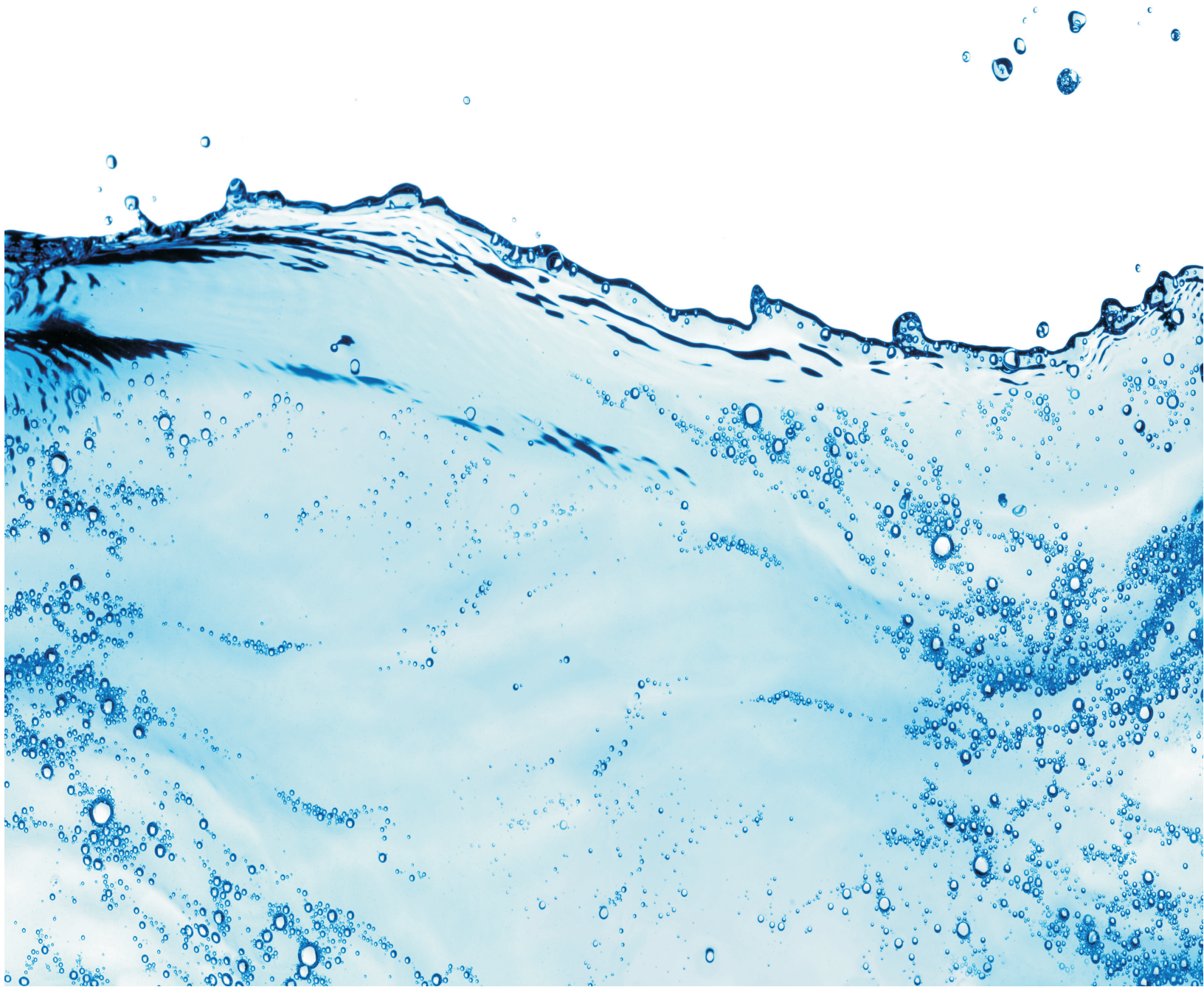




Aquatic Solutions

Turnkey Solution for High Purity Water



About Us

- Aquatic Solution was created with the goal of providing high quality service worldwide.
- Established presence in the market place since 2006.
- Single handedly owned to build a solid pioneering company in Water Treatment field.
- Unique combination of Knowledge & Experience in Water Treatment.
- Leader in high quality products, technical expertise, & specialized service.
- Manufacturing according to ISO 9001 standards & government regulations.

