Choosing Flowco means working with the most adaptable equipment available and a team of field operators who go above and beyond – every day. From a new plunger lift installation to optimizing existing under-performing systems, Flowco can maximize well performance on all types of plunger lift systems quickly and efficiently. We spare you costly downtimes, the concern of declining production and see to it every well has the best opportunity for daily optimal production.

Flowco is the largest privately owned artificial lift company in the lower 48. With service centers strategically located throughout North America, we help producers achieve higher returns and reduce costs with reliable, custom-designed solutions tailored to the needs of each well. Led by founders of the artificial lift industry, Flowco offers unmatched experience and manufactures its equipment to the highest technical standards. When you choose Flowco – you’re making The Quality Choice.
Plunger Lift Systems

Flowco’s plunger lift systems are engineered and built based on decades of experience of listening to customers. Flowco is focused on providing innovative solutions that create immediate results and provide long term value for oil and gas producers.

Every well is different. Whether you have sand, scale or paraffin problems, or simply a low volume, low pressure well, Flowco has the system and components to maximize your production, quickly and efficiently.

Conventional Plunger Lift System
A conventional plunger is a great application if you have a low volume, low pressure or marginal well. Typical production rates for conventional plunger lift systems are wells that produce under 50 bblp/d and/or under 200mcf/d. This type of plunger is also ideal for wells with tubing irregularities or wells producing less than critical flow rates.

+ Efficient seal
+ Maintains a full OD seal
+ Moves fluids at low velocities
+ Long plunger life
+ Durable and cost effective

Continuous Flow Plunger Lift System
A continuous flow plunger is a great application for high volume or flowing wells because it allows a well to continue production as it works. A by-pass valve allows the plunger to bring a continuous flow of fluid removal with minimal shut-in time so you will frequently see an improvement in production. Typical production rates for continuous flow plunger applications are wells that can produce over 300mcf/d and/or fluid rates from 5-500blp/d depending on tubing size.

+ Shorter shut-in times for your high volume gas and liquid wells
+ High gas and fluid rates
+ Paraffin control
+ One-piece design for operation
+ Bar stock and pad designs
+ Require minimal or no shut-in time
+ Average fall speed in fluid: 700 feet/min
+ Potential fall speed in shut-in well: 2,000 feet/min.

Gas Assisted Plunger Lift

Just as there are two types of gas lift systems, there are two ways to combine gas lift and plunger lift for custom artificial lift solutions.

Continuous Flow Gas Lift System with a Continuous Flow Plunger
There are several reasons/scenarios why you should consider a continuous flow plunger introduced to a continuous flow gas lift system:
+ To lift fluids more efficiently than a standalone gas lift system
+ To mitigate or eliminate paraffin or scale build up in the tubing
+ To reduce the required gas lift injection volumes on single well sites or field gas lift systems thereby saving on compression costs or possibly eliminating compression

Intermittent Gas Lift System with a Conventional Plunger Lift System
An intermittent gas lift system by itself can prove to produce less than desirable results in deeper wells, strictly due to the liquid fallback and the total liquid recovered per cycle. Liquid fallback in the tubing per cycle can be as much as 10% of the initial liquid slug per 1000’ of lift. With the addition of a conventional plunger, liquid fallback can be significantly reduced and more of the slug is delivered to the surface each cycle.
Flowco applications change over the life cycle of a well. Refer to the Applications Guide to determine which Flowco series plunger best fits your well.

**Flowco Applications Life Cycle**

**FlexPak Series®**

One-Piece, PATENTED Mandrel Design

**Bumper Springs**

Bumper Springs have traditionally been designed and built around conventional plungers to endure normal wear and tear. At Flowco, we started from scratch, designing our PATENTED springs to the needs of the current market: to endure more cycles and faster falling plungers. One-piece Flowco bumper springs are manufactured for vigorous use in high-producing rate wells.

**FLEXPAK BUMPER SPRINGS**

- **Standard Spring:** Recommended for conventional plunger lift applications.
- **Floating Spring:** Economic benefit in wells that typically produce less than 150 mcf/day, also used in conjunction with stage tool and pack off applications.
- **Latch Down Spring:** Used to latch to collar stop, tubing stop, pack-off assembly, or multi-stage tool.
- **Bumper Spring Hold-down:** Used in majority of plunger lift installs when seating nipple or profile nipple is present.
- **Bumper Spring/Auto-release Assembly:** Used in low (35/bbls or less) liquid producers to trap fluid in tubing during shut-in time. Controls hydrostatic pressure above standing valve to release fluid for optimal plunger lift operations, can also be used to chemically treat tubing below the standing valve.
- **Tubing pack-off/Auto-release:** Used when no seating nipple is present and trapping fluid is required.

**Flowco**

Production Rate - MCF/D or B/D

- **Flowing**
- **Plunger Assisted Gas Lift/High Flow Rates**
- **Fast Fall Plunger**
- **Conventional Plunger**
- **Gas Assisted Plunger Lift**
- **Multi-Stage Plunger**

**US PATENT #9,624,996**
**Series® Application**

High Flowrate wells that require minimal close time and/or constant cycling for optimal liquid removal.

