



Benefits of UV-C in Meat Processing Facilities

Know the Risks in Your Facility

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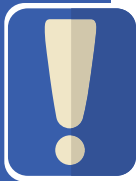
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Processing Facilities Undergo Constant Barrage by Microorganisms



Meat Processing facilities undergo a constant barrage of microorganisms, such as bacteria and mold. Maintaining rigorous sanitization and disinfection standards to comply with USDA, FDA standards, and the FDA Food Safety Modernization Act (FSMA) is an expensive and time consuming effort.

Food Safety Modernization Act (FSMA)



Hazard Analysis

Biological, chemical, and physical hazards need to be identified within the facility.



Preventative Controls

A list of preventions must be written and put into action to help ensure food has not been contaminated.



Oversight of Preventative Controls

As soon as preventative controls have been created, then the facility must make sure the preventative controls are being met.



Supply-Chain Program

If hazards have been identified in the facility, a supply-chain program must in in place in order to bring in fresh uncontaminated foods.



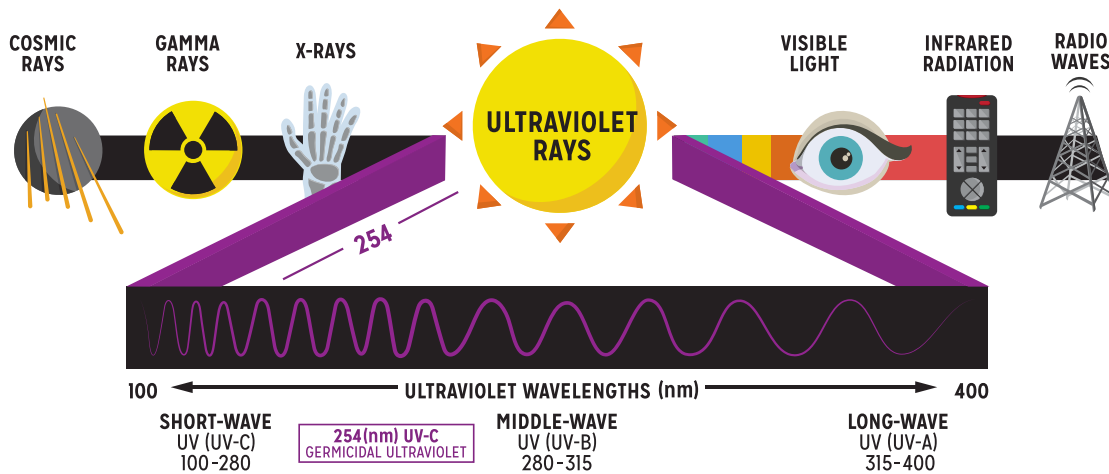
Recall Plan

If the hazard analysis identifies a hazard requiring a preventive control, the facility must have a written recall plan that describes the procedures to perform for a recall of the product.

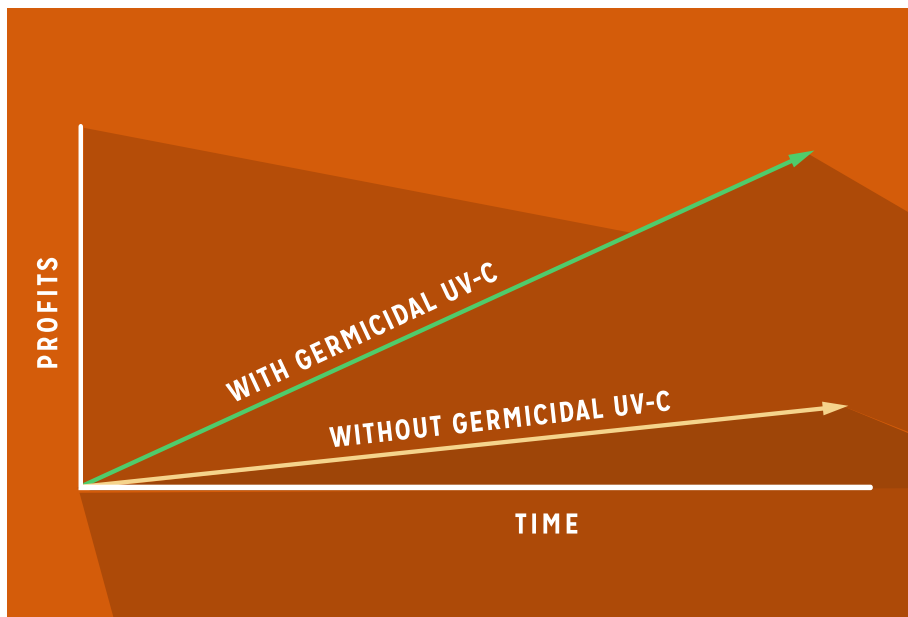
<https://www.fda.gov/Food/GuidanceRegulation/FSMA/ucm334115.htm>

