



SurePoint Application Systems SALES GUIDE



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www.SurePointAg.com

#SurePointAg



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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



DRY CONTROL



FAMOUS for Innovation. Customized for Your Unique Needs.

DISTRIBUTION SYSTEM

 Dual Metering Tube

LIQUISHIFT®

Variable Rate Technology

SENTINEL
ROW CONTROL

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

TANK OPTIONS

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



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.

PUMPRIGHT
HYDRAULIC DRIVE DIAPHRAGM PUMPS

THE TOWER
12V ELECTRIC PUMP SYSTEM

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.

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

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.



COMPONENTS of Liquid Application Systems

Application Systems consist of components from six categories.



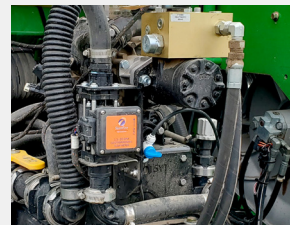
1. PUMPS

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!





SENTINEL™

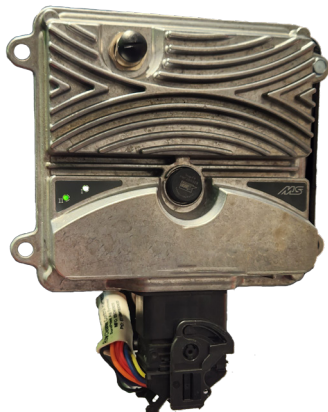
RATE CONTROL

Multiple Product Rate Control Platform

Liquid Anhydrous Ammonia Direct Injection Dry Seed

TWO SENTINEL™ CONTROLLER OPTIONS

1000 MODEL

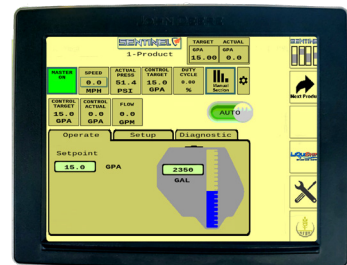


- Single Product Functionality
- Utilizes SurePoint Ag's Level 1 ECU
- Pair Up to 3 ECU's for Multiple Functions

2000 MODEL



- 4 Product Functionality
- Utilizes SurePoint Ag's Level 2 ECU
- Can Be Fully Customized to Your Operation



WHICH



IS BEST FOR YOU?

SENTINEL 1000		SENTINEL 2000	
LIQUID APPLICATION	MAX SELECTIONS PER ROW	LIQUID APPLICATION	MAX SELECTIONS PER ROW
Row Monitor	64	Row Monitor	96 Rows between all products
Rate Control	12	Rate Control	16 split between all products or 64 CAN ZIP/Product, 96 max
Rate Control with Row Monitor	12	Rate Control with Row Monitor	16 Split between all products or 64 Can ZIP/Product, 96 Max
Row Control with Row Monitor	NA	Row Control with Row Monitor	64 Rows or Product, 96 max
NH3 APPLICATION			
NH3 Row Monitor	64	NH3 Row Monitor	64 Rows Between All Products
NH3 Rate Control	12	NH3 Rate Control	16 Split Between All Products
NH3 Rate Control with Row Monitor	12	NH3 Rate Control with Row Monitor	16 Split Between All Products
DRY APPLICATION			
Rate Control	Single PWM Output 12 Sections	Rate Control	Single PMW Output, 16 Sections
DIRECT INJECTION			
Rate Control of Spartan Direction Injection System	Matched to Carrier Product Sections	Rate Control of Spartan Direction Injection System	Matched to Carrier Product Sections
DRILL AND SEEDERS			
Seed Rate Control	NA	Seed Rate Control	5 PMW Drives or 1 PMW Drive with 12 Sections



1. Pumps

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

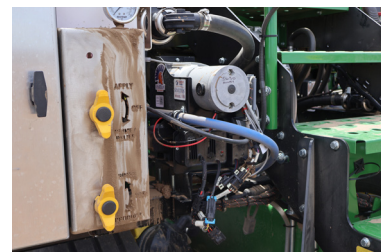


Spartan™ provides direct injection of liquid chemical, fertilizer, biological, or other product into carrier flow stream. **Uses include:**

- 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



USE SPARTAN WITH FORCE®

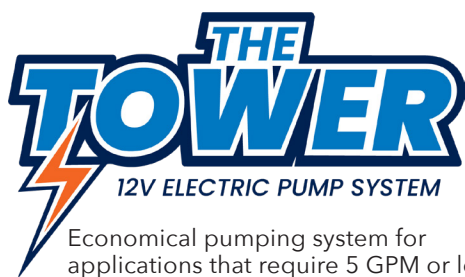
(Registered Trademark of Syngenta) insecticide closed system cabinet.

