

Chemical Injection Systems



THE BEST KEEPS GETTING BETTER



NEW SOLUTIONS!

- Atlas PVC pumps
- Complete H₂S systems with analyzer
- Three levels of redundant systems
- Autonomous slipstream injection
- New LPDA Antenna for Connect
- XLPE tank packages
- Customized heated tank packages

Fusion²TM

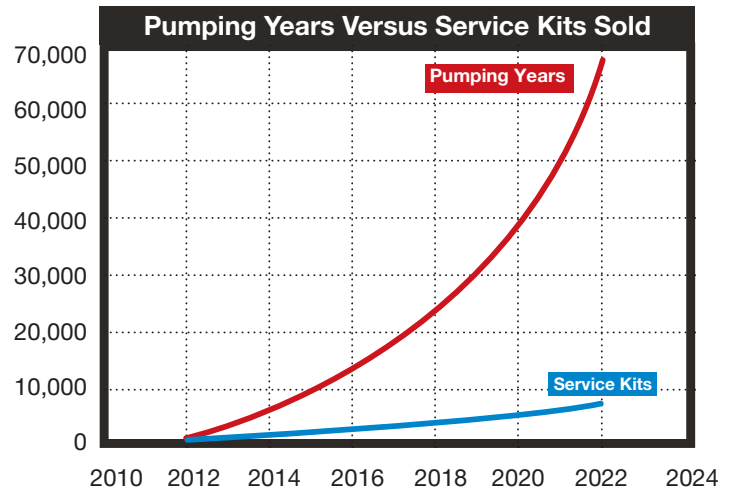
PUMP MOTOR CONTROLLER

LOWEST COST
OF OWNERSHIP



HOW DO WE DO IT?

**TECHNOLOGY
& INNOVATION**



OVER 4 PUMPING YEARS PER REBUILD! (ON AVERAGE)

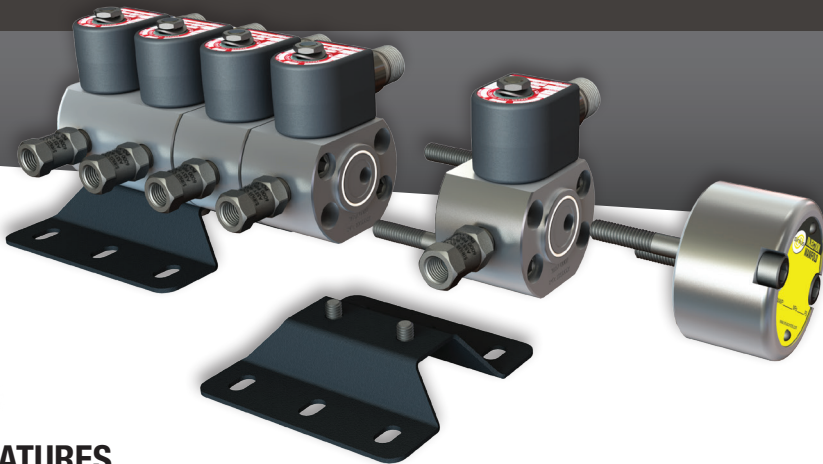
CUSTOMER VALUE

- Advanced communications and control.
- Continuous, variable-speed injection control that works on both AC or DC power supplies.
- Extreme turndown rates 1000:1 and no mechanical adjustments.
- Built-in features automatically adjust for varying supply voltage and process pressure to maintain a consistent injection rate.
- Dual Seal Technology with no leaky packing to tighten.
- Superior chemical compatibility and accurate injection.
- Electronic Pump Protection switch built into the system.
- Sirius standard pump offerings rated for up to 5,000 psi and 2,000 Q/Day (L/day).
- Specialty pumps available for significantly higher rates and pressures.
- Ability to communicate with legacy PLC/SCADA systems without Modbus capability.

STACK™

MULTIPOINT INJECTION SYSTEM

The STACK™ Multipoint Injection System is a highly cost-effective system of delivering chemical to multiple injection points using a single pump and controller.



FEATURES

- Expandable from 2 to 15 points of injection. Points are easily added and removed in the field.
- All calibration and adjustments are performed electronically with no need for mechanical adjustments or complex multi-head pump setups.
- No elastomeric seals in the STACK™, providing wide ranging chemical compatibility.
- Each point can inject independent rates at varying pressures.
- Any percentage of the max rate can be distributed to any injection point.

A single low-cost pressure transmitter provides pressure status for up to 15 points!

