

Introducing

Flower

APEXTM Multi-Well Controller

A Technology Innovation for Well Automation

Discover the power of true multi-well optimization with a data-agnostic monitoring and control system for gas lift, plunger lift and hybrid lift methods.

The *APEX*[™] Multi-Well Controller and automation system controls your plunger lift, continuous gas lift, and hybrid lift systems including gas-assisted plunger lift and plunger-assisted gas lift.

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About Flowco

Flowco Production Solutions is the premier provider of artificial lift solutions, specializing in delivering turnkey products and services to optimize oil and gas production. We engineer, manufacture, install, and optimize gas lift, plunger lift, and integrated production systems, with assets around the globe.

Our mission remains the same: to safely maximize the lifespan and efficiency of oil and gas wells with a full spectrum of high-performance artificial lift technology and well optimization services. Our artificial lift experts work with you to understand both your short-term challenges and long-term goals.

Raising the Bar on Artificial Lift Optimization

Optimize production of your assets with robust, automated control features or enable pin-point, manual control of your well.

Building on the success and reliability of our legacy family of controllers, our production automation development team have *reimagined* wellsite control and created a control system that both simplifies and introduces a higher level of control to a single well or an entire field.

Our mission with Flowco Production Solutions is to accelerate the digital transformation of oil and gas operators by creating solutions that digitalize fields, provide critical production data, and automate operations for optimized results.

Introducing the *APEX* Multi-Well Controller, a data-agnostic monitoring and control system for gas lift, plunger lift and hybrid-lift methods. Our new, single platform technology brings enhanced production possibilities to either an individual well or a pad of connected assets.

> Works with your current equipment and SCADA system ... or ours!

The APEX control is completely system agnostic.

APEX[™] Multi-Well Controller at a Glance

A true, multi-well control system:

- Control a single well or up to 16 production systems with a single, master control and a scaled footprint of well devices
- Able to combine both gas lift and plunger lift production systems from the same control unit
- Provide actionable data for better decision making
- Expandable/Scalable

Game-changing advantages:

- Data from the APEX system can be pulled into existing systems. The system is completely data-agnostic
- The Flowco app enables system configuration, data access and download capabilities
- Reduce required CAPEX with a reduced system footprint for each well on the pad
- The APEX system provides powerful computing capabilities at the wellhead
- Supports real-time reservoir monitoring capabilities by adding <u>a live downhole gauge</u>
- The platform can be configured for all forms of artificial lift
- Reduces environmental impact for your multi-well applications with reduced hardware footprint



It Starts With a New Approach ... Then Innovation Takes Over

Just one look at the motherboard tells you you're looking at technology that is leading the industry. There are new capabilities and more robust computing power built into the solution . . . making *APEX* expandable and upgradable; staying well ahead of your production needs.



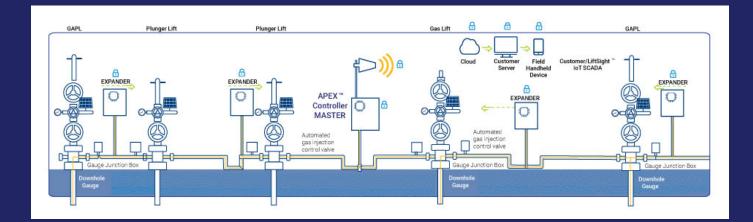
The *APEX* Multi-Well Platform gives you advantages of real-time data and improved control, versus traditional automation and control tools at the wellsite. This new "non-proprietary" system works seamlessly with your existing SCADA systems and hardware for new or legacy wells.

APEX Multi-Well System Applications:

- Gas lift optimization
- Plunger lift optimization
- Gas-assisted plunger lift optimization (GAPL) or plunger-assisted gas lift optimization (PAGL)
- Downhole gauge management

Flowco also offers our own *LiftSight*[™] IoT cloud SCADA platform, designed mobile-first and platform-ready, for a faster, more reliable snapshot of the well - accessible wherever you are, and whenever you need the data. The *LiftSight* SCADA solution harnesses the power, security, reliability, and customization options you need for less than comparable systems in the industry.

Field Setup Example

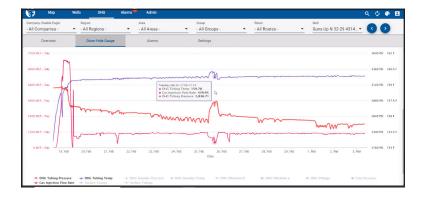


Simplify the System. Embrace New Capabilities.



Benefits of adding downhole monitoring technology to the *APEX[™]* Well Control System:

Optimize reservoir production or injection control decisions for oil and gas wells to enhance ultimate recovery. The system identifies trends and provides actionable data for optimizing injection gas and optimizing production to avoid costly, risky, and time-consuming well interventions.



