



**BAYSU**  
water treatment systems



*aqua bay*



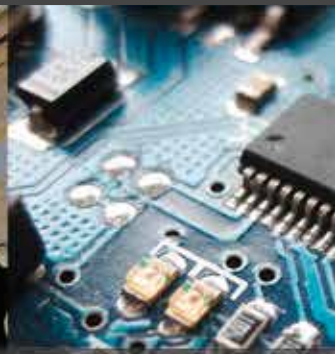
# *technology that gives life to water*



**Project and consultancy**



**manufacturing-assembly**



**automation**

**BAYSU**  
water treatment systems

*BAYSU Treatment, which stepped into the sector in 1996, provides services in the general sense of "Water Purification Engineering" and integrated engineering branches around it.*

*Our company, which provides service in industrial process water treatment, drinking water treatment, wastewater treatment, facility automation, swimming pool mechanics and construction, offers professional services to its customers in both project design and operation stages. At the same time, we work in partnership with the leading companies of the sector in the field of industrial and water chemicals and produce a wide range of engineering solutions for end users.*

*Our company, which is getting stronger day by day with its manufacturer and productive identity in line with its establishment purpose, has started to construct reinforced concrete and metal construction structures, treatment and pool constructions within its own structure. Baysu Treatment, which works result-oriented by increasing its service quality and product range, is taking firm steps towards becoming one of the strongest companies in its sector.*

## **our mission**

*To be a company that makes a difference with its creative solutions and services in the field of water treatment and technologies, a leader in Türkiye and a company that has a voice in the international market.*

## **our vision**

*To provide the most appropriate design, engineering solutions and service support with our experienced and expert staff in order to meet the needs of our customers and increase their productivity in the areas we serve. To be a company that is open to career opportunities, where people enjoy working and are preferred to work. To grow with its stakeholders and add value to them. To be a trusted and monitored solution partner with our respect for people and the environment and our accurate and open communication approach.*





# *technology that gives life to water*



**facility operations**



**technical services**



## **water for all**

*BAYSU Treatment, which adopts the principle of protecting the interests of its customers and suppliers with the principle of always being aware of the value of Human beings, and strengthens its position in the sector and its commercial activities day by day by making cooperation and mutual development continuous, has chosen to reach all industrial groups, people from all segments who drink, use and come into contact with water with its experience, wide product range, high quality technical service and engineering services.*

*Baysu Treatment, which strives to ensure maximum efficiency with the importance it attaches to Research and Development and engineering solutions, as well as developing new products depending on the needs, provides quality products and service to its customers*

## **integration and institutionalization**

*BAYSU'S corporate identity is based on creating environmentally friendly integrated water systems by extracting water from its source and putting it into service in the most efficient way at the point of end use and then researching the reuse of water. BAYSU is a solution-oriented company that can offer accurate and efficient solutions to its customers with its own project design, automation, construction and technical assembly units.*

*BAYSU Treatment is a company that prioritizes corporate values in all its activities, gives importance to ethical values, accepts human and human health as its basic principle, and attaches importance to social values.*

*BAYSU'S basic operating principles are to always encourage development and change, to provide added value to its customers and employees, and to adopt quality and transparency as fundamental principles in its activities.*





# our services



*With its expert engineers and technical staff in water engineering, BAYSU Treatment offers a wide range of services to municipalities and private sector customers.*

## project and consultancy

*BAYSU produces result-oriented solutions in project design, feasibility studies, cost analysis, engineering designs and field applications within the scope of wastewater treatment, recycling, drinking water treatment, process water preparation, plant automation and water structures. In addition to these, our company also provides consultancy services on chemicals used and to be used in treatment plants, revisions of systems and plant management.*

## drinking water treatment

*They are water treatment systems installed to meet the daily and continuous water needs in high quality. Our systems, which are designed by our engineers, are preferred because they provide healthy and hygienic water; give the highest performance in terms of appearance-taste quality and are economical. With our after-sales technical services, our systems are regularly under our control and healthy operation is ensured..*

