

ETTESAL MECHANIC KNOWLEDGE BASE

INVENTOR AND EXCLUSIVE PRODUCER OF PUMPING STATION PACKAGE AND INTELLIGENT WATER CYCLE MANAGEMENT SYSTEM "WCMS"

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Company's History

Mr. Ali Foroughi's career as an entrepreneur began in 1993 with the administration of a workshop for maintaining and repairing various industrial electro-pumps. His experience of working with several water pumping experts gave him the inspiration to take part in water transfer operations. The Ettesal Mechanic Company was established in 2003 as an executor of water supply, transmission, and distribution projects. He progressively developed ideas to advance the technological level of the water and wastewater industry sector by patenting a product named "Pumping Station Package," combining innovation and years of expertise.

In 2008, Ettesal Mechanic was introduced as a national innovator in the water and wastewater industry. With the deployment of the first version of the pumping station package by Ettesal mechanics in 2013, the dream of expansion and innovation in the water and wastewater industry more than ever took on the color and fragrance of reality.

Our company was certified as a knowledge-based company by the Vice-Presidency of Science and Technology in 2018 as a result of the performance of several successful projects. With three decades of experience in the water and wastewater industry, Ettesal Mechanics has been able to complete its product portfolio and provide a wide range of services to meet the demands of different industries.







A word from our CEO



Throughout history, human societies have always followed technology. Because these are the innovations and inventions that define societies' life paths. An industry that cannot be the leader of society is doomed sooner or later. Unfortunately, the water industry, in spite of its prominent role, has continued on its way simply because of the nature of water and has not seen any progress in the past 70 years in line with today's manifold needs. Now the time has come for a fundamental transformation in the water industry so that by using the experience of men who have seen water, we can put the technology of other industries in line with the water industry in the direction of progress.

AliForoughi





About us

A new generation of pumping stations has been planned and built by the Ettesal mechanic company, which is aware of the disadvantages of existing pumping station procedures. Also, with evolution of time and the development of the product category, this major shift has moved toward the use of technology, attempting to make all pumping station operational processes smart. As a result, you can now view and manage all aspects of pumping stations from any location and with the least amount facilities.

We offer our clients cutting-edge products (pumping station packages) that are simple to operate, consume the least amount of energy, and make better use of available space. Our primary purpose is to provide clients with exceptional products and services so that they can take advantage of modern technologies and enhance their lives.



Our purposes

"Why" is our purpose in business? We create value for our customers with our new products, along with guaranteeing a successful and sustainable future. Include our purpose as part of your story.





Our values

Our values are the cornerstones of Ettesal Mechanic's culture. These values shape our activity; guide our behavior and interactions with customers, colleagues, and society. We have learned the correct way of doing business based on our four values:

Care



- Respect and value differences
- Do the right thing and act united
- Take care of our customers, people and environment

Courage



- Take action and manage the results
- Talk and ask for help
- Take calculated risks to achieve success

Collaboration



- Believe in the power of teamwork
- Count on each other's strengths and victories
- Be Shoulder to shoulder with our customers at all times

Curiosity



- Believe that there is a better way
- Learn from failures and successes
- Let's move forward with technology and innovation





Culture of innovation and quality

At Ettesal Mechanical, we are committed to promoting a culture in which quality and innovation are the fabrics of every activity that takes place. We seek to integrate our employees, businesses, and activities. This means individual and organizational responsibility in our collection.

- CE
- HSE-MS
- ISO 9001
- ISO 14001
- ISO 45001
- Certificate of Innovation for the Pumping Station Package
- Certificate of innovation for SPMS software (smart pumping management system)
- Certificate of innovation for providing electricity energy from public roads and streets
- Selected the appreciation festival of the country's knowledge-based company
- Honorary PH. D from the European management development foundation









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Our services

The experience of attending during the various stages of the water and wastewater industry has made the Ettesal Mechanics a mature complex that will be able to provide a variety of services to customers. Among the services we provide to aid project get advance in achieving goals are consulting, design, supply, construction, implementation, operation and Intelligence.

Consultation



Studying and consulting before initiate a project, play a fundamental role in achieving goals and success. attending at different stages of more than 100 projects has made Ettesal Mechanic an experienced company, that provide a variety of engineering consulting services in water and wastewater industry. Using our expert's knowledge helps you to clarify all project processes at different stages.

Design



By completing a number of projects in accordance with the continuous learning policy, Team Designing and R&D of Ettesal mechanic has become one of the leading authorities in the field of analysis, simulation, and design of various processes of supply, transmission, distribution, and aggregation of water and sewage. These agile units are capable of doing different projects in various sectors of industry. Constituent design is essential for the project's technical requirements as well as to serve as a visual reference for all participants. Therefore, exact design and submitting it to the executive team, cause to avoid project from any time delay and unplanned costs.