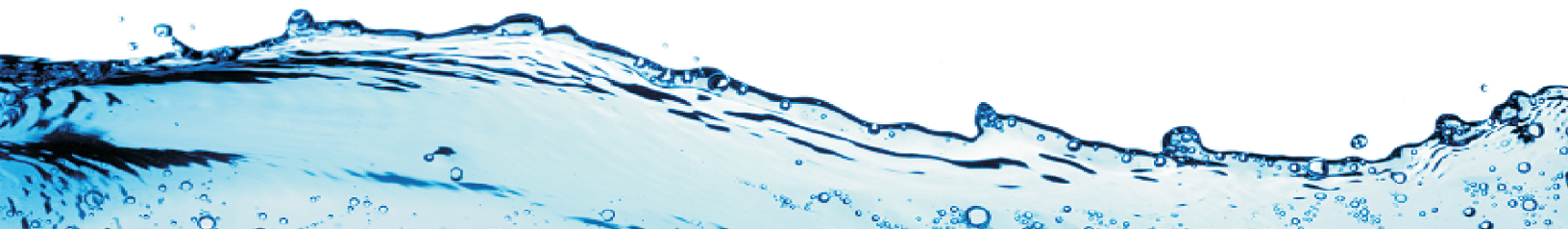
Our Speciality:

- Water Treatment Plants/ Multigrade Sand Filter/ Activated Carbon Filter/ Softener
- Purified Water Systems.
- Stainless Steel Storage Tanks
- Stainless Steel Distribution Loops
- Packaged Water Projects
- Ultraviolet System(UV)/ Ozone System
- Reverse Osmosis Plant (RO)
- Ultra Filtration Plant (UF)
- Demineralized Water Systems (DM)
- Electro Dionization (EDI)
- Swimming Pool Filtration Systems
- Effluent Treatment Plants
- Waste Water Recycle Plant/ Zero Discharge Plants
- Sewage Treatment Plant
- Boiler Water Treatment Chemicals
- Cooling Tower Water Treatment Chemicals
- Chilling Tower Water Treatment Chemicals
- Fuel Treatment Chemicals
- Waste Water Treatment Chemicals
- Descaling Services
- Effluent Treatments Chemicals
- Sewage Treatment Chemicals
- Filtration Media/ Sand Media
- Activated Carbon
- Ion Exchange Resins
- Thermax Resins
- All Spares for existing Water Treatment System.

We manufacture different types of tailor made items like Pressure Vessels, Degasser Columns, Storage Tanks, Rubber Lining Vessels, Pressurized and Non Pressurized Equipments, etc. Over the years we have developed necessary infrastructural facilities along with our close associates, to meet the need of high quality equipment conforming to National & International code requirements under third party inspecting services.

Aquatic Solutions touches every component of water and waste water treatment.

We can work with you to implement the best solution for your need.



Our Experience

The water treatment professionals at Aquatic Solutions are among the very best, most experienced in the business. Our corporate culture is focused on sharing of ideas & information so that all of our engineers benefit from the experience & knowledge of their co-workers.

This means that you get the benefit of hundreds of years of practical water treatment experience at your facility. When it comes to water treatment, there is little we haven't seen.

Aquatic Solutions brings you the elements of experience, education & passion that you need in a water technology partner that will keep your operation running efficiently, with no headache.

Our Integrity

Your facility has its own unique set of needs & challenges. You need a water treatment partner that goes the extra mile to find the right solution. We define effective solutions by their ability to achieve the desired outcome with the right mix of chemical & technology. You can rest easy knowing that we are focused on results, not on installing unnecessary equipment or using chemicals that does not make sense.

We offer some of the most technologically advanced water treatment systems on earth, but we deploy these, advanced solutions when needed, not as a rule.

What you will get from us is the best solutions at the right price.

