

**WE DELIVER
THE BEST QUALITY
SERVICES**



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WELCOME TO AQUADEM

Our Company Aqua Dem International:

Aqua Dem International was founded in 1986 with mission to meet the challenges of Pakistan's environmental problems as they related to water. Aqua Dam is a water treatment specialist, providing integrated engineering solutions for water purification and water treatment systems.

These solutions include the designing, engineering & manufacturing, procurement, installation, commissioning and management of these water purification and treatment systems for the global market.

Aqua Dem International has been committed to provide environmentally safe, user's friendly and world-class products at affordable price. Water Purification demands reliable, consistent performance. As the most vertically-integrated company in the water purification industry, Aqua Dem is uniquely qualified to design and manufacture complete, cost-effective systems that offer "High Quality Product" assurance.

The components found in Aqua Dem Water Treatment Systems are designed to provide reliable and worry free operation. Our experienced engineers and project managers oversee the design of the system, material procurement, assembly and successful completion. The end result is a completely trustworthy system that meets customer's requirements.

History:

Aqua Dem International is in the water treatment and purification business since 1986. It all started from a root level of selling water filtration products at domestic level to residential, commercial and industrial customers.

In the year 1992, Aqua Dem manufactured its first Reverse Osmosis System for B rookes Pharmaceutical (Pvt.) Ltd., Karachi – Pakistan.

Hundred of units of Reverse Osmosis, De-Ionizing, Softeners and filtration systems have been installed through out the country which reflect our professional and ethical expertise and experience of our technical and project management staff.



Values & Core Competencies:

At AQUA DEM we are guided by a set of values and core competencies that we are proud to share with our customers, partners and each other. We apply values and competencies as our strategic map to develop our relationships, markets and organization.



Customer's Exceeding Expectations:

Our customers are the single true reason for our existence and we constantly strive to exceed their expectations. Their problems and wishes guide our ways of doing things, from idea generation and product development to after sales support.



Core Area:

All of our marketing and development resources focus on our core area. Our background as an R&D center for Water Treatment Technology, as well as the industry know-how that we have acquired through many years in the industry, provides us with to the point specialist technological knowledge and a holistic application framework.



Personal and Professional Growth:

Continuing to learn new things is an important part of our culture as it improves our ability to proficiently solve our customers' problems and strengthen our competencies. As the human beings, we believe in promoting both personal and professional growth.

ORGANIZATION

Entrepreneurial Spirit:

We respect our origins and company history but we are not deeply rooted in old traditions and ways. Our independence and entrepreneurial spirit are essential in helping us prepare for and lead AQUADEM into the future

Simple Structure:

It is important for us to maintain our flexibility and ability to respond quickly to customer problems and needs. Therefore, we aim at keeping a simple and transparent organization that supports efficient decision-making.

Goal-oriented Finance Management:

With an eye to the future we live by justifying our expenditures in relation to our goals. This ensures the necessary growth to realize future investments in new products and markets, which are essential to maintain our position as technological leader in the Water Treatment industry.

AQUADEM PRODUCT LINE



REVERSE OSMOSIS MANUFACTURING:

AQUADEM design & manufacture a full range of commercial and industrial reverse osmosis systems for any application requiring dependable, high purity water purification. Standard RO systems include many optional features to assure meeting a broader range of application-specific requirements. AQUADEM systems are backed by more than three decades of RO design experience. Aqua dem is also capable of manufacturing customized Reverse Osmosis plants.

Reverse Osmosis systems from AQUADEM deliver high performance at the lowest life-cycle costs. Our pre-engineered systems are built with high-quality components designed specifically for water purification. They arrive at facility ready to run with all filters, membranes, pumps, piping, controls and operating manuals. With expertise of AQUADEM, you will receive economical solution that creates value for you while reducing your operating costs for reverse osmosis systems.

