

The Diahman Pump

Increasing Oil & Gas
Production

The Diahman Pump

The Diahman Pump is a hybrid super venturi, liquid drive, double jet pump with proprietary Diahman technology.

The Diahman Pump allows the well to attain [maximum production rates](#) at reduced operating costs. It can be used on any well where artificial lift is implemented.

The Diahman Pump Advantages

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Stronger
Formation
Drive

Increases
Production

Proprietary
Technology

Solves
Sanding &
Paraffin

Lower
Costs

Increases Production

The Diahman pump can significantly increase oil production. Some samples of production tests done with this pump show the increases:

Nevada, Missouri

4X Production

From 1.5 BOPD to 6-10 BOPD
Combined with condensate treatment
going from 15 gravity to 40 gravity oil

Bradford, Pennsylvania

24X Production

From ¼ BOPD to 12-20 BOPD
48 Gravity Oil

Lytle, Texas

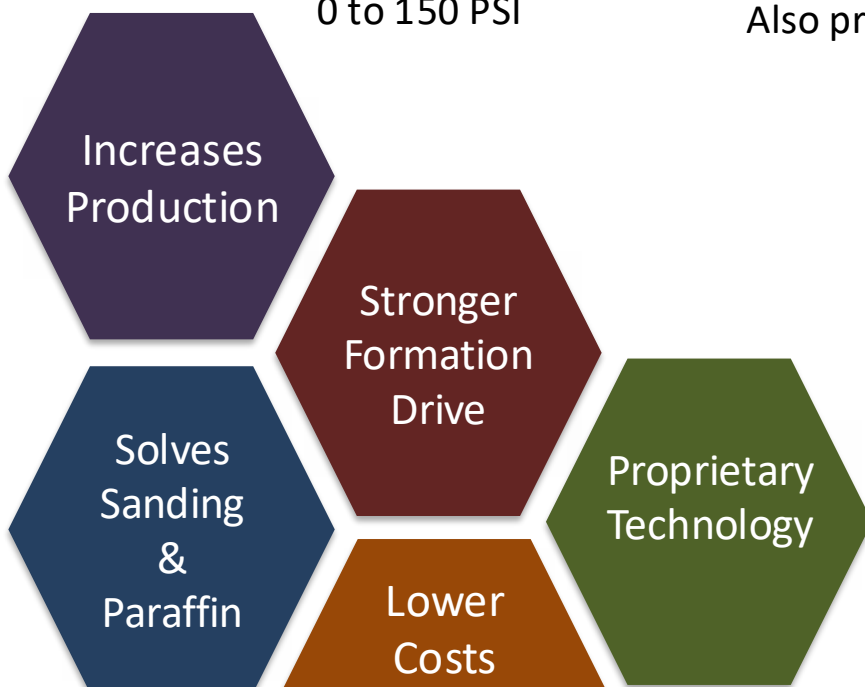
2X Production

From 1.5 BOPD to 3-4 BOPD
Also started producing gas going from
0 to 150 PSI

Burlington, Kansas

4-6X Production

From 1-3 BOPD to 12 BOPD
23 Gravity Oil
Also producing 20 PSI gas



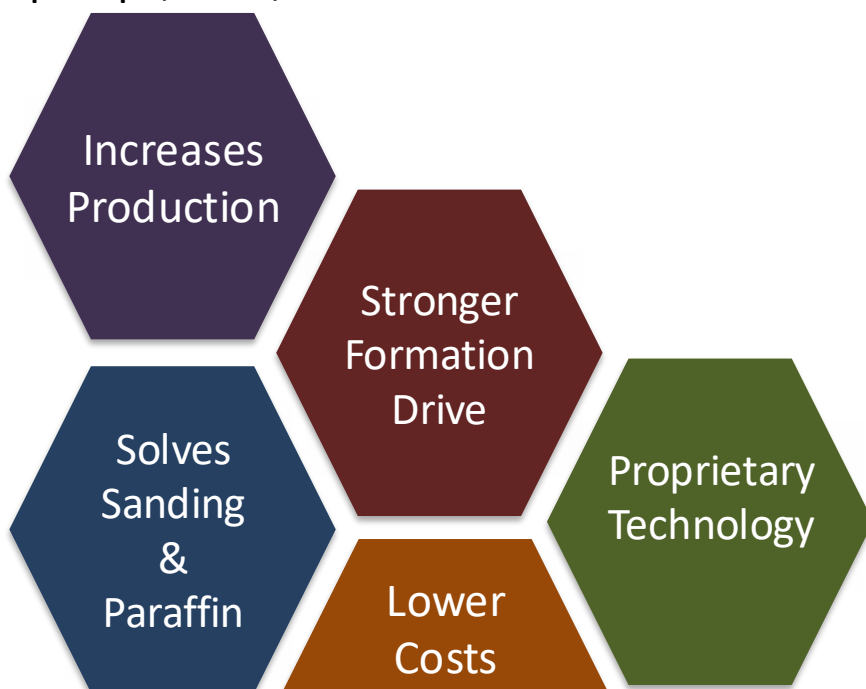
Stronger

Diahman

Formation Drive

This technology provides formation drive and pulls the liquids through the formation medium instead of trying to push it through the medium. The Diahman pump can be adjusted to the amount of pressure desired, pulling up to 30 inches of vacuum. This means it forms a negative pressure inside the wellbore that draws formation fluid into the well. Unlike pumpjacks which have a stop/start action which interferes with the formation drive, the Diahman pump establishes and maintains the flow from the formation into the well. This negative pressure is what causes the significant increase in production.

