

ValvTechnologies' Success Story

THE CUSTOMER:

This plant is one of the world's largest enterprises that explores and develops super giant oilfields in Kazakhstan. World-class safety standards, high-environmental performance and reliability of routine operations are the main factors that contribute to its success and long-term partnership with the Republic of Kazakhstan.



Location:	Kazakhstan
Plant type:	Oil Field
Industry:	Upstream O&G
Application:	Molecular sieve dehydration units
Product:	V1-4

Background: The molecular sieve dehydration units are being utilized in the the field to remove H₂O from the produced gas. The field has very high concentrations of wet H₂S - 17-20% - which is considered acid gas as it is very corrosive (sulfuric acid) as well as lethal in concentrations as low as 500ppm. The H₂O must be removed from the gas before further processing can continue such as removal of the sulfur, CO₂ and mercury. Valves leading into and out of molecular sieve drums cycle frequently and experience extremely high thermal cycling over a very short period.

Challenge: Overall conditions::

- High H₂S sour gas service (near 20% H₂S)
- Zeolites residuals (abrasive service)
- High-temperature thermal cycles - 140°F - 518°F, 4x per day
- Very quick cycling 4x per day - two-minute cycle time (extreme thermal expansion)

This customer's mole sieve valves were lasting between one to 90 days service before they would leak to atmosphere (H₂S) and shut down the mole sieve production unit. The customer's lost production was estimated to cost them \$15-25MM per day.

Solution: The customer switched to ValvTechnologies' V1-4, solid Inconel 825 and the valves lasted for two years vs. the competitor's 1-90 days and saved them millions of dollars of lost production. The customer has now standardized on ValvTechnologies' valves in all their mole sieve units. A second order was placed for 74 V Series valves, sizes 12" and 16" in solid Inconel.

Benefits: The customer will save millions of dollars by switching to our valves and will no longer have to deal with the failing, low-quality, high-maintenance of the previously installed products.

ValvTechnologies has once again proven the superior performance of V Series valves in the most severe industry applications.

