



PulseForge Pathogen Decontamination System (PDS)

The food supply chain is constantly battling pathogens such as Listeria, Campylobacter, Salmonella, Enterobacter, and E. coli that contaminate food products during processing.

The PulseForge PDS enhances or replaces existing decontamination systems with uniform pulsed light that can be tailored for specific applications. The PDS provides dry and chemical-free elimination of pathogens at their most vulnerable wavelengths.

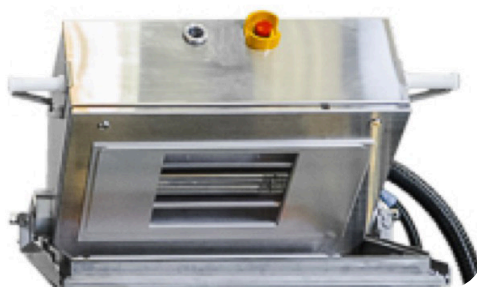


How is PulseForge PDS Superior to Other Decontamination Technologies?

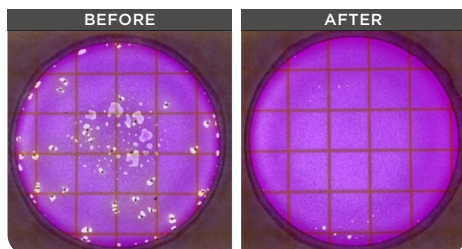
It's Safe: The PulseForge PDS effectively eliminates spoilage and pathogenic microorganisms in accordance with 21 CFR 179.41, while avoiding excessive heat that may harm food or packaging materials. Adding the PulseForge PDS to the production process can minimize the need for harsh chemicals.

It's Reliable: Utilizing 20 years of experience in high-speed production systems, the PulseForge PDS is the next-generation of water cooled pulsed light decontamination. It is designed for washdown environments and can keep up with fast-paced high-volume food processing while delivering rapid, dependable results.

It's Configurable: The PulseForge PDS has a modular design, enabling easy and effective integration with existing lines, to provide decontamination at crucial points. It's also scalable for different processing speeds and product decontamination profiles.



FLASH LAMP HOUSING



Where can I use it?

Food: In the processing of food following a potential cross-contamination point such as wing cutting during poultry processing.

Food Production Equipment: With the PulseForge PDS, food conveyor and processing surfaces can be continuously decontaminated, minimizing the need for line shutdowns and conventional cleaning methods. Daily cleaning alone may not be adequate as cross contamination can resume with line restart.

Food Packaging: Pulsed light is a safe method for decontaminating food packaging as it won't damage low-temperature packaging or the food inside.

(Left) *Enterobacter Aerogenes* control sample on PolyStyrene, estimated population ~7.4 Log CFU/ml

(Right) Same as Left after processing with PulseForge PDS, estimated population = Zero

See pathogen case study sheet for more details.



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Specifications



Over Conveyor Configuration

| | |
|--------------------|--|
| Process | <ul style="list-style-type: none"> Designed for 3–6 J/cm² (Total Optical Energy) delivered to target surface at 100 feet per minute Designed for 1 kW/cm² (Peak Optical Intensity) delivered to target surface |
| Description | <ul style="list-style-type: none"> 3" x 12" Flash Heads {Side 1, Conveyor, Side 2} 6 Lamp Drivers (2 per Flash Head) 20kW Shared Power Supply Entire Floor System is NEMA 4X |
| Features | <ul style="list-style-type: none"> Floor Operation through Simple Control Box Remote (Off Floor) System Enable & Programming through Client PC Responsive to Floor Control Signals {CO, QE, CP} <ul style="list-style-type: none"> ◆ System Active if Conveyor On (CO) & Chicken Present (CP) Asserted ◆ Firing Rate Driven by Quadrature Encoder (QE) Line Rates in excess of 100 feet per minute (FPM) Real Time Fault Monitoring & Alarms TCP API Available for Direct Machine Interface |
| Dimensions | <ul style="list-style-type: none"> Equipment Rack: 24"(W) x 42"(D) x 78"(H) [+4"(H) Stabilization Plate or Casters] Floor Footprint: 48"(W) x 90"(D) Flash Head: 24"(W) x 30"(D) x 12"(H) |