**Multiple Sizes Available**

- **Body Area**
  - Solid ONE piece design
  - Alloy or stainless steel
  - Exceptional “crimp” fastening method
  - Incorporated wear rings
  - Centralized fluted design (other options available)
  - Multitude of slot sizes available for various production rates

**RAGE SERIES Bypass Plungers**

**Application**

High Flowrate wells that require minimal close time and/or constant cycling for optimal liquid removal.

**Multiple Sizes Available**

**Body Area**

- Solid ONE piece design
- Alloy or stainless steel
- Exceptional “crimp” fastening method
- Incorporated wear rings
- Centralized fluted design (other options available)

**RAGE SERIES PLUNGERS**

- **Shorty:** Deviation and low volume.
- **Standard Groove:** Low deviation/high volume wells. Paraffin control.
- **Center Flute:** High deviation/high volume wells. Used for paraffin control and for more consistent plunger wear.
- **Single Pad:** Better seal/deviated wells.
- **Dual Pad:** Best seal/low volume wells.
- **Ball and Sleeve:** For high flowrates and/or wells that produce sand and/or solids.
- **Titanium Sliding Sleeve:** Used for deviated and more gassy wells. Does not require a stinger rod for operation. Used for higher rate wells as well.
- **Padded Sliding Sleeve:** Fast falling plunger with no shifter rod required. Provides all the benefits of sliding sleeve options with the sealing efficiency of a dual pad. Unique pad design allows for maximum sealing efficiency and increased longevity, patented fastening method allows for no pins or welds throughout the plunger.

**US PATENT #9,677,389**

**US PATENT #9,024,000**

**US PATENT #9,624,996**
**Fury® Plungers**

**Application**
Wells that require some close time and need the plunger to fall quickly to bottom under a controlled fall speed.

**Multiple Sizes Available**
- Wells with sand and/or scale problems
- Wells with lower BHP
- Wells that have recently been completed
- Horizontal applications or deviated wells

**Plunger Design**
- Fluted design for even wear
- Precision placed flow ports for optimal cleanout and accelerated fall times
- Groove technology for clean out action

**FURY SERIES PLUNGERS**
- Single Pad:
- Dual Pad:
- Spin Fury: Great for wells that make solids (sand, salt, scale and paraffin).
- Quick Lift: Used in wells with sand/paraffin and where increased plunger fall times are desired without bypass mechanism.

**SureFlow® Conventional Plungers**

**Application**
Wells that require an excellent seal. The close time for required pressure build-up correlates with the fall speed of the conventional plunger type. The plunger arrives at the bottom before the well opens.

**Multiple Sizes Available**

- Single Pad: Low fluid producers. Also good for deviated wells.
- Dual Pad: Best seal in low volume and/or low pressure wells.
- Triple Pad: For lowest rate wells that require the best of seal.
- Shorty Solid Groove: Sand, paraffin, or scale preset.
- Full Length Solid Groove: Length for more seal. Weight for paraffin, scale or sand to fall easier.
- Magnet: Used for retrieval purposes
- Bypass Retrieval: Used to retrieve stuck bypass plungers

**SURE FLOW SERIES PLUNGERS**

**Single Pad:** Single, Dual and Triple Pad

**Plunger Design**
- Patent-pending crimple lockdown*
- Durable in extreme environments
- Wear indicator on pads
- Interlocking pad design feature

* PATENT PENDING
LiftMind II®

- Innovative well production optimization utilizing the latest hardware and control algorithms
- Plunger Lift or Intermitter control options with High/Low shut-in
- Auto Adjust cycle based on plunger speed with time or pressure
- Ability to open and close injection valve to control injection time with Gas assisted plunger lift operations
- Simple upgrade to Automation with built-in Modbus protocol with every controller
- Live data polls every 90 seconds

Options

- Stand-alone controller or fully automated controller
- Hardwire and wireless RS485 data highway options
- Low power 6 volt or 12 volt options
- Optional Flowco cloud based Host service for quick turn around communication utilizing cellular and satellite options with your well upon installation

Well Optimization with LiftMind II

Access anytime and anywhere with Flowco’s easy to use and secure cloud based host system. Merge Flowco LiftMind II into your existing network system at anytime using the controller’s Modbus protocol.

- Data monitoring and safety control
- Intermitter
- Plunger Lift Controller
- Gas assisted plunger lift controller
- Gas injection controller

Flowco’s Plunger Arrival Sensor can be utilized with any 6 volt or 12 volt controller system to precisely measure plunger arrival speeds.
Flowco Lubricators

**Design**
- Working pressures of 3,000 and 5,000 psi.
- Threaded, all flanged, or a combination of threaded and flanged designs available.
- Easy removal of lubricator cap where spring and anvil are not integrated into the cap. Easily inspect components housed in the lubricator cap (anvil spring, rod spring, O-ring, anvil).
- Universal conversion for ALL conventional and bypass plungers on the market today.
- Manual or auto catcher options.

