



G R O U P

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# SOHAR POWER AND DESALINATION PROJECT





# PROJECT PROFILE

## Project

Sohar Power and Desalination Project

## Location

Sohar, Sultanate of Oman

## Client

Sohar Power Company SAOC

## Client's Representative

Sohar Global Contracting & Construction Company LLC

## Main Contractor

Doosan Heavy Industries & Construction Company Ltd

## Salient Features

- Gas Turbine Generator 3 Units (150 MW Capacity each - Siemens VG94.2)
- Air-Inlet system and Exhaust system 3 Units
- Associated Utility Facilities
- Steam Turbine Generator (240 MW Capacity - Alstom)
- HRSG 3 Units 923.61 tons/hour Steam Generation Capacity (Combined)
- Desalination 4 Units MSF 6250 m<sup>3</sup>/hour Capacity (Combined).

## Scope of Work

### Mechanical – Power Island

- Installation of Gas Turbine-Generator and associated accessories
- Installation of Air-Inlet System and Exhaust System
- Installation of Bypass Stack
- Installation of Diverter Damper
- Installation of HRSG's and its Auxiliaries, including Main Stack
- Installation of Fuel Gas System and Fuel Oil System
- Installation of Compressed Air, DM Water, Potable Water System
- Fabrication, Erection and Testing of FO, DM Water and Fire Water Tanks
- Installation of Steam Turbine and its auxiliaries
- Installation of Feed Water, Condensate System, Circulating Water, Waste Water System and Chemical Dosing System.

- Installation of Cranes, Hoists, EDG, N<sub>2</sub> Gas System & other miscellaneous Skids
- Chemical Cleaning, Hydro-testing of the HRSG's
- Assistance in Pre-commissioning and Commissioning to Contractor.

### Mechanical - Desalination Plant

- Assistance to installation of Evaporator
- Installation and joining of the Deaerator Section to Evaporator
- Installation of Vacuum, Ball Cleaning, Chemical Dosing, Brine Re-circulation, Brine Blow Down, Distillate Water and Condensate System
- Installation of LP, MP Steam Supply System, Sample Extraction, Service Air, Service Water and Cooling Water Re-cycle System
- Steel Structure, Platforms and Ladders
- Brine Heater and Distribution Header.
- Installation of Pipe Rack, Pipes and Valves
- Acid cleaning system, Re-mineralisation Plant etc.
- Water filling, Hydrotest and assistance in Pre-commissioning & Commissioning.

### Electrical and Instrumentation – Power Island and Desalination Plant

- Earthing, Cable Tray Fixing, Cable Laying, Termination and Continuity Checks
- Installation of Panels, Switchgear
- Erection of Transformers and other equipment
- Field Calibration of Instruments
- Installation of Field Instruments, Control Equipment etc.
- Control Cable Laying and Testing
- Loop Checks and assistance in Pre-commissioning.

### Salient Features of Mechanical, Electrical & Instrumentation Works

- 75,000 Inch-dia of Welding
- 1,488 Tons of Structure Steel Erection
- 9,605 Tons of Equipment Erection
- 2,466 Tons of Piping and Fitting Erection
- 5.5 Km. of 220 kV Power Cable (Single Core)
- 433 Km. of Power and Control Cables
- 17 Km. of Cable Tray Assembly
- 362 Km. of Instrument Cables.

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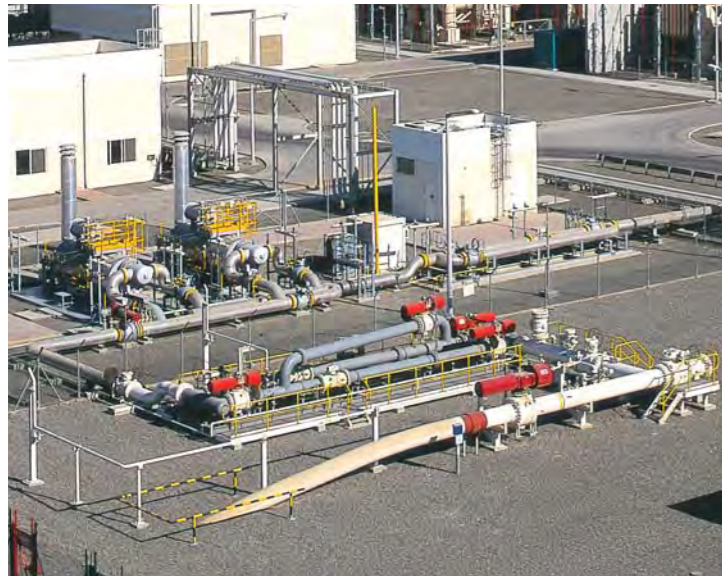


Project Management, Supervision and Mechanical, Electrical & Instrumentation Installation of the IWPP – Sohar.



Unit around the Condenser of the Steam Turbine





Inlet Gas Manifold and Filtration Unit



Air Intake Filter Housing of a Unit



IWPP Sohar – Desal Unit in the foreground



View from Desal Plant



DM Water Plant



Closer view of a Desal Unit



View from the Tank Farm



Potabilisation Unit



Piping around the Desal Unit



The Power and Steam Generation Units





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Electro-Mechanical Services

District Cooling

Facilities Management & Maintenance

Diesel Power Generation

Elevators & Escalators

Water & Waste Water Projects

Electrical Products

Mechanical Products

Chemical & Industrial Products

### BAHWAN ENGINEERING GROUP

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