



AEICO-KSA



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? Who Are We

AEICO-KSA was founded more of 38 years in K.S.A, with a very clear and consistent aim of "purification and treatment of water."

From its founding until today AEICO-KSA is the largest and most comprehensive company with its large customer list in K.S.A and, surpasses all other competitors. With the establishment of its branches and interior departments in major regions of K.S.A, making its knowledge, quality and experience closer to all customers and clients for quickly and efficiently solve water problems.

We create installations, consistent with the investment, operating and maintenance costs, and implemented in accordance with your needs, our extensive experience and proven quality equipment guarantee high reliability.

We take responsibility for monitoring the impacts of plant operation and maintenance, leaving the client free to focus on their core business activity, based on our expertise, we optimize existing installations and make processes more efficient. It is a force that makes us particularly desirable partner in the treatment of water.

Oriented towards the customer, flexible and able to quickly respond to the demands of our customers, we carry out work in projects with short delivery time and at the most competitive prices, by identifying the weakness of tomorrow today, we became a link between the traditional experience and high-tech future. Our intention is to offer our facilities implement the latest technology of processing water for industry and households, increasing the quality and competitiveness of our customers, while reducing the cost of water production.

Vision

AEICO-KSA strives to become the National provider of choice for sustainable, intelligent water and energy management solutions and systems. The group pledges to lead by example and to influence others to do likewise.

Mission

AEICO-KSA commits to a sustainable environment through providing effective water management solutions and treatment systems, environmentally friendly technologies and alternative energy solutions to reconcile the ever-growing demand for water and its dwindling natural resources.

Objectives

Customer Focus – Every employee is customer satisfaction driven. We commit to provide our clients with value-added products and services and to achieve high returns on investments for our shareholders; we further strive to exceed their expectations and keep them continuously informed through personable, honest and open communications.



People Focus – Our employees are our most valuable asset; we recognize their needs and professional aspirations and make every effort to provide them with relevant training and opportunities to empower them to achieve their goals, and in turn support our mission by their high-quality performance and refined service. The health and safety of our employees is also paramount to our organization and we commit to continually improve their standards.

Quality – We commit to deliver quality services and products that are in line with our customers' needs, and to maintain World Class performance in all our business undertakings. This is founded on the highest standards of customer service, uncompromised ethics and environmental consciousness. Our quality systems ensure that we do this right the first time, every time

Sustainability – AEICO is a responsible corporate citizen that aims to implement sustainable practices throughout its businesses. Our commitment to sustain the environment is achieved fundamentally through being an integral player in an industry with a mission to meet the world's water demands and to preserve its resources. Stemming from our People Focus, we also aim to invest in and develop human elements to help provide a sustainable pool of talents to the communities we work-with.

Leadership – We lead with integrity, refined expertise and creativity, both as individuals within an organization and as an organization operating in local and global markets. Our tried leadership approach demands leading by example and influencing others to do likewise and with this, accountability becomes a guaranteed biproduct

Collaboration, Teamwork and Passion – We believe in and encourage teamwork, as it creates a sustainable flow of information and knowledge sharing that helps benchmark our work, enables us to better our performance and leverage our collective knowhow and refined skills. Our passion and belief in what we do, complement this spirit and take us that extra mile that helps AEICO stand out, further, from its competitors.

AEICO Departments


AEICO VALVES is one of **AEICO's** Brands, produces a various types of valves and flow control that covers all Water, Petrol and chemical Industries needs. is one of **AEICO's** Brands, based on the principles of **Vision 2030** and our belief in the necessity of localizing the industry and producing a pure national product with national hands

Our slogan is **Raise High The National Industry**



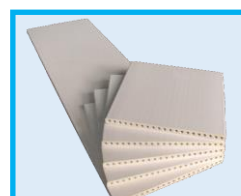
GRANDMAS is one of **AEICO's** Brands, that specializes in designing and manufacturing all types of pumps to serve the needs of the local market with regard to the desalination and water treatment industries, **GRANDMAS** based on the principles of **Vision 2030** and our belief in the necessity of localizing the industry and producing a pure national product with national hands

Our slogan is **Made In My Country**



AWHD, AEICO WATER HAMMER DEPARTMENT is one of **AEICO's** productive department, it is specialized in water hammer arrestor field from the pipelines hydraulic Study to the fabrication of the water hammer arrestor parts, install and test controlling the water hammer phenomenon

Our slogan is **To Use Our National Technology**



CT-WATER is one of the most prominent production sectors in **AEICO**, which manufactures for the first time all the components of ceramic flat sheets membranes in K.S.A, as we believe in the necessity of creating a national technology capable of global competition and achieving local excellence in this rare industry for its accuracy and sensitivity, as these filters purify water from chemical pollutants and radioactive elements to obtain water Pureed with ceramic technology



WFT One of the most important teams in **AEICO** is the welding, Fabrication and Installation team, which is responsible for plans and projects implementation, the manufacture of special structures and the lathing of rare spare parts, as it is a well trained on modern production methods, equipped with the latest equipment and works in integration with **TDO¹**, quality control and management in serving The end user



TCD, Testing and Commissioning Department is the first spark for operation and maintenance projects and a quality guide for construction projects, where a trained team equipped with the latest equipment sets out to discover faults and commission the rest of the teams that handle operation and maintenance and also perform the last test to ensure the level of safety, efficiency and quality

Quality & Efficiency are Our Commitment



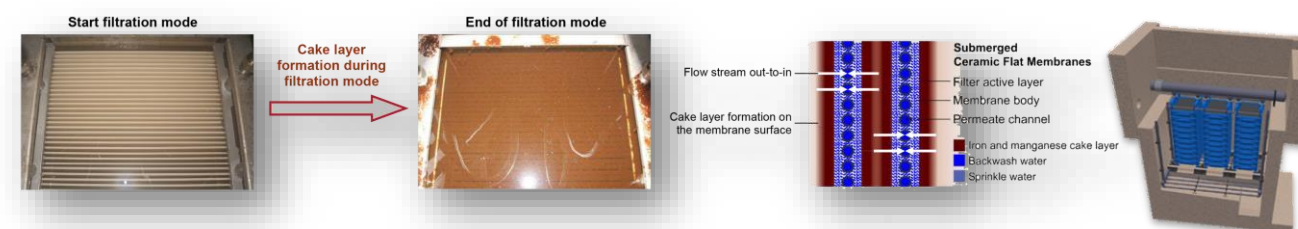
Quality Management is an independent management, and they exists to set quality and efficiency standards according to international standards, monitor its implementation by quality control **QC** and avoid repetition of mistakes by quality assurance **QA** to ensure producing of high quality and efficiency locally and capable of global competition

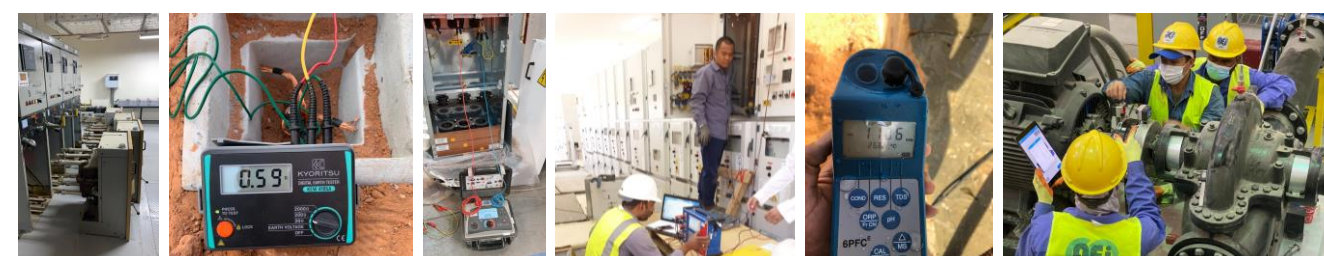
(100% National Product)


AEICO VALVES

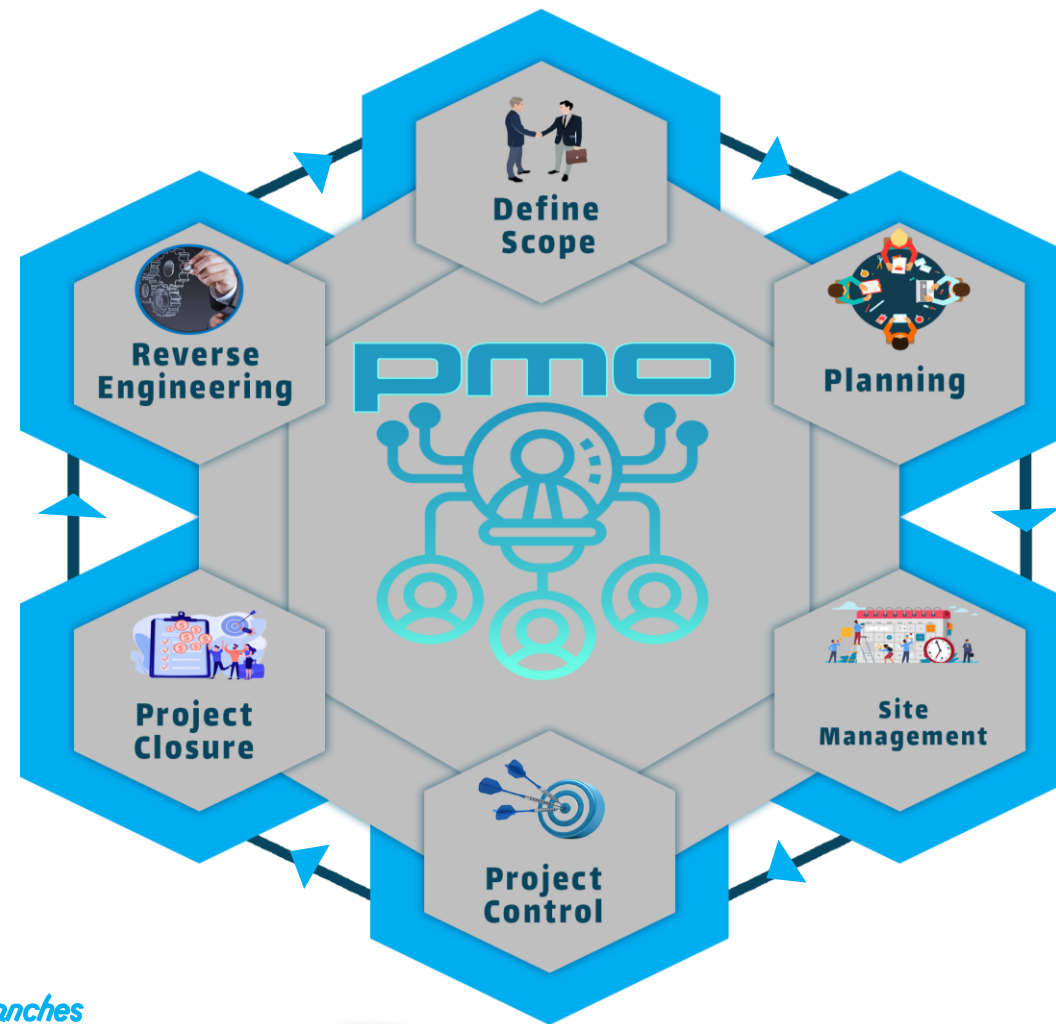
GRANDMAS PUMPS

WATER HAMER DEPARTMENT

CERAMIC TECHNOLOGY WATER

WELDING, FABRICATION AND INSTALLATION

TESTING & COMMISSIONING


Projects Management Life Cycle



Branches



Design & Engineering
An integrated design department consists of all needed experiences to achieve the targeted work fast and professionally according to the **Projects Management Office** modern, intelligent and powerful vision

Architecture Civil Mechanic Electric 3d Modeling

Procurement & Sales
High-speed communication channels between purchases, sales and stores, which is reflected in the speed in making decisions for the supply of raw materials and concluding contracts professionally.

Import Technical Submit Pick Materials After Sale

Quality Control & Quality Assurance
High-speed communication channels between purchases, sales and stores, which is reflected in the speed in making decisions for the supply of raw materials and concluding contracts professionally.

Safety Learning Center Pick Materials After Sale

Special Manufacturing
High-speed communication channels between purchases, sales and stores, which is reflected in the speed in making decisions for the supply of raw materials and concluding contracts professionally.

Design Production Quality Test Export

Reverse Engineering
High-speed communication channels between purchases, sales and stores, which is reflected in the speed in making decisions for the supply of raw materials and concluding contracts professionally.

