



**OMRAB ENG. CO.**

Participation in Creation of Value



**omrab** *Eng. Co.*

**General Contractor**

*Since 1988*

# INNOVATIVE

## ONE-STOP SOLUTION

It is through expertise of management in engineering that OMRAB Engineering Co. has a commendable reputation. The pride that we share in our achievements guarantees our client's exemplary water works project solution. Water care is our reason for being.

**COMPANY PROFILE**

# ABOUT OMRAB

OMRAB Engineering Co. is a private corporation, incorporated in 1988. We are an experienced, top-grade, and qualified EPCF General Contractor who provides a broad range of engineering designing, procurements, as well construction services, and project co-financing mainly in water and wastewater treatment sectors and especially in drinking water supply, to clients in international markets, inclusive of Middle-Eastern, CIS, and African countries, under individual entities of "OMRAB Canada Inc.", since 2009, and "OMRAB Engineering Company" since 1988 as "OMRAB" worldwide. Our Canadian entity was established in 2009 by the privilege of the 25 years of worldwide references of the OMRAB Eng.

## CEO MESSAGE

As the CEO of OMRAB Co., I can proudly announce that during the past 3 decades, OMRAB has served the country and the engineering community by completing numerous mega projects throughout our beloved country Iran.

We all believe in teamwork that combined sympathy, sincerity, enthusiasm, as well as compassion for each and every team member. We all try to motivate each other and believe in being devoted to the tasks assigned to us. We all rely on assistance from our fellow team members and colleagues at OMRAB and believe that none of the achievements such as the completion of huge infrastructure projects could be done if it was not for such a good collaboration amongst us all. For the future we all hope for much greater success to be realized by OMRAB Company through the continuous efforts of our valued colleagues.



About Us



At a Glance



Structure



Company Manifesto



Area of Operation



Featured



Market Business Driver



Social Responsibility



Clients



Awards

**WATER CARE IS OUR,  
RESON-FOR-BEING**

Over  
**200**  
done projects  
in 6 Countries

**focused on the water since  
its founding in 1988**

Area of operation includes Iran, the  
Middle East, CIS and Africa

**A high percentage of  
repeat business**

More Than  
**2000**  
Employees in  
Asia & Africa

**3 Market section**  
Wateren vironment,  
Infrastructure and  
Energy

# DEEP EXPERIENCE

**Water &  
Wastewater Treatment  
Sewage Treatment**

**Pipe Line  
Pumping Station  
Telemetry and Control  
Construction**

**Oil and Gas  
Petrochemical Utilities  
Refinery Utilities**

## Technologies

- Industrial process water
- Biological wastewater treatment
- Wastewater recycling & reuse
- Desalination
- Reverse osmosis
- Ultrafiltration
- Demine water

## Key Markets

- Water and Wastewater
- Oil and gas plants
- Petrochemicals and refineris
- Power Plants

## Services

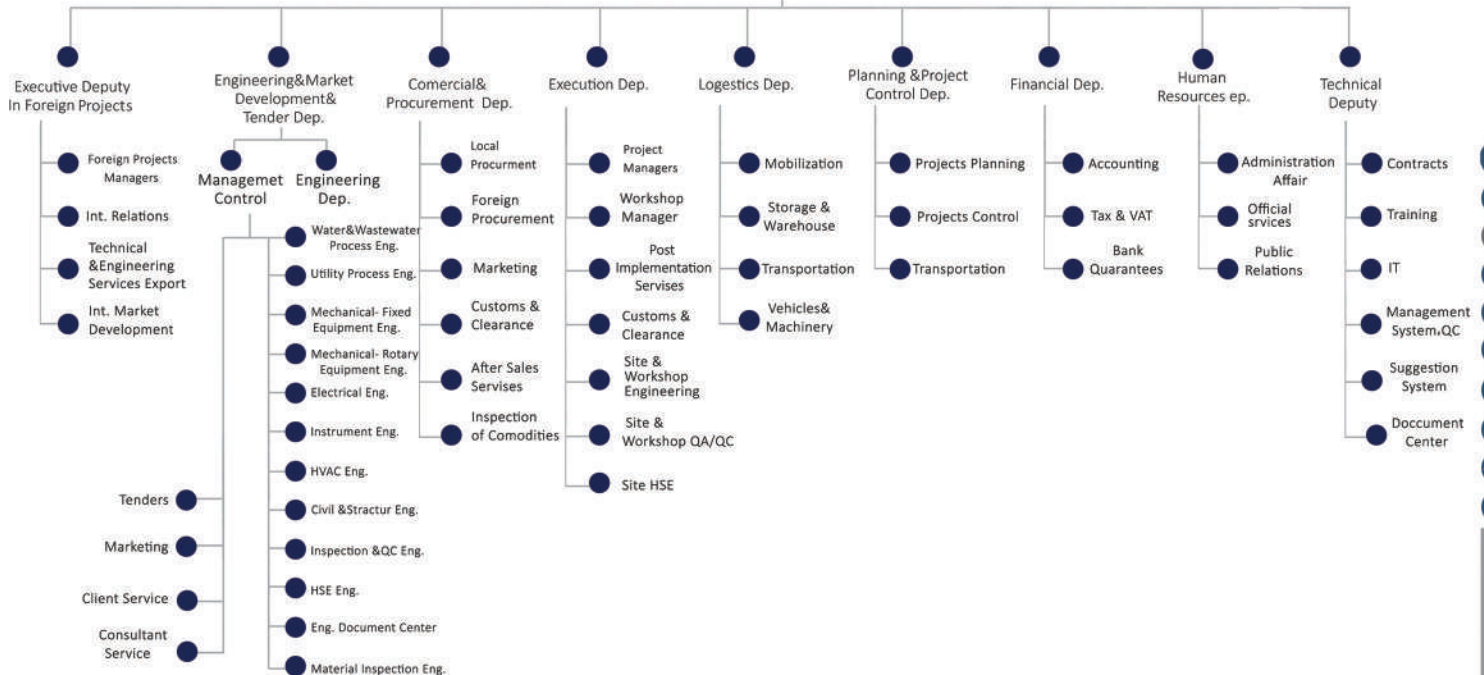
- Feasibility Study, engineering and Detail design
- EPC / design-build/DBO
- Fabrication
- Operation & main lenance
- Intgrated water serrices



# Board of Directors

CEO

Deputy Of CEO ● ● Consultants  
PMO ● ● Legal Affair



# COMPANY

## MANIFESTO

At OMRAB, we strongly strive to use our knowledge and expertise for a sustainable society. In our projects, because of:

- Conservation & Sustainability in projects
- Conservation & Sustainability in O&M
- Talent to the top
- Building futures & so: social commitment

We therefore work proactively on architectural conservation sustainable solutions. At the same time, we continuously work for improvement, which we achieve through innovation and training. We set the favored example in our operations by increasing the sustainability of our activities and services.

# VALUES

- Integrity
- Accountability
- Sustainability
- Responsiveness
- Teamwork
- Safety

## CODE OF ETHICS

# VISION

## MISSION

## VISION

Our vision, built on innovation, is working together to be recognized as the very best team of professionals in our industry and the most valuable business partner to our clients all over the world.



## OUR COMPANY MISSION

## CODE OF ETHICS

Our mission is to remain a leading company by building a permanent relationship clients all over the world through providing innovative solutions, world-class services, the best quality of product, the greatest efficiency, premium technical expertise, and the maximum value for their investment.

Omrab is committed to increasing its value to customers, employees and shareholders by profitably providing useful products and services to worldwide markets. Omrab will fulfill this commitment while upholding the highest level of ethical conduct and meeting its responsibilities as a good corporate citizen.

# Area of Operation



**Water Intake** | **Drinking Water**

**Water Reuse** | Industrial Water Treatment Plant  
Pump Station & Pipe  
Transmission Line



GIVING BACK TO NATURE WHAT WE TAKE FROM

Municipal Waste Water Treatment Plant

**Sludge Drying**

ANAEROBIC  
AEROBIC TREATMENT

BIOGAS

**Odor Control**



TURNING GREEN GAS INTO A TOP QUALITY ENERGY SOURCE



THE BIOGAS PRODUCTION FROM ANAEROBIC TREATMENT PROCESS CONTRIBUTES TO THE REDUCTION OF THE PLANT'S ENERGY FOOTPRINT



SAFE DRINKING WATER FROM ANY SOURCE, ANYWHERE



Dam & Hydro Power Plant

**Process Water**

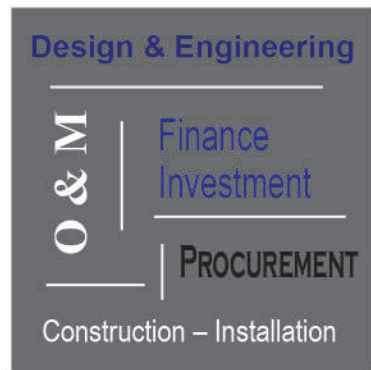
RESTORING THE IMPACT OF HUMAN ACTIVITY

**Refinery & petrochemical Utilities**

**Oil & Gas**  
Crude Oil Tanks



Tunnel & Diversion System



Design & Engineering

O & M | Finance  
Investment  
PROCUREMENT  
Construction – Installation



Construction Building

A close-up photograph of a young girl with dark skin and hair, looking down at a brass water tap. She is cupping her hands under the running water, drinking from them. The background is a soft, out-of-focus green, suggesting an outdoor setting. The image is framed by a dark green border at the top and bottom, with white text overlaid on these borders.

**HELPING ENVIRONMENT TO GO GREEN, TURNING  
ECONOMIC GROWTH INTO SUSTAINABLE DEVELOPMENT**

**HELPING ENVIRONMENT  
TO GO GREEN, TURNING  
ECONOMIC GROWTH INTO  
SUSTAINABLE DEVELOPMENT**

# Featured



Chitgar lake water treatment plant

In 2010, OMRAB as a member of Joint venture was selected as E.P.C. contractor for Mashhad Khin Arab Sewage Treatment Plant which was financed by Islamic Development Bank (IDB) provided the loan of the Project.



Omidieh Crude Oil Storage



Gas Metering Station Armenia Iran  
Iran - Armenia Gas Station Scheme

Abadan Refinery water Treatment Plant and Cooling water System and Auxiliaries: In May 2008 OMRAB conclusion a contract for engineering, procurement and construction of Abadan Oil Refinery.



Khin arab Sewage treatment plant  
Mashhad Waste Water Treatment Plant - Khinarab



Sanandaj City Sewage Treatment Plant  
Sanandaj Waste Water Scheme



Alborz Industrial Complex Waste water Scheme  
In January 1996 OMRAB conclusion a contract for engineering, procurement, construction of



In July 2004 OMRAB signed a contract for engineering, procurement and construction of Doosti Dam to Mashhad City Water Transmission Pipeline.



AHWAZ STP

In September 2009 OMRAB was awarded a contract for Engineering, Procurement and Construction of No.6 Tehran water treatment plant. This project now is under construction.

NO. 6 TEHRAN WTP



KAWSAR WTP

Aqra water supply project Omrab's first Design, Built and Operate (DBO) project which is based on FIDIC. The contract consists of water treatment plant, high lift pump station, two booster pump station and the transmission pipeline and network.

AQRA WTP IRAQ

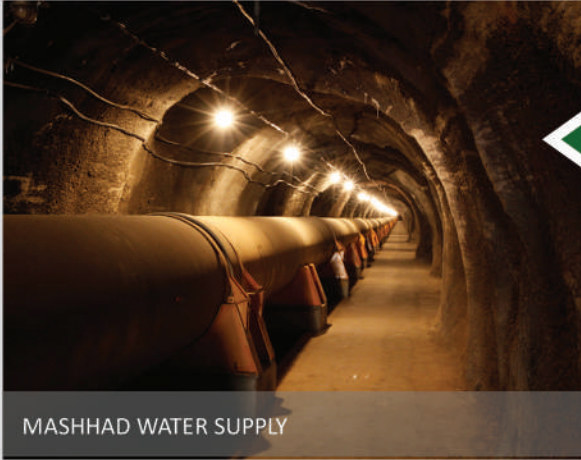


Scope of works includes Engineering, Procurement, Installation of Mechanical, Electrical and Instrumentation Control equipment of water Treatment plant.





