



More Oil - Less Water

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www.mkpump.com

Improve Stripper Well Performance
Through Micro-Pumping

PRODUCT OVERVIEW

MK's RHINO MINI JACK™ PISTON PUMP

Tough, lightweight and economical pump recovers oil gently from stripper wells without overpumping the oil formation

The Rhino MiniJack™ is a one-package system that works like a pump jack, but is significantly smaller and less than half the cost

Choose Electric or Pneumatic Motor

The tradition of reliability established by oil field pump jacks is updated by MK Pump's smaller, next-generation unit aimed at recovering shallow oil more easily and economically than with earlier technologies. MK's lightweight Rhino MiniJack™ top-head-drive piston pump, new in the oil patch, is built to perform gently in low-flow micro-pumping environments. The Rhino MiniJack can be fine-tuned to the oil yield of a formation – reducing water intake, gas lock and emulsification. Quiet, programmable pumping does not disturb the oil column being pumped.

MK's low-flow Rhino MiniJack™ is a positive-displacement piston pump that weighs less than 125 pounds. Yet the Rhino MiniJack™ recovers oil reliably at controlled rates of up to 15 bbl/day at 1,500 feet, utilizing controls that are state of the art. The unique and patented top-head-drive system is tough, field-proven and easy to install, operate and maintain. The Rhino MiniJack's purchase price is less than half of a pump jack system, and operating costs are significantly less. With a remarkably low surface profile, the Rhino MiniJack is designed to handle extreme conditions and is compatible with standard oil well heads.

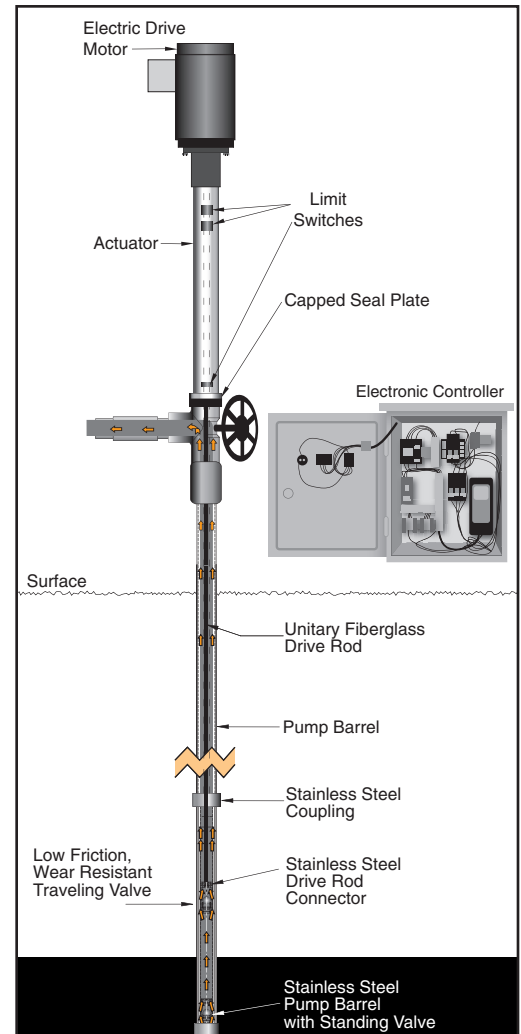
Here's what makes MK's Rhino MiniJack different

Unique, Fully Enclosed Top-Head-Drive Motor

- Field-serviceable top-head-drive motor is mounted just above the pumping unit and the oil being pumped, resulting in extremely dependable, efficient and easy-to-control mechanics, with simple servicing
- State-of-the-art, programmable-logic controller tightly manages pump activity and reduces operating costs, while built-in communications port offers easy off-site computer monitoring
- Weather-resistant actuators are built for extreme conditions
- Unlike bulky heavy iron, the Rhino MiniJack has a remarkably low profile and small footprint
- The Rhino MiniJack is simple to install and easily portable, weighing less than 125 pounds
- Patent-pending stuffing box prevents surface leaking and allows fast surface change-outs
- These positive-displacement pumps provide optimal flow rates and can pump uniformly against high head, independent of the liquid head in the well

Stainless-Steel Downhole Pump Barrel

- The Rhino MiniJack's downhole pump features a machined, rolled and welded stainless-steel pump barrel with standing valve, plus a stainless-steel check ball and seat to ensure no-leak performance and long life
- Stainless steel pump barrel stands up to tough chemical, gas, grit and silt environments
- Downhole pump barrels are in broad service, with millions of successful pumping hours

