



Emerson Impact Partner



LCO TECHNOLOGIES
The CROSSFIRE Ultra-Low Power
Chemical Injection Pump

www.proconexdirect.com

THE CROSSFIRE

Ultra-low Power Chemical Injection Pump

Easily Reduce Methane Emissions

Methane has 25 times the negative impact of carbon dioxide on climate change. In Western Canada, the oil and gas industry is the largest source of methane emissions with 48% emanating from direct venting and venting equipment. In conventional operations, pneumatic chemical injection pumps emit more methane than any other piece of venting equipment. Pneumatic chemical injection pumps have been the status quo in our industry for many years and it is estimated that there are over 100,000 operating in Alberta alone. One of the best options, to help with Canada's 2025 target of reducing methane emissions by 45%, is to replace these pumps with ultra low power electric chemical injection pumps.

Increase Efficiencies and Reduce Costs

In addition to the large amount of methane released by pneumatic chemical injection pumps, they are also responsible for a significant amount of chemical wasted each year. Because of the simplistic design and lack of sophistication in their controllers, many chemical injection pumps are over-injecting. Due to personnel and equipment safety risks associated with under-injecting, over-injecting has become the industry norm, but it does result in large sums of capital wasted on chemical usage and procurement. These problems can be avoided with increased automation in the control of the pump and the use of reliable chemical management applications.

The CROSSFIRE is an ultra-low power electric, two to four head chemical injection pump and comes complete with the CROSSFIRE smart controller. The controller and chemical injection pump, operating in a standalone mode or interfacing with Emerson's RTU based smart application Chemical Manager, will eliminate methane emissions in chemical injection and significantly increase chemical injection efficiency while reducing overall chemical costs.



Injection Rates: >1L/day to a max of 720L/day

Injection Pressure: Up to 10,000 PSI

CROSSFIRE Chemical Injection Pump

Special features:

- Uses 5100 series fluid ends for easy and complete field serviceability
- Consistent chemical dispersion rate
- Highly efficient to achieve significant autonomy in low light conditions
- Field hardened and designed to protect batteries for full life of use
- Robust controller design and intuitive interface allows for easy field integration and implementation
- Up to 4 pneumatic pumps can be replaced with a single four fluid end CROSSFIRE pump to drastically reduce carbon footprint



A CL I Div II Smart Controller featuring a high performance 32-bit processor. The design is compact, light weight, and DIN rail mountable. Multiple standard panels are available dependent on site infrastructure.

CROSSFIRE Controller

Special Features:

- User friendly and intuitive operator interface via serial cable or Bluetooth connection
- Variable speed and programmable logic control
- Equipped with mixed analog and discrete I/O
- Modbus communication for remote monitoring and controls via SCADA directly or through local RTU
- Operating temperature range of -45°C to +85°C
- Tracks stroke counts for carbon credits through Alberta pneumatics offset protocol
- Time stamped status and event logs saved in non-volatile memory
- Ethernet and serial communications available
- On-board diagnostics show heartbeat, system status and communication port traffic

FLOBOSS 107 AND ROC 800 SMART APPLICATION: CHEMICAL MANAGER



With new or existing FloBoss 107 or ROC 800 flow computers and RTUs, the addition of the Chemical Manager application is easy. Used in conjunction with the CROSSFIRE pump and controller, Chemical Manager will increase visibility and control of site logistics and inventory, reducing overall operating expenses.

Special Features:

- Easy integration with CROSSFIRE controller
- Real-time injection optimization; eliminates over or under chemical injection
- Built-in concentration target calculations – calculations based on temperature, Joule-Thomson effect, or pipeline in/out conditions
- Set-up options include single pump with single injection point to common pump with multiple injection points
- Built-in and configurable inhibits
- Provides tank inventory, fill information, geometry, live values (capacity, current level, volume, chemical shelf life, etc.)

Call Us or Request a Quote Online

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