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WHOLE LIFE CYCLE ASSET MANAGEMENT IN FLOW CONTROL

Reliable and effective flow control equipment plays an essential part in the control of many chemical, pharmaceutical, industrial and other wider manufacturing processes. Wherever management of a liquid, gas or powder is required, flow control equipment such as actuators are a necessity.

Installation and commissioning of Rotork IQ actuators and spur gearboxes,
The Netherlands



Intelligent flow and process automation solutions maximise operational reliability and efficiency. They also offer a high level of safety in often challenging environments. Intelligently designed and maintained flow control systems will not only aid efficiency and increased profit but will also allow for compliance with environmental standards and ensure safety. Whether you are a producer of chemicals; a fertiliser manufacturer; a mining company; part of the food and beverage industry; a wastewater treatment plant or part of the wider manufacturing, chemical or process industries, flow control is likely to play an essential role in your business.

Flow control products operate daily and plant managers rely on actuators to function day in and day out. One of the most serious problems that can occur is the failure of the key assets that maintains the smooth running of a site. If an asset fails, becomes obsolete or is not running properly, the implications can be severe. Maintenance of flow control assets is essential for a site to carry on working safely and efficiently. The implications can include poor performance and quality with reduced output yields, monetary loss and reputational damage.

Dave Godfrey, Product Manager – Service & Aftermarkets at Rotork, said: *“The ultimate challenge that will arise from poor maintenance and flow control asset upkeep is unintended downtime caused by product breakdown. Losing the operation of an asset will cause financial burden and other downtime impacts like fines from regulatory bodies and potential damage to reputation.”*

How should flow control assets be managed and maintained?

Many manufacturers have a suite of diverse products that are still operating in the field. This is desirable in many ways, but it means that a site can have different units at different stages of a product life cycle working alongside each other. A large installed base of aging assets is an ongoing challenge for plant operators as newer models are released into the market, and the management of new and older products continues. The focus must be on managing the whole life cycle of all assets; maximising efficiency and reducing downtime.

Real life challenges and gaining customer insight

An effective and successful asset maintenance plan must support and solve real world challenges. Understanding actual issues customers face daily is key to providing a service solution that addresses the distinct problems they may have. This

begins with asking questions about the details of a plant's flow control operations, with an understanding that all customers are different and have unique challenges. Important questions at this scoping stage may include investigating what an operator currently does to choose assets, what maintenance measures are currently in place, how asset replacement is managed and what is in place to reduce downtime. Gaining an accurate vision of how flow control assets at a plant or site currently operate is key for future systems of whole life cycle management, by targeting the specific pain points that need to be addressed.

A holistic view of the whole life cycle of assets

Once needs have been accurately identified, a maintenance management plan can be devised and applied to the services available from a service provider. An effective asset management maintenance strategy, which looks

at the entire life cycle of an asset, is a key consideration for the long-term reliability and viability of the assets on your site. To be truly effective, a service plan for flow control assets needs to have a holistic view of an asset's life cycle, (including the management of potential obsolescence) and move towards whole life cycle and asset management. A maintenance strategy should not just consider instances of one piece of equipment failing and requiring a fix immediately, but plan for long term maintenance and support. Customers who work within in a full life cycle asset management programme will see their investment delivering improved performance, reduction of costly downtime and an increase in asset reliability. Productivity can be maximised, and operational risk reduced.

Dave Godfrey continues: "A well understood life cycle, managed correctly, will go a long way to help achieve key output goals like

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Gaining insight into customer challenges