Redesign Production Quality Test Export

Administration

Project Management Office

Projects Management Product Planning
Technical Office Business Development
TCD WFIT O&M Production

Quality Management

Quality Control Quality Assurance
Customer Services & Supply Certification

Transactions

Sales Procurement Import & Export
Contracting Contracting Marketing

Finance

Accounts Review Financial Reporting

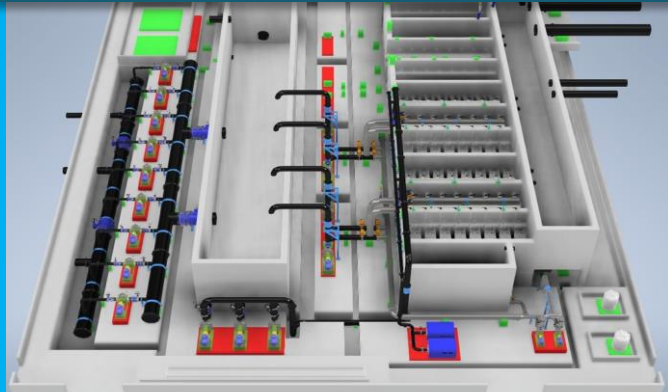
Human Resources

Employment Training Programs
Safety & Insurance HR Planning

Media Center

Documentation
Photography Books Video Clips
Operation & Maintenance
Safety Instruction
Product Catalogues
Certification
Council Organizing
Datasheets & Technical Submittal

Al Homayma – Water Desalination Plant Expansion – Hai'l



Key Data

Location	Al-Homaimah ,Ha'il – KSA
Plant Type	Water Treatment Plant
Capacity	100.000 M ³ /day
End User	National Water Company (NWC)
Client	Arab Contractor Company (ACC)
Contractor	Advanced Electromechanical Industries Company (AEICO)
Contract Type	Turnkey Project

Introduction

According to specification as well as will of Ministry the design principles are the following:-

- The project concerns on Al-Homaimah Water Station Expansion, capacity of product water 50,000 m³/day, located at Al-Homaimah, Hai'l.
- The raw water is borehole water and the treatment process is reverse osmosis desalination.
- The raw water for desalination is collected from twenty (20) wells, each one considered stable capacity of 220 m³/h. Thus the total design flow is 4,400 m³/h.
- All water transfer pipes are ductile cast iron, internally lined with cement mortar. Borehole raw water temperature, affecting the viscosity of water, is 28 °C.
- The water coming from wells enters directly the aeration tower (radon and iron removal) then detention tank (pretreatment) and ceramic flat sheet membrane tanks (filtration and radium removal)

- The pump station of ceramic filter building includes nine centrifugal pumps, six of them dedicated to feed reverse osmosis trains. Each pump provide the feed water for two (2) RO trains, thus four pumps are on duty while there are two as spares.
- The capacity of each pump is 625 m³/h at 3 bars, thus the flow in each RO feed pipe is 312 m³/h.
- The chemicals dosing systems at ceramic filter building includes the following systems:
 - Preparation and dosing of HMO slurry
 - Chemicals for cleaning in place (CIP) of ceramic filters
- Create two (2) groups of RO trains, i.e. a first group of four (4) trains and a second one of four (4) trains as well. Each group of four (4) trains has common feed water pipe line, common dosing devices and common monitoring for pre-treatment as well.
- Post-treatment is applied for the total permeate product of eight (8) RO trains, before drinking water storage tanks.
- Permeate water collect in two drinking water storage reservoir capacity 100.000 m³.
- City pump station including 10 water pumps (8 duty +2 standby) capacity 500 m³/hr.
- Total water pumping to Hail city 100.000 m³/ day through potable water transmission Line size 1000 mm diameter, 57 km from the city.



Scope Of Work

- Deep water wells.
- Water Hammer System
- Aeration Towers and Detention Reservoirs.
- Flat Sheet Ceramic Membranes Filters.
- RO System (Reverse Osmosis).
- Drinking Water Reservoirs 50.000 m³.
- Transformer Building (2@33KV/4.16 KV@14 MV& 2@4.16KV/400V@5 MV).
- Switch Gear Panels Z1 -33 KV & Z2 and Z3-4.16 KV.
- Instrumentation, Control and SCADA System.
- Low Voltage Panels, MCC Panels and Lighting System.
- Earthling, Lightning and Fire Alarm System.
- Potable Water Transmission Line.
- Administration Building.
- Guard House.
- Site Improvement.

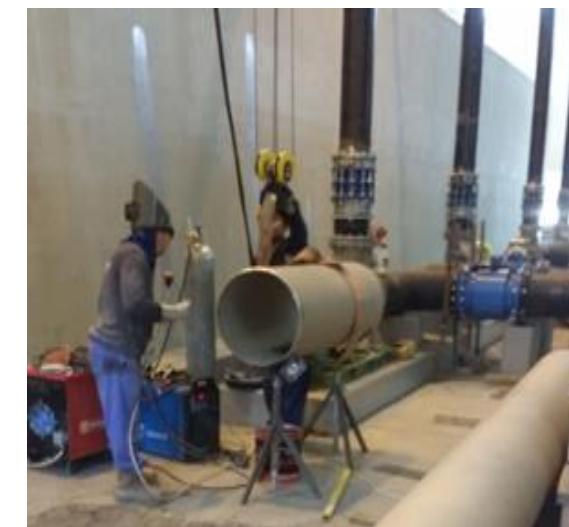


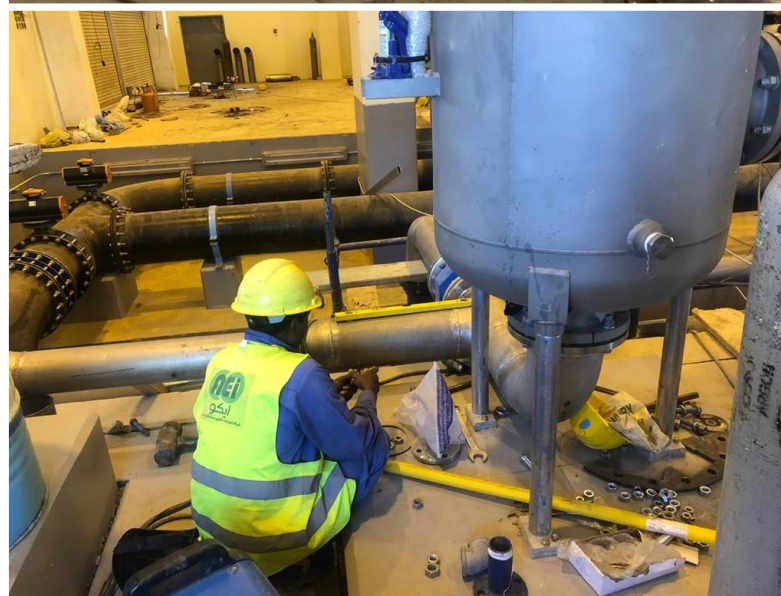
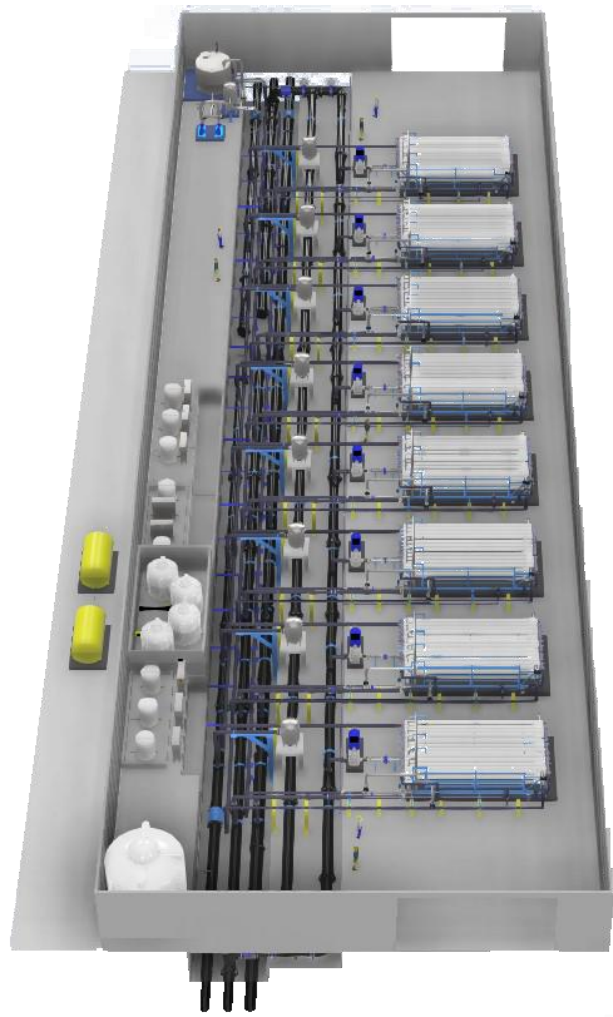
Key Benefits

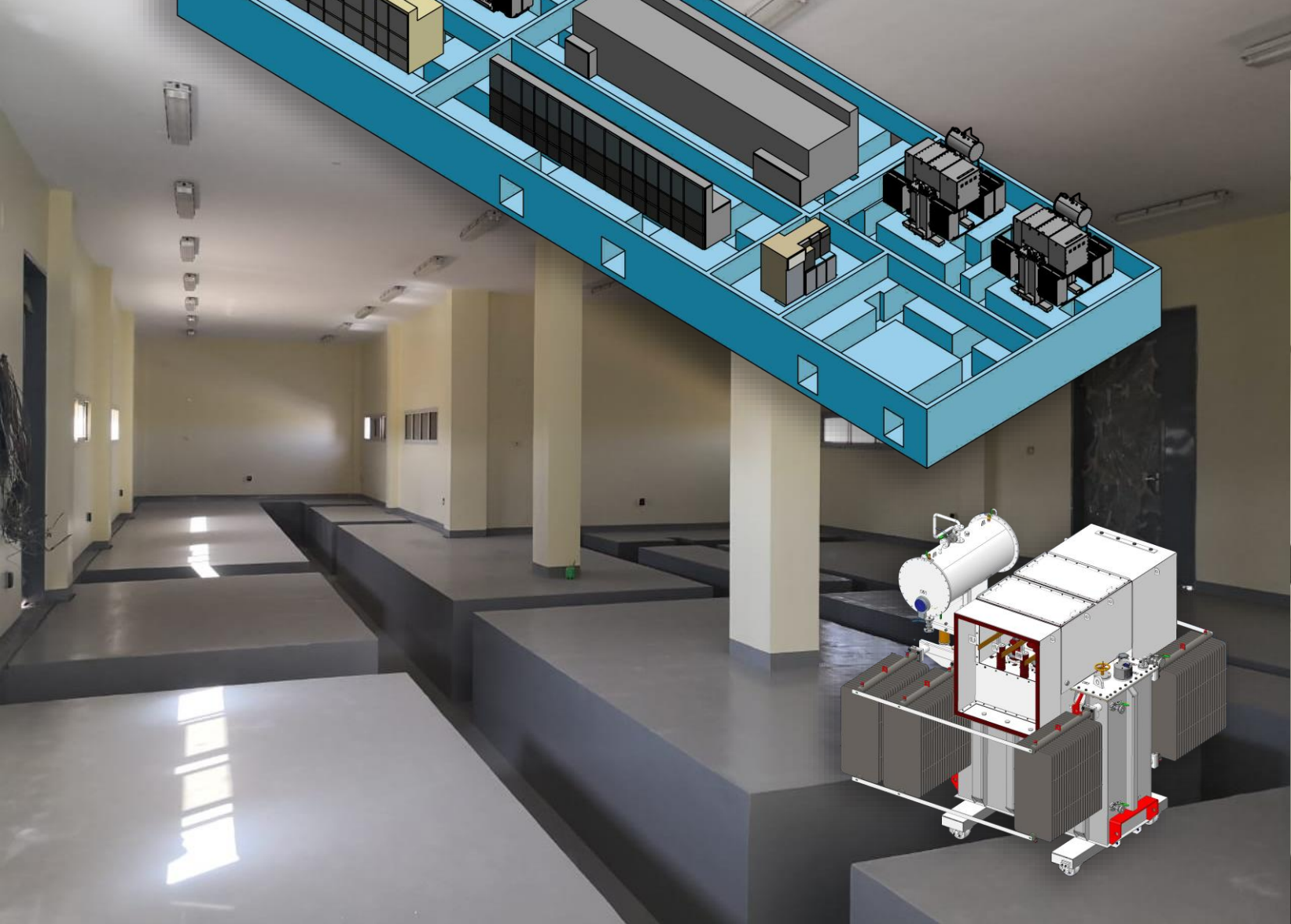
Due to Saudi Arabia's scarce water resources, and the rising demand between the supply and demand of water, The National Water Company (NWC) has launched Al Homayma Water Station Expansion 100,000 m³/day project in the city of Hail, to construct a Reverse Osmosis Desalination Plant with a capacity of 200,000 m³/day to produce water with potable standards for purposes to serve the city and a citizens of more than 935,000 residents.

Arab contractors company (ACC) was awarded the project and hand over to AEICO on its extensive engineering experience with developing desalination projects and its world class quality process design, construction, operation and maintenance of plants utilizing the Reverse Osmosis Technology.











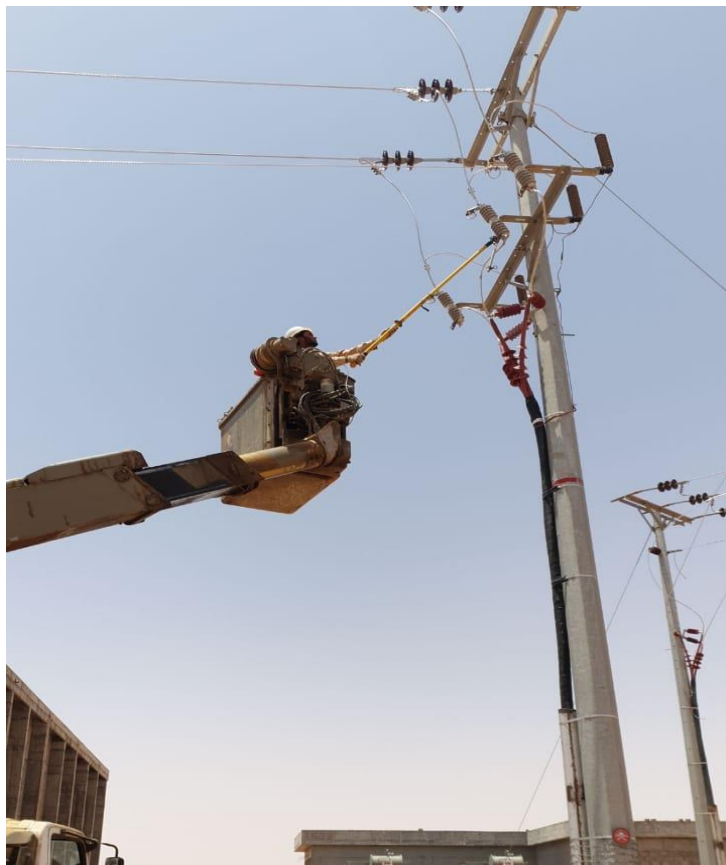
AEICO Projects

Hail WTP Water Hammer



Hail WTP Teamwork

AEICO Projects



Upgrade of Existing Buraydah Main WTP (I) Replacement of 4 Trains



Key Data

Location	Buraydah Main Water Treatment Plant
Plant Type	Deep Ground Water Pre-Filtration Removal of Iron and Manganese using Nano-Coated Ceramic Flat Membranes
Capacity	50.000 M ³ /day
End User	National Water Company (NWC)
Client	Arab Contractor Company (ACC)
Contractor	Advanced Electromechanical Industries Company (AEICO)
Contract Type	Design Manufacture Supply Installation, Commissioning and Start-Up

Introduction

- CFM Systems (Ceramic Flat Membrane Systems) combines the advantages of an inorganic filter and submerged flat membrane filtration for the first time. Due to the superiority of the new membrane generation, CFM Systems offers the following advantages:
- Resistance against high temperatures, chemicals and aggressive media
- Resistant against high inflow concentrations of iron (Fe), manganese (Mn), suspended solids, SDI and turbidity
- High permeate quality - free of suspended solids, lowest concentrations of iron and manganese and lowest levels of SDI and turbidity
- Extremely high recovery rates due to simple and short backwash options
- Long-term operation due to an extremely robust filtration material
- Modular design and extremely compact filtration trains which require minimum tank civil works

Scope of work

As per tender specifications a direct replacement of existing UF system is focused. The existing plant equipment as UF building, civil works, pumps, pipes and instrumentation need to be used. The new ceramic membrane system needs to be finally connected to existing PLC and SCADA system with required modification.

