

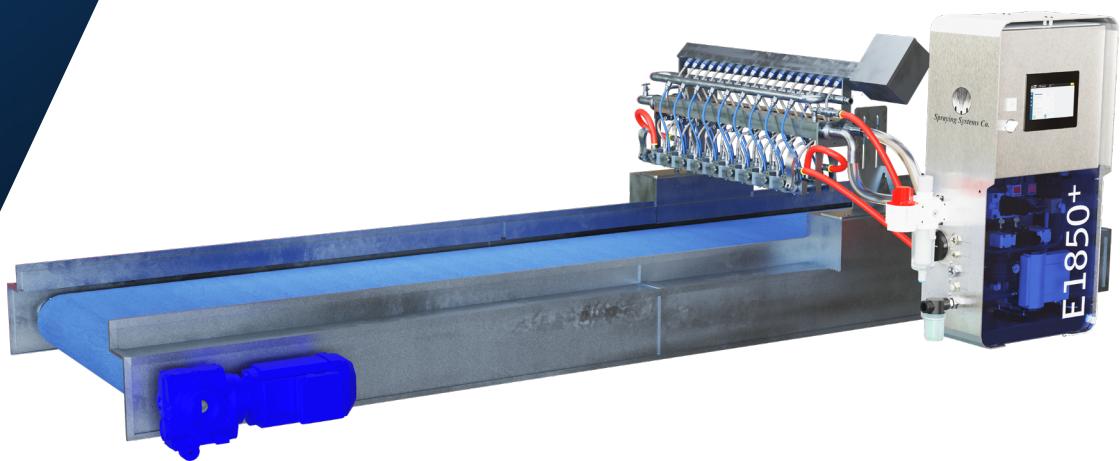


Spraying Systems Co.[®]
Experts in Spray Technology



AUTOJET[®] MODULAR SPRAY SYSTEMS

NEW GENERATION SPRAY CONTROL





OUR MODULAR SPRAY SOLUTIONS

Our Modular Spraying Systems are dedicated to controlling, monitoring, and improving spray operations at your plant. They are designed to integrate seamlessly into your existing process for maximum efficiency.

Advantages of our AutoJet[®] controllers:

- Inhouse developed software with user-focused interface.
- Highly accurate control of your:
 - Spray quantity (g/m², l/h, g/object, %)
 - Spray timing (distance or time-based)
 - Spray pressure
 - Spray temperature
- Advanced monitoring features (spray monitoring, detect clogged/worn nozzles, ...)
- Plug and spray: Connect the Pulsajet[®] nozzles, air and liquid connections.
Connect the IO signals to the optional junction boxes. Configure and you are ready to go.



BENEFITS



Cost Savings:

Precision spray control reduces fluid and air use by up to 50%, lowering production costs.

Enhanced Quality & Reliability:

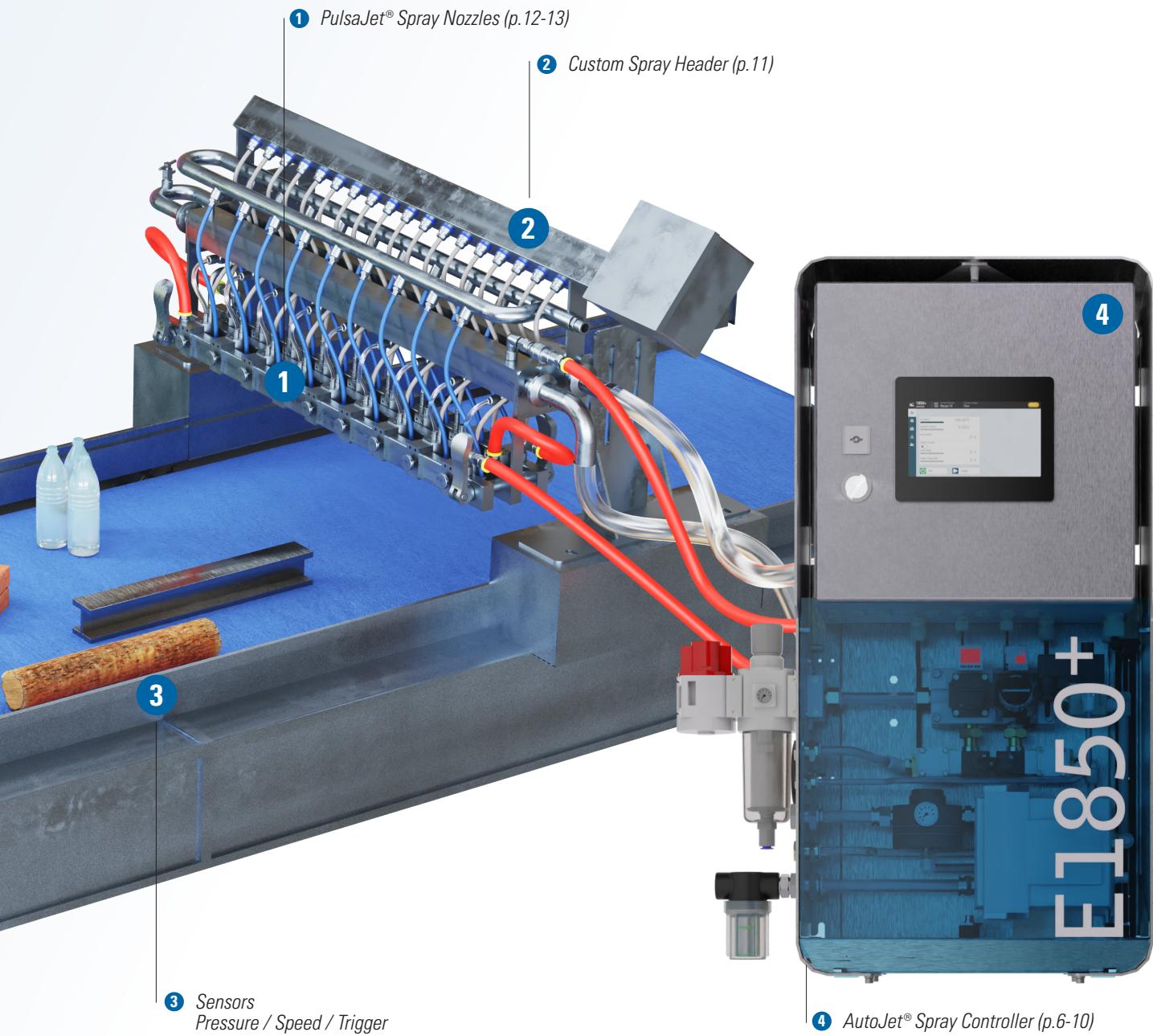
Automated adjustments ensure consistent product quality and prevent production issues.

