



SurePoint

**SALES
GUIDE**



866-626-3670

www.SurePointAg.com

#SurePointAg



SurePoint
Fertilizer Application Systems



Application Systems

Industry Experts in Liquid Application & Control

SurePoint Ag is the industry expert in designing an application system that meets the needs of your farm. SurePoint has over 15 years of experience in liquid application. Let us put that expertise to work for your farm! Getting to the field with a system that works seamlessly requires understanding all the variables:

- Planter model and size
- Fertilizer products being used
- Application rates and speeds
- How to integrate with your in-cab technology

SurePoint starts by understanding your variables. We have a range of solutions from simple and basic, to the most advanced systems providing individual rate control of each row.



■ **Planting**

■ **Seeding**

■ **Transplanting**

■ **Side Dressing**

APPLICATION SOLUTIONS

for All Types of Farm Implements

Row crops, small grains, potatoes, and all types of specialty crops. SurePoint Ag has solutions for all types of farming.



ROW CROP PLANTERS



AIR SEEDERS & DRILLS



POTATO PLANTERS & MARKERS



STRIP TILL



NH3 & SIDE DRESS APPLICATORS



SPECIALTY CROP EQUIPMENT



SYSTEM TYPES & CATEGORIES

Determining What's Best for Your Farm.

We can help you determine which type of system is best for your farm, taking into consideration all the appropriate factors. Each of our systems incorporates elements from these three categories.

1

FLOW RATE REQUIRED

Applying 3 GPA in-furrow requires a different approach than applying 25 GPA. SurePoint Ag has solutions for the application needs of your farm.

CATEGORIES:

Micro Volume Application

Less than 2 GPM

Standard Volume Application

2 GPM - 40 GPM

High Volume Application

Greater than 40 GPM

WE ALSO DO DUAL-PRODUCT APPLICATION

Need more than one product? Many times reaching new yield thresholds requires using multiple products, applied at different rates, in different locations, or at different depths. SurePoint can make that happen!

2

INTEGRATING WITH IN-CAB TECHNOLOGY

Seamless integration with the technology in your cab. SurePoint systems are compatible with most rate control platforms. We provide harnesses specifically designed to plug into your platform and simple "QuickStart Instructions" to get your system running with ease.

COMPATIBILITY YOU CAN TRUST

- John Deere
- Case IH
- Trimble
- Ag Leader
- Raven
- Micro-Trak



3

DISTRIBUTION SYSTEM

SurePoint Application Systems are equipped with one of these three manifold and distribution systems, based on your needs:

Dual Metering Tube

Simple, reliable and lowest cost. Each application row is equipped with a dual check valve body connected to two Metering Tubes. Use on/off valve to utilize the small tube, the large tube, or both tubes together.

LIQUISHIFT[®] GEN3

SurePoint's most popular system, LiquiShift utilizes two Metering Tubes and provides the technology to automatically shift between tubes to maintain an optimal system pressure. Compatible with most rate control platforms, the Gen3 LiquiShift utilizes Zip Valve on each row, providing positive shut-off and eliminating check valves.

SENTINEL

Row Control

SurePoint's newest advancement in application systems. Control the application rate of each row using Sentinel Row Control. Using the Sentinel E-Mag flow meter module, accurately and reliably measure and control flow to each row.

UNDERSTANDING LIQUIDS & Components That Work to Apply Them.

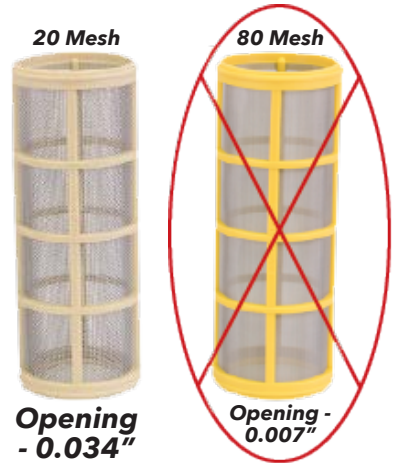
Not all fertilizers are created equal. And not all systems can keep up with all the different types of fertilizers out there. SurePoint has dedicated nearly two decades creating unmatched knowledge and expertise on the components that successfully apply them.



