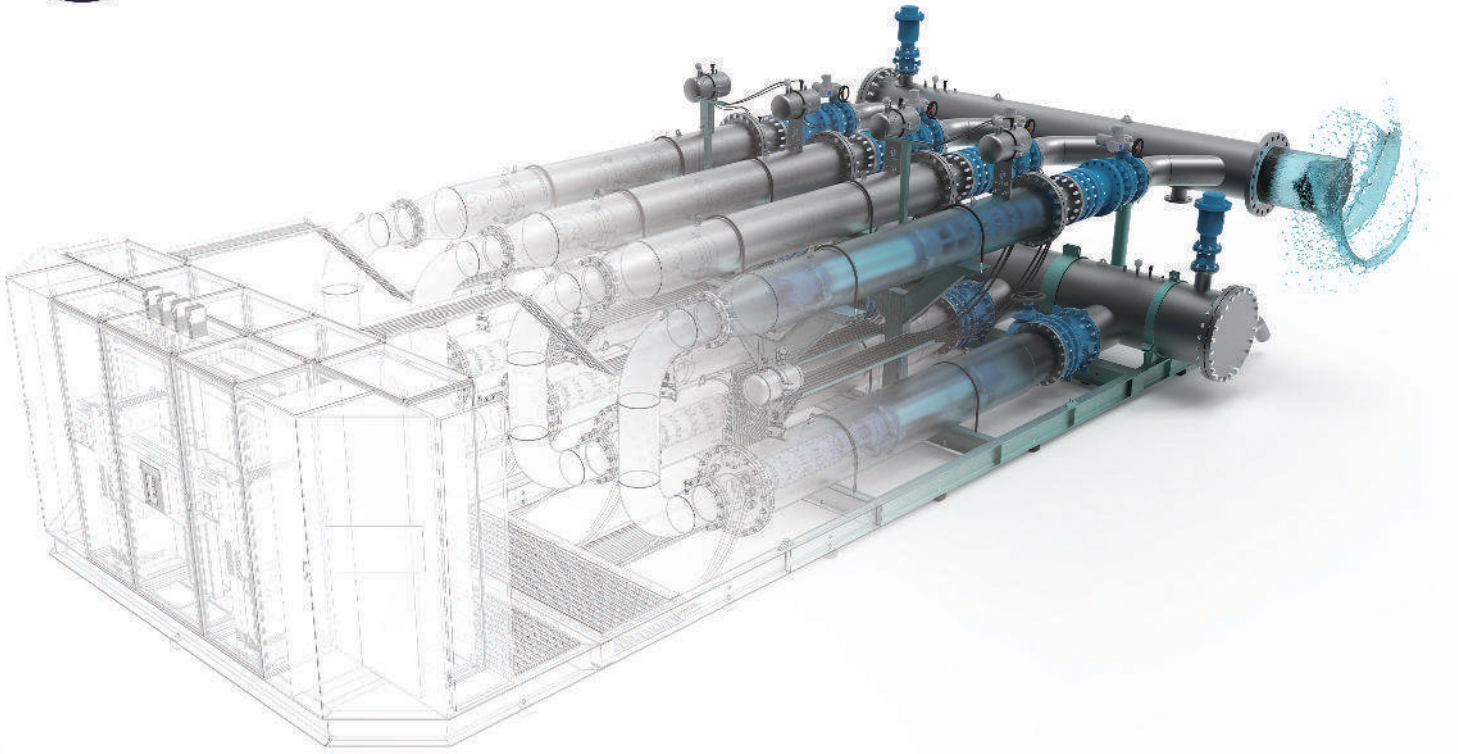




اتصال مکانیک  
ETTESAL MECHANIC



# ETTESAL MECHANIC

## KNOWLEDGE BASED

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



**LETS MAKE THE FUTURE**

**TOGHETER**

ETEESAL MECHANIC



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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 inspired him to participate 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, due to the performance of several successful projects. With three decades of experience in the water and wastewater industry, Ettesal Mechanic has completed its product portfolio and provided a wide range of services to meet the demands of different industries.





## CEO's statement



Throughout history, human societies have always followed technology since these are the innovations and inventions that define societies' life paths. In any society, unless an industry is progressive, it is sooner or later doomed to disappear. Unfortunately, despite its prominent role and the urgent needs of societies, the water industry has not progressed during the past 70 years due to the negligence of the decision-makers. It is impossible to ignore this need now, and it is the appropriate time for water industry experts to make the necessary changes, and take advantage of the progress of other industries for the advancement and excellence of this industry.

*Ali Foroughi*





## About us

By being aware of the advantages, disadvantages, and shortcomings of the method and operation of pumping stations, a new generation of pumping stations has been planned and built by the Ettedal Mechanic Company. Also, with the change of generation, passage of time, and development of the product portfolio, this major shift has been 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 minimum facilities.

We offer our “pumping station packages” product to our customers with the advantages like: easy to use nature, optimal energy consumption, and effective and efficient use of space and environment. Our primary purpose in this company is to provide clients with unique products and services so that they can take advantage of modern technologies and enhance their lives.



## Our goals

“Why” is our motto in business. With our new products, in addition to guaranteeing a successful and bright future, we create values that our customers deserve. Stay with us to achieve this goal and make our goals a part of your story.



## Are our values part of your story?

The cornerstones of the organizational culture of “Ettesal Mechanic” are the values that their creation is the company’s top priority. These values shape our activity and guide our behavior and interaction with customers, colleagues, and society. We learned the correct way of doing business based on our four values:

### Care



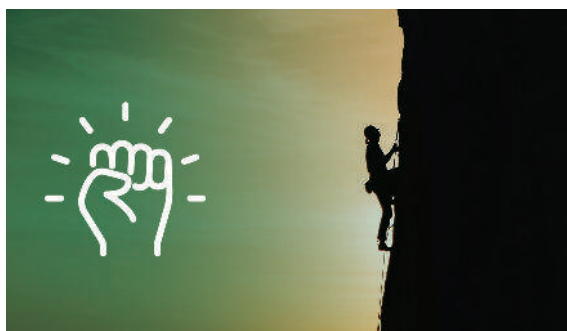
- Respect and value differences.
- Do the right thing and act in unity.
- Look after our customers, people, and environment.

