

Sustainable Water Engineering



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Ahura Aqua
best for your water treatment
solutions

Delivering Purity in Different Business Verticals

Product List
Water Treatment Systems

Connect with us!

# Ahura Aqua Sustainable Water Engineering

Helmed by Afsad Motashaw in 1993 in Vapi-Gujarat, as a dealer for 'Sales' & 'Services', Ahura Aqua identified a tremendous opportunity in the industrial water treatment business in India. Through meticulous research and market study, we understood that most industries and businesses were looking for long-term and sustainable water treatment and purification solutions. This gave us in-depth knowledge about specific requirements of different industries and verticals; thus later we ventured into designing; fabricating and assembling our own water treatment systems across India.

With 25+ years of providing dedicated services, we are now an established name in the water treatment industry in India. Our solutions walk hand in hand with the environment and we take immense pride in offering customizable water treatment solutions to our clients. Our solutions are created with sustainability at the centre of all purposes. We are always innovating, learning and adding new range of products, catering to needs of different businesses.

Our aim is to provide well designed water solutions like - UF, NF, RO, EDI, DTRO, DM, Softening and many others that are usually shorthanded by other industrial contemporaries. Our USP is our ability to offer complete end-to-end systems and solutions to recover wastewater after ETP (Effluent Treatment Plant) and STP (Sewage Treatment Plant). We believe in simplifying each process and that's why our products are easy to install, operate & modify – hence asserting reliability, longevity and reduced water wastage with low maintenance cost. Our focus has always been to reduce your operational costs and facilitate long term water treatment solutions as per your requirements.

## Some of our water purification process are:



Precipitation Settling



Oxidation



Multimedia Filtration



Ion Exchange



Membrane Separation



Evaporation







# **VISION**

To provide holistic engineering solutions related to water consumption, for industrial manufacturing units.

# **MISSION**

To provide sustainable water treatment solutions via efficient design, responsible sourcing & pro-active support.



Trust Resilience Transparency

# **INDUSTRIES**

## Providing end-to-end Water Treatment Solution for Various Industries

We cater to different businesses - Pharmaceuticals, Textile, Metal finishing, Plastics and many more. Our customized water treatment systems and installations are highly effective and our team offer complete services that yields sustainable outcome for your business.



## **Pharmaceuticals Industry**

Our focus area is working proactively with a large number of pharmaceuticals – Formulations and APIs. We are committed to PW systems that, will clear any audit with a clean chit; and help them to achieve the respective regulatory accreditation.

Ahura Aqua provides expert solutions in the entire process - from pure water generation, leading to storage and distribution systems.

Raw materials are carefully sourced from reputed and superior quality manufacturers, to ensure reliability & consistency throughout our product lines.

Our sophisticated & PLC – SCADA automated systems, ensure consistent quality of product water, compliant with WHO/USP/MHRA norms. The product water is safely used for manufacturing tablets & oral liquids or is further treated for removal of endotoxins for WFI or Sterile water. Electro polished jacketed tanks in 316L, automated with steam sanitisation meets international standards. Similarly, electro-polished SS 316L tubes with sanitary fittings & zero dead lag piping ensures microbial control. Our precise and detailed documentation includes - P&ID & Isometric drawings, detailed tests certificates, All Qualification Docs, Validation.



## **Textile Industry**

We understand how important it is to use clean water in a business such as textile production and hence, we offer systems that meets your need. To ensure uninterrupted supply of perfect quality soft water, we provide pre-filtration for removal of suspended solids, organics, and free iron, which usually hampers the performance of a Softening plant. Certain applications like - POY, CP, PSF - in the manufacture of polyester yarn, need low conductivity water without residual silica. We achieved this feat, even with input of wastewater like CTBD & ETP, STP outlet.

Clarifiers, filters, Ion exchange, Ultrafiltration, Reverse Osmosis, DM, MB are some of the technologies deployed by us to achieve this.





