

# **Orient Water Group**

Innovative, Sustainable, Water Treatment Solutions





# **ANNEXURE**

- SECTION 1: COMPANY PROFILE
- SECTION 2: CERTIFICATIONS
- SECTION 3: PROJECT REFERENCE CLIENT LIST
- SECTION 4: KEY PROJECT DETAILS



# **About Orient Water Technologies**

Orient Water Technologies aims to use efficient treatment systems to provide quality water solutions that help our clients to produce, reuse and conserve clean water. We are confident our customized designs and engineered solutions are some of the best in the industry. We provide comprehensive solutions to various industries like textiles, power plants, oil and gas, and petrochemical factories. We proudly fulfill all our patron's specific water treatment requirements.

Our wide range of custom solutions and extended knowledge in all water-related sectors will guarantee you a cost-efficient solution meeting your water quality requirements.

Orient Water Group has a dedicated department for the after-sales service which delivers spare parts for your equipment taken from high profile manufacturers, filters, membranes, and resins to pumps, etc. covering all other water treatment-related products.

This allows the Orient Water Group team to support our clients with 'A-class service in terms of quality and availability with after-sales and maintenance services with expertise and reliability.



# **Mission Statement**

Orient Water Group is a versatile firm that focuses on sustainable growth and creating a reduced carbon footprint for generations to come, providing state-of-the-art water treatment and recycling services.

Our research & development department thrives on providing innovation and improvement which are imperative for the Orient Water Group to keep on serving the nation by conserving water and keeping the ocean decontaminated.

# **Our Vision**

Our vision is to lead the league in the provision of water, used water and environmental services which will empower people, protect the environment and enhance sustainable development.



# **Our Core Values**

#### Commitment to Our Clients

We support our respective customers by providing high end value Services and Solutions. Our client's success is the key to our success.

#### Integrity

We endeavor to give the highest standards of transparency and accountability in all of our actions.

#### Innovation

We strive to learn and grow.

#### Quality

Dedicated to continuous improvement in the quality of our product solutions, services and in every activity, we perform.

#### Environmental Sustainability

Protecting the environment through sustainable solutions and supporting local communities where we do business.

# **Our Products**



#### **Reverse Osmosis**

- Sea Water RO
- Brackish Water RO
- High Brackish Water RO
- Containerized RO
- Reject Water RO
- Double Pass RO System

#### Filtration

- Media Filtration
- Water Softener
- De-Ionization
- Clarifier, Flocculator & Aerator
- Cartridge & Bag Filters
- Ultra-Filtration (UF)
- Dissolve Air Filtration (DAF)
- Mixed Bed Polisher

#### Waste Disinfection

- Chlorine Dioxide (ClO2)
  Biocide
- Textile Waste Water pH control through Smoke Injection (CO2)
- Dosing System

#### Recycling

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Effluent Treatment Recycling

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#### Waste Water Treatment

- Sewage Treatment Plant
- Industrial Effluent Treatment
- Grey Water Treatment
- Oily Water Separator

#### **Water Treatment Chemicals**

- Boiler water treatment products (Hydrex Series 1000)
- Cooling water treatment products (Hydrex Series 2000)
- Membrane treatment products (Hydrex Series 4000)
- Maintenance and cleaning products (Hydrex Series 5000)
- Waste water treatment products (Hydrex Series 6000)
- Biocides (Hydrex Series 6000)
- Dosing & Disinfection
- Turbo Air Blowers & Compressors



# **Reverse Osmosis**



# Reverse Osmosis Water Purification Process

Orient Water Group designs RO Systems with efficiency and ease of operation in mind. Our systems produce water to meet the most demanding specifications and different capacities are available to suit specific requirements. The standard treatment process involves pre-filtration (auto-backwashing multimedia filters and cartridge filters), antiscalant dosing to prevent membrane scaling, RO desalination, and a CIP system for membrane cleaning.

# Brackish Water Reverse Osmosis Plant

Orient Water Technologies Brackish Water Reverse Osmosis (BWRO) plants are designed to treat ground/surface or industrial water with 5,000 mg/L of dissolved solids (TDS) and 30 mg/L of suspended solids (TSS), to achieve the desired water quality.





# Sea Water Reverse Osmosis Plant

The shortage of fresh water has become a bottleneck of economic development in many countries. Seawater desalination is an effective way to solve this problem. Reverse osmosis (RO) desalination is one of the most popular ways to generate freshwater from seawater and has made rapid progress over the past four decades.



#### **Containerized Reverse Osmosis**

Orient Water Group is also a facility to fabricate containerized BWRO, HBWRO, and SWRO Systems. Our installed systems are built into brand new 20- and 40-foot containers as per client requirements that meet the international quality standards. T

They arrive at your facility ready to operate with pre-and post-treatment systems, pumps, piping, and controls. Our Containerized Water Treatment Systems offer reliability and reality to meet the operational pre-requisite of the plants, municipalities, the shipbuilding industry, electronic plants, resorts, and others.

# Water Treatment Chemicals



# Boiler water treatment products (Hydrex Series 1000)

# Preventive solution and complete treatment programs

Corrosion, scaling and deposition can reduce the operating efficiency of the boiler and all the systems connected to the water/ steam cycle of the boiler. It will reduce heat transfer rates cause equipment and piping failure, and increase fuel cost. Hydrex is one tool Veolia water technologies offers to prevent these problems in boiler and heating applications of low, medium and high pressure boilers. Product series includes:

- Scale Inhibitors
- Corrosion Inhibitors
- Antifoams
- Oxygen Inhibitors
- Dispersant
- Steam & Condensate Treatment



# Cooling water treatment products (Hydrex Series 2000)

# Preventive solutions, water safety plans and comprehensive programs

Scale deposits, corrosion, fouling and biological proliferation can cause system downtime, reduction in equipment efficiency life cycles and can increase employee exposure to pathogenic micro-orgasms. In addition to supplying customized water treatment additives, equipment and controllers, Veolia water technologies offers a complete range of cooling water services to ensure reliable operation of all cooling water installations. Product series includes:

- Scale Inhibitors
- Corrosion Inhibitors
- Antifoams



# Membrane treatment products (Hydrex Series 4000)

#### **Preventive solutions, Safety Programs**

The Hydrex 4000 series is specifically formulated for membrane treatment systems. It products the membranes from scale and bacterial growth and aids in extending membrane life. Hydrex chemicals optimize operational costs, protect the expensive membrane modules and ensure consistent and efficient operation. A comprehensive line of cleaners are used to effectively clean the membrane.

Hydrex 4000 series antiscalants are ANSI/NSF60 approved and Halal certified.

This product series includes:

- RO Membrane Antiscalants
- Biocides
- Cleaners



# Maintenance and cleaning products (Hydrex Series 5000)

Used to clean system and remove deposits. This product series includes:

- Bio source cleaners
- Alkaline Cleaners
- Acidic Cleaners
- General purpose cleaners



# Waste water treatment products (Hydrex Series 6000)

#### A Complete Offer for Managing Industrial Wastewater

Decontamination of industrial wastewater is a challenge faced every day by managers of treatment plants. Balancing regulatory obligations of discharge standards and economic constrains with operation require extensive experience and specialized knowledge. Veolia water Technologies helps industries in all sectors from challenging diagnoses through the selection and implementation of appropriate Hydrex solutions.

The Hydrex product series covers chemical additives specially adapted to meet the requirements of the different treatment plant process:

- Coagulants
- Flocculants
- Antifoaming Agents
- Odor Control
- Metal Removal



#### **Biocides (Hydrex Series 7000)**

#### Efficient microbiological control agents

An essential challenge for water treatment plants and related systems, the use of chemicals to control microbiological growth (algae, fungi, bacteria, protozoa, etc.) is subject to strict regulations. The objective is to ensure a high level of protection of the environment by approving only effective substances that do not present unacceptable risks. Hydrex 7000 series is used to control of bacteria, fungi and algae in cooling water systems, recycled water systems, effluent and wastewater. This product series includes:

- Oxidizing & Non oxidizing products
- Broad Spectrum of products

# **Dosing & Disinfection**

#### **Digital Dosing Pumps**

Digital metering pumps provide customers with intelligent solutions for accurate chemical dosing. The digital metering pump has a simple mechanical structure, convenient installation and maintenance, and a unique drive design, which makes the flow control simple and accurate. The pump integrates a variety of intelligent functions, such as flow, level, pressure, timer and others. Through the integrated microprocessor for automatic calculation and feedback, and the friendly touch-type human-machine interface system, it makes the operation more convenient.

#### **Biocides (Hydrex Series 7000)**

- Simple structure, precise and reliable
- Material:PVDF/PVC/304/316
- Wide range adjustment, high linear accuracy
- Repeatability accuracy up to ± 1%
- Analog signal 4-20mA input and output
- Pulse signal range: 999:1 1:999
- External start-stop control

- Level control, high and low level, alarm
- Timing and quantitative dosing control
- Pressure control
- Diversified universal serial ports to meet the needs of automation
- Easy operation with touch human-machine interface

# **General Purpose Dosing Pumps**

We offers a wide range of dosing pumps representing state-of-the-art technology.

- Smaller pumps with flows up to 30l/h. the DDA and DDC pumps have a click wheel and an LC display making the pump very easy to set up, calibrate and use. The lower cost DDE has just the click wheel. These pumps are all based on the innovative stepper motor technology allowing wide flow ranges (3000:1 in some cases)
- Mechanical hydraulic dosing pumps are the preferred choice for applications where reliability is of the utmost importance. The diaphragm is hydraulically actuated meaning that it is exposed to very little stress and extremely long diaphragm life is the result. These are the more traditional style dosing pumps with a conventional electric motor driving it. Flows to 14000I/h and pressures to 500 bar.
- Plunger type pumps however the diaphragm is mechanically actuated. This is a simple and reliable solution and is capable of flows to 4000l/h and pressures to 400 bar

#### **Disinfection Systems**

#### **Gas Chlorination**

All-vacuum operated gas feed equipment & solutions for simple & reliable disinfection dosing, control & safety management Chlorine gas has been the predominant chemical for the disinfection of water since our founders Charles installed the first chlorinator in New York over 100 years ago. Using a remote vacuum-operated gas feeder, a chlorine solution is prepared on-site by dosing the chlorine gas into the process water. Benefits of the system include: the most economic disinfectant available supplied as gaseous or liquid chlorine supplied in cylinders or ton containers, safe all-vacuum dosing operation using accurate and reliable V-Notch<sup>™</sup> flow control technology, manual and automatic dosing control options, automatic detection and shut-down in the event of accidental gas release, and complete design and system supply of all gas feed and handling equipment and safety management accessories.

#### **Onsite Chlorine Generator**

Systems produce a low strength disinfectant on demand by electrolysis of a brine solution Systems safely generate sodium hypochlorite on-demand, using only salt, water and power. With over 30 years of history installing OSHG systems throughout the world, our branded OSEC system is suited to many applications across municipal, aquatics and industrial markets.

