆ Removes smaller suspended solids
- ◆ Removes traces of iron
- ◆ Prevents choking of membranes
- ◆ Easy replacement of cartridges

Special Features of Filtration Plants

- ◆ Fully automatic unit
- ◆ Multiport valve based design
- ◆ Flexible layout, less space requirement





Ion Exchange Resin-based Systems



This has been the most trusted method of water purification for the last fifty years. Even today it is the treatment of choice for low TDS water and often the only option for special applications.

Softener

- ◆ Counter current design for better efficiency and lower operating costs
- ◆ Compact upflow design to achieve same efficiency at reduced cost
- ◆ Automatic brine preparation with softened water at multiport valve based design
- ◆ Best quality resin used

Demineralization Plant

- ◆ Counter current design for better efficiency and lower operating costs
- ◆ Automatic regenerant preparation with treated water in multiport valve based design
- ◆ Flexible layout to suit the site condition.
- ◆ Fully automatic, semi-automatic or manual operation

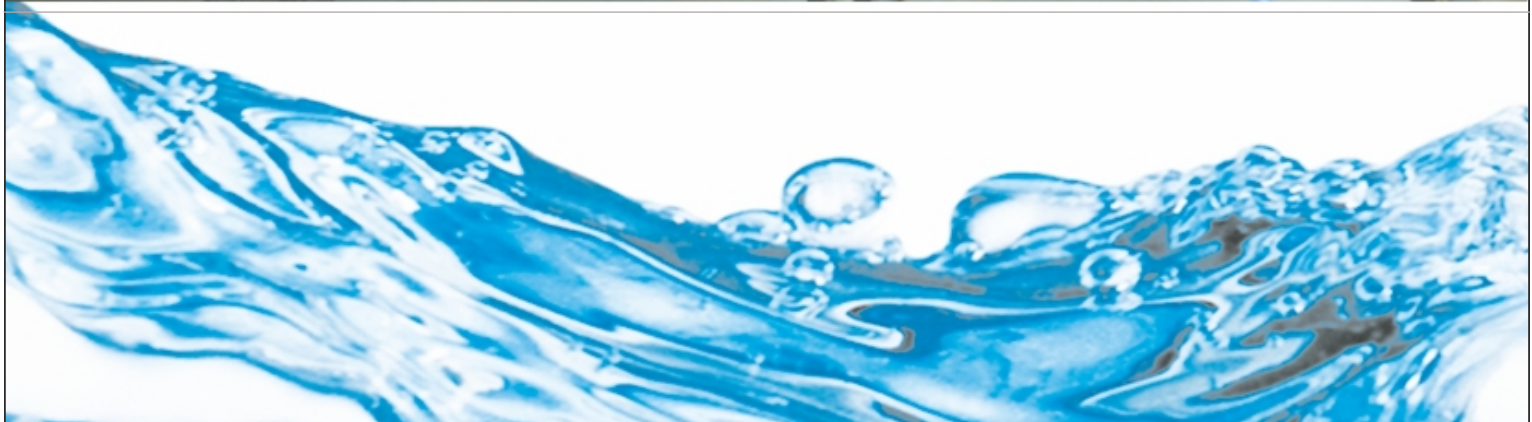
Dealkalization Plant

- ◆ A useful process for partial reduction in total dissolved solid by way of getting rid of the temporary hardness (or the entire hardness if desired) together with the bicarbonates (anion load) with very low use of chemicals
- ◆ Particularly useful for boiler feed and cooling tower makeup with water having high alkalinity





Membrane-based Systems



Over the last three decades, membrane based water purification systems have become more popular and widely accepted. These are less polluting and more economic to operate. Being modular in design the system capacity can be enhanced as required and with the least bit of intervention.

Reverse Osmosis Systems

- ◆ Complete system with suitable pretreatment facility
- ◆ Low operating cost
- ◆ Compact design
- ◆ Ability to withstand wide fluctuations in raw water characteristics
- ◆ Multiple pass RO System
- ◆ Less space required for installation
- ◆ Brackish water as well as sea water purification
- ◆ Membranes and other critical components sourced from the world's most renowned and proven suppliers

Drinking/Potable Water Systems

- ◆ Complete water treatment plant for packaged drinking water units as per IS/WHO standards
- ◆ Ozonator/UV Sterilizer units

Electrodeionization Systems

- ◆ High purity water generation, storage and distribution system
- ◆ Chemical/Hot Water Sanitary units
- ◆ RO+Electrodeionization (EDI) systems for generating higher purity water for pharmaceutical and electronic industries etc as per USP, MCA, EU Pharma standards

