

Custom Design Delivers Performance in Light Oil Application

Location: USA | Product Information: PCP Model 33



CHALLENGE

A client required a robust PCP solution for a well with 2-3/8" tubing and 4-1/2" casing in a light oil, high water cut application. Existing pump models either underperformed or did not meet the required flow rate, creating inefficiencies. The client also faced urgent delivery timelines and chose Lifting Solutions for our technical expertise, product quality, and proven performance.

SOLUTION

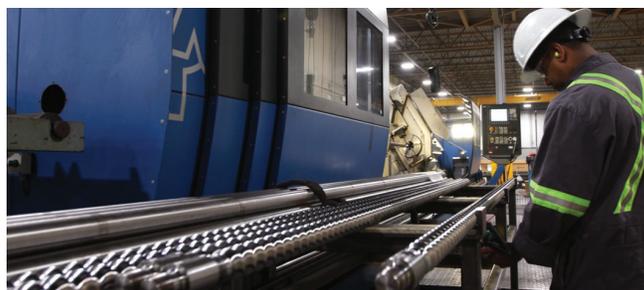
After thorough collaboration and evaluation of multiple pump design options, the final decision —**PCP Model 33**— was then engineered, designed and manufactured to meet the specific needs of the application. The PCP Model 33 offered:

- **Higher d/e ratio** for increased fatigue strength and reduced failure risk enabling the pump to handle greater torque and lift
- **Higher geometric index (GI)** for less aggressive geometry, ideal for light oil
- **Lower vibration coefficient**, minimizing stress and wear in high water environments
- **Lower sliding velocity**, reducing friction and heat at the elastomer-metal interface.

This tailored design was validated through internal testing and client collaboration, ensuring fit-for-purpose performance.

PERFORMANCE

From design confirmation to shipment, the entire process was completed in **30 days**, showcasing Lifting Solutions' ability to rapidly develop and deliver a new pump model without compromising quality. The client experienced firsthand the benefits of our fully integrated, in-house engineering, manufacturing, and assembly capabilities, which enabled accelerated timelines and seamless collaboration.



SPECIFICATIONS

LS MODEL 33	
LS Geometry Index	24.5 (compared to an average index of 12.7 for similar available models)
Max. Sliding Velocity	0.3 m/s @ 100 RPM
d/e Ratio	7.3 (compared to 4 to 5 for similar available models)
Rotor Swept Angle	60° (compared to 45 to 50 for similar available models)*

*Available models with similar volume that can be deployed with same tubing and casing limitations.

The successful deployment of PCP Model 33 reinforced Lifting Solutions' reputation as a nimble, technically advanced partner capable of solving complex lift challenges with speed and precision.