



BLACKHAWK
TECHNOLOGY COMPANY

**ANY LIQUID,
AT ANY DEPTH, IN
ANY ENVIRONMENT.**

NEXT GENERATION PUMP CONTROLLER

Better thinking inside the box, with the intuitive pump controller

PRODUCT OVERVIEW



**CHOOSE STANDARD (TOP)
OR PUMP MOUNT MODEL**

**LOWER YOUR COSTS
AND IMPROVE YOUR
PUMP PRODUCTIVITY
WITH NEXT-GENERATION
TECHNOLOGY FROM THE
FIELD-PROVEN LEADER**

THE BEST PUMPING CONTROL IN THE INDUSTRY

Conventional pump controllers run fast, then stop—on and off, like a light switch. As a result, pump production is inconsistent, and operating costs are high. Stop-and-go performance is hard on critical machinery, too. As requirements for pump efficiency and effectiveness continue to rise, operators look to technological improvements to meet their higher performance goals. The new generation is here.

NEW, STATE-OF-THE-ART BLACKHAWK CONTROLLER REDUCES OPERATING COSTS, BOOSTS PRODUCTIVITY AND EXTENDS PUMP LIFE

Blackhawk's industry-leading control box has taken another step in controller evolution. Programmed to optimize your individual pumping situation, the Blackhawk Controller acts as the pump's brain.

It senses downwell conditions and environment changes, then adjusts pump dynamics to match well outputs. Advanced software varies stroke counts and running speeds, which eliminates the need for the pump to shut down. The Blackhawk Controller adjusts strokes to reduce rod float, and increases upstrokes to maximize production. The effect of this tightly controlled activity is to boost productivity while reducing the drive's overall speed. Slower speeds mean lower horsepower requirements—resulting in reduced energy costs and less wear on vital pump components.

TUNE YOUR PUMP TO YOUR WELL—KEEP IT RUNNING AND PUMPING MORE

The Blackhawk Controller actively varies pump speed throughout the day, even during a single stroke, to run at each well's optimal speed. You get more fluid with less silt, sand and sediment, while eliminating downtime. The controller can be programmed to shut down the pump

during hours of peak energy costs, or to run a pump just fast enough to help prevent sand and silt from entering the plunger.

BLACKHAWK PUTS YOU IN CONTROL OF THE WELL AND WELL DATA

You program productivity and power parameters. Monitoring is easy with useful, simply presented data displays available both at the well and to a SCADA system. The built-in communications port allows easy offsite computer monitoring of many wells by a single field operator.

RELIABLE, VERSATILE, INEXPENSIVE

The Blackhawk Controller is built on a hardware platform from Emerson Electric, globally known for reliability. The controller works with virtually any pump in the field, and is the ideal companion to Blackhawk's Vector top-head-drive piston pump.

With increased well production, lower energy consumption, fewer mechanical failures and reduced parts replacement—in addition to the low purchase price—Blackhawk's Controller is an excellent overall value. And it installs in less than half the time of a conventional controller, a bonus savings.

Let us show you the ROI of your individual situation—for free. We can help your pumps work harder at lower cost.

NEXT GENERATION PUMP CONTROLLER

Better thinking inside the box, with the intuitive pump controller

- Choose easy-to-use pump time and dwell set-up with external communication port—allowing you to decide speed, time between pumps, and time of day, week or month to pump
- Pre-program speed, hour run time, stroke count, dwell delay time for both up and down stroke, auto restart if electric service interrupted, time-of-day on/off
- Match production with actual well inflow by changing pump cycle time in the well or through continuous altering of pump speed
- Accurately control rod pumping system, determining when pump needs to run to reduce utility costs
- Built-in communications port allows operator to monitor, manage and optimize pump from a single, off-site control point
- Pump and controls come ready to plumb and plug in

TECHNICAL SPECIFICATIONS

- Nema 3 Enclosure 20x16x8 inches
- Auto restart on power loss
- PLC programmable VFD
- Modbus RTU RS485 via R J45 connector
- Communications upgradeable
- Hour's meter (years, days, hours, and minutes)
- 25 amp disconnect
- Required fusing to meet NEC specification
- Programmable Logic Controller (PLC) Adjustable PLC functions at the pump.
- Drive "ON/OFF" switch
- Speed "MIN/MAX" potentiometer
- "Pump running" light

BLACKHAWK CONTROL PANEL OPTIONS

- External display (can be mounted up to 100' from control box)
- Stroke counter
- Stroke dwell (needs I/O or real-time clock module)
- Programmable I/O modules
- Real-time clock module for time of day run
- Conductivity level control
- Pressure transducer level control
- IS barriers for explosion-proof applications
- SCADA communication modules
 - DeviceNet
 - PROFIBUS-DP
 - CANopen
 - INTERBUS
 - Ethernet

Notes:

- Only one module per drive may be used
- Functions are stored on a removable reprogrammable logic chip
- Functions may not be changed on the chip without a laptop computer



ABOUT BLACKHAWK TECHNOLOGY COMPANY

Founded in 1990, Blackhawk Technology Company manufactures the industry's most comprehensive line of electric, pneumatic, and windmill top-head-drive positive displacement piston pumps designed to withstand the harshest outdoor environments and the most rigorous downhole pumping conditions. The Company originated landfill and groundwater remediation piston pumps, and no one offers more application experience in landfills, petrochemical facilities, and remediation sites.

To learn more, see our customer testimonials and case histories at www.blackhawkco.com.