It can increase production even on marginal wells because it creates a drive in the formation. The pump replaces pump-jacks, jet pumps, ESPs, etc.



Lower Costs *Diahman*

The Diahman pump is driven by a fluid pump on the surface, typically a tri-plex pump. The motor to run the surface pump can be driven by electricity, propane or natural gas. If the well produces sufficient natural gas, the surface pump can be run straight from the well production. The motor on the surface needs to be approximately 13 horsepower per 1,000 feet of lift needed in the well. This is about 50-70% of the power needed by an electronic submersible pump (ESP).

The Diahman Jet Pump utilizes existing surface facilities. Tanks, flow lines, separators, etc. remain intact—eliminating costly additional equipment. The small footprint on the surface also reduces the cost of land usage, fencing, etc.

Considerably less maintenance is required than conventional rod pumps significantly reducing production costs. Maintenance of the Diahman pump is simple. There are no moving parts down hole. Once the pump is configured and

installed, all the moving parts are on the

surface. The surface pump can be serviced

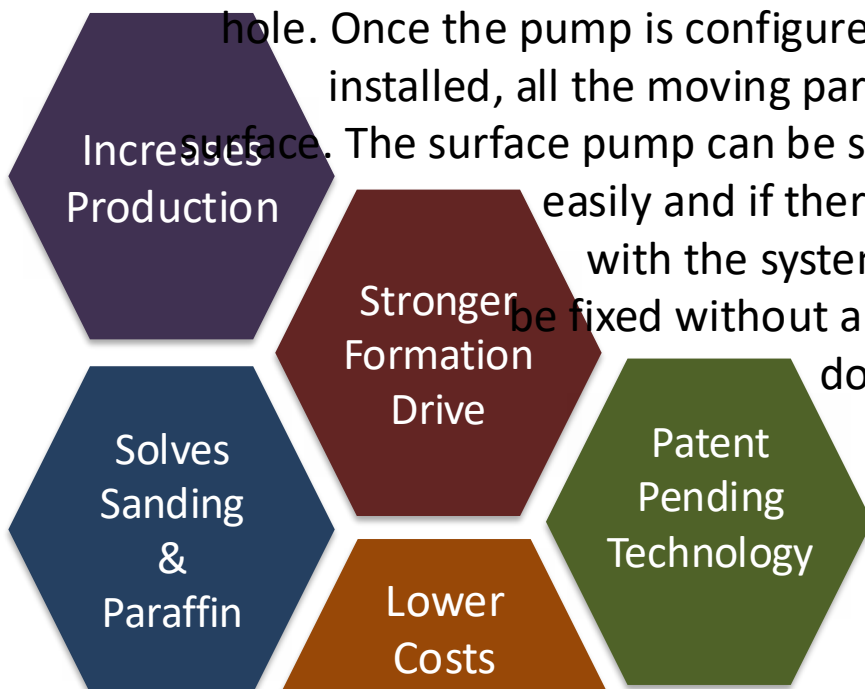
easily and if there are problems

with the system it generally can

be fixed without a rig or significant

down time due to

easy access.