# Featured



MASHHAD WATER SUPPLY

Scope of works includes about 60 km Water Transmission Pipeline (DN 2000), 150 unit Valve chamber, 3 Storage tank with Capacity of 15,000 m<sup>3</sup>, 1 storage tank with Capacity of 10,000 m<sup>3</sup>, chlorination buildings, 3 pump stations, landscaping about 6 acres and a tunnel with length 900m and 6.7 m Diameter.



In May 2004 OMRAB was awarded a contract for Supply Hydro Electromechanical Equipment of to Waste water Treatment Plant (Sludge treatment), as well as Disinfection of sewage.

In July 2010 OMRAB was awarded a contract for Procurement and finishing Construction of Omidieh Crude Oil Concrete storage Tanks and Supply of Equipment. This project now is under construction and total period of contract is 3 years. Scope of works includes Procurement, Installation, Operating & Commissioning of Mechanical, Electrical, Control and Instrument Equipment & Construction of remaining works of 2\*500,000 bbl.



OMIDIEH CRUD OIL STORAGE



SUDAN MOBILIZATION YARD

The proposed treatment process employs an advanced-continuous ASBR process, with an average capacity of 83,000 m<sup>3</sup>/d, and a maximum hydraulic capacity of 7,200 m<sup>3</sup>/h, corresponding to a population of 430,000 PE.

In May 2008 OMRAB in JV was awarded a contract for Engineering, Procurement, and Construction of Abadan Refinery Water Treatment Plant and Cooling water System and Auxiliaries.



ALBORZ INDUSTRIAL COMPLEX



UZBAKISTAN



ABADAN REFINERY

Scope of work includes installation and commissioning of all mechanical, Electrical & instrumentation equipment and Operation in 1 year of wastewater treatment plant with a total capacity of 95,100 m<sup>3</sup> per day.



AQRA WTP IRAQ

A photograph of an industrial water treatment facility. The scene is filled with a complex network of stainless steel pipes, valves, and machinery. In the foreground, a large, dark, cylindrical piece of equipment, possibly a filter or pump, stands prominently. Behind it, rows of white cylindrical components, likely membrane modules, are arranged in a grid. The ceiling is high, with numerous pipes and electrical conduits running across it. The lighting is bright, highlighting the metallic surfaces. A blue diagonal graphic element is present in the bottom-left corner.

**OUR MISSION IS TO GIVE LIFE TO RAW WATER**

**TAILOR-MADE PROCESS  
WATER FOR EVERY INDUSTRIAL  
APPLICATION**

# 3 Market Segments



## WATER & ENVIRONMENT

### SAFE DRINKING WATER FROM ANY SOURCE, ANYWHERE



Our vision, built on and innovation, is working together to be the world's pre-eminent provider of technical and strategic services including consulting, construction technology, process development, and project and construction management to the Energy, Water-Environment, and Infrastructure industries and accordingly be recognized as the very best team of professionals in our market and the most valuable business partner to our clients all over the world.



## INFRASTRUCTURE

### BUILDING A BETTER FUTURE IS OUR POLICY



OMRAB offers a broad range of Engineering, Procurement, Construction, Financing and Operation & Maintenance services to clients as its main activities. We provide a full range of project services tailored to suit customer needs.



## ENERGY

### WE OFFER THE MOST ADVANCE TECHNOLOGY FOR THE UTILITY PLANTS OF OIL REFINERIES AND PETROCHEMICAL COMPLEXES AND POWER PLANTS



Utility and auxiliaries of power plants, petrochemicals, industrial complexes, Refineries have good solution with us.



Since 1988

*Water Care is our  
reason for Being*



OMRAB ENG. CO.

# CLIENTS

## PARTNERS



Ideal trusted partner for Governments in their development projects from the project's feasibility study up to the implementation and startup of the plan

# TURNKEY SOLUTION INCLUDING OPERATION AND MAINTENANCE

## AWARDS CERTIFICATES

- ISO 9001:2015
- ISO14001:2015
- ISO45001:2018
- ISO21502:2020
- ENERGY GLOBE
- CERTIFICATE NO. 14-QEO-1002774-TIC

# SOLUTION

## A TO Z SOLUTIONS FOR REDUCING YOUR ENVIRONMENTAL FOOTPRINT

From closing the loop solutions in water treatment to integrated water management, from sludge and biomass digestion to Waste-to-Energy plants, our expertise in green technologies makes us a true one-stop shop for the environmental challenges of today.



# One Drop Could Save Our Thirsty World!





**GLOBAL  
PREFERENCE**

## **OUR OFFICES**

### **Head Office-Iran**

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**OMRAB ENG. CO.**

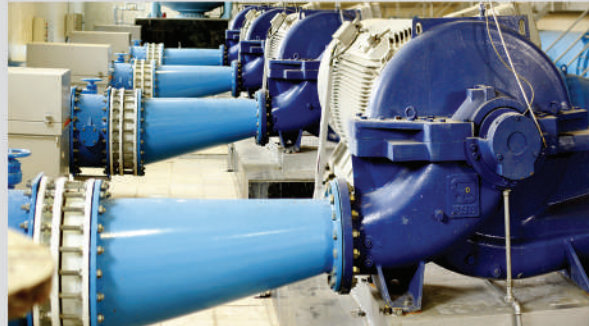
[projects@omrab.com](mailto:projects@omrab.com)  
[www.omrab.com](http://www.omrab.com)

# Water & Environment Portfolio



OMRAB Eng. Co.

# Abstract





# WATER & ENVIRONMENT PROJECTS

## TEHRAN CITY NO 6 WATER TREATMENT PLANT

TOTAL CAPACITY OF 7.5 m<sup>3</sup>/s



### BIGGEST WATER TREATMENT PLANT IN THE MIDDLE EAST



#### Design and Build of 6<sup>th</sup> Tehran Water Treatment Plant

Client: Tehran Regional Water Company  
Consultant: Moshanir Consulting Engineer  
Location: North West of Tehran, Iran  
Type of Contract: E.P.C  
OMRAB: as a member of JV



#### Scope of Works

In 2009 OMRAB was awarded a contract for engineering, procurement and construction of No.6 Tehran water treatment plant. This project now is under construction.

Tehran water treatment plant No.6 which is the biggest treatment facility in the Middle East was designed to generate a segment of required drinking water for Tehran's western areas. The water treatment plant which is located northwest of Tehran, receives the raw water derived from Amirkabir Dam in the Karaj river via a tunnel.

OMRAB as a member of a joint venture has been selected as an E.P.C. contractor for one of the two modules of the 6<sup>th</sup> Tehran Water Treatment Plant. OMRAB was responsible for the evaluation of conceptual design, Basic design, detailed design, procurement and installation of all equipment, mechanical and electrical equipment and instruments, as well as commissioning, and one year of supervision on the operation.

process description:

The Main treatment units of the treatment plant with a total capacity of 7.5 m<sup>3</sup>/s are a flash mixing unit, pulsator clarifier, gravity sand filter (dual media), chlorination unit and control system.

The pulsator clarifier in this project is the biggest pulsator ever constructed in the country. Another key design feature of the treatment plant is the structure of 24 filters that are completely situated on top of the reservoirs.

# WATER & ENVIRONMENT PROJECTS

## 6 WATER TREATMENT PLANTS IN 6 CITIES OF SUDAN

TOTAL CAPACITY OF 320,000 m<sup>3</sup>/d



### FINANCING BY OMRAB



#### 6 Water Treatment Plants in 6 Cities of Sudan

Client: Republic of Sudan-Ministry of Finance and National Economy (MDF)

Location: Wad-Madani City, Shandi City, Sannar City, Al-Doueim City, Abu-Hammad City, Republic of Sudan

Type of Project: E.P.C.F



#### Scope of Works

In 2012 a contract was awarded to Omrab for Basic and Detail Design, Procurement, Installation and Fabrication, Construction of Mechanical, Electrical and Instrumentation Equipments of 6 units of Water Treatment Plant with a total capacity of 320,000 (m<sup>3</sup>/day) in 6 Cities of Sudan which consist of Umm-Maghat City (75,000 m<sup>3</sup>/day), Wad-Madani City (75,000 m<sup>3</sup>/day), Shandi City (50,000 m<sup>3</sup>/day), Sannar City (50,000 m<sup>3</sup>/day), Al-Doueim City (50,000 m<sup>3</sup>/day), Abu-Hammad City (20,000 m<sup>3</sup>/day) The treatment Process consists of Conventional Treatment Including Intake Pump Station, Pre-sedimentation, Flash Mixing Unit, Clariflocculator, Gravity Sand Filter Recovery, Chlorination, Chemical and Control System.

# WATER & ENVIRONMENT PROJECTS

## TEHRAN 7TH WATER TREATMENT PLANT PROJECT (FIRST MODULE)

TOTAL CAPACITY OF 216,000 m<sup>3</sup>/day



### PROVISIONAL HANDOVER SINCE 2016



#### Basic design and Engineering, Procurement, Construction, Installation, and Operation of a water treatment plant

Client: Tehran City Water and Wastewater Company  
Consultant: Iranab Consulting Engineer  
Location: Close to Mamloo dam in south-east of Tehran, Iran  
Type of Contract: EPC



#### Scope of Works

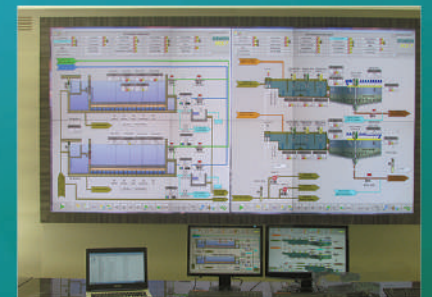
The average turbidity of raw water entering the treatment plant is 1,000 NTU while our design assures the turbidity of 0.3NTU for the treated water. The water quality obtained from the treatment process is assured to meet AWWA standards.

The treatment process includes Aeration, Flash mixing unit, Flocculator, Lamella clarifier, gravity filter (Dual media), PAC and chlorination unit and control system.

Using Lamella clarifier, dual media filter, and PAC injection system for the first time in the country outstand this project in the region.

Two 10,000 m<sup>3</sup> reservoirs were constructed, that treated water goes through before entering the distribution network.

Other aspects that make this project unique in the region are using a special design for some of the units of the plant such as cascade aeration, Sludge, drying beds and a control system that is completely redundant without any electrical interlock.



# WATER & ENVIRONMENT PROJECTS

## AHWAZ CITY EASTERN WASTEWATER TREATMENT PLANT

WITH TOTAL CAPACITY OF 112,000 m<sup>3</sup>/d



### SBR TREATMENT PROCESS



#### Ahwaz City Eastern Wastewater Treatment Plant

Client: Ahwaz Water & Wastewater Company  
Consultant: P2m Berlin  
Location: Ahwaz City- Iran  
Type of Project: EPC  
Role of Contractor: Member of JV



#### with a total capacity Scope of Works

Design & Engineering, Procurement, Installation & Construction of Wastewater Treatment plant with a total capacity of 112,000 m<sup>3</sup>/day. The process treatment consists of biological activated Sludge (SBR System), and disinfection by Gas Chlorination System.

# WATER & ENVIRONMENT PROJECTS

## ALBORZ INDUSTRIAL COMPLEX WASTE WATER PROJECT

Installation of Mechanical & Electrical Equipment, commissioning and Operation



### UNDER OPERATION SINCE 1998

OMRAB Eng. Co.  
**INNOVATION**

#### Alborz industrial Complex Wastewater Project

Client: Alborz Industrial Zone Company  
Consultant: Iranab Consulting Engineer  
Location: Ghazvin, Iran  
Type of Project: Installation & Operation



#### Scope of Works

In 1996 OMRAB was awarded a contract for the installation and operation of Alborz industrial city waste water treatment plant.

Scope of works includes installation and commissioning of all mechanical, Electrical & instrumentation equipment and Operation in 1 year of wastewater treatment plant with a total capacity of 95,100 m<sup>3</sup> per day.

The process of this Plant was: Aerobic digestion (Active Sludge- Extended Aeration) which had an aerated mechanical grit chamber with a traveling bridge, primary sedimentation (with rotation half bridge), surface aeration, secondary sedimentation (with rotation bridge), pumping station of excess and return activated sludge, aerobic digester, sludge drying bed, disinfecting the treated effluent by gas chlorination, diesel alternator and transformers.