- Implementation of CFM Systems into existing UF trains.
- Implementation of sludge slope inside filtration tank.
- Implementation sprinkler system.
- Installation of CFM Systems Filtration Racks.
- Filtration equipment.
- Central backwash unit.
- Chemical circulation unit.
- Sprinkler unit.
- Blower unit.
- Connection with existing PLC and SCADA.

Key Benefits

The core target of the pre-treatment is the forming of suspended Fe and Mn compounds. Typically used pre-treatment steps are aeration followed by chemical oxidation. During aeration dissolved Fe compounds are oxidized. The subsequent chemical oxidation realizes a further oxidation of dissolved Fe and an oxidation of dissolved Mn compounds. Common used chemicals are therefore chlorine gas or NaOCl with the additional advantage of water disinfection. Depending on the ground water characteristic additional chemicals are required to realize an oxidation. The oxidation of Fe requires a pH value higher than 6.8. In case of lower pH values caustic solution or other pH increasing chemicals have to be dosed.

The oxidation process of Fe and Mn will be finished during passing of the detention tank. After oxidation the coarse formed particles can be easily removed due to fast sedimentation. The non-settled micro particles will be removed due to filtration. The suspended solid free permeate (filtered water) of the filtration step will be pumped to the final treatment step - reverse osmosis (RO).

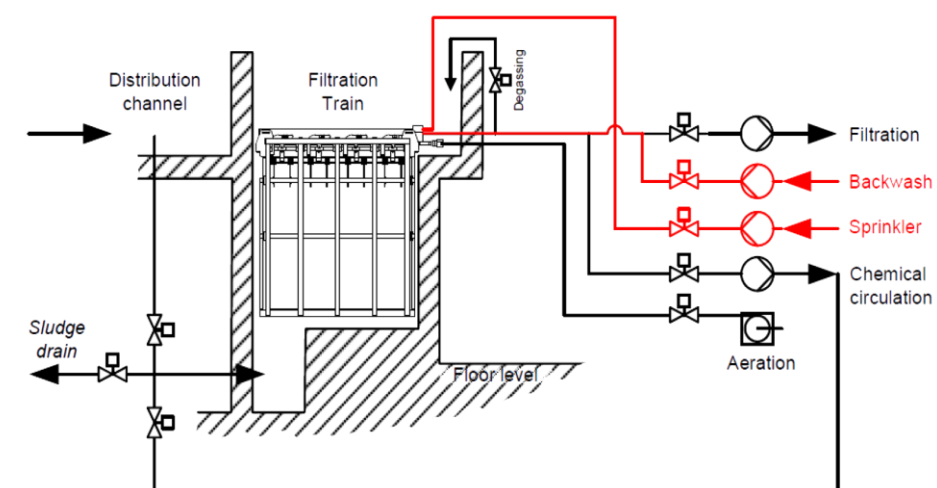
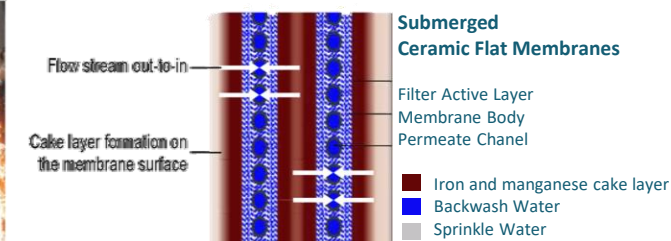


Start Filtration Mode



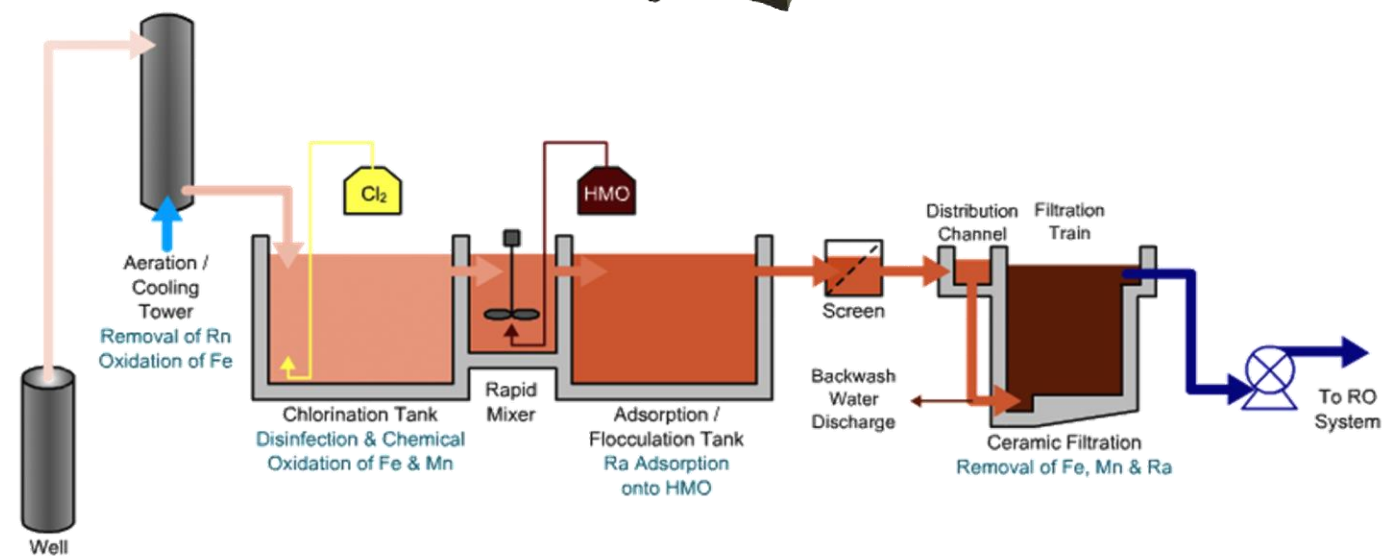
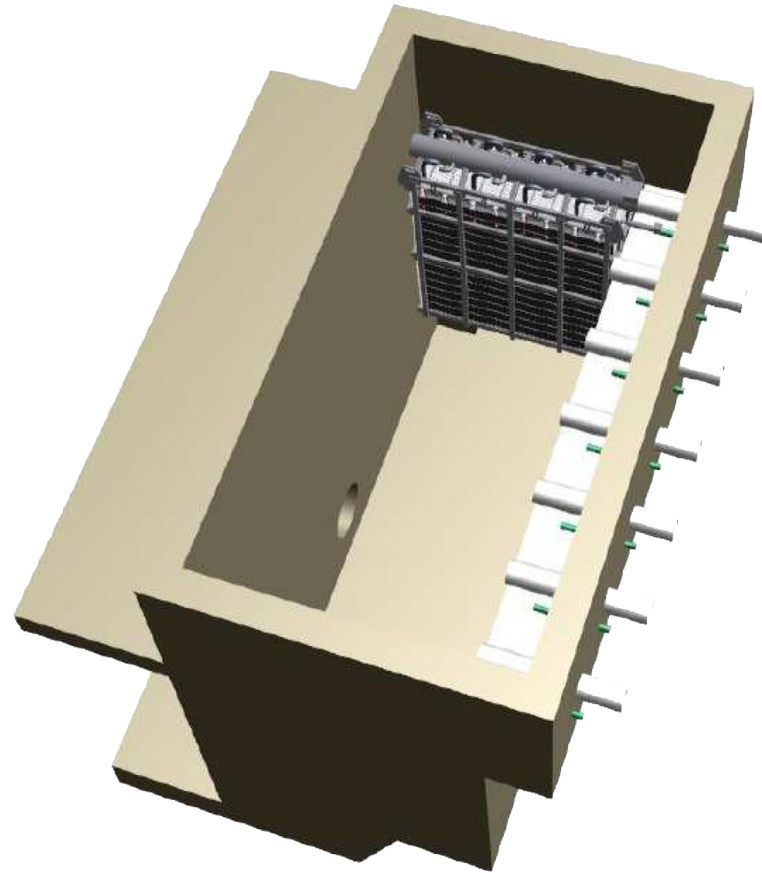
Cake layer formation during filtration mode

End Filtration Mode



Process Description

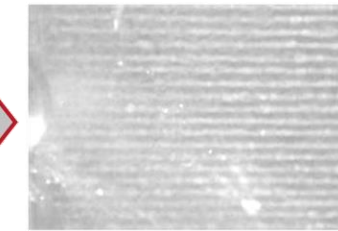
Typical characteristic of deep ground water is the extremely low concentration of organic compounds. To the contrary, high concentrations of inorganic compounds, e.g. Fe and Mn, are the major focus of the pre-treatment. These inorganic compounds are dissolved and require therewith an oxidation to form suspended solids which can be separated by subsequent filtration process.



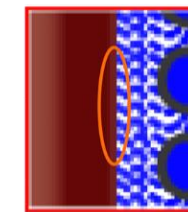
Started Backwash



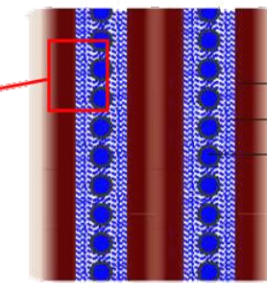
Started Sprinkler



End of Step



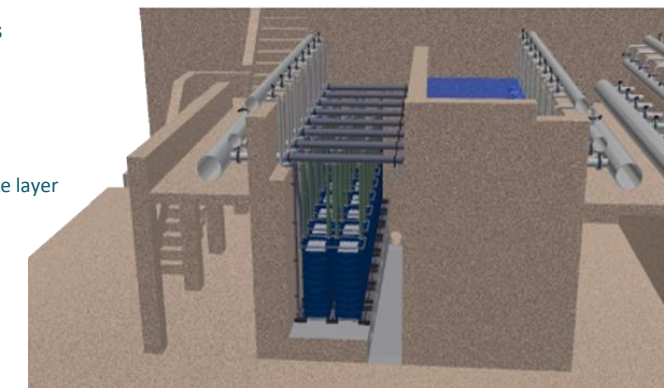
Direct Connection



Submerged Ceramic Flat Membranes

Filter Active Layer
Membrane Body
Permeate Chanel

■ Iron and manganese cake layer
■ Backwash Water
■ Sprinkle Water



Upgrade of Existing Buraydah Main WTP (7) Replacement of 6 Trains



Key Data

Location	Buraydah Water Treatment Plant WTP (7)
Plant Type	Deep Ground Water Pre-Filtration Removal of Iron and Manganese using Nano-Coated Ceramic Flat Membranes
Capacity	100.000 M ³ /day
Owner	National Water Company (NWC)
Client	Arab Contractor Company (ACC)
Contractor	Advanced Electromechanical Industries Company (AEICO)
Contract Type	Design Manufacture Supply Installation, Commissioning and Start-Up

Introduction

Ceramic System Filtration process has major differences to existing polymer Membrane process

- Filtration time existing 20-45 min
- Filtration time new Ceramic Filtration 12 hrs

It results in that filtered Iron & Manganese will highly concentrated inside filtration tank (about 50 times higher to existing polymer system).

The reachable product (permeate) quality essentially depends on the operation of the pre-treatment. In general, the CFM Systems pre-filtration step can remove all suspended solids. It is therewith essentially required to oxidize all Fe and Mn compounds for a maximized removal and minimized turbidity and SDI levels.

