

Elster-Instromet successfully enters the upstream Saudi market

Two integrated metering solutions – systems installed and future projects secured

Elster-Instromet Essen (Belgium) is known above all for the production of ultrasonic meters and metering and regulation stations. Over the years, the entity has specialised in medium and high pressure systems and has acquired a substantial market share in the most important gas exporting/importing regions. Essen is well equipped and skilled in engineering and manufacturing activities serving the upstream market segment. With our products, we bring added value to the original project by reducing measurement uncertainty and ensuring high performance reliability.

For many years, the Middle East has been one of our most important areas for station building, but the Saudi Arabian market was approached differently. We did deliver into the country, but through other system integrators or by supplying metering components. Our approach changed in 2005 as our sales force made additional efforts to promote our company as a system integrator.

Supply to the Saudi market differs from most of our other markets and therefore requires specific attention. For instance, the construction facility has to be certified by ARAMCO (Saudi national standards). Our Essen workshop is at present qualified for the construction of stations and ultrasonic meters. The engineering team too is seriously impacted, as the ARAMCO specifications diverge from most of the high pressure standards with which we are familiar.

In 2005, SABIC entrusted us with the Petrokemya project: a 24" metering skid with flow control section, station control panel with supervisory system and analyzer shelter. The station receives ethane gas at a pressure range of between 35 and 11 bar and is designed to supply an average



Outlet section, ultrasonic meters and flow control valve outlet section during factory inspection

of 220,000 Nm³/h. It goes without saying that, for these large gas flows, the smallest measurement error has a significant financial impact for the gas seller or supplier.

A large system with its specific construction issues, it also has a "global" touch as the control valves were manufactured in the USA (delivery time over 14 months) and the nine ball valves (total weight 24.5

ton) were supplied from India. The two ultrasonic metering lines were constructed in Essen and calibrated at TCC in Canada. Finally, the whole system was assembled and factory inspected in Essen, Belgium. In order not to jeopardise all other projects, we decided to assemble the system at a nearby location. Though not shown by the picture, the overall system is 30 metres long and 11 metres wide.



Conditioned analyzer shelter



A typical industrial station including emergency shut down, filtration, regulation and metering section



High pressure station installed and prepared for commissioning

The second project implemented was a package to supply a complete industrial estate. It comprised a high pressure ultrasonic metering system with flow control section, emergency shut down functionality and station control panel.

The station is completely skid mounted and was proven fully functional at the factory acceptance inspection. The unit was designed in such a way that it could be

split into three sections that fit inside containers to enable easy transportation. Commissioning engineers supervised installation work and verified good operation prior to starting gas supply.

Additionally, 35 medium pressure industrial stations were constructed, supplying gas to the different factories. These "downstream" stations have either turbine or rotary meters and EK volume correctors

powered through solar panels. Sonic nozzles ensure that the meter does not overspeed and operation is limited to a predefined maximum flow rate.

All stations are connected through a fibre optical communication network and monitored at one central location. Elster-Instromet also supplied the network monitoring system allowing the client to remotely control all stations and generate invoicing reports, having a real time overview of the gas network performance.

The efforts made by us and our local agent, Gas Arabian Services, have meanwhile been rewarded once again with two further orders for large metering stations.

Elster-Instromet has successfully entered the Saudi Arabian market with its integrated metering solutions, and made its name as a total solutions provider. And we intend to stay there for a long time.

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