**Available in:**
- 2 3/8”
- 2 7/8”

---

Forged & Flanged Lubricators

**The only ALL FORGED-ZERO-WELDS Lubricator**

- All Forged & Flanged Lubricators
- The only ALL FORGED-ZERO-WELDS Lubricators
- All Bowen top assemblies
- 5K or 10K inlet connection
- 5K or 10K flanged, threaded NPT
- Dual outlet configurations
- 4130 material
- -50° to 180° temperature rating
- NACE compliant construction

**Forged equipment, 5K & 10K PSI Rated**
- 5K – R24 x NPT, R24 x R24, R24 x Hammer union, BX152 x NPT
- 10K – BX152 x BX151, BX152 x Hammer union
- Currently available only in 2 3/8” sizes (2 7/8” coming soon)

**Accessories**
- Kimray compatible Auto-Catch
- Custom Low Pressure Cylinder Auto-Catch
- Custom High Pressure Cylinder Auto-Catch

---

**Flowco Lubricators**

**Design**
- Working pressures of 3,000 and 5,000 psi.
- Threaded, all flanged, or a combination of threaded and flanged designs available.
- Easy removal of lubricator cap where spring and anvil are not integrated into the cap. Easily inspect components housed in the lubricator cap (anvil spring, rod spring, O-ring, anvil).
- Universal conversion for ALL conventional and bypass plungers on the market today.
- Manual or auto catcher options.

**Available in:**
- 2 3/8”
- 2 7/8”

---

**Forged Lubricators**

- Inlet Connection Lubricator
- 5K or 10K Flanged Lubricator
- Threaded NPT Lubricator

**Welded Lubricators**

- Inlet Connection Lubricator
- 5K or 10K Flanged Lubricator
- Threaded NPT Lubricator

---

Custom machined lubricators
Flowco Manufacturing

In-house manufacturing of products ensures ultimate quality control in every customer driven solution.

**Manufacturing Facility**
Flowco artificial lift products are designed and manufactured using the latest software and precision machining tools at our in-house facilities in Cleburne and Houston, Texas. Decades of machining and oilfield experience, along with the insights of one of the founders of artificial lift technology go into every Gas Lift and Plunger Lift product, guaranteeing their performance and durability in the field.

**Skilled Craftsmen**
Flowco’s skilled machinists and fabricators work hand-in-hand with our dedicated engineers to continuously enhance our capabilities and processes. A proficient support staff aids in our ability to get new products to market fast. With Flowco’s “Do it right the first time” attitude you are guaranteed to receive the very best plunger lift and gas lift products in the business.

**Parts & Service**
Flowco parts and service is available 24/7 through any of our national Service Centers. To request parts, service or even a full well analysis, call 281.528.6298, visit our website at www.flowcosolutions.com or contact your local representative.

**Custom Design Engineering**
- Specialized software is utilized to design components and create virtual assemblies to ensure fit and function of every component before manufacturing occurs.

**Design and Manufacturing**
- Decades of experience, including oilfield experience, among our machinists and engineers.
- Understanding of materials and what types of materials should be utilized for which applications.
- CNC machining for precision tools.
Flowco’s focus will always be to provide unrivaled plunger lift tool designs, optimization services, and training that equip our customer’s to reach their production goals.

**Flowco Service Centers**
Strategically located to serve oil and gas basins throughout the continental US, Flowco has a dedicated service center near you.

**Corporate Headquarters**
- Houston, TX

**Service Centers**
- Admore, OK
- Aztec, NM
- Bridgeville, PA
- Carlsbad, NM
- Charleston, AR
- Cleburne, TX
- Edmonton, Alberta
- Edson, Alberta
- Greeley, CO
- Haslet, TX
- Houston, TX
- La Vernia, TX
- Lafayette, LA
- Midland, TX
- New Waverly, TX
- Oklahoma City, OK
- Ohio
- Overton, TX
- Red Deer, Alberta
- Rock Springs, WY
- San Angelo, TX
- Weatherford, TX
- Woodward, OK

For service or to request a well analysis, call 281.528.6298, visit www.flowcosolutions.com or contact your local representative.
Flowco Corporate Headquarters
18511 Imperial Valley Dr.
Houston, Texas 77073, USA
O: 281.528.6298  F: 281.528.6319
www.flowcosolutions.com

Service Centers
- Admore, OK
- Aztec, NM
- Bridgeville, PA
- Carlsbad, NM
- Charleston, AR
- Cleburne, TX
- Edmonton, Alberta
- Edson, Alberta
- Greeley, CO
- Haslet, TX
- Houston, TX
- La Vernia, TX
- Lafayette, LA
- Midland, TX
- New Waverly, TX
- Oklahoma City, OK
- Ohio
- Overton, TX
- Red Deer, Alberta
- Rock Springs, WY
- San Angelo, TX
- Weatherford, TX
- Woodward, OK