Flexibility and Connectivity:

Standalone or PLC-integrated systems with optional 4G connectivity for fast service response and minimal downtime.

Safety & Compatibility:

Our modular approach - featuring food-grade, ATEX, and other options - ensures a perfect fit for your spray application. Safety, convenience, and regulatory compliance are among our top priorities.



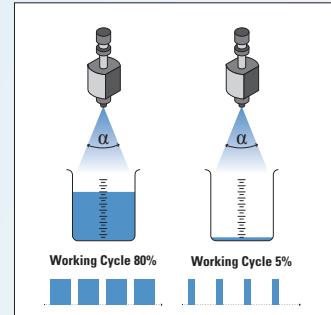


PRECISION SPRAY CONTROL & SPRAY LAYOUTS

PRECISION SPRAY CONTROL //

With precision spray control (PSC), electrically-actuated spray nozzles are turned on and off very quickly to control spray quantity. This gives the following advantages:

- Uniform coverage and consistent application rate.
- Reduced product scrap caused by over- or under-application of coatings.
- Reduced use of costly coatings by applying the correct volume directly on the target.
- Less need to change spray set-ups between batches because a single nozzle can produce a wide range of spray quantities.
- Very low spray quantities mean PSC can often eliminate costly compressed air and the misting associated with air atomizing nozzles.



Scan the QR code to learn more about Precision Spray Control.

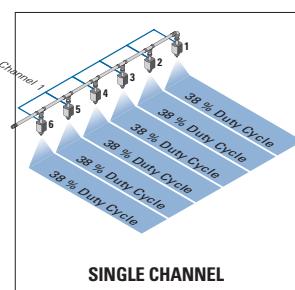


SPRAY LAYOUTS //

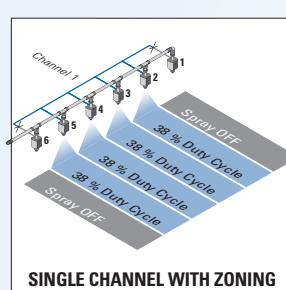
A variety of spray layouts exist for an optimal fit to your production process. Depending on the complexity of your spray application we offer a variety of solutions ranging from very basic: all nozzles spray in the exact same way; to very complex: every nozzle can spray a different quantity at a different time.

SINGLE CHANNEL SPRAY LAYOUTS //

With these spray layouts all nozzles spray the same quantity. Only one start/stop (trigger) signal is needed.



All nozzles spray the same quantity simultaneously



SINGLE CHANNEL WITH ZONING

All nozzles spray the same quantity simultaneously, but some can be switched off to control your spray width.

