WATER MASTERS specialises in the design and manufacturing and has become a leader in the following water treatment activities:

- Water RO desalination and waste water treatment systems.
- Process design, engineering, procurement.
- Equipment manufacturing.
- Site installation.
- Commissioning.
- Operation and maintenance.
- After sales service.

Water masters activities range from skid mounted water and waste water purification plants to custom-built plants.

Water masters engineers and management have more than fifteen years of combined experience in the fields of design and engineering.
ENGINEERING & DESIGN

WATER MASTERS maintains a young, highly qualified and multi-disciplined design team, this enables water masters to offer the state of the art design in the water and electromechanical aspects.

MANUFACTURING & ASSEMBLY

WATER MASTERS manufacturing staff has manufactured, assembled and installed high quality systems inline with high international standards. WATER MASTERS equipment is thoroughly tested and inspected before leaving the facility. Attention to the superior workmanship and to meeting production targets and schedules has been a major factor in WATER MASTERS success.
Timely ordering, carefully scheduled shipping and critical path analysis. WATER MASTERS highly trained and experienced engineers follow these principles and monitor the progress of key items, such as pumps, valves and pipe work to insure that all equipment is delivered to site on time. A senior engineer is assigned to oversee each project from concept to completion. Site installation is organized by a resident engineer who monitors the progress and quality of work at every single stage.
Specially trained Water Masters staff:

- Provide round-the-clock maintenance and parts service on call basis.

- Provide a monitoring service whereby customer's own operating data is tabulated on Water Masters computers and evaluated by our engineers.

- Undertakes fixed term operation and maintenance assignments.

- Train customers' staff to operate correctly and maintain equipment.
BRACKISH & SEA WATER REVERSE OSMOSIS SYSTEMS:-

- Packaged units (skid mounted)
- Mobile units
- Containerized plants
- Custom built plants
- Sea water fibreglass pump
- Duplex stainless steel pump for sea water...
WASTE WATER TREATMENT :-

- Treating effluents of:
  - Domestic sewage
  - Industrial sewage
LINE OF PRODUCT

WATER TREATMENT SYSTEM:-

- Water softeners
- Media filters: activated carbon, mixed media, sand, etc.
- Water pumping systems
- Water storage tanks
- Demineralizes....
Reverse Osmosis (RO) is in general the most economical process for desalination of brackish water and seawater. As a widely accepted technology, reverse osmosis has become more and more competitive and is superior to other processes when a comparison is made of capital investment and energy consumption.

The phenomenon of the reverse of osmosis occurs when pure water flows from a dilute saline solution through the membrane into a higher concentrated saline solution with aid of externally applied pressure.

Water Masters Reverse Osmosis systems Available:

- 1. Packaged units (skid mounted)
- 2. Mobiles units
- 3. Containerized plants
- 4. Custom built plants
Gray wastewater generated by: Domestic uses. The source of waste water considered in this plant is from showers, wash basins and laundry washing. The final treated effluent will be used for:

- Reuse for Toilet Flushing & Irrigation
Sewage Treatment Plant

This is an advanced Sewage treatment facility for recycling of waste water for reuse in watering property plants and landscape. The system is built completely underground for maximum space saving.

Double money savings is achieved.

The property owners will not help noticing the savings on buying water and paying for the trucking of wastewater.
DESIGN, SUPPLY, INSTALLATION, TESTING & COMMISSIONING

PROPOSAL FOR
WASTEWATER TREATMENT PLANT
JEDDAH – SAUDI ARABIA
TOTAL PACKAGE FULLY AUTOMATIC PLC CONTROL
PRE-ENGINEERED, SKID MOUNTED, ON-SITE ASSEMBLED
INTRODUCTION

The sewage / Wastewater treatment and re-cycling system described in this submittal is specifically designed as variable flow Mixed Bed Bio Reactor (MBBR), with simultaneous sludge stabilization to treat the institutional sewage with an initial daily flow of;

WASTEWATER TREATMENT SYSTEM

Bio Masters™ Moving Bed Bio Reactor (MBBR), system is an advanced high rate wastewater treatment process utilizing free-floating media which houses huge quantity of active biomass in it. Essentially MBBR system is a hybrid reactor where attached growth and suspended growth activity takes place simultaneously. Course Bubble diffusers are used with the MBBR media in suspension (specific gravity < water) giving a good air dispersal and low level of blockage due to growth of biological film. The technology is rugged and simple to operate and the units can be pre-assembled for rapid on-site installation. Treatment process of the bio-mass in separate aeration and quiescent Multi-Come Clarifier. The discharged effluent is a completely odorless liquid, crystal clear in color and with a reduction of suspended solids and B.O.D over 98%. Even higher efficiencies can be obtained if required. Normal system cycling for less than 16 hour retention and optimum quality standards are maintained even at peak intake levels because of continues extended aeration functions. Total range from 100 m3/day to 5000 m3/day
ADEQUATE OVERLOAD RESERVE

Bio Masters™ Moving Bed Bio Reactor (MBBR), will safely handle temporary peaks when the plant is subject to overloads, and there is no reduction in effluent quality under these conditions. This feature is built into the system to cover temporary emergencies or shock load at peak hours.