*BAYSU Treatment, with its technical knowledge and experience and technological treatment systems, enables the establishment of treatment plants that can meet the needs of an entire city from the treatment of water from a single tap.*



## process water treatment

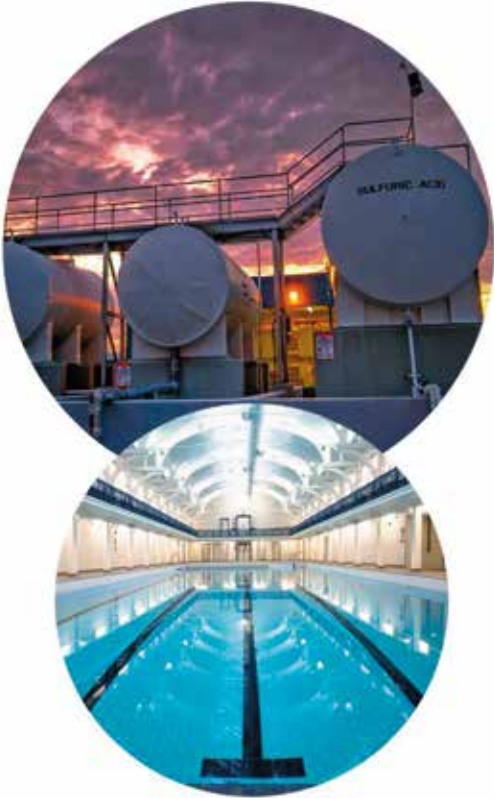
*Depending on the process of the industry, the water we use in industrial areas needs a well-thought-out design project and high quality equipment in order to bring it to a certain quality suitable for its purpose and to ensure the continuity of this quality. BAYSU responds to all these needs by producing the best engineering solutions and installs systems that will produce the special water needs of many industries in the most economical and practical way.*







# our services



## waste water treatment facilities

*In the field of wastewater treatment, which is one of the biggest problems of today, BAYSU has produced economical and permanent solutions in many problematic treatment systems with its expert engineer staff and know-how collaborations and has succeeded in gaining a place in the sector..*

*Our company undertakes the turnkey construction of new industrial or domestic wastewater treatment plants, as well as the design and construction of revisions of existing wastewater treatment plants in order to increase the efficiency of energy and chemical use and to improve the quality of the effluent of the plant*

## seawater treatment

*Sea water is an unlimited water source especially for hotels, power plants, industries and municipalities near the sea. The treatment of sea water with very high (10.000 - 60.000) TDS values is possible with high-tech ultrafiltration and reverse osmosis systems. Our seawater treatment systems are designed by our experienced and expert engineers using high quality and technological equipment.*

## water recovery facilities

*Our company designs recovery systems using advanced treatment methods such as ion exchange and membrane technologies in order to recycle wastewater treatment plant effluent into the process instead of discharging it. In this way, wastewater treatment plant effluents are recycled to the operating economy as cooling water, irrigation water, fire water, process water or boiler feed water..*





# our services



## ultrapure water systems

*Process waters used in some facilities are required to have sensitive values in terms of parameters such as conductivity (such as 0.1 ms/cm values). BAYSU Treatment, provides such waters to the processes with EDI and resin ion exchange systems that it designs and manufactures.*

## chemical dosing systems

*Chemical dosing units are used in many fields for dosing many different chemicals. In general, the main purpose of dosing units used in the treatment sector is to bring the water quality to the desired level. Dosing systems, which are widely used in dosing chemicals such as chlorine, antiscalants, acids, caustics, sodium metabisulfite and similar chemicals in treatment systems, can be designed in special sealed cabinets or as skids and can be coupled to the systems.*

## water chemicals

*BAYSU Treatment, provides services in the supply of water chemicals, which are indispensable auxiliaries of drinking water, process water and wastewater treatment, as well as engineering calculations and laboratory studies related to their use in facilities. Our company, which has agreements with the leading companies of the sector in this field, specializes in the determination and calculation of chemical needs in facilities.*

