

Environmental Equipment Company Ltd شركة معدات البيئة المحدودة

# ENVIRONMENTAL EQUIPMENT CO. LTD.

**COMPANY PROFILE** 

Operation & & Maintenance

**MEP Work** 

CONTRACTING
COMPANY

Etcho

**Civil Work** 

Water &Waste Water Treatment

DESIGN | ENGINEERING | INSTALLATION







### GENERAL INTRODUCTION

ETCH2O is a leading multi-disciplined design, build, and engineering company specializing in comprehensive water and wastewater treatment solutions for both industrial and domestic applications. We leverage cutting-edge computer-aided drafting (CAD) and project management systems to deliver full turnkey projects, ensuring a seamless experience from initial concept to final completion.

### **Our Diverse Service Portfolio:**

- **MEP Engineering:** Our team of MEP specialists ensures a building's functionality through the design, installation, and maintenance of essential systems like heating, ventilation, air conditioning (HVAC), plumbing, electrical wiring, and waste management.
- **Civil Works:** We provide comprehensive civil engineering services, including planning, design, and construction of building foundations, and other related infrastructure projects.
- Water & Wastewater Treatment:
- ETP Plants: We design and manufacture custom-built wastewater treatment plants to address specific industrial needs.
- o **RO Plants:** Our portfolio includes high-efficiency reverse osmosis systems for water purification and desalination.
- STP Plants: We offer reliable sewage treatment plant solutions for residential and commercial applications.
- EDI Plants: We provide EDI (electro-deionization) systems for further water treatment needs.
- Chemicals: We supply a comprehensive range of high-quality treatment chemicals to optimize your system's performance.

### Beyond Engineering: A Multi-Disciplined Approach

We operate across various sectors, including domestic, industrial, oil & gas, and drilling & petrochemical. Our expertise goes beyond engineering, encompassing mechanical, electrical, and civil work, allowing us to deliver true turnkey solutions.

### **Addressing Your Water & Wastewater Challenges**

Organizations face the increasing challenge of balancing stricter water quality regulations with tighter budgets. Treatment plant design, operational costs, and manpower needs are crucial considerations. ETCH2O understands these challenges. We are committed to providing innovative and cost-effective solutions that minimize risks while ensuring environmental compliance.

### **Our Commitment to Your Success**

ETCH2O is dedicated to exceeding our clients' expectations. Our team of highly qualified and experienced professionals collaborates closely with you to understand your specific needs and translate your vision into reality. Our focus on continuous improvement through technological advancements, a motivated workforce, and open communication with our clients ensures the highest quality, productivity, efficiency, and safety standards on every project.

This revised introduction incorporates all the details you provided while offering a clearer structure, improved flow, and a stronger focus on the benefits ETCH2O offers to its clients.







### **AFFLIATIONS AND MEMBERSHIPS**

### **NEOM**

Registered as a supplier for the Design, fabrication, erection, and commissioning of package water and wastewater treatment plants.



### Qiddiya

Registered as a supplier for the Design, fabrication, erection, and commissioning of package water and wastewater treatment plants.

### **SAUDI ARAMCO VENDOR**

Registered as a supplier for the Design, fabrication, erection, and commissioning of package water and wastewater treatment plants.

Vendor ID (10039518)

### **VENDOR SABIC**

Registered as a supplier of water and wastewater treatment products.

Vendor No (505554)

### WATER ENVIRONMENT FEDERATION

Membership ID (01026603)

### **SAUDI ELECTRIC CO**

Approved Contractor for Saudi Electric Co

Contractor No. (61599)

### Saudi Arabia Water Environment Association (SAWEA)

Member of SAWEA

MEMBERSHIP ID (01026603)























### **PRODUCTS & SERVICES**

# Civil Works EARTH WORK

This specification section includes earthwork and related operations, including, but not limited to, clearing and grubbing construction the site, dewatering, excavating all classes of material encountered, pumping, draining, and handling of water encountered in the excavations. handling, storage, transportation.



### **INFRASTRUCTURE**

Roads, highways, and bridges, as well as the assets required to make them operational such as transit buses, vehicles, and oil refineries. Technical systems such as networking equipment and cabling are considered hard infrastructure and provide a critical function to support business operations.



### **FENCING**

It is part of the temporary construction equipment required at a site and is used to protect pedestrians from the hazards on a site created by ongoing demolition, excavation, and construction operations.



### **FINISHING**

This stage comes after the structural work is completed and involves a variety of tasks to give the building its final appearance and functionality. Finishing work can include interior and exterior tasks such as painting, tiling, flooring, installing fixtures and fittings, electrical work, plumbing, and landscaping.