Our Technology

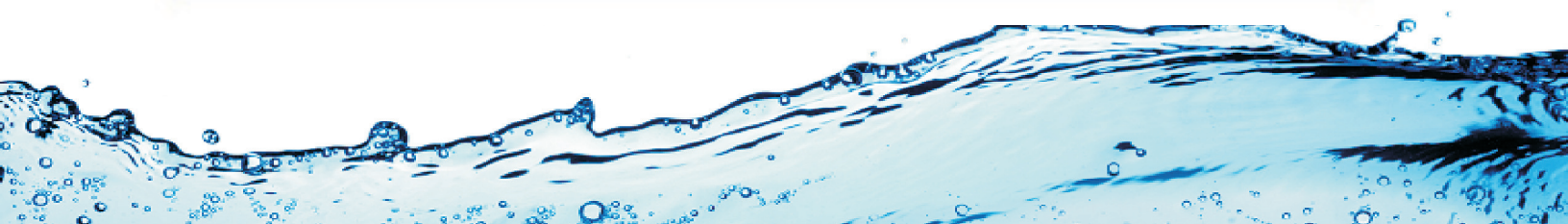
At Aquatic Solutions, we understand the importance of technology. We utilize technology to make our field representative more efficient, & we use "best of breed" water treatment technology in the field.

Because you need a company that has its finger on the pulse of the water treatment industry, our team knows the industry like no other. After we work to determine your roadmap for success. We utilize whatever technology makes the most sense for you.

We use our knowledge of the industry to bring the best products at the right time, regardless of whatever the technology is home grown, or was developed by another company in the industry.

You will take comfort in knowing that our engineers are the most connected & tech savvy in the industry, we pride ourselves in our ability to deliver results, & our technology platform helps ensure we deliver those results consistently & reliably.

Water Systems Designed



Our Mission

- Excellent results & low costs leading to savings
- We deliver environmentally responsible & cost effective water treatment solutions.
- We improve customer efficiency by conserving energy & water.
- We make sure the use & application of our products is done correctly.
- We build long lasting relationships with our customers.

Sustainability Initiative

We are committed to providing environmentally responsible & economically viable water treatment solutions that conserve energy & water while protecting the health & welfare of people & the environment.

Quality Control

Active implementation of good quality is our first priority. We are perform all necessary checks & tests activities as per relevant standard codes. We are maintaining the proper documentation for improvement of best quality products & never compromise in quality & commitments of delivery schedule. Water Systems are designed in accordance with the requirements of FDA, cGAMP, cGMP, cUSP, & cPh. Eur.

Aquatic Solutions Services

“Service that makes a difference”

- **Consulting Solutions**

- Planning
- Pinpoint problems in system
- Calculate losses
- Strategic Cost Reduction of treatment

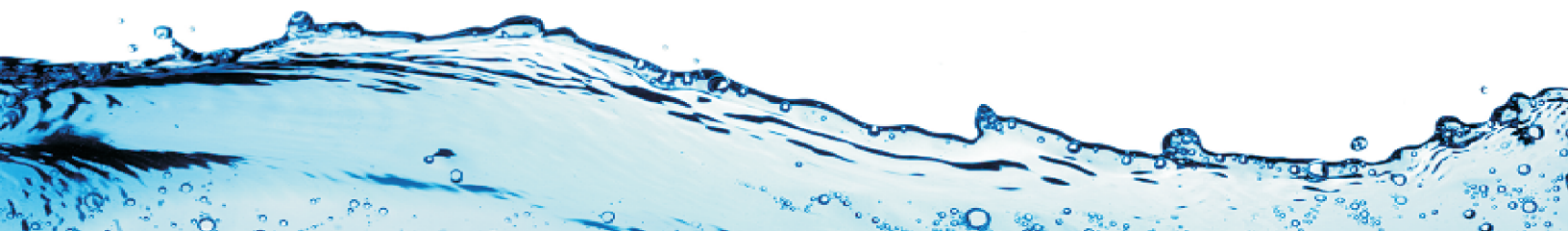
- **Service Solutions**

- Operation Contracts
- Maintenance Contracts
- Visit Contracts
- Service & Replacement