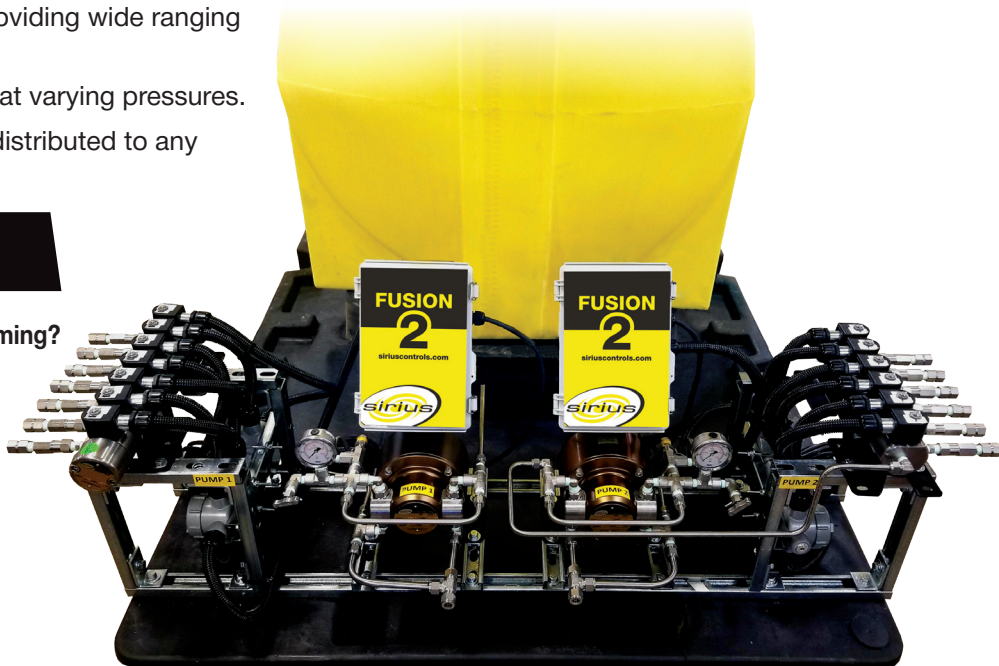
Tired of multipoint systems that are not performing?

At Sirius, the pump, motor, controller and STACK™ Multipoint Injection System are designed in-house and optimized for harmonious operation.



STACK™ CHECK

The Stack™ Check regularly performs automated quality checks ensuring each point is functioning properly.



MULTI-POINT FOR MULTI-WELL PADS



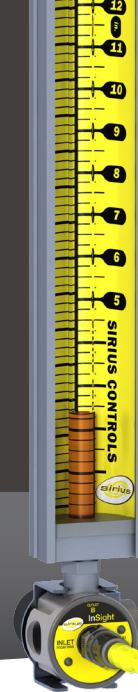
Most pump companies contract third parties to design their controllers and then purchase a multipoint array from yet another company.



InSight™

SMART SIGHT GLASS

- Continuous Flow Measurement and Control
- Flow Verification
- Tank Level Monitoring
- Autonomous Calibration



The Sirius InSight™ smart sight glass provides critical information about the injection process. The system automatically meters fluid through a sight glass in the same way that an operator or pumper would check flow rates to calibrate a pump. This simple device extends the capabilities of the Fusion²™ pump controller by providing the following:

Closed loop feedback injection rate control:

- 1 The actual flow rate is continuously monitored and compared to a desired rate. Changes are then automatically made to pump speed ensuring accuracy 100% of the time. This optimizes chemical treatment, while avoiding costly over and under injection.

Flow rate variations can occur due to pressure or viscosity changes, battery or power changes, and due to pump or intake issues.

Tank Level:

- 2 The tank level can be checked remotely through SCADA or Sirius Connect to improve inventory management and tank refill scheduling.

Flow Verification:

- 3 Issues such as an empty tank, blocked filter or maintenance needs are immediately identified and can be remotely communicated and managed in a cost effective and preventive manner.

CLIENT VALUE

Fewer visits to location
Continuous flow measurement and feedback control
Keep track of tank inventory management, refill date and volume required
Information to set alarms such as low level, pump diagnostics
Tank volume specified rather than height of fluid
The pump productivity can be monitored permitting preventative maintenance
One button easy rate change
Area classification hazardous area or general purpose
Optimize chemical usage
Teflon/Stainless wetted parts

COMMUNICATION AND CONTROL

Flow verification alarm
Pump Control - The integration of flow measurement and pump control is automation friendly since there is only one device that needs to be programmed into the network
Modbus and or IIOT communication. Ability to run into SCADA and split off data for chemical management purposes
Digital input/output and analog inputs
Rate control in volume per day (Q/day, L/day, G/day)



Connect...

