

FlexFlow

Precision control for electric nozzles

FlexFlow Spray Systems ensure precision control and flexible automation for Electric HydroPulse® and other automatic spray nozzles. These plug-and-play controllers are an elegant solution for precision coating, moistening, and lubricating applications. The FlexFlow can be considered for any industrial process where expensive compounds or ingredients need to be sprayed directly onto the process target.



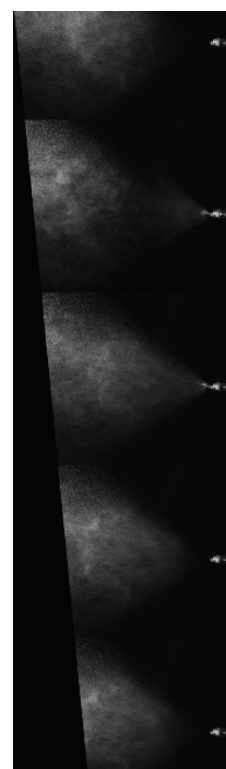
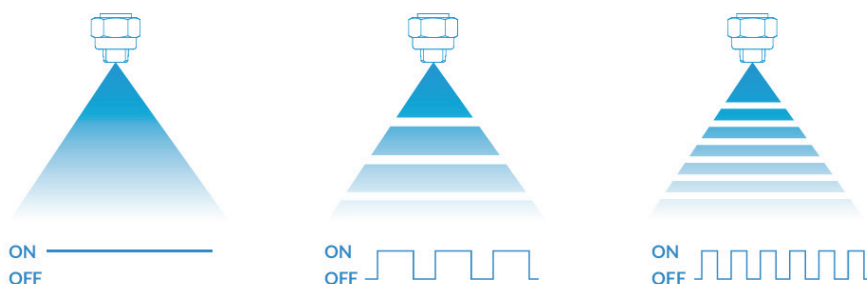
Key product features

- Precision control and flexible automation for Electric HydroPulse® and other automatic spray nozzles
- Spray zones are activated by automatic triggers such as photoelectric or proximity sensors, or manually
- Adjustable trigger delay settings provide ultimate timing control to reduce material waste and cleaning maintenance.
- Spray flow rate regulated using Pulse Width Modulation (PWM)
- Optimal spray performance for applying flavorings, coatings, mold inhibitors, antimicrobials, preservatives, release agents, and moisturizers with exceptional accuracy.
- FlexFlow 1000 operates up to 12 nozzles, FlexFlow 2000 operates up to 20 nozzles

ELECTRIC

How it works

FlexFlow™ spray controllers provide even finer spray precision by regulating spray flow rate using PWM. With traditional single fluid spray nozzles, the only way to adjust flow rate is by adjusting liquid supply pressure. This results in changes to spray performance characteristics such as drop size and spray pattern. By comparison, PWM flow control works by cycling spray nozzles on and off at high frequencies, up to 150 times per second. Adjusting the duty cycle, or ratio of ON versus OFF dwell time, enables FlexFlow to control the average flow rate without changing the supply pressure or spray performance characteristics. High frequency operation ensures that spray coverage remains uniform, even when coating products on high speed conveyors.



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Key applications

FOOD PROCESS COATING OPERATIONS

- Application of antimicrobial agents for food safety
- Application of preservatives and mold inhibitors
- Application of egg wash
- Coat bottles to minimize scuff damage
- Apply water to balance moisture loss from the freezing process
- Apply coatings and release agents to pans, conveyors etc
- Apply flavorings, oil, and butter to enhance the appearance /taste
- Apply viscous coatings like syrups, glazes, and chocolate

KEY BENEFITS

- Control a wide range of flow rates
- Guarantee an even and uniform application rate that connects with conveyor line for automated speed adjustments
- Reduce consumption of expensive coatings
- Reduce overspray waste and improve product quality
- Exact target coatings secure a clean and safe environment
- Promote increased production
- Reduce maintenance and downtime
- Reliable spray dosing provides an accurate calorie count



ELECTRIC

A WIDE VARIETY OF ENGINEERED WOOD PRODUCTION OPERATIONS

- Apply PMDI or LPF resin in the blender
- Apply slack wax, tallow wax or e-wax in the blender
- Add surface moisture before pressing boards
- Apply mixed release agent on mats, cauls, or press belts when using PMDI resins
- Mark nail lines on oriented strand board (OSB)



KEY BENEFITS

Ensure precise application and reduce waste

- Integrate tonnage or line speed to maintain uniform coverage when variables change
- Reduce the use of expensive resins, waxes, or release agents by applying the exact volume required
- Apply the optimal amount of surface moisture to increase production by decreasing time in the press
- Confidently transition to running full polymeric MDI products with non-stick press protection
- Eliminate compressed air from most pre-press and wax operations