Studies Show Germicidal UV-C Rays Mitigate Microorganisms

Studies show UV-C rays actively mitigate microorganisms, bacteria, and mold. Germicidal Ultraviolet (UV-C) rays, emitted at 254 nanometers, are lethal to pathogenic bacteria such as **E. coli**, **Salmonella**, **L. monocytogenes (Listeria)**, **spoilage bacteria**, **virus**, and **mold**.

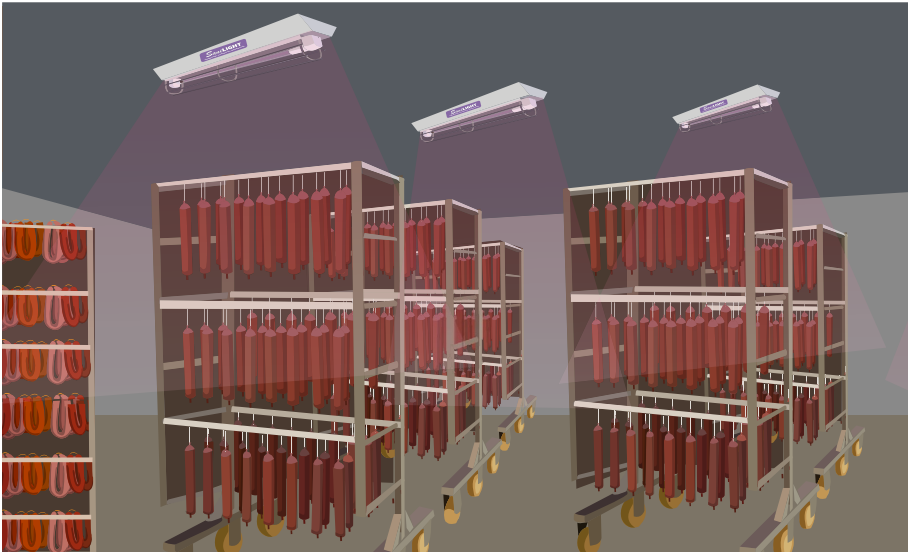


Germicidal Ultraviolet Increases Profits



Meat processing facilities that properly employ Germicidal Ultraviolet (UV-C) see a direct correlation between the installation of their ultraviolet systems and increased profits. Higher sanitization standards translate to safer working conditions, higher quality products, longer product shelf life, and increased profitability. Germicidal Ultraviolet (UV-C) technology is an economical and rapid method of disinfection.

Germicidal Ultraviolet (UV-C) for Air & Surface Disinfection, and Water & Liquid Purification



Germicidal Ultraviolet (UV-C) technology will aid in your efforts to keep all areas in your processing plant sanitary. Atlantic Ultraviolet's disinfection and purification systems all use **STER-L-RAY®** UV-C lamps. These powerful lamps provide safeguards in meat processing facilities for air & surface disinfection, and water & liquid purification.