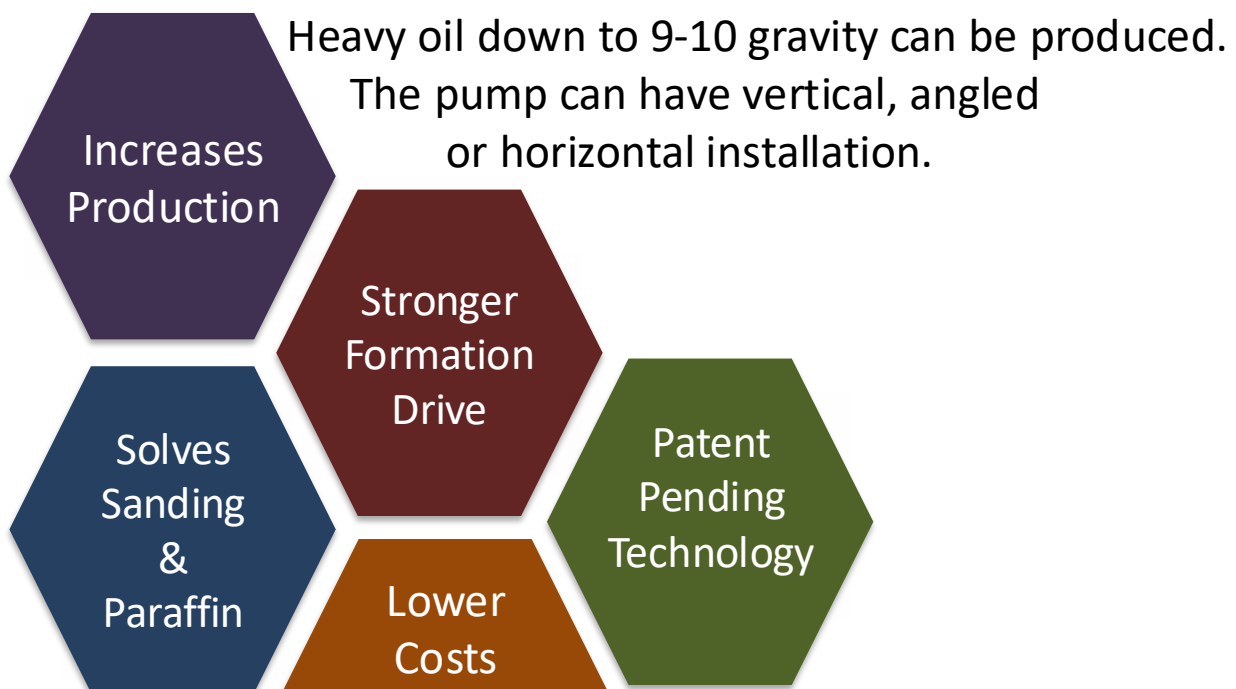


Proprietary Technology

The Diahman pump is proprietary technology that is custom configured for the well. Well depth, pressure, permeability, porosity, gravity, pipe size, perforations and flow rates are all considered in the custom construction of each pump. The pump is available in multiple sizes so it can be installed in almost any condition of well. The slim-hole design model can be used even in 1" production tubing. The pump works on shallow wells as well as deep wells.

The technology can transport gas, liquids and solids that are present in the formation, moving sand, 1/8" gravel, asphaltine chunks, water, oil, and gas, all without cavitation.