Due to the fact that the structure of the membrane is not effected by using chemicals the permeate quality will be not changed after a chemical cleaning. The permeate quality is stable and in the same level before and after each cleaning mode and a long-term operation guaranteed

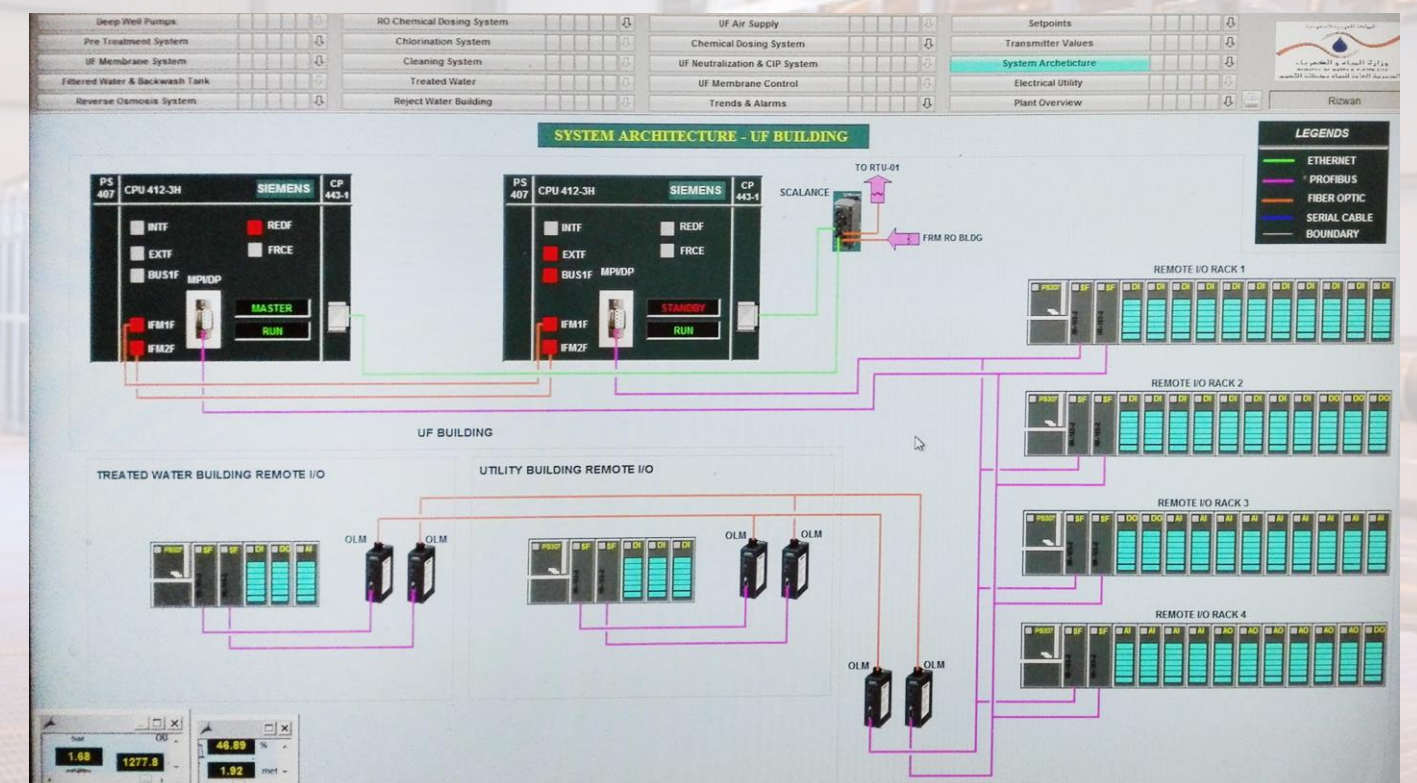
Scope of work

As per tender specifications a direct replacement of existing UF system is focused. The existing plant equipment as UF building, civil works, pumps, pipes and instrumentation need to be used. The new ceramic membrane system needs to be finally connected to existing PLC and SCADA system with required modification.

- Implementation of CFM Systems into existing UF trains.
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- Implementation sprinkler system.
- Installation of CFM Systems Filtration Racks.
- Filtration equipment.
- Central backwash unit.
- Chemical circulation unit.
- Sprinkler unit.
- Blower unit.
- Connection with existing PLC and SCADA.

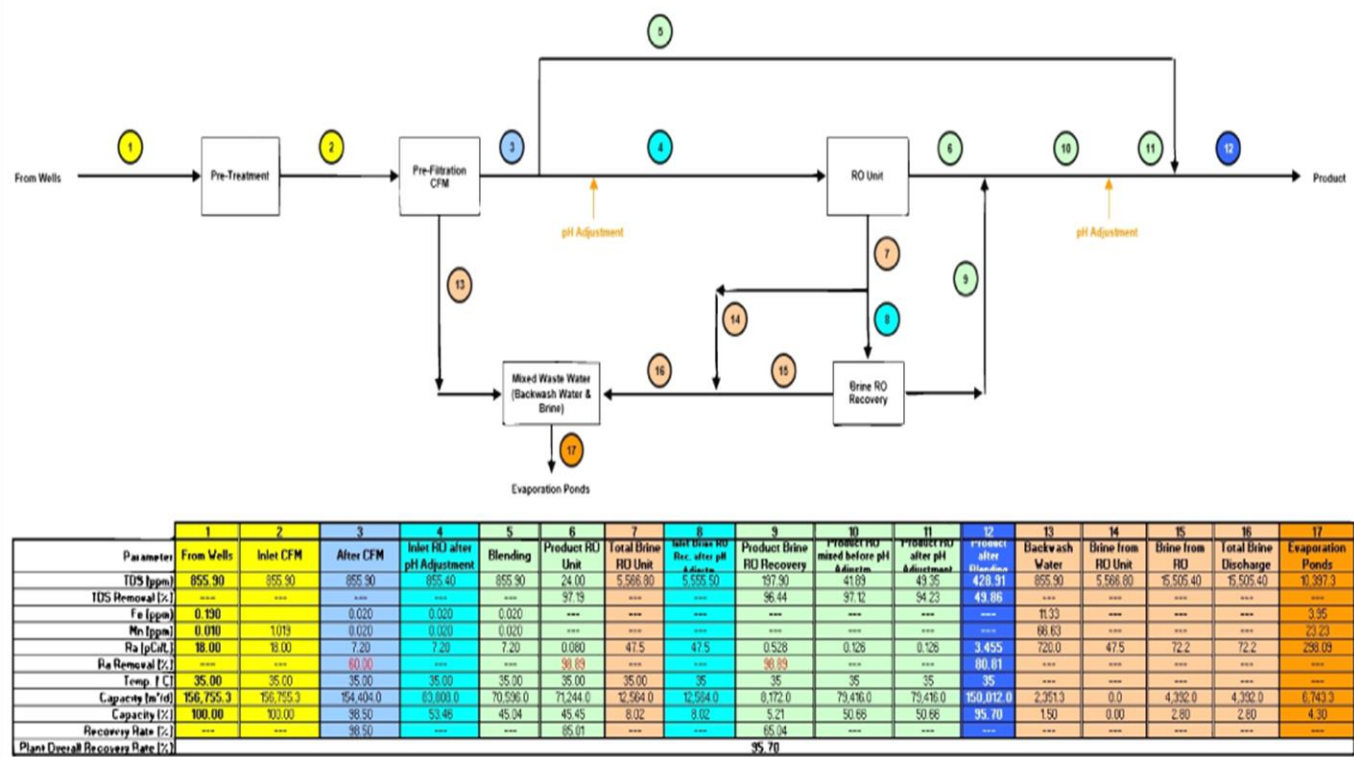
Key Benefits

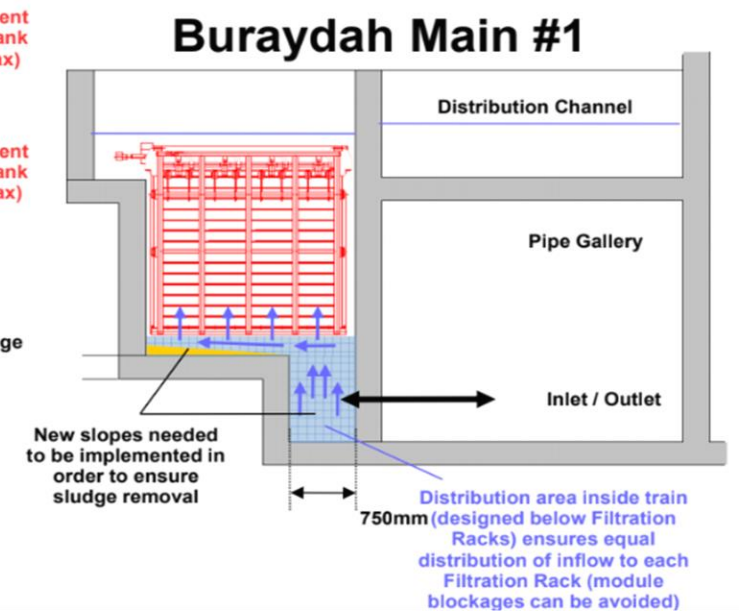
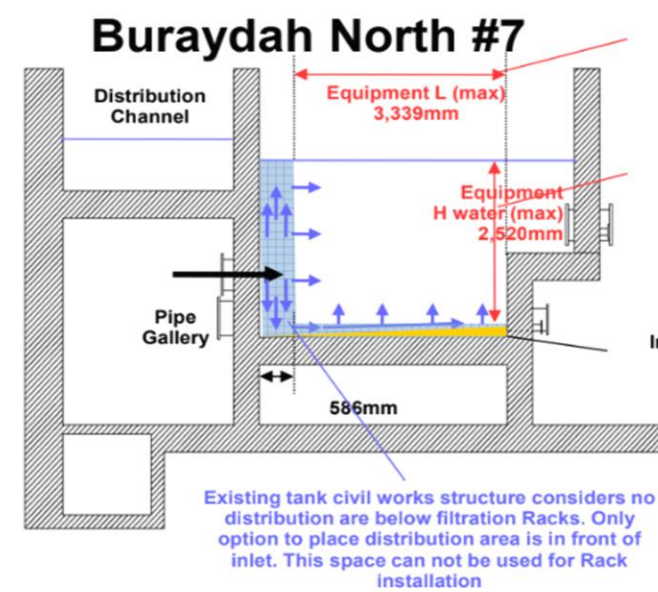
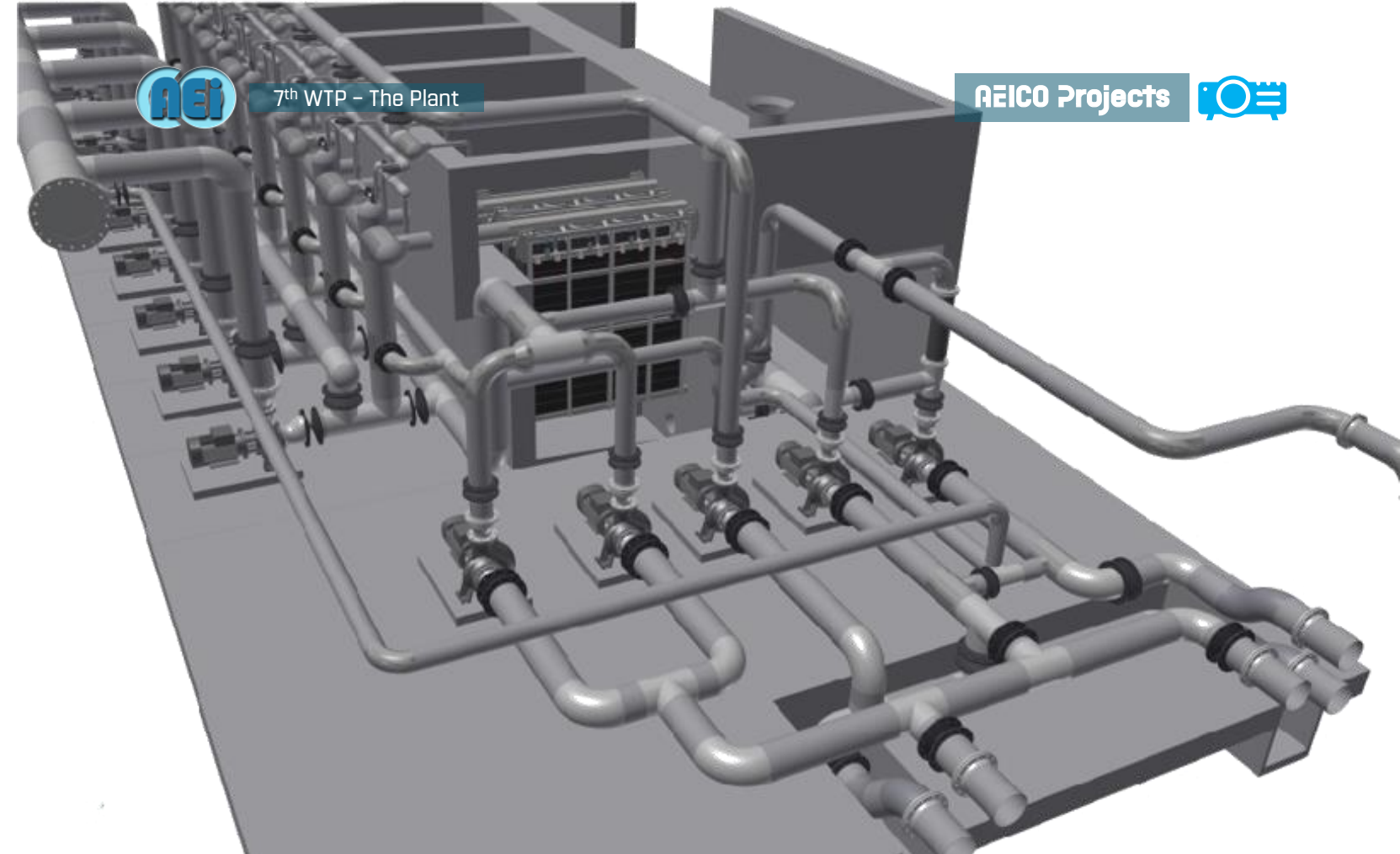
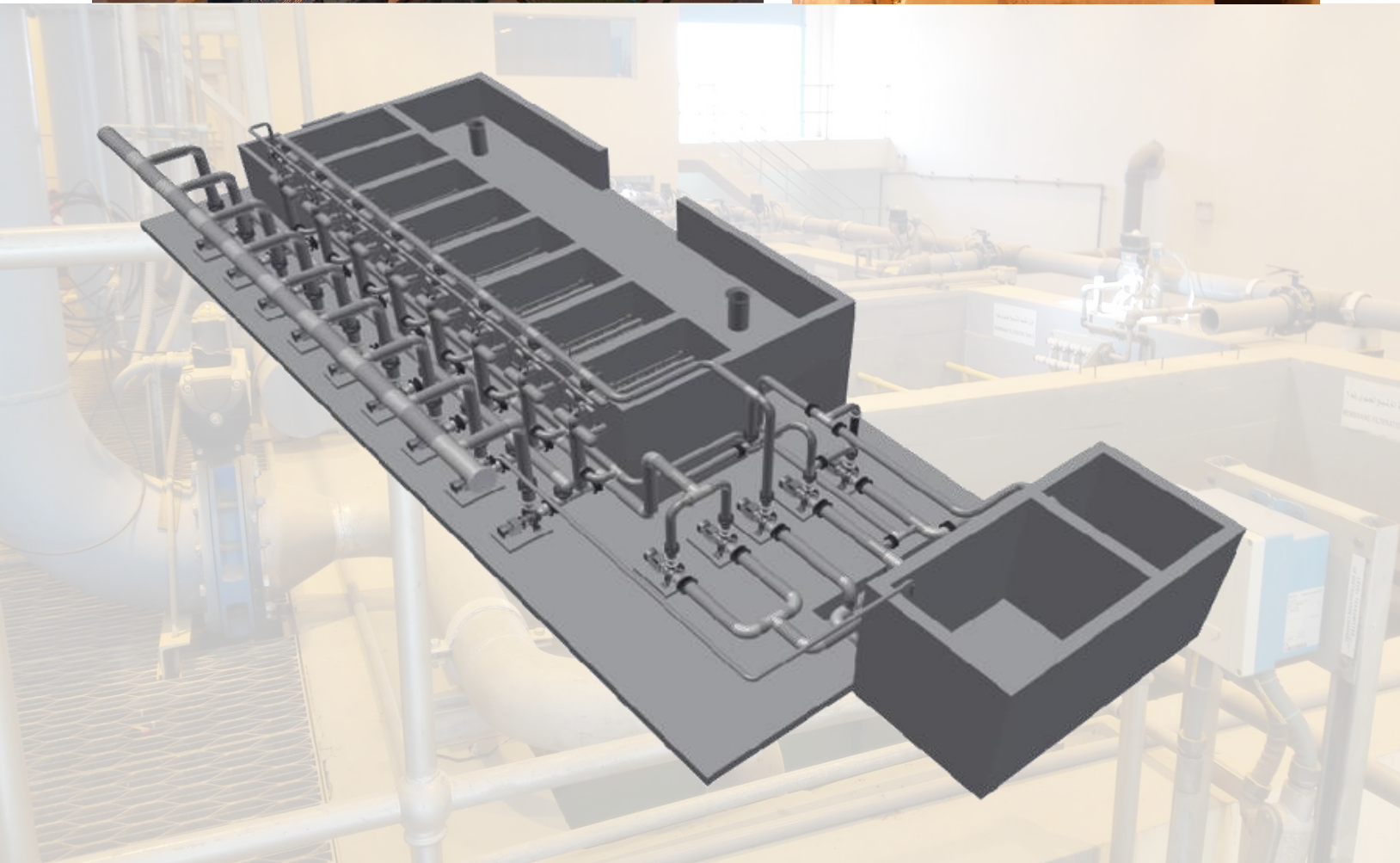
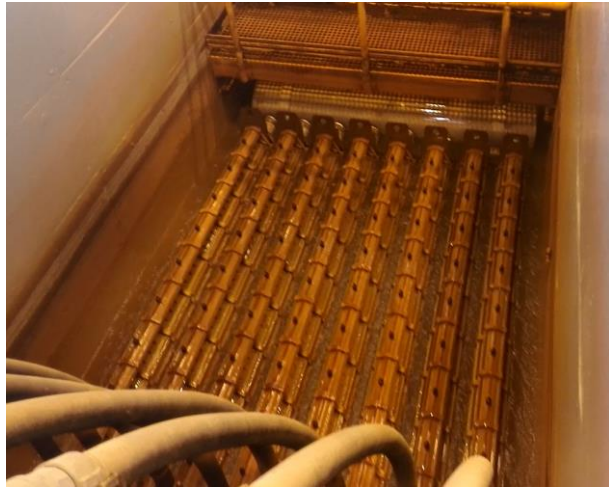
- Less filter area needed due to high flux operation – high CAPEX savings
- Suitable for seawater and other challenging applications without any risks of corrosion problems
- Most compact design – towers can be installed in close distance to each other as no hoses are needed
- Cake layer can be used as additional filter bed for enhanced removal of very small particles and colloidal fractions
- Sorption processes inside the cake layer enable the selective removal of dissolved contents, like radium, uranium, arsenic or organics
- Formed cake layer can function as protective coating to minimize biofouling or scaling
- Improvement of filtered water quality can reduce design and process efforts of subsequent treatment steps Ceramic membranes with very high hydrophilicities – superior for removal of hydrophobic water contents, like oil
- High flux operation of ceramic flat sheet membrane at very low pressure leads to low power consumption