Application technologies from competitors require 80 or 100 mesh strainers to ensure small passages and moving parts of the system function correctly.

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 & 48% more open area than an 80 Mesh screen.



OUR PROMISE TO PRODUCERS

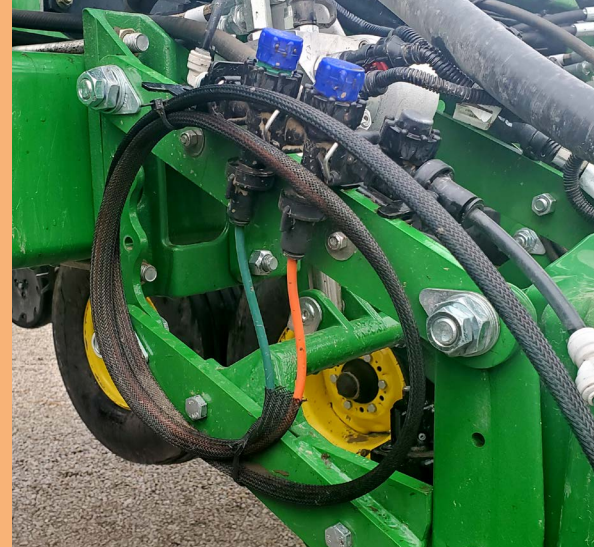
As our team develops new and industry leading technology now and in the future, the ability to successfully work with all types of fertilizer is a requirement. We promise our customers that SurePoint application systems are the most reliable and accurate systems on the market today!



Dual Metering Tube

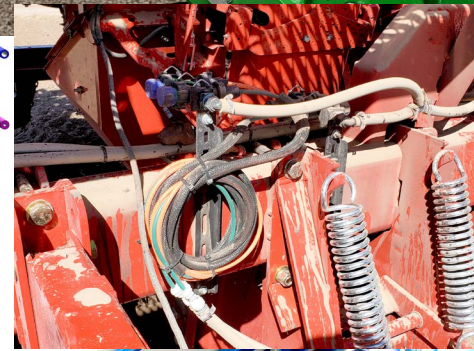
Accurate and Hassle Free

Never change or clean an orifice again! Simple, reliable, and lowest cost. Each application row is equipped with a dual check valve body connected to two metering tubes. Use the on/off valve to utilize the small tube, the large tube, or both tubes together.



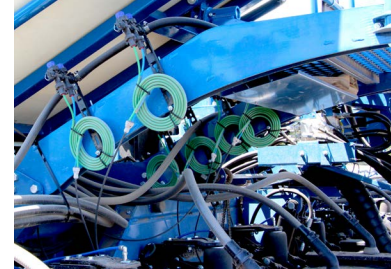
Eliminate Plugged Orifices & Maximize Application Range

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". Metering Tube eliminates the problem of plugged orifices and the need to run small strainers to keep small mechanical components and orifices from plugging.