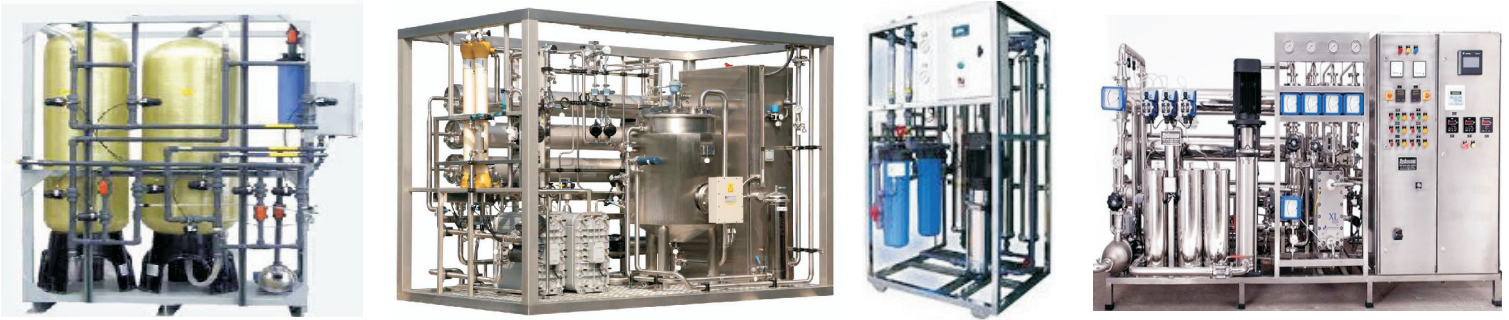
- **Execution Solutions**

- Manufacturing
- Installation & Commissioning
- Storage & Distribution
- Process Ready.

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Purified Water Generation System



Pre-Treatment System

Applicable in wide range of industries, we manufacture Multigrade Sand Filter, Activated Carbon Filter, Softener, Two Bed DM Plants, Single Bed DM Plants, Specially designed filters for removal of Iron, Arsenic and other heavy metals. Built as per clients suitability in MS, SS, FRP with automatic and manual operation. Easy to operate, lower backwash cycle, low regeneration cost with longer operating cycles and consistent results.

Ultra Filtration (UF) System

Most waters contain colloidal particles, organics and fine suspended solids resulting in high SDI (silt density index) which is harmful to down stream water treatment processes. Ultra Filtration is the ideal cost effective method for reduction of SDI. We offer Ultra Filtration Systems in flow rates starting from 500lph onwards as standard units. Ultra Filtration can be used as both pre treatment and post treatment.

Reverse Osmosis (RO) System

Reverse osmosis successfully treats water with dissolved minerals and metals such as aluminum, arsenic, barium, cadmium, chloride, chromium, copper, fluoride, magnesium, iron, lead, manganese, mercury, nitrate, selenium, silver, sulfate, and zinc with the recovery of 85-90%. The pores in a reverse osmosis membrane are only approximately 0.0005 micron in size (bacteria are 0.2 to 1 micron & viruses are 0.02 to 0.4 microns). Reverse osmosis occurs when the water is moved across the membrane against the concentration gradient, from lower concentration to higher concentration.

Electro Dionization (EDI) Polisher

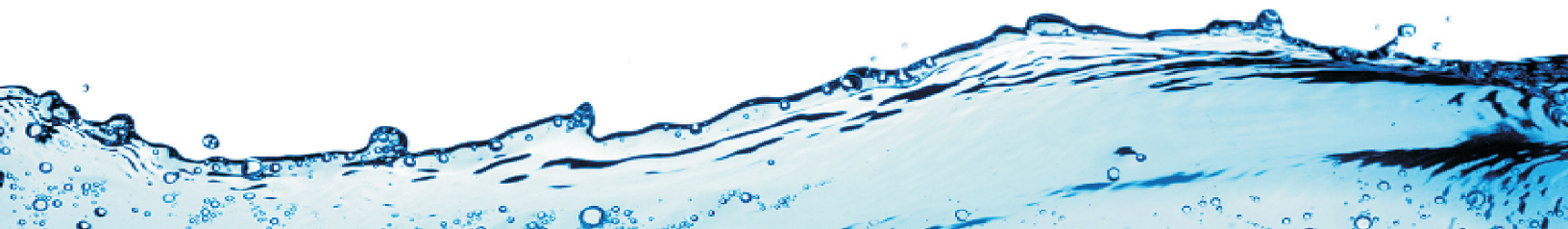
The fundamental principle of EDI technology is the use of pressure and electrical current to separate soluble ions from water through a semi permeable material which includes both cationic and anionic membranes. Each cell incorporates specific ion exchange resin between the two types of membranes allowing negative and positive ions to only pass through one of the membranes. The resulting product stream is high purity water and a concentrate stream which is usually recycled back to an upfront RO system for reprocessing.

