

SafeLift®

Durable Barrier Gas Lift Valve



PTC's SafeLift® Gas Lift Valve is the only valve accredited to the most extreme barrier and erosion testing requirements. SafeLift®'s unique erosion and chatter resistant check valve design, provides enhanced well integrity and well up-time. Since its introduction in 2007, the product family has achieved significant market penetration with all major Operating Companies.

Challenge

Change out of gas lift valves (GLV) due to valve failures or non-optimum gas lift design can be costly, especially in offshore and subsea environments.

Interruption of, or non-optimum gas lifted production has a negative impact on field economics. Furthermore, leaking GLV's often lead to downgrading of the wells integrity level.

Solution

Petroleum Technology Company's (PTC) SafeLift® valves have a proprietary orifice and back-check system, which eliminates chatter and wear. This design has proven to have unsurpassed longevity and reliability, which reduces intervention costs. In addition to the valve geometry, PTC offers a unique life of field (LOF) gas lift design process, which ensures optimum design for all phases of the well.

Features

- True metal-to-metal back check seal
- Patented orifice and back check design
- The check design eliminates vibration and chattering and protects the metal-to-metal seals from erosion
- Barrier qualified
- Premium metallurgy
- No internal elastomeric seals
- CFD simulations and erosion tested
- Suitable for harsh environments (H2S and CO2)
- Square-Edge, Stealth and Venturi orifices available

Benefits

- Field proven design and operation
- Best in class reliability and longevity ensures enhanced productivity and well integrity
- Minimizes the need for interventions

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Specifications

Size in.	1.0, 1.5 and 1.75
Orifice Size Range, 1.0" valve in.	1/8 - 5/16
Orifice Size Range, 1.5" valve in.	1/8 - 1/2
Orifice Size Range, 1.75" valve in.	1/8 - 11/16
Orifice Type	Square-Edge/Stealth/Venturi
Body Material	Alloy 718 (other material on request)
Seal Stack Material	FKM/PTFE/PEEK
Max Operating Pressure for 1.0" psi [Mpa]	7 500 [51]
Max Operating Pressure for 1.5" & 1.75" psi [Mpa]	10 000 [69]
Max Operating Temperature for 1.0" °F [°C]	365 [185]
Max Operating Temperature for 1.5" & 1.75" °F [°C]	329 [165]
Min Operating Temperature °F [°C]	64.4 [18]
Reference Standard, SafeLift Series	API 19G2 - V1 TR2385 - 20cc/15min