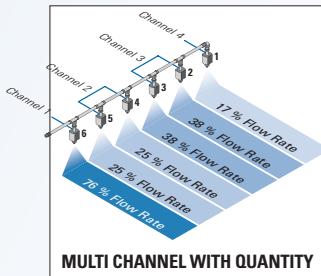


Watch the single channel spray layouts videos

ADVANCED SPRAY LAYOUTS //

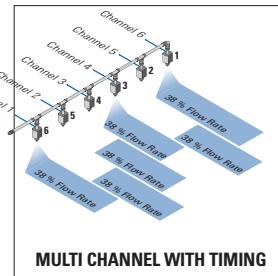
MULTICHANNEL SPRAY LAYOUTS //

With these layouts each nozzle can spray a different quantity. A different channel is required for every quantity.



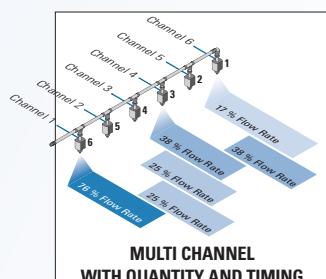
All nozzles spray a different quantity at the same time.

Requires only one trigger signal.



All nozzles spray the same quantity at a different time.

Requires multiple trigger signals.



All nozzles spray a different quantity at a different time.

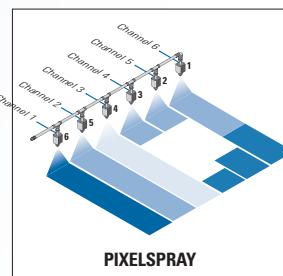
Requires multiple trigger signals.



Watch the advanced spray layouts videos (includes PixelSpray)

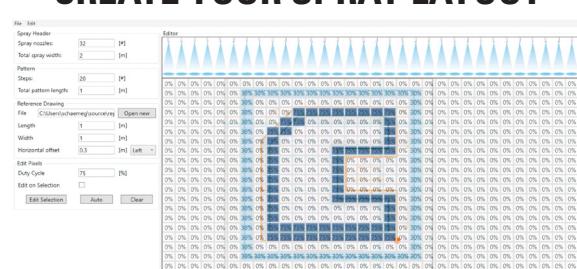
For multichannel spray layouts we always have the option for manual or automatic zoning (turning off nozzles).

PIXELSPRAY SPRAY LAYOUT //

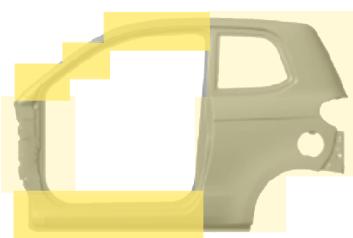
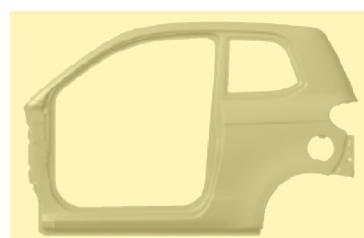


This is the most advanced spray layout we offer, it can be programmed exactly to your needs. Duty cycles can be changed for each individual nozzle during the spray process. The exact amount of liquid is delivered for each area or "pixel". This layout allows to apply an exact dosing on the right place to minimize waste and overspray.

CREATE YOUR SPRAY LAYOUT



COMPARE THE DIFFERENCE





NEW GENERATION SPRAY CONTROL

AUTOJET [®] SPRAY CONTROLLER FEATURES		E1850+			E2150+			E2850+ ADVANCED
		BASIC	STANDARD	ADVANCED	BASIC	STANDARD	ADVANCED	
Spray Nozzle	Maximum number of PWM Channels	1	1	1	2	2	2	> 2
	Maximum number of PulsaJet [®] nozzles (PWM, 10000AUH-03 series, 35°C Temp)	8	8	8	1x 16 or 2x 8	1x 16 or 2x 8	1x 16 or 2x 8	> 16
Timing	Time based spraying	✓	✓	✓	✓	✓	✓	✓
	Distance based spraying		✓	✓		✓	✓	✓
	High speed application (reduce striping)			✓			✓	✓
Spray Check	Liquid Pressure Measurement * + Duty Cycle Correction (Requires Liquid Pressure Sensor)		✓	✓		✓	✓	✓
	Flow Meter Supported						✓	✓
	Detection of clogged or worn nozzles *						✓	✓
Flow Control	Adjust flow via HMI (liquid and atomizing air)						✓	✓
	Adjust flow via remote signal	✓	✓	✓	✓	✓	✓	✓
	Adjust flow via Profinet						Profinet Light	✓
	Closed loop flow control *							✓
Miscellaneous	Recipes			✓			✓	✓
	Pixel spray algorithm							•
	Automatic Rinsing and priming *							•
	4G router (remote service)	•	•	•	•	•	•	✓
	Junction box: Input & Output	•	•	•	•	•	•	•
	Junction box: PulsaJet [®] PWM	•	•	•	•	•	•	•
	ATEX version	•	•	•	•	•	•	•
	Food version	•	•	•	•	•	•	•
	Multi Liquid							•
	Dosing							•
	Heating							•

• = Optional

* = More information on p.10

All systems are also available as controller-only versions

AUTOJET® E1850+ SPRAY CONTROLLER

The AutoJet® E1850+ Spray System is designed to be a perfect fit for nearly every spray application.

