

# IDENTIFYING AND AVERTING FUTURE CATASTROPHIC VALVE FAILURES

How WSG Provalve's new technology, innovative processes, and a philosophy of service integration can prevent valve failures

**> HIGH** quality industrial valve components are becoming an increasingly important driver in the push for maximum operational efficiency. Exposure to extreme conditions, both externally and internally, can result in catastrophic failures due to corrosion, erosion and cavitation, and remain a root cause of depleting valve performance and failures.

For 13 years Provalve has provided specialist valve solutions within the petrochemical, refinery, oil and gas, power and general process industries. In 2017 Provalve became WSG Provalve, and as part of the Well Services Group is able to provide full lifecycle support to clients' assets, and an integrated and managed service with the expertise to offer a true 'blind-to-blind' valve servicing solution.

WSG Provalve also work with the major original equipment manufacturers (OEMs) for valves, components, actuators and instrumentation to offer original spare parts where necessary.

Operating a multidiscipline valve repair, test, and procurement service from their UK headquarters in Normanton, WSG Provalve have built a reputation based on quality of service, overcoming customer challenges and exceeding expectations to assist their clients hit operational targets.

The 3,250 m<sup>2</sup> purpose-built workshop includes computer numerical control (CNC) and manual machines, paint booths and three ball-grinding machines, for balls of up to 46" (117 cm). Hydrostatic, nitrogen, submerged and cryogenic, factory acceptance testing (FAT), site acceptance testing (SAT) and helium tracing testing can be carried out to API standards.

WSG Provalve are in a unique position to offer most services internally, reducing reliance on third party contractors and ensuring greater visibility, reliability, quality and time efficiency. This dedicated team enables the delivery of expert repairs for all types of valve products and their services are aimed at servicing high

integrity pipeline valves, in particular ball valves, large bore isolation valves, control valves and safety relief.

Gareth Turner, WSG managing director, is proud of the investment in technology and people that has reinforced WSG Provalve's place in the valve repair and testing market in the UK both on and offshore.

'The philosophy of WSG Provalve from the top down is to have the best equipment in the industry, provide the best possible service to our customers and employ the best people,' he says.

He adds that digitalisation through the introduction of WSG Asset Integrity Management (AIM) software has completely changed the shape of the business.

'Implementation of AIM enables us to offer clients the unique ability to view, log, and track all relevant data attributed to any activity or operation of the valve repair life cycle.'

AIM already offers WSG clients full lifecycle record keeping across existing WSG service lines on client assets and equipment. AIM enables WSG and their customers access to real time data which aids transparency and communication. WSG's AIM software has been developed in-house by a specialist team of industry experts, enabling total control over functionality and customisation.

Each valve, actuator, gearbox or control system is logged into AIM and given a unique ID number. WSG Provalve apply a unique identity tag containing a QR code which can be scanned by valve technicians to immediately display specifications, history, status and inspection frequency. The ID can easily be renewed or replaced if it becomes detached or damaged. QR coding speeds up reference times and eliminates input errors.

The equipment used is ATEX and IECEx Zone 1 certified, IP65 dust- and watertight, and resistant to drops of up to 1.8 m. Suitable for temperatures ranging from -10 to +50°C, the AIM tablet



is specially selected for all WSG working environments. Each WSG Provalve technician now has access to their own device for paperless workshop operation.

WSG Provalve has already transferred existing equipment history to the new AIM database and clients will start to see a change in the way that new information and reporting is delivered to them.

The ambition is to get one step ahead of the curve when it comes to outages. Inevitably, many items are required in a limited timeframe and WSG Provalve can survey, store details and log each valve in situ, giving the added benefit of capturing several orientation shots of the equipment for future reference.

When a valve arrives at a WSG Provalve workshop, it is scanned and photographed for record keeping, work can commence free of bottlenecks and duplication of paperwork tasks. All documentation such as test certificates, condition and service reports are available to clients in just a few clicks. Service intervals, reliability and status reports are now state-of-the-art and will continue to improve based on communication and feedback from clients.

WSG Provalve are proud of their record in quality and innovation and continue to work to their goal of being not only the most reliable valve repair specialists, but also the most forward-thinking.

#### For more information:

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