## compact units

*These are systems where a group of elements are collected as a single unit on a chassis. These systems, which are preferred due to their ease of installation, portability, small footprint and flexibility, are engineered, designed and manufactured by our company and presented to the end user by BAYSU for use in RO, UP, EDI, filtration units and dosing systems.*

## assembly and technical service

*Our company carries out the assembly and technical services of the systems it has designed, produced and supplied within its own structure.*

*In addition to this, it also provides services for the revisions of the existing old systems in the facilities or the systems that need revision.*





# our services



## industrial automation

*With its team of experts and project group specialized in electrical and automation in treatment plants and industries in general, BAYSU installs the most efficient automation systems that minimize and improve human intervention. Wastewater treatment facilities, city mains water treatment, special electromechanical applications and machinery manufacturing and PLC-Scada systems are accurately designed to ensure that the systems operate at the highest efficiency. In addition, BAYSU offers turnkey services to its customers for the installation of electrical and automation systems for the projects of pump stations, water distribution systems, drinking water, wastewater treatment plants.*

## swimming pool

*The positive effects of swimming pools on human health and the beauty and relaxing effect they add to the place where they are located are indisputable. However, in order to experience these values, swimming pools must be designed and constructed in accordance with basic health rules, architectural, mechanical, electrical and engineering rules. BAYSU constructs turnkey swimming pools with all stages from reinforced concrete construction to mechanical installation in line with customer satisfaction.*

## water and industrial structure

*In order to meet the needs of its customers and to produce the right solutions in the projects it offers, BAYSU Treatment, also provides services in the construction of industrial facilities within its own structure and through the partnership it has established.*

*Our company, which can provide services in a wide range of construction areas such as treatment plant constructions, high silos, infrastructure works, pipelines and water structures, produces projects in accordance with national and international regulations and legislations, and can provide consultancy and manufacturing of these projects.*





## reverse osmosis

*Reverse Osmosis (RO) is a membrane process that purifies water by applying force to water through a semipermeable membrane. In general, RO membranes have a pore size of 0.0001 microns and have a high capacity to remove parameters such as dissolved solids, conductivity, chlorine, metal and heavy metal ions and hardness from water.*

*Reverse Osmosis, which is also used to obtain fresh water from seawater where drinking water is limited, is a water treatment technology that produces drinking, process and utility water from groundwater, surface and well water and has a wide range of uses.*

## membrane bio-reactor (mbr)

*Membrane Bio-reactor (MBR) is a compact disposal system that combines a biodegradation step with a membrane separation step. This combination offers significant advantages over conventional activated sludge systems, such as high biomass concentration and low sludge transportation.*

*Application areas; treatment of process waters of food and beverage, dairy, textile, pharmaceutical industries containing high COD, pre-treatment of landfill leachate.*



## ultrafiltration

*The ultrafiltration process is an excellent filtration technology used especially for the treatment of surface and groundwater. UF membranes generally have pore sizes between 0.01 - 0.10  $\mu\text{m}$ . The perforated fiber membrane retains turbidity, bacteria, viruses, colloids and silt parameters. Ultrafiltration is a pressure-based membrane separation process that can separate particulate matter from water. The backwashing and periodic cleaning processes of the system are carried out within the plant automation and the system operates without the use of personnel. Application areas are drinking water, groundwater, surface water, chemical/petrochemical waste water recovery and reuse, pre-treatment of reverse osmosis system.*

## filtration technologies

*Filtration of water by passing it through pressurized or open vessels containing filtration minerals. Sand filters provide physical removal of particulate impurities such as suspended solids and turbidity down to 20 microns, while activated carbon filters are used for the adsorption and removal of unwanted color, odor, and organic substances in water.*

*The operation and backwashing of these filters are fully automatic and easy to operate. They can be used for the treatment of well water, surface water, industrial process water, treatment of chemically dosed water and pre-treatment of RO systems.*