#### **Benefits Include**

- Sodium hypochlorite is generated through a highly efficient in-situ process allowing economic production according to the actual demand.
- Hypochlorite product is generated on-site and on-demand from inert feedstocks, reducing or eliminating common issues with chemical storage and handling.
- Low strength solution at a stable concentration means minimized decomposition of active chlorine in solution always available.
- Product generated with minimized disinfection by-product formation and further cost savings can be achieved via off-peak production scheduling.

#### **Gas Chlorination**

Turbo Air Blowers & Compressors Measurements & control

- Conductivity Controllers/ Analyzers
- pH Controllers/ Analyzers
- CORP/ Chlorine Controllers/ Analyzers

# Filtration





#### **Industrial Filtration Products**

Orient Water Group has a wide range of Filtration Solutions designed to meet the demanding and diverse requirements in the Industrial and Domestic sectors. Our specialized systems are designed to effectively treat and filter the water according to each customer's specific requirement.

We provide Water Filtration products and systems as integrated components or as complete filtration solutions for water treatment, potable water, and wastewater; oil and gas plants; cooling towers, and more. The flexible configuration makes our filter solutions suitable for installations anywhere along the water system line.

#### **Media Filtration**

Multimedia filters utilize more than one layer of media for filtration. These media are often chosen for use in multimedia filters due to the distinct differences in their densities. This layering of the filtration bed promotes the largest contaminants to become trapped in the first layer of the filter, with smaller particles shifting farther down into the lower layers. Trapping contaminants in this manner allows for more efficient turbidity removal and for longer run times between cycles.



### Water Softener

Water softening is a process through which Calcium, Magnesium, and certain other metals in hard water are removed. A water softener reduces the dissolved calcium, magnesium, and to some degree manganese and ferrous iron ion concentration in hard water.

# Deionization

This is the removal of all ionized minerals and salts (both organic and inorganic) from water through the process of ion exchange. Because most non-particulate water impurities are dissolved salts, deionization produces high purity water.





#### **Ultra-Filtration**

Blocks everything that Microfiltration can in addition to Viruses, Silica, Proteins, Plastics, Endotoxins, and Smog and/or Fumes. Which is useful in:

Treating Wastewater, Separating Oil/Water emulsions, Dia-filtration in Pharmaceutical Biotechnology, Chemical process separation and Dia-filtration, Concentrating Proteins,

Clarifying Fruit Juices, Removing Pathogens from milk. Additionally, UF systems are used successfully for food and beverage processes, bottling water processes, disinfection of water indirectly and lots of special projects.



# Cartridge & Bag

Cartridge Filters are simple and basic, modular filters that are embedded into housing and can be used to remove particles, or some-time chemicals, from the water. Cartridge filters can be composed of several materials. Bag Filter Systems consist of filter body and bag filters. The filter body is the house for the main element- the bag filter that filters water. Liquid flows from inside to outside and all particles and dirt remain inside the bag filter. Bag filters are generally exchangeable type but sometimes can be washed when it is clogged.



# **Mixed Bed Polisher**

Also known as mixed bed ion exchange resins are mainly used for polishing process water to achieve demineralized water quality (such as after a reverse osmosis system). Consists of strong acid cation exchange and strong base anion exchange resin. Water quality from a mixed-bed system is much higher than a separate-bed system, with 18 megohm-cm (0.028 parts per million) possible.

# **Water Disinfection**





# Chlorine Dioxide (ClO2) Biocide

This is an alternate to Chlorine or sodium hypochlorite. It is getting more market due to its benefits over Chlorine or NaOCI.

It is on-line generator of disinfectant as compared to transportation and storage of NaOCI. It is far stronger (around 10 times) than Cl2 or NaOCI.

It works on wide range of PH

Orient –Water has the back-up support of CIO2 skid manufacturer, Veolia, which is our principal in Water Treatment Chemicals and Services along with back-up support.

# Textile Waste Water pH control through Smoke Injection (CO2)

Textile dying is done under alkaline environment. When fabric is washed, alkaline waste water is produced. It is neutralized by using toxic sulfuric acid.

Orient Water is offering a system which controls the waste water pH to meet NEQS levels by using smoke from Boilers/ Engines. It is not only replacing sulfuric acid but also reducing pollution load of environment by utilizing CO2 in smoke.



# **Dosing System**

Water treatment chemicals are heart of water systems. Although cost of chemicals is very low as compared to total operating cost of the system but their importance is very high. Behind treatment chemicals is dosing system which is chemical handling containers with mixing facility, pumps and line-up to the required dosing location.

Orient Water offers skid mounted chemical dosing systems.

# **Waste Water Treatment**



#### Sewage Treatment Plan

- Conventional Activated Sludge Process
- Sequencing Batch Reactor SBR Technology
- Package Type STP Plant
- MBBR Technology
- MBR Technology

#### **Effluent Treatment Plant**

- Chemical + Biological Process
- Conventional Activated Sludge Process
- Package Type WWTP
- MBBR Technology
- MBR Technology





#### **Grey Water Treatment**

Grey water is the domestic wastewater, which consists of showers, bathtubs and sinks, excluding blackwater (sewage). The main difference between greywater and blackwater is the density of organic loading. Sewage has a much larger organic loading compared to greywater, making it harder and more costly to treat.

With effective purification, greywater can be of great use to various applications such as irrigation, toilet flushing, laundry, irrigation of both consumable and non-consumable food producing plants. Etc.

#### **Oily Water Separator**

An oil water separator is a piece of equipment used to treat wastewater, making it safe to discharge into an approved discharge point, such as sanitary sewer system or a storm sewer. It removes oils, grease and hydrocarbons, leaving only the non-hazardous water. The wastewater can then dispose of safely in sanitary sewer system or a storm sewer or directly to Drainage System.





# Recycling

#### **Effluent Recycling Plant**

Orient Water Group is constantly upgrading its expertise for the customization of advanced treatment technologies, especially in the recycling of Wastewater. Recycling and reuse of the existing water & wastewater is extremely important to protect our precious resources for Domestic,

Agriculture, Commercial and Industrial. We have vast experience on recycle/reusing projects and attaining a zero discharge from municipal and industrial wastewater.

Depending upon the water quality, the Effluent Recycling plant Consists of:

- Pre-Treatment (Ultrafiltration or Media Filtration)
- Reverse Osmosis
- Ion Exchange process (Optional according to the required Water Quality

Recycled Water can be used in:

- Domestic Purpose
- Agriculture
- Commercial
- Industries.



# **Our Services**

# **Water Desalination**

Water desalination refers to the removal of salts and minerals from saline water (especially sea water) it is desalinated to produce water that is suitable for human consumption as well as irrigation.

Orient Water Group uses the most advanced and effective energy- saving RO Membrane separation technology. We use a semi- permeable RO membrane, which only allows water molecules to pass and retains all other substances, thereby producing clean and purified drinking water. It is capable of removing harmful carcinogens, bacteria, viruses and other chemicals and organic compounds from the water sources.

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# Sewage Treatment

Sewage water is actually wastewater from people's drains, pipes and toilets that contains various types of chemicals as well. This wastewater is industrial and domestic; however sewage pollution has been caused due to overpopulation in urban areas and the lack of proper planning. This has posed a threat not only to the environment but also to the human health.

Orient Water Group develops and assembles Wastewater Treatment Systems that are easy to install. A simple automated operation of wastewater solution allows customers to continuously meet the most stringent effluent requirements.





# **Surface Water Treatment**

An immense amount of time and technology is spent to make surface water safe to drink for everyone. As it is a known fact that the shortage of fresh water has become a bottleneck, of the economic development in many countries. Seawater desalination is an effective way to solve this problem. Reverse osmosis (RO) desalinating is one of the most popular ways to generate freshwater from seawater and has made a rapid progress over the past four decades. Surface water which is usually sea water undergoes, through many processes before it reaches the customer's tap.

The scale of seawater reverse osmosis (SWRO) desalination plant is continually expanding; whose capacity of freshwater has exceeded 100,000 tons per day in recent years. Orient Water Group use a semi-permeable RO membrane, which only allows water molecules to pass and retains all other substances, thereby producing clean and purified drinking water. It is the most advanced technique. Orient Water Group work excel rate with time and we provide high standard and better quality products to domestic and industrial sector

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# **Type Of Plants We Are Offering**

Orient Water Group includes a tremendous involvement and experience in designing Industrial Waste water treatment plants. Moving forward, we design the plant after the evaluation of the production process of the plant, Wastewater, its characteristics, treatability procedures and many other parameters.

- Industrial Wastewater Treatment Plant
- Domestic Wastewater Treatment Plant
- Effluent Recycling Plant



# **Industrial Wastewater Treatment Plant**

Industrial Wastewater Treatment plants cover the mechanisms and processes used to treat water that have been contaminated in some way by anthropogenic industrial and commercial activities prior to its re-use.

Most industries produce wet waste although recent trends in the developed world have been to minimize such production or recycle such waste within the production process. However, many industries remain dependent on processes that produce wastewater.



#### **Domestic Wastewater Treatment Plant**



Orient Water Group is capable to design the domestic Wastewater Treatment plants of various capacities for Hotel Industry, Township, and Cities. Domestic Waste Water Treatment plant plays an important role nowadays. Ensuring that all house hold, especially sewage is properly treated, it makes it safe and clean, suitable for releasing back into the environment lakes or other water bodies

Our installed Domestic Waste Water Treatment Plants, meet all legislative requirements and local Environmental standards In many plants, the treated water is used for irrigation water as well.

# PENSTOCKS

The control of the flows in the canals at the water and wastewater treatment plants is performed by the penstocks. OWT produces penstocks assembled to the canal by its own design as being rectangular shape and from the material of carbon steel or stainless steel.

Impermeability is provided by the use of P,V and double-lipped rubber seals beside the three sides of the penstocks.

Also there is performed the special designs for the structures and special penstock production as proper to the demand.









# **TELESCOPIC VALVES**

Telscopic Valves which are assembled on the pipe, channel control the water inlet according to the water level inside the tank. These are preferred at the deep canals. Our manufactures are designed as stainless or carbon steel.





# **MECHANICAL SCREEN**

This is the most widely used screen model as fine and also coarse screen at the large and medium sized treatment plants. These can operate at very deep canals as per the demand and without being any limitation of the canal height The main application areas are domestic and industrial wastewater treatment plants, lifting stations and water treatment plants. Linear mechanical screen is a mechanical equipment which is assembled to the ground of the canal with an angle of 750° and cleans the bar screen by combing vertically.

Generally it consists of the chassis, fixed screen, scraping system and garbage container. The circular motion which is provided by the reducer which is driven by the electrical motor will be turned to the linear motion at 10 m/min. and transferred to the scraper palette. All the motions of the scraper palette are automatically controlled. Scraping motion starts from the bottom dead line and ends with the transfer of the wastes accumulated at the comber to the accumulation container by the motion of the opposite scraper at the top dead line. At this model, combing motion is continuous and there is no need of the microswitch etc. equipment to start the landing motion. At the landing time, the comber will change its position, and moves away from the screen. When the straight mechanical screen stops, the comber parks at the top position and do not prevent the water flow.









