

Conventional Gas Lift Valves

Economical options for land wells

APPLICATIONS

- Tubing or annulus flow in shallow, low-productivity land wells
- Continuous- and intermittent-flow gas lift production
- Single or dual string installations

BENEFITS

- Reduces capex in wells with predictable production and reservoir characteristics
- Maximizes run life and uniformity of production at designed production conditions

FEATURES

- Field-proven design and operation
- Optional robust reverse flow check valve to prevent production fluid backflow
- Wide range of valve options to suit different well types and operational characteristics
- Floating seats to improve sealing capabilities and facilitate redress
- Corrosion-resistant premium material options to suit diverse applications
- Robust bellows construction, hermetically sealed for reliable performance
- Bellows fluid dampening to prevent vibration and destructive chatter during operation
- Bellows fluid lock system to prevent bellows element from overpressurizing

Conventional gas lift valves are attached to the tubing, making them an economical option for shallow land wells, wells with small tubulars, and wells in which reservoir and production characteristics are predictable.

Conventional gas lift equipment includes injection-pressure-operated (IPO) and production-pressure-operated (PPO) gas lift valves and pilot-operated and single-point-injection gas lift orifice valves. Schlumberger also provides conventional waterflood flow regulator valves and mandrels for single- or dual-string installations.

Conventional gas lift valves are manufactured in a variety of port sizes to suit a wide range of gas injection volumes and flow rates. Most of the gas lift valves feature floating valve seats, which facilitate seat changeouts to make valve repairs easier and more economical and improve sealing reliability compared with conventional valve seats.

Material options

Conventional gas lift valves are manufactured from stainless steel or MONEL® and constructed for low-cost redress and repair. Tungsten carbide is used for valve trim, with the corresponding seats either hard (tungsten carbide) or soft (MONEL).

Nitrogen-charged gas lift valve bellows

Most unloading gas lift valves are charged with nitrogen. A nitrogen-charged bellows assembly holds the valves closed; injection gas pressure and production pressure entering the valves provides the force necessary to open them. Bellows pressure integrity is essential for reliable long-term performance and is best achieved through design and manufacture of a hermetically sealed unit with no elastomeric joints. A unique silicone fluid dampening system prevents destructive vibration and chatter during operation and forms a hydraulic lock to prevent the bellows element from excessive pressurizing.

Commitment to excellence and innovation

For more than 70 years, Schlumberger has used its experience, knowledge, and commitment to innovation, research, and quality performance to offer high-quality, technologically advanced products. Schlumberger continues that commitment with conventional gas lift valves that bring the quality and the flexibility to choose dependable, innovative, and efficient equipment for a wide range of production and well control needs.



Available in a variety of sizes, valve options, and materials, conventional gas lift valves reduce capex with high reliability in wells with predictable, uniform production.