

# Jet Lift Systems™

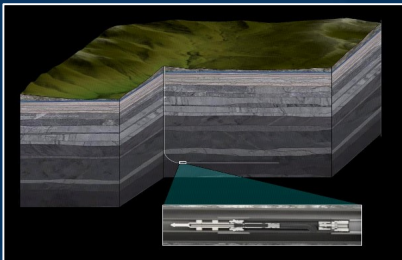
*a division of*

**Source Rock**

Energy Partners Inc

## *Jet Pump Advantages:*

- *No downhole moving parts*
- *Deviated / horizontal installations*
- *No gas locking*
- *Sand lift*
- *Scalable rate performance*
- *Efficient*



## Innovations in Artificial Lift Technology

# Jet Lift Systems

## About Us

Jet Lift Systems (a division of Source Rock Energy Partners) is a unique company focused on providing jet pump artificial lift solutions to the oil and gas industry.

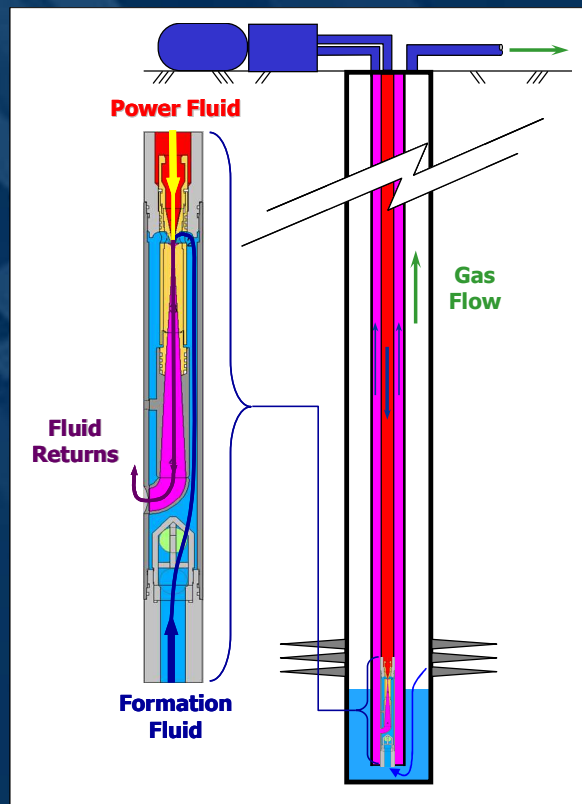
With exclusive rights to the full line of patented JJ Tech jet pumps, as well as our own patented jet pump designs and technologies, we design and build a complete range of artificial lift packages, ranging from low rate high efficiency shallow gas well dewatering systems, right through to high rate, horizontal oil well packages. We manufacture our own surface packages – tailoring them to the specific well applications.



## How do Jet Pumps Work?

Jet pumps basically consist of a pump housing and flow porting for a nozzle and mixing tube assembly. By pumping fluid from surface to the donwhole jet pump, a venturi effect is created when the fluid accelerates out of the jet nozzle, and enters the mixing tube section. The venturi gap between these two components is ported to allow fluid from the wellbore to be drawn in under vacuum.

Both the jetting fluid and the wellbore fluid become pressurized as they slow down through the mixing tube and diffuser. The pressurized fluid mixture is then driven up to surface.





## Why Use Jet Pumps ?

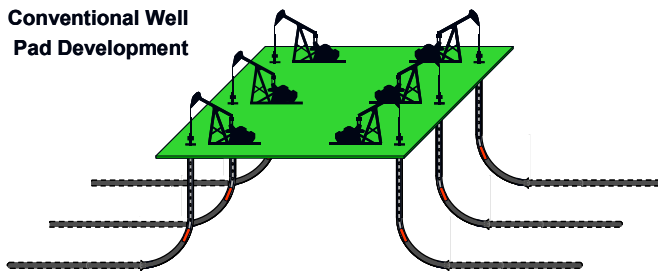
Jet pumps are a unique artificial lift technology which overcomes a wide range of operational and performance problems faced by conventional artificial lift systems such as rod pumps, PCPs, ESPs, plunger lift and gas lift.

By harnessing the science behind the venturi effect, jet pumps create fluid intake suction and fluid return flow lift in a controlled and reliable manner. As a result, wellbore fluid lift is performed without any downhole moving parts. Obvious applications are in “crooked”, deviated or horizontal wellbores.

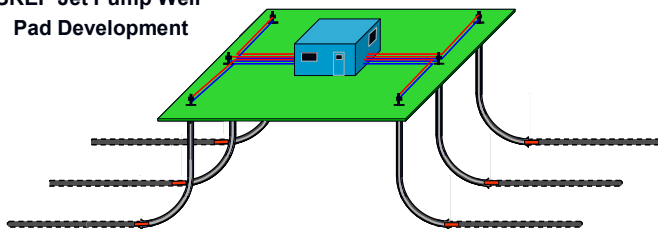
As well, jet pumps are not adversely affected by gas inflow – and they will not “gas-lock”.

The key working components of the jet pump – the nozzle and mixing tube are easily inspected and changed out if needed, simply by reversing the flow and circulating them to surface. This is a “one man” operation, typically taking less than an hour to perform.

**Conventional Well Pad Development**



**SREP Jet Pump Well Pad Development**



## The Jet Lift Systems Jet Pump Advantage

The Jet Lift Systems jet pump system offers key advantages over conventional jet pumps. The most significant of these is system efficiency. Experience with conventional jet pumps has shown them to be inefficient, requiring large surface pumps and demanding high energy input.

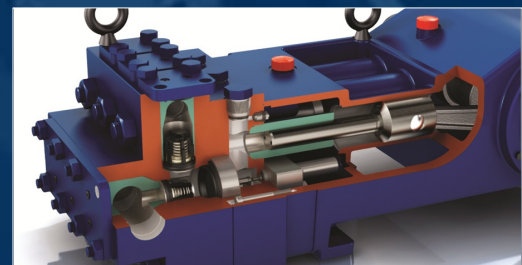
A patented feature of our jet pump eliminates a critical flow restriction, allowing for high production rates with minimal power fluid requirements – often with efficiencies as good, or better than conventional pumping systems.

We have an extensive line of jet pumps, ranging from 1.3” through to 5.5” – including specialty jet pumps for FlatPak™ tubing installations.



Another of Jet Lift System's unrivaled jet pump capabilities lies in its engineering and software. Jet pump optimization analysis is a critical factor in jet pump performance and efficiency. Our software and analysis techniques allow us to determine detailed jet pump set up criteria for optimal performance.

The surface equipment is another key component of a jet pump installation. Jet Lift Systems has exclusive Canadian rights to a patented process for using diaphragm pumps for our surface pumping installations. This, combined with a full understanding of the operational requirements for jet pump performance and low maintenance operation, means that we are able to design and build optimized surface equipment for a wide range of applications.



The performance and efficiency of the Jet Lift Systems jet pump process has wide ranging applications. We are currently active in, or developing projects for the following well categories:

Watered-out Gas Wells
Horizontal Oil / Gas
Vertical Oil
Coal Bed Methane
Shale Gas
Unconventional Oil
Shallow Gas
Gassy Oil
Gas with Condensate
Heavy Oil
SAGD