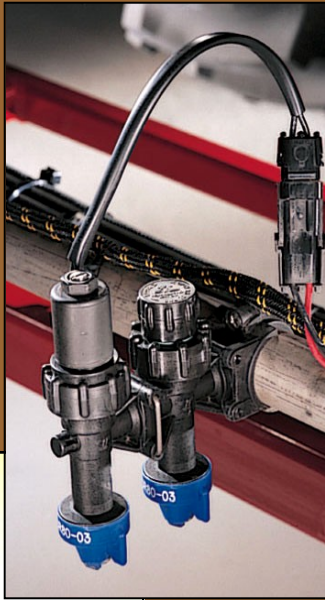


Spray Application Technology

SharpShooter®

Patented

For owners of chemical application sprayers, Capstan Ag Systems, Inc. now offers automatic pressure control independent of speed in an easy-to-install retrofit kit!



The Next Generation in Spray Technology:

Finally, the operator of any piece of sprayer equipment can now be in total control of the chemical application.

Direct control of speed, rate, and pressure means an operator can customize the machine's spray performance to the field conditions at hand.



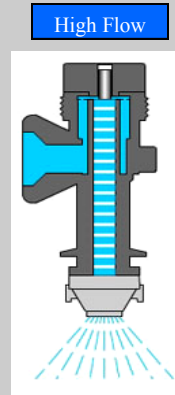
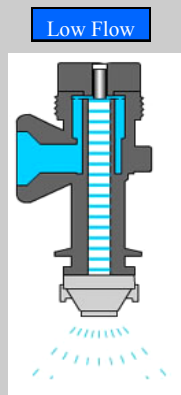
There is less focus on the art of spraying and more focus on productivity and profitability through blended pulse technology.

SharpShooter™ Enhances Rate Controller Technology

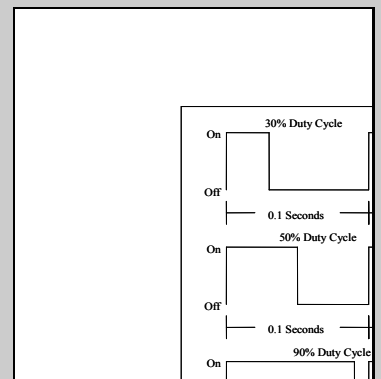
A rate controller automatically manages a constant rate (GPA) of chemical applied through a range of field speeds by varying pressure. Large speed changes cause large pressure variations dramatically affecting droplet size and coverage.



SharpShooter, a pulse width modulation (PWM) flow technology, controls the duty cycle of a solenoid, working in concert with the rate controller, to hold pressure constant over an incredible 8:1 speed range while maintaining a constant application rate.



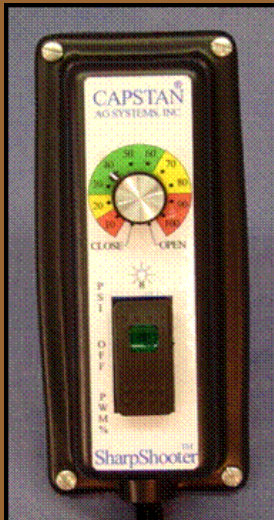
Solenoid Duty Cycle



So now the operator has automatic control of the spray pattern droplet size and exit velocity. Constant pressure through a large speed range and a single tip means better quality of application, consistency of application, and greater productivity with higher average field speeds.

Pressure can also be set to other psi settings on the dial without changing speed, tips or rate! Result: On-the-go drift control.

SharpShooter®



How does it work?

SharpShooter's 3-position toggle switch has three modes of operation, each with a different level of pressure control. The rotary dial takes on two functions depending on the switch position.

- 1. PSI position** - provides innovative pressure control with the most operator convenience. *Numbers on the dial represent various pressure settings*, from 10 psi to 100 psi. To change pressure, the operator simply changes the dial setting to the desired value. SharpShooter adjusts the duty cycle of the pulse to obtain and hold that pressure through the same tip, keeping the desired rate. With the right tip, the operator can even toggle the rate controller to different rates while maintaining both speed and pressure.
- 2. PWM position** - a single tip can perform as multiple tips by simply rotating the dial to a duty cycle value. In PWM mode, *numbers on the dial represent the % duty cycle* from 10% to 100%. For example, an MR11106 tip with a 100% DC setting acts like a 06 tip; at a 50% duty cycle, that tip now acts like a 03 tip. The PWM mode is an alternative for special situations.
- 3. Off position** - in this mode SharpShooter allows the rate controller to operate as in any other sprayer

Is SharpShooter™ Proven?

SharpShooter is not the first Capstan technology to achieve this level of application control. The Capstan Synchro® is the more full-featured, factory-installed version of blended pulse technology better known as the AIM Command™, a Case IH branded version. AIM Command has been in the market since 1998 and, as of 2005, has applied 100+ million acres all over North America, Australia and Brazil.



What Extra Value Can I Expect with SharpShooter™?

- **An expanded speed range over conventional spray technology:**
SharpShooter delivers up to an 8:1 speed range compared to the 2:1 speed range with conventional control.
- **Optimum chemical performance and coverage:**
With a constant rate AND a constant droplet size optimized for the chemical, the applicator is assured that the ENTIRE field receives the most effective, consistent chemical treatment regardless of hills, corners, waterways, and end rows.
- **Field to field spraying:**
First, drive the field perimeter at a lower pressure for drift control and then switch to a higher pressure for the field interior. Sprayer field speeds are now only limited by terrain.
- **Reduce drift potential with "on-the-go" pressure control:**
Dropping the pressure, on-the-go, produces larger, less drift-prone droplets but without changing tips or speed.
- **Variable rate applications through a single tip:**
With an 8:1 rate range through a single tip within varying speed ranges, SharpShooter works with GPS generated field maps to easily address variable rate applications, defined buffer zones and low drift areas through a single tip.
- **Pressure relief:**
Operators no longer have to be constantly monitoring pressure.
- **Fewer tips and easier tip selection:**
With SharpShooter's constant pressure capability, a single tip can maintain a proper pattern over a wider range of rates.
- **Reduced equipment repair:**
Operators no longer need to over-drive the machine to maintain a spray pattern or to prevent over-application.
- **More acres, fewer hours or both:**
Fewer hours per day and days per season lost to wind, higher average field speeds, improved application practice efficiencies and fewer tip changes dramatically impact productivity.



How Can I Find Out More?

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