QUALITY PRINCIPLES

Management commitment

The Aqua Dem management shall provide evidence of its commitment to the development and implementation of the quality management system and continually improving its effectiveness by:

- Communicating to the organization the importance of meeting customer as well as statutory and regulatory requirements.
- Establishing the quality policy.
- Ensuring that quality policy.
- Conducting management reviews.
- Ensuring the availability of resources.

The quality management system, introduced by the organization, is monitored concerning its development, its implementation and the constant improvement of its effectiveness by the top management in the form of internal audits



QUALITY OBJECTIVES:

The Aqua Dem management shall ensure that quality objective, including those needed to meet requirements for product, are established at relevant functions and levels within the organization. The quality objectives shall be measurable and consistent with the quality policy.



CUSTOMER FOCUS:

The top management shall ensure that customer requirements are determined and are met with the aim of enhancing customer satisfaction. Customers need confidence that the organization produce under controlled conditions.

TECHNOLOGY LEADERSHIP

Specialist:

AQUADEM is one of the biggest Water Treatment company on the market but we are the most ambitious with regards to being the recognized specialist and innovator within the area of water treatment and purification.

Design Philosophy:

We live by a design philosophy founded in 4 core areas that aim at ensuring a high level of customer satisfaction. Our design philosophy provides us with a blueprint for innovation, creativity and quality. We constantly increase the level of standardization in our products, services, and development and manufacturing processes. The results are remarkable; an optimized product line that fits more applications and offers unmatched ease of use.

AQUADEM plants are designed for compatibility.

AQUADEM plants must deliver notably reduced Total Cost of Ownership and maintenance downtime compared to other manufacturers.

AQUADEM development initiatives take point of reference in solving a real customer problem or need.

AQUADEM PRODUCT LINE

WATER SOFTENER SYSTEMS:

Our 85 TA 1" (Twin Alternating) Series softeners provide up to 16.6 gpm of continuous soft water 24 hours a day. They are engineered and thoroughly tested to provide years of reliable, trouble-free performance with minimal maintenance.

A water softener system is used to soften water, by removing the minerals that cause the water to be hard. Water softening is an important process, because the hardness of water in different applications is reduced during this process. Hard water can clog pipes, damage boilers, heat exchangers, and many other devices. Water softening can prevent these negative effects. Hard water causes a higher risk of lime scale deposits in industrial, commercial and household water systems. Due to this lime scale build-up, pipes are blocked and the efficiency of hot boilers and tanks is reduced.



This increases the cost of domestic water heating by about fifteen to twenty percent. Another negative effect of lime scale is that it has damaging effects on household machinery such as laundry machines. Water softening using water softener system expands the life span of each household machine, such as laundry machines, and the life span of pipelines. It also contributes to the improved working, and longer life span of solar heating systems, air conditioning units and many other water-based applications. Aqua Dem supply Automatic Water Softener, Twin Water Softener, Duplex Water Softener.



AQUADEM PRODUCT LINE

ULTRA FILTRATION SYSTEM BY AQUA DEM

Industrial wastewater is potentially a valuable resource for large plant complexes and if not re-used, can incur significant disposal costs in addition, surface run off from rainfall can become contaminated on an Industrial site, and requires treatment. Aquadem offering the waste water recycling. Recently we have successfully installed at Artistic Milliners(pvt)Ltd unit 4. Using modern water treatment technologies, harmful contaminants that previously made industrial wastewater unfit for reuse can now be stripped out. removing contaminants from wastewater and reusing it, rather than just discharging, it helps to conserve water and reduces cost. Wastewater recycling is reusing treated waste water for beneficial purpose such as irrigation, Industrial processes and replenishing a ground water basis. Water recycling offers resource and financial savings, using recycled water for non potable water uses. Saves potable water for drinking. The usage of recycled water decreases the pollution caused to sensitive environment. AQUADEM designed and manufactures a full line of Ultra filtration systems. UF is a low pressure driven membrane separation process that removes suspended or particulate matters (including colloids & silt) from water. The solution is far more reliable than a conventional multimedia filter that removes approximately 10 micron or larger particles where a UF membrane pore size ranges from 0.01 to 0.10 micron. In addition to superior turbidity removal, UF membranes efficiently remove bacteria and most viruses.