HIGHER OPERATING TEMPERATURES

Bio Masters™ Moving Bed Bio Reactor (MBBR), is designed to retain heat and is specially aeration tanks construction to for this reason. Higher temperatures increase enzyme and biological activity, reducing the cycling time required between tanks. The heat generated by the blowers is fully utilized to increase operating temperatures even further. Activated Sludge, Extended Aeration treatment systems operate efficiently at sub-zero temperatures, and models are available for permafrost installations.
NOISE AND ODOR FREE
Bio-mass breakdown is accomplished underwater in FRP totally enclosed tanks (optional) and there is absolutely no odor when hatches are closed. The processed effluent that is discharged from the system is also odorless. When a system is operating it is inaudible, and can be installed very close to the building it is serving.

PLC CONTROL, FULLY AUTOMATIC,
TOTAL MAINTENANCE FREE
Bio Masters™ moving bed bio reactor (MBBR), systems are fully automatic PLC control systems and requires no regular supervision, while operating. Pumping, cycling, alarm systems and switchgear are programmed from a single centre within the system and powered by three-phase 230/380/460 AC voltage. The only maintenance required is a periodic maintenance check by your serviceman by-pass not possible.

Mes invites all to participate in world’s challenging carbon emission reduction goal for safe environment for generations to come. A joint effort in stepping forward will achieve green global environment by supporting Mes environmental & pollution control systems, technology and FRP products.
• Up to 35% lower plant cost
• Up to 50% lower operating costs
• Up to 50% lower maintenance costs
• Up to 90% less sludge production
• Up to 60% smaller footprint
• Total FRP contraction backed by 50 years structural warrantee.
• FRP course bubble maintenance free diffused aeration system
• Can even be set up aboveground or underground even at high water table areas due to its FRP construction
• Re-location of total plant at new site
• Speedy plant construction
• Insures high purity level of treated water meets EPA specifications of the MEPA, PME, US and UK and satisfy the requirements the local regulators, environment protection agencies, and the municipal stake holders.
• Assumes typical input specifications of wastewater
• Produces recycled water that is good for tertiary use including agricultural and recreational purposes without undue wastage,
• Does not cause any odor,
• Produces negligible sludge (since it is difficult to dispose),
• Occupies very little space, preferably none at all on the floor if possible,
• Zero maintenance comparing to conventional plant and requires minimal maintenance crew,
• Can be built with local labor, and with mostly local material & equipment, costs as little as possible.
• Re-location able by dismantling & re-installation of plant to any site
AN ADVANCED BIOLOGICAL TREATMENT PROCESS WASTEWATER

The Moving Bed Biofilm Reactor (MBBR) technology is a leading-edge biological solution for wastewater treatment, based on microorganisms attached to 3D media. MBBR technology consists of specially-designed PE Bio-film media providing a large surface area for microorganisms to grow on and perform specific biological treatment functions. Media are kept in suspension to the reactor by the wastewater current. Solids from the wastewater attach themselves to the floating carriers. Completed reactor configuration helps to achieve high-quality effluent concentration in the reactor and a very efficient biofilm development. MBBR technology has been proven in full-scale installations around the world, especially when compared to conventional technologies like activated sludge.
ENVIROMATCH IS A GLOBAL FIRM WITH OVER THIRTY (30) YEARS OF EXPERIENCE IN THE DESIGN, ENGINEERING, MANUFACTURING, INSTALLATION AND COMMISSIONING OF WATER AND WASTEWATER TREATMENT EQUIPMENT.

ENVIROMATCH PRODUCT BASE RANGE FROM STANDARD PACKAGED WATER AND WASTE WATER TREATMENT UNITS TO MULTI-MILLION-GALLON CUSTOM BUILT PLANTS INSTALLED THROUGHOUT THE UNITED STATES, EUROPE, MIDDLE EAST, CENTRAL ASIA AND FAR EAST. ENVIROMATCH HAS EARNED ITS POSITION AS A LEADER IN THE FOLLOWING WATER TREATMENT ACTIVITIES:

- Brackish Water Reverse Osmosis Systems
- Sea Water Reverse Osmosis Systems
- Ultrafiltration Systems
- Media Filtration System: Multi Media, Sand, Activated Carbon and Filter AG
- Ion Exchange Systems: Softeners, Two Bed Deionizers and Mixed Bed Deionizers
- Chemicals Feeding Systems
- Tertiary Treatment Systems
- Industrial Waste Water Treatment

ENVIROMATCH engineers are committed to providing innovative technologies that guarantee customers the highest filtration performance with optimized operation cost and system design.