# WATER & ENVIRONMENT PROJECTS

## AQRA WATER SUPPLY PROJECT

TOTAL CAPACITY OF 3,000 m<sup>3</sup>/h



## ANOTHER FEATURED EXPERIENCE IN MIDDLE EAST

OMRAB Eng. Co.  
**INNOVATION**

### Aqra City Water Supply Project

Client: Kurdistan Regional Government-Ministry of Municipality and Tourism

Location: Iraq, Kurdistan Region Government, Aqra City

Type of Project: E.P.C



### Scope of Works

In 2012 Omrab was awarded a contract by the Ministry of Municipality & Tourism of KRG Iraq to execute the design, supply, and manufacturing of all mechanical, electrical, control and instrumentation also to construct all civil works of Aqra City Water Supply with maximum output capacity of 3,000 m<sup>3</sup>/h in normal condition and supplies drinking water to 17 nearby villages.

Aqra water supply project is Omrab's first Design, Built and Operate (DBO) project which is based on FIDIC. The contract consists of a water treatment plant, high lift pump station, two booster pump stations and the transmission pipeline and network. Aside from design, Omrab is responsible for preliminary assessment and urban study of the project area, topography studies, population projection and capacity requirement assessment.

The Project facility includes: Intake structure and low lift pumping station, Pre-sedimentation Flash mixer, Clariflocculator, Rapid gravity sand filters, complete with back-washing facilities, Sludge collection tank, Treated water underground reservoirs in two compartments, Chemical building, Chlorination building, Treated water high lift pumping. The proposed treatment plant will produce water that complies with the recommendations of the World Health Organization (WHO) drinking water standards. The intake structure adjacent to the river is one of the challenging parts to design in this project due to 50 meter level difference between the water and river bank. The hopper bottom pre-sedimentation and the total 48km of 33kv overhead line and fiber-optic telecommunication network are also among the key design features of this project.

# WATER & ENVIRONMENT PROJECTS

## ARDABIL CITY WATER SUPPLY

TOTAL CAPACITY OF 60,480 m<sup>3</sup>/d



**UNDER OPERATION SINCE 1994**

OMRAB Eng. Co.  
**INNOVATION**

### Ardabil City Water Supply Project

Client: Ardebil City Water Supply  
Consultant: Omran Mohit-e Zist  
Location: Ardabil city - Ardabil Province - Iran  
Type of Project: EPC



### Scope of Works

Design & Engineering, Procurement & Installation of 17 borehole Pumps and Furnishing 3 Pump Station with 12 Centrifugal end Suction Pumps with a total Capacity of 60,480 m<sup>3</sup>/day, Surge Protection System, Control System.

Main suppliers & Partners Consists of:

Valves: Erhard (Germany)

Main Pumps: Pumpiran (Iran)

Chlorination System: Alldos (Germany)

Electrical Panels: Siemens (Germany)

Instrumentation: Endress + Hauser (Germany)

# WATER & ENVIRONMENT PROJECTS

## ATBARA CITY WATER TREATMENT PLANT

TOTAL CAPACITY OF 50,000 m<sup>3</sup>/d



### UNDER OPERATION SINCE 2009



#### Atbara City Water Treatment Plant

Client: Public Water Corporation (PWC)  
Location: Atbara City, Sudan  
Type of Project: E.P.C



#### Scope of Works

In 2006 a contract was awarded to Omrab for Design , Engineering, Procurement and Installation of Mechanical , Electrical, Instrument Equipment and Control system with a total capacity of 50,000 (m<sup>3</sup>/day). The treatment Process consists of Conventional Treatment including an Intake an Pump station unit, Flash mixing unit, Flocculation & Sedimentation, Gravity Sand filter, Gas Chlorination, Chemical, Final Pump Station and Control System.

Main suppliers & Partners consists of:

Pumps: Pump IRAN (IRAN)

Dosing System: Alldos (Germany)

Instrument: Endress + Hauser (Germany)

Electromotor: Siemens (Germany)

PLC: Siemens (Germany)

Electrical: Siemens (Germany)

Chlorination System: Alldos (Germany)

Mixer: Alldos (Germany)

Valve & Actuator: Ebro (Germany), MIRAB (IRAN)



# WATER & ENVIRONMENT PROJECTS

## CHAMRAN RESIDENTIAL COMPLEX SANITARY WASTEWATER TREATMENT

TOTAL CAPACITY OF 2,000 m<sup>3</sup>/d



**UNDER OPERATION SINCE 1991**

OMRAB Eng. Co.  
**INNOVATION**

### **Chamran Residential Complex Sanitary Wastewater Treatment Plant**

Client: SASAD  
Consultant: Engineering office of (SASAD)  
Location: Tehran - Iran  
Type of Project: EPC



### **Scope of Works**

Engineering, Procurement, Installation of Mechanical, Electrical Instrumentation & Control Equipments & Construction of Wastewater treatment plant with a total capacity of 2,000 m<sup>3</sup>/day. The process treatment consists of Course and fine Screen, Grit Chamber (Pista Type), Aeration unit, Sedimentation unit, and Disinfection unit (Gas Chlorination System).

# WATER & ENVIRONMENT PROJECTS

## CHITGAR LAKE WATER TREATMENT PLANT

DESIGN, BUILD & OPERATION



### UNDER OPERATION SINCE 2017

OMRAB Eng. Co.  
**INNOVATION**

#### Construction of Treatment Plant, Improvement the quality of water entering the Lake with Pilot implementation

Client: Tehran Municipality  
Consultant: Toos Ab Consulting Engineer  
Location: Chitgar Lake, North West of Tehran, Iran  
Type of Contract: EPC



#### Scope of Works

Chitgar Lake, also known as the Lake of Martyrs of the Persian Gulf, is an artificial and recreational lake located in the north of Chitgar Park, north-west of Tehran City, Iran. The total area of this complex is about 250 hectares; 130 hectares across the lake, and the rest of it goes to the coastal Zone and resorts. About 80% of the lake water comes from Kan Creek, and the rest of it comes from central areas and surface runoffs of the district. In 2013 OMRAB signed an E.P.C contract with Tehran Municipality for the Chitgar lake treatment plant. Scope of works includes design and build of water treatment plants, improving the quality of water entering the lake with inflow discharge of 1200-2400 Lit/h along with the pilot implementation. OMRAB is in charge of the Operation of the plant for 24 months.

# WATER & ENVIRONMENT PROJECTS

## TROPICAL AREA NO.2 WATER SUPPLY PROJECT

TOTAL LENGTH OF 50 KM



### SUPPLYING WATER FOR 18,500 HA OF LANDS



#### Engineering, Procurement, Construction, Installation & Operation of Second Pump Station Irrigation Network Collection, Part 1 of Tropical scheme in Kermanshah Province

Client: Water and Power Resources Development Company of Iran  
Location: Kermanshah Province, Iran  
Type of Project: E.P.C.  
Role of Contractor: Main Contractor



#### Scope of Works

In 2016, OMRAB was awarded a contract for Engineering, Procurement, Construction, Installation & Operation of Second Pump Station Irrigation Network Collection, Part 1 of the Tropical scheme in Kermanshah Province. The project is the first phase of a major tropical water regeneration project aimed at managing and controlling surface water and preventing floods, providing potable agricultural water and the urgent needs of the people of the province and developing the western and southern provinces of the country.

Scope of works includes Geomembrane storage, concrete storage, 6 units of pump station buildings and related facilities and chambers and 1 year operation of the project.



# WATER & ENVIRONMENT PROJECTS

## GRMI CITY WATER TREATMENT PLANT

TOTAL CAPACITY OF 25,920 m<sup>3</sup>/d



### UNDER OPERATION SINCE 1992

OMRAB Eng. Co.  
**INNOVATION**

#### Germei City Water Treatment Plant

Client: East Azarbaijan Regional water Authority  
Consultant: Ashnab  
Location: Germei city- East Azarbaijan Province- Iran  
Type of Project: EPC



#### Scope of Works

Procurement & Installation of Mechanical, Electrical, Instrumentation & Control Equipments & Construction of water Treatment plant with total capacity of 25,920 m<sup>3</sup>/day. The process treatment is Conventional Treatment including: Flash mixing unit, Flocculation unit, Sedimentation unit, Gravity Rapid sand filter, Gas chlorination.

Main suppliers & Partners consists of:

Blower: Hibon (France)

Instrumentation: Endress + Hauser (Germany)

Electrical panels: Siemens (Germany)

Electrical Motor: Siemens (Germany)

Mimic: Mouell (Germany)

Gas chlorination: Alldos (Germany)

# WATER & ENVIRONMENT PROJECTS

## GHOUCHAN CITY WATER TREATMENT PLANT

TOTAL CAPACITY OF 54,432 m<sup>3</sup>/day



### UNDER OPERATION SINCE 2006



#### Ghouchan Potable Water Treatment Plant Project

Client: Khorasan water regional authority Company  
Consultant: Sarv Ab Consulting Engineer  
Location: Ghouchan, Khorasan, Iran  
Type of Contract: P.C



#### Scope of Works

In 2004 OMRAB was awarded a contract for Procurement and Construction of Ghouchan city potable water treatment plant. This project accomplished during 2 years.

Scope of works includes Engineering, Procurement, Installation and Erection of Mechanical, Electrical and Instrumentation Equipment. Conventional Treatment consists of: Flash mixing unit, Flocculation and Sedimentation (Pulsator unit), Gravity Sand filter, Gas Chlorination System and Control System with total capacity of 54,432 m<sup>3</sup>/day.

In this project most of hydro electromechanical equipment were supplied from Canada, Iran and west of Europe well known partners and suppliers such as Berkeh, Mirab, LMI, Farab (Iran), Lowara, Airmec, Robuschi (Italy), De-Raedt (Belgium), Endress+Hauser, Siemens and Alldos (Germany).

# WATER & ENVIRONMENT PROJECTS

## GORDIAN WATER PUMP STATION & IRRIGATION PIPELINE NETWORK

TOTAL CAPACITY OF 120,000 m<sup>3</sup>/day



### UNDER OPERATION SINCE 1999

OMRAB Eng. Co.  
**INNOVATION**

#### Procurement and Construction of Gordian No.2 Pump Station & Irrigation pipeline Network

Client: Agricultural Lands Promotion and Development Company  
Consultant: Faraz Ab Consulting Engineer  
Location: Azerbaijan, Iran  
Type of Contract: P.C



#### Scope of Works

In 1997 OMRAB was awarded two contracts for Procurement of Mechanical & Electrical Equipment and Construction of Gordian No. 2 pump station.

This project was accomplished during 2 years.

Scope of works includes Construction of Pump Station, Sedimentation Basin, Transmission Pipeline from Pump Station, Electrical & Mechanical utilities of the Station. This pump station was furnished by 18 multistage centrifugal pumps with total capacity of 120,000 m<sup>3</sup> per day, surge protection system, telemetry and control system and also the Irrigation Pipeline Network.

In this project most hydro electromechanical equipment supplied from the west of Europe and Iran well known partners and suppliers such as Siemens, Mouell (Germany), Pumpiran, Mirab and LMI (Iran).

# WATER & ENVIRONMENT PROJECTS

## PERSIAN GULF COASTAL CITIES WATER TREATMENT PLANT

TOTAL CAPACITY OF 388,800 m<sup>3</sup>/d



### UNDER OPERATION SINCE 2008

OMRAB Eng. Co.  
**INNOVATION**

#### Persian Gulf Coastal Cities Water Treatment Plant

Client: Fars Regional water Company  
Consultant: Mahab Ghods  
Location: Behbahan city- Khuzestan Province- Iran  
Type of Project: PC

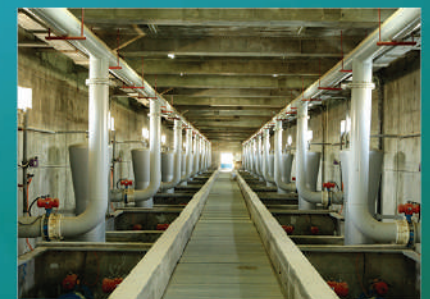


#### Scope of Works

Design & Engineering, Procurement, Installation of Mechanical, Electrical & Instrumentation Control Equipments of water Treatment plant with a total capacity of 388,800 m<sup>3</sup>/day. The presses treatment is Conventional Treatment including a Flash mixing unit, Flocculation & Sedimentation ( Pulsator unit ), Gravity sand filter and Gas chlorination System.

