

Operator Reduces Gas Facility Downtime for Pump Maintenance by 95% and More Than Doubles Throughput

REDA HPS pump with variable speed drive provides flexibility to accommodate large inlet fluctuations in natural gas liquids (NGL)

A midstream operator replaced a high-maintenance surface pump with a REDA HPS* horizontal multistage surface pumping system, improving gas processing facility uptime and throughput while managing NGL supply fluctuations.

Accommodate changes in throughput and reduce downtime

After acquiring a gas processing facility in Texas, an operator wanted to increase NGL throughput from 4,500 bbl/d to 10,000 bbl/d because of higher production from the Eagle Ford Shale. Other priorities were decreasing facility downtime resulting from frequent pump maintenance and accommodating rapid changes in supply.

Because the facility was originally designed using plunger pumps (a type of positive displacement pump), it was unable to handle wide swings in throughput. In addition, there were environmental concerns related to leakage from plunger pumps, and maintaining or repairing the mechanically complex pumps resulted in 3–5 hours of downtime each week, leading to significant lost or deferred revenue.

Deploy REDA HPS pump with a variable speed drive

Schlumberger recommended a REDA HPS pump optimized with a variable speed drive (VSD). With the ability to handle 12,000 bbl/d at 1,200-psi discharge pressure, the multistage centrifugal pump was well suited for the application. The VSD enables accommodating rapid changes in throughput with ease.

Increase capacity and flexibility while reducing costs

The new pump was built to design and shipped in 12 weeks, a rapid response given the high demand for equipment in the Eagle Ford. Average pump maintenance time dropped by 95% to just 8–16 hours per year. In addition to increasing throughput, the operator saved USD 60,000 annually on parts and labor.

Schlumberger also configured the surface equipment to enable efficient addition of a second pump to accommodate future increases in pumping capacity without significant changes to surface infrastructure.



The operator cut facility downtime by 95%, more than doubled throughput, and accommodated rapid feed variations by replacing a high-maintenance positive displacement pump with a REDA HPS pump.

“The REDA HPS systems are so reliable and low cost to maintain every time. It’s just a simple pump that always works.”

Engineer, Technical Services