### Collaboration



- Believe in the power of teamwork.
- Let’s count on each other’s victories and strengths.
- Be the supporter of our customers in any situation.

### Courage



- Take action first and then manage the results.
- Talk and get consulted
- Take calculated risks to succeed

### Curiosity



- Believe that there is a better way.
- Learn from failures and successes
- Let’s advance by Keeping up with technology and innovation.



## Innovation and quality culture

We at “Ettesal Mechanic” are committed to promoting a culture in which quality and innovation are the basis of all activities. We seek to integrate our employees, businesses, and activities. This means individual and organizational responsibility in our complex. After years of trying to achieve such a culture, our organization has received the following certificates:

- CE
- HSE-MS
- ISO 9001
- ISO 14001
- ISO 45001
- Patent certificate of pumping station package
- Patent certificate SPMS software (smart pumping management system)
- Certificate of innovation for providing electricity to public roads and streets
- Being Chosen in the appreciation festivals of the country’s knowledge-based companies
- Honorary doctorate from the European Management Development Foundation





## Our services

The experience of presence and activity in various fields of the water industry has brought the “Ettesal Mechanic” group to evolution and self-sufficiency, giving them ability to provide different services to customers. Among the services provided by this collection for helping to make progress in all kinds of projects, we can mention consultation, design, supply, construction, performance, operation, and making smart.

### Consultation



Studying and consulting before initiation, as the basis of any project, will have a significant effect on the success and achievement of the goals. Being present at different stages and working on more than 100 projects directly and indirectly, has made “Ettesal Mechanic” able to provide all kinds of engineering consulting services in the water industry. Using the experience of our experts in every step of the project can help you clarify all the processes of it.

### Design



The design, research, and development team of “Ettesal Mechanic” has become one of the experts in the country in the field of analysis, simulation, and design of various processes such as transmission, distribution, and aggregation of water and sewage by carrying out numerous projects and following the policy of permanent learning. This unit has proven its capability by carrying out all kinds of water projects related to different industries. Design of the components is necessary from not only technical but also visual point of view for all the participating members. Therefore, a detailed design and its presentation to the executive team can prevent any delay and waste of time and money.



## Supply



The significant presence of “Ettesal Mechanic” in large projects has provided this company with the opportunity to have close connections with successful national and international complexes. The effective and constructive relationship with large producers and the influence of the credibility of this group in establishing this relationship has been able to introduce the name of “Ettesal Mechanic” as a well-known complex in the water industry. So, relying on our abilities, we declare that in this company, we can provide all kinds of needs of various industries, including water and sewage, petrochemical, refining, heavy industries, mines, etc., in the shortest possible time.

## Manufacturing



Relying on the potential and talent of its creative experts and using advanced machinery and equipment in today’s world of technology, “Ettesal Mechanic” has been able to provide its products with the best possible quality for customers. All the packages in our commodity bundle are produced according to the standards of ASME, IEC, DIN, and ISO. These factors help us focus on the company’s products and give us the ability to produce a variety of both special and common industrial equipment related to the water industry.

## Installation



Two outstanding features of this group, namely responsibility and technical ability to perform the project, along with the commitment to perfect execution, have introduced “Ettesal Mechanic” as a capable and experienced group. The “Ettesal Mechanic” has achieved the Impossible by using the modern machinery, knowledge, and efficiency of an experienced executive team giving its personnel the courage to accept the responsibility of executing large projects related to pumping, transmission lines, and water and sewage networks. The use of all these capacities will cause integration in the execution of the operational stages of your project.





## Operation



Using our novel knowledge and engineering, we have taken a different procedure for the operation of pumping stations, and the method of this complex is majorly different from other common methods. Today, by establishing more than 20 stations in various parts of Iran and through the execution of an integrated network of control and operation of pumping stations throughout the country, “Ettesal Mechanic” has enabled customers to access the necessary support and maintenance services in the shortest period.

## Intelligentization



Synchronization with technology is one of the patterns of our progress in business. Relying on this principle, we continuously test our products and seek to improve their technical level. The “Ettesal Mechanic” company has added the procedure of various smart-making processes of this industry to other technical engineering services for the growth and upgrade of the water industry. Nowadays, by providing software infrastructures such as SPMS, WCMS, and WTMS, “Ettesal Mechanic” has been able to connect all the processes of the water and sewage cycle to its integrated smart operation and control network.





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## Our products

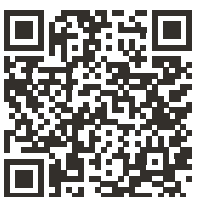
### Industrial Pumping Station Packages (IPSP)

Water pumping with a flowrate of 10 to 3000 L/S, Head: 50 to 800 m



#### **For a broad range of applications / The industry cycle does not remain dry**

Industrial packages with water pumping in the range of 10 to 3000 liters per second, up to a height of 400 meters, and below 200 liters per second, up to a height of 800 meters are considered very practical products in the water industry. Among the types of applications of industrial packages, we can mention national water supply projects, the water supply of cities and metropolises, agricultural uses, factories, key industries, mines, and all kinds of power plants.







## Floating Pumping Station Packages (FPSP)

Water abstraction with a flowrate of 30 to 1000 liters per second, up to a height of 80 meters



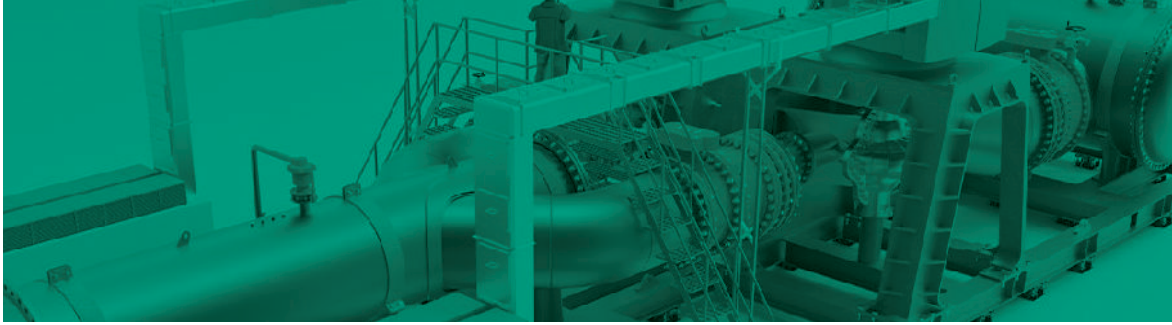
### Floating but stable

Floating packages with the ability to extract and pump water from a depth of 2 meters of sea, lake, and reservoir of dams' level in the flow range of 30 to 1000 liters per second up to a height of 80 meters are very practical products in the water industry. Among the types of applications of floating packages, we can refer to water extracting projects from dams, seas and lakes, marine and coastal oil platforms, and various types of power plants.





