

Operator eliminates level controller leaks and reduces annual compressor maintenance costs by \$453k



CHALLENGE

An independent operator in the Midland Basin struggled with significant air compressor downtime resulting from air leaks in competitor's level control systems on 3-phase separator vessels. Audible to maintenance technicians during routine compressor maintenance visits, these leaks prompted the operator to investigate further. Using a camera to detect air leaks and emissions footprints, the operator identified 14 out of 58 level controllers in the initial field as sources of compressed air leaks, occurring on the unit bodies, pilots, gauges, and fittings.

SOLUTION

To address the pervasive air leaks, the operator opted to replace all 58 existing level controllers with Norriseal-Wellmark's 2" NPT Series 1001A Level Controllers. The unique design of the 1001A bodies, separate from the enclosure, and the use of EPA-certified Norriseal pilots and manifold design resulted in the immediate elimination of leaks upon installation. Encouraged by the positive outcomes, the operator extended this solution, replacing the competitor level controllers across all of their locations with 1001A controllers. Each location featured two air compressors configured in a lead and lag setup, switching between compressors every 12 hours.

20%

maintenance increase in
air compressor run time

\$453k

annual maintenance savings on
air compressors

>9 mo.

return on investment

RESULT

Following the installation of the new 1001A liquid level controllers, the operator experienced a remarkable 20% maintenance increase in air compressor run time. The customer maintenance team calculated that 1 CFM equated to \$5 per day or \$150 per month in maintenance costs (inclusive of power, labor, and parts). Across 126 lead and lag configuration compressors, the operator achieved monthly maintenance savings of \$38k, totaling \$453k annually. This transformative solution yielded a > 9-month return on investment, showcasing the substantial impact of strategic equipment upgrades on operational efficiency and cost-effectiveness.



Note: Savings include: $(\$5 / \text{CFM} * 30 \text{ Days} * 12 \text{ Months} * 63 \text{ Compressors} * 8 \text{ CFM} / 2 \text{ compressors})$

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