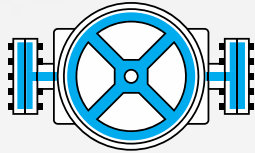


PROGRESSIVE CAVITY PUMP OPTIMIZATION



PCP



GAS LIFT



SRP



KEY BENEFITS

- Monitors Pump Efficiency
- Prevents Premature Pump Failure
- Increases Run Life of Equipment
- Provides Real-Time Downhole Monitoring
- Mitigates Damage Caused From Dry Pumping

SYSTEM SPECIFICATIONS

PRESSURE RANGE INTAKE/DISCHARGE	0-16 KPSI	VIBRATION RESOLUTION	0.055G
PRESSURE ACCURACY	±0.01% FS typ.	SAMPLE RATE	1/10TH SEC.
PRESSURE RESOLUTION	±0.01 PSI typ.	TYPICAL DATA CAPACITY	2 YEARS, SAMPLING EVERY 30 SEC.
MAX TEMPERATURE	165°C / 330°F	CONTROLLER INTEGRATION	MODBUS 485, 232, ANALOG & DIGITAL
TEMPERATURE ACCURACY	±1.0°C	INSTALLATION	ABOVE OR BELOW PUMP
TEMPERATURE RESOLUTION	±0.01°C		
VIBRATION	0-18G		
VIBRATION ACCURACY	±1%		

PROGRESSIVE CAVITY PUMP OPTIMIZATION

PROBLEMS FACED IN PCP APPLICATIONS

Insufficient reservoir pressure drawdown

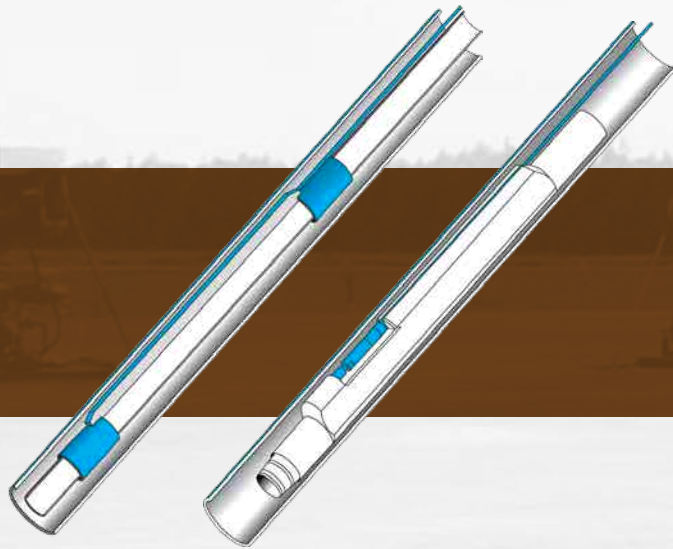
Lack of fluid into pump causing PCP to run dry

Premature equipment failure

SOLUTION

PUMP INTAKE PSI + VSD OPTIMIZATION = CRUISE CONTROL

- ✓ Monitoring downhole pressure data can be used to increase pump speed to keep reservoir pressure down to allow for optimal production
- ✓ Installing a downhole gauge gives the ability to monitor reservoir fluid level and prevent damage to the downhole equipment caused from dry pumping
- ✓ Gauge parameters can be used to monitor pump efficiency and to act as an early warning system to prevent premature equipment failure.



RESULTS IMPROVING ECONOMICS BY EMPOWERING OPTIMIZATION

↑ RUNTIME

↑ PRODUCTION

↓ COSTS