## **Metal finishing**

We understand the needs of the Metal Finishing industry for all four critical applications of Water - which needs relatively high quality water - Process Water, On-Line metal recovery, ETP, Recovery of ETP treated water for Re-use. We purify raw water to the level where almost zero conductivity, microbial content & finest suspended loads are removed, ensuring speck-less plating process.

Customers can massively gain from our solutions for online recovery of expensive heavy metals, which can be reused for the manufacturing process or even resold.

Meticulously designed recovery systems, can recover upto 93% of ETP treated water for reuse. This reduces discharge of waste waterand the requirement of fresh inlet water; it saves operational expenses and is a massive contribution to the environment.

We help you achieve zero liquid discharge by evaporating the last 7% of extremely high concentrated waste water.

## Offering Customizable Solutions for Dyes & Pigments industry

Flocculation, adsorption, ozonation, filtration, ion-exchange, ultra filtration, nano filtration, reverse osmosis systems can provide quality process water that is accepted by dyes & pigment industry.

Post treatment needs to be exceedingly rigorous in order to control the level of Chemical Oxygen Demand (COD) or Biological Oxygen Demand (BOD), high TDS, Salts, Sulphates, Chlorides, are treated to meet discharge compliance.





## **Ensuring the Water Purity for Food & Beverage processing**

Manufacturing and processing units of food and beverage items can benefit from an aggressive pre/post treatment plant that helps deliver consistent quality in large volumes, to suit your production requirements. Resorts and hotels of any capacity commercial food & beverage manufacturing units that fuel the FMCG industry can be assured to have access to hygienic water, free from odour or colour, from our systems to recover and reuse up to 90% of process water.

## **Resorts and Hotels**

Resorts and hotels of any capacity can be assured to have access to hygienic water, free from odour or colour, from our systems. We also provide STP systems, with option to recover and reuse upto 90% of grey water.



# **VERTICALS – OUR KEY PROCESSES**

## **Purifying Raw Water Was Never This Convenient**

Our customised water purification system are designed with careful analysis of raw or feed water. This ensures proper quality and flow for efficient manufacturing process. With an unmatched purification standard, our machinery helps to completely remove even the smallest of contaminations and maintain the purity levels.

As pre-treatment plays a critical role in the success of any membrane separation system, we aim to minimise any risk which may cause damage to the membranes or reduce their efficiency.

We design efficient systems that can accommodate periodic variations in quality of feed water. So, expensive upgrades or replacements can be avoided in future and the systems delivers same results for a longer time.

## **Recovering and Reusing Waste Water Made Effortless**

Waste water recovery is the process of treating process water, post ETP so that it can be used for the process again and also multiple ancillary applications such as cooling towers, or for gardening, sanitation, and irrigation. The ability to recover re-usable water enables businesses to be less dependent on fresh water and thus contributing to environmental obligations.

Our water treatment solutions are completely automated and are capable of recovering up to 95% of your water from the worst feed quality. The most crucial aspect of maintaining smooth function of these wastewater recovery systems is to have meticulous design standards across the entire treatment streams.

## **Smooth Process for Zero Liquid Discharge**

Zero Liquid Discharge is a stream of treatment processes which involves wastewater being treated and recycled, with a goal of leaving no discharge at the end. Every Zero Liquid Discharge treatment system involves components such as clarifiers, chemical feed, multiple filters, ion-exchange, ultra-filtration, reverse osmosis, evaporators and crystallizers. Our Zero Liquid Discharge is technologically-driven and is loaded with advanced features.



## **OUR INSTALLATIONS - DESIGNS & SYSTEMS**

## De-mineralized water system

Capacity: upto 50 m3/hr

Installed at: UPL (NeoNir), Munjal (Ronuk), Galva Deco,

Gujarat& few in North India

## **Ultra-Filtration**

Capacity: upto 60 m3/hr

Installed at: Well-known polyester, Galva Deco, Detox

## Nano-filtration

Capacity: 1 m3/hr. for De-salting

Installed at: Chaitanya Bio, Malkapur, Maharashtra.