Process Description

- CFM Systems is a submerged filtration solution.
- The filter active layer is on the outside of the membrane. During the filtration mode feed water will pass the membrane from out-to-in. All suspended solids will form a cake layer on the membrane surface.
- The permeate is collected inside the module and is transferred to the filtration pump which generates a negative-sucking pressure.
- During backwash the flow stream is in the reverse direction. A backwash pump generates a high pressure. Permeate passes the membrane from in-to-out. During this mode the formed cake layer will be removed.
- After re-filling of the filtration with permeate backwash pump and sprinkler pump are stopped and the second aeration starts.
- Process and function of the second aeration are similar to the first aeration.
- Main target is to equalize the sludge inside the tank and therewith to prepare the next drain process.
- In parallel, membranes, modules and permeate piping system will be degassed.
- The degassing valve is opened until the tank is re-filled.
- The filtration process can be re-started immediately after the re-filling is finished.





Sewage treatment Plant – Maternity & Children’s Hospital, Buraydah – K.S.A



Key Data

Location	Maternity Hospital - Buraidah - K. S. A
Plant Type	Sewage Treatment Plant
Capacity	1000 M ³ /day
Owner	Ministry of Health (MOH)
Client	Arab Contractor Company (ACC)
Contractor	Advanced Electromechanical Industries Company (AEICO)
Contract Type	Design, Supply, Installation, Turnkey Base Including O&M

Introduction

Hospitals, especially the large ones, consume huge amounts of water in the daily operating cycle, and because of many green areas are need to irrigation in the hospital the desire to benefit from wasted water came and it used in the process of irrigation of gardens and green areas

And also, because hospital water is considered an industrial wastewater and needs special treatment, the wastewater will be received in a plantation which is prepared to receive wastewater, then, it will be transferred to tanks with continues aeration technology where the wastewater is treated and sludge is extracted from the wastewater, the heavy sludge is directed to Special reservoirs. The extracted water is received into special tanks to start the chemical injection stage, then pass on sand filters, then transport to the treatment tanks in reverse osmosis units. The pumping station is fed with this water to transport it to the irrigation network in the hospital through a pipeline conveyor

This is in addition to an emergency line that is ready to work in the event of the station stalling for any emergency conditions or in the case of periodic maintenance, and this line works to transfer the sewage water directly to the main network by means of a sewer, a lift pump and a pipeline conveyor

The separation of wastewater coming from the workers housing has also been taken into account to go directly to the main network, thus ensuring a high degree of purity and long-term performance without problems or obstacles to the station.

Scope of work

The Buraydah sewage treatment plant facilities are extensive and mainly comprise the following units:

- Sewage treatment Plant
- Raw Sewage Metering Station
- Aeration Tanks
- Clarifiers
- Sewage pumping station
- Sludge handling mechanism
- Electrical and control panels
- Irrigation pump station
- Effluent Pump station
- Travelling bridge gravity filters
- Gas chlorinating equipment
- SCADA system connected



Key Benefits

Benefits of Wastewater Treatment

The wastewater treatment process does not only produce clean reusable water, but also has the potential to produce various other benefits. It has the potential to reduce a country’s waste production, to produce energy through methane harvesting, and the potential to produce natural fertilizer from the waste collected through the process. Below is a more detailed explanation of the benefits of wastewater treatment:

1. Waste Reduction

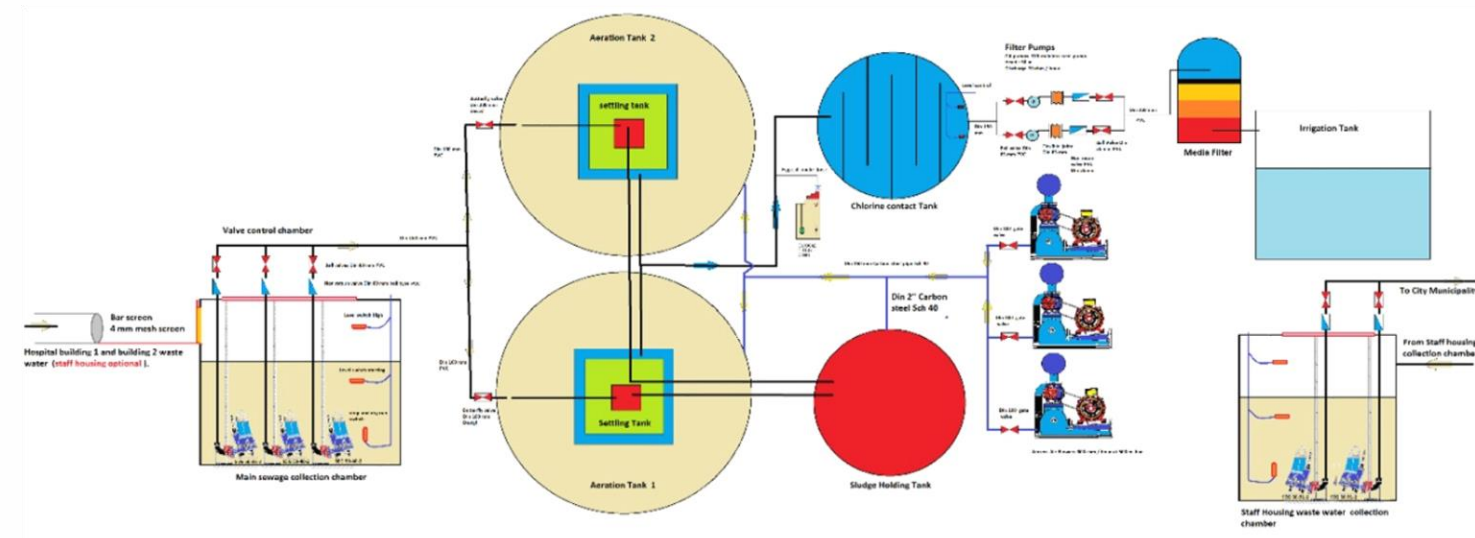
Through the **treatment of wastewater**, the amount of waste that is usually released into the environment is reduced thus improving environment’s health.

2. Energy Production

The sludge collected during the treatment process is itself treated because it contains a large amount of biodegradable material. The gas produced during this **anaerobic digestion** process contains a large amount of methane, which is harvested and then burned to generate electricity.

3. Fertilizer Production

Any biodegradable material remaining is dried in “drying lagoons” and is then turned into natural fertilizer.



Water Treatment Plant – Maternity & Children’s Hospital, Buraydah – K.S.A



Key Data

Location	Maternity Hospital - Buraidah - K. S. A
Plant Type	Water Treatment Plant
Capacity	1000 M ³ /day
Owner	Ministry of Health (MOH)
Client	Arab Contractor Company (ACC)
Contractor	Advanced Electromechanical Industries Company (AEICO)
Contract Type	Design, Supply, Installation, Turnkey Base Including O&M

Introduction

The new design for the plant is very compact and is as follow:

Self-cleaning filter : The filter installed after the feed pumps on the same Skid to have very compact design. And it can be enough for the operation of the three pumps together in case if much blending water required to adjust final product TDS upon request . The filter back wash takes place by differential pressure switch and start automatically at 0.8 bars. The raw water enter filter from left side (servo motor side) to the first coarse strainer with 3 mm grain size. The water pass through the strainer to inside the filter and from inside the filter through the selected grain size screen (50 micron) to outside the screen in the annular spacing between the screen and the filter housing almost with the same operation pressure.

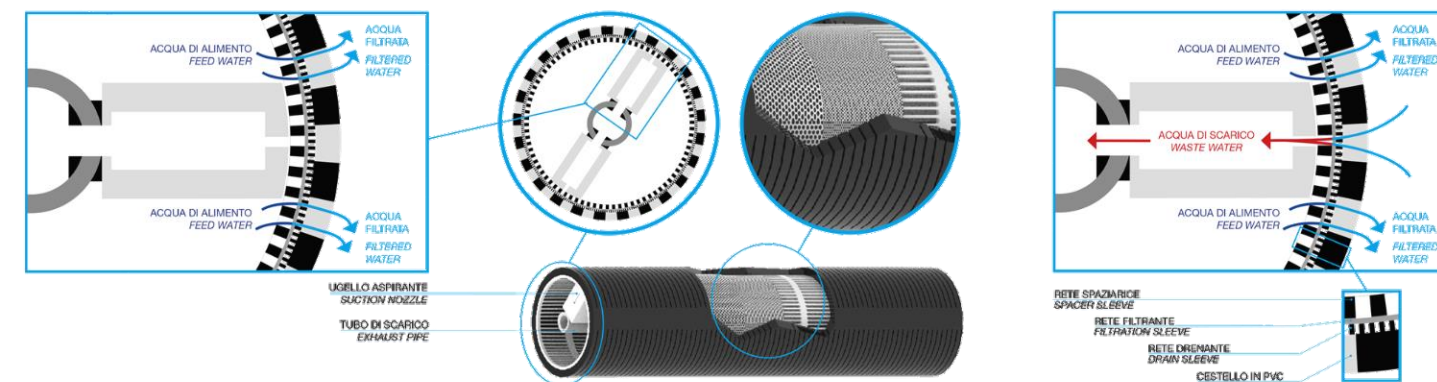
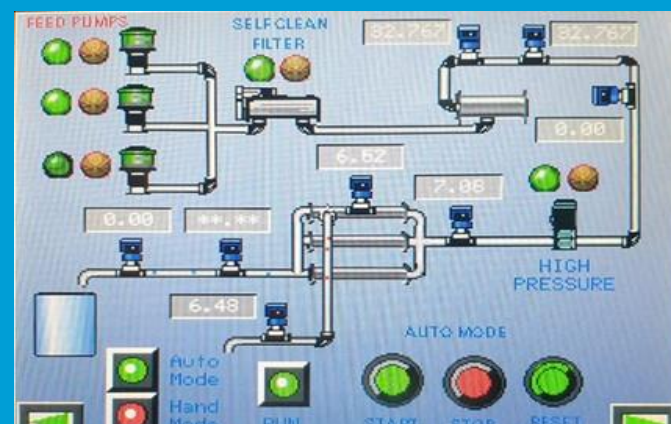
Filter material 316 L and wetted parts PVC and screen from polyester. The filter has air vent for air release. Cartridge filter: we selected the Filter with Two cartridges 1 micron with large surface area and re-washable to replace the traditional Micron filter. It has several advantages: Cartridges from polyester material with 1 micron pore size and cartridges are re-washable up to 500 times. The filter has drain valve lower than both filter inlet and outlet and Filter material is FRP. RO skid has 6 pressure vessels each has 5 membranes TM720 by Toray, on two array design the first array has 4 vessels and the second array has two vessels. Each vessel has three way valve stub for product diversion in case of bad quality.