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## High Power Pumping Station Packages (HPSP)

Water pumping with a flowrate of 2000 to 15000 liters per second, up to a height of 400 meters



### Entrust the future water supply of cities to us

High power packages can be useful and effective in water supply projects by pumping water with a flowrate of 2000 to 15000 liters per second and up to a height of 400 meters. Among the types of applications of high-power packages, we can mention national water supply projects, the water supply of cities and metropolises, agricultural and industrial uses, key industries, mines, and various power plants.







## Sewage Pumping Station Packages (SPSP)

Sewage pumping with a flowrate of 20 to 1000 liters per second, head 10 to 80 meters



### **Always flowing, unstoppable**

Sewage packages with the ability to pump all types of sewage in a flowrate of 20 to 1000 liters per second up to a height of 80 meters are very effective and practical products. Among the types of sewage packages' application in both submerged and dry types, we can mention urban and rural sewage pumping projects, refineries, key industries, and various types of power plants.















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## Crisis Relief Pumping Station Packages (CPSP)

Water collection from 30 points, pumping head: 60 meters



### Always prepared to deal with crisis

Crisis relief pumping station packages can be very effective by collecting flood water from 30 points within a radius of 1 km and pumping it up to 60 meters in natural disasters. Various 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)

Water cycle management from source to consumption



### Effortless water management

Preparation and execution of novel plans, smart control of water supply facilities, and remote control are among the most suitable methods for efficient management of water supply and distribution. The SPMS is the required solution to realize comprehensive monitoring. This system is programmed by the data of water resources and water demand of different consumers in this field and can display the internal relationship of important elements such as consumer sections sections and surface and groundwater sources in the present and future. In this way, a base is established for water management decisions and their execution in various sectors.





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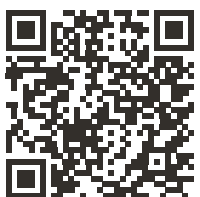
## Water Treatment Packages (WTP)

Purification of all types of base water, salt water and wastewater fluids



### We present you the second life of water

Preparation and execution of novel plans, smart control of water supply facilities, and remote control are among the most suitable methods for efficient management of water supply and distribution. The SPMS is the required solution to realize comprehensive monitoring. This system is programmed by the data of water resources and water demand of different consumers in this field and can display the internal relationship of important elements such as consumer Water



treatment packages with a capacity of about 5.73 liters to 3750 liters per hour are used for refining and purifying all types of base water fluids, saline water, and sewage in micro and macro water treatment plants. Among the applications of the water treatment package, we can refer to seawater desalination projects, water purification of cities, villages, factories, key industries, mines, and all kinds of power plants.





## Garden Pumping Station Packages (GPSP)

Water pumping with a flowrate of 10 to 500 liters per second up to a height of 80 meters



### Experience modern agriculture with us

Garden pumping packages provide water pumping with a flowrate of 10 to 500 liters per second up to a height of 80 meters. Water supply for gardens and farms, green-belt road projects, major agricultural uses, and various types of cultivation in different dimensions are the types of applications of garden pumping packages.

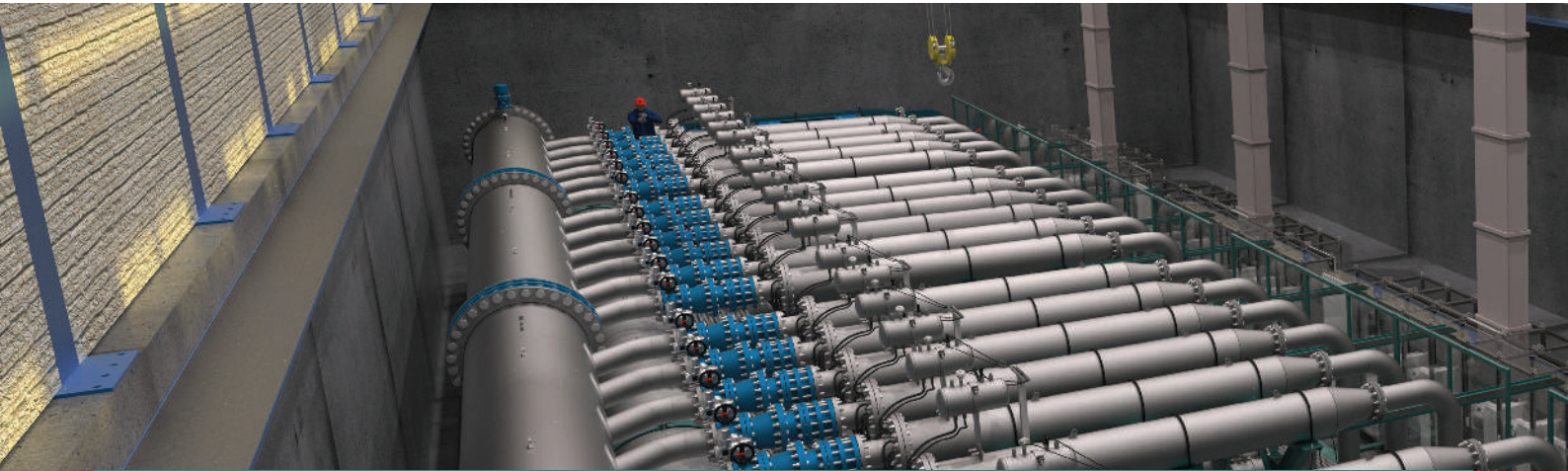




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## Ettesal Mechanic's outstanding projects