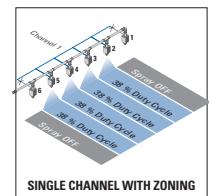
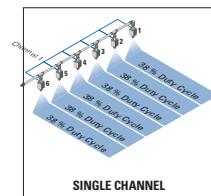
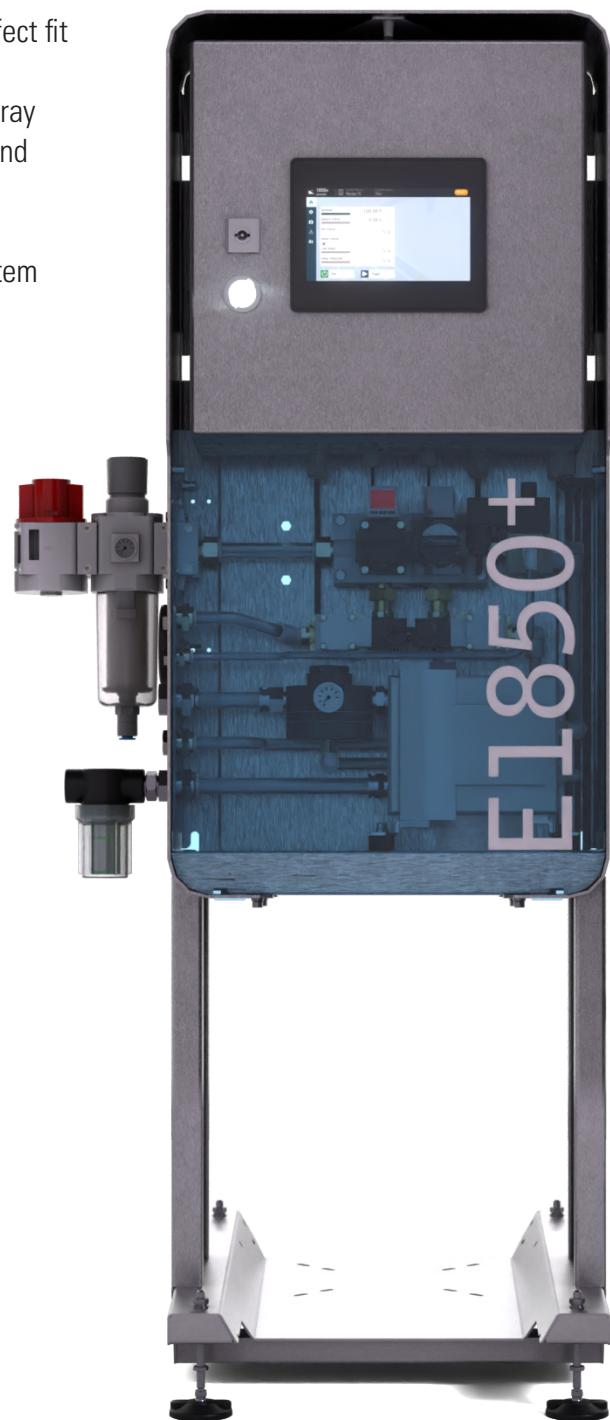
The system optimizes the performance of your automatic spray nozzles for an efficient use of resources and a high quality end result.

In combination with the PulsaJet® automatic nozzle the system achieves very high cycling speeds.

This allows adjustment of the flow rate based on changing operating conditions such as:

- Belt speed
- Pressure fluctuations
- Product change
- Recipes
- ... and much more

The AutoJet® E1850+ Spray System can be used as an autonomous spray system or can be integrated into any existing process control system.





AUTOJET[®] E2150+ SPRAY CONTROLLER

The AutoJet[®] E2150+ Spray System is designed to be a perfect fit for advanced spray applications.

The system optimizes the performance of up to 16 automatic spray nozzles for an efficient use of resources and a high quality end result.

In combination with the Pulsajet[®] automatic nozzle the system achieves very high cycling speeds.