## electro de-ionization (edi)

*Technology applied to obtain ultrapure water. The working principle is based on the principle of polarization and collection of (+) charged ions ( $H^+$ ) and (-) charged ions ( $OH^-$ ) in raw water around the electrodes by creating an electrical current. Thus, ( $H^+$ ) and ( $OH^-$ ) ions combine to produce pure water. The biggest advantage of EDI system is that it is easy to operate and continuous. With the electrodeionization method, water with  $< 1 \text{ ms/cm}$  purity is obtained continuously with a recovery rate of approximately 98%. It is especially used in power plants, boiler waters, industrial process waters for high level purification.*



## ion exchangers

*Ion exchangers (IOX) provide a reverse chemical reaction in which ions attached to immobilized solid particles are replaced by ions dissolved in water with the help of resins. Depending on the ion exchange resin and regenerant selected, particulate matter and unwanted ions are exchanged and removed. As ion exchange resins, two types of resins are used in the system: anionic and cationic resins. For water purification, it is generally used for the purification of food and beverage, metal processing, chemical and petrochemical, pharmaceutical, sugar and sweetener industry water, ground and drinking water.*

## mixed-Bed (mixed ion exchanger)

*Demineralization systems are deionization systems that contain two types of resins, anionic and cationic resins, together. The conductivity of water can be reduced up to  $2 \mu\text{S/cm}$ . The cationic resin removes the positive ions in the water and the anionic resin removes the negatively charged ions. Acid is used for cationic resin regeneration and caustic is used for anionic resin regeneration. It is used in the food, metal and coating industry, in energy turbines and in the purification of condensate water. In addition, mixed bed systems used in heavy metal and boron adsorption, biochemical and organic matter removal are widely used in industries where pure water is needed.*



## water chemicals-dosing systems

*Undoubtedly, the biggest auxiliary element of water treatment is the chemicals used according to the treatment technology. Water chemicals play an active role in almost all treatment processes, from drinking water treatment to wastewater treatment. In this context, chemicals should be used efficiently and mixed into water with the correct dosing amounts. For this purpose, dosing pumps and dosing systems are used in the treatment process. These systems can be installed individually, or it is also possible to collect them in a separate cabinet. The point that should not be forgotten here is the necessity to create systems that will prioritize occupational safety against harmful chemicals.*



## industries we serve

*Water is an indispensable substance for industries as well as for living beings. In every branch of industry, water may be needed as solvent, feed water, cooling water, washing water and direct raw material. Hidrosis strives to ensure the protection and optimization of all water resources by managing the water cycle on behalf of domestic and industrial customers.*

*BAYSU Treatment produces technological solutions for water preparation, wastewater treatment and wastewater recovery in many industries where is used and continues to successfully undertake the establishment of the necessary facilities to provide these services.*

- *energy industry*
- *petrochemicals industry*
- *electronic industry*
- *medicine-health industry*
- *textile industry*
- *biological fuel and gas industry*
- *iron-steel industry*
- *paper industry*
- *mining industry*
- *food industry*
- *drink industry*
- *cosmetics industry*
- *automotive industry*
- *chemistry industry*
- *tourism sector*
- *paint industry*
- *construction sector*
- *ceramic industry*
- *city wastewater treatment*
- *city drinking water treatment*
- *metal industry*



