



# 2019 Fertilizer Application Systems



## New in 2019 - 2nd Generation PumpRight



### New Features of PR Series Pumps

- Wettable Parts are Molded Polypropylene and Stainless Steel
- Viton O-Rings and Gaskets
- Diaphragm Design Prevents Tearing
- Stainless Steel Bolts and Fasteners
- Compact Design
- Plumbing Efficiency Maximized to Reduce Inlet Restriction

### Same Fundamentals as Original SureFire Diaphragm Pumps

- Self Priming - Pull Liquid From Tractor or Cart Mounted Tanks With Ease
- Consistent Predictable Output per Pump Revolution
- SureFire E-Mag Flow Meter with no Mechanical/Moving Parts



Model	Max GPM	Standard Flow Meter
PR17	17	0.6-13
PR30	30	1.3-26
PR40	40	2.6-53
D250	55	2.6-53

## Featuring the new BLUEFLEX Diaphragm System

The combination of the new BLUEFLEX diaphragms used with the new patented diaphragm plate -The BLUEFLEX SYSTEM - translates into heavy duty and long diaphragm life.

The BLUEFLEX material, curved shape and diaphragm thickness have been designed and tested to achieve optimal performance, durability and working life.



# Row-To-Row Accuracy

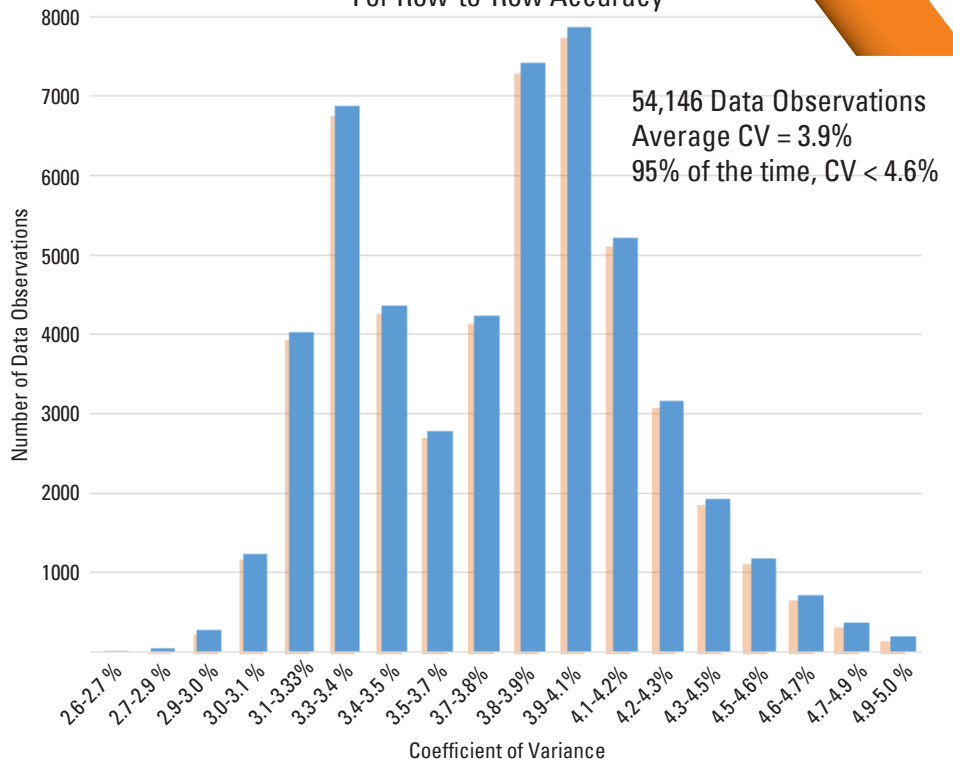
## Second-to-None

During Planting 2018 SureFire studied the row-to-row accuracy of **LiquiShift** combined with **Metering Tube**, planting 3000 acres of Irrigated and Dry Land corn with a 24 Row, 30" planter. As our lab and engineering tests have shown previously, the accuracy is second-to-none. The farmer prescription applied from 10 to 40 GPA.