Main suppliers & Partners consists of:

- Blower: Robuschi (Italy)
- Vacuum Pump: Deraedt (Belgium)
- Valves: Belgicast (Spain), ERHARD (Germany)
- Dosing pumps: Sera (Germany)
- Chlorination system: Alldos (Germany)
- Gear box: Alldos (Germany)
- Electrical panels: Siemens (Germany)
- Mimic: Mauell (Germany)
- Instrumentation: Endress + Hauser (Germany), Siemens (Germany)
- PLC: Siemens (Germany)



# WATER & ENVIRONMENT PROJECTS

## JEBEL AWLIA CITY WATER TREATMENT PLANT

TOTAL CAPACITY OF 68,000 m<sup>3</sup>/day



**UNDER OPERATION SINCE 2008**

OMRAB Eng. Co.  
**INNOVATION**

### Jebel Awlia City Water Treatment Plant

Client: Khartoum State Water Corporation (KSWC)- Sudan

Consultant: SANES Consulting Company

Location: Jebel Awlia, Sudan

Type of Project: E.P.C



### Scope of Works

In 2005 a contract was awarded to Omrab for Design, Engineering, Procurement and Installation of Mechanical, Electrical, Instrument Equipments and Control System of Jebel Awlia water treatment plant with total capacity of 68,000 (m<sup>3</sup>/day). The treatment Process: Conventional Treatment includes Intake Pump station unit, Flash mixing unit, Flocculation & Sedimentation (Pulsator unit), Gravity Sand filter, Gas Chlorination, Chemical, Final Pump Station and Control System. Main suppliers & Partners consists of:

Pumps: Bombas Ideal (Spain)

Dosing System: Alldos (Germany)

Instrument: Endress + Hauser (Germany)

Electromotor: Siemens (Germany)

PLC: Siemens (Germany)

Electrical: Siemens (Germany)

Chlorination System: Alldos (Germany)

Pulsator fan: De-Raedt (Belgium)

Valve & Actuator: Ebro (Germany)



# WATER & ENVIRONMENT PROJECTS

## KARAJ CITY WATER TREATMENT PLANT

TOTAL CAPACITY OF 43,200 m<sup>3</sup>/d



### UNDER OPERATION SINCE 2006

#### Karaj City Water Treatment Plant

Client: West Tehran Regional Water Company

Consultant: RayAab

Location: Karaj city - Karaj province - Iran

Type of Project: EPC



#### Scope of Works

The scope of work includes Design & Engineering, Procurement, Installation & Erecting of Mechanical, Electrical & Instrumentation Equipments & Construction of water Treatment plant with total capacity of 43,200 m<sup>3</sup>/day. The process treatment is Conventional Treatment including a Flash mixing, Flocculation & Sedimentation (Pulsator unit), gravity sand filter and Gas chlorination System. Main suppliers & Partners consists of:

Pump: Pumpiran, Berkeh (Iran), Lowara (Italy)

Valves: EBRO (Austria), Mirab, LMI, Farab (Iran)

Blower: Dresser (U.K.)

Vacuum Pump: De Raedt (Belgium)

Dosing Pump: Alldos (Germany)

Chlorination sys: Alldos (Germany)

Instrument: Endress+Hauser (Germany)

Electromotor: ABB (Germany)

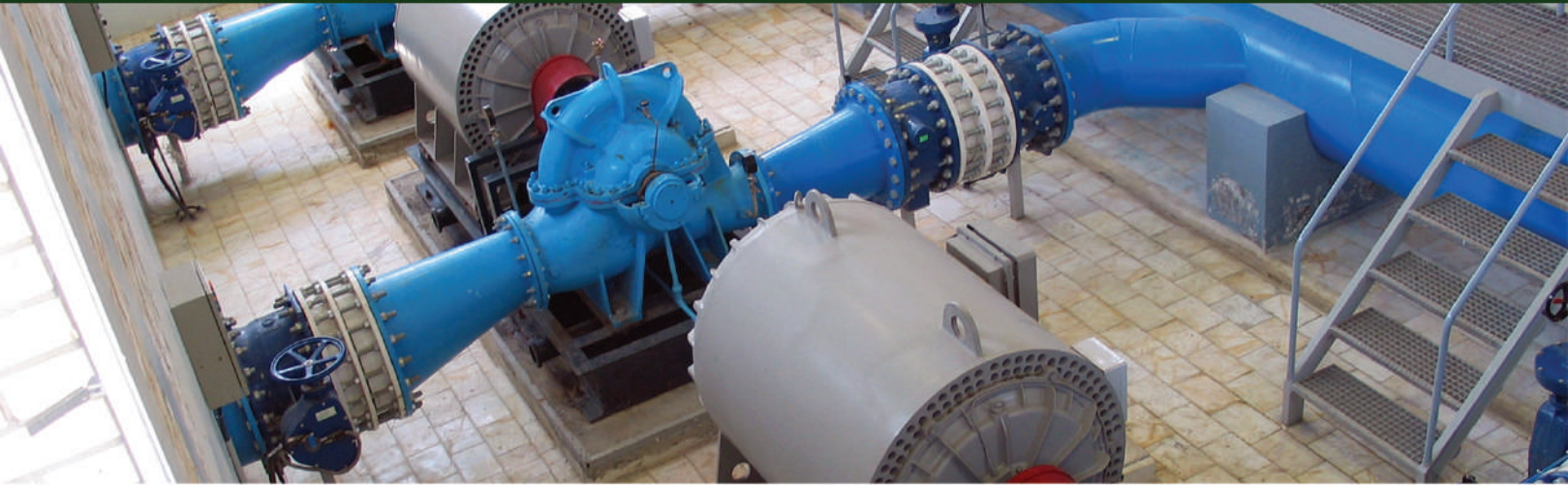
Compressor: Airmec (Italy)

PLC: Siemens (Germany)

# WATER & ENVIRONMENT PROJECTS

## KARVAN PUMP STATION PROJECT

TOTAL CAPACITY OF 34,560 m<sup>3</sup>/day



### UNDER OPERATION SINCE 2003



#### Procurement, Construction, Installation and Commissioning of Karvan Pump Station Project

Client: Isfahan Regional water Authority Company  
Consultant: Isfahan Regional water Authority Technical Office  
Location: Isfahan Province, Iran  
Type of Project: P.C



#### Scope of Works

In 1997 OMRAB was awarded two contracts for Procurement of Mechanical & Electrical Equipment and Construction of Gordian No. 2 pump station.

This project was accomplished in 2 years.

Scope of works includes Construction of Pump Station, Sedimentation Basin, Transmission Pipeline from Pump Station, Electrical & Mechanical utilities of the Station. This pump station was furnished by 18 multistage centrifugal pumps with a total capacity of 120,000 m<sup>3</sup> per day, surge protection system, telemetry and control system and also the Irrigation Pipeline Network.

In this project most hydro electromechanical equipment was supplied from west of Europe and Iran well known partners and suppliers such as Siemens, Mouell (Germany), Pumpiran, Mirab and LMI (Iran).



# WATER & ENVIRONMENT PROJECTS

## MIANDARBAND WATER SUPPLY, TELEMETERY & CONTROL PROJECT

TOTAL CAPACITY OF 172,800 m<sup>3</sup>/day



### UNDER OPERATION SINCE 2002



**Supplying Mechanical, Electrical, Instrument & Control Equipment of Pump Station, Telemetry & Control System in Miandarbando, Kermanshah**

Client: West regional water company  
Consultant: Mahab Ghods Consulting Engineer  
Location: Kermanshah, Iran  
Type of Project: P.C.



### Scope of Works

In 2001 OMRAB was awarded a contract for procurement and construction of a pump station Project in Miandarbando, Kermanshah city. Scope of works includes Design, Installation & Furnishing pump station by 24 high pressure multi stage centrifugal pumps with a total Capacity of 172,800 (m<sup>3</sup>/day) with surge protection System, Telemetry & Control system. In this project most of hydro electromechanical equipment was supplied from the west of Europe well known partners and suppliers such as Endress-Hauser, Siemens, Motorola (Germany) and Pumpiran (Iran).



# WATER & ENVIRONMENT PROJECTS

## KHOY CITY WASTE WATER TREATMENT PLANT PROJECT

TOTAL CAPACITY OF 51,840 m<sup>3</sup>/day



### UNDER OPERATION SINCE 2001



#### Supplementary Works of Procurement and Installation of Khoy Waste Water Treatment Plant Equipment

Client: West Azerbaijan Water and Waste water Company  
Consultant: Faraz Ab Consulting Enghneer  
Location: Khoy, West Azerbaijan Province, Iran  
Type of Contract: P.C



#### Scope of Works

In 2001 OMRAB was awarded a contract for procurement and Installation of Khoy city wastewater treatment plant Mechanical & Electrical Equipment.

This project was accomplished in 10 months.

Scope of works includes procurement, installation and commissioning of mechanical, electrical and installation of mechanical & electrical equipment of waste water treatment plant with total a capacity of 51,840 m<sup>3</sup>/day.

Process Description:

The treatment process has been designed based on a conventional treatment system including screening, aerated lagoon with surface aerator, sedimentation lagoon, disinfection by gas chlorination system.

In this project most hydro electromechanical equipment was supplied from the west of Europe well known partners and suppliers such as Omrab (Iran) and Rossi (Italy).

# WATER & ENVIRONMENT PROJECTS

## MARAND CITY & SUBORDINATE CITIES WATER SUPPLY PROJECT

TOTAL CAPACITY OF 86,400 m<sup>3</sup>/day



### CONVENTIONAL TREATMENT PROCESS



#### Marand City and Subordinate Cities Water Supply From Aras River Project

Client: East Azerbaijan Regional water Authority  
Consultant: Abran Consulting Engineer  
Location: Marand, East Azerbaijan, Iran  
Type of Contract: E.P.C



#### Scope of Works

In 2008 OMRAB was awarded a contract for Engineering services, Procurement and Construction of the Marand City water Treatment Plant. This project is under construction. Scope of works includes Design and Engineering, Procurement, Construction, Installation of Mechanical, Electrical and Instrumentation Equipment, commissioning, Experimental and Educational Operation.

Water Treatment is a Conventional Treatment Including a pre-Clarification unit, flocculation and sedimentation (Pulsator unit), Gravity sand filter, Gas chlorination System with a total capacity of 86,400 m<sup>3</sup>/day.

# WATER & ENVIRONMENT PROJECTS

## MARY CITY WATER TREATMENT PLANT

TOTAL CAPACITY OF 103,680 m<sup>3</sup>/d



### First Presence in CIS Countries



#### Mary City Water Treatment Plant

Client: Ministry of Macro - Economic of Republic of Turkmenistan

Location: Mary City, Turkmenistan

Type of Project: E.P.C



#### Scope of Works

In 1997 a contract was awarded to Omrab for Design & Engineering, Procurement, Installation of Mechanical, Electrical & Instrumentation & Control Equipments & Construction of a water Treatment with a total capacity of 103,680 (m<sup>3</sup>/day). This Project was the first presence of omrab in CIS countries. The treatment Process consists of Intake Unit, Pre sedimentation unit, Flash mixing unit, Flocculation & Sedimentation (Pulsator unit), and Gravity Sand filter. Gas Chlorination System, Treated water pump station unit, Control System.