Mixed Bed (MB) Plant

In mixed-bed deionizers the Cation-exchange and anion-exchange resins are intimately mixed and contained in a single pressure vessel. The thorough mixture of Cation-exchangers and anion exchangers in a single column makes a mixed-bed deionizer equivalent to a lengthy series of two-bed plants. As a result, the water quality obtained from a mixed-bed deionizer is appreciably higher than that produced by a two-bed plant. Mixed Bed are incorporated after RO plant to reduce the mineral concentration in water which can be further used for process.

Salient Features

- Systems conforming water quality according to USP norms for Pharma use.
- Available over a wide range of Flow with Semi Automatic or Fully automatic (PLC) options available.
- Hot Water Sanitization & Chemical Sanitization facility.
- High quality equipments, complete orbital welding
- Systems complete with all monitoring & controlling instruments mounted on a panel.
- Low energy consumption & High recovery with continuous operation.
- Designed, Fabricated, Installed & Commissioned by our well trained & experienced engineers.



Storage & Distribution Systems



High Purity Water Storage & Distribution

In order to meet the PW and WFI Quality Objectives, the US FDA recommends generation of PW and WFI “where and when” required. However, with growing demand, bigger plant size and layouts for Pharmaceutical and Biotech industries becoming difficult to generate PW & WFI “where and when” required. Our Water Storage and Distribution Systems are designed to store and distribute PW and WFI water to various user points maintaining the generated water quality.

Important features of Storage and distribution systems:

PW and WFI Storage Tanks

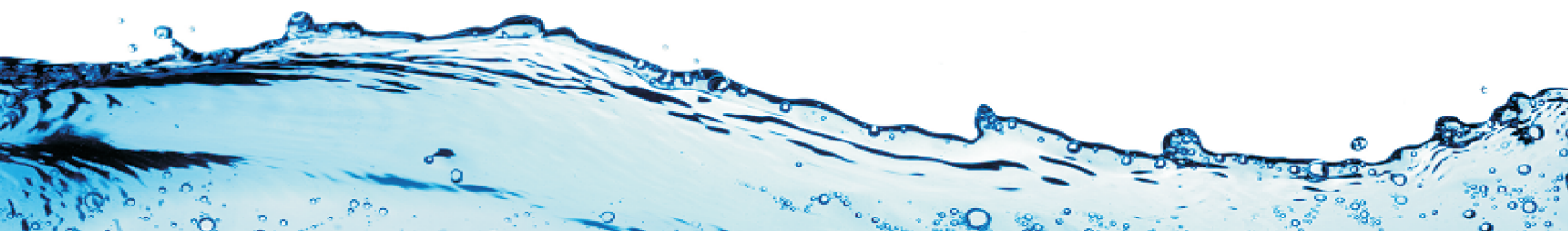
- All tanks are designed and manufactured as per ASME Sec VIII, Div 1
- Wetted parts are of SS 316 L, Internally electro-polished up to 0.4 Ra finish
- Pain and jacketed tanks are provided with insulation and SS cladding
- Flush nozzles are provided to ensure minimum dead lag
- All tanks are Riboflavin tested
- Dual jacketed are provided for day and night mode of operation
- Tanks are provided with accessories like Dynamic spray ball
- Electrical heat traced vent filter housing with 0.2 micron hydrophobic vent filter
- Rupture disc, sanitary level sensor, compound pressure gauge etc.

Distribution Skids

- Fully drainable sanitary pumps.
- Pumps are selected to ensure minimum velocity of 1.2 m/s in the return of the loop at peak load consumption.
- Loop pumps is provided with VFD and interlocked with flow transmitter in return line for maintaining desired flow & velocity.
- Swing arm assembly for easy pump changeover.
- Instrumentation in the loop to monitor High Purity Water parameters like flow, pressure, TOC, conductivity and temperature.
- Sanitary Double Tube Sheet Heat exchangers are provided in PW & WFI Loops for sanitization & maintaining temperature.
- Loops are designed for cold, hot or ambient temperature.
- Ozonation provided in the system for sanitization of the tank and loop.