Supply



The Ettesal Mechanic's extensive involvement in major projects and partnership with local and foreign companies have fostered strong contact. Our standing with other major producers in the water and wastewater industries was improved by our close cooperation with dealers and suppliers. We can thus declare that we are equipped to meet the water and waste water requirements of all different sorts of enterprises by honoring and establishing our expertise. The industry variety includes water and wastewater, petrochemicals, refineries, heavy industries, mines, etc.

Manufacturing



Ettesal mechanic, by using progressive machinery in technology and creative human resources, manufactures all products and provides services of the highest quality. All packages in our product portfolio are produced in accordance with ISO, DIN, IEC, and ASME standards. It was previously noted that we have the ability to focus on the company's products and, furthermore, to produce a variety of special industrial equipment related to the water and wastewater industries.

Execution



Responsibility and technical ability in a project are two Ettesal mechanic characteristics that appear in working obligations. Ettesal mechanics can conduct excellent tasks by relying on modern machinery and a skilled executive staff, which gives us the confidence to take on responsibility for the project's execution. This will ensure integrity in the implementation of the operational stages of your project.





Operation



Our approach to operating pumping stations involves utilizing modern technical and scientific expertise. By establishing an integrated network of operations and control pumping stations, Ettesal Mechanic has facilitated the ability for the clients to get the essential support and maintenance services in the shortest period of time.

Intelligentization



Adapting to technology is one of the pillars of our business growth. We continually test our products to the point of crisis and seek to raise their technological limits based on

our guiding concept. The Ettesal Mechanics team has expanded their engineering services to include a strategy for growth and promotion of the sewage and water sectors. Ettesal Mechanic, by providing software infrastructures such as SPMS, WCMS, and WTMS, has been able to connect all processes of the water and wastewater cycle to its integrated operational and intelligent control network.







Our products

Industrial pumping station Packages

Pumping water flow rate from:50 to 2000 L/S, head: 50 to 800 m



The industrial wheel doesn't stay dry

Industrial pumping station Packages have the ability to pump water at a discharge of 50 to 2000 L/S up to 400 m and below 200 liters per second to a height of 800 m. Different types of Industrial pumping station Packages include national water supply projects, the water supply of cities and metropolises, agricultural uses, factories, Upstream industries, mines, and power plants.







Floating pumping station packages

Water abstraction flow rate from: 30 to 1000 L/s head: 80 m



stable while flexible

Floating pumping station packages have the ability to abstraction water from a depth of 2 meters below water level, and dam reservoirs in the range of 30 to 1000 liters per second at 80 meters high. A variety of Floating pumping station packages include water abstracting projects from dams, the sea and lakes, offshore oil rigs, and power plants.







High Power (HP) pumping station packages

Pumping water flow rate from: 2000 to 15000 L/S, head: 400 m



Entrust the future water supply of cities to us

HP pumping station packages can be useful and effective in water supply projects by pumping water at a discharge limit of 2000 to 15,000 liters per second and up to 400 meters high. A variety of applications of HP packages include national water supply projects, water supply for cities and metropolises, cultivation and industrial uses, upstream industries, mines, and a variety of power plants.







Waste Water pumping station packages

Pumping waste water flow rate from: 20 to 1000 L/S, head: 10 to 80 m



Always streaming, non-stop

Waste Water Package packages with the ability to pump all kinds of wastewater in discharge area from 20 to 1000 liters per second up to 80 meters is a functional product. Among the two types of installation methods, submerged and dry, we can also use them in different types of industries, like urban and rural sewage pumping projects, treatment plants, upstream industries, and power plants.







Crisis relief pumping station packages

Collecting water from 30-point, head: max 60 m



Always prepared to deal with crisis

Crisis relief pumping station packages can be very effective by collecting floodwater from 30 points within a radius of 1 km and pumping it up to 60 meters in natural disasters. A variety of applications of the crisis relief pumping station packages include flood collection operations from urban and rural streets, dredging of reservoirs, ponds, and canals, solving urban and outdoor problems, and providing support for worn-out and sewage water supply facilities.