### Project technical specification

#### PS0

- Flow rate: 1750 L/S
- Head: 26/5 m
- Supply resource: Zayandehrood river

#### PS1

- Flow rate: 1750 L/S
- Head: 160 m
- Supply resource: PS0 line as a booster

#### PS2

- Flow rate: 1750 L/S
- Head: 320 m
- Supply resource: PS1 line as a booster

#### PS3

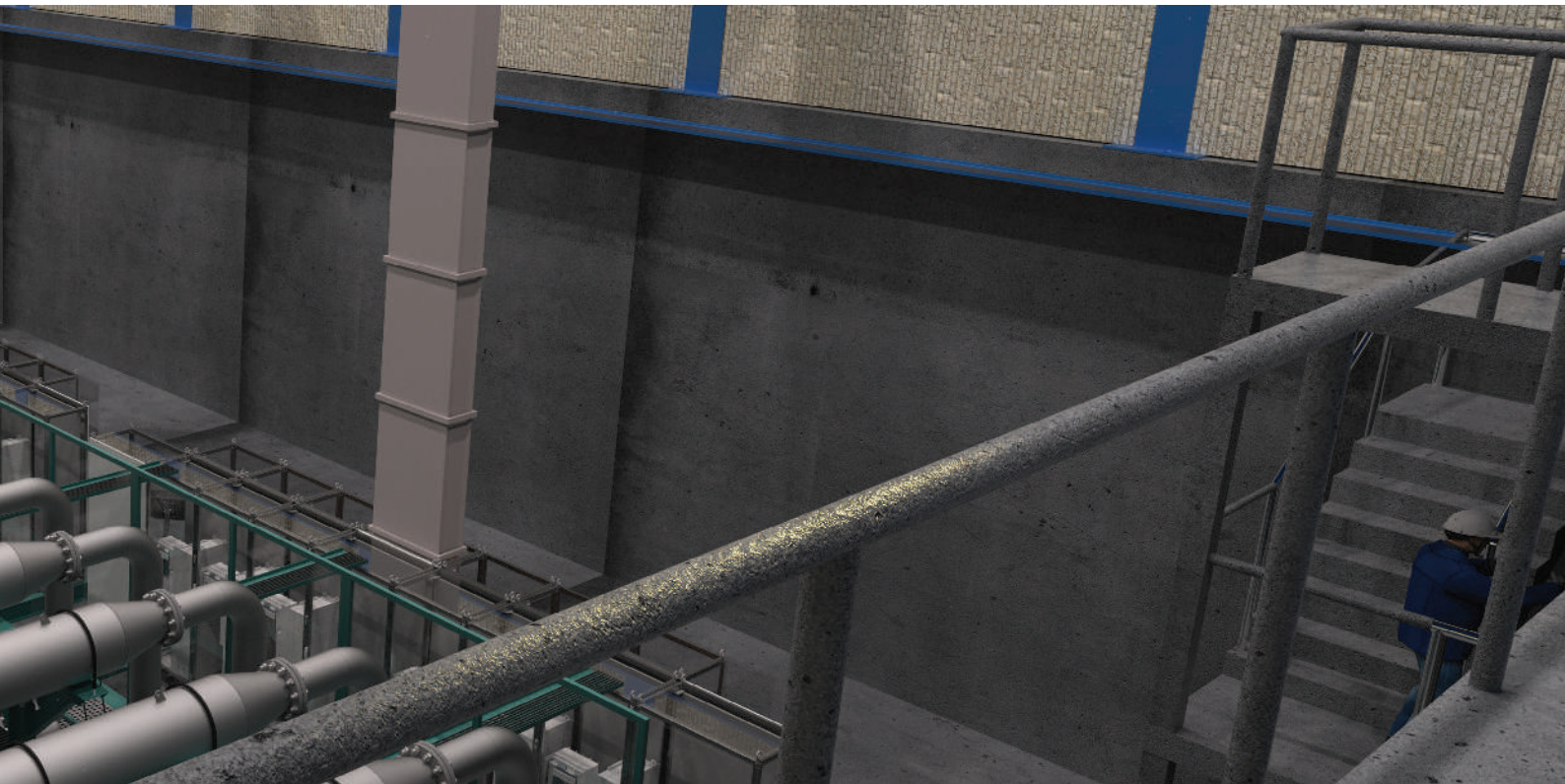
- Flow rate: 350 L/S
- Head: 232 m
- Supply resource: Refinery