ENVIROMATCH STRIVES TO CONTINUOUSLY PROVIDE ITS CUSTOMERS A FIRST CLASS CUSTOMER SERVICE, TRAINING AND TECHNICAL ASSISTANCE. WE LOOK FORWARD TO BE OF SERVICE TO YOU.
REPRESENTATION LETTER

DATE 3/1/2011

TO WHOME IT MAY CONCERN

We would like to inform you that Water Treatment Masters, located at Al Hamra Dist., Ibn Al Zubair Al Gharnati Street, Jeddah, Saudi Arabia with Tel. (966)-2 66 44 116 is our Authorized Dealer in Saudi Arabia for all of our products including brackish water reverse osmosis systems, seawater reverse osmosis systems, ultrafiltration systems, media filters, tertiary filters, chemical dosing systems, ultraviolet sterilizers, ozone generators, cartridge filters, antiscalant and related parts.

We trust Water Treatment Masters will provide a professional service and all needed technical, marketing and sales support related to our products.

Please feel free to contact Water Treatment Masters for any immediate or future water and wastewater treatment requirement.

Best Regards,

Amjad Omar
Managing Director

Enviromatch Inc.
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Murrieta, CA 92562, USA
Tel. +1 949 340 2715
Fax. +1 949 340 2060
Email: amjad@enviromatch.com
www.enviromatch.com
REPRESENTATION LETTER

DATE 11/27/2016

TO WHOME IT MAY CONCERN

We would like to inform you that Water Treatment Masters, located at Al Hamra Dist., Ibn Al Zubair Al Ghamati Street, Jeddah, Saudi Arabia and represented by Mr. Khalil Rustom (Mobile: + 966 50 5693382 and E-mail: watermaster@sps.net.sa), is our sole agent for the SWCC Project for The Rehabilitation And Replacement Duba Plant To Increase Production Capacity SWRO 4,200 M³/Day.

We trust Water Treatment Masters will provide a professional service and all needed local technical and sales support.

Please feel free to contact them for any sales or technical issue regarding the above mentioned project.

Best Regards,

Amjad Omar
Managing Director

Enviromatch, Inc.
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Murrieta, CA 92562, USA
Tel. +1 949 340 2715
Fax. +1 949 340 2060
Email: amjad@enviromatch.com
www.enviromatch.com
1. **Project Name:** Obhur Water Utility, Saudi Arabia  
**Process:** Red Sea Water Desalination by Reverse Osmosis (SWRO)  
**Equipment:** 2 Trains of SWRO systems utilizing energy recovery turbines for energy efficiency, complete with pre- & post-treatment equipment including chemical dosing stations, multi-cell design multimedia filtration units and membrane cleaning skid  
**Plant Capacity:** 10,000 m³/day (2 x 1,321,000 GPD)

2. **Project Name:** Prince Naif Palace Desalination Plant, Saudi Arabia  
**Process:** Treatment of high TDS Red sea water (45,000 ppm) using RO for irrigation & potable water uses  
**Equipment:** Sea water intake, filtration, pre- & post treatment equipment including chemical feed systems, multi-media filtration, SWRO unit & Second-pass BWRO unit  
**Plant Capacity:** 1,150 m³/day [303,830 GPD] SWRO
3. **Project Name:** Prince Bandar Bin Sultan Palace, Saudi Arabia  
**Process:** (i) Treatment of high TDS Red sea water using RO for potable water;  
(ii) Treatment of domestic sewage  
**Equipment:** Sea water intake, multimedia filtration, chemical feed systems, SWRO unit; Second-pass BWRO and Domestic sewage treatment plant  
**Plant Capacity:** 950 m³/day [250990 GPD] SWRO, 150 m³/day [39,630 GPD] BWRO

4. **Project Name:** Municipal Water Supply, Maldives  
**Process:** Sea Water Desalination by Reverse Osmosis (SWRO)  
**Equipment:** Chemical pre-treatment/ post-treatment, multimedia filtration, calcite filters, CIP unit, backwash pumps/tanks, plant interconnecting piping and support, motor control and plant interconnecting wiring.  
**Plant Capacity:** 1000 m³/day [183 GPM]
5. **Project Name**: Nass Ice Factory, Bahrain  
**Process**: Treatment of high salinity brackish water (13,000ppm) using sea water RO for potable water use  
**Equipment**: Pre- & post treatment including multimedia filtration, chemical feed system, SWRO unit, and Degasifier (for hydrogen sulfide/iron & manganese removal)  
**Plant Capacity**: 610 m3/d [161,144 GPD]