NO SCADA...NO PROBLEM!

Sirius' **Connect** is a cellular control device that can be used in place of, or in conjunction with, existing wellsite SCADA connections. Connect can be easily added to existing controllers in the field.

Connect paired with InSight™ provides operators and chemical management companies with real-time visibility of remote wellsite operations. This wireless communication and control solution reduces downtime and frequency of site visits, increases chemical treatment efficiency and effectiveness, and improves safety.

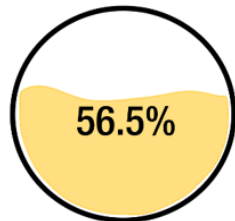


- A CELLULAR DEVICE THAT IS EASILY INSTALLED IN THE CONTROLLER.
- REMOTELY CONTROL OR MONITOR THROUGH A WEB PORTAL.
- USED IN CONJUNCTION WITH, OR IN ADDITION TO EXISTING SCADA OR LOCAL FEEDBACK CONTROLS.
- BROAD FREQUENCY COVERAGE WITH LPDA ANTENNA.

Device Name
Sirius Demo Unit

Tank Size
1000 US Gal

Tank Percent Full



Tank Level

Last Value
565 US Gal

Days to Empty

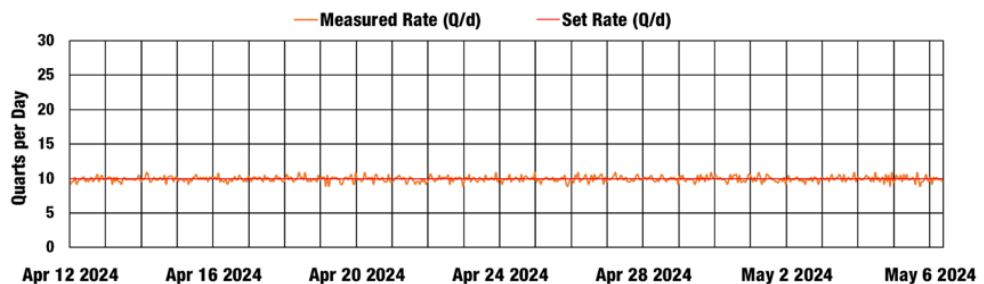
Last Value
39.8 Days

Last Updated: May 6 2024 12:00

M1 Measured Rate (Q/d)

Set Rate Measured Rate
10.0 Q/d **9.9** Q/d

Last Updated: May 6 2024 12:00



P1M1



Target M1 Rate

Enter Number

Send Value

P1M2



Target M2 Rate

Enter Number

Send Value

P1M3



Target M3 Rate

Enter Number

Send Value

P1M4



Target M4 Rate

Enter Number

Send Value

P1M5



Target M5 Rate

Enter Number

Send Value

Variable Name	Last Value (Q/d)
m1 Rate	9.6
m2 Rate	35.0
m3 Rate	12.1
m4 Rate	0
m5 Rate	0

MANAGE BY EXCEPTION!

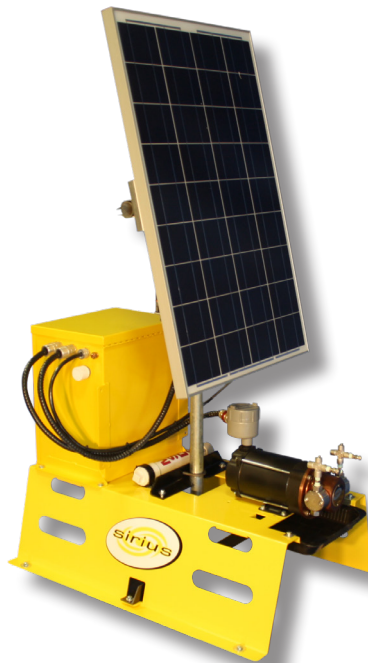
FLEXIBLE SOLUTIONS TO MEET ALL YOUR APPLICATIONS



PUMP BUILDINGS



FUSION² BASE



FUSION² SOLAR STINGER



CUSTOM SKID PACKAGES

ABOUT SIRIUS

Sirius Instrumentation and Controls Inc. (Sirius) provides a full spectrum of solar powered chemical injection systems, AC chemical injection systems, environmentally friendly tank systems, and solar products.

The company focuses on the growing need for products that meet the changing environmental requirements within the oil and gas industry. Sirius' commitment to engineering has led to many innovations, keeping the company at the forefront of technology in the chemical injection and solar marketplace.

CONTACT

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