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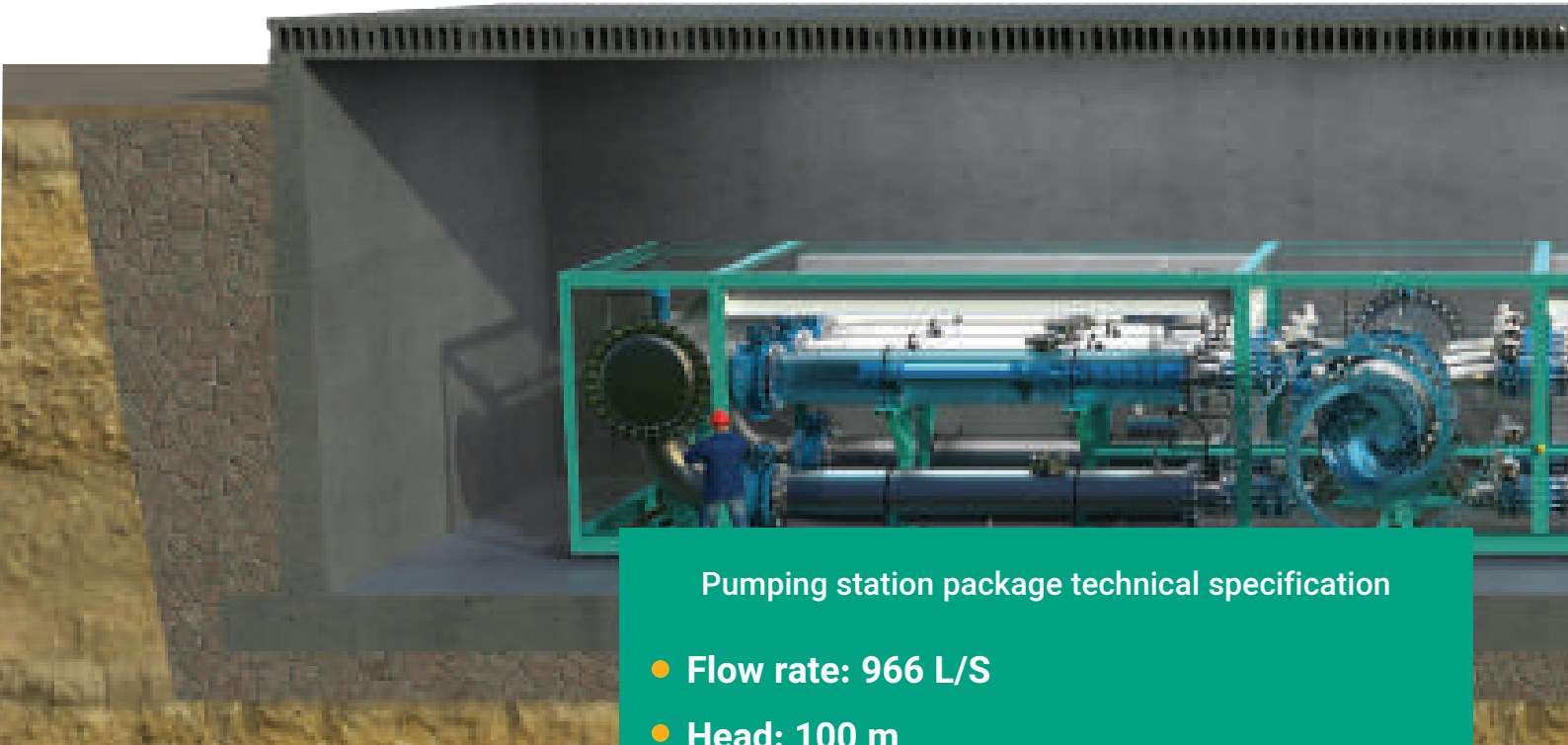
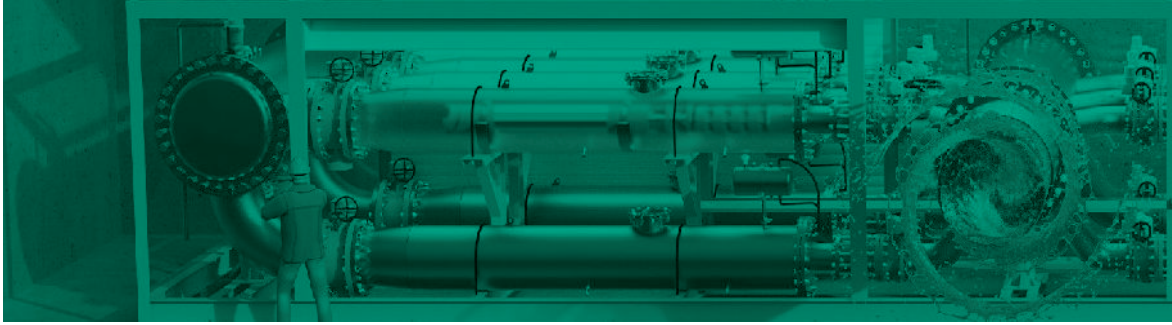


## Ben- Borujen water supply project

In the 80s, due to the decrease in water quality indexes and the unusual depletion of underground resources in the east of Chaharmahal and Bakhtiari province, extensive studies were conducted to supply water to this area from ZayandehRud. In 2012, after reviewing the studies by the Ministry of Energy, the necessary permits were issued and the implementation of the project was initiated. For the supply and transfer of water in the Ben-Burojen axis, the implementation of four pumping stations was predicted, and the Ettesal Mechanic 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 industries' needs in this province, has been one of the notable achievements of this project.



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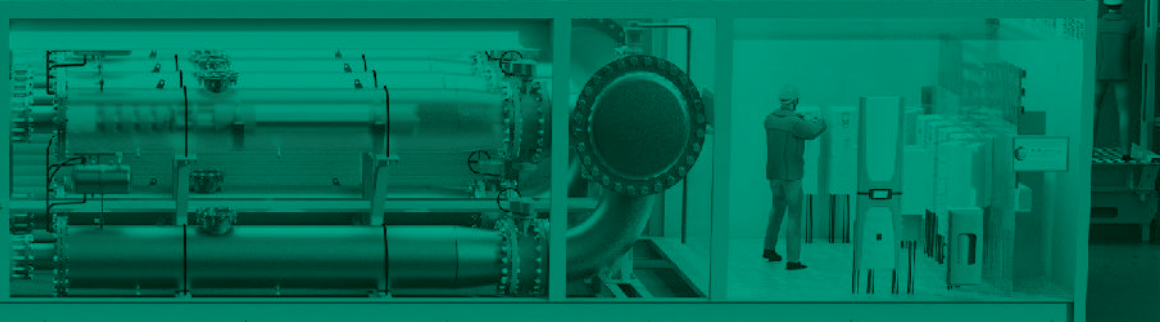