### STRUCTURAL WORKS

The foundations, floor/ceiling slabs, roofs, exterior walls, exterior glass and mullions, columns, beams, shafts (including elevator shafts), stairs, stairwells, elevators, Building mechanical, electrical and telephone closets, Common Areas, public areas, and any other structural components



### **CONCRETE WORKS**

Preparation of the concrete mix; delivery of the mix to the construction site; feeding, distribution, and compaction of the mix in the formwork (molds); curing of the concrete as it hardens; and quality control of the concrete work.



### **MEP Works**

### **Glass Lined Steel Tanks (GLS Tanks)**

We at Etch2o draw from more than 30 years of experience in installation of high-quality tanks, vessels, and silos. Their applications range from industrial and municipal up to agricultural use. Numerous references can be found in countries all over the world.



# **Pumps, Pumping System & Accessories**

Etch2O delivers high-quality, cost-efficient, and extensive assortments of pumps and pumping systems according to the client's specifications. We accurately assess each application and source the best possible solution without being limited to the range of any particular manufacturer.









### **Firefighting System**

All Types of fire protection systems
Sprinkler systems, Foam, Dry chemical, Fire suppression systems, Carbon dioxide, clean agent, Fire water supply, Gas, Water mist systems, Fire alarm systems, Fire extinguishers, Gas suppression systems, Liquid suppression systems, Standpipes, Dry pipe Dry suppression systems, Pneumatic heat detection systems, Chemical substance, Deluge, Fire Command Systems, Fire department connections, Fire protection systems, Fireproofing, Foam water.



We do all HVAC systems use a reverse cycle outdoor unit that heats or cools outside air. It then pumps this air into the building through air ducts to deliver it to each room. In addition to the air conditioner and furnace, HVAC systems can include built-in systems such as heat pumps and indoor air quality equipment such as air purifiers. It also includes smart control systems and thermostats that help everything work together.

## **Piping Works**

We carry out extensions and plumbing work for all types of pipes and all diameters

### **Electrical Works**

We provide the complete installation of the following with testing & commissioning of cable tray supports & cable try. HV/MV/LV Cable pulling & termination. HV/MV/LV Switchgear battery banks with UPS panels, transformers conducting, and lighting fixtures.





















### **Waste Water Treatment Plants:**

### **MBBR SYSTEMS**

The basic process is based on MBBR technology. There are many plants installed and satisfactorily operating on MBBR principle. MBBR has the following advantages over other competing technologies. The are very flexible processes since they are based on the percentage of plastic support used in the reactor, it is recommended



that it is not greater that 70%, the surface can be modified and as a consequence the efficiency of the process

ETCH2O High Speed Bio Tech Model CON3 series are shipped inside containers.

ETCH2O MAXI – 3 series, ETCH2O buy standard ISO MAXI containers, the W WTP itself are then constructed within the container itself that function as a system shelter.



### **FEATURES & BENEFITS:**

- 10 times the loading in less than 1/5 the space.
- Quick startup Robust operation.
- Robust and consistent operation
- Minimum services and maintenance require.
- ETCH2O Bio is self-cleaning, no filters, no backwash, and no membranes to replace.
- In certain application, you can skip buffer and pre-settling tanks,
- Aeration ABM Bio Media require coarse air
   clog and plug air system by ETCH2O.

- No Backwashing clog free AMB Bio Media with 20 years warranty.
- Fully automatic require minimum service maintenance,
- Meet stringent effluent standards consistently
- Automatic Sludge handling and separation by ETCH2O Sludge cyclone.
- Easy to move and expand. ETCH2O offers any size of WWTP or Capacity.
- ETCH2O Bio is complete, containerized, tested and ready to operate.







# **MEMBRANE BIO-REACTOR SYSTEMS (MBR)**

Offering a one-step process for water recycling through the removal of suspended solids and microorganisms, our Membrane Bio-Reactor Systems help achieves 50% space savings with its economical operation footprint. Through the use of hollow fiber membrane technology, the Membrane Bio-Reactor System may be applied for treatment of sewage effluents and other waste streams with high COD or BOD.