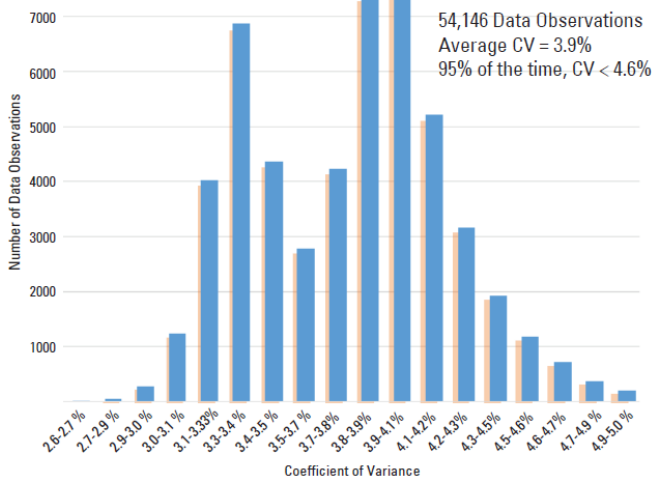


Row-to-Row Accuracy, Second-to-None

During planting in 2018, SurePoint Ag studied the row-to-row accuracy of LiquiShift™ combined with Metering Tube, planting 3,000 acres of corn with a 24-row, 30" planter. The farmer prescription applied from 10-40 GPA. Analyzing over 50,000 data points logged by 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 the reason metering tube is the most accurate system available on the market.**



Coefficient of Variance for Row-to-Row Accuracy

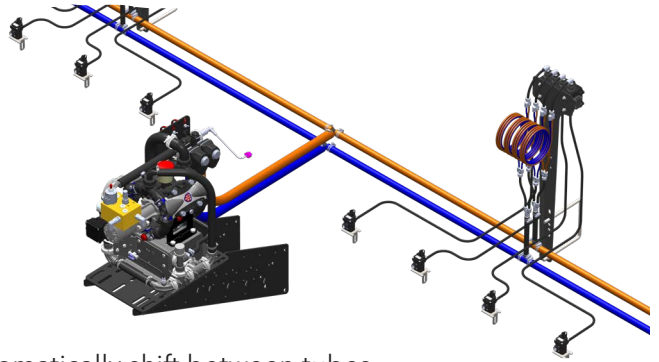


Split Band Application

When utilizing split band placement, use metering tube to create equal split to each side of the row.



DISTRIBUTION SYSTEM

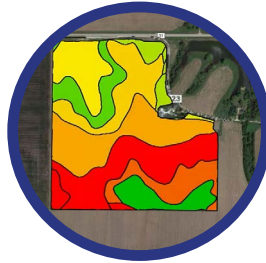


SurePoint's most popular system. LiquiShift™ utilizes two Metering Tubes and provides the technology to automatically shift between tubes to maintain an optimal system pressure. Compatible with most rate control platforms. The third generation of LiquiShift™ (released 2021) utilizes "Zip" valve on each row, providing positive shut-off and eliminating check valves.



High Speed Planters

Faster application and/or planting speeds require larger flow ranges. LiquiShift™ is ideal for high speed planters, liquid applicators and sidedress machines where you need to work at speeds of 8-10 MPH or greater, with greater flow rates.



Prescription Application

Achieve your objectives without limitations. With 6-8 times flow capacity, your agronomist is in the driver's seat. Whether the analysis calls for 8 GPA or 45 GPA, LiquiShift™ makes that possible. No longer will you be forced to over-apply!



Field-to-Field Rate Changes

Never change another orifice. Simply set the rate in your controller, and LiquiShift™ utilizes Dual Metering Tube to automatically switch between tubes, allowing you to achieve uniform row-to-row accuracy with dramatic rate changes from field to field.

Key Features of LiquiShift™ Gen3:

- Simplified Plumbing
- ZIP Valve at Each Row
- Eliminate Spring Diaphragm Check Valves
- Positive Shut-off of Each Row
- Even Greater Row-to-Row Accuracy



See more on pages 8 & 9.





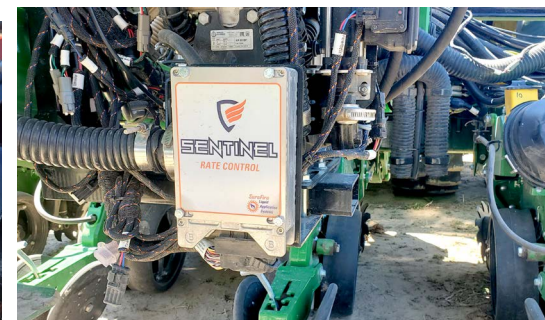
SENTINEL

SurePoint's Sentinel™ family of products offer the most advanced features for precision application of crop inputs.