This allows adjustment of the flow rate based on changing operating conditions such as:

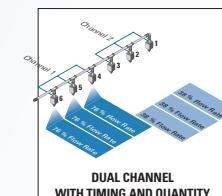
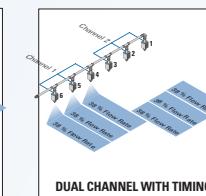
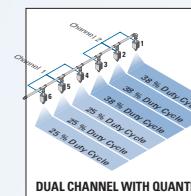
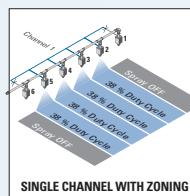
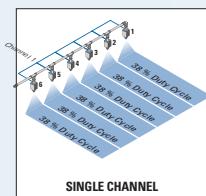
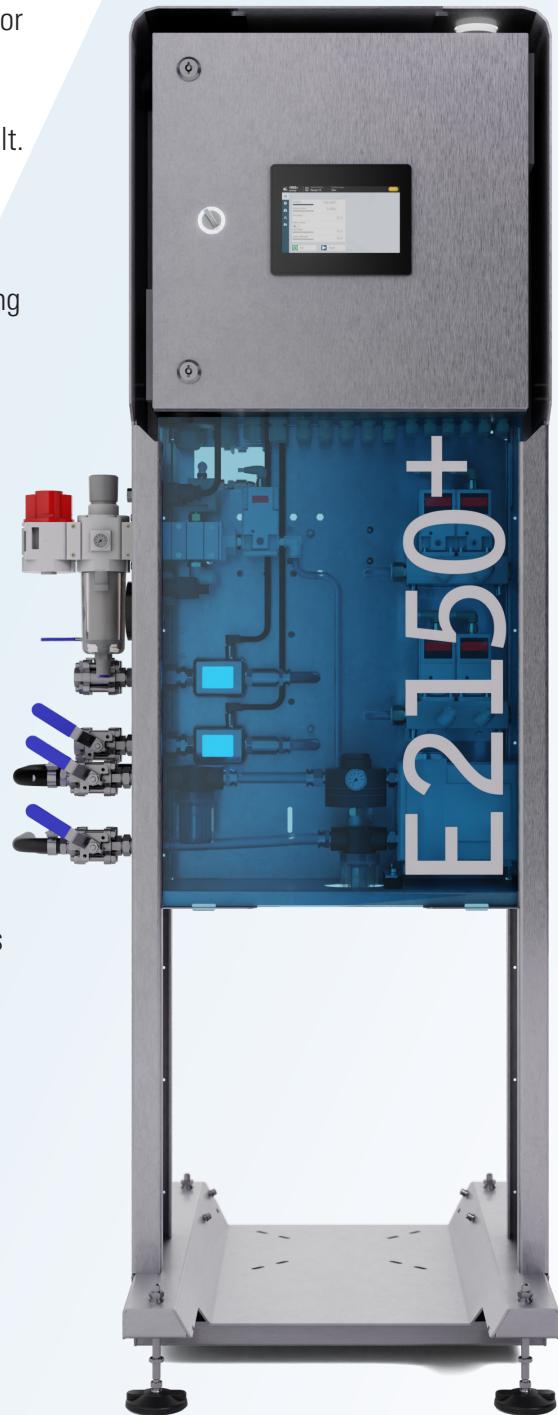
- Belt speed
- Pressure fluctuations
- Product change
- Recipes
- ... and much more

The automatic spray nozzles can be controlled via a single channel (max. 16 nozzles) or via two channels (each with max. 8 nozzles).

High precision editions also offer optional functionality:

- One flowmeter per channel for more accurate spraying
- Automatic liquid pressure and air pressure control
- Profinet support

The AutoJet[®] E2150+ Spray System can be used as an autonomous spray system or can be integrated into any existing process control system.



AUTOJET® E2850+ SPRAY CONTROLLER

The AutoJet® E2850+ Spray System is designed to be a perfect fit for all spray applications, no matter how challenging.

The system uses custom-built firmware and software to allow optimal flexibility in setting up custom-built spray solutions.