Our Membrane Bio-Reactor Systems are recommended for:

- Remote residential communities
- Estate and property maintenance management
- Cement production factories
- Mining operations
- Decentralized sewage treatment plants
- Industrial estates

### **System Includes:**

- Compartmented Bioreactor (mild steel, epoxy coated)
- 6 x U860 Membrane Cartridges
- Feed and Backflush Pumps
- Circulation Pump
- 2 x Guard Filters
- Control Valves, Flow Meter and

### Pressure Gauge

- Aeration Diffusers and Blower
- PVC Piping, Hoses and Quick Couplings
- Electrical Control Panel with PLC

### **Optional**

**Equalization Tank** 

- Additional U860 membrane
- UV Unit
- Nano Filtration Unit

# **GEM SYSTEMS**

ETCH2O is changing the industry with its Gas Energy Mixing ("GEM") System, a unique and sustainable treatment technology for the removal of TOTAL SUSPENDED SOLIDS (TSS), CHEMICAL OXYGEN DEMAND/BIOLOGICAL OXYGEN DEMAND (COD/BOD), and FATS, OIL, and GREASE (FOG).

air is released from the water. This results in more enhanced and more efficient flotation of the contaminants.

### **APPLICATION:**

Install a GEM System model 75/150.

System throughput will be calibrated to handle a minimum average flow of 159,000 gallons per day (equal to approx. 600 cubic meters per day) at 110 gallons per minute (gpm).

GEM System 75/150 has the flow capacity for a maximum daily flow of 210,000 gallons with minimal adjustments, and no additional capital expenditures to the GEM System.

Stream characteristics: Wastewater stream from PepsiCo facility in Saudi Arabia in need for a flotation system, for reduction of TSS and FOG.













# **UF (ULTRAFILTRATION) SYSTEMS**

Etch2O's UF systems are able to provide a safe and consistent water supply without the use of water purification chemicals, our Ultrafiltration Systems offer substantial cost savings and low logistical and operational requirements.

Our systems are capable of removing foreign particles, bacteria, spores and parasites. They attain a turbidity of less than 0.1 NTU, and have a high bacteria removal rate.

The Ultrafiltration system is suitable for clarification of wastewater, river, well and surface water, as well as colloidal suspended solids separation.

Presented in a system with low power consumption, high durability and stability, our Ultrafiltration Systems are recommended for:

- Small, rural communities, town and villages
- General factories
- Slaughterhouses
- Manufacturing, F&B, textile, paper & pulp, hotels and resorts and various construction processes
- Humanitarian relief

### **System Includes:**

- Feed and Backflush Pumps
- Control Valves
- Feed, Air and Backflush Pressure Gauges
- Product Flow Meter
- Air Blower
- Stainless or Galvanized Steel Frame
- PVC Piping, Hoses and Quick Couplings
- Electrical Control Panel with Controller

### **Optional**

Demo Tank (Transparent)









# SEA / BRACKISH WATER REVERSE OSMOSIS SYSTEM

ETCH2O RO is designed on the best technology and is with high performance quality.

The ETCH2O Reverse Osmosis Declinators utilizes the latest in reverse osmosis membrane technology to convert Seawater, Brackish water, or non-potable water into drinking

Reverse Osmosis System is recommended for:

- Remote coastal residential communities
- Marine communities
- Estate and property maintenance management
- Mining operations

### **System Includes:**

- SRO (8040) Membrane
- Electrical Control Panel with PLC and D.O.L.
- Feed and Hi-Pressure Pumps
- Energy Recovery Unit
- Guard-Filters
- Manual & Electrical Solenoid Control Valve
- Pressure Gauges, Flow Meters
- Permeate Conductivity Meter

We are also specialized in providing the complete Operation and maintenance services for Reverse osmosis plants.

water. All plants are customized to client's specific need to secure reliable equipment and safe drinking water.

- Oil and gas operations
- Power plants
- Low conductivity water for industrial use.
- System on Stainless Steel Rack, PVC & Stainless-Steel Piping
- C.I.P Setup with Tank

### **Optional:**

Customer can opt for system to be housed in Standard container

### **Recommended Pre-Treatment:**

**Ultra-Filtration System** 









Offering high performance and reliability, our Reverse Osmosis Systems accomplish high salt rejection with high flow rates. Furthermore, our Reverse Osmosis Systems can be easily integrated with downstream treatments such as ultra-violet sterilization and chlorination to provide potable water for consumption. As such, choose our Reverse Osmosis Systems when treating sea and brackish water, rinsing water, irrigation water, cleaning water and cooling water for district cooling systems.

### **System Includes:**

- 4 x SRO 4040 Sea Water Reverse Osmosis Membrane
- Electrical Control Panel with PLC and DOL Starter
- Feed and Hi-Pressure Pumps
- S430 Ultrafiltration Membrane
- Big Blue Cartridge Filter
- Feed Sea Water Filter Bag (Optional)
- Control Valves
- Pressure Gauges, Flow Meters
- Permeate Conductivity Meter
- System on Racking, PVC & Stainless Steel
   Piping
- C.I.P Setup with Tank









# **CHEMICAL DOSING PUMP/ SYSTEM**

We fabricate optimum quality chemical dosing pumps and systems that offers correct quantity of dosing chemical in the stream. These chemical dosing pumps/systems are used in different chemicals such as acids, alkali, chlorine, anti-scalent, alum, SBS, polyelectrolyte and others. Moreover, we also have the ability to customize our range as specified by the clients.