The unit equipped with two conductivity meters for feed and produced water and two pH meters for feed and permeate.

The unit has high pressure pump Stairs SBN 64-3 with discharge 50 m³/hour at 12 - 14 bars head and material 316 L with 30 kw motor. The pump vertical multi stage type. The pump operated by soft starter for smooth operation. The unit has pressure transmitters for full automatic control 0-25 bars at pressure pump outlet and after first array and after second array before concentrate (reject) control valve.

The unit has five dosing pumps: dosing of Meta basophile or persulphate for oxidants removal and for oxygen removal, dosing of Sulphury Acid, Dosing of Anti sealant ,hypochlorite AND sodium hydroxide dose for permeate water pH control.

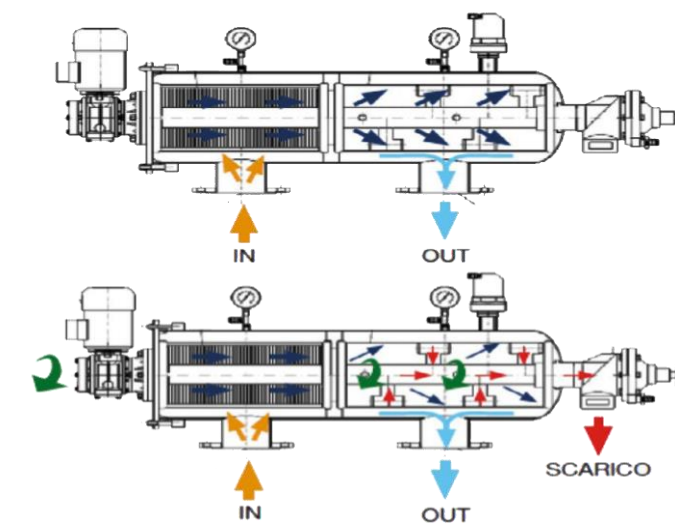
The unit has advanced switch cabinet with touch screen (HMI) by Schneider electric and PLC ether net for SCADA connection prewired tested with all necessary protection.



Scope of work

Supply & Install and testing for all the following items:

- Row water Feed Pump.
- Self Cleaning Filter 5 micron.
- RO System (Reverse Osmosis).
- Instrumentation, Control and PLC System.
- Low Voltage Panels, MCC Panels and Lighting System.
- Earthing, Lightning and Fire Alarm System.

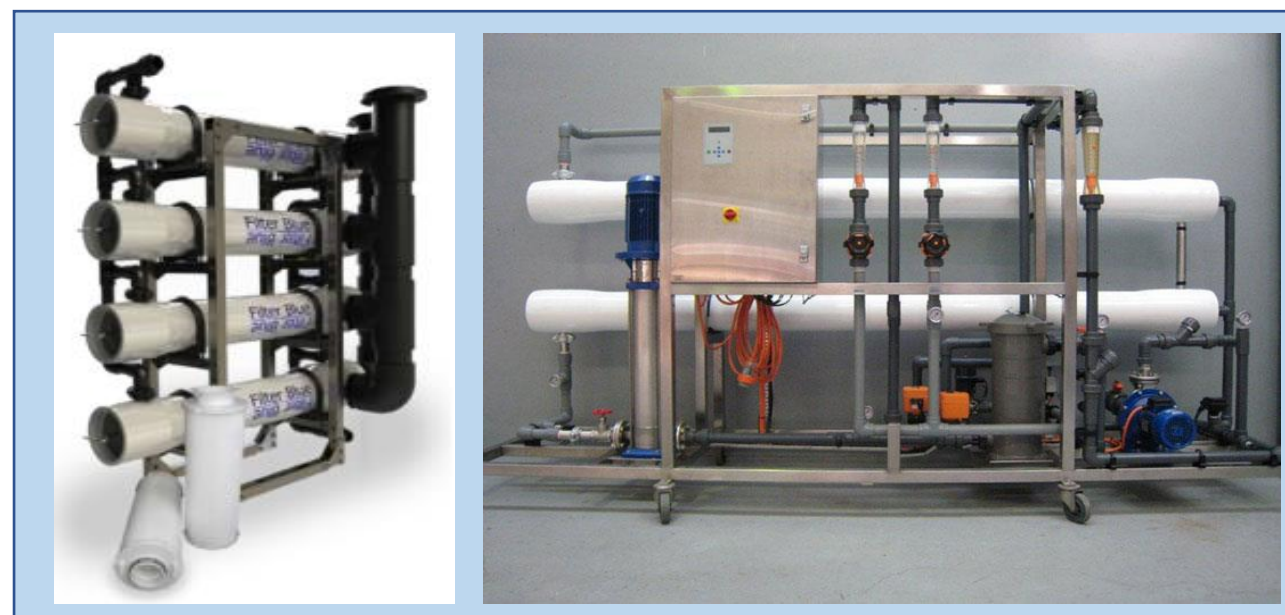


Key Benefits

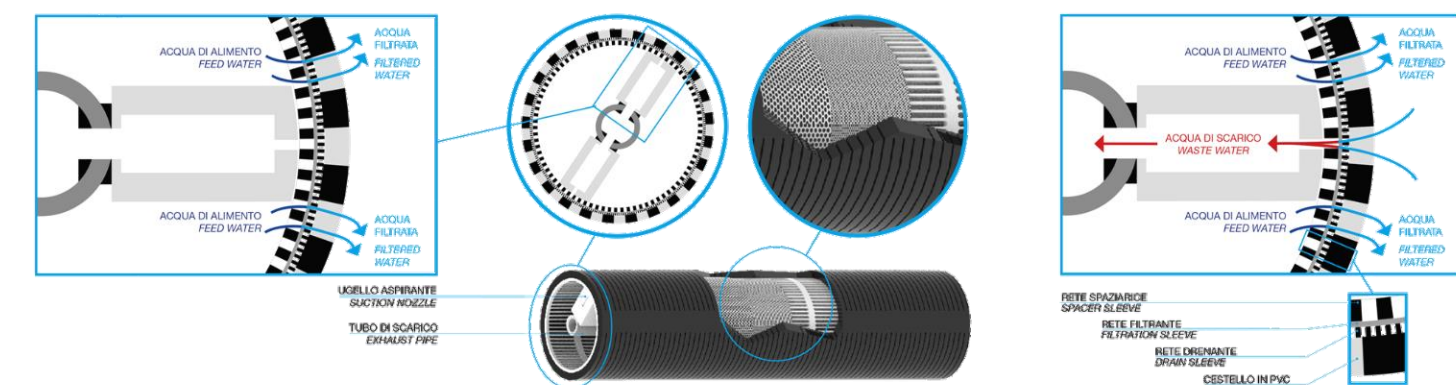
Buraydah Maternity and Children Hospital is a destination, designed to be one of the most environment-friendly buildings developments of its kind .

Extensive landscaping and eco-friendly policies underline its focus on a green, clean environment. being an integral part of the destination landscaping developing the TSE (1) Polishing Plant as a solution to treat, recycle and reuse water as an irrigation water for the gardens and green surrounding areas, it has many benefits:

1. The solution offers a more economically viable alternative for water provision compared to using other water resources for irrigation water systems.
2. The utilization of environmentally friendly and energy saving technology lowers the environmental footprint to a minimum, in line with the policies implemented across the establishment



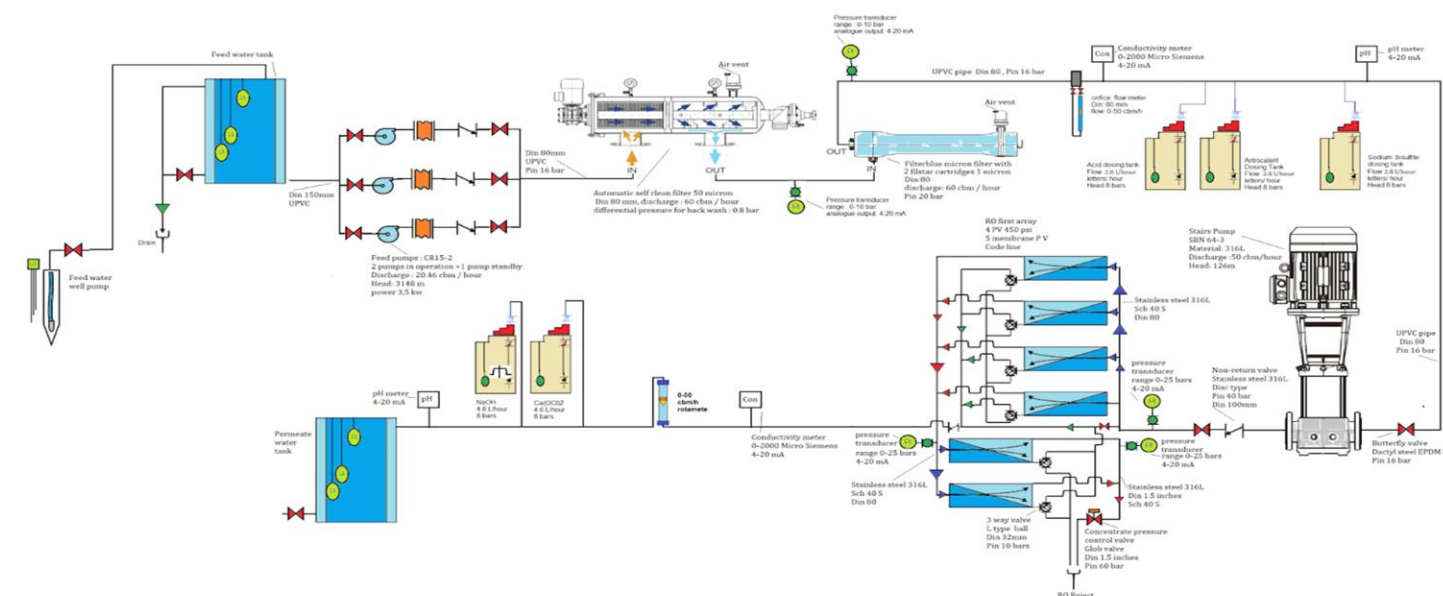
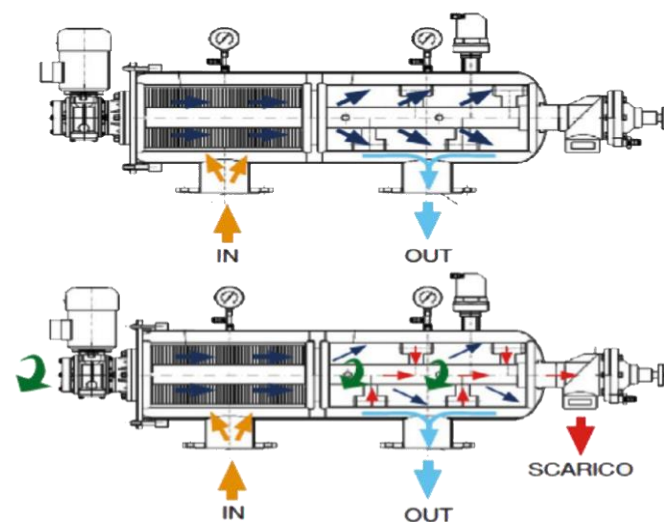
Process Description Diagram



Scope of work

Supply & Install and testing for all the following items:

- Row water Feed Pump.
- Self Cleaning Filter 5 micron.
- RO System (Reverse Osmosis).
- Instrumentation, Control and PLC System.
- Low Voltage Panels, MCC Panels and Lighting System.
- Earthing, Lightning and Fire Alarm System.