Liquid Application with UNMATCHED RELIABILITY

Sentinel™ is built on a single ECU platform that provides multiple features depending on the harnessing and components connected. Sentinel™ Row Monitor has been adopted by farmers and applicators starting in 2016. Sentinel™ Rate Control was released in 2020 and Sentinel™ Row Control in 2021.



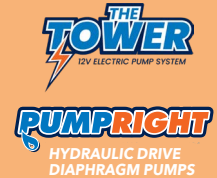
COMPONENTS of Liquid Application Systems

Application Systems consist of components from six categories.



1. PUMPS

Whether your operation calls for a low-volume Tower™ or a PumpRight™, the pumping system will arrive completely assembled, including the flow meter, ready to be mounted on your implement. Model-specific brackets are available to make mounting fast and easy.



2. E-MAG FLOW METER TECHNOLOGY

SurePoint Ag pioneered the use of electromagnetic flow meters in liquid application systems nearly twenty years ago. The SurePoint E-Mag meter has no moving parts, which eliminates common failures of most mechanical flow meters. Less downtime means more productivity!



3. DISTRIBUTION SYSTEM

Between the pump and the placement device is the distribution system. Three distribution systems options are Dual Metering Tube, LiquiShift™ (Gen3) or Sentinel™ Row Control. Distribution system includes either Sentinel™ Row Monitor or floating ball flow indicators.



4. PLACEMENT

Differences in soil conditions with geography and farming practices result in many considerations when selecting the best placement method on your implement. A SurePoint system can be configured to include placement method or to connect to your desired placement device.



5. HARNESSING

Systems include harnessing to connect all components to the rate control platform you are using. SurePoint Electronics, a division of SurePoint Ag, manufactures all our wiring harnesses for maximum reliability. All harnesses are computer tested to ensure correct operation.

6. TANKS

Planter mounted tank kits are available for many makes and models of planters, seeders, and applicators. We will work with you to select the right size and style of tank to keep you moving forward with as much productivity as possible!



PUMP & FLOW METER

Pump Option #1: PumpRight™ is a variable speed hydraulic drive diaphragm pump ideally suited for planter fertilizer applications. Positive displacement pump provides suction from any tank location. Run dry protection eliminates worries of pump and seal damage. Use for flow requirements from 2-80 GPM.



Pump Option #2: Tower™ is a 12-volt electric pump system. This smaller system is ideal for 30' and narrower planters with flow requirements of less than 5 GPM.

E-Mag Flow Meter: SurePoint's E-mag flow meters have no moving parts, which eliminates the common failures of most mechanical flow meters.

TANK OPTIONS

- Utilize Factory Options
- SurePoint Install Options
- Connections to Tractor or Pull-Cart Tank(s)



FLOW MONITORING



Liquid Row Monitor.

Sentinel™ offers instant in-cab notification of blockages or flow variations. Measure every row with SurePoint's E-Mag flow meter technology.

Flow Indicators.

Traditional floating ball flow indicators provide visual indications of blockages and flow variations.

PLACEMENT OPTIONS

In Furrow

- Keeton
- Rebounder
- Stainless Steel Tube
- Dealer Installed Options

Beside the Row

- Fertilizer Opener
- Stainless Tube Behind Closing Wheels
- Dealer Installed Options

DISTRIBUTION SYSTEM



Variable Rate Technology



FAMOUS for Innovation. Customized for Your Unique Needs.

- Planter Model & Size
- Fertilizer Products
- Application Rate & Speed
- Integrated with Your In-Cab Technology

Our Customers Say:

"The liquid systems work well with no issues. Accuracy is very good, both in total gallons applied per acre and row-to-row consistency. We have planted a little over 4,000 acres without plugging a single row, which far exceeded my expectations."

- Kriss S.



Pumps

Pump and flow meter system, factory assembled for easy installation. Select the right pump for your operation's unique needs.