Main suppliers & Partners consists of:

Raw water Pump: EMU (Germany)

Dosing Pump: Dosapro milton Roy (France)

Instrument: Endress + Hauser (Germany)

Electromotor: Siemens (Germany)

Mimic: Mauell (Germany)

Pulsator fan: De-Raedt (Belgium)



# WATER & ENVIRONMENT PROJECTS

## MASHHAD WASTE WATER TREATMENT PLANT - KHINARAB

TOTAL CAPACITY OF 83,000 m<sup>3</sup>/day



### ASBR TREATMENT PROCESS

#### Design, Procurement and Installation of No. 5 Mashhad City (Khinarab) Wastewater Treatment Plant Project

Client: Mashhad water & Wastewater Company  
Consultant: Pars Ab Tadbir Consulting Engineer  
Location: Mashhad, Iran  
Type of Project: E.P.C  
Source of Financing: Islamic Development Bank (IDB)

#### Scope of Works

In 2010, OMRAB as a member of the Joint venture was selected as an E.P.C. contractor for the Mashhad No. 5 wastewater treatment plant which Islamic development bank (IDB) provided the loan for the Project. OMRAB responsibilities include Design of process, civil, mechanical, electrical, control and instrumentation aspects of the project as well the as Supply, manufacture, inspection, factory test and transportation of the equipment to project site, installation, pre-commissioning, commissioning, trial operating of plant, operation and training of the staff. The proposed treatment process employs an advanced-continuous SBR process, with an average capacity of 83,000 (m<sup>3</sup>/day), and the maximum hydraulic capacity of 7,200 m<sup>3</sup>/h, corresponding to a population of 430,000 PE. A state of the art technology, ASBR, patent of Premiartech-Aqua (Canada) is the heart of the process in this treatment plant which has In-depth, long-term expertise allowing for cost effective advanced secondary biological treatment in a single step. It's a process permitting 98% removal of BOD5 and TSS as well as nitrification, de-nitrification and phosphorus elimination to meet all of the physical, chemical, and microbiological requirements of WHO, EPA, and environment protection standard organization of Iran or equal to irrigation in irrigation seasons, and discharge to the river in other seasons. Integrated semi-expert control/monitoring PLC-based program makes it possible to deal with all plant operating conditions – independently of operator availability or skill level in this plant. Other units of the treatment systems are an inlet lift station, mechanical coarse and fine screens, Aerated grit chamber, gravity belt filter, aerobic digester and belt filter press. The sludge treatment facility has the capability of classified stabilized sludge disposal.

OMRAB Eng. Co.  
**INNOVATION**



# WATER & ENVIRONMENT PROJECTS

## MASHHAD WASTE WATER TREATMENT PLANT - KHINARAB

TOTAL CAPACITY OF 83,000 m<sup>3</sup>/day





# WATER & ENVIRONMENT PROJECTS

## MEYMEH CITY PUMPING STATION PROJECT

TOTAL CAPACITY OF 129,600 m<sup>3</sup>/day



### UNDER OPERATION SINCE 2005

OMRAB Eng. Co.  
**INNOVATION**

#### Procurement & Construction of Meymeh City Pumping Station

Client: Isfahan Regional water Authority  
Consultant: Ray Aab Consulting Engineer  
Location: Meymeh City - Kashan Province - Iran  
Type of Contract: P.C



#### Scope of Works

In 2003 OMRAB was awarded a contract for Procurement, Construction, Installation and Commissioning of Meymeh city pumping station. This project accomplished during 16 month. Scope of works includes Procurement, Installation and Furnishing of Pump station by 4 Split Case Pumps with total Capacity of 129,600 m<sup>3</sup>/day, Surge Protection System.



# WATER & ENVIRONMENT PROJECTS

## BANDAR ABBAS CITY WATER TASTE & ODOR REMOVAL

TOTAL CAPACITY OF 224,640 m<sup>3</sup>/d



### TASTE & ODOR REMOVING BY OZONE GAS

OMRAB Eng. Co.  
**INNOVATION**

#### Bandar Abbas City Water Taste & Odor Removal

Client: Hormozgan Regional Water Company  
Consultant: Mahab Ghods  
Location: Bandar Abbas City- Hormozgan province- Iran  
Type of Project: EPC



#### Scope of Works

Removal of taste & Odour from Bandar Abbas potable water by injection of Ozone gas with a total capacity of 224,640 m<sup>3</sup>/day. The process treatment is Removal of taste & Odour from Bandar Abbas potable water by injection of Ozone gas including 4x10 (kg/hr) Ozone generators, drying air system, Compressed air generator & H<sub>2</sub>O<sub>2</sub> dosing system.

Main suppliers & Partners consists of:

Compressor: Atlas Copco (UK)

Ozone Generation: Trailigaz (TRAILIGAZ OZONE)

Mimic: Mauell (Germany)

H<sub>2</sub>O<sub>2</sub> Dosing System: Sera (Germany)

Electrical Panels: Siemens (Germany)

Transformer: Iran Transfo (Iran)

# WATER & ENVIRONMENT PROJECTS

## PARS ABAD WATER TREATMENT PLANT PROJECT

TOTAL CAPACITY OF 52,000 m<sup>3</sup>/day



### UNDER OPERATION SINCE 2000

OMRAB Eng. Co.  
**INNOVATION**

#### Design, Procurement and Construction of Pars Abad-e-Moghan Water Treatment Plant

Client: East Azerbaijan & Ardabil Regional Water Authority Company  
Consultant: Abran Consulting Engineer  
Location: Pars Abad, East Azerbaijan, Iran  
Type of Project: E.P.C



#### Scope of Works

In 1997 OMRAB was awarded a contract for the design, procurement and construction of the Pars Abad e Moghan Water Treatment Plant.

This project was accomplished in 3 years.

Scope of works includes: Design, Procurement, Construction of civil works of Plant, Installation of Mechanical, Electrical, Instrumentation and Control (I&C) of Plant with total capacity of 52,000 m<sup>3</sup>/day.

Process of treatment has been designed based on a conventional treatment system which includes an intake pump station, flash mixing unit, flocculation unit, sedimentation unit, gravity sand filter, gas chlorination system and control system.

In this project most hydro electromechanical equipment was supplied from the west of Europe well known partners and suppliers such as EMU, Endress-Hauser, Siemens, Mouell (Germany) and Hibon (France).



# WATER & ENVIRONMENT PROJECTS

## PARS NO.1 WATER PUMP STATION PROJECT

TOTAL CAPACITY OF 19,000 m<sup>3</sup>/day



### UNDER OPERATION SINCE 2002

OMRAB Eng. Co.  
**INNOVATION**

#### Procurement & Construction of Pars 1 Pump Station and Transmission Pipeline

Client: Pars National Argo-Industry and animal husbandry Company  
Consultant: Yekom Consulting Engineer  
Location: East Azerbaijan, Iran  
Type of Contract: P.C



#### Scope of Works

In 2001 OMRAB was awarded a contract for Procurement, Construction, Installation and Commissioning of Pars 1 pump station and transmission pipeline.

This project accomplished during 1 year.

Scope of works includes Procurement, Installation, Commissioning and Construction of civil works and 3km water transmission Pipeline (DN: 1400 mm). This Pump station was furnished by 14 multistage high Pressure Pumps with total capacity of 19,000 m<sup>3</sup>/day.



# WATER & ENVIRONMENT PROJECTS

## BANDAR ABBAS CITY WATER PUMPING STATION

TOTAL CAPACITY OF 2,630 m<sup>3</sup>/h



**UNDER OPERATION SINCE 2010**

OMRAB Eng. Co.  
**INNOVATION**

### Bandar Abbas City Pumping Station Project

Client: Hormozgan Water & WasteWater Company  
Consultant: RayAab  
Location: Bandar Abbas City - Hormozgan Province - Iran  
Type of Project: PC



### Scope of Works

Procurement, Installation and Furnishing 2 Pump station: Phase 1: 6 Double Suction Split Case pumps (Capacity: 830 m<sup>3</sup>/hr, Head: 68 m) and Phase 2: 9 set of Double Suction Split Case Pumps (Capacity: 1800 m<sup>3</sup>/hr, Head: 95 m) with Control System and Transformer.

Main suppliers & Partners Consists of:

Pumps: KSB (Germany)

Electromotor: VEG

Valves: Mirab (Iran)

Electrical panel: Siemens (Germany)

Instrumentation: Endress+ Hauser (Germany)

Transformer: Iran Transfo (Germany)

# WATER & ENVIRONMENT PROJECTS

## PERSIAN GULF COASTAL CITIES WATER SUPPLY

TOTAL CAPACITY OF 74,650 m<sup>3</sup>/d



**UNDER OPERATION SINCE 2007**

OMRAB Eng. Co.  
**INNOVATION**

### Persian Gulf Coastal Cities Water Supply Project

Client: Fars Regional Water Authority  
Consultant: Mahab Ghods  
Location: Fars Province- Iran  
Type of Project: PC



### Scope of Works

Procurement, Installation & Furnishing Pump Station by 4 Split case Pumps with Total Capacity of 74,650 m<sup>3</sup>/day, Control System, Transformer and control panel.

Main suppliers & Partners Consists of:

Pumps: KSB (Germany)

Electrometer: Siemens (Germany)

Panel device: Siemens (Germany)

Chlorination: Alldos (Germany)

Valves: Erhard (Germany)

Mimic: Mauell(Germany)

# WATER & ENVIRONMENT PROJECTS

## SABALAN DAM DOWNSTREAM LANDS WATER SUPPLY PROJECT

7 PUMP STATIONS & 17 RESERVOIRS WITH TOTAL CAPACITY OF 17000 m<sup>3</sup>



### UNDER OPERATION SINCE 2014

OMRAB Eng. Co.  
**INNOVATION**

**Procurement & Construction of Pump Stations, Reservoirs & Auxiliary Buildings and Water Network type 2, From US1 to US6 of Sabalan Dam Downstream Lands**

Client: Ardabil Regional Water Authority Company  
Consultant: Ashenab Consulting Engineer & Maharab Omran Gostar Consulting Engineer  
Location: Ardabil, Iran  
Type of Project: P.C



### Scope of Works

In 2010 two contracts (No. 193 & 194) were awarded to OMRAB for procurement, construction, installation and test of about 48 Km of water network type 2, 150 sets of the valve chamber, 7 pump stations and 17 reservoirs with a total capacity of 17000 m<sup>3</sup> & auxiliary buildings such as guard house, passage post, landscaping, etc.

# WATER & ENVIRONMENT PROJECTS

## REPLACEMENT AND CONSTRUCTION OF SEWERS IN SAMARKAND

### SEWAGE TRANSMISSION PIPELINE



## UNDER OPERATION SINCE 2017



### Replacement and new construction of sewers in Samarkand

Client: SUE «Suvokova» of Samarkand Province - Uzbekistan

Location: Samarkand Province - Uzbekistan

Type of Project: P.C

Source of Financing: IDA



### Scope of Works

In 2016 a contract was awarded to OMRAB for “REPLACEMENT AND NEW CONSTRUCTION OF SEWERS IN SAMARKAND (PACKAGE I – 202 KM)” in Uzbekistan by SUE «Suvokova» of Samarkand Province. International Development Association (IDA) financed this project as a part of a water development loan to the government of Uzbekistan.

The Scope of Work under this contract covers:

Construction of polyethylene pipelines (HDPE) located in Samarkand, DN150-500 mm with a length of 9.5 km (Lot #1)

Construction of polyethylene pipelines (HDPE) located in Samarkand, DN150-500 mm with a length of 10.7 km (Lot #2)



# WATER & ENVIRONMENT PROJECTS

## SANANDAJ WASTE WATER PROJECT

TOTAL CAPACITY OF 216,000 m<sup>3</sup>/day



### ANAEROBIC SLUDGE DIGESTION PROCESS

**Supply Hydro Electromechanical Equipment of Sanandaj Waste water Treatment (Sludge treatment), as well as Disinfection of sewage**

Client: Kurdistan water and waste water Company  
Consultant: Sakht Ab Consulting Engineer  
Location: Kurdistan, Sanandaj City, Iran  
Type of Contract: E.P.C

#### Scope of Works

In 2004 OMRAB was awarded a contract to Supply Hydro Electromechanical Equipment for the Sanandaj Wastewater Treatment Plant (Sludge treatment), as well as Disinfection of sewage. Scope of works includes procurement, installation and construction of sludge parts of wastewater treatment plant. anaerobic sludge digestion, sludge gravity thickening unit, sludge dewatering unit (Belt Filter Press and drying bed), UV disinfection unit, gas holder unit with a total capacity of 216,000 m<sup>3</sup>/day.