# **OPERATION & MAINTENANCE SERVICES**

ETCH2O SA is specialized for doing Operation and maintenance jobs for the waste water treatment plants and RO systems.

We have been doing O&M activities for the treatment plants supplied by us and are capable of doing the same for any other treatment plants supplied by other companies.

The services include;

- Operation and maintenance of reverse osmosis and sewage treatment plants
- Spare parts change/up gradation for Sewage treatment plants and RO plants
- Membranes change for reverse osmosis plants.
- Chemical supplies for reverse osmosis plants and sewage treatment plants.







### **ODOR CONTROL SYSTEM**

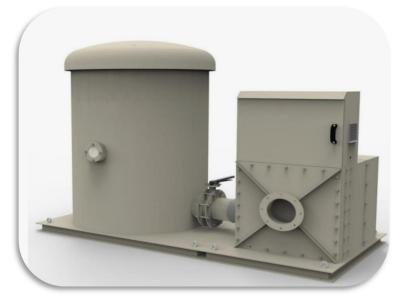
Etch2O Odor control Scrubber are custom designed to capture odorous chemical compounds including Hydrogen Sulphide (H2S), mercaptans, organic sulphide, ammonia, amines and many VOCs generated in industrial process, and in municipal waste treatment. Based on the process outlet, odor's components types and the quantity to be treated, economical and viable Odor control scrubber system can be chosen.

We are able to provide custom systems to meet airflow, space requirements, and other customer needs and specifications





















Etcl







# **Carbon Sequestration Though carbon**

### WHAT WE DO

Titan Clean Energy Projects manufactures activated carbon and

additives from waste wood and agricultural waste biomass, with the following

- 1. Water and wastewater purification, including PFAS removal
- 2. Odor control
- 3. Oil adsorption and site remediation
- 4. Animal feed additive for gut health
- 5. Plastics additive for UV protection, strength, and color and replacement for carbon black.

### WHY WE'RE DIFFERENT

Of the more than 200 pyrolysis technology companies world-wide, Titan is the

only company that derives 100% of the energy for its process from

Our technology is fully off-grid and is fully autothermal. This provides

lowest cost and lowest environmental footprint for carbon sequestration

equipment and bioproducts production.

Our sustainable activated carbon products replace coal-based activated carbon

and reduce biomass waste.

### Cordless Rechargeable Fogger

- Coverage per minute: 93 m<sup>2</sup>

- Spray distance: 4.5 m

- Tank capacity: 21

- Water flow: 7.2 1/h

- Weight without battery: 2.8 kg

- Weight with battery: 3.3 kg

### PureAir 3000



Standard package: 201 We can package according to individual customer requirements (from 100 ml to 1000 l).









# Solutions and Applications



# Packaged Units & Modular Systems for Arsenic Reduction

Compliance with the United States EPA and the World Health Organization's maximum contaminant level of 10 parts per billion for arsenic impacts thousands of water systems throughout the United States and other countries around the globe. The dangers of arsenic are masked by its colorless, odorless appearance. It is a carcinogen that occurs naturally in groundwater and is known for leading to dangerous health conditions such as cancer, neurodevelopmental disorders, and heart failure.



# Packaged Units & Modular System For Manganese Reduction

Compliance with the United States EPA and the World Health Organization's maximum contaminant level of 0.05 parts per million (ppm) for manganese impacts thousands of water systems throughout the United States and other countries around the globe. Manganese is common in groundwater and typically seen as a nuisance contaminant that can cause discoloration and taste issues; however, recent studies have shown manganese toxicity targeting the central nervous system resulting in lowered intelligence quotient (IQ), poor motor functions, decreased attention span, and hyperactivity, especially in children.









### M.Ali@Etch2o.com

From: Ariba Administrator <no-reply@smtp.mn2.ariba.com>

Sent: Saturday, September 9, 2023 8:12 PM

To: Mohamed Ali

Subject: Approved: Supplier registration with Qiddiya Investment Company

# Qiddiya Investment Company

Registration with Qiddiya Investment Company.

Congratulations! Qiddiya Investment Company has approved your supplier registration. Environmental Equipment Company has now been included in the supplier database of Qiddiya Investment Company.