## Reverse osmosis for pure water generation in pharmaceuticals

Single pass And also 2 pass RO-EDI,

Capacity: Upto 6000lph

Installed at: Medilux Pharma, Rusan Pharma, K.Patel Phyto Extracts, Althea Pharma,

#### **Reverse Osmosis for Waster water treatment**

Capacity: 45 m3/hr

Installed at: Detox (GF), Well-known Polyester, etc.

# **OUR INSTALLATIONS - INDUSTRY WISE**

#### A. Pharmaceuticals

#### In-feed water quality -

TDS:1300ppm, Flow:6 m3/hr.

#### Peculiar issue faced by customer:

Presence of Pseudomonas & pathogens in feed water to the pure water generation system.

#### Solution -

Ozone System & oxidizing chemicals & Heating were used; followed by UF, 2 pass HSRO-EDI. Selective levels of Residual presence of oxidizing chemicals was maintained at selective stages. Heat sanitization of Generation – Storage – Distribution systems.Localized Steam sanitization of valves & fittings.

## **B.** Textile

#### In-feed water quality -

TDS: 3000ppm, Flow: 800KLD

#### Peculiar issue faced by customer:-

Extreme levels of TSS, Turbidity, Hardness & Silica

- causing severe scaling of cooling lines & heat exchangers; and
- Frequent downtime of waste water recovery system

#### Solution -

The solution was to treat the blow down water with lime softening & precipitation by inclined plate clarifiers, which drastically reduced total hardness & silica levels, followed by filtration & resin softening + ultrafiltration & membrane separation by RO; which then provided consistent recovery upto 90%. The recycled RO water was then fed to the cooling towers instead of soft water, which eliminated scaling of cooling lines & heat exchangers on 1 side & eliminated regeneration waste from Softeners.

## C. Metal finishing

#### Required process water quality -

Near zero ppm, microbial free, turbidity free, 200KLD

#### Peculiar issue faced by customer:-

Finished product was rejected due to micro specs present on the surface.

#### Solution -

An ultrafiltration system was installed after the final product water tank and just before in-feed to the process. The above mentioned contaminants were removed, resulting in consistent speck-less plating & finished products.

#### Water Conservation:

To meet the demand of 200 KLD for process, we provided recovery systems which yielded about 180 KLD, and just 20 KLD was fresh in-feed water.

#### D. Other Industries:

Pulp & Paper

Dyes & Intermediates

Plastic Moulding

Chemicals

Food processing

Pulp & Juice

Distilleries

Many others

# **OUR PRODUCTS, YOUR SOLUTIONS**

## **WATER TREATMENT PRODUCT LIST**

## PRESSURE SAND FILTER



#### **Removes**

suspended solids & turbidity

#### **Filters**

Water from Canal, River, ETP, STP, etc

#### Capacities

1 M3/hr. upto 300 M3/hr.

#### **ACTIVATED CARBON FILTER**



#### **Removes**

Organics, Odour & Colour

#### **Filters**

Water from Canal, River, ETP, STP, etc.

#### **Capacities**

1 M3/hr. upto 300 M3/hr.

#### **BAG FILTER**



Suspended solids

Pre-treatment to UF & RO

## MICRON CARTRIDGE FILTER



Suspended solids

Pre-treatment to UF & RO

#### **SOFTENERS**



Removal of Total Hardness

Bolier /Cooling tower feed

Textile Process / Washing

## Capacities

1 M3/hr. upto 300 M3/hr.

## **DE-MINERALISING PLANTS**



Total Dissolved Solids

Process water to many industries

Boiler feed

1 M3/hr. upto 50 M3/hr.

## **TUBE SETTLERS**



For High loads of Suspended solids

Highly turbid waters

Industries like - Paper, Textiles, ETP, etc.