# **GRIT BRIDGE SCRAPER**

Rectangular type grit chambers are used extensively in wastewater treatment systems as aerobic and anaerobic. In order to remove the solids which are settled at the bottom of this kind grit chambers, there is used scraper systems. By the scrapers which move two-way through the grit chamber, the grits are pushed to the drain at the bottom of canal and from here are taken from the tank by sucking with the submersible or air lifted pumps. This sludge mixed with water, is removed from the organics inside generally by passing through a grit washing or classifier unit and are collected in sand containers and removed out of the plants. Scrapers of the grit chambers can be arranged in order to scrape a single, two, three or four canals. At small plants, grit washing unit can be installed on the bridge of the scraper.







# **CIRCULAR BRIDGE SCRAPER**

OWT design, manufacture and install a range of scraper bridges for all types of circular settlement tanks with diameters up to 60 meters. In all cases the structures are designed by OWT engineers to withstand all of the loads and stresses placed upon the bridges and manufactured to the highest of engineering standards. All superstructures and underwater assemblies are protected to customers' specification.



Circular type

The most common form of circular tank scraper is the rotary half bridge This is mounted on a central slewing bearing supported on a tripod assembly and is driven by an end carriage travelling around the periphery of the tank.

In addition to the standard half bridge scraper, OWT manufacture twin and triple arm rotary machines.

Small bridges are manufactured using a beam structure whereas larger bridges require a lattice or girder structure which gives the required strength without excessive weight. All bridges are manufactured in either steel, which can be finished to customers' specification, or aluminum.

The end carriage unit incorporates a small electric motor and gearbox which drive onto the peripheral wall via a cast iron wheel fitted with a polyurethane tyre. The unit is designed to give a peripheral speed of between 1.0 and 2.0 meters per minute depending on machine design.

#### SCRAPER BRIDGE







**DETAIL OF SCUM BOX** 

SUBMERSIBLE BUFFLE & WEIRS

# LINEAR BRIDGE SCRAPER

Linear scrapers which are used in rectangular basins, mostly preferred as grit and oil chamber at pretreatment plant. It is possible to make different groups for linear scrapers as circular ones. Energy feeding can be done by a cable drum or with cable trolley. Removal of the sludge settled at the bottom, shall be done by an air-lift system and also can be performed by a pump on the bridge. Along the sucking types, there are some applications as scraping the sludge from one point to another of the canal by the scraper knifes installed to the bridge.





# THICKENER

Those can be designed as fixed bridge or rotating bridge as being at the circular scrapers. In order to fasten the sedimentation of the solids, there are found additional bars at the basin.



OWT thickeners are varied according to the tank geometry, tank diameter and the characteristics of wastewater. Scraper and thickeners could be produced from stainless steel, epoxy painted or galvanized cover carbon steel.

# **ADJUSTABLE WEIRS**

Adjustable weirs are mostly utilized for level control. The main feature that sets them apart from sluice gates is that they allow partial opening control. Furthermore, they may be opened downwards or in angles, as the main purpose is controlling the water level, as opposed to sluices gates that usually open upwards.









# **Effluent Recycling Plant**

Orient Water Group is constantly upgrading its expertise for customization of advance treatment technologies especially in the recycling of Wastewater.

Recycling and reuse of the existing water & wastewater is extremely important to protect our precious resources for Domestic, Agriculture, Commercial and Industrial. We have vast experience on recycle/reuse projects and attaining a zero discharge from the municipal and industrial wastewater.

Treated water can meet a number of needs, particularly non-domestic ones such as irrigation, the replacement of drinking water for industrial uses and the injection and storage of water into underground aquifers after additional treatment.

Our Effluent Recycling plant became boom during summer season, when water supply reduced by Water Management authority.

Recycled Water can be used in:

- Domestic
- Agriculture
- Commercial
- Industries.





# **Operation and Maintenance Services**

Orient Water Group are specialized in providing Comprehensive and Regular Operations & Maintenance Services to our prestigious clients as per the necessity.

# List O&M Services

We provide stated Operation and Maintenance Services. Qualified and Experience Plant Operators /Supervisors are deputed at the site to run and control plant

Our experienced technicians can help with Instrumentation, Pumps, Mixers, pH sensors, Flow meters, and Chemical injection. For regular consumption, we are capable of arranging all types of required Chemicals / Material / Supplies, etc.



- Mechanical Maintenance
- Electrical Maintenance
- Process Optimization
- In-house Water Testing Services
- Inventories at store maintenances
- Equipment/parts replacement
- Supplying of Spares (Electrical, Mechanical, Instrumentation)Operations and Maintenance manual preparation or updating
- General plant servicing and upgrading
- On a monthly basis, we furnish a Water Quality Testing
  & Analysis report done from an authorized Laboratory.
- Maintaining all types of Log Sheets on a daily basis.
### **Our Trusted Technology Partners**

Unilever	<b>\$ SUZUKI</b>	Coca:Cola	P&G
interloop	Atlas Honda	PHILIP MORRIS INTERNATIONAL	
HOTELS · RESORTS · SUITES		YKK	ARTISTIC FABRIC MILLS GARMENT INDUSTRIES
Hilal®	Frontier Work Organization		AGI DENIM
G Getz pharma	US APPAREL & TEXTILES	National Refinery Limited	NISHAT
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## **Our Trusted Technology Partners**

Ø	Agility		FASHION KNIT INDUSTRIES From fiber to pack, a true vertical unit
KASSIM	producing for better living	SKaizen Pharmaceuticals (Pvt.) Ltd.	Shangrila The poor explains
Sorrey Denimkind"	Remington Your Health - Our Commitment	Taiga Apparel	sanofi
INDUS HOSPITAL & HEALTH NETWORK	PAKISTAN International Airlines Great People to Fly With		The Dawood Foundation
RAJBY	TATA PAKISTAN		FEROZE 1888 MILLS LIMITED Manufacturer and Executive from the Texture Terry Products Weaving a Better World®

#### **Contact Us**





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## **CERTIFICATIONS**

Book No: K 02330	Serial No. K 232923
· MEMB	ERSHIP CERTIFICATE
IVILIVID	SERSITI CERTIFICATE
Karachi	Chamber of Commerce & Industry
Aiwan-e-Tij	jarat Road, Off: Shahrah-e-Liaquat, Karachi-74000, Pakistan
Membership Number: 8	86575
(Affiliated with	the Federation of Pakistan Chambers of Commerce & Industry)
CEDTIFIED 4	M/s. ORIENT WATER TECHNOLOGIES
CERTIFIED IN	at (name and address of Member Firm / Company)
11, Amber Court, Shaheed	I-e-Millat Road, Karachi
GST No. 170399	99962491 N.T.N. No. 11717203
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is a member of this <u>Chain</u>	
	31-Mar-2025
THIS CERTIFI	<i>CATE</i> shall be valid up to the
otherwise notified to the	e NTN / GST Registration authority / Scheduled Bank
CAXAGE EXAS	
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#### Revenue Division Federal Board of Revenue Government of Pakistan

## **NATIONAL TAX NUMBER CERTIFICATE**

(Issued under section 20 of the Finance Act, 2001)

National Tax Number (NTN): 1171720-3

Name: SAQIB NAJAM

Address: ORIENT WATER TECHNOLOGIES 15 AMBER COURT 4TH FLOOR SHAHEED E MILLA ROAD KARACHI

Status/Nature: Business Individual

CNIC/Firm Reg./Company Inc.Number: /New NIC : 4220111021025

This Certificate shall be prominently displayed at a conspicuous place of the premises in which business or work for gain is carried on. It is also required to be indicated on the signboard where it is affixed.

Date of Issue

18/11/2008

PARTNER IN PROGRESS >>> www.fbr.gov.pk

helpline@fbr.gov.pk 0800

HELPLINE

k 0800 00 227 051 111 227 227

www.fbr.gov.pk





Serial No. 543443 PEC-11

#### PAKISTAN ENGINEERING COUNCIL Licence No: 5857 Category: C3 Validity: 30 June, 2023 LICENCE OF PAKISTANI CONSTRUCTOR/OPERATOR

(Under the bye-laws of Pakistan Engineering Council 1987)

This is to certify that M/s ORIENT WATER TECHNOLOGIES (Licencee), with its registered office at 15, 4TH FLOOR, , AMBER COURT, SHAHEED-E-MILLAT, KARACHI have been licenced under Construction and Operation of Engineering Works Bye-laws 1987, until the validity date to construct/operate engineering works, the construction/capital cost of which does not exceed Rs. 500 (FIVE HUNDRED) million provided the licencee fulfils all the qualification requirements prescribed by Client or Employer for a particular engineering work; and subject to the licencee continuing to fulfill all the requirements of the bye-laws.

Field of Specialization EE04 - EE10 - EE11 (Solar Energy system) - EE11 (General Electrical Works Only) - ME02 - ME06 - ME07 (General Mechanical Works only) - (SEVEN ONLY) (Specialization Code Nos. for detail see overleaf)

Date of Issue: Jan 3, 2023 (Karachi)



Registrar Pakistan Engineering Council Islamabad.

- 1. If a firm does not get renewal of its license within a year after expiry of its license, the firm may be renewed after payment of outstanding fee if entire defaulting period plus surcharge at the rate of 5% of defaulting fee amount, or as prescribed from time to time.
- 2. The employer must ensure employment of engineers whose names are mentioned on backside of the licence. The Consulting Engineer (the Engineer Incharge in case the consultant is not appointed) shall monitor the number of engineers employed by the Constructor/Operator and inform the Council accordingly.
- 3. Owner(s) of the firm shall be held responsible, if any information, document or paper submitted by him/them is found incorrect or forged.