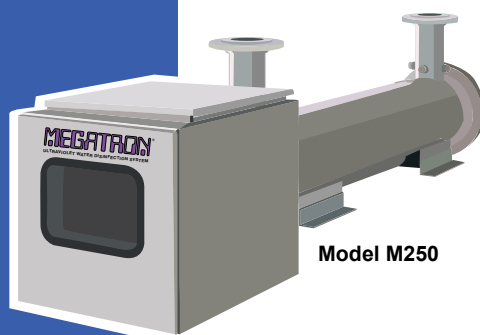
For UV-C Air & Surface Disinfection



Model D12-1S with Wireform Lampguard

SaniLIGHT® and **Sani-Ray®** Germicidal Ultraviolet Irradiators and Fixtures by Atlantic Ultraviolet Corporation® are highly recommended for Surface and Air Disinfection. UV-C helps to reduce odors, protect against mold and slime, and increase shelf life.

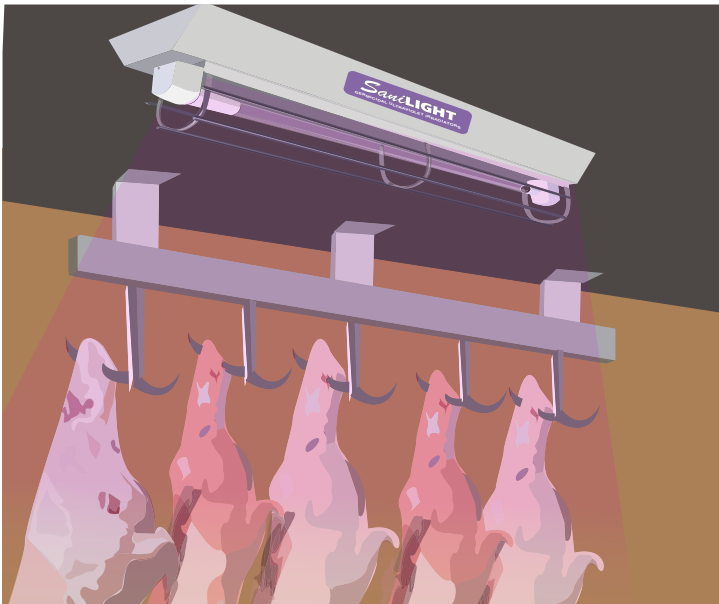
For UV-C Liquid & Water Purification



Model M250

SANITRON® and **MEGATRON®** Water Disinfection Systems, both manufactured by Atlantic Ultraviolet Corporation®, provide cost effective, continuous solutions for sanitizing wash & rinse water, clean-in-place (CIP) water, and effluent without special attention or chemicals. Reproduction of waterborne bacteria is prohibited and cross-contamination from water to air and surfaces is drastically reduced. Implementing **SANITRON®** and **MEGATRON®** can help reuse wastewater and help to meet municipal regulations before wastewater is discharged from your facility. Models are available to treat 3 gallons per minute to 450 gallons per minute and higher.

Use a Combination of UV-C Systems to Maximize Sanitization Benefits



For maximum sanitization benefit, use a combination of Germicidal Ultraviolet (UV-C) disinfection **SaniLIGHT**® and **Sani-Ray**® fixtures and **SANITRON**® and **MEGATRON**® water purification systems. When installed throughout your facility for air & surface, and water & liquid treatment, contaminations are halted where they begin—virus, mold, and bacteria are not given the opportunity to reproduce. UV-C increases overall sanitization and reduces the time needed for washing and cleaning. Proper use of our UV-C systems decreases the amount of chemical cleaners needed in most applications.



Model D18-2CC

SaniLIGHT® and **Sani-Ray**® Germicidal Ultraviolet Fixtures install on walls, ceilings, or even inside equipment. They provide continuous protection in unoccupied areas. In occupied areas, proper precautions must be made to ensure areas remain unoccupied while the units are in use.

