



Reducing environmental impact

The Abu Dhabi Company for Onshore Oil Operations (ADCO) had contracted with Galfar for its "Closed Drains System Modifications" at its Bab Plant.

The existing drains system utilised the drain headers with burn pits to burn the drained oil whenever the flow lines were depressurised. The project sought to improve the operability and safety of the existing facilities and be more environmentally friendly by reducing the crude that was currently burnt off.

The modification at RDS 1/2/3/4/5 comprised a drain vessel in a concrete pit with duty and stand-by pumps and piping. The oil would be collected then transported for processing into useful products.

Additionally it would contain a high proportion of sand and so the ten pumps needed for this process had to be capable of dealing with the aggressive duty in the desert environment.

Short lead times, high specification

The chosen supplier had to be ADCO approved (which is not easy to achieve) and the pumps delivered on short lead times. Amarith proposed using its API 610 VS4 Vertical Sump Pump manufactured in super duplex steel with standard intermediate bearing lubrication to deal with the sand in the pumped fluid.

The pump gland was a standard double lip seal arrangement. The lead time from Amarith for the ten pumps was just 30 weeks, whereas other suppliers were quoting 48 weeks.

Reducing groundwork costs

ADCO had experience of the API 610 VS4 pumps in a similar project and they were considered particularly suited for

installation in drains tanks.

The combination of an in-tank VS4 pump pumping onto a OH6 high speed high head pump was preferable to a multistage in-tank pump as that would require a larger tank and so increase civil costs as the tank was to be buried underground. Additionally the VS4 pump would be much easier to remove from the tank, reducing maintenance costs.

Amarinth's experience on a similar project with GASCO and Fluor gave ADCO considerable confidence regarding the seal issues for this prestigious project. Amarith were willing to provide engineering support through the design and purchasing process, which was considered invaluable.

Close cooperation

This was Galfar's first mechanical project (as opposed to civil) and an opportunity to work with ADCO in Abu Dhabi on a prominent project. Close cooperation between Galfar and Amarith was therefore vital as ADCO are very demanding about the quality and timeliness of documentation.

Amarinth were able to supply valuable information and documentation early in the project, particularly with reference to the crucial mechanical seal and bearing lubrication data.

The contract was also executed during the worst financial crisis in over 100 years. Amarith worked closely with Galfar in dealing with the financial instruments on this IM USD contract to provide all parties with the necessary financial security.

Future projects

The pumps were commissioned and are operating reliably to the ADCO specification. Working with Amarith on this project has successfully established Galfar as a new mechanical engineering contractor to ADCO and further pipeline modification projects are now under consideration.



Galfar Engineering & Contracting SOAG

Galfar Engineering & Contracting SAOG is one of the largest, multi-disciplined engineering, contracting and construction company in the Sultanate of Oman. Established in 1972, Galfar is now one of the largest construction companies in the Middle East with a turnover of over US\$1 billion.

In Oman, Galfar employs over 25,000 employees. It has operations and presence in all corners of the Sultanate providing a one stop solution to all types of construction requirements in the Sultanate.

Galfar undertakes projects as wide ranging as oil and gas pipelines and production facilities, commercial and residential complexes, educational, health and utility construction, industrial structures, bridges, roads, dams, and power transmission lines.



"Amarinth's previous experience with API 610 VS4 sump pumps really helped Galfar in selecting the best solution for this project. The attention to detail and the support given by Amarith during all phases of this prestigious project ensured that everything progressed smoothly."

Santhosh Hariharan
Project Manager