

# FUSION



**WE JUST** 

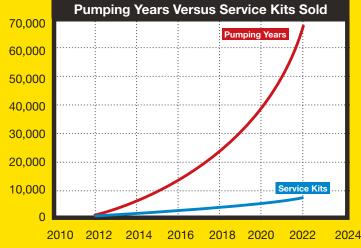
# PUMPED UP

**OUR GAME** 

### **ENGINEERED FOR LONG LIFE AND LOW MAINTENANCE**

Unique dual-seal technology overcomes the many shortcomings of adjustable packing designs. Maintenance is greatly reduced and chemical compatibility improved.



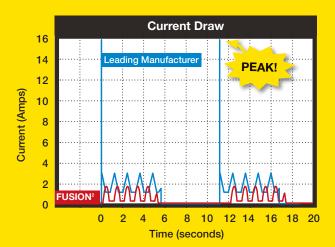


**OVER 4 PUMPING YEARS PER REBUILD!** (ON AVERAGE)

SIMPLEST AND FASTEST REBUILD AVAILABLE

NO SKILL REQUIRED





#### **NO MORE MOTOR BRUSH FAILURES!**

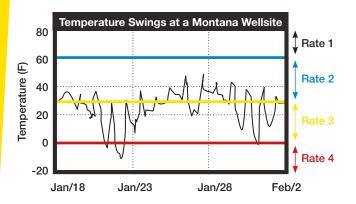
## REDUCED SYSTEM MAINTENANCE AND REPAIR

The brushless, soft starting motor eliminates inrush currents which reduces mechanical stresses and extends motor, pump, and battery life.

The Fusion<sup>2</sup> has 1/10 the start-up current of the leading pump provider, with 500,000 fewer current spikes per year

## **AUTOMATION AND CONTROLS**

#### LIKE NO OTHER PUMP

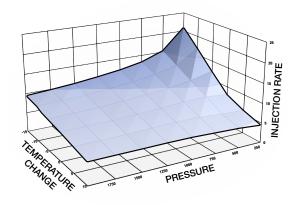


#### SIMPLE CONTROL

Conserve methanol using 4-zone temperature control. Flow rates automatically adapt to changing temperatures; saving chemical on warmer days while preventing freeze-ups on cold winter nights.

#### **ADVANCED CONTROL**

Configure the controller for proportional rate control using an external sensor, or use *multiple* sensor inputs for even more advanced control. Fusion<sup>2</sup> can be easily configured for the common equations such as the Hammerschmidt or Gas Gravity methods.



#### **Error in Injection Rates as Pressure Changes** 120 100 Set point Quarts per day 80 60 Q/day 60 FUSION<sup>2</sup> 40 Leading Manufacture 20 200 400 600 800 1000 1200 1400 1600 Pressure (psi)

#### **AUTONOMOUS CONTROL**

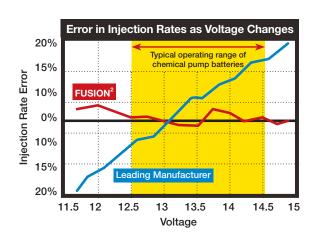
Varying process pressure can significantly affect the accuracy of chemical injected

Fusion<sup>2</sup> compensates for process pressure fluctuations using patented pressure-sensing technology.

#### **Voltage Fluctuations Affect Injection Rate**

Solar powered pumps experience day/night voltage swings as well as longer term fluctuations from changing seasons, weather, and cloud cover.

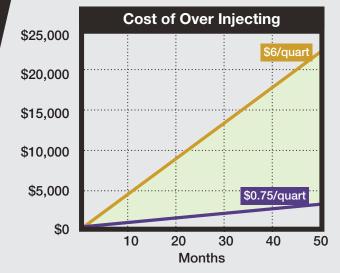
For most pumps, this voltage variation can generate injection rate errors exceeding 25%. Fusion<sup>2</sup> maintains a constant injection rate using the patented voltage compensation feature.



## SAVE & MONEY &

## STOP OVER INJECTING

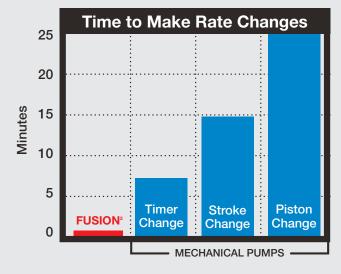
Inaccurate pumps force operators to over inject by at least 20% to ensure that minimum safe injection rates are met. The Fusion<sup>2</sup> provides the confidence to dial-back the over-injection. Even at low flow rates and low chemical cost, the Fusion<sup>2</sup> has a typical payback period of less than one year.



