News Release...

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**DTL replace failing dampers at Sulphuric Acid Recovery Plant (SAR)**

Damper Technology Ltd (DTL) design and manufacture a range of dampers that are specially engineered for applications involving process gases containing SO₂/SO₃. This is a harsh environment requiring a level of industry knowledge and product expertise which DTL have been researching and developing for many years. DTL have installed dampers of this kind in acid plants in the UK, India, Canada, Jordan, Norway and Kazakhstan.

DTL were approached by a customer who identified a failure of an existing competitor damper in a highly viscous deposition in a Sulphuric Acid Recovery Plant (SAR) in the North East of England. The existing damper was sitting in a vertical duct where the blade was sticking closed during shutdown periods, which had led to the blade twisting over time.

The environment, which has SO₂/SO₃ rich gas at very high pressures and elevated temperature, meant that replacement butterfly dampers for very high-pressure acid gas service were specified requiring ZERO LEAKAGE to atmosphere. The system also needed to be CE marked under the PED directive.

DTL employed a fully machined, pressurised blade shaft gland seal with triple protection to ensure zero leakage to atmosphere (graphite packing, labyrinth rings, inert gas purged lantern ring and grease purge back-up ring). The damper frame was designed to be welded into the duct, eliminating possible leak paths through flanged connections. To ensure the blade stiffness a high FOS on actuator torque, shaft and bearing size, was required and digital blade positioning was used for accurate flow control.

This technology will help to protect the environment and the safety of plant personnel, in addition to the integrity of the process control, and benefit of far greater plant availability.

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