INDUSTRIAL WASTE WATER RECYCLING:

Waste water is water that has become contaminated through use. It includes household sewage, municipal waste water, industrial effluent, collected rainwater and surface runoff, i.e. water that flows off paved surfaces. Waste water treatment is generally carried out in three to four stages in centrally located sewage works.

The cleaning stages typically include physical, biological and chemical processes. Ultrafiltration technology rainwater and surface water without requiring any additional chemical treatment. Ultrafiltration not only enables the removal of specific products from complex material streams, it also makes it possible to separate other useful by-products and "pure" water. Reuse concepts can then be applied to recycle these materials within the production process. Textile industries need huge quantity of water for their processes, which they normally pump out repeatedly from the ground or natural water sources resulting in depletion of ground water level.

In the process textile industries generate huge quantity of toxic effluent containing colours, sodium sulphate, sodium chloride, sodium hydroxide and traces of other salts. These are generated after dyeing and after washing of garments / fabrics.

Aqua Dem has developed a technology which can process such harmful toxic effluent water and transform it into reusable water. Thus the textile industries will have the advantage of using the same water in the dyeing and washing processes repeatedly, also the salt used for dyeing can be reused or sold in the market. The technology offered by Aqua Dem can overcome all problems pertaining to environmental pollution in respect to textile industries. Aqua Dem has successfully installed the waste water treatment plant at Artistic Milliners Unit 4.

The basic thrust of the technology is to convert entire quantity of effluent to zero level by separating water and salt using evaporation and separation technology. The concept and the treatment is based on the removal of the entire COD/BOD and the condensate coming out to meet the fresh water quality requirement in the process.

Recycling of effluent saves water losses and benefits you a lot of money. To calculate your savings both water and money ask us to calculate for you.



AQUA DEM HEALTH & SAFETY POLICY



GENERAL:

AQUADEM emphasizes great importance to health and safety matters and accepts the responsibility to carry out its operations to ensure that as far as practically possible that staff, visitors nor customers shall be exposed to risks to their health and safety. All activities at the company's premises shall be carried out with the highest regard for the health and safety of staff, visitors and customers.



EMPLOYEE DRUG AND ALCOHOL POLICY

In compliance with the Drug-Free Workplace, AQUADEM has a longstanding commitment to provide a safe, quality-oriented and productive work environment. Alcohol and drug abuse poses a threat to the health and safety of Aquadem employees and to the security of the company's equipment and facilities. For these reasons, Aquadem is committed to the elimination of drug and alcohol use and abuse in the workplace.

FILTRATION SYSTEMS

MULTIMEDIA WATER FILTRATION SYSTEM BY AQUA DEM

Carbon filtering is a method of filtering that uses a piece of activated carbon to remove contaminants and impurities, utilizing chemical adsorption. Each piece of carbon is designed to provide a large section of surface area, in order to allow contaminants the most possible exposure to the filter media. One pound (454g) of activated carbon contains a surface area of approximately 100 acres (1 km²/kg). This carbon is generally activated with a positive charge and is designed to attract negatively charged water contaminants. Carbon filtering is commonly used for water purification. Carbon filters are most effective at removing chlorine, sediment, and volatile organic compounds (VOCs) from water. They are not effective at removing minerals, salts, and dissolved inorganic compounds.



Water filters use two different techniques to remove dirt. Physical filtration means straining water to remove larger impurities. Another method of filtering, chemical filtration, involves passing water through an active material that removes impurities chemically as they pass through.



AUTOMATIC & MANUAL DI SYSTEM De-IONIZATION SYSTEMS:

AQUADEM is a leading provider of deionization solutions. Our water deionizers are rugged, preengineered, pre-assembled, standardized units that minimize expensive installation and startup costs. We have designed our Deionization systems to maximize the efficiency and repeatability of the unit during the service and regeneration modes.

Electrodeionization, Continuous Deionization, Two Column Deionizer, Mixed Bed Deionizer, Industrial DI, Commercial DI.

