

Lower cost, more accurate and reliable Seamless cut-in of back-up supply sources

The unique design and performance of WITT'S dome-loaded pressure regulators enable seamless cut-in of back-up supplies, at a fraction of the cost and complexity of the previous solutions. Performance and reliability are also improved.

Safety-critical applications

Safety-critical applications requiring bulk gases also require back-up supplies, to ensure continuity of supply, and it's essential that these back-up supplies cut-in whenever the primary supply is down. This is no difference with pressure swing adsorption (PSA) and membranes as primary supplies.

In industrial applications such as purge gases and blanket-gases on chemical plants, the primary supply could be a nitrogen generator (PAS or membrane). If the generator fails or is in maintenance, the back-up supply (often a cryogenic tank and vapouriser) has to cut-in seamlessly.

Equally in industrial applications requiring supplementary supplies to top-up a primary supply, a mechanism to ensure the supplementary source cuts-in at the right moment is needed.

In medical oxygen applications in large hospitals with intensive care wards, bulk oxygen supply is used, and back-up systems are required. The primary source may be an oxygen PSA, and the back-up a cryogenic tank or cylinder bank. In each case, the back-up supply has to be ready to cut-in seamlessly.

Current cut-in solutions are expensive, and reliability is limited

The solutions used up until now are based on pressure transmitters and pressure control valves. These solutions are expensive in terms of equipment and engineering hours to design. What makes them even more complex is that they require electricity supply and pneumatics, and the accompanying maintenance burden, and this complexity means their reliability is limited.

WITT's solution, proven by a global gas supplier

WITT's Dome-loaded pressure regulators have now been proven by a global gas supplier to maintain their outlet set pressure so accurately that they offer a lower cost, more accurate and more reliable solution for these safety-critical applications.

Set to an outlet pressure a fraction below the primary source's pressure, the Dome will supply the necessary flow as soon as the primary source pressure drops. A WITT ultra-low opening pressure Non-Return Valve immediately downstream of the Dome protects it against any surges when the primary source kicks back in.



Not only are the capital and operating costs a fraction of the previous solution but WITT supplies their solution ready-to-use, pressure tested and CE-Marked. No pneumatics nor power supply are required. And commissioning hours on site are minimal.

Andrew Smart, Head of Sales, Gas Safety Equipment at WITT adds:

"WITT can also design and assemble skid-mounted systems featuring redundant legs, Isolation Valves, Safety Relief Valves and any other features prescribed by the customer. And these systems are supplied CE-Marked complete with dossier and individual TÜV assessment & test certificate".