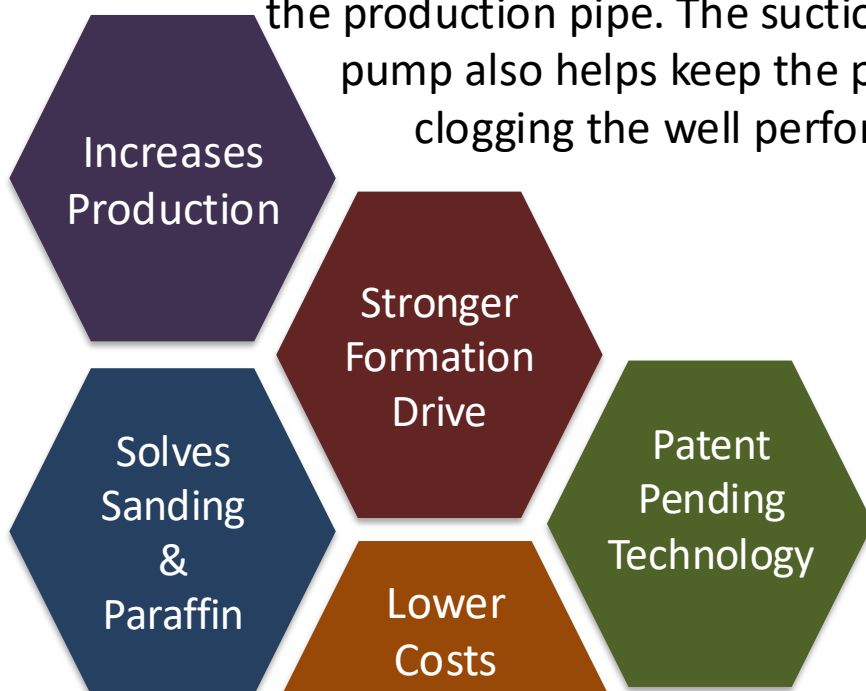
The pump can be reversed to clean the pump or to acidize and clean the well.



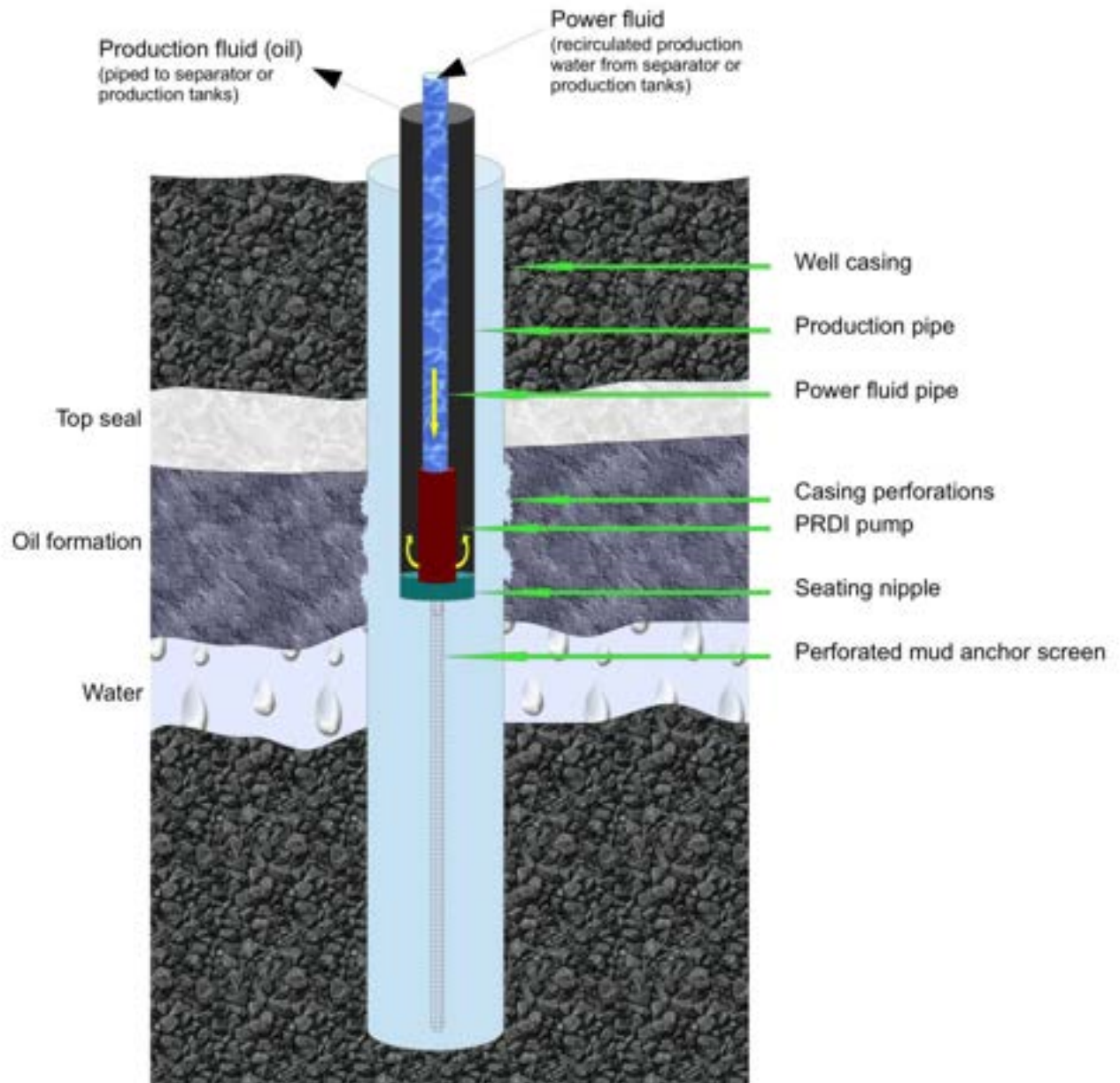
Solves Sanding & Paraffin Issues *Diahman*