6. **Project Name**: Al Naghi Resort, Jeddah, Saudi Arabia  
**Process**: Sea Water Desalination by Reverse Osmosis (SWRO)  
**Equipment**: SWRO systems utilizing energy recovery turbine, duplex SS piping, filter feed pumps, chemical pre & post-treatment, automatic multimedia filtration, automatic flushing, CIP unit, VFD motor control and PLC/HMI panel.  
**Plant Capacity**: 500 m3/day [92 GPM]
7. Project Name: North Obhur Water Utility, Saudi Arabia
Process: Containerized Red Sea Water Desalination by Reverse Osmosis (SWRO)
Equipment: pre- & post-treatment equipment including chemical dosing stations, multimedia filtration & membrane cleaning skid
Plant Capacity: 400 m³/day [105,680 GPD total] - Potable water

8. Project Name: Beach Resort, Saudi Arabia
Process: Sea Water Desalination by Reverse Osmosis (SWRO)
Equipment: SWRO systems utilizing energy recovery turbine and duplex SS piping, complete filter feed pumps, with chemical pre-treatment/ post-treatment, automatic multimedia filtration, automatic flushing, CIP unit, VFD motor control and PLC panel.
Plant Capacity: 300 m³/day [55 GPM]
9. **Project Name:** Huck Su Water Utility, Turkey  
**Process/Equipment:** Pre-treatment (chemical feed systems, filtration), Mediterranean sea water desalination by RO (SWRO) based on 36,000ppm feed TDS, post treatment (chemical feed systems)  
**Plant Capacity:** 250 m³/day [66,050 GPD] - Potable water

10. **Project Name:** Banajah Compound, Jeddah, Saudi Arabia  
**Process/Equipment:** Sea Water Desalination by Reverse Osmosis (SWRO) SWRO systems utilizing energy recovery turbine and duplex SS piping, complete filter feed pumps, with chemical pre-treatment/post-treatment, automatic multimedia filtration, automatic flushing, CIP unit, VFD motor control and PLC panel.  
**Plant Capacity:** 200 m³/day [53,280 GPD]
11. **Project Name:** Sale Island (Al-Shera’a) & Sea Gull (Al-Nawras) Resorts, Saudi Arabia  
**Process:** 2-Pass Red Sea water desalination by RO (SWRO), 42,000ppm feed TDS to less than 250ppm product quality  
**Equipment:** Complete SWRO systems consisting of chemical feed systems, multi-media & activated carbon filtration units, First-pass SWRO unit using energy recovery turbines, Second-pass RO using low pressure membranes and UV sterilizers  
**Plant Capacity:** 4 x 125 m³/day [4 x 33,025 GPD] - Potable water

12. **Project Name:** Radisson Baypoint Hotel, Malta  
**Process:** Treatment of Mediterranean sea water using RO for potable water use  
**Equipment:** Sea water intake, pre- & post treatment equipment including multimedia filtration, chemical feed systems, SWRO unit (using hollow-fiber permeators); and membrane cleaning skid  
**Plant Capacity:** 120 m³/day [31,704 GPD]
13. **Project Name**: Ecologia SWRO Plant, Chile  
**Process**: Treatment of high TDS South Pacific Sea water using RO for potable water use  
**Equipment**: Pretreatment chemical feed system, SWRO unit: Total of 10 sea water TFC membranes, post-treatment chemical feed systems; membrane cleaning skid.  
**Plant Capacity**: 100 m³/day [26,420 GPD]

14. **Project Name**: Fatemah Alsharekh Villa, Jeddah, Saudi Arabia  
**Process**: Sea Water Desalination by Reverse Osmosis (SWRO)  
**Equipment**: SWRO systems utilizing duplex SS high pressure pump, duplex SS piping, complete filter feed pumps, with chemical pre-treatment/ post-treatment, automatic multimedia filtration, automatic flushing, CIP unit, direct motor control and PLC/HMI panel.  
**Plant Capacity**: 100 m³/day [26,420 GPD]
15. **Project Name:** Hilton Malta SWRO Plant, Malta  
**Process:** Treatment of Mediterranean sea water using RO for potable water use  
**Equipment:** Sea water intake, pre- & post treatment equipment including multimedia filtration, chemical feed systems, SWRO unit (Total of 3 sea water hollow-fiber permeators); and membrane cleaning skid  
**Plant Capacity:** 2x 75 m³/day [2 x 19,815 GPD]

16. **Project Name:** Sultan Bin Mosalam Villa, Jeddah, Saudi Arabia  
**Process:** Sea Water Desalination by Reverse Osmosis (SWRO)  
**Equipment:** SWRO systems utilizing duplex SS high pressure pump, duplex SS piping, complete filter feed pumps, with chemical pre-treatment/ post-treatment, automatic multimedia filtration, automatic flushing, direct motor control and PLC/HMI panel.  
**Plant Capacity:** 60 m³/day [15,852 GPD]
1. **Project Name:** Meharde Power Plant, Syria  
   **Process:** Boiler feed water treatment using RO for feed to power plant  
   **Equipment:** Complete RO system with pretreatment chemical feed systems and BWRO unit  
   **Plant Capacity:** 5,040 m³/day [1,331,568 GPD]