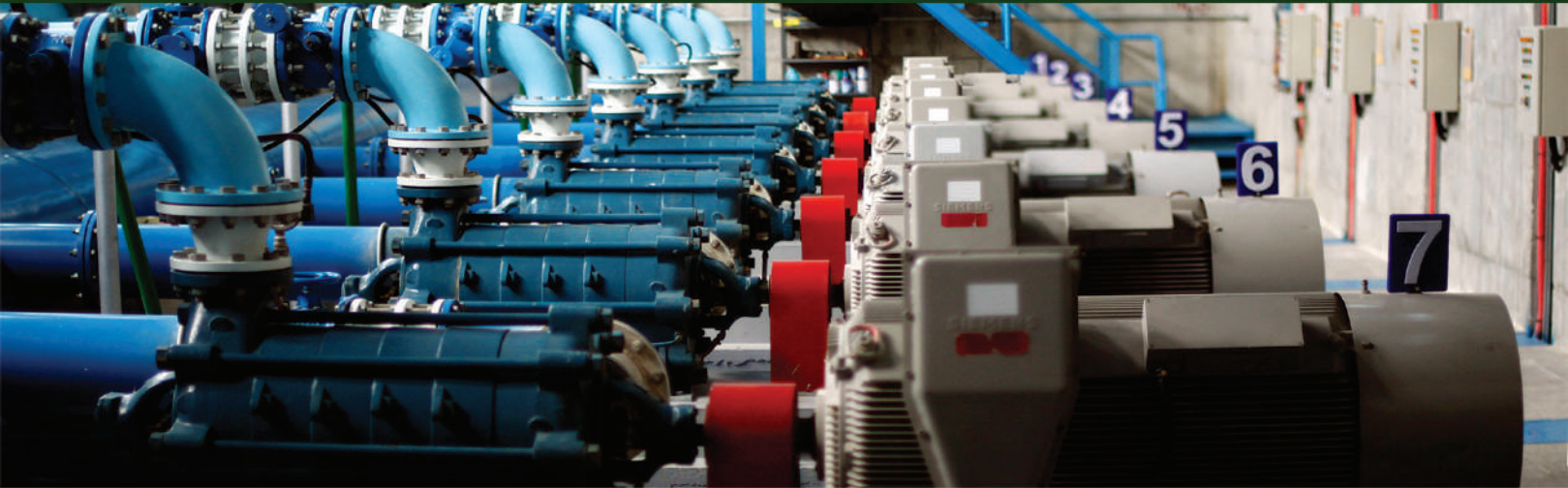
In this project most hydro electromechanical equipment was supplied from Canada, Iran and west of Europe well known partners and suppliers such as Omrab (Iran), Sterling, Siemens, Protege, Netzsch Mono (Germany), Combustion (India), EMO (France) and Trojan (Canada).



# WATER & ENVIRONMENT PROJECTS

## SEM NAN CITY WATER SUPPLY, TELEMETRY & CONTROL

TOTAL CAPACITY OF 56,160 m<sup>3</sup>/d



### UNDER OPERATION SINCE 2004



#### Semnan City Water Supply, Telemetry & Control Project

Client: Tehran Regional water Company  
Consultant: Mahab Ghods  
Location: Semnan City- Semnan Province- Iran  
Type of Project: EPC



#### Scope of Works

Design & Engineering, Procurement, Furnishing & Installation of 3 pump stations including 25 multi stage horizontal centrifugal pumps, total capacity of 56,160 m<sup>3</sup>/day, 2 Station of Chlorination system, Control & SCADA System.

Main suppliers & Partners Consists of:

SCADA System: SIMATIC

Pumps: Pumpiran (Iran)

Electromotor: (Siemens)

Mimic: Mauell

Valves: Mirab, LMI (Iran)

Compressor: Alup (Germany)

PLC: Siemens (Germany)

Crane: Sadad Machine (Iran)

# WATER & ENVIRONMENT PROJECTS

## SHATRA CITY SEWAGE PROJECT

TOTAL CAPACITY OF 64,000 m<sup>3</sup>/d



### ACTIVATED SLUDGE TREATMENT PROCESS



#### Shatra City Sewage Project

Client: Ministry of municipality and public works - Iraq  
Location: Shatrah City, Dhi-Qar Province, Iraq  
Type of Project: E.P.C



#### Scope of Works

OMRAB was chosen by the client to execute the design, supplying, installation, construction, commissioning and operation of AL-SHATRA sewerage project (Turn-key) with maximum input capacity of 64,000 m<sup>3</sup>/d. The treatment system in this plant is biological which is based on activated sludge process. The raw wastewater undergoes pre-treatment processes. Wastewater goes through the inlet chamber unit and then will pass through screening devices; screens are installed to remove large/small floating objects. The main purpose of this unit is to prevent possible damage to process to the equipment, by getting clogged-up, downstream and prevent the upsetting of the biological process. These chambers enable settling out sand, grit and stones in the wastewater, which may otherwise damage equipment downstream. De-gritted wastewater then entered the anaerobic tank in order to remove phosphorous. Afterward the phosphorous removed wastewater by degrading the organic matter. Microorganism, such as bacteria and protozoa, carries out this process which oxidase the organic material to CO<sub>2</sub>, NH<sub>3</sub> and biomass. In order to separate the produced sludge from wastewater, four clarifiers are considered. The wasted activated sludge is sent to gravity thickeners. In these units, the sludge is thickened to some extent. The thickened sludge is sent to the drying beds in order to dewater sludge and the sludge supernatant is returned to the treatment system.

# WATER & ENVIRONMENT PROJECTS

## SHIRAZ CITY WATER SUPPLY PROJECT

TOTAL CAPACITY OF 172,800 m<sup>3</sup>/d



**UNDER OPERATION SINCE 2006**



### Rehabilitation of Shiraz Water Treatment Plant

Client: Fars regional water Company

Consultant: Tehran Boston

Location: Shiraz city- Fars province- Iran

Type of Project: PC

### Scope of Works

Procurement, Installation & Complementary Construction works of water treatment plant with a total capacity of 172,800 m<sup>3</sup>/day. The process treatment is a conventional treatment that includes a flash and slow mixing unit, chemical unit, lamella Sedimentation, and gas chlorination unit. Main suppliers & Partners consists of:

Sludge Pump: Navid sahand (Iran)

Blower: Dresser (UK)

Chlorination System: Alldose (Germany)

Instrumentation: Endress + Hauser (Germany)

Electromotor: Siemens (Germany)

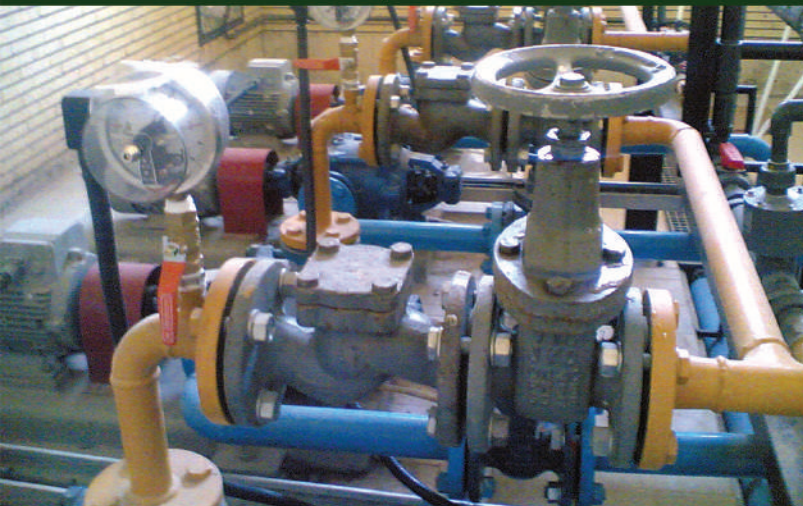
Mimic: Mauell (Germany)

Gear box: Nord (Germany)

# WATER & ENVIRONMENT PROJECTS

## SIRJAN CITY WATER TREATMENT PLANT

TOTAL CAPACITY OF 70,160 m<sup>3</sup>/d



**UNDER OPERATION SINCE 2006**

OMRAB Eng. Co.  
**INNOVATION**

### Sirjan City Water Treatment Plant

Client: Kerman Regional water Company  
Consultant: Mahab Ghods  
Location: Sirjan City - Kerman Province- Iran  
Type of Project: EPC



### Scope of Works

Detail Design. Procurement. Installation & Commissioning of Mechanical, Electrical & Instrumentation Equipments & Construction of water Treatment plant with a total capacity of 70,160 m<sup>3</sup>/day. The presses treatment is Conventional Treatment Including a Flash mixing unit, flocculation & Sedimentation (Pulsator unit), Gravity Sand Filter, Gas Chlorination System.

Main suppliers & Partners consists of:

Mimic Panel: Mauell (Germany)  
Pulsator fan: De-Raedt( Belgium)  
Blowers: Robuschi (Italy)  
Pumps: Pumpiran (Iran)  
Electromotor: Siemens (Germany)  
Control panel: Siemens (Germany)  
PLC: Siemens (Germany)  
Valve: Mirab (Iran)

# WATER & ENVIRONMENT PROJECTS

## SUGAR CANE FACTORY WATER TREATMENT PLANT

TOTAL CAPACITY OF 44,000 m<sup>3</sup>/d



**UNDER OPERATION SINCE 1997**

OMRAB Eng. Co.  
**INNOVATION**

### Sugar Cane Factory Water Treatment Plant

Client: Sugar cane Developing Company  
Location: Shoushtar city- Khuzestan Province- Iran  
Type of Project: EPC



### Scope of Works

Design & Engineering, Procurement, Installation & Commissioning of Mechanical, Electrical & Instrumentation Equipments & Construction of water Treatment plant with a total capacity of 44,000 m<sup>3</sup>/day. The presses treatment is pre- Sedimentation unit, Claritlocculation unit, pressure sand filter, Gas chlorination System.

Main suppliers & Partners consists of:

Blower: Hibon (France)

Instrument: Endress + Hauser (Germany)

Electrical panels: Siemens (Germany)

Electrical Motor: Siemens (Germany)

Chlorination system: Alldos (Germany)



# WATER & ENVIRONMENT PROJECTS

## WATER SUPPLY TRUNK LINE FROM TALEQAN DAM TO QAZVIN PROVINCE

TOTAL LENGTH OF 130 KM STEEL PIPE



### SUPPLYING WATER FOR 25 CITIES



#### Construction of water supply transfer line from Taleqan dam to Qazvin province

Client: Qazvin regional water authority  
Location: Qazvin City, Iran  
Type of Project: P.C.  
Role of Contractor: Member of J.V.



#### Scope of Works

In 2017, OMRAB was awarded a contract for the Construction of a water supply transfer line from Taleqan dam to Qazvin province. Scope of Works includes Procurement and execution of steel pipe water transfer line with all related facilities and buildings as follows:

DN= 1600mm PN=16 bar, total length: 5137m  
DN= 1400mm PN= 16 bar, total length: 5028m  
DN= 1600mm PN= 25 bar, total length: 22764m  
DN= 1400mm PN= 25 bar, total length: 25827m  
DN= 1200mm, PN= 25 bar, total length: 5015m  
DN= 800mm, PN= 25 bar, total length: 25667m  
DN= 700mm, PN= 25 bar, total length: 17000m  
DN= 500mm, PN= 25 bar, total length: 9740m  
DN= 300mm, PN= 25 bar, total length: 328m  
DN= 250mm, PN= 25 bar, total length: 4432m

Procurement, construction and installation of 275 valve rooms of transfer lines

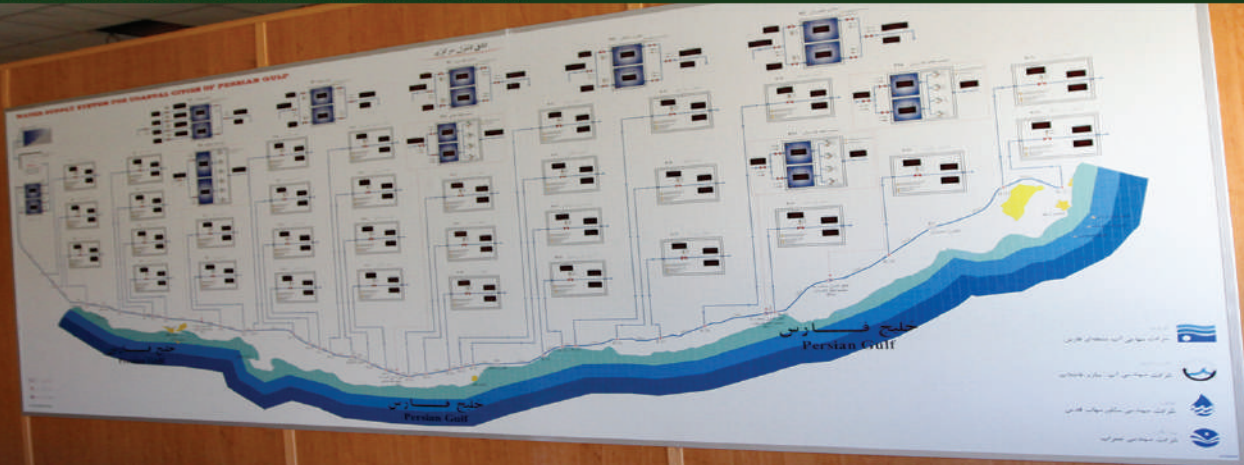
Construction of 2 groundwater concrete storage tanks with capacity of 10000 m<sup>3</sup> each tank

Construction of two steel bridges with a length of 70 meters for crossing the river.