The Process of Deionization or Ionexchange In the context of water purification, ion-exchange is a rapid and reversible process in which impurity ions present in the water are replaced by ions released by an ion-exchange resin. The impurity ions are taken up by the resin, which must be periodically regenerated to restore it to the original ionic form. (An ion is an atom or group of atoms with an electric charge. Positively-charged ions are called cations and are usually metals; negatively-charged ions are called anions and are usually non-metals). The following ions are widely found in raw waters:

Typical Applications Include:

- * Pharmaceutical Industries
- * Electronics Industries
- * Auto Mobile Industries
- * Food Industries
- * Electroplating Industries
- * Boilers , Heat Exchanger

The process used for removal of all dissolved salts from water is referred to as deionization. Deionization requires the flow of water through two ion exchange materials in order to affect the removal of all salt content.

Deionization. The terms demineralization and deionization are used somewhat interchangeably by the industry. While the term demineralization is generally better understood, deionization is especially apt.

The passage of water through the first exchange material removes the calcium and magnesium ions just as in the normal softening process. Unlike home equipment, deionization units also remove all other positive metallic ions in the process and replace them with hydrogen ions instead of sodium ions.



CONTINUOUS ELECTRODEIONIZATION (E-DI)

AN INTRODUCTION TO CONTINUOUS ELECTRODEIONIZATION

Aqua Dem has spent valuable time, energy, and resources to create a water treatment option that doesn't use traditional mixed-bed deionization technologies. It is true conventional ion exchange is a practical treatment option - when high-flow and high-conductivity requirements aren't critical. For other situations, CEDI is a cost-effective alternative.

What is CEDI? Simply put, it's a technology that has transformed traditional EDI water treatment. Most traditional water-purification technologies and equipment utilize chemicals to complete the process. Our state-of-the-art technology, on the other hand, does not. IONPURE modules use resin, electricity, and ion-exchange membranes to deionize water by separating the impurities from it.

The Ionpure LX modules are specifically designed for industrial applications. Ionpure modules consistently deliver maximum reliability and superior performance for power, HPI/CPI, general electronics, food and beverage and laboratory applications without regeneration downtime.

In order to cover a wide range of product applications, The LX series have several options:

LX-Z modules have PVC spacers, they are ideal when no FDA approval is needed but high quality water is still required.

FEATURES

- Hot water sanitizable at 185°F/85°C ± 5°C
- Continuous operation up to 140°F (60°C)
- US Patented technology for instant hot water capability – no ramp up/down required
- Higher sanitization pressures 30 psi/2.0 bar
- Double O-ring seal guarantees leak-free operation
- Proven performance after 150+ sanitizations
- Concentrate recirculation and brine injection not required
- Wetted materials of construction comply with FDA requirements

OPERATING ENVIRONMENT

Installation should be indoors with no direct sunlight and should have a maximum ambient room temperature of 113°F (45°C).

QUALITY ASSURANCE STANDARDS

CE marked. Each module is factory tested to meet strict industry standards and is manufactured in an ISO 9001 and ISO 14000 quality and environmental management system.



FIRE FIGHTING SYSTEMS

FIRE FIGHTING SYSTEM BY AQUA DEM

Aqua Dem designed and manufacturing The fire fighting system which will be used when a big fire has already started. There is a need to extinguish it. Sprinkler systems, and hose reel systems are some of the systems used for fire fighting. Wet risers are pipes which distribute large volumes of water to canvas hoses. The fire fighting systems contain pumps, tanks and their own distribution piping. Motors or diesel engines drive the pumps. Hose reels and canvas hoses are terminated with nozzles for spray or jet. Sprinkler systems have special glass bulbs and sprinkler rose. Flow switches are installed to cause bells to ring when the sprinkler systems are activated. The systems can also contain gongs activated by water flow.