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.





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.



- 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



2. Distribution Systems



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.

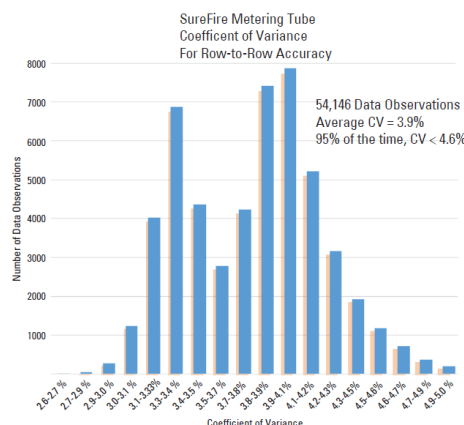


Split Band Application

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



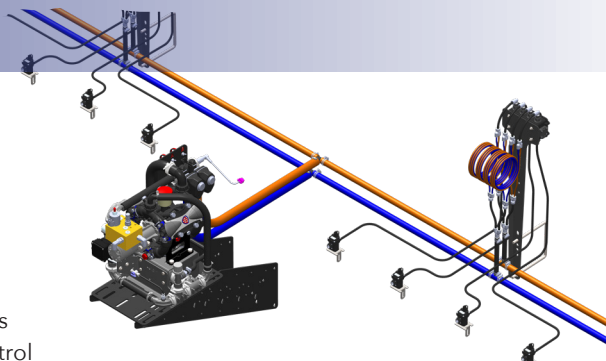
Coefficient of Variance for Row-to-Row Accuracy



LIQUISHIFT[®]

GEN3

Variable Rate Technology

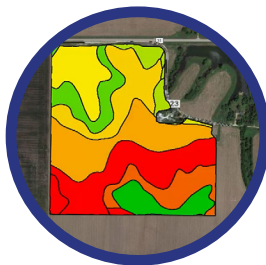


SurePoint's most popular system. LiquiShift™ utilizes two Metering Tubes and provides the technology to automatically shift between tubes to maintain an optimal system pressure. Compatible with most rate control platforms. The third generation of LiquiShift™ (released 2021) utilizes "Zip" valve on each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

SENTINEL



Row Control

Utilizing the Sentinel E-mag Flow Meter Module, Sentinel Row Control accurately and reliably measures flow to each row and uses the Row Control valve to achieve the desired application rate on an individual row resolution.



The MOST ADVANCED version of our distribution systems.

Row Control delivers the greatest amount of application flexibility (rate, speed and product) and with simplified plumbing on the implement.



3. Control



Use a SurePoint Rate Controller With Your In-Cab Display

Take full advantage of SurePoint's industry-leading application control technology with Sentinel Rate Control, a complete ISOBUS rate control platform that is compatible with most in-cab displays.

Use Your OEM Rate Controller With a SurePoint Application System

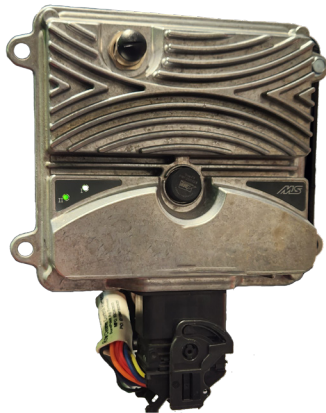
Want to upgrade to a SurePoint application system but utilize your manufacturer's existing rate controller? Our plumbing and harnessing is designed to be compatible with most major rate control platforms.

Multiple Product Rate Control Platform

Liquid Anhydrous Ammonia Direct Injection Dry Seed

TWO SENTINEL™ CONTROLLER OPTIONS

1000 MODEL



- Single Product Functionality
- Utilizes SurePoint Ag's Level 1 ECU
- Pair Up to 3 ECU's for Multiple Functions

2000 MODEL



- 4 Product Functionality
- Utilizes SurePoint Ag's Level 2 ECU
- Can Be Fully Customized to Your Operation

Integrating with Your TECHNOLOGY



4. Placement

SurePoint offers several in-furrow placement methods including stainless tubes, totally tubular, Keeton seed firmers, and Rebounders to name a few. We also have some high-rate surface application options or we can connect to an existing placement method.



In-Furrow Options:

- SurePoint Provided stainless steel placement tubes for planters, drills, and air seeders
- Totally Tubular
- Keeton Seed Firmer
- Rebounder

High Rate Options:

SurePoint Provided Rear Delivery stainless steel placement tubes (surface application)



Non SurePoint Options:

Hook to an existing placement method for an in-furrow, off the row, 2 x 2 x 2, or rear delivery application

5. 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.