# WATER & ENVIRONMENT PROJECTS

## TELEMETRY SYSTEM OF WATER SUPPLY PROJECT FOR THE PERSIAN GULF COASTAL CITIES

### 5 CONTROL ROOMS FOR TELEMETRY SYSTEM



## UNDER OPERATION SINCE 2011

### Telemetry system of water supply project to the Persian Gulf Coastal Cities

Client: Fars Regional Water Authority Company  
Consultant: Mahab Ghods Consulting Engineer  
Location: Fars, Bushehr and Hormozgan Provinces (Persian Gulf cities), Iran  
Type of Project: E.P.C

### Scope of Works

Design, Supply and Installation of Message Control & Control equipment, Construction works of the Control room and branching, Control System, Transformer and control panel. Design, Engineering, Procurement, Installation and Construction of 32 Valve Chamber including Instrumentation and measuring devices and 5 Control rooms for Telemetry System. In this project most hydro electromechanical equipment supplied from west of Europe well known partners and suppliers such as, Siemens, E&H, Mauell, VAG and Eyevis (Germany).

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**INNOVATION**





# WATER & ENVIRONMENT PROJECTS

## WATER SUPPLY TRUNK LINE FROM TALEQAN DAM TO QAZVIN PROVINCE

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Procurement, construction and installation of 275 valve rooms of transfer lines

Construction of 2 groundwater concrete storage tanks with capacity of 10000 m<sup>3</sup> each tank

Construction of two steel bridges with a length of 70 meters for crossing the river.



# WATER & ENVIRONMENT PROJECTS

## ALAT AND KARAKUL WATER SUPPLY PROJECT

230 KM HDPE & 5.4 GRP WATER TRUNK LINE & 220 KM HDPE WATER DISTRIBUTION NETWORK



### FINANCING BY IDA

#### Construction of Primary and Secondary Trunk Mains, Regional Water Distribution Center “Karakul West”, Rural Water Distribution Centers and Distribution Systems.

Client: Bukhara Regional State Unitary Enterprise «Suvokova»  
Location: Karakul district, Bukhara city, Republic of Uzbekistan  
Type of Project: P.C.  
Source of Financing: International Development Association (IDA)



### Scope of Works

- Construction of Primary Trunk Main located in the Southwest part of Karakul district with a total length of up to 5.4 km using glass fiber reinforced plastic pipes (GRP) DN400 mm;
- Construction of Secondary Trunk Mains located in the Southwest part of Karakul district with a total length of about 23 km using high density polyethylene pipes (HDPE PE100 SDR17) DN110- DN355 mm;
- Construction of one Regional Water Distribution Center in Yangibazar, including clear water reservoirs, pumping station, mechanical equipment and other engineering buildings and facilities;
- 7 Rural Water Distribution Centers in the Southwest part of Karakul district, including water towers with volumes of 200 and 250 m<sup>3</sup>, Transmission Control Stations, mechanical equipment and other engineering buildings and facilities;
- Construction of distribution networks throughout the area of Karakul Southwest with total a length of about 220 km using high density polyethylene pipes (HDPE PE80 SDR17) DN63- DN225 mm, customer connections with a total length of about 308,9 km (56.2 km at the expense of the project and 252.6 km at the expense of private households) using high density polyethylene pipes (HDPE PE80 SDR21) DN25- DN50 mm, as well as installation of up to 8,067 water meter units.

# WATER & ENVIRONMENT PROJECTS

## YAZD CITY WATER SUPPLY

TOTAL CAPACITY OF 259,200 m<sup>3</sup>/d



**UNDER OPERATION SINCE 2001**

OMRAB Eng. Co.  
**INNOVATION**

### Yazd City Water Supply Project

Client: Yazd Regional water Authority  
Consultant: Mahab Ghods  
Location: Yazd City - Yazd Province - Iran  
Type of Project: PC



### Scope of Works

Engineering, Procurement, Installation and Construction of 4 water pump stations and 16 split case pumps with total capacity of 259,200 m<sup>3</sup>/day including:

- Pump station No.1: Including (4x1400 kW) electromotor and 4 double suction split case pumps (1.05 m<sup>3</sup>/sec, 82 m head).
- Pump station No. 2&4: Including 4x1400 kW electromotor and 4 double suction split case pumps (1m<sup>3</sup>/sec + 140 m head).
- Pump station No. 3: Including 4x2200 kW electromotor and 4 double suction split case pumps (1m<sup>3</sup>/sec + 145 m head).

Main suppliers & Partners Consists of:

Pumps: EBARA (Japan)  
Electromotor: Siemens (Germany)  
Valves: Mirab (Iran)  
Actuators: Auma (Germany)  
Compressor: Boge (Germany)



# WATER & ENVIRONMENT PROJECTS

## WASTEWATER COLLECTION & TREATMENT SYSTEMS FOR RURAL AREAS

450 km SEWAGE NETWORK & 24 WTP WITH TOTAL CAPACITY OF 10,000 m<sup>3</sup>/d FOR 29 VILLAGES



### ASBR TREATMENT PROCESS

#### Design, Build and Operate (DBO) of wastewater collection and treatment systems for center part of Iran, Zone 2 (29 villages)

Client: National Water and Wastewater Engineering Company (NWWEC)  
Consultant: Pars Jooyab Consulting Engineer  
Location: 29 villages from Caspian Sea Throughout center of Iran in 8 provinces  
Type of Project: D.B.O  
Source of Financing: Islamic Development Bank (IDB)

#### Scope of Works

National Water and Wastewater Engineering Company (NWWEC) has determined that about 800 villages due to critical conditions and environmental impacts are in need of urgent implementation of a sewer system.

Execution of sewerage systems for 186 villages out of the total 800 was considered the highest priority by I.D.B. This plan covers a total population of 460,000 Pr. from which 270,000 shall benefit IDB loan.

The scope of services also includes operation and maintenance of all the mentioned facilities for all villages and reuse systems for 4 villages for a period of 1 year.

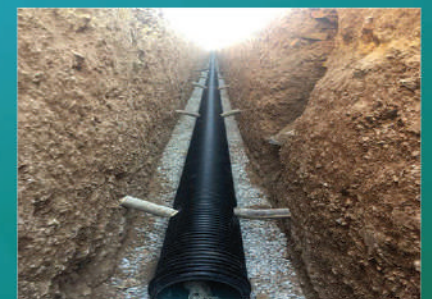
The overall Scope of Work consist of:

Execution of sewerage system with a total of 450 km transmission lines for 29 villages.

Construction of 24 wastewater treatment plants with a total capacity of 10,000 m<sup>3</sup>/d

Construction of 60 pump stations and 1 year of operation.

OMRAB Eng. Co.  
**INNOVATION**



# Energy Portfolio



OMRAB Eng. Co.

# Abstract



# ENERGY PROJECTS

## ABADAN REFINERY UTILITIES

Closed Circuit Cooling System of Refinery



**UNDER OPERATION SINCE 2012**



### Abadan Refinery water Treatment Plant and Cooling water System and Auxiliaries

Client: Abadan Oil Refinery Company  
Consultant: Abadan Oil Refinery Technical office  
Location: Abadan, Iran  
Type of Contract: E.P.C  
OMRAB: as a Leader of JV



### Scope of Works

This project was accomplished in 4 years and includes the units below:  
Cooling Tower System: Induced Draft Counter Flow Cooling Tower Capacity: 36,000 m<sup>3</sup>/h (12 Cells), Pump Station: 9 Pumps (4 Electric Driven + 5 Steam Driven, 6000 m<sup>3</sup>/h each pump). Cooling Tower Structure: 240 m \*21 m \*20 m Concrete Construction, More than 4500 m<sup>3</sup> Concrete Casting, 240 Pre-Cast Beams to support drift eliminators  
Clarifiers Unit: UPFLOW Rectangular Clarifiers, Capacity: 5000 m<sup>3</sup>/h , 4 Rectangular Clarifiers (each 1250 m<sup>3</sup>/h), Pump Station: 6 Pumps (each 1000 m<sup>3</sup>/h, head = 56 m)  
Clarifier Structure: 4 Rectangular Basin: 74 m\*12 m\*4.5 m, More than 6000 m<sup>3</sup> Concrete Casting, Sedimentation Bridge Structure. Demineralized Water Unit: RO & ION Exchange Method, Capacity: 720 m<sup>3</sup>/h, Pre Treatment: Micro Filtration & Ultra Filtration. Treatment: Reverse Osmosis (RO) – 2 Stages, Post Treatment: ION Exchange Mixed Bed, Pump Station of RO: 12 Electro Pumps. Demineralized Water Unit Piping Work: About 49,000 dia-inch A/G piping (Stainless Steel Pipes & Fittings), About 5200 dia-inch A/G piping (Non-Metal Pipes & Fittings). Water Reservoir Tanks: 8 Vertical Atmospheric Tank, 10,000 m<sup>3</sup> Capacity (each tank), 2\*10,000 m<sup>3</sup> Clarified Water Tanks, 4\*10,000 m<sup>3</sup> Fire Water Tank, 2\*10,000 m<sup>3</sup> Demineralized Water Tank. Cooling Water Network: Over 16,000 m Cooling Water Lines, Size 12 inch to 72 inch Pipe line, Over 120,000 dia-inch Piping (AG & UG)  
Fire-Water Pump and Station: 3 main Pump (340 m<sup>3</sup>/h) including 2 Diesel Driven Pump & 1 Electric Driven Pump, 2 in-line Jockey Pumps (20 m<sup>3</sup>/h)

# ENERGY PROJECTS

## ABADAN REFINERY UTILITIES

Closed Circuit Cooling System of Refinery





# ENERGY PROJECTS

## IRAN -ARMENIA BORDER GAS METERING STATION

TOTAL CAPACITY OF 10 MILLION SCMD



**UNDER OPERATION SINCE 2007**



### Iran -Armenia Border Gas Metering Station

Client: Iran International Gas Company  
Consultant: Pars Consulting Company  
Location: Iran-Armenia Border Line  
Type of Contract: E.P.C



### Scope of Works

In 2006 a contract was awarded to OMRAB for Engineering, Procurement and Construction of Iran-Armenia Border Gas Metering Station.

This project was accomplished during 1 year.

Scope of works includes metering and analyzing system including Filtration unit, Metering System, Control system, Power Generator unit, UPS unit and PIC unit.

In this project, most of the equipment were supplied from USA and west of Europe well-known partners and suppliers such as Jerguson, Ashcroft, Penberthy (USA), Norsk Analyes (Sweden), Siemens, ABB (Germany), Ametek, Michell instruments, Systech Instruments, MVT (UK), Rittal (Norway) and Rotorua (Italy).