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		GOVERNMENT	OF PAKISTAN	l	
		Federal Board	of Revenue bad		
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		Under Sales Ta	EGISTRATIO	N	
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his is to certify th	at <u>M/S ORIEN</u>	T WATER TECHNOLOG	IES		
address	15 AMBER	COURT 4TH FLOOR SH	AHEED- E-MIL	LAT ROAD	)
	KARACHI				- have been registered as
× Man	nufacturer	✓ Importer	×E	xporter	× Distributor
× Reta	ailer	✓ Wholesaler	×S	ervice Prov	ider
This me	eans that they m	nust:			
(i)	Charge sale course of tax	s tax on all taxable able activity.	supplies ma	ide during	the
(ii)	File a return before the prescribed.	in the designated ban 15th of the following	k relating to month, unl	a month o ess other	on or wise
(iii)	File a Nil-Re period.	turn if no taxable activ	vity takes pla	ce during	a tax
(iv)	Abide by pro thereunder.	ovisions of Sales Tax	Act, 1990, a	ind rules n	nade
Their Sale	s Tax Registratio	on Number is			17-03-9999-624-91
Date of Re	gistration is				11-FEB-2009
and Nation	nal Tax Number i	s			1171720
Note: The Sales T	ax Registration nun quoted in all the	nber must be shown in the re ir correspondence with the S	eturn and on all t Sales Tax Depart	he invoices i ment.]	ssued by them and
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## PROJECTS REFERENCE LIST

#### **ORIENT WATER TECHNOLOGIES**



#### **PROJECT REFERENCE LIST - 2024**

S.N	CUSTOMER	LOCATION	CAPACITY(M3/Day)	ТҮРЕ	YEAR
1	Artistic Fabric Mills Pvt Ltd	Karachi	2.272 m3/Day	MBR System	2024
2	Kohat - KPK	КРК	3 MGD	STP	2024
2	Mardan KRK	KBK	5 MGD	STR	2024
5		KPK	3.8 MOD	SIP	2024
4	Matta - KPK	КРК	8 MGD	Filtration System	2024
5	Serena Hotel - Hunza	Hunza	50 m3/Day	STP	2023
6	Serena Hotel - Hunza	Hunza	75,000 GPD	Filtration System	2023
7	Pinstech - Nilor	Islamabad	25 m3/Hr	Water Treatment Plant (RO + Softner)	2023
8	QICT Terminal	Karachi	75 m3/Day	STP	2023
9	Shaukat Khanum Hospital	Karachi	75 m3/Day	STP	2023
10	Kohinoor Textile Mills	Lahore	360 m3/Day	ETP + STP	2023
11	Sunshine Textile Mills	Labore	1920 m3/Day	FTP	2023
12	Masood Spinning Mills	Labore	240 m2/Day	ETD	2023
12	Masood Spinning Mills	Lahoro	840 m3/Day	LIF Boro Water PO	2023
15		Lanore	840 III3/Day	Bore Water RO	2023
14	Menmood Textile Millis MTM 123	MuzafarGarn	800 m3/Day	EIP	2023
15	Bahria Town Karachi	Karachi	2 MGD	STP	2022
16	Serena Hotel	Islamabad	300 M3/Day	STP	2022
17	MG Apparel	Multan	1440 M <sup>3</sup> /Day	Effluent Recycling Plant	2022
18	Indus Hospital	Karachi	379 M <sup>3</sup> /Day	HBWRO Plant	2022
19	M/S. Coca Cola Industry IGE	Islamabad	1200 m3/Day	FTD	2022
20		Tailadada Tailadada	1200 m3/Day	570	2022
20	M/S. Coca Cola Industry FGF	Faisalabad	2040 m3/Day	EIP	2022
21	Nishat Chunnian	Lahore	3600 M3/Day	ETP	2022
22	Artistic Milliners Unit AMP-Q	Karachi	720 M <sup>3</sup> /Day	HBWRO Plant	2022
23	M/S. Artistic Milliners (Pvt) Limited (Unit-16)	Karachi	682 M <sup>3</sup> /Dav	HBWRO Plant	2021
24	M/S. Artistic Milliners (Pvt) Limited (Linit-5)	Karachi	568 M <sup>3</sup> /Dov	HRWRO Plant	2021
25	M/S Artistic Millinors (Dit) Limited (Unit 5)	Karachi	2000 IVI / Ddy		2021
25	IVI/3. Ai tistic IVIIIIITEI's (PVL) LIMIted (UNIt-16)	Karachi	SUUU M /Day		2021
26	M/S. KCPP	Karachi	350 M²/Day	STP	2021
27	M/S. KCPP	Karachi	50 M <sup>3</sup> /Day	STP	2021
28	M/S. US Apparel-1	Lahore	480 M <sup>3</sup> /Day	WWTP	2021
29	SIUT Sukkar Bypass	Karachi	227 M <sup>3</sup> /Day	STP	2021
30	M/S Eighteen Elite Estates (But) Itd	Islamabad	2E0 x 2 M <sup>3</sup> /Dav	СТР	2021
30	W/S. Lighteen Litte Estates (PVI) Ltd.	Isiailiabau	550 X Z IVI / Day	SIF	2021
31	Dawood Foundation	Karachi	38 M³/Day	STP	2021
32	M/S. Siddiqsonds Limited	Karachi	2880 M <sup>3</sup> /Day	WWTP	2021
33	M/S. Hammersdale Knitting Company	South Africa	500 M <sup>3</sup> /Day	WWTP + Effluent Recycling Plant	2020
34	M/S Getz Pharma (Pvt) Limited	Karachi	175 M <sup>3</sup> /Day	Effluent Recycling Plant	2020
25	M/S. Artistic Eabric Mills 1 (Earoog)	Karachi	2,000 M <sup>3</sup> /Day	Effluent Recycling Plant	2020
35		Karacili	2,880 IVI /Day		2020
36	M/s. Unibro International Limited	Karachi	1,128 M°/Day	WWIP	2020
37	M/S. Softwood Pvt Ltd	Lahore	84 M³/Day	WWTP	2020
38	M/S. Remington Pharmaceutical Industries (Pvt) Ltd.	Lahore	204 M <sup>3</sup> /Day	WWTP	2020
39	M/S. Din Textile Mills Ltd.	Lahore	2880 M <sup>3</sup> /Day	WWTP	2020
40	M/S_US & Dynamo Mills	Lahore	3600 M <sup>3</sup> /Day	W/W/TP	2020
41		Cuinencuele	700 M <sup>3</sup> /Day	NAMETO	2020
41	M/S. Naubanar Bottling CO. (PVt) Ltd. (UNIT-1)	Gujranwaia	720 M /Day	WWIP	2020
42	M/S. Naubahar Bottling CO. (Pvt) Ltd. (UNIT-2)	Gujranwala	720 M³/Day	WWTP	2020
43	M/S.Pakistan Defense Officers Housing Authority	Karachi	9092 M <sup>3</sup> /Day	STP	2019
44	M/S. Bahria Town Karachi	Karachi	1136 M <sup>3</sup> /Day	CHBWRO	2019
45	M/S. Kia Lucky Motors Pakistan Limited	Karachi	500 M <sup>3</sup> /Day	SWRO	2019
46	M/S Kia Lucky Motors Pakistan Limited	Karachi	500 M / 50y	Filtration System	2019
40		Karacin	5472 IVI /Day	Theration System	2015
47	M/S. Nabi Qasim Industries (pvt) Ltd.	Karachi	189 M <sup>2</sup> /Day	WWIP	2019
48	M/S. Mekotex (Pvt.) Ltd.	Karachi	2728 M³/Day	WWTP	2019
49	M/S. Ambition Apparel	Karachi	1080 M <sup>3</sup> /Day	WWTP	2019
50	M/S. KANUP	Karachi	10 000 M <sup>3</sup> /Day	SWRO	2019
51	M/S Artistic Milliners (Pvt)   td (  Init -17)	Karachi	120 M <sup>3</sup> /Day	Water Softening Plant	2010
51	M/C Artistic Millinors (Dit) 114 (U-14, 47)	Karachi	120 IVI / Ddy	Mode Election College	2013
52	IVI/5. AI distic iviliarers (PVT) LTG (UNIT -1/)	Karachi	120 MF/Day	iviedia Filtration System	2019
53	M/S. United Towel Exporters (Pvt.) Ltd.	Karachi	4000 M <sup>3</sup> /Day	WWTP	2018
54	M/S. Fashion Knit Industries	Karachi	1137 M <sup>3</sup> /Day	WWTP	2018
55	M/S. Fashion Knit Industries	Karachi	1137 M <sup>3</sup> /Dav	Effluent Recycling Plant	2018
56	M/S Artistic Milliners (Pvt) Limited (Linit-2)	Karachi	2273 M <sup>3</sup> /Dav	Effluent Recycling Plant	2018
50	NA(C. Astistic Millingers (Det) Limited (UIII-2)	Karati	22/3 IVI / Udy		2010
5/	IVI/5. AI LISLIC IVIIIIINER'S (PVT) LIMITEO (UNIT-4)	Karachi	2273 M <sup>-</sup> /Day		2018
58	M/S. Artistic Milliners (Pvt) Limited (Unit-5)	Karachi	3640 M <sup>3</sup> /Day	Effluent Recycling Plant	2018
59	M/S. Artistic Milliners (Pvt) Limited (Unit-14)	Karachi	1364 M <sup>3</sup> /Day	Effluent Recycling Plant	2018
60	M/S. Unilever Pakistan Limited	Karachi	240 M <sup>3</sup> /Dav	Water Treatment System	2018
61	M/S Artistic Milliners (Pvt) Limited (Unit-15)	Karachi	1502 M <sup>3</sup> /Dav	Effluent Recycling Plant	2018
62	M/S. Dabria Joan Towar	Kore-h:	1352 IVI /Ddy	cwpo	2010
02		Karachi	682 M <sup>2</sup> /Day	SWKU	2018
63	M/S. Frontier Works Organization	Gwadar-Balochistan	910 M <sup>3</sup> /Day	SWRO	2018
64	M/S. Rajby Textiles (Pvt) Ltd.	Karachi	2400 M <sup>3</sup> /Day	WWTP	2018
65	M/S. Rajby Industries	Karachi	1364 M <sup>3</sup> /Dav	WWTP	2018
66	M/S. Engro Polymer & Chemicals Limited	Karachi	240 M <sup>3</sup> /Day	Chlorination System	2018
67		Turbat	2-10 IVI / Ddy	стр	2010
0/	IVI/5. TUTUAL UNIVERSITY	JECTUI	190 M <sup>2</sup> /Day	214	2017
68	M/S. Kassim Textile Mills Limited	Karachi	1800 M <sup>3</sup> /Day	WWTP	2018
69	M/S. Gilgit Development Authority	Gilgit	15,152 M <sup>3</sup> /Day	STP	2017
70	M/S. Digital Apparel (Pvt) Ltd.	Karachi	379 M <sup>3</sup> /Dav	WWTP	2017
71	M/S. Taiga Apparel (Pvt) Itd	Lahore	1800 M <sup>3</sup> /Dav	WWTP	2017
		2011010	1000 WI / Day		



