

PerfLift

Perforated-zone gas lift system

APPLICATIONS

- Gas-lifting wells along the entire perforated interval below a production packer
- Liquid-loaded gas and coalbed methane wells
- Gas-lifted oil wells

BENEFITS

- Improves system efficiency compared with traditional lifting methods
- Lowers initial investment in new wells for accelerated payout and improved net present value
- Reduces operating costs
- Increases production
- Enables chemical and fluid treatments across the perforations

FEATURES

- Field-proven Camco* gas lift and subsurface safety systems
- Innovative completion design
- Reliable ported or dual-bore production packer
- Real-time downhole monitoring with the Phoenix* artificial lift monitoring systems gauge

The PerfLift* perforated-zone gas lift system is a cost-effective artificial lift system for low-rate gas-lifted oil and liquid-loaded gas wells. The system incorporates field-proven Camco systems in an innovative completion architecture that enables gas lift across long completion intervals below a production packer.

Reduce the cost and complexity of liquid removal

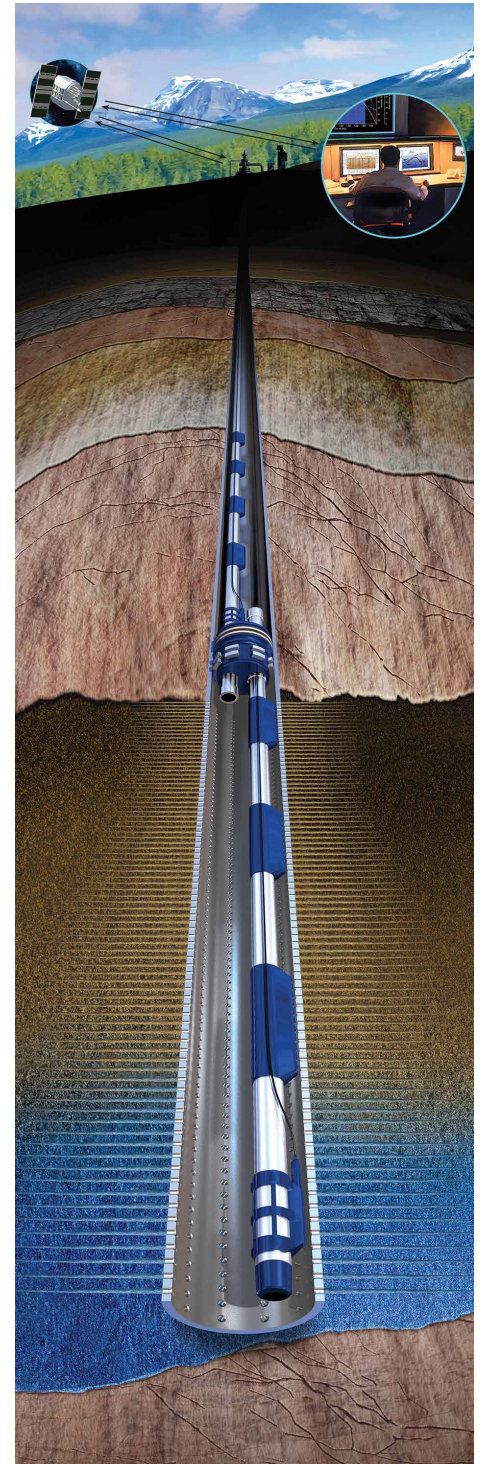
Most methods of liquid removal require costly intervention using a traditional workover rig or coiled tubing unit. The PerfLift system, however, is permanently installed when the completion is run, so there is no need for a service rig to install a system after the well is already producing. The PerfLift gas lift system is ready for service whenever it is needed, or in cases where liquid loading is an ongoing problem, it can be used continuously to maximize production.

Optimize operations with a simple system

The PerfLift system employs a series of Camco systems products in tubing strings above and below a ported or dual-bore production packer. Conventional or side pocket gas lift mandrels are installed in the upper tubing string. Internal-mount gas lift mandrels and valves are sized and installed on the lower tubing string across the perforated zone. During system operation, gas is injected down the upper tubing-string annulus and into the lower tubing string through the packer to lift the fluid column across the perforated zone. Liquids then travel to the surface through the production string.

Monitor lift conditions in real time

The Phoenix system can be installed with the PerfLift system to monitor liquid encroachment and differential pressure in the wellbore at the deepest point of gas injection. The gauge is placed immediately above the lower-most gas lift mandrel to provide real-time information that can be used to optimize production.



The PerfLift system is the only gas lift system with the proven capability to lift below the packer to the perforated depth of the well.

In the adjacent table are some early examples of cost-effective production increases delivered by the PerfLift perforated-zone gas lift system.

Production Increases Using the PerfLift System				
	Well 1, Texas	Well 2, Texas	Well 3, Oklahoma	Well 4, Wyoming
Gas, Mcf/d				
Before	110	43	45	146
After	273	225	110	367
Oil, bbl/d				
Before	0	0	2	0
After	0	1.5	40	0
Water, bbl/d				
Before	60	40	15	79
After	159	74	20	159
Perforated interval, ft [m]	2,373 [723.3]	964 [293.8]	2,255 [687.3]	1,002 [305.4]
Casing, in	5½	4½	4½	7
Upper tubing, in	2¾	2¾	2¾	2¾
Lower tubing, in	2¾	1¼	1¼	2¾

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