PUMPRIGHT HYDRAULIC DRIVE DIAPHRAGM PUMPS

- Diaphragm pump with variable speed hydraulic drive that adjusts pump speed to achieve correct flow rate.
- Ideal pumping system for applications from 2 GPM to 80 GPM

Key Features:

- Self Priming - Pull liquid from tractor or cart mounted tanks.
- Positive Displacement - Consistent output per pump revolution.
- No Moving Parts - Equipped with E-Mag flow meter with no mechanical / moving parts.
- BLUEFLEX Diaphragm System - The BLUEFLEX material, curved shape, and diaphragm thickness have been designed and tested to achieve optimal performance, durability, and working life.



Model	Max GPM
PR17	17
PR30	30
PR40	40
D250	55
PR80	80



THE TOWER 12V ELECTRIC PUMP SYSTEM

Economical pumping system for applications that require 5 GPM or less.



Key Features:

- 12 Volt Electric Diaphragm pump(s)
- Electric Pump Driver (EPD) module adjusts pump's speed to achieve correct flow rate.
- Equipped with SurePoint E-Mag flow meter with no mechanical / moving parts.
- Factory assembled; Simply connect harness, inlet and outlet plumbing.



SENTINEL NH₃

ANHYDROUS ROW MONITOR



SENTINEL™ ROW MONITOR

Instant in-cab notifications of flow variances and row blockages. Sentinel™ utilizes electromagnetic flow meter technology to measure the flow going to each row.

AS APPLIED MAPPING OF EACH ROW

Map the as-applied rate of each row or section from the Sentinel™ Row Monitor with John Deere's Gen 4 Display or Climate FieldView.



SENTINEL™ RATE CONTROL

Sentinel Rate Control is compatible with most ISOBUS displays. It uses the same ECU as Sentinel™ Row Monitor, allowing you to get two features out of the same hardware.

- In-line Sensors Monitor Every Manifold Outlet
- Ensure Accurate Row-to-Row Application
- Detects Full or Partial Plugs
- Works with Any Rate Control System
- Add to Any Anhydrous System



Isobus Compatible
Utilize Your Display

Finally a solution to plugged rows on NH₃ applicators! Field proven sensor technology coupled with SurePoint's Sentinel™ Isobus platform will give you peace of mind like never before.

TORPEDO™

Precision NH₃ Application

Complete Torpedo Application Systems

The Torpedo™ Cooler is the central piece of the SurePoint Anhydrous Ammonia application system. It is a high capacity, extremely accurate, efficient heat exchanger.

Key Features:

- All Stainless Construction
- Precision Flow Control Valve - 120 Degrees of Control.
- 1.5" Flow Meter
- Adjustable Vapor Return Orifice



Complete Torpedo™ Application Systems couple the cooler with all plumbing and distribution components to get anhydrous from the tank to the shank.

System Models are determined by the cooler inlet plumbing.

MODEL 100

- Single 1.25" Inlet Hose and Break Away.
- Rated at 31 GPM at 100 PSI Tank Pressure.

MODEL 200

- Single 1.5" Inlet Hose and Break Away.
- Rated at 47 GPM at 100 PSI Tank Pressure.

MODEL 250

- Dual 1.25" Inlet Hose and Break Away.
- Rated at 47 GPM at 100 PSI Tank Pressure.

MODEL 300

- Dual 1.5" Inlet Hose and Break Away.
- Rated at 70 GPM at 100 PSI Tank Pressure.

Maximum capacity ratings are temperature dependent. Listed rates are at 64°F.