Analyzing over 50,000 data points logged from the **Sentinel** Liquid Row Monitor shows that the Row-to-Row CV (Coefficient of Variance) is less than 4.6%, 95% of the time. The average CV is just 3.9%.

This large scale on-farm test confirms you will not find a more accurate system for your applicaiton needs.

SureFire Metering Tube  
Coefficient of Variance  
For Row-to-Row Accuracy



## The Power of Knowing

or Should we Say

## “The ROI of Knowing”

In our 2018 field testing Sentinel identified one row of the 24 Row Planter that was consistently 17%-19% lower than the other rows. The restriction was a kink in the hose at the pivot point of the single disc fertilizer opener. Without Sentinel the farmer would not have known of this significant reduction in rate.

What is the potential cost of not knowing?

- Total Acres Planted - 3,000
- Acres Planted by 1 Row - 125
- Yield Goal 140\* bushels/acre
- Lost Yield on Restricted Row -  $140 \times 0.19 = 26.6$
- Total Lost Bushels -  $26.6 \times 125 = 3,325$
- Lost Revenue -  $3,325 \times 3.70 = \$12,302$**
- Cost of Sentinel Liquid Row Monitor for 24 Row Planter - \$11,790

**No Moving Parts** - Sentinel utilizes SureFire’s E-Mag Flow Meter Technology on every row. Other row monitoring systems are available - all use a mechanical meter which is subject to plugging and lodging. With Sentinel just a 20 Mesh Strainer is needed to “get out the big chunks”!





### Prescription Applications

Achieve your agronomic objectives without limitations. You will no longer narrow the range of your liquid prescriptions to get within the achievable range of a single orifice size. With 6-8 times flow capacity your agronomist is in the driver's seat. When the analysis calls for 8 GPA in low-productive or areas with high residual nutrients you will apply 8 GPA. When the analysis calls for 45 GPA in the high productive "black-soil" region of the field, you will apply 45 GPA. No longer will you be forced to over-apply in the poor performing areas.



### Application Rate Changes from Field to Field

Never change another orifice. LiquiShift® utilizes metering tube to achieve uniform row-to-row accuracy and automatically switches between tubes to allow dramatic rate changes from field to field. Simply set the rate in your controller and LiquiShift® automatically chooses the proper metering tube.



### High Speed Planters, Applicators, and Seeders

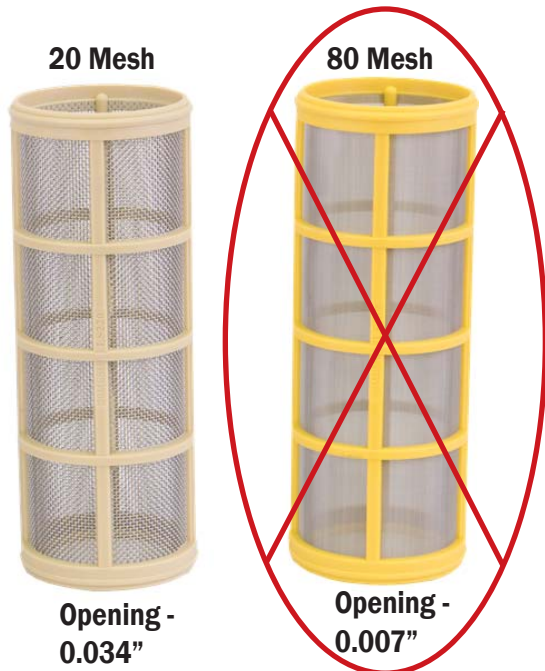
Faster application and/or planting speeds require larger flow ranges from your liquid application system. High-speed planters designed to work at 8-10 MPH impact fertilizer flow rates by a factor of 1.5-2. High-speed liquid applicators and side dress machines create a similar scenario. LiquiShift® is ideal for all of these high speed scenarios.