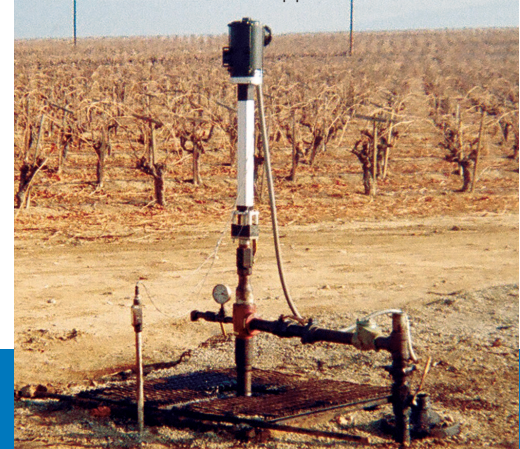


Flow Range

- At 1,500 feet: 15 bbl/day w/3 hp motor
- At 750 feet: 15 bbl/day w/ 1 hp motor

Pumping Capabilities Depend on Model Choice

The Rhino MiniJack Electric Piston Pump at work on a California stripper well



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Patented Traveling Valve

- Made of low-weight, high-strength, low-friction material or brass, depending on downwell temperature and chemistry
- Field proven to provide extended service life
- Low-friction material is ideal for applications requiring resistance to abrasion
- Seals are easily replaced
- Lightweight unitary drive rods have the strength to go deep, yet allow the pump to work more efficiently and economically, with lower horsepower
- MK Rhino MiniJack pumps are adaptable to existing tubing and well heads

Multiple downhole pump sizes, depending upon pump volume and depth

- Choose up to 15 bbl/day to depths of 1,500 feet using 3 hp electric motor, or up to 15 bbl/day to depths of 750 feet using 1 hp motor
- Pneumatic Motor Option

Patented Drive Rod and Connector

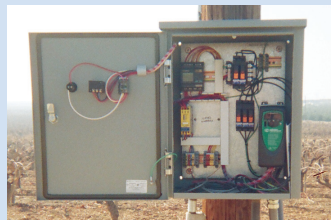
- Unitary fiberglass rod is high strength and low weight, which allow fast installation at low cost
- Continuous drive rod up to 1,500 feet
- Highly reliable reinforced rods run cleanly and easily, and are designed for the most demanding situations, including hot, viscous oil wells

Fully-enclosed top-head-drive motor offered in standard or explosion-proof versions

- Explosion-proof electric motor option meets U.S. Class 2, Div. I requirements
- All-weather actuator stands up to extreme hot and cold environments
- Top-head-drive actuator motor is mounted on top of well head, and is fully field-serviceable

State-of-the-Art Programmable Logic Controller (PLC) Option

- Choose easy-to-use pump time and dwell set-up with external communication port – allowing you to decide speed, time between pumps, and time of day, week or month to pump
- Pre-program speed, hour run time, stroke count, dwell delay time for both up and down stroke, auto restart if electric service interrupted, time-of-day on/off
- Match production with actual well inflow by changing pump cycle time in the well or through continuous altering of pump speed
- Accurately control rod pumping system, determining when pump needs to run to reduce utility costs
- Actuator and control work together to reduce rod load and torque, resulting in lower horsepower requirements
- Built-in communications port allows operator to monitor, manage and optimize Rhino MiniJack pumps from a single, off-site control point
- Pump and controls come ready to plumb and plug in



Customizable

- Choose a standard unit or mix and match components for individual needs

Choose an
**Electric (right)
or Pneumatic
(below)
Drive Motor**



Customizable Downhole Pump

High-strength, low-friction traveling valve and stainless steel pump barrel with standing valve, plus stainless steel check ball and seat provide for long pumping life



About MK Pump Company

MK Pump Company manufactures the only patented top-head-drive piston pump system developed to recover oil easily and economically from stripper wells. Along with its predecessor company, MK Pump has more than 15 years of real-world field experience in developing and refining pumping products in oil fields and petrochemical facilities. MK builds its pumps to ensure rigorous flow specifications while withstanding the harshest outdoor environments and the most difficult downhole pumping conditions.

Also Available:

- Rhino MiniJack top-head-drive motors
- Rhino MiniJack downhole assembly products
- Rhino MiniJack controls
- Rhino MiniJack drive rods

RhinoMiniJackMS: 02/07

Please visit www.mkpump.com for more information