See Available Tanks On Our Website



Application Systems for Air Seeders & Drills

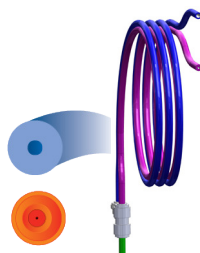
SurePoint's very first application systems were configured for Air Seeders as a result of our roots in the High Plains winter wheat region.



Select The Distribution System That Fits Your Application Needs



The smaller the orifice the more likely to plug. The impact of Metering Tube on the narrow row spacing of seeders and drills is a game changer. Use of micro nutrients, biologicals and other products can be more likely to plug small orifices.



Expanded Section Control Capability

Utilize Sentinel ISOBUS Rate Control and CANBUS section valves for expanded section control capability. Also allows for flexible mounting of rate controller near ISOBUS connection point.

- Dual and Multiple product systems are available.
- Use SurePoint Spartan system for direct injection applications.
- Configure to connect to existing placement method or inquire about placement options.

Tank kits available for many makes and models.



PumpRight provides flexibility to mount pump in desired location and pull from multiple tank locations (e.g. tractor tanks and pull behind trailer)



SENTINEL NH₃

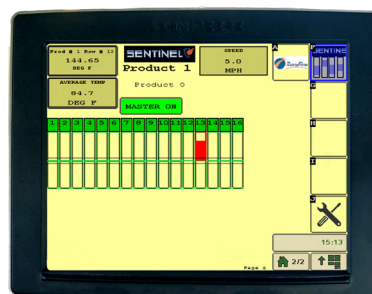
ANHYDROUS ROW MONITOR



SENTINEL™ RATE CONTROL

SurePoint's ISOBUS Rate Control module is compatible with most ISOBUS displays. This technology is the result of 15 years of rate control experience, brings a unique, intuitive user experience.

Use our *new* setup wizard to preload Surepoint Torepdo in your system settings!



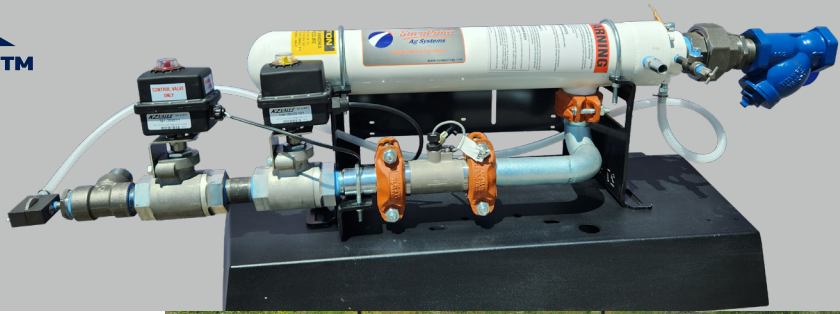
**Row Monitor &
Rate Control
with a Single
ISOBUS ECU!**

SENTINEL™ ROW MONITOR

Instant in-cab notifications of flow variances and row blockages. Sentinel™ utilizes temperature sensors to ensure that NH₃ is going to each row.

- Row Blockage Mapping
- In-line Sensors Monitor Every Manifold Outlet
- Ensure Accurate Row-to-Row Application
- Detects Full or Partial Plugs
- Works with Most Rate Control Systems
- Add to Most Anhydrous Systems
- Sentinel™ Row Monitor Can Be Connected to the Sentinel Rate Control ECU.





High Capacity 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
- Rated at 75 GPM at 100 PSI or 55 GPM at 50 PSI (Tank Pressure)

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

Distribution System Components & Options

- Section Valves
- A - 360 or Vertical Dam Manifolds
- Mixing Chambers for Injection Manifolds

Inlet Plumbing Kits

System capacities are determined by the cooler inlet plumbing and tank pressure.

100 SYSTEM

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

250 SYSTEM

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

200 SYSTEM

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

300 SYSTEM

- 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.



Dry Control

SurePoint's Dry Control includes options for dry fertilizer application control and seed application systems.



Mix and Match Up to 4 Products with the Same ECU; Seed, Liquid, Dry and NH3.

Control the seeding function on a variety of agriculture equipment, including Air Carts, Box Drills and Potato Planters.

- Hydraulic PWM control M
- Multiple sections
- Hydraulic Section Control
- Electric Clutches

Dry control on Spreaders and Air Carts.



Drill Seed Drive Control

Grain Drill Powered
by Sentinel Rate
Control Hydraulic
Drive Kits



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.



Equipment Examples







**FAMOUS FOR INNOVATION AND
FARM-TO-FARM CUSTOMIZATION.**

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Support (support site, contact dealer, text support:) QR CODE

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Start Your Free Quote: www.surepointeag.com

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