## SAVE & MONEY &

## REDUCE TIME ON SITE

- · No mechanical adjustments
- Single button rate changes
- Self-guided pump calibration



## SAVE & MONEY

## LOWER INVENTORY



The Fusion<sup>2</sup>'s wide operating range and AC/DC power capabilities reduces the need to carry inventory for multiple pump models. Maintenance is made simple with minimal need to carry multiple pistons, seals, and fluid ends.

## CONTINUOUS INJECTION RATES maximize

ATOMIZER EFFICIENCY

**Proper Operation** 



**Inconsistent Rate** 



# FEATURES FUSION2TM

CLIENT VALUE	
On board MPPT high efficiency solar controller	Industry Leading
Rate control directly in volume per day (Q/day, L/day, G/day)	<b>✓</b>
Injection Totalizer used to verify volume, carbon credits etc.	<b>✓</b>
Ability to calibrate to volume per day	Industry Leading
Automatically adjusts flow rate for pressure fluctuations	PATENT PENDING
Batch injection	✓
Four variable and 20 linear temperature zones for varying rate control	Industry Leading
Dual flow rate control	<b>✓</b>
Independent multipoint rate control, up to 15 points	Industry Leading
Automatically compensates for voltage changes due to day night variation etc.	PATENT PENDING
One button easy rate change	✓
Real time flow rate measurement (with optional closed loop)	Industry Leading
In house firmware development and rapid customization	Industry Leading
Power Source is either AC or DCsame pump, motor, and controller	Industry Leading
Continuous and intermittent variable speed	Industry Leading
Auto transition from continuous injection to duty cycle rate control	PATENTED
Turndown Ratio 1000:1	Industry Leading
Area classification: General Purpose and Hazardous Location Rated	Industry Leading
Operating temperature -40°F (-40°C) to 131°F (55°C)	Industry Leading
COMMUNICATION AND CONTROL	
Wifi and cellular cloud service with support for many major carriers	Industry Leading
MODBUS communications, RS-485	✓
4-20 mA rate control	✓
Individual point enable/disable	✓
Three analog inputs for temperature and one digital temperature input	Industry Leading
Three analog inputs for pressure, tank level, etc	Industry Leading
Four digital inputs for injection enable	Industry Leading
Four digital inputs for batching	Industry Leading
Sixteen digital outputs for pump on, low battery, flow control, alarms	Industry Leading
Support for MODBUS TCP	✓
Communications watchdog (disable on comm fail)	✓
Flow verification alarm, tank level, low power, cal factors, motor current, etc	Industry Leading
DIAGNOSTIC AND PROTECTION	
Single pressure transmitter provides pressure status on up to 15 points	Industry Leading
Electronic pump protection switch	PATENT PENDING
Electronic pressure estimation	PATENT PENDING
Highly enhanced logged diagnostics	Industry Leading
Current protected voltage output for powering 4-20 mA loops, pressure sensors, tank gauges, etc.	Industry Leading
Over current protection	<b>✓</b>
Current controlled start/stop	✓
Controller current rating (15 Amp)	Industry Leading
Preventative maintenance log stored in the motor	Industry Leading
Stack check confirms multipoint valve operation	Industry Leading





## FUSION<sup>2™</sup> SOLAR STAND

#### **CONTACT**

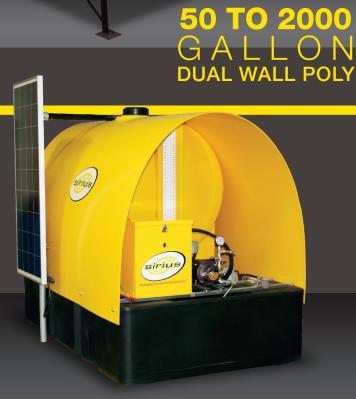
Contact Sirius for all your chemical injection requirements at sales@siriuscontrols.com Toll Free: 1.866.436.6301

Your trusted advisor for chemical injection

www.siriuscontrols.com



PRINTED IN CANADA 03/23



sirius

# NOVATA N K PACKAGE

Patented HardTopper™ prevents rain, debris and animals from entering containment, virtually eliminating vacuum truck costs.