VALVTECHNOLOGIES

With a complete range of high-performance valves, ValvTechnologies is a leading manufacturer of zero-leakage, custom-engineered isolation valve solutions. Founded in 1987, ValvTechnologies has established an excellent reputation for quality and has maintained a culture of innovation by continuously expanding its production and technology capabilities in the severe service market.

For many years, a major refinery in Kazakhstan had standardised on a rising stem ball valve for their molecular sieve applications. Their molecular sieve dehydration units were being utilised in the field to remove H_2O from the produced gas. The field has very high concentrations of wet H_2S (17 – 20%) which is considered acid gas as it is very corrosive (sulfuric acid) as well as lethal in concentrations as low as 500 ppm. The H_2S must be removed from the gas before further processing can continue such as removal of the sulfur, CO_2 and mercury. Valves leading into and out of molecular sieve drums cycle frequently and experience extremely severe conditions, such as:

- High-temperature thermal cycles: 140°F – 518°F, four times per day.
- High-cycling up to four times per day (severe thermal expansion).
- High H_2S sour gas due to the wet 20%.
- Zeolites residuals: abrasive service.

The customer's molecular sieve valves were lasting between one and 90 days' service before each would leak to the atmosphere, causing an environmental hazard, endangering the safety of personnel and ultimately shutting down the production unit. The customer's lost production was estimated to cost them between US$15 – 25 million/d.

After significant product evaluation, the plant selected ValvTechnologies to replace the failing valves with zero-leakage V Series valves. The customer has now standardised ValvTechnologies' valves in all of its molecular sieve units and extended their partnership for future project's needs.