#### **ORIENT WATER TECHNOLOGIES**

#### **PROJECT REFERENCE LIST - 2024**

S.N	CUSTOMER	LOCATION	CAPACITY(M3/Day)	ТҮРЕ	YEAR
72	M/S. Artistic Milliners (Pvt) Limited (Unit-2)	Karachi	2273 M <sup>3</sup> /Day	WWTP	2017
73	M/S. Artistic Milliners (Pvt) Limited (Unit-15)	Karachi	1592 M3/Day	WWTP	2017
74	M/S. U.S Denim Mills (Pvt) Ltd	Lahore	4800 M <sup>3</sup> /Dav	WWTP	2017
75	M/S. U.S Appearl (Pvt) Ltd - Unit (2,5)	Lahore	3600 M <sup>3</sup> /Day	WWTP	2017
76	M/S. U.S Appearl (Pvt) Ltd - Unit (3,4)	Lahore	1800 M <sup>3</sup> /Day	WWTP	2017
77	M/S. U.S Appearl (Pvt) Ltd - Unit (1)	Lahore	960 M <sup>3</sup> /Dav	WWTP	2017
78	M/S. Denim International (Pvt) Ltd	Karachi	1362 M <sup>3</sup> /Day	Effluent Recycling Plant	2017
79	M/S. Atlas Honda Limited	Karachi	227 M <sup>3</sup> /Day	SWRO	2017
80	M/S. National Refinary Limited	Karachi	-	Cooling Tower Filtration System	2017
81	M/S. Sanofi-Aventis Pakistan	Karachi	460 M <sup>3</sup> /Day	Effluent Recycling Plant	2017
82	M/S. National Refinary Limited	Karachi	-	ClO2 Generation System	2017
83	M/S. Artistic Fabric & Garment (Pvt) Ltd.(Unit-2)	Karachi	3120 M <sup>3</sup> /Day	Effluent Recycling Plant	2017
84	M/S. Artistic Garment (Pvt) Ltd. (Unit-2)	Karachi	3120 M <sup>3</sup> /Day	Effluent Recycling Plant	2017
85	M/S. Shafl Gluco Chem (Pvt) Limited	Karachi	420 M <sup>3</sup> /Day	SWRO	2016
86	M/S. Shangrila (Pvt) Limited	Karachi	384 M <sup>3</sup> /Day	SWRO	2016
87	M/S. Artistic Fabric & Garment (Pvt) Ltd.	Karachi	1364 M <sup>3</sup> /Day	HBWRO	2016
88	M/S. Hyperstar at Lucky One Mall	Karachi	216 M <sup>3</sup> /Day	Water Treatment System	2016
89	M/S. Konsultec (Pvt) Limited	Karachi	216 M <sup>3</sup> /Day	BWRO	2016
90	M/S. Feroze 1888 Mills Limited	Karachi	3600 M <sup>3</sup> /Day	WWTP	2016
91	M/S. National Refinary Limited	Karachi	3648 M <sup>3</sup> /Day	RO+EDI	2016
92	M/S. Al Rahim Textile Industries	Nooriabad	6300 M <sup>3</sup> /Day	WWTP	2016
93	M/S. Al Rahim Textile Industries	Nooriabad	6000 M <sup>3</sup> /Day	Effluent Recycling Plant	2016
94	M/S. Bahria Town Karachi	Karachi	3800 M <sup>3</sup> /Day	STP	2016
95	M/S. Margalla Building Islamabad	Islamabad	360 M <sup>3</sup> /Day	Water Treatment System	2016
96	M/S. Artistic Fabric & Garment (Pvt) Ltd.	Karachi	2270 M <sup>3</sup> /Day	WWTP	2016
97	M/S. Winners Food (Pvt) Limited	Karachi	60 M <sup>3</sup> /Dav	Water Softening Plant	2016
98	M/S. Artistic Fabric & Garment (Pvt) Ltd.	Karachi	384 M <sup>3</sup> /Day	HBWRO	2016
99	M/S. Artistic Milliners (Pvt) Limited (Unit-2)	Karachi	272 M <sup>3</sup> /Day	HBWRO	2016
100	M/S. Soorty Enterprises (Pvt) Limited	Nooriabad	3000 M <sup>3</sup> /Day	WWTP	2015
101	M/S. Karachi Marriatt Hotel	Karachi	568 M <sup>3</sup> /Day	SWRO	2015
102	M/S. Artistic Milliners (Pvt) Limited Unit-5	Karachi	3640 M <sup>3</sup> /Day	WWTP	2015
103	M/S. G-4 Mega Corporate Tower	Karachi	2 M <sup>3</sup> /Day	BWRO	2015
104	M/S. Shafi Glucochem (Pvt) Limited	Karachi	1635 M <sup>3</sup> /Day	HBWRO	2015
105	M/S. Nishat Mills Limited - (Apparel Division#2)	Lahore	1920 M <sup>3</sup> /Day	WWTP	2015
106	M/S. Island Textile Mills Limited	Kotri	100 M <sup>3</sup> /Day	Filtration System	2015
107	M/S. Sheikh Khalifa Medical Complex	Karachi	151 M <sup>3</sup> /Day	STP	2014
108	M/S. PAF Air Base Masroor	Karachi	151 M <sup>3</sup> /Day	SWRO	2014
109	M/S. KANUP	Karachi	950 M <sup>3</sup> /Day	CSWRO	2014
110	M/S. Philip Morris Pakistan Limited	Kotri	379 M <sup>3</sup> /Day	HBWRO	2014
111	M/S. KANUP	Karachi	91 M <sup>3</sup> /Day	WWTP	2014
112	M/S. Artistic Milliners (Pvt) Ltd - Unit (8)	Karachi	96 M <sup>3</sup> /Day	Water Softening Plant	2013
113	M/S. Artistic Milliners (Pvt) Ltd - Unit (8)	Karachi	96 M <sup>3</sup> /Day	Media Filtration System	2013
114	M/S. Bari Textile Mills Limited	Karachi	760 M <sup>3</sup> /Day	WWTP	2013
115	M/S. Hilal Food (Pvt) Limited	Karachi	606 M <sup>3</sup> /Day	WWTP	2013
116	M/S. Philip Morris Pakistan Limited	Kotri	165 M <sup>3</sup> /Day	WWTP	2012
117	M/S. Naveena Export Limited	Karachi	946 M <sup>3</sup> /Day	WWTP	2013
118	M/S. Denim International	Karachi	1362 M <sup>3</sup> /Day	WWTP	2013
119	M/S. BHP Zamzama Gas Plant	Dadu- Sindh	100 M <sup>3</sup> /Day	STP	2012
120	M/S. Feroze 1888 Mills limited	Karachi	1600 M <sup>3/</sup> Day	WWTP	2012
121	M/S. Nishat Faisalabad Limited	Faisalabad	960 M <sup>3</sup> /Day	WWTP	2012
122	M/S. Interloop (Pvt) Ltd.	Lahore	2880 M <sup>3</sup> /Day	WWTP	2011
123	M/S. Aman Foundation, CED Building	Karachi	384 M <sup>3</sup> /Day	Sand Filter	2013
124	M/S. Soorty Enterprises (Pvt) Ltd.	Karachi	120 M <sup>3</sup> /Day	Water Softening Plant	2013
125	M/S. Artistic Milliners (Pvt) Ltd - (Unit 3)	Karachi	96 M <sup>3</sup> /Day	Water Softening Plant	2013
126	M/S. YKK Pakistan Pvt Ltd	Karachi	720 M <sup>3</sup> /Day	CBWRO	2012
127	M/S. Kaizen Pharmeceutical Ltd.	Karachi	72 M <sup>3</sup> /Day	Water Softening Plant	2012
128	M/S. Kaizen Pharmeceutical Ltd.	Karachi	48 M <sup>3</sup> /Day	Water Treatment System	2012
129	M/S. SANYO Engineering & Construction INC	Karachi	80 M <sup>3</sup> /Day	BWRO	2012
130	M/S. Agility Logistics (Pvt) Ltd.	Krachi	68 M <sup>3</sup> /Day	BWRO	2011
131	M/S. Soorty Denim	Karachi	720 M <sup>3</sup> /Day	Water Softening Plant	2011
132	M/S. Pak Suzuki Motor Co. Ltd.	Karachi	48 M <sup>3</sup> /Day	Water Softening Plant	2011
133	M/S. Yunus Textile Mills	Karachi	(2X48) M <sup>3</sup> /Day	Water Softening Plant	2011
134	M/S. PIA Flight Kitchen	Karachi	360 M <sup>3</sup> /Day	Water Softening Plant	2009

#### OWT INETRNATIONAL PROJECTS (WASTE WATER TREATMENT PLANTS) REFERENCE LIST - 2023

S.N	CUSTOMER	LOCATION	CAPACITY(M3/Day)	ТҮРЕ
1	M/S. HAMMERSDALE KNITTING COMPANY	SOUTH AFRICA	500 M3/Day	ETP
2	AHSAN KNIT COMPOSITE LTD.	DHAKA, BANGLADESH	4800 M3/Day	ETP
3	AQUAK NZ LTD	NEW ZEALAND	30 M3/Day	ETP
4	ARKAY KNIT DYEING MILLS LTD.(PALMAL GROUP)	DHAKA, BANGLADESH	1800 M3/Day	ETP
5	AYESHA CLOTHING CO LTD.	DHAKA	1400 M3/Day	ETP
6	GOVT. OF OMAN	OMAN	480 M3/Day	STP
7	GREEN TEXTILE	DHAKA, BANGLADESH	1000 M3/Day	ETP
8	LA NTABUR GROUP	DHAKA, BANGLADESH	4300 M3/Day	ETP
9	LI BAS TEXTILES LTD.	DHAKA, BANGLADESH	3600 M3/Day	ETP
10	MAYABLE FRANK & FASHION	DHAKA, BANGLADESH	1600 M3/Day	ETP
11	MITHELA GROUP	DHAKA, BANGLADESH	3600 M3/Day	ETP
12	NICE DENIM MILLS LTD- NOMAN GROUP	DHAKA, BANGLADESH	6000 M3/Day	ETP
13	RFS FASHION WEAR LTD.	DHAKA, BANGLADESH	480 M3/Day	ETP
14	SIM FABRICS LTD.(SIM GROUP)	DHAKA, BANGLADESH	1800 M3/Day	ETP
15	SIM GROUP	DHAKA, BANGLADESH	4200 M3/Day	ETP
16	UNIQUE WASHING	DHAKA, BANGLADESH	1200 M3/Day	ETP





#### **OWT PRINCIPLE TORAY PROJECT REFERNCE LIST**

Country	Wastewater classification	Flow (m <sup>3</sup> /d)	Status		
Turkey	Dyeing	2,000	Operation	2005	9
Netherlands	Photo Film	1,080	Operation	2005	12
Netherlands	Sewage	2,400	Operation	2006	4
UK	Sewage	1,975	Operation	2006	11
Bahrain	Sewage	2,400	Operation	2008	1
UAE	Sewage	15,000	Operation	2008	4
UAE	Sewage	5,000	Operation	2008	6
Canada	Sewage	2,500	Operation	2008	6
India	Sewage	1,350	Operation	2008	9
India	Textile	11,200	Operation	2008	10
China	Liquid Crystal	6,500	Operation	2008	11
UAE	Sewage	5,000	Operation	2008	11
Iraq	Sewage	6,000	Operation	2008	12
Bahrain	Sewage	1,200	Operation	2008	
Spain	Sewage	1,000	Operation	2009	4
UAE	Sewage	4,300	Operation	2009	5
Cape Verde	Sewage	1,000	Operation	2009	6
UAE	Sewage	4,300	Operation	2009	9
KSA	Sewage	3,500	Operation	2009	9
UAE	Sewage	38,000	Operation	2009	10
USA	Sewage	1,900	Operation	2009	10
KSA	Sewage	30,000	Operation	2009	11
UAE	Sewage	1,500	Operation	2009	11
UAE	Sewage	45,000	Operation	2009	12
Japan	Industrial	1,200	Operation	2009	12
Spain	Sewage	15,000	Operation	2009	
USA	Sewage	3,785	Operation	2010	1
Poland	Slaughter	1,500	Operation	2010	2
KSA	Paper Mill	8,044	Operation	2010	4
UAE	Sewage	7,000	Operation	2010	4
UAE	Sewage	15,000	Operation	2010	5
KSA	Industrial	1,368	Operation	2010	6
Taiwan	PTA Wastewater	9,000	Operation	2010	8
Greece	Sewage	1,000	Operation	2010	8
UAE	Sewage	11,000	Operation	2010	10
KSA	Sewage	6,000	Operation	2010	12
KSA	Sewage	1,000	Operation	2010	12
Japan	Sewage	1,000	Operation	2010	12
Spain	Sewage	7,100	Operation	2011	2
Papua New Guinea	Sewage	3,500	Operation	2011	3
KSA	Sewage	1,400	Operation	2011	3
Australia	Sewage	1,000	Operation	2011	3
UAE	Sewage	7,100	Operation	2011	5
France	Sewage	8,700	Operation	2011	6
Spain	Sewage	2,000	Operation	2011	7