You will be notified when next steps of the supplier onboarding process require your attention.

You are receiving this email because your customer, Qiddiya Investment Company, has identified you as the appropriate contact for this correspondence. If you are not the correct contact, please contact Qiddiya Investment Company.

Offices | Data Policy | Contact Us | Customer Support















### M.Ali@Etch2o.com

From: Sent: To: Subject:

Neom <no-reply@smtp.mn2.ariba.com> Monday, September 11, 2023 8:32 AM

Rana Zahid

Approved: Supplier registration with NEOM

# NEOM

### Registration with NEOM.

Congratulations! We are pleased to inform you that NEOM has approved your supplier registration. Environmental Equipment Company has now been included in the supplier database of NEOM.

Please user your vendor ID: \$10952914 for all future communications with NEOM.

From now onwards, your company may receive request(s) to participate in tenders (RFP/RFQ) for Goods and/or Services and/or Projects in line with your competencies. However, please do not read into this email that it constitutes a guarantee that you will receive any such requests, as those are dependent on many factors evaluated according to our discretion as needs arise.

You will be notified when next steps of the supplier onboarding process require your attention.

We appreciate your interest in becoming A NEOM supplier and look forward to the opportunity to work with you.

You are receiving this email because your customer, NEOM, has identified you as the appropriate contact for this correspondence. If you are not the correct contact, please contact NEOM.















بياتات العنضاة		يوقان شهادة التصنيف			أثشطة غهدة التصنيف	
الرقم الوطش العوها/ الترخيص	7001560627	رقم الشبهادة	2024003006	البجاز	التثيياً والبناء	
كاريخ إصدار السيول التهاري/ الترخيص	11/06/2008	تاريخ الإصدار	13/03/2024		بسائح وسيانة لجيز ة تتقية الدياء يتخل ديكات ومر افق معالجة السرف السمي خدمات جمع التفيات اليلدية يقل التفيات المخاعية الغير خطر ومعالجة التفيات الحضوية بغرض تصريفها الإنشاءات العامة الدياس الحكية الإرتشاءات العامة للدياس الغير الشكنية ، يشعل إرالدراس ، المستشفيات، القائق(في)إنشا ء العطر ات ومر الغيار المستشفر المستشفر المستشفر المستشفرات ومر القيا	
أسم مالك المتشاة	أهد ساس لعد الاته	(mark)				
نوع المنشاة	ئات مىئولية محتونة	ترجة التقييم الانتعاض	70.3 BBB+	्राष्ट्रामाः		
جنسية فنشاء	سعودي	~s				
راس المثل	100000.0	درجة التقييم المفي				



- يسري مغمول هذه الشهادة حتى تلزيخ £13/03/202 - تصدر هذه الشهادة الكثرونيا وعلى الجهات المالكة المشاريع التمقق من الشهادة المقدمة من خلال موقع الوزارة.























FINE OVE





45001:2018

9001:2015 ISO 14001:2015



# **Projects List:**

SR. NO.	PROJECT	LOCATION	CLIENT
1	1100 m <sup>3</sup> / day Sewerage Treatment Plant- MBBR System	NEOM Mountain Village	NEOM
2	300 m³ / day Sewerage Treatment Plant- MBBR System	720 Men Camp- Infrastructure Expansion, NEOM	NEOM
3	450 m³ / day Sewerage Treatment Plant- MBBR System	NEOM Sharma	NEOM
4	2 x 50 m³ / day Sewerage Treatment Plant- MBBR System	NEOM Command Center	NEOM
5	2 x 300 m <sup>3</sup> / day Sewerage Treatment Plant- MBBR System	NEOM Expansion-3	NEOM
6	2 x 30 m³ / day Sewerage Treatment Plant- MBBR System	NEOM Truck Service Station	NEOM
7	300 m <sup>3</sup> / day Sewerage Treatment Plant- MBBR System	720 Men NEOM Camp	NEOM
8	250 m³ / day Sewerage Treatment Plant	Dammam	SANAD
9	250 m³ / day RO Plant	Dammam	SANAD
10	25 m³/ day Effluent Treatment Plant	Dammam	SANAD
11	25 m³ / day Effluent Treatment Plant	Bahrain	Reckkit Bahrain
12	80 m³ / day Effluent Treatment Plant	2 <sup>nd</sup> Industrial City, Dammam	Saudi Master Baker
13	19 m³ / day Sewerage Treatment Plant- MBBR System	Yanbu	Doosan

And Many More...











# **MAJOR CLIENTS**











































### ETCH2O - SAUDI ARABIA

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