

The Power of Pulsed Light

Decontamination of Food Conveyors



The food industry is all too familiar with food safety recalls. Many recalls result from the discovery of known pathogens in a product which can make consumers sick. Recalls subject companies to regulatory and commercial liability exposure, as well as requiring highly-visible product recalls. Despite industry efforts to reduce the risk, incidents of contamination persist, reinforcing the need for a chemical-free processes.

Food is Only Half of the Equation

Keeping your food free from microbial contamination is paramount, which is why food processors work so hard to keep conveyor systems clean. Current methods including washing, steam cleaning and chemical sanitization are effective, but require the line to be shut down frequently, and for extended time periods to perform a sanitization cycle — a significant operating cost to food processors.

There is a Better Way to Decontaminate Conveyors

A growing number of food processors are choosing to incorporate XENON Pulsed Light systems into the sanitization regimen for their conveyors. With rapid pulses of high-energy UV light, microorganisms on food-contact surfaces are destroyed before they can grow and contaminate food products. These Pulsed Light systems can operate during production, providing continuous decontamination of the conveyors. This not only increases the level of protection but may also result in full wash-downs being required less frequently.

PULSED LIGHT DECONTAMINATES FOOD SURFACES AS WELL

Intense Pulsed Light has been found to be effective in the decontamination of the surfaces of many different varieties of food by several university studies and has been documented in

use for this purpose, and the number of foods that can benefit from Pulsed Light treatment continues to grow. Being a non-thermal process, Pulsed Light can kill microorganisms while preserving nutrients. It can do so without affecting the look, feel, and color of the food, unlike chemical, radiation, or heat treatments.



THE Z-2000 PULSED LIGHT SYSTEM

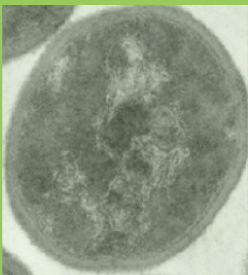
The XENON Z-2000 offers food processors the ability to supplement existing conveyor decontamination procedures with the most innovative, effective grade controller and lamp housings. They are constructed of stainless steel and designed to meet IP67 and NEMA 4X standards, so they are safe for use in wash-down environments. The lamp unit easily bolts onto existing conveyor systems and will be positioned to meet your needs so as not to interfere with food moving on the belt.

RESEARCH STUDIES

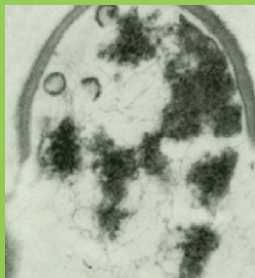
There have been countless studies on the use of UV high-intensity pulsed lamps generating powerful, short pulses of ultraviolet light for microbial inactivation. University and Research Institutions have undertaken numerous studies demonstrating high-intensity pulsed light as a means for treating air, water, food, food contact surfaces, non-opaque liquids and packaging material. The peak intensity of our lamps is 100,000 times the sun on the earth's surface.

GERMICIDAL POWER

Pulsed UV high-intensity pulsed lamps provide a rich UV spectrum in addition to wavelengths greater than the traditional monochromatic 254 nm supplied by low pressure mercury lamps. Studies have shown emissions that fall outside the traditional 250 to 280 nm germicidal range regain and contribute to disinfection efficiency. Additionally, it has been proven to reduce treatment time when compared to low-pressure, mercury vapor lamps. Pulsed UV light delivers high energy photons at such a rapid rate that the DNA repair mechanism is overwhelmed and destroyed.



Before



After



- Continuously decontaminates food contact surfaces
- Chemical-free process
- Deactivates microorganisms in seconds, with no residuals
- FDA approved for use with food
- High germicidal power

THE Z-2000 PULSED LIGHT SYSTEM

INSTALLATION & SERVICE

INSTALLATION

KSI's turnkey installation service addresses numerous challenges during the installation process, such as the multitude of conveyor configurations, understanding power requirements, UV Light exposure limits and how to manage device options for optimizing business continuity. In addition, the KSI installation service includes UV light configuration with power supply units, air filtration systems and power management solutions in your processing center.

MAINTENANCE

Our services are rooted in operations and maintenance where we monitor systems, perform programs and support functions to sustain peak efficiency in your facilities while maintaining a safe environment for your employees. KSI provides on-site equipment management and offers high quality, long-term, cost saving service solutions so that you can focus on your core business.

CERTIFIED TECHNICIANS

KSI's installation service is available which includes a Certified Technician who will coordinate and be present to receive delivery of all UV Light equipment. Our certified technician will confirm the required configuration and ensure all equipment is properly installed, tested and deployed. KSI will provide consultation services around best practices and optimal configurations related to the UV Light System.



AVAILABLE SUPPORT FUNCTIONS

- PREVENTIVE MAINTENANCE
- CORRECTIVE MAINTENANCE
- EMERGENCY RESPONSE
- HELP DESK & CALL CENTER WITH ONLINE WORK ORDER PROCESSING
- 24/7 EMERGENCY RESPONSE

Our installation service not only helps you save time, but also provides peace of mind from knowing the Xenon Disinfection System is properly installed based on your specific requirements.

KSI's turnkey installation service includes:

- Consultation by Xenon Certified Project Coordinate installation with the least impact to current conveyor processing operations
- UV system configuration
- Air purification system configuration
- Coordinate power and UV Light location and design operator protection from UV light

Power Requirements:

- 220-volt Single Phase 30 amp service

THE Z-2000 PULSED LIGHT SYSTEM

Complete System

Z-2000 PULSED LIGHT SYSTEM

Xenon Power Supply



Food Grade, FDA
Approved Xenon Z-2000

PUREX FUME EXTRACTION



Purex 400i
iFume Ozone
Extractor



Main Filter



Pre-Filter



Fume Monitor
Unit



Flexible Hose

Product	Qty
Z-2000 Pulsed Light System	1
UV Bulb	1
Purex Ozone Extractor 400i	1
Purex Ozone Main HEPA Filter	1
F9 Pre-Filter	1
Ozone Fume Monitor Detector	1
Flexible Hose 6Ft.	1
Pre-Site Survey and On-Site Installation with some light fabrication and mounting Hardware	1
1 On-site Year Maintenance Plan	1



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