Patented GAPL/PAGL Technology

The *APEX* Multi-Well Controller is designed to excel in GAPL/PAGL applications using a patented algorithm to bring the best from your well pad or individual well.

Recently, Flowco was awarded a patent for our GAPL algorithm for our gas-assisted plunger lift method and control. The patent number is 11,448,049. We use this algorithm in our automation and control systems technology to optimize lift efficiency. While others are supplying the industry with tools, Flowco is leading.

For more information on our GAPL/PAGL solutions or any of our other tools or services, please contact your Flowco representative.

A Peek Under the Hood

Digitalization is transforming oil and gas production and Flowco is on the leading edge of that change. The *APEX*[™] Multi-Well Controller surpasses existing artificial lift controllers in the marketplace by offering combined and optimized control of plunger lift, gas-assisted plunger lift, and continuous gas lift technologies, **including the ability to control up to 16 individual artificial lift wells from a single master controller**. The data from these wells can be analyzed on our LiftSight IoT SCADA platform or on the Flowco app.

FEATURES:

- The APEX Multi-Well Controller features five fully-configurable serial communication ports that can be used for Modbus connectivity to other devices. The auto-detection feature enables auto selection between the RS-232 and RS-485 communication for the ports without manual configuration.
- The *APEX* controller can be accessed by Modbus master devices via read and write holding register function codes. When the *APEX* device is configured as a master, it can be configured to request variables from expanders with word swapping, byte swapping, signed/unsigned, etc. on a per variable basis. All communication ports are independently configurable for Modbus master or expander.
- The Apex controller is capable of hosting two additional independent ethernet ports.
- All components of the *APEX* system are rated Class 1, Div 2.
- A Wi-Fi plug-in option enables local wireless communications that are multi-user capable and password configurable. The *APEX* Wi-Fi environment is a safe and secure communication option.
- The controller operates on an uninterrupted solar platform with a built-in backup battery.
- The *APEX* Multi-Well Controller has the ability to log data at user-configurable intervals.



Communication Doute	6	I I		
Communication Ports	Ø		24 VDC	yes
Modbus Master	6		Number of Wells Surveyed/Capable	16
Modbus Expander Ports	6		Reset Button	yes
Analog Inputs	3		12 VDC Solar Input	yes
Analog Outputs	2		Mobile App	yes
Digital Inputs	2		Holding Registers per Well	100
Digital Outputs	6		Critical Rate Optimization	yes
RTU Inputs	2		Downhole Gauge Pressure Optimization	yes
SD Card	yes		Remote Firmware Updates	yes
Ethernet	yes		Onboard Back Up Battery	yes

Expandable. Scalable.

Field Digitalization at your Fingertips

PC Application - *APEX* **Toolkit**

The *APEX* Toolkit is a software application that runs on Windows enabling rapid configuration, data retrieval, and firmware update capabilities.

The Toolkit is the preferred way to configure an *APEX* system as it is significantly faster using a keypad rather than navigating a four line LCD screen. Several features can only be configured using the Toolkit, such as multi-well configuration, logging, and remappable registers, as these features would be difficult to set up directly on the controller.



Multi-Well Feature

The *APEX* controller can be used to control up to 16 wells, each with unique configurations and settings. In complex instances with on-site SCADA networks or monitoring PLCs, the unit can control these wells entirely through Modbus interaction. For smaller or more remote installations, the controller can be paired with up to 15 expander devices, where each expander is placed at a wellhead and connected to the system via RS-232, RS-485,

The Flowco App is available in the Apple App Store or Google Play Store. Easily configure the APEX controller from your tablet or mobile device ... anytime, anywhere.

Reduced Footprint. Lower Power.

The *APEX* controller is a perfect solution to reduce costly power consumption and support your company's ESG (Environmental, Social, and Governance) initiatives.

LOE = Reduced CAPEX for equipment

Reduce/optimize injection gas requirements

Safety - The *APEX* Wi-Fi and local wireless radio options reduce the frequency operational staff need to be in front of equipment in a hazardous wellhead area.

"Flowco Mobile Well Controller" App

- System configuration at your fingertips on your Android or iOS device
- No internet connection required
- Access and download data to your Android or iOS device
- View trends and data in real time
- Live adjustment to optimize production





Flowco Production Solutions is one of the premier artificial lift companies in the United States and Canada, with service centers and regional expertise in most major basins. We manufacture our own tools to exacting industry standards right here in the USA.





To see a list and location of our field offices, manufacturing centers, and regional service centers, please scan the code above.

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