

Rotaflex® with PMM and ForeSite® Power Combo

Unites Long Stroke Pumping, Permanent Magnet Motor, and Advanced VSD Energy Efficiency for Improved Safety and 37% Reduced Energy Consumption

Objectives

- Reduce energy consumption and associated OPEX while maximizing production
- Improve safety performance through improved equipment design
- Reduce downtime associated with pumping unit activities through intuitively designed technology requiring fewer moving parts

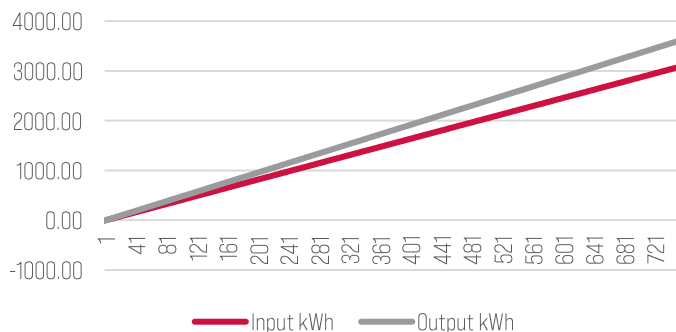
Our Approach

- Weatherford artificial lift specialists implemented a combination of high efficiency technologies featuring the Permanent Magnet Motor (PMM) combined with the ForeSite Power regenerative variable speed drive (VSD), which provided about a 17% effective gain for the system in addition to the PMM efficiency savings of about 20 percent. This solution captures and reuses the regenerative energy produced during pumping cycles, optimizing energy usage and reducing waste.

Value to Customer

- This proprietary Weatherford combination of pumping unit technologies allowed the operator to reduce energy consumption 37%, significantly improving costs and efficiency. Furthermore, the solution enhanced safety by removing rotating equipment and decreased the system's overall carbon footprint, all while maintaining reliable production rates.

kWh Consumption and Production



This graph shows ForeSite Power regenerative VSD produces more kWh output than its kWh input, resulting from the reuse of otherwise wasted energy.

Efficiency



This chart graphs the efficiency trend resulting from the reuse of the otherwise wasted energy.



The Weatherford Rotaflex long stroke pumping unit combined with ForeSite Power regenerative system VSD and the PMM direct drive creates next generation energy efficiencies from all three technologies, providing higher levels of production performance and cost saving value.

LOCATION
New Mexico

WELL TYPE
Oil producer

WELL DEPTH
10,200 ft (3,109 m)

PRODUCTS/SERVICES

- Rotaflex long stroke pumping unit
- ForeSite Power regenerative VSD
- Permanent Magnet Motor
- COROD® continuous rod