2. **Project Name:** Hi-Country-Corona Inc., USA  
   **Process:** Nitrate removal from city water using desalination by RO process (BWRO) for fruit juice production & boiler feed  
   **Equipment:** Complete RO system using high rejection membranes, with pretreatment of chemical feed systems & UV sterilization  
   **Plant Capacity:** 1,637 m³/day [300 GPM]
3. **Project Name:** Prince Sultan Bin Abdulaziz City for Humanitarian Service, Saudi Arabia  
**Process:** City Water Desalination by Reverse Osmosis (BWRO)  
**Equipment:** Train of brackish water RO system complete with pre- & post-treatment equipment including chemical dosing stations, multimedia filtration units and membrane cleaning skid  
**Plant Capacity:** 1,500 m³/day [396,300 GPD] - Potable water

4. **Project Name:** Turn Key High Purity Water Treatment Plant, Arab Potash Co., Jordan  
**Process:** Brackish Water Reverse Osmosis (BWRO) and Mixed Bed Deionization  
**Equipment:** Equipment consisting of three multi-media filters, ASME steel tanks, two pass RO systems, two mixed bed deionizers, HCl/NaOH eductor system, CIP system, two 50 m³ FRP storage tank, two 75 m³ FRP storage tank, two chemical FRP storage, booster pumps, backwash pumps, regenerations pumps, interconnecting piping, HMI control panel, motor control center with VFD. Scope includes design, engineering, fabrication, supply, installation and commissioning.  
**Plant Capacity:** 1200 m³/day [220 GPM]
5. **Project Name:** APO Cement Plant, Philippines  
**Process:** Well water treatment using RO for feed to cement factory - boiler application  
**Equipment:** Two fully independent reverse osmosis units: Total of 36 TFC membranes (8” dia. x 40” long)  
**Plant Capacity:** 960 m³/day [2 x 126,816 GPD]

6. **Project Name:** Pepsi Cola Factory, Jordan  
**Process:** Low salinity brackish water purification unit using RO technology  
**Equipment:** Pre- & post treatment equipment including multimedia filtration, chemical feed systems, BWRO unit; and membrane cleaning skid  
**Plant Capacity:** 900 m³/day [237,780 GPD]
7. **Project Name:** URC Cagayan Food Processing, Philippines  
**Process:** City water purification for food processing facility.  
**Equipment:** BWRO system with filtration, chemical feed systems and membrane cleaning system  
**Plant Capacity:** 817.6 m³/day [216,000 GPD]

8. **Project Name:** Hussein Thermal Power Station, Jordan  
**Process:** Low salinity brackish water purification unit using RO technology  
**Equipment:** Pre- & post treatment equipment including multimedia filtration, chemical feed systems, BWRO unit; and membrane cleaning skid  
**Plant Capacity:** 792 m³/day [209,246 GPD]
9. **Project Name**: CDO Project, Philippines  
**Process**: Brackish Water Reverse Osmosis (BWRO)  
**Equipment**: BWRO systems consist of chemical pre-treatment/ post-treatment, automatic multimedia filtration, automatic flushing, PLC/HMI control and a clean in place system  
**Plant Capacity**: 720 m³/day [190,224 GPD]

10. **Project Name**: Aqua Nufud Water Factory, Saudi Arabia  
**Process**: Brackish Water Reverse Osmosis (BWRO)  
**Equipment**: BWRO systems consist of filter feed/ backwash pumps, chemical pre-treatment/ post-treatment, automatic multimedia filtration, automatic flushing, PLC/HMI control and a clean in place system  
**Plant Capacity**: 700 m³/day [184,940 GPD]
11. **Project Name:** Al Amoody Beverage Plant, Saudi Arabia  
**Process:** Double Pass Brackish Water Reverse Osmosis (BWRO)  
**Equipment:** The double pass BWRO systems consist of filter feed/ 
backwash pumps, chemical pre-treatment/ post-treatment, automatic 
multimedia filtration, 1st pass RO unit, interpass pH adjustment, 2nd 
pass RO unit, PLC/HMI control and an Ozone Generator System  
**Plant Capacity:** 600 m$^3$/day [158,520 GPD]