Meeting the Most Dangerous Demands in the World

PROTECTING LIVES AND PROPERTY IN MANUFACTURING & INDUSTRIAL FACILITIES

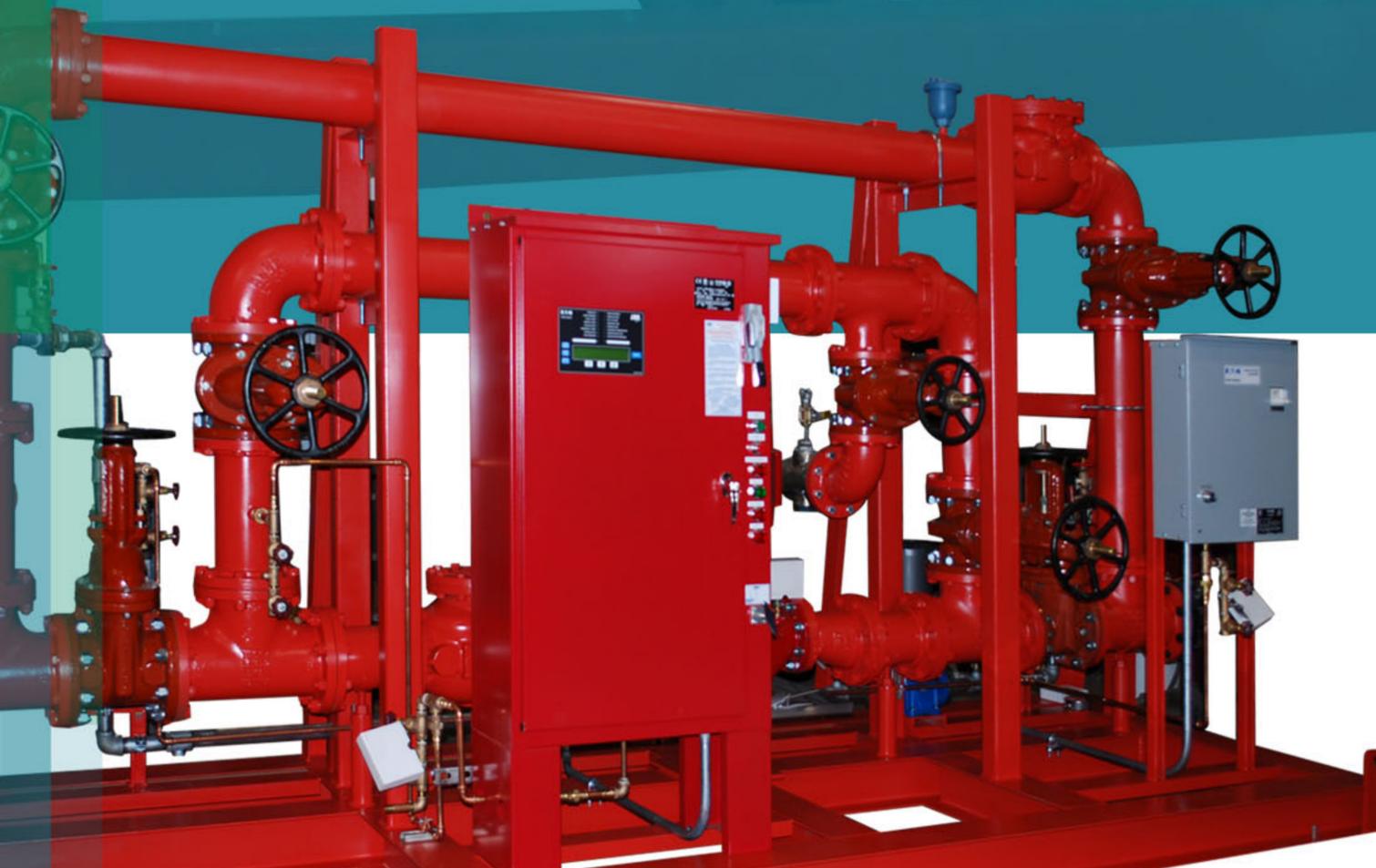
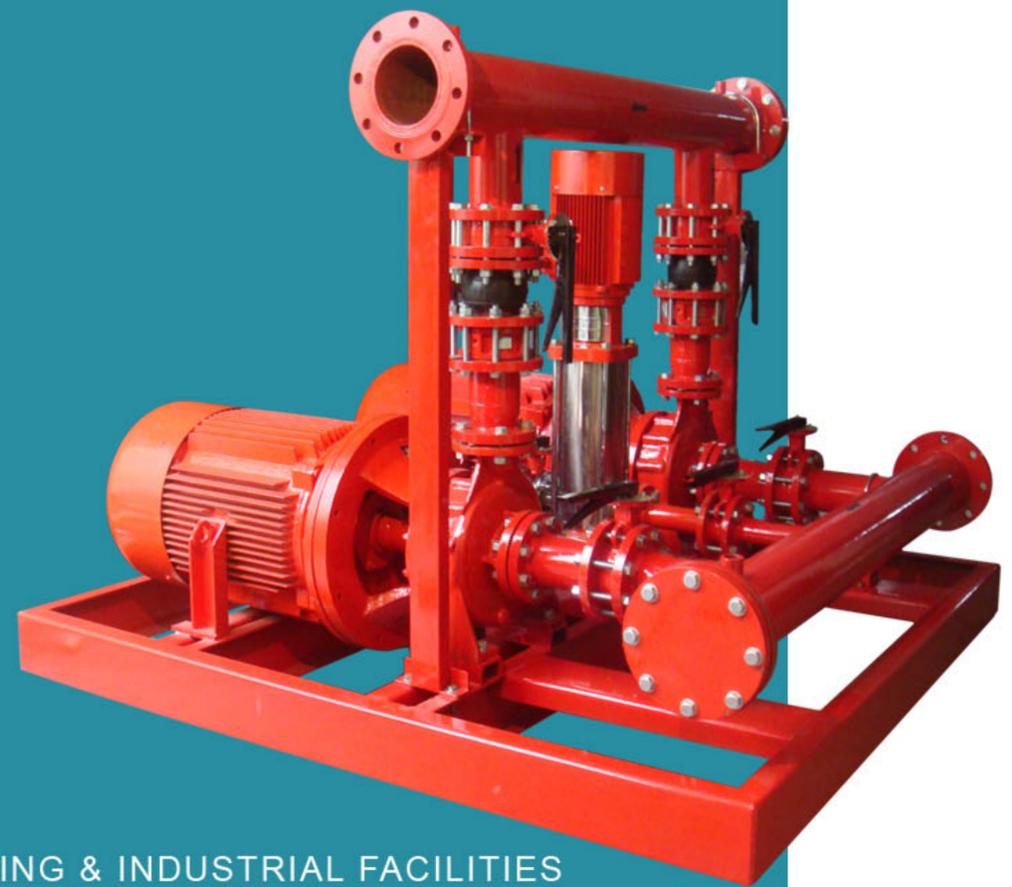
The industrial marketplace has some of the most dangerous applications in the world and the most expensive assets to replace. Whether it is manufacturing systems or high-rack storage, we have experience in the most hazardous places. We have been protecting lives and property in industrial environments since 1985. This has earned us a national reputation for industrial fire suppression expertise, and it means we offer proven protection no matter what sector of industry calls upon us. Based off of your application, we can design, install and service your industrial fire protection system – one building or a campus wide system.