These practices will make sure individuals are not exposed to the germicidal ultraviolet (UV-C) rays emitted from **SaniLIGHT**® and **Sani-Ray**® fixtures. UV-C fixtures are easy to install and use. They require minimal maintenance.

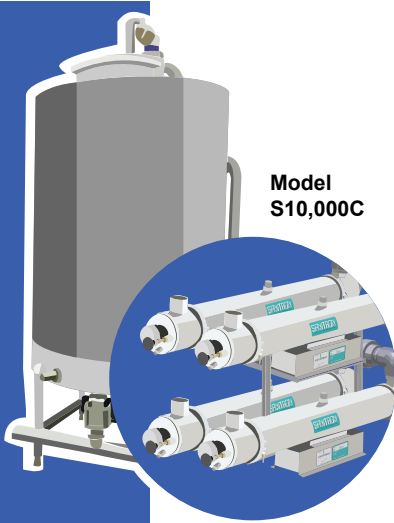
Basic, proper safety precautions are necessary as individuals should not be exposed to UV-C — it's hazardous to unprotected skin and eyes.



Model RRDHO18-2S with Wire form Lamp guard

Use a Combination of UV-C Systems to Maximize Water Sanitization Benefits

Successful disinfection depends on germicidal ultraviolet wavelengths having unobstructed exposure to the treatment surfaces or water and liquid. The proper dose of Germicidal UV-C light is needed for particular organisms to be eradicated.

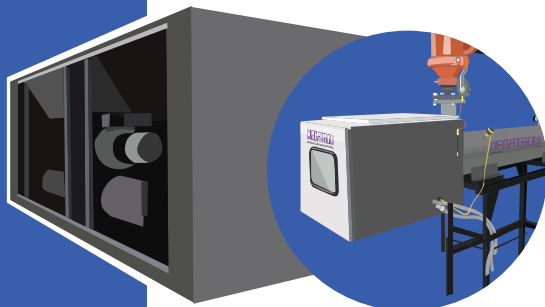


Model S10,000C

Larger Capacity **SANITRON**® and **MEGATRON**® UV water purifiers range from 83 to 450 gallons per minute.

The modular design of each enables units to interconnect and allows capacity for nearly any flow rate. Regardless of which model is chosen, rest assured that process will be chemical free, automatic and provide continuous disinfection of water and liquids without special attention.

Atlantic's patented Dual Action Wiper Mechanism allows for quartz sleeve cleaning while the system is operational, which means no downtime.



Model M250

MEGATRON® models have an optional Automatic Wiper feature that allows for unattended quartz sleeve cleaning.

Use SaniLIGHT®, Sani-Ray®, SANITRON®, and MEGATRON® for Air, Surface, & Water Disinfection in Various Applications



- Slaughter Rooms
- Carcass Rinsing
- Processing Areas
- Viscera Cleaning
- Packaging Rooms
- Conveyor Belts
- Clean-In-Place Water
- Sausage & Deli Meat
- Bacon Slicing
- Effluent Processing
- Fresh Meat
- Packaging Spaces
- Holding Rooms
- Refrigeration Rooms

Without UV-C Technology For Air, Surface, Water & Liquid Disinfection



Without the use of **SaniLIGHT®** or **Sani-Ray®**, spores settle on the meat, rails, hooks, walls, trays, and just about any other available surfaces. These areas become the sources of contamination for fresh meat entering the facility. The **STER-L-RAY®** UV-C lamps used in the **SaniLIGHT®** and **Sani-Ray®** work to eliminate mold and bacteria, creating a sanitary environment.

All steps in the processing cycle require heavy water use. When rinsing or cleaning, waterborne contaminants can rapidly spread onto surfaces that come in contact with the liquid particles and aerosols. Waterborne contamination stops spreading when disinfection through UV-C rays is added to the meat processing cycle. Atlantic Ultraviolet's **SANITRON®** and **MEGATRON®** UV Water Purifiers use **STER-L-RAY®** lamps to inhibit the growth of microorganisms in water.