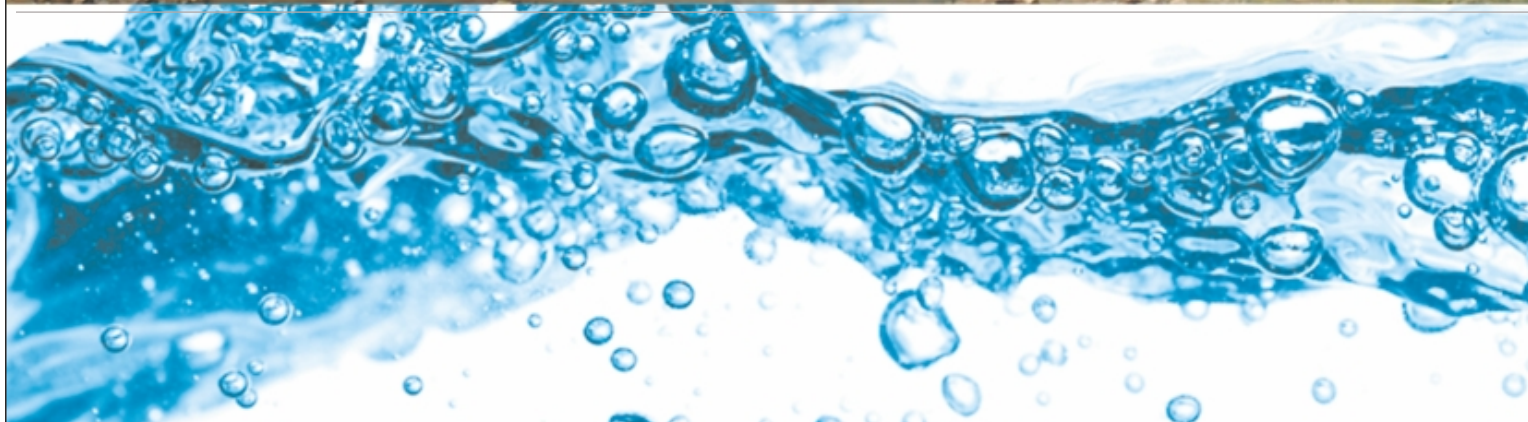
Ultrafiltration & Nanofiltration Systems

- ◆ Fully automatic/semi-automatic plant
- ◆ Complete system with suitable pretreatment facility
- ◆ Compact design
- ◆ Ultrafiltration is ideal for packaged drinking water, pharmaceutical and other related industries
- ◆ Nanofiltration has applications in dairy, textile, sugar and a host of other industries





Waste Treatment & Recovery Systems



With an exponential growth in consumption, usable water is critically scarce today and the recovery and reuse of waste water is of crucial importance. Aquatherm puts in special emphasis on adopting latest technologies and innovative approaches for optimal recovery and reuse of waste water and other commodities.

Effluent Treatment Plants

- ◆ Tailor made treatment processes with respect to the nature of the effluent
- ◆ Solutions developed for a wide range of industries, such as chemicals, textiles, paper, paint, agro, metallurgical etc.
- ◆ For effluent treatment, Aquatherm adopts the latest technology and installs the most modern equipment available.
- ◆ Treatment process is selected with a focus on cost effective and optimal reuse of treated effluent.
- ◆ More than 50 installations spread over four countries

Waste Water Recycling System

- ◆ Effective reduction of :
 - Load on ETP
 - Chemical consumption for neutralization etc
 - Raw water treatment cost
 - Total water intake
- ◆ Unique application-specific, customized design
- ◆ Cost effective design ensures high return on investment
- ◆ Preserves the environment
- ◆ Zero liquid discharge wherever possible
- ◆ Stoichiometric usage of regenerants to make the treatment more economical

Acid Purification System

- ◆ Pickling application
- ◆ Successful both with HCl and H₂SO₄
- ◆ Online iron removal without acid loss
- ◆ Continued high productivity of pickling bath

Sump Paste Recovery in Pb-Acid Storage Battery Industry

- ◆ Recovers and ensure reuse of sump paste
- ◆ Eliminates Pb-pollution
- ◆ Improves profitability





AQUATHERM

Aquatherm Water Treatment Private Limited

9A Satyen Dutta Road, Kolkata 700029

Phone : 91 33 2464 6713 / 5669, Fax : 91 33 2463 0379

Email : aquatherm@vsnl.net / info@aquathermindia.org

www.aquathermindia.org