# ENERGY PROJECTS

## KERMANSHAH PETROCHEMICAL WATER SUPPLY

ENGINEERING, PROCUREMENT & CONSTRUCTION



**UNDER OPERATION SINCE 2006**

**OMRAB Eng. Co.**  
**INNOVATION**

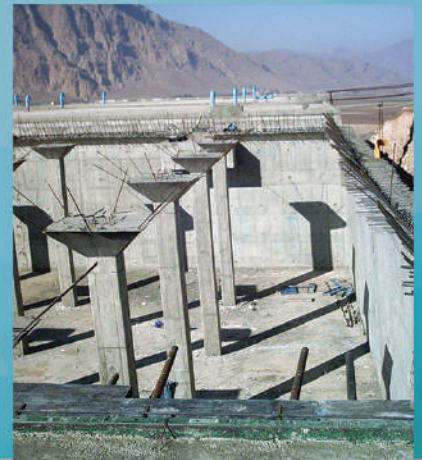
### **Kermanshah Petrochemical Industry Water Supply Project**

Client: Kermanshah Petrochemical Complex Company

Consultant: Namvaran Consulting Engineer

Location: Kermanshah, Iran

Type of Contract: E.P.C



### **Scope of Works**

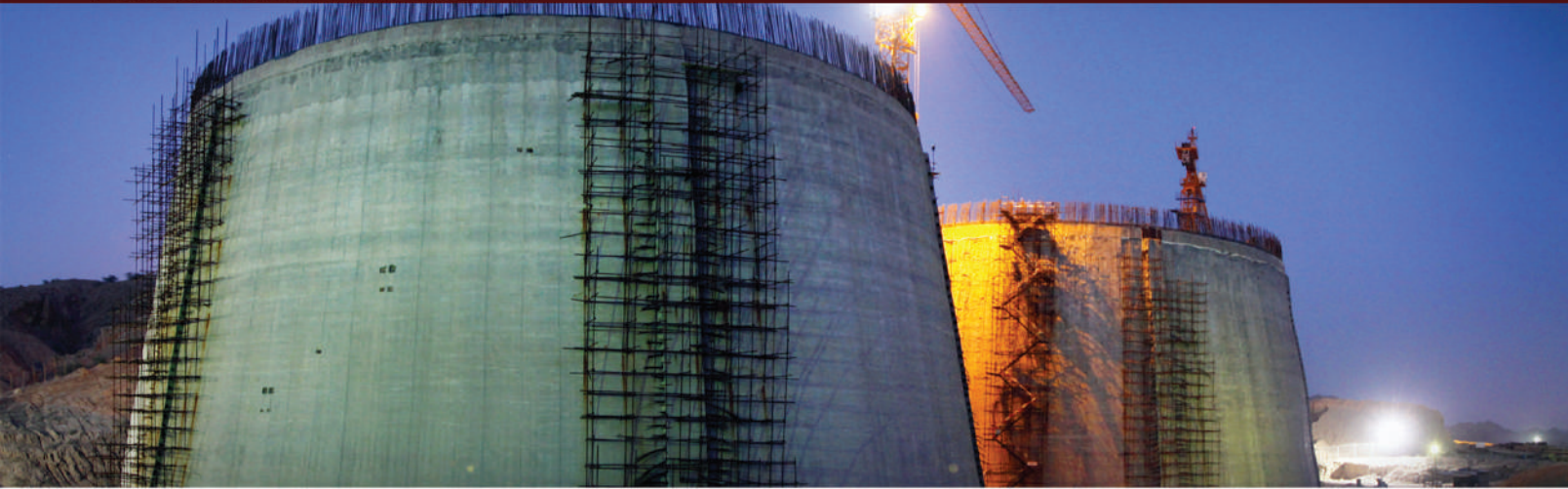
Includes Design, Supply, Installation, and Furnishing Pump station with 6 Vertical turbine Pumps, Surge Protection System, with a total capacity of 16,800 m<sup>3</sup> per day and 5.5 km pipeline transmission for water supply of Kermanshah petrochemical Industry, 2 electrical substations, all civil works including 2 Reservoirs each capacity of 20,000 m<sup>3</sup>.

In this project most hydro electromechanical equipment was supplied from well-known west of European partners and suppliers such as Nijhuis (Netherlands), Erhard, LMI, Mirab, Siemens, ABB and Endress+Hauser (Germany).

# ENERGY PROJECTS

## CRUDE OIL CONCRETE STORAGE TANKS OF UMIDIEH

TOTAL CAPACITY OF 2X500,000 BBL



### STRATEGIC CRUDE OIL STORAGE TANKS



#### Umidie Crude Oil Concrete storage Tanks Equipment Project

Client: Petroleum Engineering and Development Company  
Consultant: Setiran Consulting Engineer  
Location: Omidieh, Iran  
Type of Project: P.C



#### Scope of Works

In 2010 OMRAB was awarded a contract for Procurement and finishing Construction of Umidieh Crude Oil Concrete storage Tanks and Supply of Equipment. This project now is under construction.

Scope of works includes Procurement, Installation, Operation & Commissioning of Mechanical, Electrical, Control and Instrument Equipment & Construction of the remaining piece of 2X500,000 bbl concrete storage tanks.

Process description consists of process pumps, Fire fighting pumps, oily water pumps, Foam pumps, Safety, Nitrogen supply System, Mixers, Air assisted flare, Separation system, Stripper, Power transformer, LV8MV system, Emergency Diesel Generator, Telecomm system and Cathodic protection.



# ENERGY PROJECTS

## CRUDE OIL CONCRETE STORAGE TANKS OF UMIDIEH

TOTAL CAPACITY OF 2X500,000 BBL



# ENERGY PROJECTS

## POWER STATION FOR MOBILIZATION OF ROUDBAR LORESTAN DAM

TOTAL CAPACITY OF 5 MW



**UNDER OPERATION SINCE 2007**



### Power Station for Mobilization of Roudbar Lorestan Dam

Client: Iran Water & Power Resources Development Company

Consultant: Ghods niroo

Location: Ali Goudarz City, Lorestan Province, Iran

Type of Project: P.C



### Scope of Works

In 2005 a contract was awarded to OMRAB for Procurement, Installation & Construction of a Diesel Power Plant with a total capacity of 5 MW Including a Diesel Generator, Full automatic Control System, main Electrical Panel, Transformation System, 20kv Electrical Transmission line (20 km), water Pump Station, (610 m<sup>3</sup>/day), 25km water transmission Pipeline (poly Ethylene DN200 mm, PN=25), Surge Protection System. Main suppliers & Partners consist of:

Pumps: Pumpiran (Iran)

Electrical Panel: Cummins (UK)

Generator System: Cummins (UK)

Control System: Cummins (UK)

PLC: Cummins (UK)

HV: Jabon (Iran)

Transformer: Iran transfo (Iran)

# ENERGY PROJECTS

## DEMINERALIZATION UNIT OF TABRIZ CITY POWER PLANT

TOTAL CAPACITY OF 720 m<sup>3</sup>/d



**UNDER OPERATION SINCE 2005**



### Demineralization Unit of Tabriz City Power Plant

Client: Azarbayjan Electricity Regional Authority Company

Consultant: Mona

Location: Tabriz city, East Azarbayjan province, Iran

Type of Project: E.P.C



### Scope of Works

In 2003 a contract was awarded to OMRAB for Producing dematerialized water with a Conductivity of 2  $\mu$ .S. The treatment unit included cation and anion and mixed bed exchange column.

The suppliers & Partners consists of:

Ion exchange resin: Prolite (Italy)

Valves: G+F (Switzerland)

Pumps: Ebara (Japan)

PLC: Siemens (Germany)

Instrument: Endress+ Hauser (Germany)

# Infrastructure Portfolio



OMRAB Eng. Co.

# Abstract





# INFRASTRUCTURE PROJECTS

## BASSARA RCC DAM PROJECT

Roller-Compacted Concrete Dam



### RCC & Fill Dam With Concrete Diaphragm



#### Project Data

Client: Ministry of water resources- General Directorate for Engineering Design-KRG-Iraq  
Location: Kurdistan Region- Iraq  
Type of Contract: C  
OMRAB: Member of JV

#### Scope of Works

Diversion Tunnels, Cofferdams, RCC and earth fill Dam, Stilling Basin, Water Intake Tower and Hydropower House, Penstock, Bottom Outlet and Irrigation, Power House, Administration and Control Buildings, Access Roads, Catchment area: 574 km<sup>2</sup>, Annual inflow: 252 x 10<sup>6</sup> m<sup>3</sup>

Reservoir: Maximum Water Level: 716.5 m a.s.l., Normal Water Level: 715.0 m a.s.l., Low Water Level: 701 m a.s.l., Gross Storage Capacity: 59.7 x 10<sup>6</sup> m<sup>3</sup>, Useful Storage Capacity: 36.0 x 10<sup>6</sup> m<sup>3</sup>, Surface Area (at Max.W.L): 3.87 km<sup>2</sup>

Dam Type: Combination RCC and fill dam with concrete diaphragm, Catchment area: 600 km<sup>2</sup>, Length of the RCC dam: 198 m, Length of the filled dam: 87 m, Height: 67m, Dam RCC and CMC volume: 170,000 m<sup>3</sup> and 87,000 m<sup>3</sup>, Dam fills and backfills, volume: 160,000 m<sup>3</sup> and 98,000 m<sup>3</sup>, Duration of Construction: 1800 days

The Joint Venture started a Review of the Basic Design of Bassara Dam during the mobilization of the site. This review of Basic Design resulted in presence of some technical problems in the location of the Dam axis.

Based on JV suggestion, the client started studying for a new and proper location of the Dam axis as well as change in the type of Dam body, which resulted in an RCC Dam body to be constructed about 3 Km down the present axis

# INFRASTRUCTURE PROJECTS

## DOOSTI DAM TRANSMISSION PIPELINE PROJECT

Transmission Pipeline with 2000 mm diameter



### UNDER OPERATION SINCE 2006



#### Doosti Dam To Mashhad City Water Transmission Line

Client: Ministry of water resources- General Directorate for Engineering  
Design-KRG-Iraq  
Location: Kurdistan Region- Iraq  
Type of Contract: C  
OMRAB: Member of JV



#### Scope of Works

In July 2004 OMRAB was awarded a contract for the construction of the water transmission pipeline of Doosti dam to Mashhad city.

This project was accomplished in 2 years.

The scope of works include about 60 km of Water Transmission Pipeline (DN 2000), 150 unit Valve chamber, 3 Storage tanks with a Capacity of 15,000 m<sup>3</sup>, 1 storage tank with a capacity of 10,000 m<sup>3</sup> per day, 3 chlorination buildings, 3 pump stations, landscaping of about 6 acres and a tunnel with of length of 900m and 6.7 m Diameter.



# INFRASTRUCTURE PROJECTS

## HAJ OMRAN CUSTOMS BUILDING COMPLEX

12,000 m<sup>2</sup> COMMERCIAL-RESIDENTIAL BUILDING



### FIRST APPROACH TO IRAQ MARKET



#### Project Data

Client: Kurdistan Regional Government (KRG)-Ministry of Finance (MOF)  
Location: Iraq  
Type of Contract: Review of Design & Construction

#### Scope of Works

OMRAB In cooperation with its local partner has executed this project during one year after awarding. This project because of hard and critical situations such as snowy, mountain climate and geographical location was executed under special performance arrangements.  
The cope of works includes preparing a new design and construction of a 12,000 m<sup>2</sup> commercial-residential building: Civil works, supply and installation of mechanical and electrical equipment, sanitary and sewage treatment system.

# INFRASTRUCTURE PROJECTS

## RAWANDUZ NO.10 RCC DAM AND HYDROELECTRIC POWER PLANT

PREPARING OF FEASIBILITY STUDY AND DESIGN



### FIRST DESIGN EXPERIENCE IN IRAQ



#### Project Data

Client: Ministry of Agriculture & Water Resources General Directorate of Dams and Reservoir-Erbil Governorate  
Location: Kurdistan Region, Iraq  
Type of Contract: E  
OMRAB: Member of JV

#### Scope of Works

The proposed Rawanduz No.10 Dam is to be located on the course of the Rawanduz river. The valley in this area is narrow and the environment is mountainous with steep slopes and high differences in elevation between the top and the bottom of the valley.

The axis of the dam centerline is located about 3.5 km North-West of Rawanduz City and 5 km South- West of Soran city (both of them are aerial distances).

The Followings are the Technical Specifications of the dam body (RCC alternative):

Dam crest elevation 600m.a.s.l

Normal water level in reservoir 594m.a.s.l

Design flood elevation (1,000-year) 590m.a.s.l

Extreme flood elevation (10,000-year) 599.00m.a.s.l

U/S face slope 0.2H:1V

D/S face slope 0.7H/1V

Dam crest width 5m

The Dam base width in the largest section is about 68 m

Parapet wall height 1.2m above crest

Power Plant: The selected alternative is a construction of a 36 MW power plant with three 12 MW turbines.