

Duo-React Nozzle Control

Many applicators are very satisfied of the performance they get from air induction nozzles. One ask would be more consistent spray quality without over-driving or under-driving their machines. Hills, sloughs, rough ground can force speed to vary a great deal while spraying. When using air induction nozzles those speed changes can result in variable pressures and different spray qualities, along with possibly having to change nozzles for each field. The Duo React System from Hypro, supported by AgStar addresses the applicator's need for operational flexibility and consistent spray quality combined with the use of air induction nozzles for overall superior spray performance.



The Duo React utilizes a primary nozzle body (single) and a secondary (quad) turret nozzle body. The two nozzles can switch from primary to secondary nozzles instantly at a given setpoint, as well as spraying with both nozzles A+B at the same time. The system can also manually select the nozzle in operation allowing the operator to have total control when desired. The Duo React is a low cost high value nozzle control option at roughly 25% the cost of an Exact Apply system and 50% to 70% the cost of aftermarket PWM systems. It fits well with applicators that desire the proven benefits of air filled spray droplets combined with the consistency and ease of use of a PWM system.

Each Duo React System consists of a control unit in the cab, a vehicle wiring harness, control nodes, combined with leader and follower Duo React nozzle bodies on the boom. The nozzle bodies are affordable if damaged in the field and have proven durable and reliable. This includes standing up well to abrasive chemicals and liquid fertilizer. Each leader is controlled by the rate controller as if it were a boom section valve. The electric leader then controls the followers using compressed air to instantly start and stop spray along with switching nozzles. Systems are straightforward to configure and can be installed on any make and model of sprayer provided there is a compressed air system installed. The system can also be used with John Deere high flow stainless steel plumbing utilizing an adaptor. With over four seasons on the market the technology has proven to work well and reliably.

AgStar Ltd. has over 20 years experience in the self-propelled sprayer/commercial application business. AgStar is a distributor of application technologies and products that make crop care more efficient. AgStar takes great pride in improving the effectiveness, timeliness, efficiency, and environmental impact for applicators of crop care products. Agstar is also focused on supporting the dealer channel and end user to provide an outstanding ownership experience. For more information on the Duo React or to discuss your specific challenges applying crop care products reach out to Agstar ltd. AgStar is currently looking for qualified retailers to assist in the sale and support of our product line.

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Duo- React Will:

- **Increase Productivity for improved application timing and machine utilization**
 - Consistent Spray Coverage and drift control at a wider range of Speeds
 - Better operator productivity due to reduced stress of over or under driving the machine in challenging field conditions
 - Less time wasted changing nozzles between rates and conditions

- **More precise application and greater efficacy for cleaner fields and greater yields**
 - Air Induction Nozzles Control Drift AND Provide excellent coverage
 - Automatically maintain optimal droplet size throughout a wider speed range
 - Spray with two different droplet sizes at once in A+B mode for greater coverage of different target areas
 - Wide application range for VR Nutrient or fungicide applications

- **Manage Environmental risks more easily**
 - Control off target application in sensitive situations by manually switching to a more drift resistant droplet size.
 - Instant Nozzle on off times to keep product where it belongs and off sensitive areas.
 - Maintain spray quality while reducing drift potential or damage to sensitive areas


This will lead to cleaner fields, which will lead to greater revenues, not to mention less stress on operators makes them less likely to make mistakes or quit and landowners and neighbours without drift complaints are easier to get along with. The Duo-React will make a difference in your operation!

The Duo-React is the most cost effective way to get “Quality Coverage on More Acres Per Day” other systems sacrifice drift control or coverage by forgoing air induction nozzles. The Duo-React was designed around air induction nozzles to enhance their flexibility and address their one weakness which was pressure ranges as machine speed changed.

Contact Nozzle Pairs

Droplets: M to C

Pressure Range: 40 to 90 psi


Nozzle B	Nozzle A	Setpoints (mph)	20" Spacing								
			Application Rate (gpa)								
			5	7.5	10	12.5	15	17.5	20	22.5	
FC-GA110-025		FC-GA110-015	Min Speed	8.9	5.9	4.5	3.6	3.0	2.5	2.2	2.0
			Max Speed	35.6	23.8	17.8	14.3	11.9	10.2	8.9	7.9
			Setpoint 1 (A to B)	13.4	8.9	6.7	5.3	4.5	3.8	3.3	3.0
			Setpoint 2 (B to A+B)	22.3	14.9	11.1	8.9	7.4	6.4	5.6	5.0



Systemic Nozzle Pairs

Droplets: C or Greater

Pressure Range: 20 to 60 psi

Nozzle B	Nozzle A	Setpoints (mph)	20" Spacing								
			Application Rate (gpa)								
			5	7.5	10	12.5	15	17.5	20	22.5	
FC-ULD120-025		FC-ULD120-015	Min Speed	6.3	4.2	3.2	2.5	2.1	1.8	1.6	1.4
			Max Speed	29.1	19.4	14.5	11.6	9.7	8.3	7.3	6.5
			Setpoint 1 (A to B)	10.9	7.3	5.5	4.4	3.6	3.1	2.7	2.4
			Setpoint 2 (B to A+B)	18.2	12.1	9.1	7.3	6.1	5.2	4.5	4.0

Spray Faster & Cover More Acres With Duo React

30% FASTER

Duo React

Standard