Country	Wastewater classification	Flow	Status		
		(m <sup>3</sup> /d)			1
KSA	Sewage	8,300	Operation	2011	9
France	Sewage	3,800	Operation	2011	10
KSA	Sewage	2,000	Operation	2011	12
Hong Kong	Sewage	1,500	Operation	2011	12
Syria	Sewage	12,200	Operation	2011	
UAE	Sewage	4,000	Operation	2011	
Russia	Slaughter	3,000	Operation	2011	
KSA	Dairy	3,400	Operation	2012	6
Italy	Winery	1,120	Operation	2012	6
Korea	Sewage	5,500	Operation	2012	7
Spain	Sewage	1,125	Operation	2012	7
China	Sewage	1,680	Operation	2012	8
China	Sewage	1,789	Operation	2012	9
KSA	Beverage	1,000	Operation	2012	12
China	Sewage	1,400	Operation	2013	5
Morocco	Sewage	1,400	Operation	2013	
England	Sewage	1,100	Operation	2013	
India	Textile	1,008	Operation	2013	
China	Industrial	1,100	Operation	2014	6
Indonesia	Industrial	1,200	Construction	2015	3
Peru	Sewage	3.600	Construction	2015	6
KSA	Sewage	60,000	Construction		
China	Petrochemical	9 840	Construction		
KSA	Bakery	8,000	Construction		
Hong Kong	Seware	7,400	Construction		
China		4 500	Construction		
Kazakhstan	Seware	4,000	Construction		
	Sewage	3 787	Construction		
Hong Kong	Sewage	3,780	Construction		
	Sewage	3,700	Construction		
Saudi Arabia	Sewage	3,000	Construction		
	Sewage	3,000	Construction		
	Sewage	2,500	Construction		
	Sewage	2,000	Construction		
Ohina		1,920	Construction		
China		1,800	Construction		
KSA		1,500	Construction		
UAE	Sewage	1,400	Construction		
KSA	Sewage	1,200	Construction		
KSA	Sewage	1,100	Construction		
	Under 1.000 m3/day				
Thailand	Sewage	960	Construction	2015	3
UK	Sewage	950	Operation	2005	1
USA	Sewage	950	Operation	2007	4
Ireland	Sewage	945 924	Operation	2009	7
China	Sewage	900	Operation	2012	12
England	Sewage	900	Operation	2014	
Italy	Sewage	840	Operation	2010	7
India	Sewage	800	Operation	2008	10
Taiwan	Sewage	800	Construction		
Saudi Arabia	Sewage	800	Construction		
Ireland	Sewage	792	Operation	2009	9

Country	Mostowator elegation	Flow	Cto	itus	
Country	wastewater classification	(m <sup>3</sup> /d)	Sta	tus	
Canada	Sewage	780	Operation	2013	6
Bermuda	Sewage	757	Operation	2009	11
USA	Sewage	757	Operation	2010	9
Korea	Sewage	750	Operation	2010	7
Russia	Sewage	750	Operation	2010	,
Peru	Sewage	748	Construction	2014	
lanan	Chemical	740	Operation	2007	Q
Chipa	Sowago	700	Operation	2007	12
China	Sewage	700	Operation	2000	7
	Sewage	680	Operation	2010	/
China		650	Operation	2014	10
	Electronics	630	Operation	2014	12
	Sewage	640	Operation	2012	
	Sewage	640	Operation	2012	40
UAE	Sewage	620	Operation	2009	12
Japan	Electronics	600	Operation	2006	10
India	Sewage	600	Operation	2009	
Sudan	Sewage	600	Operation	2011	9
Italy	Food Processing	600	Operation	2011	10
Korea	Industrial	600	Operation	2011	11
Peru	Food Processing	600	Operation	2012	1
USA	Sewage	600	Operation	2012	4
Peru	Food Processing	600	Construction		
China	Waste Water	600	Construction		
China	Sewage	570	Operation	2008	8
Canada	Sewage	568	Operation	2009	11
Canada	Sewage	568	Operation	2010	8
Italy	Industrial	560	Operation	2010	9
Italy	Winerv	560	Operation	2012	9
UK	Dairy	550	Operation	2006	11
Australia	Malting	550	Operation	2011	10
	Sewage	530	Operation	2010	7
	Sewage	530	Construction	2010	1
New Caledonia	Sewage	525	Operation	2012	
Konyo	Sewage	525	Construction	2012	
Cono Vordo	Sewage	510	Operation	2006	10
	Sewage	500	Operation	2006	12
		500	Operation	2008	7
Japan Obia		500	Operation	2009	/
		500	Operation	2010	10
India	Sewage	500	Operation	2010	
KSA	Sewage	500	Operation	2011	3
China	Sewage	500	Operation	2011	9
Australia	Sewage	500	Operation	2012	8
India	Industrial	500	Operation	2012	
St Barthelme	Sewage	500	Operation	2012	
Brazil	Sewage	500	Operation	2014	1
Taiwan	Sewage	500	Operation	2014	9
Australia	Sewage	500	Construction		
China	Sewage	500	Construction		
KSA	Sewage	500	Construction		
KSA	Sewage	500	Construction		
Shenzhen	Sewage	500	Construction		
Germany	Meat Processing	480	Operation	2010	7
India	Sewage	450	Operation	2009	
Italy	Sewage	450	Operation	2012	
Dutch Antilles	Sewage	450	Operation	2013	10
China	Sewage	445	Operation	2007	10
Belaium	Industrial	420	Operation	2006	6
Canada	Landfill Leachate	420	Operation	2007	8
China	Sewage	420	Operation	2007	.9
Philippines	Electronics	400	Operation	2006	7
China	Sewage	400	Operation	2007	6
KSV	Sewage	400	Operation	2007	۵ ۵
India	Chemical	400	Operation	2007	7
China	Industrial	400		2000	0
China	Sowooo	400	Operation	2008	0
	Sewage	400	Operation	2009	1 
inala	Sewage	400	Operation	2009	

Country	Wastewater classification	Flow	Status		
		(m <sup>3</sup> /d)	•		
India	Sewage	400	Operation	2009	
India	Sewage	400	Operation	2009	
Indonesia	Sewage	400	Operation	2012	4
Russia	Sewage	400	Operation	2012	4
Russia	Sewage	400	Operation	2013	1
Colombia	Paper Mill	400	Operation	2013	3
Russia	Sewage	400	Operation	2013	
Russia	Sewage	400	Operation	2013	
Brazil	Sewage	400	Operation	2014	1
	Automotive	400	Construction		
China		400	Construction	0000	0
		390	Operation	2009	3
USA Osnada	Sewage	380	Operation	2010	1
		380	Operation	2012	
Brazil		380	Construction	0000	0
USA	Sewage	379	Operation	2008	9
Italy	Sewage	360	Operation	2012	5
		360	Construction	0000	0
KSA	Sewage	350	Operation	2008	3
NOA China	Sewage	350	Operation	2009	10
China	Sewage / InduStrial	350	Operation	2010	1
	Sewage	350	Operation	2010	ð
	Sewage	350	Operation	2011	3
KSA	Sewage	350	Operation	2011	1
		350	Operation	2012	
USA	Sewage	350	Operation	2012	0
Norea	Sewage	350	Operation	2013	9
	Food Processing	350	Operation	2015	3
KSA Canada	Sewage	350	Construction	2000	4
	Sewage	340	Operation	2009	4
	Sewage	340	Operation	2013	3
China	Sewage	340	Operation	2014	0
China		330	Operation	2011	8
Niexico Dominicon Don	VVVV Reuse	330	Construction	2012	1
Dominican Rep.	Food Processing	330	Construction		
Feru	Vincent	330	Onstruction	2005	7
	Sowago	330	Operation	2005	12
Italy	Sewaye	320	Operation	2000	12
Vietnam	Sewage	320	Construction	2010	
KCV	Sewage	315	Construction		
India	Chemical	310	Operation	2000	12
Chipa	Chemical	300	Operation	2009	12
lanan	Flectronics	300		2000	- <del>1</del> Q
Japan	Chemical	300	Operation	2000	- 9 10
Philippines	Electronics	300	Operation	2000	10
China	Sewade	300		2000	10
China	Sewage	300	Operation	2007	+ 11
Taiwan	Sewage	300	Operation	2007	6
India	Chemical	300	Operation	2000	7
China	Sewage / Industrial	300		2000	11
China	Sewage / Industrial	300		2000	1
India	Sewage	300		2003	4
Favot	Sewage	300		2003	1
Russia	Sewage	300		2010	+ 6
India	Sewage	300	Operation	2010	0
Morocco	Dairy	300		2010	
Brazil	Sewage	300	Operation	2010	1
Canada	Meat Processing	300		2011	2
Poland	Coke Industry	300		2011	<u>ک</u> ۵
KSA	Seware	300		2011	3 12
India	Sewage	300		2011	12
Korea	Sewage	300		2011	6
India	Sewage	300		2012	U
Columbia	Beverage	300	Operation	2012	
Snain	Sewage	300	Operation	2012	2
opani	ou mayo	300		2013	<u> </u>