12. **Project Name:** Mataf Camp, Rusaifa, Mekkah, Saudi Arabia  
**Process:** Brackish Water Reverse Osmosis (BWRO)  
**Equipment:** BWRO systems consist of filter feed/ backwash pumps, 
chemical pre-treatment/ post-treatment, automatic multimedia 
filtration, PLC/HMI control and a clean in place system  
**Plant Capacity:** 3 x 200 m$^3$/day [3 x 52,840 GPD]
13. Project Name: Teyseer Tradin, Qatar
   Process: Brackish water purification unit using RO technology
   Equipment: Pre- & post treatment equipment including multimedia filtration, chemical feed systems, BWRO unit; and membrane cleaning skid
   Plant Capacity: 378.5 m³/day [100,000 GPD]

14. Project Name: Arcelik Appliances Factory, Turkey
   Process: High brackish well water treatment using RO & Mixed Bed Ion Exchange
   Equipment: Multimedia filtration, chemical feed systems, BWRO system, Degasifier, Two mixed bed polishing units, and membrane cleaning system
   Plant Capacity: 375.5 m³/day [99,200 GPD]
15. **Project Name:** Alamana Alamma, Iraq  
**Process:** Containerized Brackish Water Reverse Osmosis (BWRO)  
**Equipment:** BWRO systems consist of chemical pre-treatment/ post-treatment, automatic multimedia filtration, automatic flushing and PLC/HMI control all installed in 40ft air conditioned shipping container with access door and overhead lighting  
**Plant Capacity:** 360 m³/day [95,112 GPD]

16. **Project Name:** Salam Enterprise, UAE  
**Process:** Treatment of 3000 ppm water using RO  
**Equipment:** Complete system with pre- & post treatment equipment including chemical feed systems, multi-media filtration, BWRO unit.  
**Plant Capacity:** 327 m³/day [86,400 GPD]
17. **Project Name:** Maze Labor Camp, Doha, Qatar  
**Process:** Containerized Brackish Water Reverse Osmosis (BWRO)  
**Equipment:** BWRO systems consist of chemical pre-treatment/post-treatment, automatic multimedia filtration, automatic flushing, PLC/HMI control and CIP unit all installed in 40ft air conditioned shipping container with access door and overhead lighting  
**Plant Capacity:** 300 m³/day [79,260 GPD]

18. **Project Name:** Salmiya Market, Kuwait  
**Process:** Brackish Water Reverse Osmosis (BWRO)  
**Equipment:** BWRO systems consist of chemical pre-treatment/post-treatment, automatic multimedia filtration, automatic flushing and PLC control  
**Plant Capacity:** 300 m³/day [79,260 GPD]
19. **Project Name:** Mega Yaku S.A.C., Peru  
**Process:** Brackish Water Reverse Osmosis (BWRO)  
**Equipment:** BWRO systems consist of chemical pre-treatment/post-treatment, automatic multimedia filtration, automatic cleaning and PLC control.  
**Plant Capacity:** 273 m³/day [72,127 GPD]

20. **Project Name:** Markum, Oman  
**Process:** Brackish Water Reverse Osmosis (BWRO)  
**Equipment:** Pre-treatment (filtration & chemical dosing systems), BWRO unit, post treatment (chemical dosing) and cleaning system  
**Plant Capacity:** 135 m³/day [35,667 GPD]
21. Project Name: Avani Water Corp., Canada
Process: Water bottling plant using BWRO process
Equipment: Ozonation, pre-filtration, water softener, two-pass BWRO using TFC membranes, PET line with a capacity of 7,200 BPH for 0.5-1.5L bottles, rinser, filler, capping, labeling, conveyer, jet ink coding system & box packaging system.
Plant Capacity: 113.5 m³/day [30,000 GPD]

22. Project Name: RO Plant, Aject, Qatar
Process: Brackish Water Reverse Osmosis (BWRO)
Equipment: BWRO systems consist of filter feed pumps, chemical pre-treatment/post-treatment, automatic multimedia filtration, automatic flushing CIP unit and PLC control.
Plant Capacity: 60 m³/day [15,852 GPD]
1. **Project Name:** Al-Kahrana and Um Barkaah Temporary Treatment Plant, Qatar  
**Process:** Tertiary Filtration Systems  
**Equipment:** Equipment consisting of eighteen water filters, 108” diameter steel tanks, duty/standby feed pump, duty/standby backwash pumps and duty/standby air scouring blowers, interconnecting galvanized piping, HMI/PLC panel and motor control center.  
**Plant Capacity:** 2 x 10,000 m³/day [2 x 1833 GPM]

2. **Project Name:** Ministry of Industry and Minerals, Hilla, Iraq  
**Process:** Intake Water Filtration Systems  
**Equipment:** Equipment consisting of six water filters, 72” diameter FRP tanks, HMI/PLC panel.  
**Plant Capacity:** 2,880 m³/day [528 GPM]
3. **Project Name:** Kent Gida Maddeleleri Project, Turkey  
**Process:** Softening and Filtration Systems  
**Equipment:** Equipment consisting of eight water filters, 63” diameter fiberglass tanks, and twin softener, 42” diameter fiberglass tanks.  
**Plant Capacity:** 4,080 m³/day [750 GPM]