1 M3/hr. upto 100 M3/hr.

#### **ULTRA-FILTERS**



Fine Quality filtration of Suspended solids, Turbidity

Pre-treatment to RO system, Clean Potable water generation

1 M3/hr. upto 100 M3/hr.

## **NANO-FILTERS**



Hardness, De-salting, Sulphate removal

Dyes de-salting, heavy-metal separation, COD reduction, Recovery of wastewater stream.

1 M3/hr. upto 10 M3/hr.

## **REVERSE OSMOSIS**



Total Dissolved Salts
Potable water, process water for
any industry, Recovery of wastewater
stream.

1 M3/hr. upto 60 M3/hr.

## **ELECTRO DE-IONISER**



Polishing unit for removal of TDS, Conductivity

De-ioniser, High purified water generation, Pharmaceutical process water, capacitors.

0.4 M3/hr. upto 10 M3/hr.

## **DISK TYPE REVERSE OSMOSIS**



For High loads of Total Dissolved Salts

Wastewater from extreme cases.

1 M3/hr. upto 10 M3/hr.

# AGITATED THIN FILM DRYERS (ATFD)



Sludge dryer

Zero Liquid Discharge

# SINGLE / MULTI EFFECT EVAPORATORS



Evaporation of residual effluents

Zero Liquid Discharge



# Services - Facilitating the Support You Need

We nurture every relationship and emphasis this by going an extra-mile, to provide complete end-to-end support to optimize every installation and solution. Here are our key services and support that we offer;

## 1. Commencing the Journey

#### i. Installation:

- Erection by pre-approved drawings for P&ID, PFD, Floor Plan, etc.
- Ancillaries, Utilities, infrastructure to facilitate the installation

#### ii. Commissioning:

- Matching design criteria of feed data, flow, pressure, results, etc.

#### iii. Trainina:

On-field training for floor operators include – maintaining system/equipment efficiency & system/equipment health awareness, this is carried out by qualified personnel and results in longevity and high reliability of the system

## 2. Smooth Sailing

#### i. Preventive maintenance:

involves periodic servicing and monitoring of your water treatment stream.

#### ii. Corrective maintenance:

Ensures you are never stuck high & dry in terms of crisis, our widespread network of certified service partners & suppliers are always equipped to deal with panic.

#### iii. Spares & additional equipment:

We ensure availability of reliable spare parts which are kept unanimous amongst our high impact service partners across the nation to ensure high reliability & ease of operation for all our clients.

## 3. Stay Connected

#### i. Performance forecasting:

Our online technical assistance, enabled by localising sensors installed throughout the treatment stream aids predictive maintenance by highlighting root cause of site-specific constraints.

#### ii. Process optimisation:

Upgradation & improvisation consultation enables our clients to develop organic and realistic plans for future growth in terms of handling volumes & our modular approach towards our systems ensure cost effective upgradation.

#### iii. AMC / O&M:

One of our core strengths, because of our widespread network of service partners & 25 years of empirical know-how has contributed intensively to our learning-curve. Few benefits resulting from our O&M contracts are avoiding operational cost traps, higher working time of the system, minimal standstill durations, maximum process efficiency & maintenance cost control.

## **CLIENT LIST**

































## **CONNECT WITH US TODAY!**

#### **HO Address:**

411, Lotus Business Park, Malad (W), Ram Baugh, off SV road, Mumbai – 400104.

### **Projects Address:**

107, Nupur Industrial Estate, Near Alfa Lighting Devices, Kachigam, Daman.

## **Enquiry ID:**

burjiz@ahuraaqua.net & sales@ahuraaqua.net

## **General Queries:**

office@ahuraaqua.net

## Service & Troubleshooting:

projects@ahuraaqua.net

### **Sales Enquiries**

+91 77770 34405 (sales) +91 22-28838800 (Office)

## **Service & Troubleshooting:**

+91 92279 40401 (Rayomand) +91 99984 45668 (Factory)





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