### Pumping station package technical specification

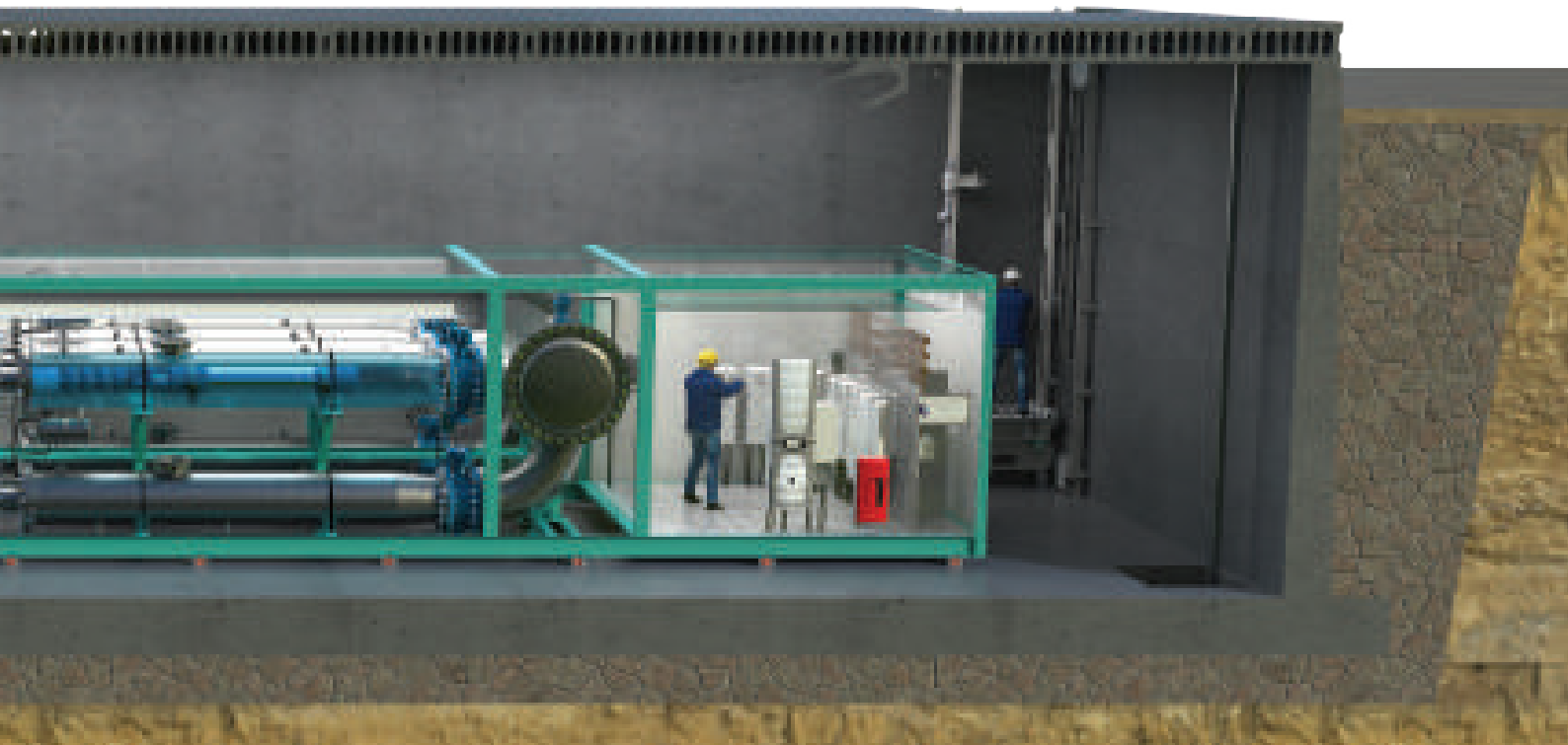
- Flow rate: 966 L/S
- Head: 100 m
- Supply resource: The main water transfer channel of Moghan Plain







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## Water supply of Pars Agro-Industry complex

In 2017, the development plan of the Pars Agro-Industry Complex was introduced as one of the 5 largest agricultural seed supply complexes in the country. The aim of this project was to convert 1380 hectares of the rainfed lands of Moghan Plain to irrigated cultivation that had to be performed by the pressurized irrigation system. Achieving the objectives of this project was possible by supplying the required fresh water from the Moghan Canal and constructing several pumping stations by the use of conventional methods. Due to the good quality of the land of this project, the Pars agro- industry complex wanted to find a method with minimum land degradation for constructing pumping station packages. 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 advantages of the industrial package of Ettesal Mechanic is the use of smart irrigation with soil and air moisture sensors that determine the amount of water pumped to various areas.