Al Qara'a Pump Station – Buraydah – K.S.A



Key Data

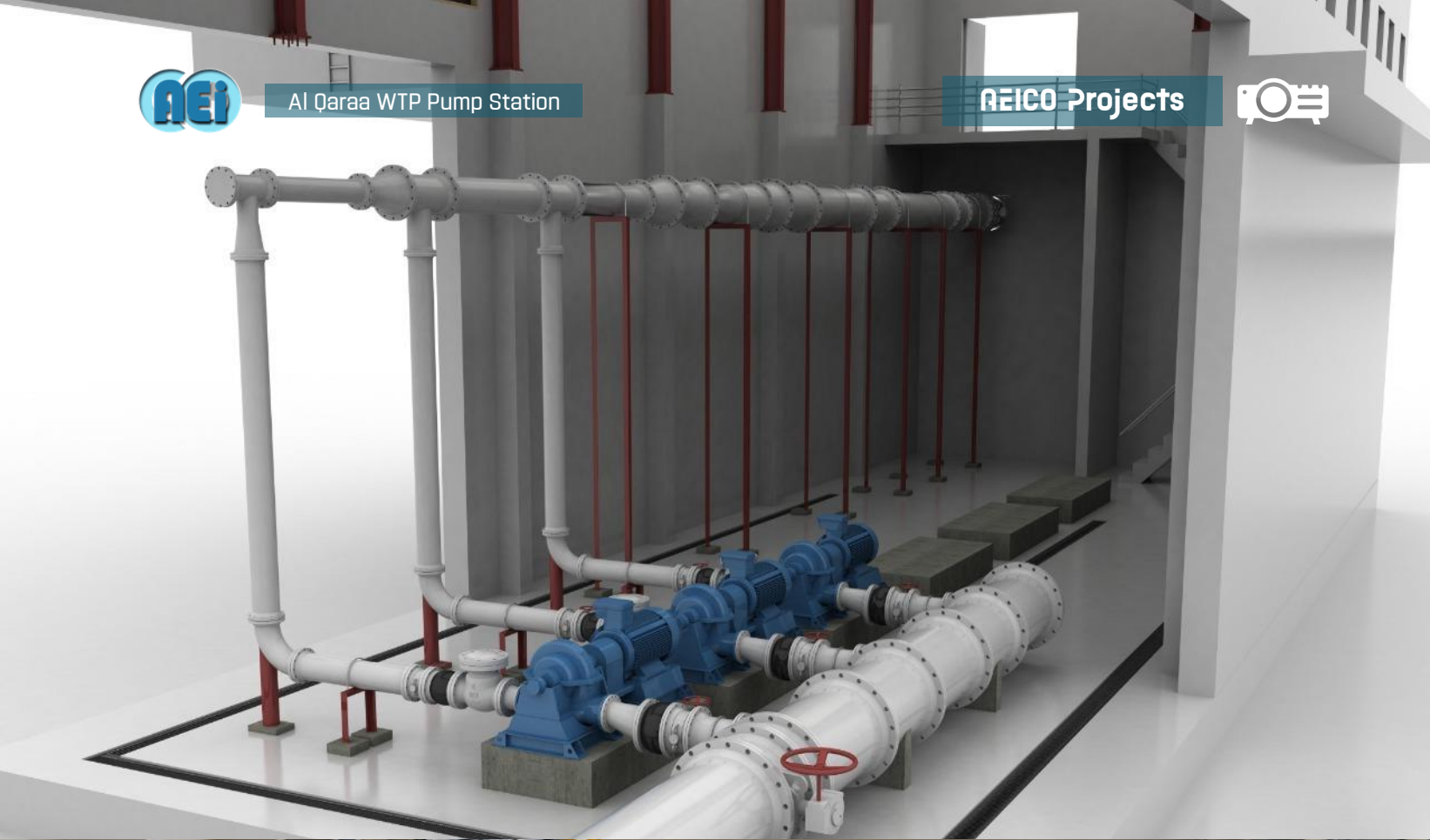
Location	Qassim – Al Qaraa
Plant Type	Pump Station Plant
Capacity	24000 M³/day
Owner	National Water Company (NWC)
Client	Ajwaa Al Arab Contractors (AACo)
Contractor	Alghamas Factory Company for advanced Electromechanical Industries (AEICO)
Contract Type	Design & Build, Supply & Install, Turn Key, Maintenance & Operating

Introduction

Ajwaa Alarab Contractors Company was awarded the project and hand over to AEICO on its extensive engineering experience with Electromechanical projects, to supply, welding, installation and pressure hydro test for pump station and water transmission line to the city with a capacity of 24.000 m³/day to pumping drinking water and serving more than 50,000 beneficiaries in the region.

Scope Of Work

- supply and installation all electromechanical works including the following items:
- Supplying and installation transmission line (pipe size 800 mm ductile iron) connected to Buraydah water pipe network.
 - All welding, fabrication and installation for pipe system.
 - Installation Generators and switchgear panels low and medium voltage.
 - Installation Variable Frequency Drive (VFD).
 - Alignment all pumps.
 - Testing ,commissioning and startup the project





Upgrade of Existing Al Asyah WTP (6)

Scope Of Work

The project scope is collect raw water from AN Nabqiah Deep Water Wells and pumping to Al Asyah Water Treatment plant, the work including Supply and installation the following:

- Submersible pumps.
- MCC panel with soft starter and HMI.
- Discharge lines with all valves and instruments
- Pipelines from Ductile Iron..
- Overhead line and transformers.
- Generators.
- Medium voltage Switch gear panel.
- Microwave system to link sites.
- SCADA System.



Key Data

Location	Al-Asyah Water Treatment Plant WTP (6)
Plant Type	New Deep Ground Water wells installation and connected to WTP.
Capacity	20.000 M³/day
Owner	National Water Company (NWC)
Client	Arab Contractor Company (ACC)
Contractor	Advanced Electromechanical Industries Company (AEICO)
Contract Type	Design Manufacture Supply Installation, Commissioning and Start-Up

Introduction

Due to Saudi Arabia's scarce water resources, and the increment of the gab between the supply and demand of water, The National Water Company (NWC) has launched Al Asyah Water Station Expansion 20,000 m³/day project in the city of El-Qassim Region, to supply and installation a new deep ground water wells with a capacity of 20.000 m³/day to pumping raw water throw ductile iron pipelines.

Arab contractors company (ACC) was awarded the project and hand over to AEICO on its extensive engineering experience with developing desalination projects and its world class quality process design, construction, operation and maintenance of plants utilizing the Reverse Osmosis Technology.



Supply and installation Al Mekharem Pump Station / Capacity 200,000 m³/day

Scope Of Work

The project scope is including Supply and installation the following:

- Supplying all materials, carbon steel pipes with different diameter sizes (1400.1200.800.500.350) mm.
- Welding and coating for piping system.
- Hydro pressure test for piping system.
- Alignment all pumps via lazier SKF equipment tools.
- Install all instrument on piping system.
- Manufacturing all diesel tanks for fuel system.
- Manufacturing fuel control panel with plc system.
- Supplying and install all valves and level sensors.

Key Data

Location	Al Mekharem, El-Qassim - KSA
Plant Type	Raw Water Reservoirs and pump station Plant capacity 200.000 m ³ /day
Capacity	200.000 m ³ /day
Owner	National Water Company (NWC)
Client	Trading & Development Partnership Co. (TDP)
Contractor	Advanced Electromechanical Industries Company (AEICO)
Contract Type	Supply and install Pump Station and fuel system

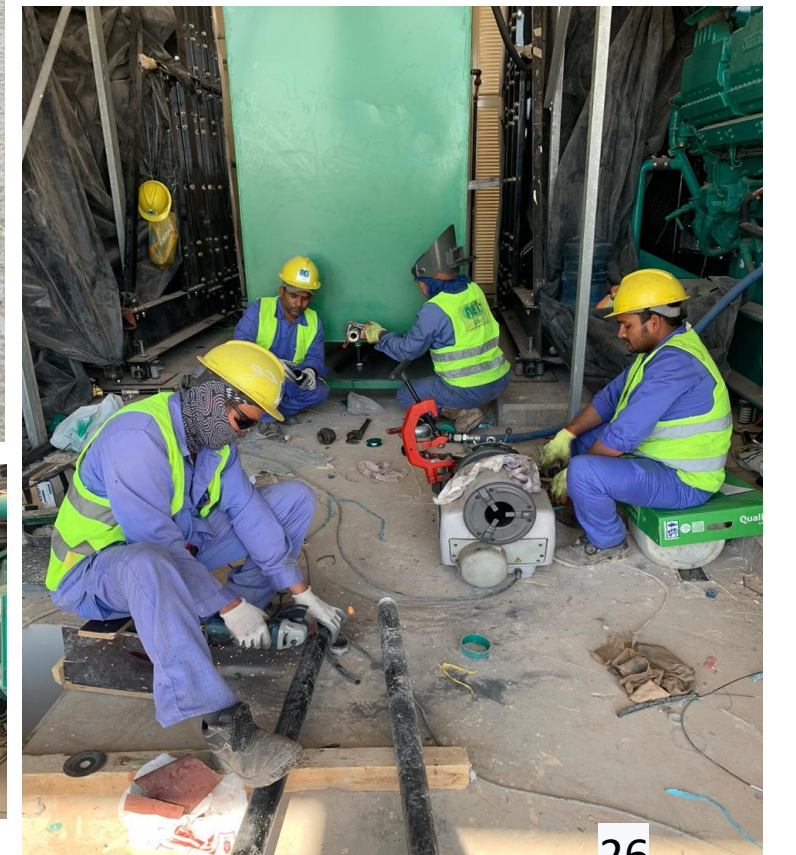
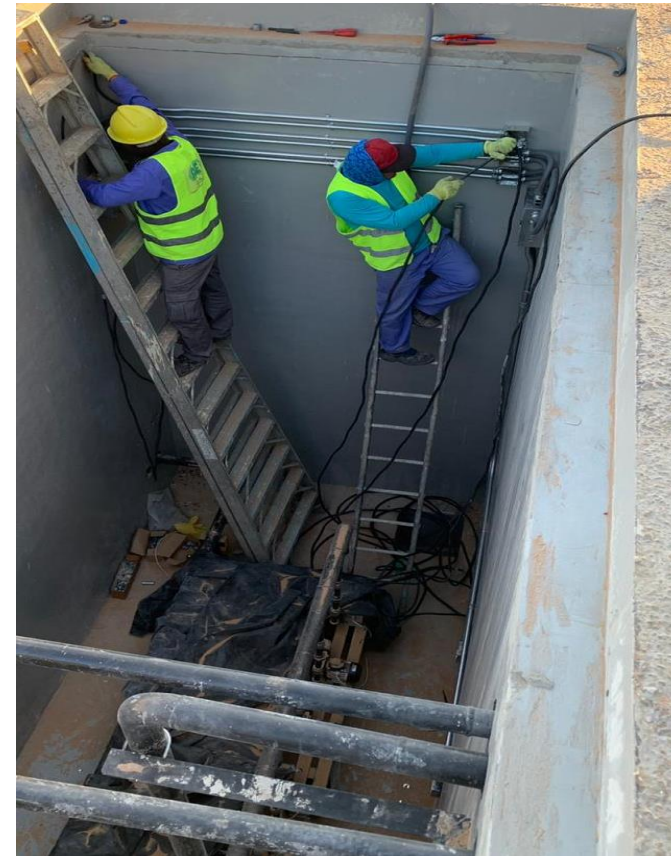
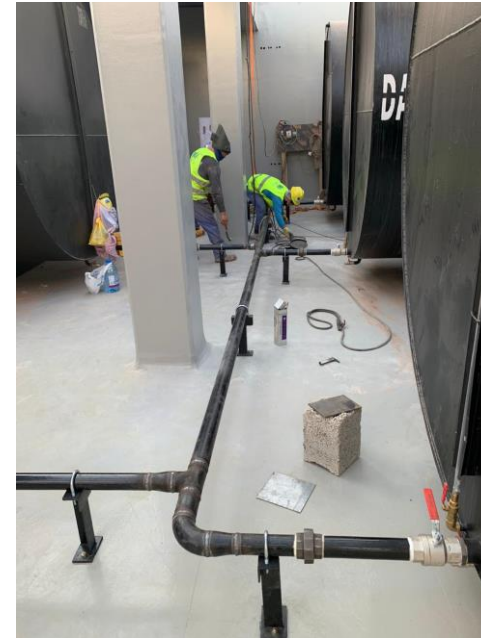
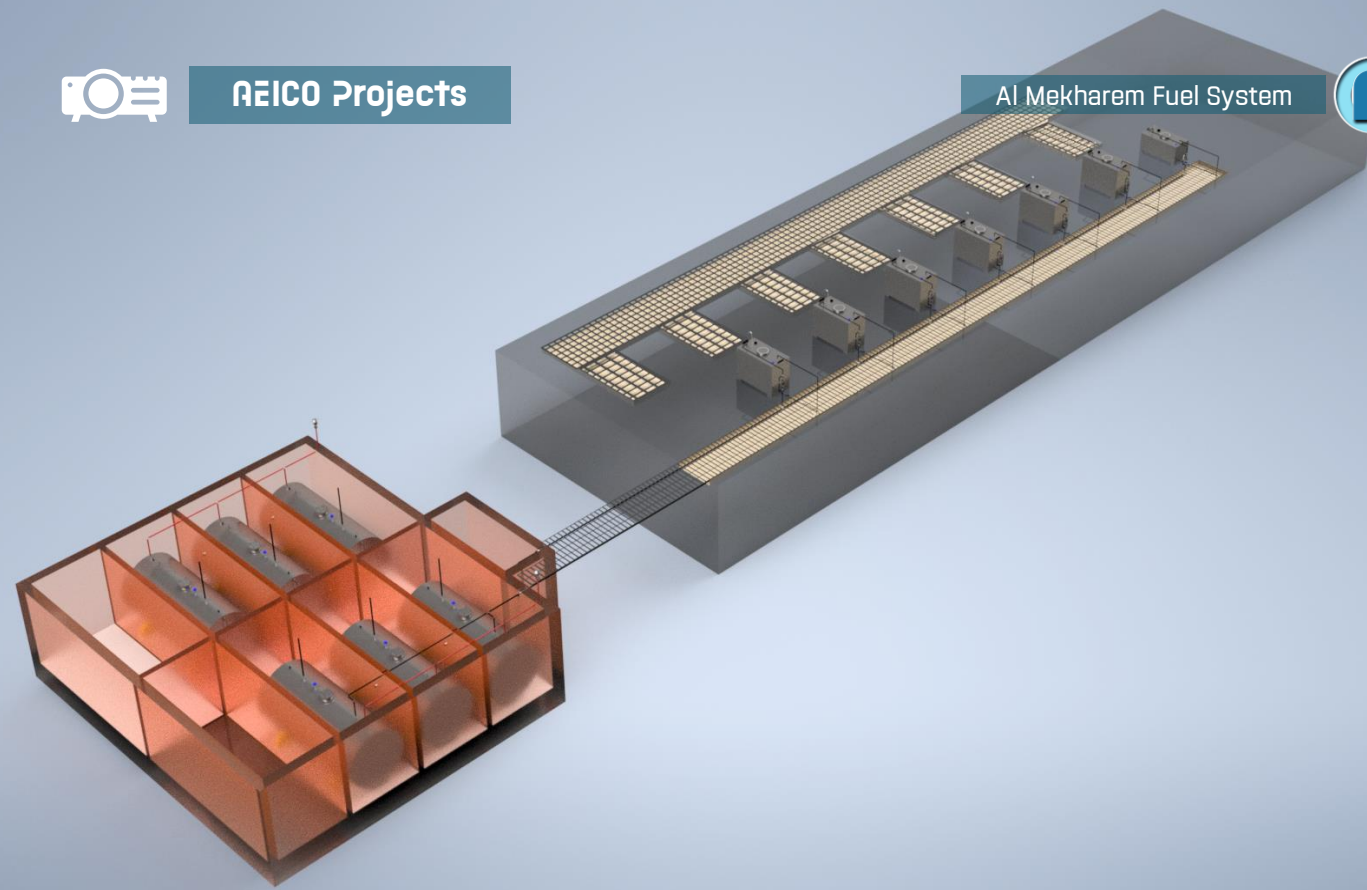
Introduction

According to agreement with TDP for above project , AEICO supplying all carbon steel pipe seamless type with diameter (1400, 1200) mm, welding, installation, testing , alignment for all pumps and start-up of pump station.

