

The Transland Family Newsletter

NEWS LETTER

Summer
'22

CP PRODUCTS

SATLOC

The **TRANSLAND** Family

WINGMAN

SWITCH
BACK

Creating Quality
Products for Ag Pilots

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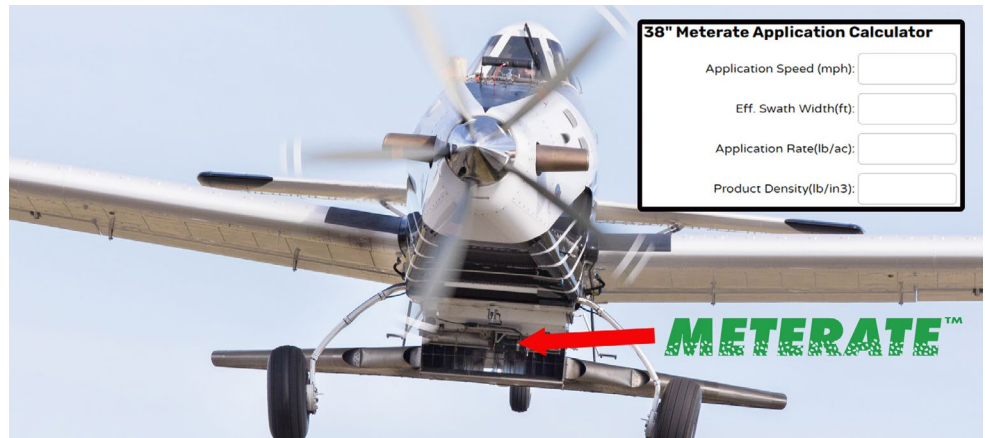
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KEEP UP-TO-DATE ON
AG AVIATION PRODUCTS

METERATE™ CALCULATOR



Dial Up Precision with the Meterate Calculator

Use Transland's Meterate calculator to determine the required RPM for a product application. Below is the information needed to input into the Meterate calculator to determine the estimated RPM for your desired application:

- Application Speed (mph)
- Effective Swath Width (ft)
- Desired Application Rate (lb/ac)
- Product Density (lb/in³)

All calculations are based on the information you provide. Always verify your application rate before entering the field, as variables within your system can cause differences between calculated rates and actual output rates.

Expert Tips

NOZZLE MAINTENANCE



Maintenance keeps all equipment functioning properly. All data presented on nozzles assume nozzles are new or well maintained. Suppose nozzles are worn out with altered orifices or chipped and cracked deflector surfaces. In that case, metering could be off, and patterns could be distorted.

Timely maintenance and replacement of nozzles, when necessary, is critical to nozzle performance.

Deflector and Body Maintenance

Chipping or cracks in deflectors will cause bad patterns and droplet spectrum alteration. Thus, when changing settings on nozzle deflectors, give a visual check to identify any damage or cracks on deflectors.



Spray Pattern is Off Due to Chipping and Cracking in Deflector

Cracking can also occur on the body of a nozzle when tightened down too far. This will cause additional leaks.



Cracking on Body of Nozzle

Orifice Maintenance



Top Tip is a New CP256-4030 Tip

**Bottom Tips are Worn Out
CP256-4030 Tips**

When orifices become worn out and altered, flow rates will change. Therefore, a good practice to keep nozzles at their best is to flush the system clean when done for the day. This offers an excellent opportunity to give a visual check to orifices for any build-up or wear.

The tips pictured to the left are examples of what can happen when a system is not flushed clean at the end of the day. Neglecting to flush the system can lead to material build-up on the orifice and alter the orifice size. The altered orifice can cause unintended flow rate and droplet spectrum.

In addition to a visual check, another method of checking tips/orifices is performing a flow test to measure a possible flow increase. It is recommended to replace tips if the flow has increased 10-20 percent.

Teflon Seal and Viton Diaphragm Maintenance

Teflon seals are found inside all nozzles. Teflon seals and Viton diaphragms are found inside check valves. When seals become damaged or worn out, leaks and check valves not shutting off can occur. Issues to look for are crinkles in diaphragms, and scoring and/or stretching on seals. To ensure proper function of the nozzle or check valve, it is recommended to replace seals and diaphragms on an annual basis.



Worn Out Seal

Replacement Parts

Replacement parts are available for all CP nozzles and check valves. Find a dealer at www.Translandllc.com.

Pattern Testing

Another important part of maintenance is pattern testing. Operation S.A.F.E. clinics offer Pattern Deposition Analysis to help guide and calibrate equipment to optimum performance. These clinics help you find optimal swath and droplet size. Also, the clinics help solve equipment problems before starting a new season.

BEFORE SPRAYING WITH NOZZLES, TRANSLAND RECOMMENDS PATTERN TESTING WHENEVER CHANGES ARE MADE TO EQUIPMENT.



Falcons are Fast – Really Fast

What's great about the Falcon's speed is that it communicates well with other Transland products.

L8 Lightbar with the Falcon



Four customizable display windows for selected data: AgLaser new LEDs, obstacle awareness, heading angle, cross-track distance, spray rate, area sprayed, volume remaining, laser altimeter height, and much more.