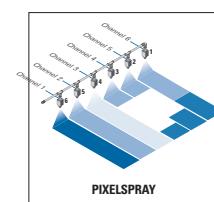
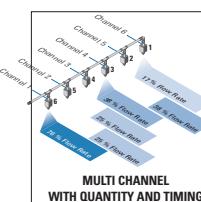
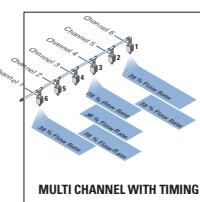
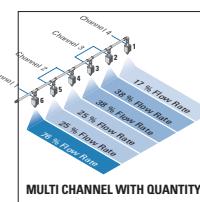
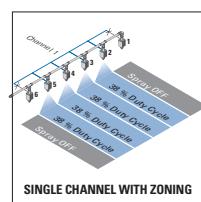
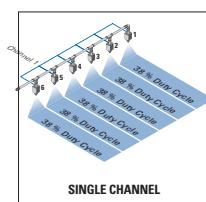
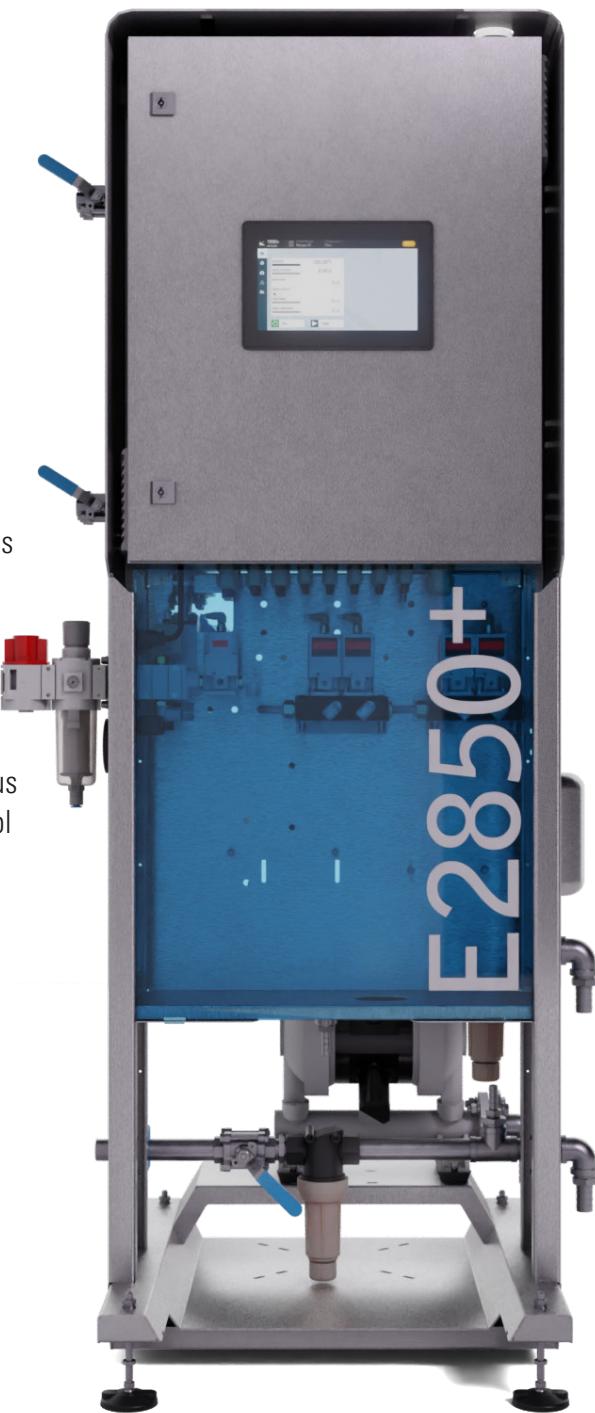
The system optimizes the performance of automatic spray nozzles for an efficient use of resources and a high quality end result.

Due to the modular nature of the E2850+ there are no limits to the number of spray nozzles that can be controlled for your spray process.

There are limitless possibilities with spray applications so the E2850+ offers a large variety of options as standard:

- To improve integration and usability the system uses a Siemens PLC System. This allows remote connection and control to the system
- The set-up of all of the parameters can be done on the touch panel.

The AutoJet® E2850+ Spray System can be used as an autonomous spray system or can be integrated into any existing process control system.





ADVANCED FEATURES EXPLAINED

LIQUID PRESSURE MEASUREMENT E1850+ / E2150+ / E2850+

The liquid pressure to the nozzles is measured by the pressure sensor. Warnings are generated when the measured value is outside minimum/maximum limits or when a sensor error occurs. Flow through an orifice is dependent on applied pressure. By measuring the pressure change, it is possible to calculate a new theoretical duty cycle to compensate for flow differences caused by pressure differences.

SYSTEM INTEGRITY E2150+ / E2850+

This feature ensures reliable spray performance by continuously checking for deviations in spray performance. It detects issues such as clogged or worn nozzles, helping maintain consistent application, reduce waste, and extend system longevity.

