Tubing-Retrievable

Injection-Pressure-Operated Gas Lift Valves

TP Valve Series
• The TP-1 model in this series is a 1” O.D. valve.
• The TP-1.5 model is a 1-1/2” O.D. valve.
• The TP-1I model is a 1” O.D. valve with integral reverse-flow check valve.

Applications
Used for intermittent or continuous flow applications with tubing-retrievable gas lift mandrels. Smaller size valves are available for use with the IM and CT-IM special application mandrels for packoff, special clearance and smaller diameter installations.

Features
• Large dome volume improves operating efficiency of valve
• Integral reverse-flow check valve to prevent tubing-to-casing flow (TP-1I)
• Optional reverse-flow check valve (TP-1 and TP-1.5 models)
• Mechanical travel stop increases the cycle life of the bellows
• Three-ply Monel® bellows
• Silicon fluid bellows protection
• Replaceable floating Monel® seat (tungsten seat available)
• Silver-brazed bellows connections
• Stainless steel or Monel® materials available
• Pressure rating up to 1800 psi Pro maximum
• Temperature rating of 250° F (standard service)
• Port sizes from 1/8” to 1/2”

![TP-1 Gas Lift Valve](image1)
![TP-11 Gas Lift Valve](image2)

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* Port diameter based on port size plus .006” for lapped seat

Note: The TP-1I has an integral check valve.
Plunger Tracking and Fluid-Level Measurement

Leutert’s sonoecho™ plunger-tracking and fluid-level measurement instrumentation tracks the fall velocity of any plunger during its shut-in to optimize production and ensure safety without the need for costly wireline techniques. The sonoecho™ includes equipment, software, and allows technicians to gather and interpret the fall data.

Applications

- Determination of plunger-fall times to ensure that the plunger has enough time to reach bottom
- Assessment as to whether the plunger got stuck in the tubing string, due to tight spots, hydrates, or scale
- Determination if liquid loading is preventing the plunger from surfacing
- Indication of tubing leak above the fluid level
- Understanding of the liquid levels and their effect on inflow performance, bottomhole pressure, fall velocity, and uplift potential

Features

- The sonoecho™ incurs less cost than wireline because it can be run easily on wells already operating with plungers with only equipment rental and the services of one technician.
- The sonoecho™ is attached to the lubricator with minimal disturbances to surface equipment so the well does not need to have to be shut in and can operate normally for an accurate plunger fall measurement.
- Because the well requires no additional shut-in that would build unneeded perforation pressure, the plunger is in a fluid column when it reaches bottom, which keeps personnel safe and avoids damage to the bottomhole, plunger, and surface equipment.
- Files from the software can be interpreted on site and sent by email to a remote office for timely well optimization.