EXAMPLES OF OUR INDUSTRIAL FIRE PROTECTION APPLICATIONS:

- Onshore and offshore industrial fire protection
- Gas plants, refineries, and chemical and petrochemical plants
- Pulp and paper mills
- Manufacturing facilities
- Power plants and fuel storage facilities
- Warehouse, medical, and other large-scale commercial properties
- Any industry prone to rapid and raging fires

Based off the requirements of your facilities and the hazardous applications we are protecting we can design, install and service the following types of fire suppression systems:

- Foam and water deluge systems
- Chemical and CO2 suppression systems
- FM 200 fire suppression systems



AQUADEM PRODUCTS ASSEMBLY LINE

Our Stainless Steel Industrial Reverse Osmosis Water Systems:

With our rich industry experience, we have established ourselves to offer a wide array of Stainless Steel Industrial Reverse Osmosis Plant. These products are manufactured by the experts using high grade quality components. Moreover, to ensure the compliance of the offered products with the defined industry standards and quality parameters, these products are tested on various levels by quality experts. Also we are providing these products at leading market price

A reverse osmosis water system is induced by applying pressure with a pump to a solution with a high concentration of dissolved solids, causing This water is referred to as product water.

Dissolved solids do not pass through the membrane; they are continually flushed to drain as waste. This flushing action also keeps the membrane surface from fouling or scaling

Typical Applications of an Industrial Reverse Osmosis Water System:

Reverse osmosis is typically used for boiler feed/makeup water, chemical process water, cosmetics, drinking water, electronics, food and beverage processing, horticulture, humidification, ice making, laboratories, manufacturing process water, metal finishing, pharmaceuticals, photographic processing, printing, and vehicle washes.



Client: Merck Pharma Quetta (Double Pass RO With EDI)
System Production Capacity: 3 m3 per hour



Client: Engro Foods Pvt (Ltd)
System Production Capacity: 10.5 m3 per hour



Client: Surge Lab Pvt (Ltd) Lahore
System Production Capacity: 3 m3 per hour



Client: Engro Foods Pvt (Ltd)
System Production Capacity: 31.5 m3 per hour



Client: Glaxo Smith Kline Pvt (Ltd)
System Production Capacity: 7m3 per hour



Client: Glaxo Smith Kline Pvt (Ltd)
System Production Capacity: 4m3 per hour

AQUADEM PRODUCTS ASSEMBLY LINE



Client: Artistic Fabric Pvt (Ltd) RO With Polisher 2 Systems Installed
System Production Capacity: 22 m3 per hour & 30 m3 per hour



Client: International Steels (Ltd) 2 Systems Installed
System Production Capacity: 31 m3 per hour/ Each System

Industrial Reverse Osmosis Water Systems:

AQUADEM design & manufacture a full range of commercial and industrial reverse osmosis systems for any application requiring dependable, high purity water purification. Standard RO systems include many optional features to assure meeting a broader range of application-specific requirements. Aqua Dem systems are backed by more than three decades of RO design experience. Aqua dem is also capable of manufacturing customized Reverse Osmosis Plants. With expertise of AQUADEM, you will receive economical solution that creates value for you while reducing your operating costs for **Reverse Osmosis Systems**.

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Client: International Industries (Ltd)
System Production Capacity: 7.8 m3 per hour



Client: Eros Pharma Pvt (Ltd)
System Production Capacity: 2 m3 per hour



Client: Dalda Foods Pvt (Ltd)
System Production Capacity: 2.3 m3 per hour



Client: Fazal Industries Pvt (Ltd)
System Production Capacity: 11.8 m3 per hour



Client: Glaxo Smith Kline Pvt (Ltd)
System Production Capacity: 4m3 per hour

AQUADEM PRODUCTS ASSEMBLY LINE

Community Water Systems Supplies & Manufacturing:

Aqua Dem provides community drinking water systems on turnkey basis. Within this scope, quade take the project from developing bore, civil works (including water tanks, construction of plant rooms,distribution system, piping network,etc.) and water filtration and purification systems.The end results, the deprived community get fresh, purified and healthy water. Aquadem provides complete support to government, semi-government,NGO's and private sector to do preliminary studies to examine the feasibility of project. Aquadem provides both systems which can be operated either on conventional power supply or solar energy.

