

## Food Surface Treatment Tunnel



- Kills bacteria, mold, yeast
- Modular construction
- Easily retrofitted to your process
- All stainless steel construction
- Reduces liability concerns
- Easily accessed for CIP
- Custom installations available
- No chemicals
- Low maintenance
- All natural Photohydroionization<sup>®</sup> process
- Low energy consumption
- Can be built and installed as a mobile or fixed system

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**The RGF Food Surface Treatment Tunnel**, utilizing patented Photohydroionization<sup>®</sup> (PHI), is a breakthrough in food processing technology. The patent pending food tunnel is designed to be placed at the end of the process line just prior to packaging or grinding. At this point in the food process, the food tunnel can provide final non-chemical, antimicrobial treatment, and protect products from human error or other cross contamination events which may have occurred earlier during processing. The modular design allows for sections to be assembled to fulfill customer's precise requirements.

The unit mounts around a self-contained variable speed conveyor. Inside the food tunnel we have strategically placed a series of ultra-violet light emitters and introduced PHI oxidation gases. Specially designed stainless supports and FDA approved high impact polymer shrouds protects each emitter preventing glass from entering the work environment. The internal system surfaces are made of mirror polished stainless steel to maximize reflectivity and reduce issues of shadowing.

Food enters the tunnel carried on a low profile, open weave stainless steel conveyer belt. The belt is designed for the weight load of the product volume to be treated. This dry environment process incorporates high intensity targeted ultra-violet light, ozone, and ionization to create a powerful treatment environment for most food surfaces. There are no changes in color, taste or organoleptic qualities when operated in accordance with specifications.

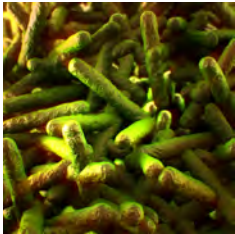
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### Salmonella

Salmonella is a gram-negative, rod-shaped bacilli that can cause diarrheal illness in humans. They are microscopic living creatures that pass from the feces of people or animals to other people or other animals. Salmonella bacteria are the most frequently reported cause of foodborne illness. If present in food, it does not usually affect the taste, smell, or appearance of the food. The bacteria live in the intestinal tracts of infected animals and humans.

Tested by Kansas State University Inactivation Rate 99+%



### Listeria

This is a Gram-positive bacterium, motile by means of flagella. Some studies suggest that 1-10% of humans may be intestinal carriers of *L. monocytogenes*.

Source: U.S. Food and Drug Administration

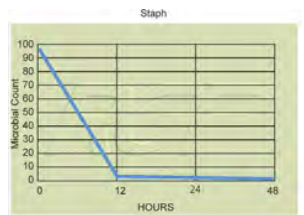
Tested by Kansas State University  
Steris Labs  
KAG / Eco Labs Inactivation Rate 99+%



### Escherichia coli

*Escherichia coli*, usually abbreviated to *E. coli*, discovered by Theodor Escherich, a German pediatrician and bacteriologist, is one of the main species of bacteria that live in the lower intestines of mammals, known as gut flora.

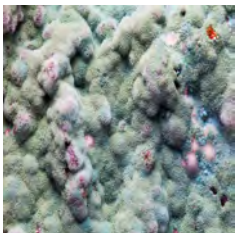
Tested by Kansas State University Inactivation Rate 99+%



### Pseudomonas Sp.

The bacterial genus *Pseudomonas* includes plant pathogenic bacteria such as *P. syringae*, the opportunistic human pathogen *P. aeruginosa*, the ubiquitous soil bacterium *P. putida*, and some species that are known to cause spoilage of unpasteurised milk and other dairy products.

Tested by Kansas State University Inactivation Rate 99+%

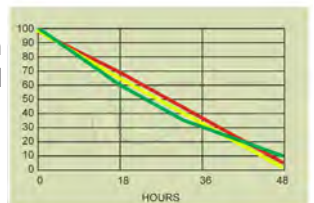


### Mold/Yeast

The purpose of this test was to evaluate the effect the RGF AOT unit has on mold/yeast bacteria (TPC). This test was performed utilizing a standard 2000 sq. ft. home and 3000 sq. ft. simulated home.

Tested by California Microbiology Center

Reduction %  
Bacteria 99% Mold 97- 98% Yeast 90+%



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