TRILLIUM
FLOW TECHNOLOGIES™

DIGITAL SOLUTIONS FOR CONTROL VALVES

TRILLIUMFLOW.COM

Trillium's new technology digitally transforms existing systems to give total care. It provides real-time monitoring enabling planned preventive maintenance, minimising down-time and improving productivity of the plant.

Our system for control valves with embedded sensing will predict performance degradation using the SMART algorithm. Repair or replacement can be planned in a controlled manner avoiding ad-hoc maintenance work and emergency call out of valve experts.

With sensors on and around the asset, our system performs real-time monitoring to provide a thorough insight into valve internals.

UNIQUE BENEFITS

EROSION MAPPING OF VALVE INTERNALS

Erosion of valve components is an inevitable problem; our system can track erosion of trim parts and notify you when it is beyond threshold. With this ability, you do not need to review pages of diagnostics to review the status of the control valve failure – Our software will advise on the type of failure so you can meticulously plan for part replacement and order spares for Just-in-time delivery. This way deployment of the resources can be done effectively and efficiently.

INFORMATION SERVICES

Valve expertise and resource at plants is an "extra" cost, instead, the assets can be monitored by an OEM. Our system will have direct contact with Trillium services and when a problem occurs rapid response instructions on how to fix the detected failure can be delivered imminently.

REMOTE REAL-TIME MONITORING OF 100'S OF ASSETS

One gateway infrastructure allows us to scale up remote monitoring capability so that multiple assets across the globe can be connected to one location. The system can be configured as a standalone cloud station or can easily be integrated into existing infrastructure.

IMPROVE PRODUCTIVITY & REDUCING COST

Improved system performance equals increased margins and Improved uptime equals increased revenue.

Being able to make informed decisions on equipment health and the associated maintenance will not only benefit from a cost perspective but also optimise planned downtime.

Working capital improvements through optimised spare holding based on intelligent maintenance regimes.

Increase revenues through better manpower and service efficiency underpinned by intelligent predicated maintenance regimes.

WORKING PRINCIPLE

DATA COLLECTION

Process data will be collected either from Trillium-installed sensors or from existing infrastructure if the relevant data is already available. Upstream and downstream pipework of the valve installed with a wireless pressure transducer to obtain live pressure reading which then combined with output from flow meter will be processed through our predictive algorithm to map the performance of the valve.

DASHBOARD

The interactive dashboard will provide an overview of equipment performance along with the flexibility to deep dive into the area of concern, also clear visuals and alarms provide enough information to make critical decisions on underperforming assets

DATA ANALYSIS

Big data collected from sensors gets processed through an intelligent algorithm that predicts performance degradation and indicates an alarm. Trillium team by your side to perform a thorough analysis so that the best solution can be implemented to resolve the problem.

CONNECTIVITY

One gateway infrastructure ensures secure data transfer through a cloud environment protecting equipment performance data during local as well as remote access. Interface with third-party hardware can be created locally and, in the cloud, to gather process information to support the algorithm.

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