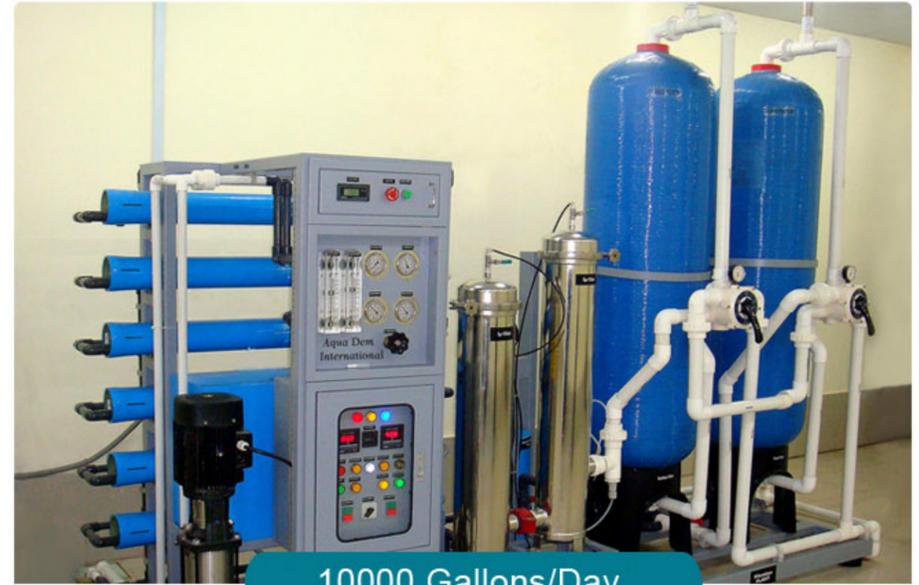
A community water system is a public water system that serves the same people year-round. Most residences including homes, apartments, and condominiums in cities, towns and mobile home parks are served by community water systems.

Aquadem Also provide the facility to build a lant room for our clients such as.

- * Constructed Plant Room
- * Containerized Plant Room
- * Cabined Room



20000 Gallons/Day



10000 Gallons/Day



10000 Gallons/Day



UF System 4000 GPD



10000 Gallons/Day



AQUADEM PRODUCTS ASSEMBLY LINE

AQUADEM's Automatic Systems Control Panels Built With PLC: Programmable logic controller (PLC) control panels or also known as PLC Automation Panel are one of the most important and efficient kinds of control panels. Which are generally used in variety of electronic and electrical circuit fittings. PLC Control Panels we manufacture are highly capable of giving higher output at less power consumption. Integrated with solid PLC logic and flawless PLC hardware programming.

VFD Control Panels:

The VFD Panel (Variable Frequency drive panel) also known as VFD Control Panel are designed to control the speed of electric motor and feed pump. They are widely used in drilling, pumping and other large machine applications. The VFD panels are widely used in extruder plants, rolling Mills, tube mills, paper mills, cable industry and CTL Lines



AQUADEM PROUDLY SERVE THEM

SERVICES WE OFFER

- > Membrane Cleaning
- > Service & Maintenance of RO
- > Installation & Commissioning of Water Treatment Systems
- > Water Treatment System Inspection
- > Replacing Membranes
- > Replacing Multimedia Filtration Media
- > PLC Programming
- > Monthly Rental Operations & Maintenance of Systems
- > PVC & Stainless Steel Pipe Fittings

EQUIPMENTS WE SUPPLY

- > RO Membrane Elements
- > FRP Membrane Vessels
- > FRP Media Vessels
- > Ion-Exchange Resin
- > High Pressure Pumps
- > Feed Pressure Pumps
- > Chemical Dosing Pumps
- > Water Filter Cartridges
- > Pipes & Fittings
- > Water Filtration Media Sand & Carbon

MANUFACTURING UNIT

- > Reverse Osmosis Systems
- > Ultra Filtration Systems
- > Water Filtration Systems
- > Water Softener Systems
- > De Ionization Systems
- > Distil Water Systems
- > CIP Systems
- > Fire Fighting Systems
- > Electrical Panels
- > Water Treatment Skid

The Biggest pride of our company are our clients. We never stop looking mutually beneficial relationship with companies those are active in various business sectors. We are immensely proud of having established strong connection with our customers around the globe. we are open for new ventures and expanding of our current partners & clients based.



WE DO BRANDS IN



WHO WE ARE

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