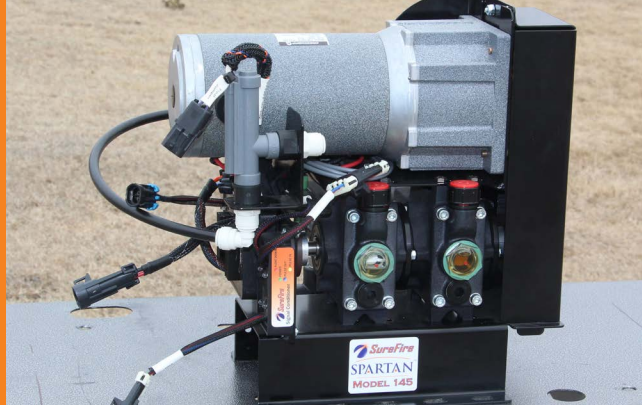
Distribution System Components & Options

- Section Valves
- A-360 or Dam Manifolds
- Injection Mixing Manifolds



MICRO-VOLUME Application Systems

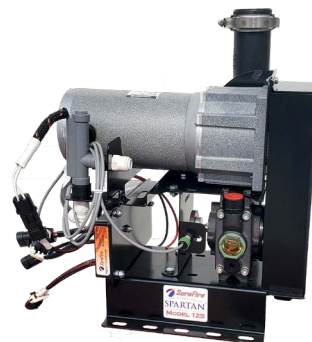
Specialized pumping and distribution systems for micro-volume application. Spartan™ and Catalyst™ are engineered solutions for nutrient stabilizers and managers, insecticides, fungicides, and other products applied at less than 1 gallon per acre.



Spartan™ provides direct injection of liquid chemical, fertilizer, biological, or other product into carrier flow stream. **Uses include:**

- Microbial Treatments such as PIVOT BIO PROVEN
- Variable Rate Application of Micro Nutrients
- Nutrient Stabilizers for Anhydrous Ammonia
- In-furrow Insecticide, Fungicide or Plant Growth Regulators

Injected product is introduced to carrier flow before the mixing chamber to ensure complete mixing prior to distribution to placement device of planter or applicator.



SPARTAN™ COMPLETE WITH TANK SKID

- Pump Only, Using Your Existing Tank
- 20 Gallon
- 55 Gallon
- 110 Gallon



USE SPARTAN WITH FORCE®

(Registered Trademark of Syngenta) insecticide closed system cabinet.

FOUR MODELS TO FIT YOUR APPLICATION NEEDS

- 115 - 1 to 10 oz/min
- 125 - 3 to 20 oz/min
- 135 - 6 to 40 oz/min
- 145 - 10 to 80 oz/min

Integrates with your desired control platform.



PLANTER MOUNTED TANKS

Planter mounted tanks for the most common makes and models of planters. Our team of engineers have developed tank mounting solutions for a wide variety of implements.



WIRELESS VALVE CONTROL

Makes filling and utilizing multiple tanks easy and convenient. Link one remote to 1 or 2 controllers to open and close up to 8 valves from up to 100' away.



1. Mount the Wireless Valve Control box in a central location on the implement or tractor. Connect up to four electric valves (standard 3-pin weather pack connection).
2. Use the remote to open or close the valves from anywhere in range (approximately 100') of the implement.



Applying with Air Seeders

The same systems that are popular on planters can be customized for most types of air seeders as well.



Stronger Together.

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www.SurePointAg.com

FAMOUS FOR INNOVATION AND FARM-TO-FARM CUSTOMIZATION.

SurePoint Liquid Application Systems are engineered by the expert team at SurePoint Ag Systems. Each system is custom designed to meet your application requirements and is complete with everything you need so you can get planting faster and easier than ever before. SurePoint systems are compatible with nearly all major OEM rate control platforms and offer additional features via SurePoint's Sentinel platform. You deserve to have options, and a partnership with SurePoint Ag Systems allows us to meet every farmer's unique needs.

REQUEST A QUOTE FOR YOUR CUSTOM-CONFIGURED SYSTEM.

It all starts with what you need to achieve on your farm. SurePoint's application systems are custom configured to meet your specific needs. Our team of experienced and friendly application control experts will take into account all the variables for your operation:

- Implement Size
- Row Spacing
- Application Rate
- Desired Placement
- Tank Location
- Product(s) Being Applied

Start Your Free Quote: www.surepointeag.com

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