Smart pumping management system (SPMS)

Managing the water life cycle from start to finish



Manage water extremely conveniently

Preparation and implementation of new projects, intelligent control of water supply, and remotecontrol facilities are among the best and most suitable methods for efficient management of water supply and distribution. The SPMS smart system is the solution needed to achieve comprehensive monitoring. This system is programmed by water resource data and the water demand of different consumers in the basin and is able to show the internal relationships of important elements, such



as consumer sectors and surface and groundwater resources, in the present and future. Thus, a base for water management decisions and their implementation is established in various sectors. Water treatment package



Water treatment packages

Treatment of water-based fluids, saline water, and wastewater



We'll bring you water revival

Water treatment packages with a capacity of about 37.5 liters to 3750 liters per hour are used to refine and purify a variety of water-based fluids, saline water, and wastewater in micro and macro treatment plants. The applications of the water making package include seawater sweetening projects, the water treatment of cities, villages, factories, upstream industries, mines, and various types of power plants.







Garden pumping station packages

Pumping water flow rate from: 10 to 500 L/S, head: 80 m



Experience modern agriculture with us

Garden pumping station packages permit water pumping up to 80 meters high with a discharge limit of 10 to 500 liters per second. A variety of applications of garden pumping station packages include water supply for gardens and farms, green belt road projects, major agricultural uses, and plantations in different dimensions.





Ettesal Mechanic Top projects

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Project technical specification:

PS1

PS2

PS3

- Flow rate: 1750 L/S
- Head: 320 m
- Supply resource: Zayandehrood river
- Flow rate: 1750 L/S Flow rate: 350 L/S
- Head: 165 m
- Supply resource:
 - PS1 line as a booster PS2 line as a booster
- Head: 322 m
- Supply resource:









Ben- Borujen water supply project

In the 80s, due to the reduction of water quality indicators and the unusual drop of underground resources in the east of Chaharmahal and Bakhtiari province, extensive studies were conducted to supply water to this area from ZayandehRood. In 2012, after reviewing the studies by the Ministry of Energy, the necessary permits were issued and the key to the implementation of the project was given. For the supply and transfer of water in the Ben-Burojen axis, the implementation of four pumping stations was predicted, and the Ettesal mechanical packages by being present in three stations have played a significant role in achieving the project's goals. Supplying drinking water to 13 cities and 11 villages, along with part of the needs of industries in this province, has been one of the notable achievements of this project.











Pumping station package technical specification:

- Flow rate: 966 L/S
- Head: 100 m
- Supply resource: The main water transfer channel of Moghan Plain









Pars Agro-Industry complex water supply

In 2017, the development plan of Pars Agro-Industry Complex was introduced as one of the top 5 largest agricultural seed supply complexes in the country. The aim of this project was to convert 1380 hectares of dry land of Moghan plain to water cultivation which should have been done by pressurized irrigation system. Achieving the objectives of this project was possible by supplying fresh water needed from Moghan canal and constructing several pumping stations by conventional method. The quality of the lands of this project led pars agro-industry to construct pumping stations to find a method with minimum land degradation. In 2019, "Ettesal Mechanic" provided an industrial package with underground installation capability and was able to provide maximum water supply requirements from the minimum possible space. One of the achievements of using the industrial package " Ettesal mechanical " is the advantage of intelligent irrigation using soil and air moisture meter sensors that determine the amount of water pumping to different areas.











Darab water supply project

Reduced rainfall and subsequent droughts depleted the water resources of Iran's central and southern plateaus. Darab County was one of the regions affected by this low rainfall. The repetition of Continuous outage and water shortages in hot seasons caused the emergency water supply plan for the city to be on the agenda of Fars Province's special governorate. After geographical studies of the region, water supply from Rudbal Dam was handed over to the contractor as an operational solution.

Ettesal mechanic by installing the pumping station package along this line is responsible for transferring and supplying water for the city's treatment plant.





Pumping station package technical specification

- Flow rate: 15 L/S
- Head: 70 m
- Supply resource: region's drinking water network as a booster









Tehran's district 4 water supply project

Tehran's fourth district, including its numerous government buildings, is one of the most significant metropolitan neighborhoods despite having an aged and worn-out appearance. Following the construction of the water network for a few government structures and apartment buildings in 1391, the water and wastewater company of this area was restricted in its ability to carry out this project. The project faced several major obstacles, including the inflexibility of the local terrain against road rebuilding, the exhaustion of outdated micro-distribution networks, and the absence of a nearby sustainable supply source.

However, during barriers, Ettesal Mechanics proposed the industrial pumping station package, which was appropriate for the project's constraints. This clever innovation has been able to overcome the challenges of continuous water supply and lack of space for project implementation by installing beneath the surface of urban highways and connecting directly to the network as boosters. The employer's daring in making judgments and placing such a high value on the expertise of young people is demonstrated by the use of the pumping station package approach in this project.