AEICO, supplying fuel system including six fuel tanks capacity 35.000 m³ and fuel pump skid to transfer diesel from monthly tanks to daily tanks capacity 5.000m³ via control panel consists on PLC system connected with SCADA and fire system of the plant.







وزارة البيئة والمياه والزراعة
 Ministry of Environment Water and agriculture
 المديرية العامة لخدمات المياه بمنطقة القصيم

Supply & Installation of Submersible Pumps, Generators and MCC Panels

شركة مصنع الفماس
 For Advanced Electromechanical Industries
 للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
 للتجارة والمقاولات

Buraydah – WTP 6th \$ 68,305,000 SAR 15 Months

وزارة البيئة والمياه والزراعة
 Ministry of Environment Water and agriculture
 المديرية العامة لخدمات المياه بمنطقة القصيم

Supply & Installation of Electric Generators

شركة مصنع الفماس
 For Advanced Electromechanical Industries
 للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
 للتجارة والمقاولات

Riyadh Alkhbra WTP 4th \$ 16,430,000 SAR 12 Months

وزارة البيئة والمياه والزراعة
 Ministry of Environment Water and agriculture
 المديرية العامة لخدمات المياه بمنطقة القصيم

Supply & Installation of 7 Submersible Pumps, Equipment, CP & Cables

شركة مصنع الفماس
 For Advanced Electromechanical Industries
 للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
 للتجارة والمقاولات

Buraydah - Almasader Area \$ 38,369,000 SAR 16 Months

وزارة البيئة والمياه والزراعة
 Ministry of Environment Water and agriculture
 المديرية العامة لخدمات المياه بمنطقة القصيم

Supply & Installation of Drinking Water Networks

شركة مصنع الفماس
 For Advanced Electromechanical Industries
 للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
 للتجارة والمقاولات

Dammam - Al Khobar \$ 67,396,000 SAR 36 Months

وزارة البيئة والمياه والزراعة
 Ministry of Environment Water and agriculture
 المديرية العامة لخدمات المياه بمنطقة القصيم

Supply And Installation Of Transformers And Overhead Lines

شركة مصنع الفماس
 For Advanced Electromechanical Industries
 للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
 للتجارة والمقاولات

Buraydah The Sanitary Landfill \$ 15,375,000 SAR 6 Months

وزارة البيئة والمياه والزراعة
 Ministry of Environment Water and agriculture
 المديرية العامة لخدمات المياه بمنطقة القصيم

Supply And Installation Of Pumps

شركة مصنع الفماس
 For Advanced Electromechanical Industries
 للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
 للتجارة والمقاولات

Buraydah 1st & 7th WTPs \$ 19,500,000 SAR 6 Months

وزارة البيئة والمياه والزراعة
 Ministry of Environment Water and agriculture
 المديرية العامة لخدمات المياه بمنطقة القصيم

Al Khalij Pump Station Expansion

شركة مصنع الفماس
 For Advanced Electromechanical Industries
 للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
 للتجارة والمقاولات

Buraydah - Alkhalij \$ 7,405,030 SAR 4 Months

وزارة البيئة والمياه والزراعة
 Ministry of Environment Water and agriculture
 المديرية العامة لخدمات المياه بمنطقة القصيم

Supply & Installation of 40 Submersible Pumps, at Al Khadr Wells Region

شركة مصنع الفماس
 For Advanced Electromechanical Industries
 للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
 للتجارة والمقاولات

Buraydah - Almasader Area \$ 38,605,200 SAR 12 Months

Supply & Install Water Treatment Plant

AP

شركة مصنع الفماس
For Advanced Electromechanical Industries
للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
للتجارة والمقاولات

Jeddah - Al Andalus
Tourism Village

2,800,000 SAR

6 Months

Supply & Installation of Generators & MCC Panels

وزارة الصحة
Ministry of Health
المديرية العامة للشؤون الصحية
بمنطقة القصيم

شركة مصنع الفماس
For Advanced Electromechanical Industries
للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
للتجارة والمقاولات

Buraydah - Maternity
& Children Hospital

1,150,000 SAR

6 Months

Supply & Installation of Stainless Steel Pipes

NWC
وزارة البيئة والمياه والزراعة
Ministry of Environment Water and Agriculture
المحررة العامة لخدمات المياه بمنطقة القصيم

شركة مصنع الفماس
For Advanced Electromechanical Industries
للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
للتجارة والمقاولات

Buraydah -
GWSM

38,605,200 SAR

12 Months

Supply & Install Water Treatment Plant (R.O)

Holiday Inn

شركة مصنع الفماس
For Advanced Electromechanical Industries
للصناعات الكهروميكانيكية المتطورة

شركة المتعهدون العرب
للتجارة والمقاولات

Mecca - Aziziya

1,209,000 SAR

6 Months

ISO Quality Management System

ISO 9001 – 2015

For the following scope of activities:

MANUFACTURE AND SALES OF (SEAMLESS PIPES, WELDED PIPES, FITTINGS, ALL TYPE OF FLANGES, ALL TYPE OF FILTERS FOR WATER TREATMENT, DESALINATION, WASTE WATER EQUIPMENT) ASSEMBLING AND PERFORMANCE FOR (TESTING ALL KINDS OF PUMPS, ALL KIND OF VALVES, ALL LOW AND MEDIUM VOLTAGE PANELS) AUTOMATION SYSTEMS, (DESIGN AND BUILDING OF RO DESALINATION PLANTS, AND WASTE WATER PLANTS)



ISO Business Quality Certificate

ISO 9001 – 2015

For the following scope of activities:

MANUFACTURE PUMPS LIKE (TURBINE PUMPS, CENTRIFUGAL PUMPS, DEWETRING PUMPS & FIRE PUMPS) WINDING ENGINE , PRODUCES PIPES (1.5" to 10" & AS PER CUSTOMER REQUIREMENTS), CARBONSTEEL & STAINLESS STEEL SHAFT , FULL RO SYSTEM PRODUCTION, CARBONSTEEL & STAINLESS STEEL FITTING, COMPACT UNIT FOR SEWAGE WATER



Maintenance Completion

Certificates Of Completion

In accordance of maintenance completion with the principles and technical standards required within the specified time with efficient care and an able work team For the following scope of activities

- Desalination Plant maintenance
- Pump Shaft Alignment

Supply & Install Completion

Certificates Of Completion

In accordance of supply completion with the principles and technical standards required within the specified time with efficient care and an able work team For the following scope of activities in Maternity & Children Hospital :

- ✓ Supply and installation of sewage treatment plant
- ✓ Supply and installation of reverse osmosis units with a production capacity of 500 cubic meters / day
- ✓ Supply and installation of medium voltage cells
- ✓ Supplying spare parts for electrical appliances
- ✓ Supply, installation and maintenance of the water desalination plant

And also in King Fahd Specific Hospital:

- ✓ Supply & Install the sand filter & self cleaning filter



Water Regulation Advisory Scheme

AL-GHAMMAS FACTORY FOR ADVANCED ELECTROMECHANICAL INDUSTRIAL CO (AEICO)

has had the undermentioned products examined, tested and certified as being of an appropriate quality and standard as required in the Water Supply (Water Fittings) Regulations and Scottish Water Byelaws, subject to scheme requirements being met when installed.

Model Numbers

ABV BUTTERFLY VALVES --- && --- AGV GATE VALVES

--- && ANRV NONERETURN VALVES



The materials/components as it is to be sold by the applicant.

- ‘CT-Water’ Ceramic Flat Sheet Membrane AI203
- ‘CT Water - ABS’ Grey colored, injection molded ABS end cap.

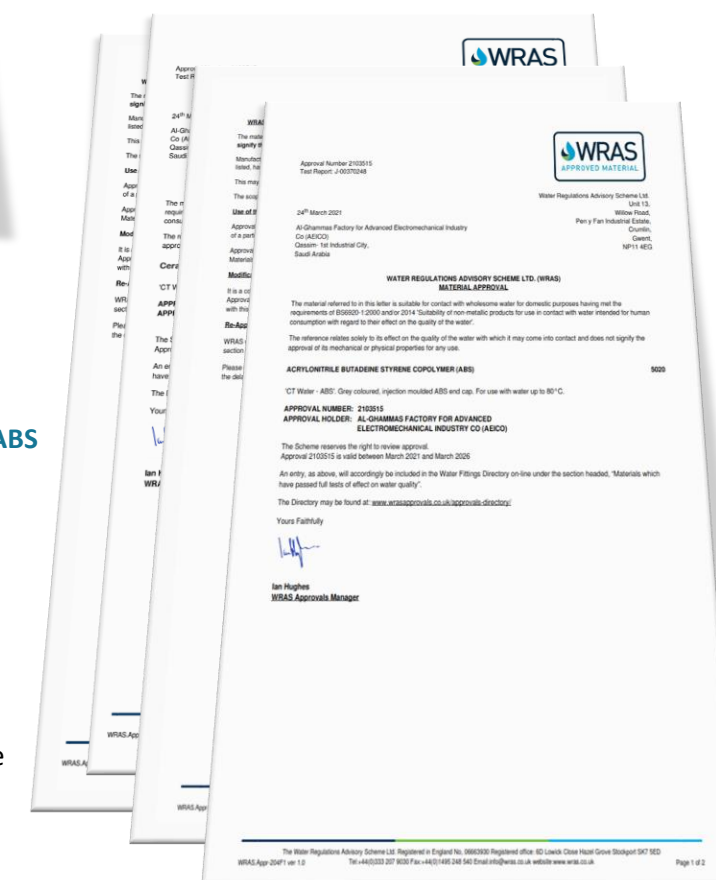
For use with water up to 80°C.

APPROVAL HOLDER: AL-GHAMMAS FACTORY FOR ADVANCED ELECTROMECHANICAL INDUSTRY CO (AEICO)

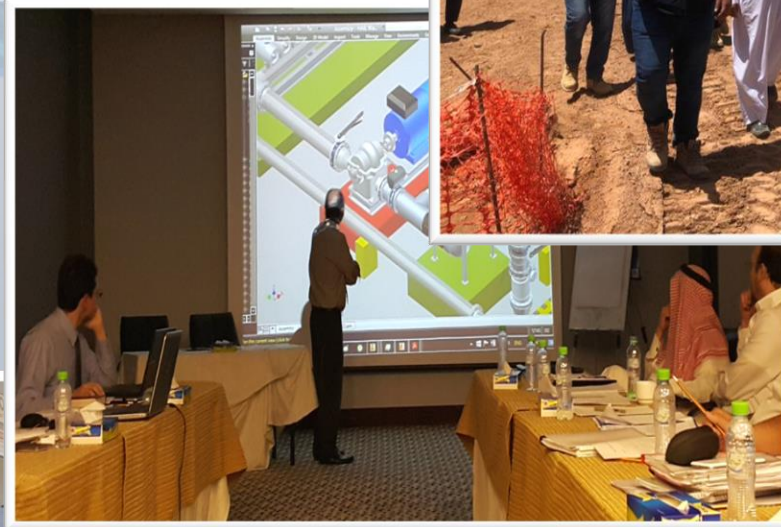
The Scheme reserves the right to review approval.

Approvals are valid between March 2021 and March 2026

An entry, as above, will accordingly be included in the Water Fittings Directory on-line under the section headed, “Materials which have passed full tests of effect on water quality”.



Other WRAS Certificates in progress,
All GRANDMAS PUMPS PRODUCTS



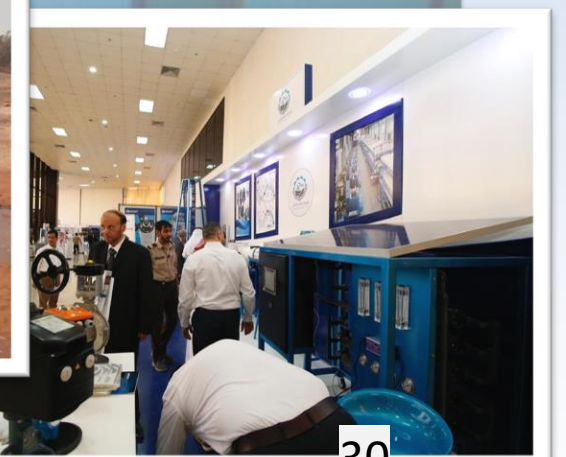
31 ألف صهريج سعة 11 م³ شهريا.

2,300 صهريج سعة 25 م³ شهريا.

يخدم
أكثر من
أكثر من
ما يقارب

يخدم أكثر من

- 65 كم أطوال الشبكات المنفذة.
- أكثر من ألف توصيلة مياه منزلية.
- ما يقارب 8 آلاف مستفيد.

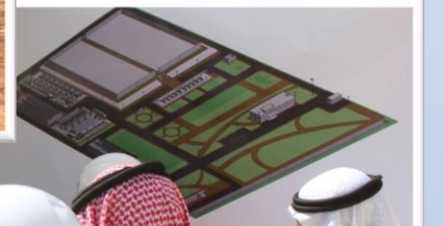


Jul 31, 2019

سمو أمير منطقة حائل ي دشّن الخط الناقل للمياه حائل بطول 47 كم ويتكلفة 102 مليون ريال، ويساهم في توفير مياه الشرب لسكان المنطقة.

إمدادات

طول 47



Jul 31, 2019

كما دشّن سموه مشروع المياه الشاماً توصيلات منزلية تخدم أكثر من 8 آلاف مستفيد.

