

THROUGHOUT THE LIFECYCLE

SACHIN TERE, BUSINESS DEVELOPMENT MANAGER, FLOW SOLUTIONS - EMERSON PROCESS MANAGEMENT

Pipeline management often poses a challenge to the industry's stakeholders and Emerson Process Management is helping them deal with issues such as cost overruns, besides assisting companies from the planning and design stages to achieving optimisation

How does your company help clients in pipeline management?

Emerson helps its clients in every stage of the pipeline lifecycle. We support them from the earliest stages of planning and design by providing tools and support to design, simulate, and optimise pipelines and pipeline networks. These include handling both simple and complex topographies and conducting upset/surge analysis as well as predictive analysis to optimise throughput. Moreover, we provide our customers with tools to handle pipeline scheduling and nominations and visualise and control the daily workflow that maintains flow assurance.

Leakages, theft and intrusions in the pipelines are the top threats that our clients are facing today. And we work with them in addressing these challenges by implementing a wide array of automation solutions, from robust field devices that measure temperature, pressure, flow and other variables, to safety devices that detect leakages, to redundant and secure intelligent control systems that allow for remote monitoring, detect false alarms and continuous surveillance.

Given the market volatility and rising expenses, pipeline owners are pressured to optimise the performance of their facilities and operational costs. Emerson helps them reduce power consumption and energy costs in pipelines by selecting the right



↑ Sachin Tere, business development manager, Flow Solutions - Emerson Process Management

combination of pumps and optimising the use of drag reducing agents (DRA). We also support the training of our clients' operations personnel and equip them with tools and skills necessary to be ready for actions in various 'what-if' situations.

In other words, our pipeline solutions respond to the challenges of all stakeholders involved in pipeline operations, from point-application users to operations managers and to management executives.

Could you talk about a specific product/service by your company that helps in pipeline maintenance?

Pipeline integrity is one of the key areas where we support both operators and pipeline maintenance contractors. We are seeing a lot of customers adopting our Roxar non-intrusive corrosion sensors for corrosion monitoring.

Corrosion is often at its worst at the bottom section of the pipeline, because this is the location where water is most likely to be present. When you use traditional corrosion probes, you are required to dig big pits under the pipeline so you can have space for access fittings and space for operating retrieval tools. This is costly and time-consuming.

Now, with non-intrusive monitoring, the sensors are installed directly on the pipe, so operators get direct measurements at the pipewall. These give more reliable results, as well as reduce the safety risks of personnel, especially in the Middle East where there are many sour production environments.

In cases where intrusive corrosion detection sensors are installed, these sensors need to be removed online under pressure for maintenance. Emerson has a unique hydraulic retriever tool that enables technicians to remotely remove and re-install the sensors — a great advantage in ensuring good HSSE performance.

Which clients do you work with in the pipeline maintenance sector and what is the scope of work with them?



Emerson has significant involvement in the major pipeline network connecting the refineries and terminals of Abu Dhabi, and the pipeline backbone of Malaysia's gas

We can say that we have significant involvement in the major pipeline network connecting the refineries and terminals of the Emirate of Abu Dhabi, and the pipeline backbone of Malaysia's gas supply infrastructure. We also have an existing and expanding installed base on pipelines in Africa, Saudi Arabia, and other GCC countries.

How long has your company been providing pipeline management services? How do you intend to grow your business in this sector?

Emerson celebrated its 125th anniversary last year, and our automation technologies and services, primarily serving the oil and gas sector, have always involved pipelines and pipeline networks. We provide advanced field devices to measure product movement and monitor pipeline assets, control and safety systems to manage operations, and final control devices including control valves, isolation valves, and regulators. These come with full lifecycle support, from consultancy to project management to services and training.

With our Energy Solutions International

(ESI) business, we strengthen the above solutions with an integrated suite of operational management applications for pipeline modelling, leak detection and scheduling as well as other commercial applications for transactional accounting and inventory management.

We intend to grow our business much faster by providing unique end-to-end solutions to pipeline operators. We see growing opportunities year over year due to rapid urbanisation, which drives energy consumption in the form of gas and refined products as well as increased logistics to ensure energy security and supply.

We believe that the current climate of cutting down on CAPEX projects will eventually go away as demand and supply equalise. Africa is one bright spot where we are focussing on new projects as we maintain our steady growth in the GCC.

How advanced do you think the Middle East is in terms of pipeline management? Is there scope for improvement?

The Middle East has always been open to embracing new technologies and

practices, and we are seeing a lot of interest in applications that improve process monitoring, reliability, HSSE, and energy optimisation.

For example, many of our clients are replacing outdated technologies like traditional valve positioners with smart positioners, which are capable of partial stroke test (PST) in ESD (Emergency Shutdown) valves. PST allows operators to test valve performance without disrupting the process and causing slow-downs. In the area of corrosion monitoring, there is an increasing demand to replace mechanical corrosion sensors with hydraulic fitting systems to increase personnel safety during retrieval operations.

It's important to note that it's not just about implementing the latest or the most advanced technologies. We are working with customers on changing the way they go about their businesses; like fine tuning their project execution methods to save time and capital expenditure, introducing the industry's best practices and updates on standards, and improving their organisational workflows to foster collaboration for better decision-making.