Country	Wastewater classification	Flow	Sta	tus	
Danu	Food Droppoing	(m²/d)	Oneration	0040	6
Peru Calambia	Food Processing	300	Operation	2013	6
Drazil	Severage	300	Operation	2013	9
Maraaaa	Sewage	300	Operation	2013	9
Morocco	Sewage	300	Operation	2013	11
	Sewage	300	Construction	2014	11
Koroo	Dearmage	300	Operation	2012	1
Kolea	Phaimaceutical	290	Operation	2012	I 6
India	Caulary	200	Operation	2010	0
	Sewage	280	Operation	2009	10
Australia	Sewage	280	Operation	2010	10
	Sewage	280	Operation	2011	1
Australia	Sewage	280	Operation	2011	8
Italy	Winery	280	Operation	2012	3
Italy	Sewage	280	Operation	2012	3
USA	Sewage	280	Operation	2015	2
Saudi Arabia	Sewage	280	Construction		
USA	Sewage	280	Construction		
India	Sewage	270	Operation	2010	6
China	Sewage	270	Construction		
Hong Kong	Mixed WW	270	Construction		
Spain	Ice Cream	250	Operation	2007	5
China	Electronics	250	Operation	2009	12
Russia	Sewage	250	Operation	2009	
Italy	Food Processing	250	Operation	2010	6
KSA	Sewage	250	Operation	2011	5
KSA	Sewage	250	Operation	2011	7
Italy	Sewage	250	Operation	2011	7
Korea	Sewage	250	Operation	2012	2
India	Sewage	250	Operation	2012	
Peru	Food Processing	250	Operation	2012	
Canada	Sewage	240	Operation	2005	8
China	Sewage	240	Operation	2007	6
China	Wood Panel	240	Operation	2008	10
Italy	Sewage	240	Operation	2010	6
Italy	Slaughter	240	Operation	2010	7
KSA	Petrochemical	240	Operation	2010	12
KSA	Petrochemical	240	Operation	2010	12
Spain	Sewage	240	Operation	2010	
Italy	Sewage	240	Operation	2011	
Italy	Sewage	240	Operation	2013	6
Papua New Guinea	Sewage	240	Operation	2013	10
Papua New Guinea	Sewage	240	Operation	2013	
	Sewage	230	Operation	2005	5
Mexico	Automotive	230	Construction		•
UAF	Sewage	230	Construction		
USA	Sewage	200	Operation	2010	7
USA	Sewage	227	Operation	2008	11
French Somalia	Sewage	225	Operation	2010	
Singapore	Food Processing	220	Operation	2010	4
Spain	Sewage	220	Operation	2010	5
Saudi Arabia	Sewage	220	Construction	2010	Ŭ
USA	Sewage	216	Operation	2014	3
Canada	Sewage	210	Construction	2011	Ŭ
India	Sewage	200	Operation	2006	6
Japan	Electronics	200	Operation	2006	q
Chipa	Sewage	200	Operation	2000	11
China	Sewage	200	Operation	2007	Q
	Cider	200	Operation	2007	6
China		200	Operation	2000	7
China	Sewage	200	Operation	2000	2
China	Sewage	200		2009	0
Uzbokiston	Cowage	200	Operation	2009	9
	Sewage	200	Operation	2009	
	Sewage	200	Operation	2009	
Inula Spoin	Sewage	200	Operation	2009	
opalii	Sewage	200	Operation	2009	4
Inula	Sewaye	200	Operation	2010	

Country	Wastewater classification	Flow	Status		
Country		(m <sup>3</sup> /d)			
Russia	Sewage	200	Operation	2010	7
Indonesia	Sewage	200	Operation	2010	9
Italy	Sewage	200	Operation	2010	
Russia	Textile	200	Operation	2011	5
Canada	Sewage	200	Operation	2011	6
Canada	Sewage	200	Operation	2011	10
Movico	Sewage	200	Operation	2011	10
China	Sewage	200	Operation	2012	0
	Sewage	200	Operation	2013	0
Brazii	Sewage	200	Operation	2013	12
Russia	Sewage	200	Operation	2013	
Germany	Sewage	200	Operation	2013	_
Mexico	Sewage	200	Operation	2014	3
China	Landfill Leachate	200	Operation	2014	9
KSA	Sewage	200	Operation	2014	
Taiwan	Food Processing	200	Construction		
China	Sewage	200	Construction		
Italy	Landfill Leachate	190	Operation	2007	
USA	Sewage	190	Operation	2011	9
Canada	Sewage	189	Operation	2014	11
Canada	Sewage	185	Operation	2006	4
China	Sewage	180	Operation	2008	10
Russia	Sewage	180	Operation	2013	
Russia	Sewage	180	Operation	2013	
Canada	Sewage	477		2013	Л
	Cowage	470		2009	4
	Sewage	170	Operation	2006	4
Turkey	Sewage	170	Operation	2011	
KSA	Sewage	170	Operation	2012	5
Singapore	Industrial	170	Operation	2014	1
Italy	Sewage	170	Operation	2014	
UAE	Sewage	170	Construction		
India	Sewage	170	Construction		
UK	Food Processing	165	Operation	2009	7
China	PET NWF	160	Operation	2006	12
China	Industrial	160	Operation	2008	10
Mexico	WW Reuse	160	Operation	2012	1
China	Sewage	160	Construction		
Italy	Sewage	158	Operation	2008	3
USA	Sewage	151	Operation	2008	10
USA	Sewage	151	Operation	2008	10
USA	Sewage	151	Operation	2013	9
China	Sewage	150	Operation	2006	8
Chipa	Sewage	150	Operation	2000	5
lanan	Chemical	150	Operation	2007	6
Chipa	Dharmacoutical	150		2007	0
Chilla		150	Operation	2007	9
		150	Operation	2008	1
		150	Operation	2011	9
Indonesia	Dairy	150	Operation	2012	5
Canada	Sewage	150	Operation	2012	6
Italy	Sewage	150	Operation	2012	
Russia	Sewage	150	Operation	2012	
China	Landfill Leachate	150	Operation	2013	10
Morocco	Sewage	150	Operation	2013	10
Qatar	Sewage	150	Operation	2013	
Russia	Sewage	150	Operation	2013	
Italy	Sewage	150	Operation	2014	
Vietnam	Sewage	150	Construction	2015	2
Indonesia	Slaughter	150	Construction		-
China	Sewage	150	Construction		
KSA	Sewage	150	Construction		
India	Industrial	100	Construction		
Omon	Cowago	100	Construction		
Unian		150	Construction		
		150	Construction		
Italy		145	Operation	2008	4
Italy	Sewage	140	Operation	2011	7
Italy	Winery	140	Operation	2012	9
Italy	Sewage	140	Operation	2012	

Country	Wastewater classification	Flow	- Status		
		(m³/d)	<b>2</b>		-
USA	Sewage	140	Operation	2014	2
USA	Sewage	140	Operation	2014	6
Canada	Sewage	140	Construction		
USA	Sewage	136	Construction	0040	44
USA	Sewage	133	Operation	2012	11
Canada	Sewage	130	Operation	2012	
	Sewage	130	Operation	2012	4
	Restaurant	120	Operation	2015	10
KSA On alia	Sewage	125	Operation	2011	12
Spain	Sewage	125	Operation	2011	0
USA	Sewage	125	Operation	2013	8
USA	Sewage	125	Operation	2014	10
Japan	Food Processing	120	Operation	2005	6
USA	Sewage	120	Operation	2010	3
Korea	Sewage	120	Operation	2010	7
Australia	Sewage	120	Operation	2012	12
China	Sewage	120	Operation	2014	9
Spain	Sewage	120	Operation	2014	
Romania	Sewage	120	Operation	2014	
France	Sewage	120	Construction		
KSA	Sewage	120	Construction		
UAE	Sewage	120	Construction		
UAE	Sewage	120	Construction		
UK	Sewage	115	Operation	2003	9
USA	Sewage	115	Operation	2008	7
USA	Sewage	115	Construction		
USA	Sewage	115	Construction		
China	Sewage	110	Operation	2011	12
Italy	Sewage	110	Construction		
USA	Sewage	104	Operation	2013	9
China	Sewage	100	Operation	2006	7
Taiwan	Sewage	100	Operation	2006	12
Korea	Sewage	100	Operation	2007	8
China	Sewage	100	Operation	2007	10
China	Inorganic	100	Operation	2008	7
China	Sewage	100	Operation	2008	9
India	Sewage	100	Operation	2008	10
India	Sewage	100	Operation	2008	12
India	Sewage	100	Operation	2008	
KSA	Sewage	100	Operation	2009	3
China	Sewage	100	Operation	2009	3
KSA	Sewage	100	Operation	2009	4
China	Sewage	100	Operation	2009	6
China	Sewage	100	Operation	2009	6
Ireland	Sewage	100	Operation	2009	7
Oman	Sewage	100	Operation	2009	10
India	Sewage	100	Operation	2009	
India	Sewage	100	Operation	2009	
Turkey	Sewage	100	Operation	2009	
Niger	Sewage	100	Operation	2010	3
China	Sewage	100	Operation	2010	7
Spain	Dairy	100	Operation	2010	,
Russia	Sewage	100	Operation	2010	
South Africa	Milk Processing	100	Operation	2010	5
Morocco	Seware	100	Operation	2011	6
India	Sewage	100	Operation	2011	0
India	Sowage	100	Operation	2011	
Thailand		100		2012	٥
Italy	Food Processing	100	Operation	2013	3
Italy	Povorogo	100	Operation	2013	
	Develage	100	Operation	2013	
	Sewage	100	Operation	2013	
	Sewage	100	Operation	2013	~
China Thailead		100	Operation	2014	9
i nalland		100	Construction	2015	2
	Sewage	100	Construction		
China	Sewage	100	Construction		

Country	Wastowator classification	Flow	Status		
Country		(m <sup>3</sup> /d)	Sia	lus	
Indonesia	Sewage	100	Construction		
Kenya	Sewage	100	Construction		
Thailand	Electronics	96	Operation	2008	6
USA	Sewage	95	Operation	2008	8
Canada	Sewage	95	Operation	2010	9
USA	Animal wastewater	93	Operation	2014	9
Spain	Protein	90	Operation	2006	9
Italy	Dairy	90	Operation	2010	
Greece	Sewage	90	Operation	2012	9
Italy	Sewage	90	Operation	2013	
UK	Sewage	89	Operation	2003	7
USA	Sewage	85	Operation	2013	5
USA	Sewage	83	Operation	2009	3
China	Sewage	80	Operation	2006	10
China	Sewage	80	Operation	2007	6
Italy	Cosmetic	80	Operation	2007	10
	Sewage	80	Operation	2008	3
Ihailand	Brewery	80	Operation	2010	6
Italy	Food Processing	80	Operation	2010	6
		80	Operation	2011	12
Spain	Package Plant	80	Operation	2012	2
	Sewage	80	Operation	2012	
Columbia		80	Operation	2012	
		80	Construction	2000	-
USA Obiac	Sewage	75	Operation	2009	2
		70	Operation	2009	8
Karaa	Sewage	70	Operation	2010	2 1
Italy	Sewaye Papor mill	70	Operation	2012	1
India	Faper IIIII	70	Construction	2013	
India	Sewage	70	Construction		
Canada	Sewage	10	Operation	2006	4
Spain		60	Operation	2000	- <del>-</del> 1
Janan	Chemical	00	Operation	2005	6
China	Cosmetic	60	Operation	2005	4
USA	Winery	60 60	Operation	2006	10
Italy	Industrial	60 60	Operation	2000	2
Canada	Sewage	60	Operation	2010	3
China	Sewage	60	Operation	2010	4
China	Industrial	60	Operation	2010	5
Canada	Sewage	60	Operation	2010	9
Italy	Food Processing	60	Operation	2011	-
Australia	Sewage	60	Operation	2012	7
Italy	Sewage	60	Operation	2014	
Italy	Sewage	60	Operation	2014	
Italy	Sewage	60	Operation	2014	
Italy	Sewage	60	Construction		
Mexico	Sewage	60	Construction		
Italy	Sewage	60	Construction		
Italy	Sewage	60	Construction		
Kazakhstan	Sewage	57	Operation	2010	9
Russia	Sewage	57	Operation	2011	4
USA	Industrial	56	Operation	2010	
China	Sewage	55	Operation	2009	12
USA	Sludge Thickening	55	Construction		
China	Pharmaceutical	50	Operation	2006	4
China	Sewage	50	Operation	2006	7
Taiwan	Sewage	50	Operation	2007	8
China	Pharmaceutical	50	Operation	2007	10
China	Sewage	50	Operation	2008	5
China	Sewage	50	Operation	2008	11
India	Sewage	50	Operation	2008	
India	Sewage	50	Operation	2008	
India	Sewage	50	Operation	2009	4
China	Sewage	50	Operation	2009	10
India	Sewage	50	Operation	2009	