4. **Project Name:** Ministry of Defense, Kuwait  
**Process:** Softening and Filtration Systems  
**Equipment:** Equipment consisting of duplex water softener, 78” diameter steel tanks, and two duty carbon filters, 72” diameter steel tanks.  
**Plant Capacity:** 3,936 m³/day [720 GPM]
5. **Project Name:** Arab Potash Co., Jordan  
**Process:** Manual Multi-media Filters  
**Equipment:** Equipment consisting of four multi-media filters, 78” diameter steel tanks, with manual butterfly valves.  
**Plant Capacity:** 3,600 m³/day [660 GPM]

6. **Project Name:** Ipek Kagit, Turkey  
**Process:** Softening Systems  
**Equipment:** Equipment consisting of three water softeners (2 duty/1 standby), 63” diameter fiberglass tanks. Fully automatic with pneumatically actuated valves and PLC control  
**Plant Capacity:** 3,600 m³/day [660 GPM]
7. **Project Name:** Hilton Resort, Kuwait  
**Process:** Filtration for final potable water use  
**Equipment:** Equipment consisting 3 stations of water softeners, 5 micron cartridge filters, and multimedia filters ranging in size from 48” dia. to 84” dia.  
**Plant Capacity:** 1,025 to 3,145 m³/day (188 to 577 GPM)

8. **Project Name:** US Army Camp Stanley, South Korea Nitrate Removal Unit  
**Process:** Nitrate removal unit using Ion exchange process (IX)  
**Equipment:** Complete ion exchange unit with brine regeneration system and PLC control panel  
**Plant Capacity:** 2,839 m³/day [750,000 GPD]
9. **Project Name:** Emcali Filtration Unit, Columbia  
**Process/Equipment:** Water Filtration System  
**Equipment:** Equipment consisting of duplex multi-media filters, 90” diameter steel tanks, complete with feed pumps, backwash pump, air scouring blowers and coagulant feed system. The system was fully automatic with PLC control.  
**Plant Capacity:** 2,736 m³/day [500 GPM]

10. **Project Name:** Arcent-KU, Kuwait  
**Process:** Tertiary Filtration Units  
**Equipment:** Equipment consisting of quadruplex multicell filters, 48” diameter steel tanks, fully automatic with pneumatically actuated valves and PLC control  
**Plant Capacity:** 1,843 m³/day [338 GPM]
11. **Project Name:** Al Hamra Mixed Use Complex, Kuwait  
**Process:** Central Water Filters  
**Equipment:** Equipment consisting of three (2 duty/1 standby) filters, 54” diameter ASME coded and stamped Stainless Steel 316L tanks, fully automatic with motorized valves and PLC control  
**Plant Capacity:** 1,728 m³/day [317 GPM]

12. **Project Name:** Tech. Contreras Nogalas Sonora Softener, USA  
**Process:** Parallel Softener Units  
**Equipment:** Equipment consisting of parallel water softener, 48” diameter steel tanks complete with regeneration equipment (IX process)  
**Plant Capacity:** 1,632 m³/day [2 x150 GPM]
13. **Project Name**: Hawaiian Commercial & Sugar Co., Hawaii, USA  
**Process**: Demineralizer System for Boiler Feed Water Make-up (Ion exchange (IX) process)  
**Equipment**: Two-bed demineralization system complete with activated carbon pre-filtration and chemical regeneration systems.  
**Plant Capacity**: 1,092 m³/day [200 GPM]
SERIES STANDARD FEATURES

- **Capacity Range:** 43,000 Grains to 403,000 Grains
- **Rated at:** 75-100 psi
- **Pneumatic / Electric Actuated Valves**
- **PLC / HMI Control Panel**
- **Automatic Regeneration**
- **Skid Mounted**
- **ASME Code Pressure Vessels Option**
- **Duplex Design**
SERIES HIGHLIGHTS

- **Capacity Range:** 30 GPM to 843 GPM
- **Corrosion Resistant Fiberglass Tanks**
- **Automatic Operation**
- **Pneumatic / Electric Actuated Valves**
- **Duplex and Multiplex Design**

FILTERING MEDIA OPTIONS

- **Multi-Media (Sand, Anthracite, Garnet) Removal of Turbidity & Suspended Solids.**
- **Filter AG Removal of Turbidity & Suspended Solids.**
- **Activated Carbon Removal of Chlorine, Tastes, Odors & Organic Contaminates.**
- **Manganese Green Sand Reduction of Iron and Manganese Concentration in Water.**
SERIES STANDARD FEATURES
- Capacity Range: 6 GPD to 120 GPD
- Fully Adjustable Output
- Skid Mounted
- Custom Built Available
SERIES STANDARD FEATURES