## 20 Mesh

### That's All You Need

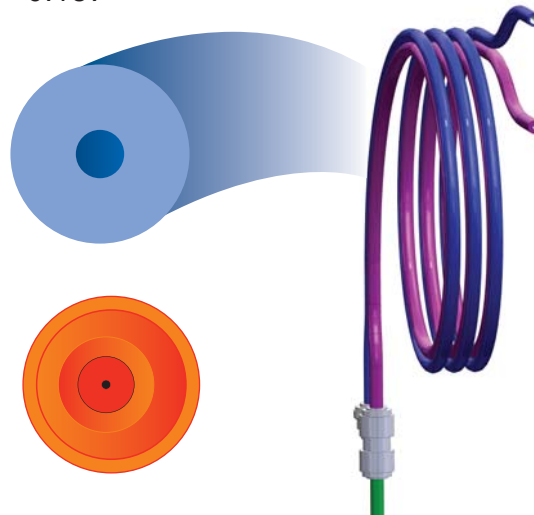
LiquiShift, Metering Tube and Sentinel only require 20 Mesh Strainer. 20 mesh screen has 385% larger passageway size and 48% more open area than an 80 mesh screen.



## Metering Tube

### Accurate and Hassle Free

Metering Tube is used in place of a traditional orifice to provide even distribution to each row. In a typical in-furrow application scenario a 0.030" orifice is replaced with an 8' length of metering tube having a passageway of 0.096". The combination of length and diameter equalizes flow to each row. Metering tube eliminates the problem of plugged orifices and the need to run small strainers to keep small mechanical components and orifices from plugging. Metering Tube Size varies from 0.080" to 0.187"



## Dual Tube

Two sizes of metering tube are installed on each row to provide maximum flexibility in application rate, application speed and product used. LiquiShift automatically switches between tubes or operator manually selects tube with on/off valves on each row.

# Expert Intergration

Case Pro700

John Dere Rate Control

Ag Leader

Trimble Field IQ

Raven RCM



SureFire is the Expert on integrating with the technology used on your farm. Your SureFire System will come with harnessing to plug directly to the rate control platform you are using.

Setup is made simple with SureFire's "Step-by-Step" and "Box-by-Box" User's Manuals and QuickStart Setup Guides.



396-3562Y1

QuickStart setup instructions for JDRC 2000 and SureFire harness for 1 Liquid/Dry Product

213-00-3509Y1 213-00-3417Y1 213-00-3370Y2

Below are typical SureFire Liquid Fertilizer System setup screens. Your setup may vary. Not all screens are shown. See the John Deere JDRC 2000 Operator's Manual for safety information and additional setup/operating information.

1. Navigate to the Profile Setup

2. Enter a Profile Name.

3. Machine Type > Liquid Fert Tool

4. Select Application Mode > Liquid

5. Set up Sections as appropriate. Verify widths.

6. The SureFire pressure sensor will be set up as a Custom sensor. Calibration will be done later.



“ SureFire has brought us the ability to provide a complete solution to our customers. You could try to piece together the puzzle and build an application system – go online and buy metering tube and flow meters and all the pieces. Working with SureFire the entire system arrives in a box—it's ready to go. The guys in the shop put it on the planter. If we have any questions, we call one company. That is worth a lot to us.”

– Eric Siefka, Integrated Solutions Manager  
Bader and Sons Co.  
John Deere Dealer, Central Michigan

Go to [surefireag.com](http://surefireag.com) or call today to get a quote for your customer's application needs.

## Custom Configuration

Get Your Quote Today

It all starts with what you need to achieve on your farm. SureFire Systems are custom configured to meet your specific needs.

Our Application Control Experts will take into account all the growers needs:

- Implement Size
- Row Spacing
- Application Rate
- Desired Placement
- Tank Location
- Liquid Product to be Applied

### REQUEST A QUOTE

Who are you? \*  
 I'm a Farmer  I'm a Dealer

What product are you interested in? \*  
 Liquid Application System

Equipment Information

Equipment make, model, year \*

Is there an existing controller? \*  
 Yes  No

What other applications will this controller be used for? \*

Number of Rows \*

Row Spacing \*

Min. Speed \*

Max. Speed \*

Product 1 Information

Product being applied \*  
 Please select an option

Are there existing tanks for this application? \*  
 Yes  No