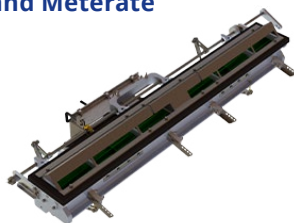
IntelliFlow 2 & 3 Flow Control



The IF2 and IF3 are the only combination dry and wet dispersal systems in the industry built into a single controller. With the IF3 on board, in conjunction with

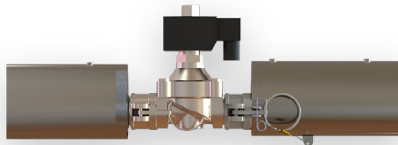
the Satloc Falcon, the pair automatically controls aerial spray rates and dry application rates. This results in highly accurate constant rate applications. Also, the IF3 and Falcon make precise variable rate applications using prescription maps (PMaps).

Transland Meterate



The Satloc Falcon works seamlessly with any Transland Meterate, which is an excellent low-poundage accessory for granular and seed-based applications. Working with the Meterate, the Falcon allows for constant rate application.

Transland Boom Shut-Off Kits



The signal is automatically sent to the Falcon GPS System when the pilot changes the boom control. The Falcon adjusts the flow rate to maintain boom pressure. Additionally, the Falcon will change the swath width to match the selection of the

Boom Shut-Off. The Falcon monitors four boom valves for up to five boom sections.

Transland Nozzle Lines



Quality equipment on an aircraft gives an applicator and grower the edge over their competition. Transland Nozzle Lines are made of quality materials to help the applicator get the job done right.

Transland Hydraulic Ag Gates



Combining Transland quality with Satloc technology, the 5", 7.5", and 10" hydraulic gate boxes are the choice of many Applicators all around the world. Satloc and Transland engineers work together daily to produce products that enable precision application for precision farming.

Expert Tips **USING MAPSTAR™**



For instructions on "How To View Log Data Using Replay Tool" and "How To Export .LOG to .SHP", visit [Satloc's YouTube Channel](#).

Employee HIGHLIGHT

Transland's Engineering Team

Transland's engineering team is composed of a diverse group of talent. Leading the team is Calvin Kroes, who is a structural Designated Engineering Representative for the FAA. Graduating with a mechanical engineering major from North Carolina State University, he went on to obtain a Repairman certificate for light sport planes, a license as a chemical applicator, and a S.A.F.E. Analyst certificate. Additionally, Calvin holds multiple patents for spray application and investment casting process. Calvin is also a farmer, which gives him great insight into the agricultural industry.

Rafael Chavez is a man of many talents. His ten-year tenure with Transland enables him to share a wealth of knowledge of the products with his co-workers. His primary job is drafting, but he's willing to help out the Transland team in multiple ways. From drafting to electrical work to quality control to machining to assembling — Rafa does it all!

Connor Kirby graduated with a Mechanical Engineering major from Midwestern State University. Before joining Transland, Connor gained valuable engineering and draftsman experience in the mechanical equipment industry. Connor's focus has been on booms, electrical systems, and collaborating on Satloc systems since joining the team in 2021. Growing up in a family of ranchers, Connor developed an interest in agriculture at a young age.



From Left to Right: Calvin Kroes (Head Engineer), Rafael Chavez (Draftsman), Connor Kirby (Engineer), Craig Shrum (Engineer), Madison Krahl (Engineer)

Craig Shrum graduated with a Manufacturing, Engineering, Technology major and a Mathematics minor from Midwestern State University. He also earned a master's degree in Computer Science. When Transland moved to Texas, Craig eagerly joined the team. Since being part of Transland, Craig has worked in engineering, FAA certification projects, and quality control.

Raised on a farm, Madison Krahl possesses a vast understanding of agriculture. She graduated from Midwestern State University with a major in Mechanical Engineering. During her college days, Madison worked part-time for Transland as a CAD designer. After college, Madison worked for Air Tractor and gained valuable information to aid in the design of dispersal equipment. Her focus at Transland is the nozzle lines and mechanical systems.

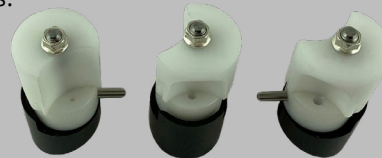
Transland Boom Clamps — Get the Most from Your Ag Aviation Equipment

Transland offers an array of products that help you increase productivity and time. For example, Transland boom clamps make switching from dry to liquid quick and easy — just a few clicks, and the switch is complete. Transland Boom Clamps are available in aluminum and stainless steel.



TriSet Nozzle — Suitable for Insecticide, Fungicide, and Herbicide Applications

The TriSet (PN 26102) is a hydraulic nozzle with three custom orifices and deflection angles. Settings depend upon the operator's preference. It is manufactured with hard-coated anodized aluminum to add strength and durability to the nozzle. The TriSet is a straight stream nozzle. Orifice sizes are 0.061", 0.078", and 0.125". Deflector degree angles are 0, 22.5, and 45.0 degrees.



Need a Local Dealer?

Visit Translandllc.com or Satloc.com, then click the "Dealer" tab.

For Ordering Info,
Contact Your
Local Dealer