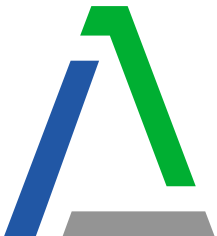
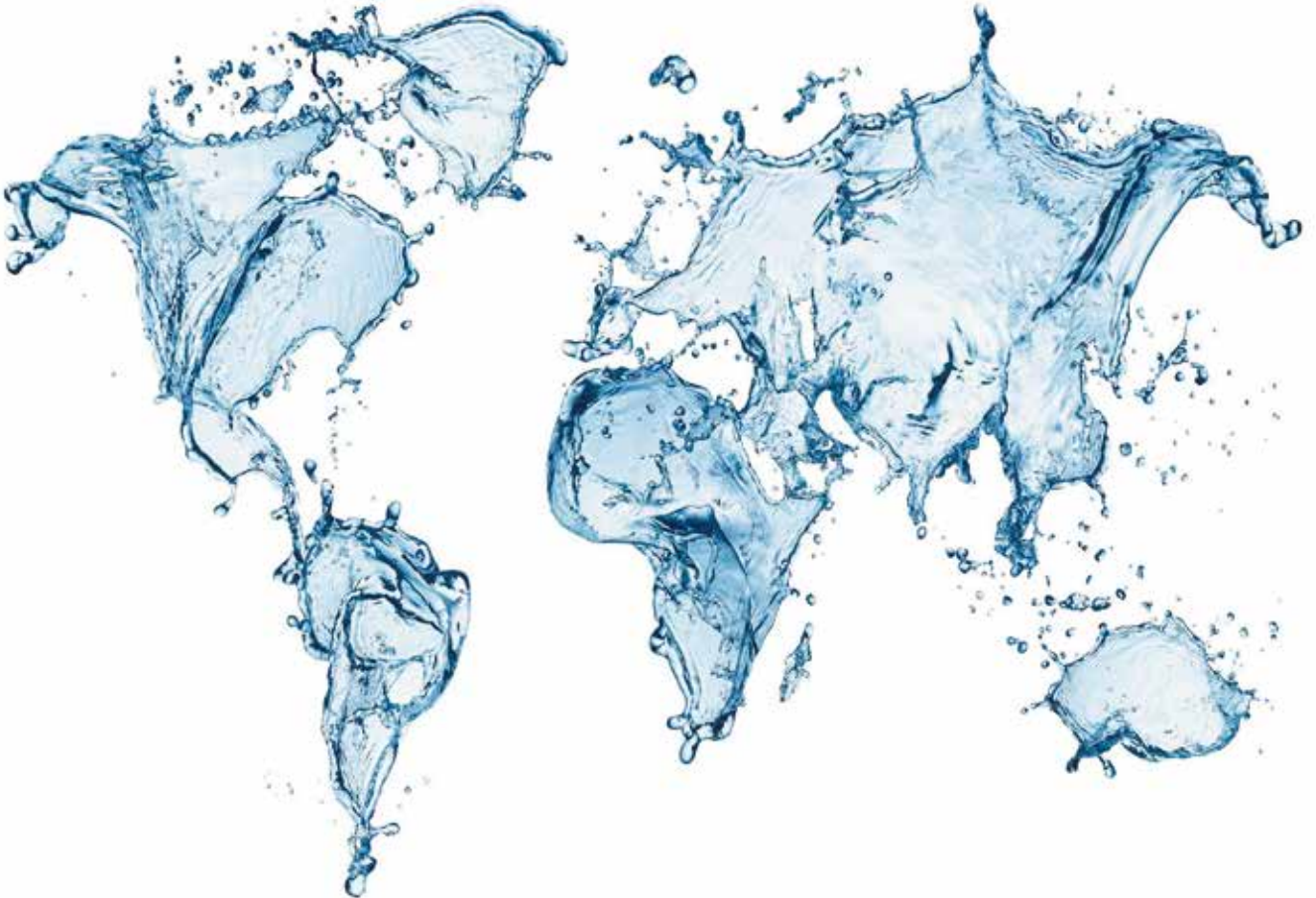


*Our company was established in Denizli in 1996, with its many years of experience in the sector, and has registered the Aquabay brand name and serves with this brand of products.*

*Our company has adopted the principle of providing professional service to its customers in industrial process water preparation, wastewater treatment, facility automation, treatment facilities operations and constructions in both project design and operation stages. In addition to all these, our company, which works with the leading companies of the sector in the fields of industrial chemicals and water alchemicals, can produce a wide range of solutions in water engineering.*

*Baysu Treatment, which sees it as its mission to make a difference with its creative solutions and services in the field of water treatment and technologies and to have a say in the domestic and international market, has chosen to reach all industrial groups, public administrations, everyone who drinks, uses and touches water with its experience, wide product range, quality technical service and engineering services.*

*Our company, which increases its references day by day without compromising its quality, takes its place in the sector by growing with firm steps..*





# BAYSU

water treatment systems



**BAYSU ARITMA SİSTEMLERİ İNŞ.TAAH.SAN.TİC.LTD.ŞTİ.**

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