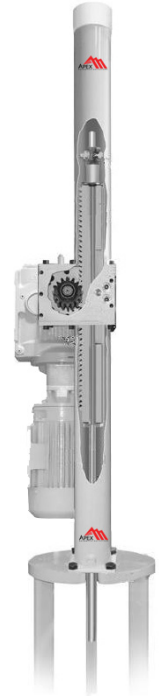


LINEAR ROD PUMP (LRP®)

The Apex Advanced Linear Rod Pump (LRP®) combines simple mechanics and industry leading variable speed well control in a compact, unobtrusive solution with significant cost and performance advantages over traditional pumping systems. The LRP® is an innovative alternative to conventional beam pumps and progressing cavity pumps.

LINEAR ROD PUMP (LRP®) FEATURES

- Simple rack and pinion mechanism eliminates high inertia mechanics.
- Lubrication is provided on every stroke by submerging the rack in an oil bath.
- Utilizes motor reversing and servo positioning capabilities of a flux vector VSD.
- Electronic control is more capable than hydraulic reversing systems.
- The LRP® pumping unit mounts directly to the existing wellhead.
- Compact lightweight and easy to transport and install. Easy to move from well to well.
- Optimized for unattended operation on remote wells.
- Programmable motion enhances the effective stroke length comparable to a larger unit.
- Software monitors polished rod separation during operation. Adjusts speed accordingly.
- Natural gas can be recycled to power the LRP® using a GPL®.
- Advanced pump control to optimize production while protecting the pumping system.
- Pump fillage and LRP® speed is automatically regulated using modulation.
- An automated valve check routine automatically evaluates standing and travelling valve leakage.
- Can operate at low speeds (<1 spm) to keep wells producing without pumping off or stopping.
- Pump speed can automatically be slowed prior to fluid impact, reducing shock loads on rod string.
- Pump speed can automatically be adjusted each stroke to maximize production potential.
- Up SPM and Down SPM can be independently adjusted to maximize production potential.
- Significantly less capital investment than a pump jack with minimal installation costs.
- Optional GMC® service provides comprehensive web based monitoring and reporting capabilities.
- GMC® service provides real-time monitoring of production and performance data.



LINEAR ROD PUMP

Compared with other reversing systems, such as hydraulic, the LRP® system is self optimizing and more capable thanks to electronic control, including capability for Rod Rotators.

LINEAR ROD PUMP (LRP®) COMBINATIONS		
SPECIFICATIONS	MINIMUM	MAXIMUM
ROD STROKE (in)	20	100
ROD FORCE (lbs)	7000	30000
ROD SPEED (fpm)	10	375
PUMP SPEED (spm)	1	25

By combining rack lengths, gear boxes, motors and drives, the LRP® system provides maximum application flexibility while requiring minimal spare parts.



GENSET POWER



GRID POWER

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