Pump-Off Controller

Performance Optimization for Oil & Gas Extraction
INTECH’s value resides in software algorithms embedded in the Rugged PC, which requires no external sensors, wires, load cells or other field devices. The POC uses technology that analyzes the motor’s rotor relationship to the stator to determine load and position. As with traditional Pump-Off Controllers, pump-off is determined when the load is reduced at specific positions. Unlike traditional Pump-Off Controllers, INTECH’s POC can be integrated via GSM, radio, fiber or Ethernet and report problems such as pump-off, parted rod, leaking valve, high load and minimum load, even shutting down if conditions warrant. All this data is available via ModBus Ethernet as read and write values. INTECH’s POC allows you to monitor and control rod pumps at the well site or by using telemetry and SCADA systems.

SYSTEM ARCHITECTURE
**BENEFITS DELIVERED**

**Easy Distributed Solutions**
INTECH’s POC solution is easily networked on the wellpad wirelessly for faster system commissioning and monitoring, and faster production without need for trenching and wiring time delays.

**Scalable And Reusable**
INTECH’s ready-to-use solutions can be easily configured and attached to any network to increase network size. Wireless operations allow these solutions to be easily removed and installed at new locations.

**Faster Deployment**
INTECH systems are easy to configure and allow faster and easier mapping over networks. The time you save in setting up the solution can be utilized in getting well pads running sooner.

**Maximize Lifetime Production**
INTECH’s easy and cost effective installation helps reduce costs and ensure better returns on asset investment. INTECH systems are safe and reliable; lowering OPEX costs through reduced disruptions, which also extends the production life of wells.

**Harsh Conditions**
INTECH’s solution sets a benchmark for quick and easy installation, and enables production in remote locales and harsh weather conditions. The POC equipment is certified NEMA-4X.

**PANEL SPECIFICATIONS**

**Intelligent Motor Controller**

**Description**
- Motor Contactor for 30-50 HP Motor
- Ethernet Remote IO
- 4- Port Ethernet Switch
- Rod position sensor (wireless)
- VSD (optional)

**Core Differentiation**
- Non-linear model for wells of all depths
- Small footprint; less-intrusive, easy installation
- Combined well-test data for accurate performance prediction

**Derived Differentiation**
- Early detection of anomalies and prevention
- Flexible communication options
- Quick to install and limited number of dependent sensors needed

**Software Features**
- Torque computed through Current (and Voltage) and beam displacement
- Non Linear (Current) function Model development

**Protection Functions**
- Ambient Temperature
- DC overvoltage
- DC under voltage
- Drive temperature
- Input phase loss
- Power limits
- Overcurrent
- Short circuit

**Pump-off Processor**

**Description**
- Fanless Rugged PC
- 6-8 Port Ethernet Switch
- Cloud Gateway
- Wifi access point
- Display Panel

**Deployment Differentiation**
- RTU with Local Pump-Off Function
- Base Function (Remote Server Based), Beaming to Cloud option
- Power (incl. auxiliary equipment) under 30W

**Features**

**Data Mining:**
- Rod Pump Analytics
- Dyno-graph with Calculations

**Visual interface:**
- Automatic start & reset
- Diagnostics & Notifications
- Programmable I/O
- 60-Day Log for Pump Curve
- OPC integration
What Our Customers Say

End User

“I would like to commend INTECH’s on-site team for going beyond individual primary responsibilities, exhibiting a diverse skill set to progress towards project completion.”

Sr. Project Supervisor

“I would personally like to thank you for your vendor support based on my experiences over the last 12 to 18 months. You are ahead of the industry curve on this project. We will be sure to let others in the industry know.”

Sr. System Engineer

“After successful commissioning I would express my satisfaction at duly meeting the project schedule. The work was done in most professional manner and we shall favourably consider your company for future work.”

Sr. Engineer

Vendor Expertise

Standards & Certifications

Partners