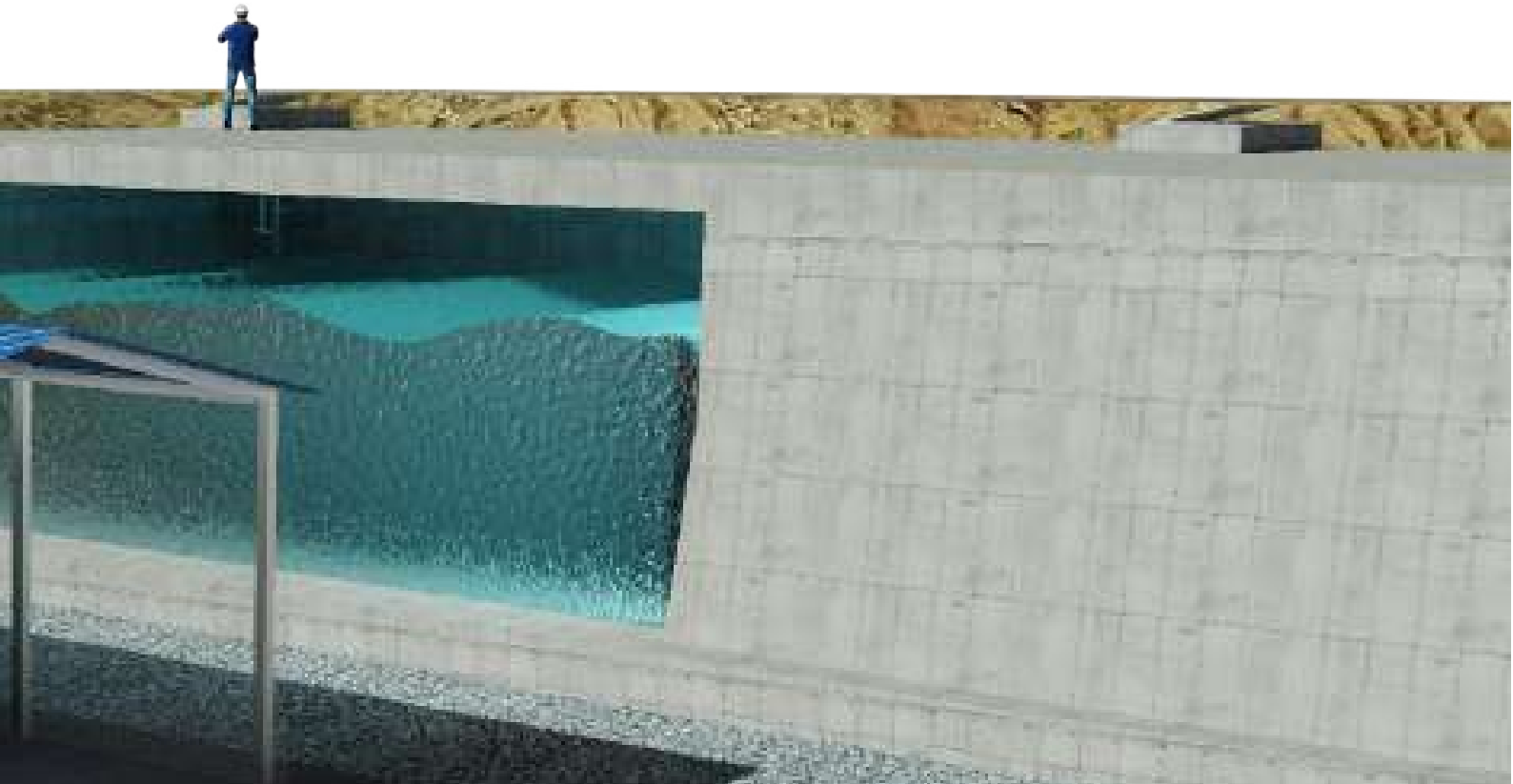
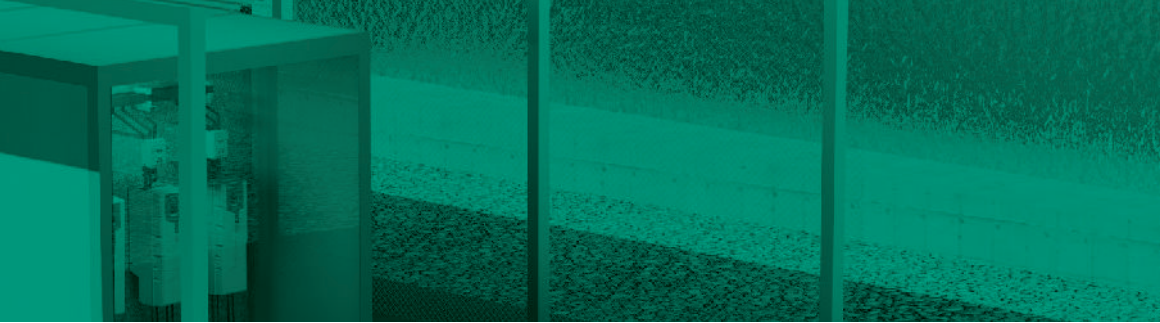


### Pumping station package technical specification

- Flow rate: 966 L/S
- Head: 100 m
- Supply resource: water abstraction from tank of Darab province