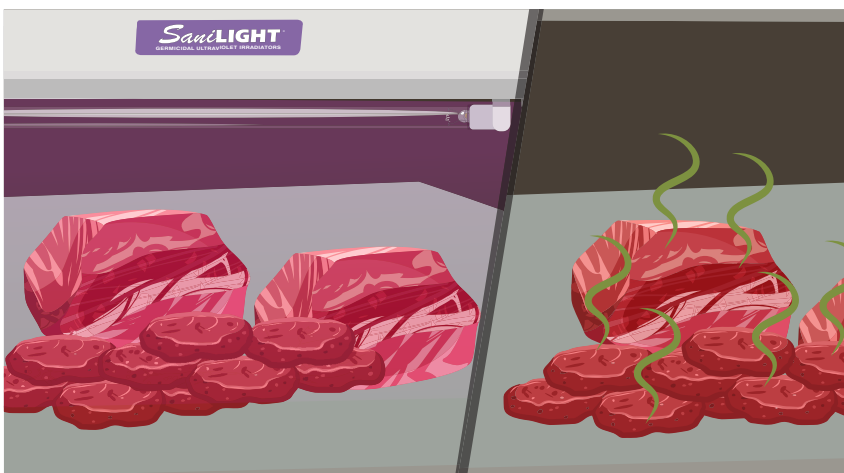
Powerful UV-C Protection Against Mold and Slime are Provided by the SaniLIGHT®

The environmental conditions found inside your meat processing facility are favorable to the rapid development of millions of microscopic organisms. Microorganisms are carried throughout the air until they land on meat, meat products, and processing surfaces.

Once they cluster, they form visible mold and slime that speed up the meat's decaying process. This shortens the shelf life, leading directly to a loss of profits. **SaniLIGHT®** Germicidal Ultraviolet Fixtures (which use **STER-L-RAY®** UV-C lamps), along with refrigerator temperatures, allow meat packers and processors to control the rapid development of these microorganisms. Cold Cathode UV-C Lamps in **SaniLIGHT®** fixtures are ideal where frequent starts and stops are required.

Cold Cathode UV-C lamps are available for applications where the temperature is colder than room temperature, such as walk-in refrigerators, meat lockers, or holding rooms.

Germicidal UV-C Introduction to Meat Processing Facilities



The introduction of Germicidal Ultraviolet (UV-C) technologies into meat processing facilities directly equates to a healthy and safe working environment, as well as higher quality products. By knowing the risks in your facility, utilizing UV-C, and having a safety plan in place, foul orders will be corrected, and contamination will be reduced in the air, on surfaces, in the water and liquid.

About Atlantic Ultraviolet

Since 1963 Atlantic Ultraviolet Corporation has engineered and manufactured ultraviolet water purification equipment, ultraviolet air sanitizing systems, UV surface disinfection systems, and germicidal uv lamps for residential, commercial and industrial applications.

STER-L-RAY® Germicidal Ultraviolet Lamps utilized in Atlantic Ultraviolet's products produce short wave radiation that is lethal to bacteria, virus and other microorganisms. The method is unique and rapid and does not utilize heat or chemicals. Ultraviolet technology is a well established method for its effectiveness, and because the process is free of by-products.

Atlantic Ultraviolet has two goals: Continuing to develop strong business-to-business and business-to-consumer relationships, and continuing its leadership in applied ultraviolet technology with the development of new product lines.

Review Ultraviolet.com to "Learn" about the company & products. Visit BuyUltraviolet.com to "Shop" products and models of UV water, air/surface purification systems, and germicidal uv lamps. Be sure to visit the NSF® Certified Systems and Clearance sections.

A UV Application Specialist is always ready to take your call at 631-273-0500, Mon-Fri, 7am-6pm EST.



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