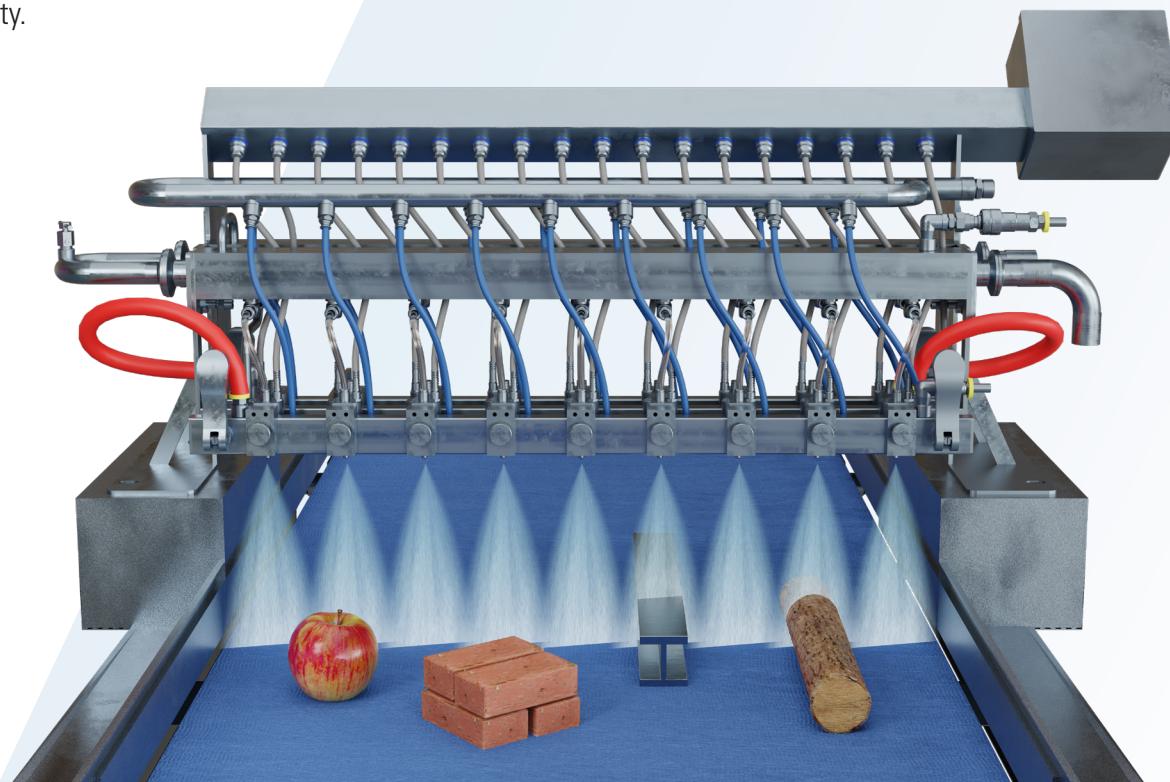
CLOSED-LOOP FLOW CONTROL E2850+

With closed-loop flow control the liquid flow to the nozzles is measured by the flow sensor. Warnings are generated when the measured value is outside minimum/maximum limits and automatically compensates for changes in flow rate. The flow meter is used to make sure the required amount of liquid is sprayed. This allows:

- Automatic nozzle calibration
- Closed loop flow regulation

RINSING & PRIMING E2850+

This feature enables the customer to automatically switch to a cleaning agent or any other liquid of choice. The draining and cleaning of the entire liquid line and its nozzles - to prevent clogging - are also automated. Additionally, the system's rinsing function can be activated manually or automatically after a specified period of inactivity.



HEADERS

PULSAJET® HEADER

We have a large variety of PulsaJet® headers available to ensure a seamless integration with your process. Headers can be custom-built to your specifications:

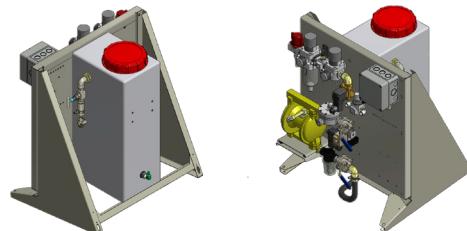
- Length
- Shape
- Materials
- Inlet connections
- Liquid pulsation damper
- ...



OTHER SPRAY CONTROL OPTIONS

BASIC AIR PRESSURE AND FLUID DELIVERY SYSTEMS

Apart from the advanced AutoJet® Controllers in this brochure we also have a range of basic systems. They are designed for manual pressure regulation of air and liquid and basic on/off control of your spray nozzles.



CUSTOM SPRAY HEADERS

Apart from the advanced headers that are used in combination with our advanced AutoJet® Controllers we also offer the possibility to create custom spray headers for your basic spray applications.



AIR BLOWER SYSTEMS

The AutoJet® Air Blower Systems ensure energy efficient air blowing for your applications. A wide range of WindJet® Air Products are also available to lower the energy costs and improve the performance of your drying, cooling and blow-off operations.



APPLICATION SPECIFIC SYSTEMS

Apart from the advanced AutoJet® Controllers in this brochure we also have a range of application specific AutoJet® systems: food applications, flat glass coating, lubrication, chain lubrication, gas cooling, NOx control, PanelSpray®, ...



Find out more about these other spray control options via our website or contact your local spray expert.