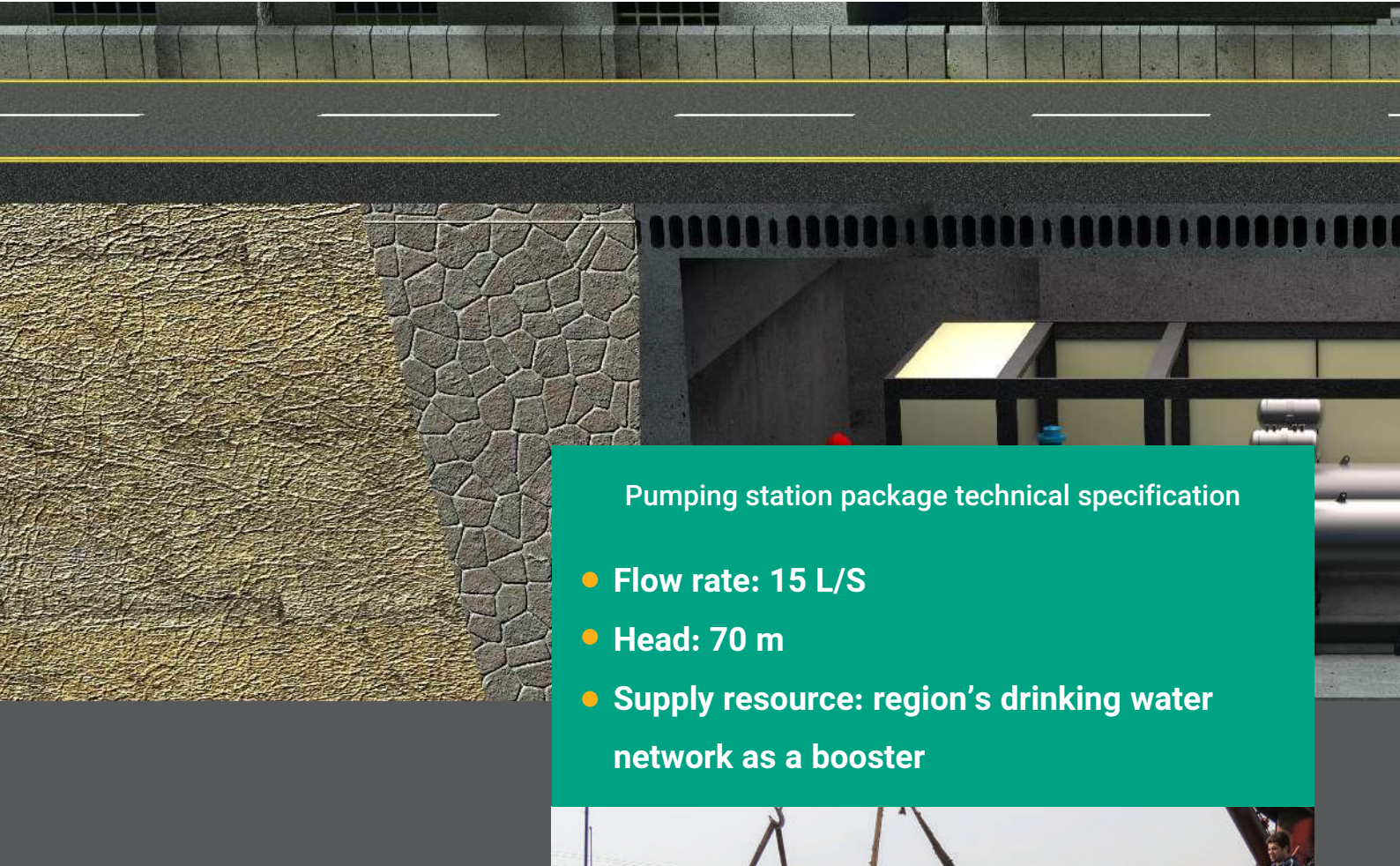




## Water supply of Darab province

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

By installing the pumping station package along this line, Ettesal Mechanic is in charge of transferring and supplying water for the city's treatment plant.

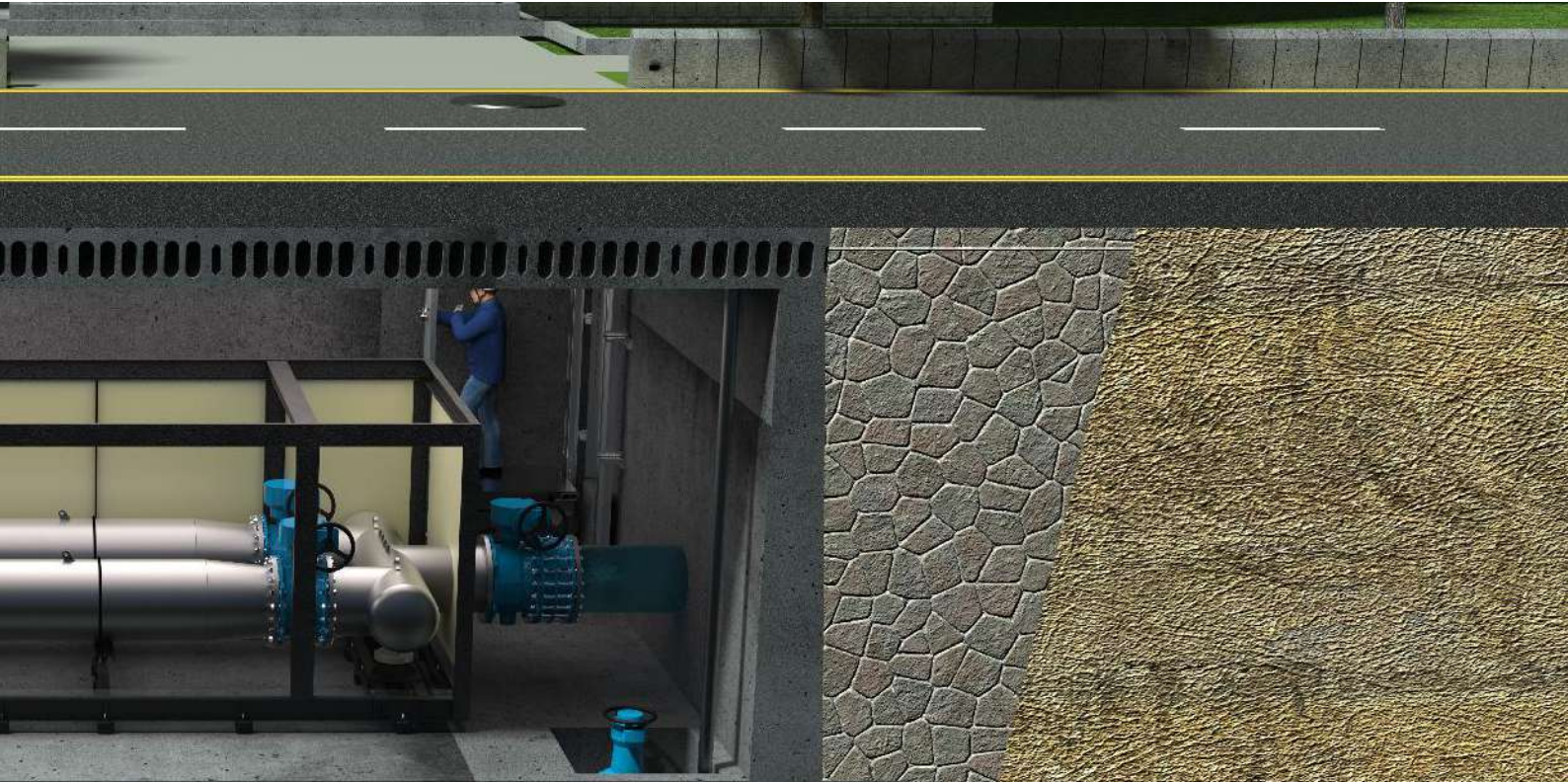


### Pumping station package technical specification

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







## Tehran's 4th district water supply project

The old and worn-out texture of the fourth district of Tehran is considered as one of the most important urban areas of this big city due to the concentration of government institutions in it. Due to the construction of the water network for a few government structures and residential complexes in 2012, 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 texture of the area against road rebuilding, the exhaustion of outdated micro-distribution networks, and the lack of a nearby sustainable supply source. However, during these challenges, Ettesal Mechanic proposed the industrial pumping station package appropriate for the project's constraints. Since 2012, this smart product has been able to overcome the challenges of continuous water supply and lack of sufficient space for project implementation by the installation of the facilities beneath the surface of urban highways, and direct connections to the network as boosters. The employer's courage in making decisions and placing such a high value and trust in the expertise of young people is demonstrated by the use of the pumping station package method in this project.







An underwater photograph showing sunlight rays filtering through the water, creating a bright, ethereal atmosphere. The water surface is visible at the top, with splashes and bubbles. The overall color palette is various shades of blue.

**SMART WATER  
FOR  
SMART PEOPLE**

ETTESAL MECHANIC



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