Sanding problems in the wellbore are eliminated. The down-hole pump is located below the perforations. Drilling mud and sand entering the system is minimized using a filter below the pump. If sand or mud is pulled into the pump, even at high volume, it will not damage or produce any significant wear in the pump and will simply flow to the surface with the formation fluids.

The Jet Pump can eliminate down-hole paraffin and wax problems. Circulation water is heated enough by the velocity in the down-hole pump that it practically eliminates wellbore paraffin build-up. The fluid used to power the Diahman pump can also be heated on the surface to insure warm enough wellbore temperatures to keep the paraffin from coagulating in the production pipe. The suction created by the pump also helps keep the paraffin from clogging the well perforations.



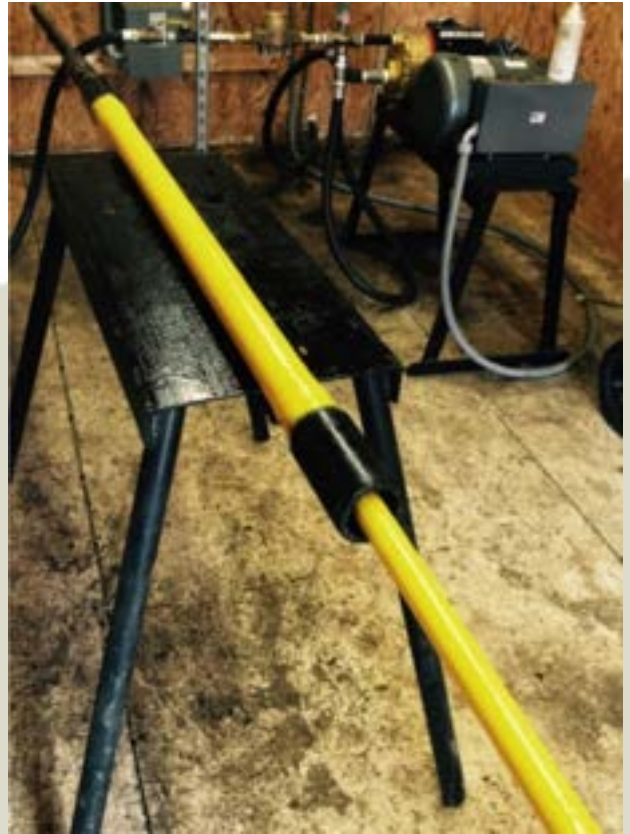
The Pump Installation



The complete pump system consists of a surface hydraulic pump and the down hole jet pump with two production strings, one for water to power the pump and one for production.

Diahman Pump Sample Photos

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Contact Diahman

For more information on the
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