

LUFKIN Well Manager™ 2.0

Pioneered to maximize production.
Enhanced to meet tomorrow's intelligent control needs today.

The LUFKIN Well Manager is the most widely utilized rod pump controller in the world. It paved the path with patented technology to accurately control and analyze rod-pumping systems in a way that optimizes production in the field like never before.

LUFKIN continues to lead advancement with its Well Manager 2.0 (LWM 2.0). This next generation device provides more efficient data-gathering capabilities, an intuitive interface and the most advanced intelligent control solutions to maximize well performance while improving artificial lift equipment operation.

- ✓ **Produces accurate data which results in better pumping performance.** Downhole calculations are considered the most accurate in the industry, utilizing intelligent control algorithms to enhance productivity.
- ✓ **Flexible programming and I/O expansion capabilities enable production control to evolve.** Separate from rod pump control, the LWM 2.0 also operates as a PLC, supporting function block logic and PID control functions with multiple options for I/O expansion including AI, AO, DIO, PDI, RTD, and thermocouple inputs.
- ✓ **Remote access facilitation to view well data from any location** to assist operators in visualizing well data and performance. Though compatible with most available SCADA Systems, a SCADA system is not required for remote access.
- ✓ **Acts as a web server, no proprietary software required.** Retrieve data by simply connecting using a laptop, tablet, PC or mobile device.
- ✓ **Features a full color, high resolution, multi-language user interface** complete with on-board Wi-Fi connectivity.

WHY LWM 2.0?

- Optimizes production
- Reduces operating costs
- Minimizes equipment failures
- Displays lift system issues
- Facilitates visual remote monitoring
- Enables expansions and upgrades
- Configures easily
- Protects valuable assets



OPTIMIZING OUTCOMES WITH SEAMLESS SERVICE

At LUFKIN, service is synonymous with solutions. The LUFKIN team is committed to providing the best technical expertise in design, installation, optimization, troubleshooting, and training to maximize automation operational efficiencies and protect critical control equipment.

Offers the most advanced Variable Speed Control functionality when paired with a LUFKIN VSD.

lufkin.com/automation

Trusted design and reliability, now with intelligent technology that provides operators enhanced connectivity, functionality and flexibility.



ENHANCED FUNCTIONS

Advanced Control Capabilities At Your Fingertips

More than a rod pump controller, the LWM 2.0 features advanced control functions, including Variable Speed Pump-Off Control, Fluid Pound Avoidance, Torque Functions and Pump Tag Mitigation to optimize production in dynamic conditions. Pump-Off Control can be configured to utilize pump fillage or live or calculated pump intake pressure as a setpoint.

Minimize Risk of Early Equipment Failures, Extend Uptime

Advanced functions such as gear reducer torque and pump tag monitoring provide the operator with the tools to quickly verify that the pumping system is operating within its operating limits, minimizing the risk of early equipment failures.

Additional Advanced Functions:

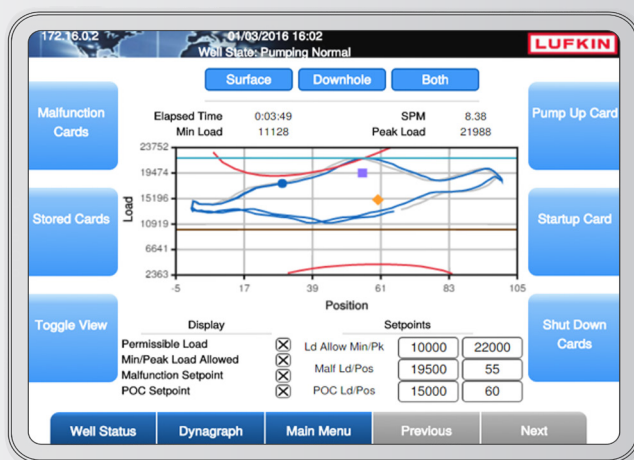
- Intra-Stroke VSD Fluid Pound Mitigation
- Pump Tag Mitigation
- Scheduled Pump Card Pattern Matching Analysis

Increased Flexibility, Multiple Communication Modules

The modular design of the LWM 2.0 provides easy field service solutions and includes a communications module complete with multiple Ethernet ports, RS-232, RS-485, and Wi-Fi communications. In a SCADA environment, Modbus RTU and TCP are supported in both master and slave configurations. Connectivity via Ethernet is fully supported. Dynamic Modbus Register Configuration functionality provides the operator with the flexibility to design a most efficient SCADA system.

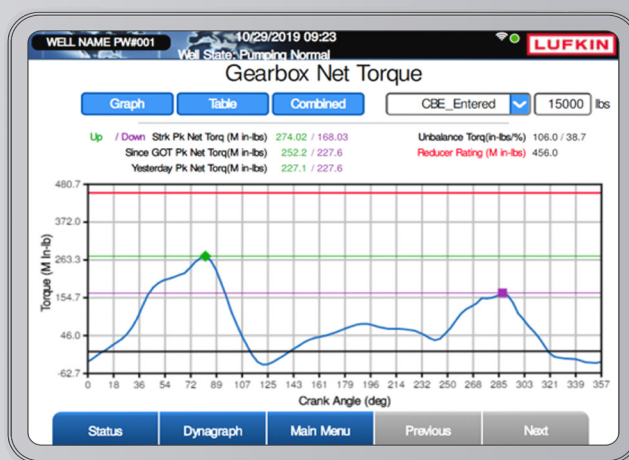
LWM 2.0 SPECIFICATIONS

Applications	Rod Pump Control with and without VSD. Conventional, linear, and hydraulic pumping units. Compatible with DH pressure gauge input.
Operator Interface	640 x 480 TFT Color Wi-Fi, Web Server for remote access
I/O	8 AI, 2 AO, 8 DIO, 2 PDI (Exp.to 8 AI, 4 AO, 16 DIO, 4 PDI)
Memory	512MB DDR3 RAM, 1GB on Board Flash
Temp. Rating	-40 to +158° F (-40 to +70° C)
USB for additional storage	Yes (Micro SD, future)
User Interface	High resolution color screen, keypad w/ dynamic menu options
Ingress Protection	POC: NEMA 4X/IP66
Power Input	100 – 240VAC, 50/60 Hz 12VDC
Certification/ Standard	cULus, IEC
Communications	RS232, RS485, Ethernet, Wi-Fi Web Server compatible with any standard internet browser, including Apple Safari, Google Chrome, and Microsoft Internet Explorer. Compatible with smart phone Internet browsers.



Control function

Intuitive dynagraph setup with permissible loads



Gear Reducer Torque

For every stroke, the LWM 2.0 calculates gear reducer torque per 15 deg. Crank Angle intervals utilizing actual Polished Rod Load utilizing the API RP11E method. A VFD is not required to generate the torque plots!



LUFKIN Headquarters

811 Willow Oak Drive
Missouri City, Texas 77489
(281) 495-1100

lufkin.com/automation