Distribution Loop Piping

- Loop piping is done with SS 316 L electro-polished laser welded bead crushed tube as per ASTM A270/269.
- Continuous recirculation with dead lag not more than 1.5D.
- All wetted parts are of SS 316L electro polished up to 0.4Ra.
- Zero dead lag block valves with inbuilt Sampling Port for point of use.
- The loop is designed with minimum gradient of 1:100 for self-drain ability.
- All weld joints in the loop are orbital welded using High Purity (99.99%) Argon Gas and inspected by boroscopy machine.
- Point of use sanitary heat exchanger is provided to cool the PW and WFI as per the process requirements.



Quality Assurance Plan

Drawings:

Based on parameters, design and drafting are done as per relevant code requirement. These are checked by Client / Consultants & approved before commencement of work.

Identification of material and components for pressure Parts (Raw Material):

Verification with manufacturers T.C. with regard to the properties like physical, Chemical, size, finish visual defects & stamping Full Testings to specification at random.

Identification of material and components for Non pressure Parts:

Testing as per material specification with regard to the properties of material, size, finish visual defects.

Incoming and issue of stores material and consumables:

Verification and correction with indents / Test certificates where applicable, Checks of gardens and validity with respect to application in process against job inden

Documentation

Aquatic Solutions provides documentation backed with necessary test and calibration certificates with full NABL traceability. For pharmaceutical and biotechnology industry the documentation is done to ensure proper regulatory compliance. (DQ, FAT, IQ, SAT, OQ, and PQ).

The documentation package is well designed and organized to provide validated information on the Project life cycle from design stage to site to acceptance test. Our dedicated Validation Team provides a comprehensive Validation Support to the customer including Validation Protocol preparation, Site Tests activities, Instrumentation Calibration and Validation Reports organizat

After Sales Service

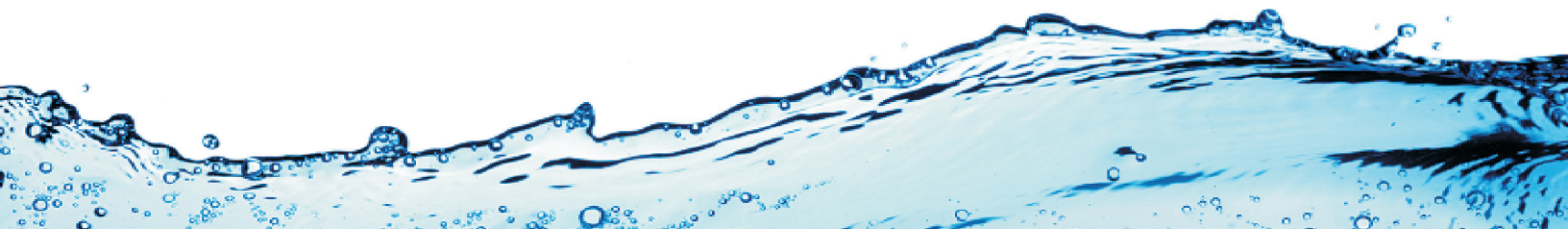
Team of experienced engineers, welders, electricians, technicians and fitters to repair any equipment, pumps, electrical and Instrumentation of system.

Being the largest supplier and stockiest of Water treatment component, We have considerable inventory in stock for almost all the related equipments, components, spares and parts available round the clock.

Experienced and technically sound Engineers in water treatment technology are available immediately to solve any problem and for effective troubleshooting.

We offer an optional and economically packaged Annual Maintenance Contract at the end of the warranty period which comprises of fixed periodic visits of our service team to service and carried out replacement.

Selected Clientele



At



Aquatic Solutions

We appreciate your business!

Regional Office:

Hyderabad, Andra Pradesh
hyd@aquaticsolutions.in

Head Office:

116/D, Raj Garden,
Mahavir Nagar,
Kandivali (West)
Mumbai- 400 067

Regional Office:

Ahmedabad, Gujarat
ahd@aquaticsolutions.in

T: +91 22 28686140

E: sales@aquaticsolutions.in, aq.soln@yahoo.in

W: www.aquaticsolutions.in