NOZZLES

ELECTRICALLY-ACTIVATED SPRAY NOZZLES

The electrically-activated spray nozzles have a plunger that is activated by changing polarity in a coil. Most of these spray nozzles are suited for PWM (Pulse Width Modulation) and therefore seemlessly integrate into our sophisticated line of controls offering precise spray control. (Certificates (CE, food contact, ATEX, ...) are available)

OVERVIEW OF SELECTED ELECTRIC PRODUCTS

	For Air Atomizing Setups	For Hydraulic Spray Tips
PulsaJet [®] 03 Up to 15'000 cycles/minute	 AAP10000-Ex6xx	 AAP10000-Exxx
PulsaJet [®] JAU / -10 Up to 7'500 cycles/minute	 AAB10000JAU	 AAB10000AUH-10
Compact HF Up to 12'000 cycles/minute		 D55571
Mini PulsaJet [®] Up to 20'000 cycles/minute		 AAB10000AUH-0050
Up to 5'000 cycles/minute		 AAB250AUH DS55573

AIR-ACTIVATED SPRAY NOZZLES

Air activated spray nozzles are easy to control by pressurized air. Models with single action functionality are normally closed. Activation by air pressure will open a needle or plunger, switching the pressure off will let the needle close through a spring. For a few models we can offer a double action needle, that needs air pressure for both actions, opening and closing. (Certificates (CE, food contact, ATEX, ...) are available)

OVERVIEW OF SELECTED PNEUMATIC PRODUCTS

	For Air Atomizing Setups	For Hydraulic Spray Tips
1/4J setups + TPU spray tips Up to 180 cycles/minute	 B1/4JAU	 B1/4JAUH
Compact Design Up to 300 cycles/minute	 Compact JAU: D55500-P18JAU	 Compact JAUH: D55500-P18JAUH
Compact Design Up to 600 cycles/minute	 E Compact JAU: D55573	
Variable Spray Pattern Up to 180 cycles/minute	 B1/4VMAU	

CASE STUDIES

CS E4032 Steel Bar

Manufacturer Saves More Than € 750,000 with New Spray Cooling System

CS E4033 Hardwood Flooring Manufacturer Saves € 40,000 Per Year by Spraying Pigment

CS E4034 Plastic Cup Manufacturer Saves € 18,000 Annually with Automated Anti-Static Spray System

CS E4035 Automated Spray System Helps Elastomer Manufacturer Reduce Release Agent Usage and Save € 50,000

CS E4036 Wood Pellet Manufacturer Saves More than € 10,000 Annually Spraying Oil with Automated Spray System

CS E4037 Tissue Manufacturer Saves € 40,000 and Improves Sustainability

CS E4038 OSB
Manufacturer Saves
€ 25,000 per Year by
Recycling 2 Million Liters of
Wastewater

CS E4039 Modular Retaining Wall

Manufacturer Cuts Release
Agent Use by 75% to Save
More than € 60,000 per Year

CS E4040 Cable Manufacturer Halves its Chemical Consumption with Automated Spray System

**PRE-CAST CONCRETE
MANUFACTURER SAVES
COATING CONSUMPTION,
SAVES \$ 80,000 ANNUALLY
WITH AUTOMATED SPRAY
SYSTEM**

PROBLEM:

A global manufacturer of pre-cast concrete piping boards had to do the dry spraying of the concrete coating and messy wet spraying of the concrete coating, especially problematic when spraying concrete pipes.

This company required precisely apply the coating on the concrete pipes and concrete structures.

Achieving these objectives was a challenge due to the production schedules & short lead time.

CS E4041 Fiber-Cement

Siding Manufacturer Reduces Coating Consumption, Saves € 80,000 Annually

CS E4067 Local Meat Processor Secures Major Fast Food Deal Thanks to AutoJet®

CS E4068 Precision Spray Control Helps to Create More Sustainable **Building Materials**

CS E4069 Prolonging Cake Shelf Life with AutoJet® Alcohol Spraying System

CS E4072 Glass Mosaic Manufacturer Installs a More Efficient Spray System

CS E4079 AutoJet® ATEX

Spray system improves safety and production efficiency

CS E4088 Meat Producers

CS E4091 Optimizing Bakery Efficiency - A case study in Seed Adhesion Using Gecko

CS E4093 Enhancing Insulation Production with PulsJet®



WHY CHOOSE SPRAYING SYSTEMS CO.[®]?

Choosing Spraying Systems Co.[®] means partnering with a leader in spray technology. With over 85 years of expertise, we are committed to delivering a high-quality solution that meets the evolving needs of the food industry.

Our dedicated team of experts is here to provide support and solutions that are aligned with your specific requirements.



CONTACT US

Find out more about our spraying solutions by going to our website: spray.com/en-eu/
Do you have any questions or do you want more information? Get in touch with one of our spray experts. They will provide you with the right information.



LANGUAGE SUPPORT

info.uk@spray.com +44 1252 727200 // info.de@spray.com +49 40 766 001 0 // info.fr@spray.com +33 1 46 20 96 40

info.es@spray.com +34 91 357 40 20 // info.it@spray.com +39 02 38 34 181 // info.ae@spray.com +971 4 326 7770

We also offer support in Polish / Portuguese / Dutch / Swedish / Finnish / Romanian / Czech / Greek / Hungarian / Ukrainian
Local representatives on www.spray.com or contact Info.EU@spray.com