Country	Wastewater classification	Flow	Status		
		(m³/d)	<b>2</b>		
USA	Industrial	50	Operation	2010	3
lurkey	Food Processing	50	Operation	2010	3
Italy	Landfill Leachate	50	Operation	2010	5
Italy	Winery	50	Operation	2010	8
Canada	Sewage	50	Operation	2010	8
Japan	Industrial	50	Operation	2011	3
USA	Sewage	50	Operation	2011	5
	Sewage	50	Operation	2011	5
lonon	Sewage	50	Operation	2011	9
Japan	Sowago	50	Operation	2011	9 10
lanan	Sewaye	50		2011	10
Italy	Winery	50		2011	11
Hong Kong	Sewage	50	Operation	2011	12
Italy	Food Processing	50	Operation	2011	3
Greece	Sewage	50	Operation	2012	7
	Sewage	50	Operation	2012	10
Canada	Sewage	50	Operation	2012	1
Colombia	Sewage	50	Operation	2013	9
Italy	Sewage	50	Operation	2013	<u> </u>
Korea	Sewage	50	Operation	2010	6
Italy	Sewage	50	Operation	2014	0
Vietnam	Sewage	50	Construction	2015	3
Oman	Sewage	50	Construction	2010	Ŭ
UAF	Sewage	50	Construction		
Mexico	Sewage	50	Construction		
Mexico	Sewage	50	Construction		
India	Sewage	50	Construction		
India	Sewage	50	Construction		
China	Sewage	50	Construction		
China	Landfill Leachate	50	Construction		
Canada	Sewage	49	Operation	2008	11
Australia	Sewage	45	Operation	2012	5
China	Sewage	45	Operation	2013	10
Taiwan	Sewage	40	Operation	2005	12
Spain	Winery	40	Operation	2006	9
India	Industrial	40	Operation	2011	12
Italy	Sewage	40	Operation	2014	
Italy	Sewage	40	Operation	2014	
China	Sewage	40	Construction		
China	Sewage	40	Construction		
China	Pharmaceutical	40	Construction		
Peru	Sewage	40	Construction		
USA	Sewage	38	Operation	2007	7
USA	Winery	38	Operation	2009	
South Africa	Sewage	36	Operation	2011	6
USA	Sewage	36	Operation	2013	4
Indonesia	Petrochemical	36	Construction		
Japan	Industrial	35	Operation	2010	7
USA	Sludge Thickening	35	Operation	2013	3
USA	Sewage	35	Operation	2014	10
USA	Sewage	35	Construction		
Mauritania	Sewage	34	Construction		
USA	Industrial	33	Operation	2012	11
Italy	Sewage	32	Construction		
Korea	Sewage	30	Operation	2003	7
USA	Sewage	30	Operation	2007	12
Italy	Food Processing	30	Operation	2010	
USA	Sewage	30	Operation	2012	11
Vietnam	Sewage	30	Operation	2013	8
	Pharma	30	Operation	2013	
		30	Operation	2013	
Italy	Sewage	30	Operation	2013	
Independent	Sewage	30		2014	
		30	Construction		
Hong Kong	Sewage	30	Construction		

Country	Wastewater classification	Flow	Status		
		(m <sup>3</sup> /d)	Sia	lus	
USA	Industrial	30	Construction		
Canada	Sewage	30	Construction		
USA	Winery	28	Operation	2008	7
Canada	Sewage	27	Operation	2006	4
Spain	Olive Oil	25	Operation	2012	12
USA	Sewage	25	Operation	2012	
Italy	Sewage	25	Operation	2014	
Italy	Winery	24	Operation	2011	7
Italy	Sewage	24	Operation	2014	
Canada	Sewage	23	Operation	2009	9
Canada	Sewage	20	Operation	2005	2
Morocco	Sewage	20	Operation	2011	11
India	Industrial	20	Operation	2012	
India	Sewage	20	Operation	2012	
Uruguay	Beverage	20	Operation	2013	5
USA	Sewage	20	Operation	2013	6
Australia	Sewage	20	Operation	2013	
USA	Produced Water	20	Operation	2014	10
Italy	Sewage	20	Operation	2014	
Italy	Sewage	20	Operation	2014	
Italy	Sewage	20	Operation	2014	
China	Landfill Leachate	20	Construction		
India	Industrial	20	Construction		
Hong Kong	Sewage	20	Construction		
Columbia	Industrial	18	Operation	2012	10
Columbia	Industrial	18	Operation	2012	10
USA	Sewage MBT	18	Construction		
Canada	Sewage	15	Operation	2005	9
UK	Food Processing	15	Operation	2009	1
Greece	Sewage	15	Operation	2012	
Italy	Beverage	15	Operation	2013	
Italy	Sewage	14	Operation	2013	
Japan	Textile, Plastic	14	Operation	2011	11
USA	Sewage	13	Operation	2007	12
China	Industrial	12	Operation	2014	2
Peru	Sewage	12	Construction		
USA	Sewage	11	Operation	2007	12
Korea	Sewage	10	Operation	2013	6
Korea	Waste Water	10	Operation	2013	12
Italy	Sewage	10	Operation	2013	
Italy	Sewage	10	Operation	2014	
Italy	Sewage	10	Operation	2014	
Italy	Sewage	5	Operation	2012	
Italy	Sewage	5	Operation	2014	
Italy	sewage	5	Operation	2014	
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# ORIENT WATER TECHNOLOGIES

## **KEY PROJECT REFERNCES**



## FEW DOMESTIC WASTE WATER TREATMENT

## <u>PLANTS</u>

### FOR REFERENCE



#### Project: Bahria Town Karachi

Type: STP Plant

Capacity: 1 MGD

Technology: Sequence Batch Reactor (SBR)

Project Year: 2016

Project Completion Year: 2017

Status: In Operation





#### **Project: Gilgit Development Authority**

Type: STP Plant

Capacity: 4 MGD

Technology: Return Activated Sludge Process

Project Year: 2017

Project Completion Year: 2018 - 2019





#### Project: Bahria Town Karachi

Type: STP Plant Capacity: 2 MGD

Technology: Sequence Batch Reactor (SBR)

Project Year: 2022

Project Completion Year: In 2023

Status: Installation is in Progress



#### Project: Serena Hotel Islamabad

Type: Sewage Treatment Plant

Capacity: 300 m3/Day

Technology Used: MBBR (PAV Gel) + MBR Technology

Project Year: 2022

Project Completion Year: 2023





#### Project: KCCP (WASO-1)

Type: Sewage Treatment Plant

Capacity: 350 m3/Day

Technology Used: Activated Return Sludge with MBBR (PVA Gel) Technology

Project Year: 2021

Project Completion Year: 2022

Status: In Operation

#### Project: KCCP (WASO-2)

Type: Sewage Treatment Plant

Capacity: 50 m3/Day

Technology: Activated Return Sludge with MBBR (PVA Gel) Technology

Project Year: 2021

Project Completion Year: 2022





#### **Project: Dawood Foundation**

Type: Sewage Treatment Plant

Capacity: 38 m3/Day

Technology: Activated Return Sludge with MBR Technology

Project Year: 2021

Project Completion Year: 2022

Status: In Operation



#### **Project: SIUT Sukkur Bypass**

Type: Sewage Treatment Plant

Capacity: 227 m3/Day

Technology Used: Activated Return Sludge with MBBR (PVA Gel) Technology

Project Year: 2021

Project Completion Year: 2022





#### Project: Serena Hotel Hunza City

Type: STP Plant

Capacity: 50 m3/Day

Technology Used: Return Activated Sludge System with MBBR (PVA Gel Media)

Project Year: 2023

Project Status: Civil Work is in Progress





## FEW INDUSTRIAL WASTE WATER TREAYMENT PLANTS

### FOR REFERENCE



#### **Project: Siddiq Sons Limited**

Type: ETP Plant

Capacity: 2880 m3/Day

Technology Used: MBBR (PVA Gel) + Membrane Bio Reactor (MBR)

Project Year: 2021

Project Completion Year: 2021





## Project: Artistic Milliners (Pvt) Limited (Unit-05)

Type: ETP Plant

Capacity: 3640 m3/Day

Technology Used: Return Activated Sludge System with Recycling up to 90%

Project Year: 2015

Project Completion Year: 2016

Status: In Operation

## Project: Artistic Milliners (Pvt) Limited (Unit-05)

Type: Recycling Plant Capacity: 3640 m3/Day up to 85% Technology: Pretreatment + UF + RO

Project Year: 2018

Project Completion Year: 2018





#### **Project: Artistic Milliners Unit - 16**

Type: ETP Plant

Capacity: 3000 m3/Day

Technology: MBBR (PVA Gel) + MBR Modules

Project Year: 2021

Project Completion Year: 2022





## Project: Artistic Fabric Mills (Farooq)

Type: ETP Plant

Capacity: 2880 m3/Day

Technology Used: MBBR (PVA Gel) + MBR Technology

Project Year: 2020

Project Completion Year: 2021

Status: In Operation

## Project: Artistic Fabric Mills (Farooq)

Type: Recycling Plant

Capacity: 2880 m3/Day

Technology Used: Reverse Osmosis Plant

Project Year: 2020

Project Completion Year: 2021





#### **Project: Mehmood Textile Mills**

Type: ETP Plant

Capacity: 800 m3/Day

Type of Textile Industry: Garment Washing

Project Year: 2022

Project Completion Year: In Progress





#### **Project: MG Apparels**

Type: ETP + Recycling Plant Capacity: 1440 m3/Day Type of Textile Industry: Denim Washing Technology Used: Recycling Up to 70 - 75% Project Year: 2022 Project Completion Year: 2022 Status: In Operation




## FEW DESALINATIONS PROJECTS

## FOR REFERENCE



## Project: Karachi Nuclear Power Plant (K-1)

Type: Desalination Plant (Containerized) Capacity: 1 MGD Technology: Pretreatment + UF + RO Project Year: 2014 Project Completion Year: 2015 Status: In Operation





## Project: Karachi Nuclear Power Plant (K-2 & K-3)

Type: Desalination Plant

Capacity: 2.6 MGD

Technology: Water Intake + Pretreatment + UF + SWRO + BWRO

Project Year: 2019

Project Completion Year: 2020

Status: In Operation