- **Capacity Range** 13,200 GPD to 554,400 GPD 50 M3/D to 2,098 M3/D.
- **High Rejection TFC.**
- **FRP Membrane Housing.**
- **Duplex Stainless Steel Pump & Piping.**
- **Duplex Stainless Steel Energy Recovery Unit.**
- **5 Micron Cartridge Pre-Filter.**
- **Powder Coated Steel Frame.**
- **PLC / HMI Based Control Panel.**
- **Available as Containerized and Custom Built.**

**FRESHMATCH 800**
(With Fedco Pump & Energy Recovery Unit)

**FRESHMATCH 800**
(With Danfoss Pump)
REVERSE OSMOSIS SYSTEMS

**PUREMATCH 400 Series**
- **Capacity Range**
  - 12,000 GPD to 30,000 GPD
  - 45.5 M3/D to 113.6 M3/D

**PUREMATCH 700 Series**
- **Capacity Range**
  - 28,800 GPD to 172,800 GPD
  - 109 M3/D to 654 M3/D

**PUREMATCH 800 Series**
- **Capacity Range**
  - 225,000 GPD to 945,000 GPD
  - 852 M3/D to 3577 M3/D
CONTAINERIZED REVERSE OSMOSIS SYSTEM
(40 FT CONTAINER)

Capacity: 79,200 GPD  300 M3/D

EnviroMatch, Inc.®
Water and Wastewater Treatment Systems

California, USA
www.enviromatch.com
CONTAINERIZED SYSTEMS

Containerized Desalination Systems
(40 FT Container)

EnviroMatch, Inc.
Water and Wastewater Treatment Systems

California, USA
www.enviromatch.com

Capacity: 132,000 GPD  500 M3/D
CONTAINERIZED WASTEWATER TREATMENT SYSTEM
(40 FT CONTAINER)

Capacity: 39,630 GPD  150 M³/D

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Water and Wastewater Treatment Systems

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CONTAINERIZED SYSTEMS

CONTAINERIZED STORAGE WATER SYSTEM
(40 FT CONTAINER)

EnviroMatch, Inc.
Water and Wastewater Treatment Systems

California, USA
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CAPACITY: 67 M3
SAWACO WATER DESALINATION
SEAWATER REVERSE OSMOSIS PLANT
JEDDAH - SAUDI ARABIA

CAPACITY: 4 X 2,625 M³/D = 10,500 M³/D
FEED TDS = 50,000 PPM
PRODUCT TDS < 500 PPM
DEAD SEA-JORDAN
HIGH PURITY WATER TREATMENT PLANT

1200 M3/D
BOILER FEED QUALITY: 16.67 MEGAOHM-CM
REFERENCE

CIGALAH GROUP
AL NAGHI FAMILY COMPOUND
OBHUR

LOCATION JEDDAH
CAPACITY 500 m³/day
PROJECT OPRATED 2015
Reference

ARAMCO GAMA INDUSTRIAL COMPANY (Petro Rabigh)

Location Aramco Compound
Capacity 500 m3/day
Project Water recycled for irrigation
Completion June 2007
Reference

DAMAC Properties Companies Ltd.
Al Jawahara Tower
Jeddah

Location Jeddah
Capacity 400 m3/day
Project completed June 2015
Reference

ANAN MODERN CONSTRUCTION CO
MATAF CAMP PROJECT
ROSAIFA - MAKKAH
LOCATION MAKKAH
CAPACITY 3 x 200 M3/DAY = 600 M3/DAY
PROJECT COMPLETED & OPERATED
REFERENCE

Dar AL Riyadh Engineering & Architect
Prince Sultan Bin Fahad Palace

Location Jeddah Obhur
Capacity 300 m³/day
Completion May 2013
Reference

Princess Lulua & Latifa Al Faisal
Private Palace

Location Jeddah Obhur
Capacity 200 m³/day water distribution system
Completion April 2008
ZUHAIR FAYEZ PARTNERSHIP CONSULTANT
PRINCE ABDUL MOHSEN BIN ABDUL AZIZ
PRIVATE PALACE

LOCATION TOWAL
CAPACITY 150 M3/DAY WATER DISTRIBUTION SYSTEM
COMPLETION JANUARY 2009
Reference

Zuhair Fayez Partnership Consultant
Prince Fahed Bin Abdul Mohsen Bin Abdul Aziz
Private Palace

Location Jeddah
Capacity 150 m³/day Water Distribution System
Completion June 2008
Discharge Well # Construction Data

**Soil Data**
The first 5 m are basically soil cover. The remaining soil is purely Corals which are highly permeable free of clay and silt.

**Pumping**
After pumping at 50 m³/hr for 72 hr, no significant over flow measured.
Thank you for your time...