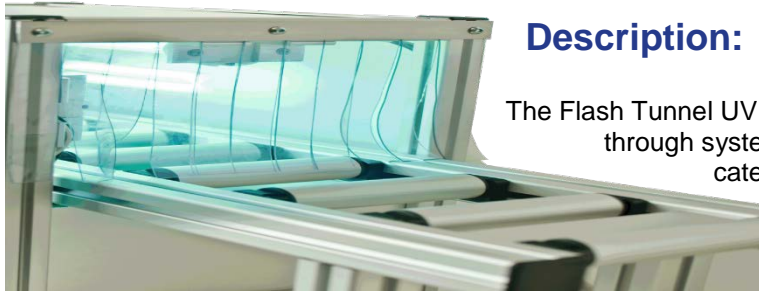


# CD ClorDiSys

*"Infection Prevention from A to UV"*

Providing you with UV solutions for your disinfection needs

## Flash Tunnel UV Disinfection System



### Description:

The Flash Tunnel UV Disinfection System is a simple disinfection pass-through system designed for use in any setting, but particularly caters to the needs of those in, pharmaceutical, laboratory, research settings, or food production. Flash Tunnel provides a swift and highly effective method to disinfect equipment, animal feed bags, bedding bags, moisture

sensitive electronics, instruments, and components to reduce the transfer of organisms. The Flash Tunnel offers a conveyor design to enable a way to disinfect components from a typical environment into a barrier facility without any risk of cross-contamination. Items enter the Flash Tunnel, ride the conveyor that controls the proper exposure time to ensure complete disinfection, and then the items are ready to be collected in a clean environment on the opposite end.

The Flash Tunnel contains a rolling conveyor table to support the item(s) being disinfected, has a shielded enclosure with 4 UV-C bulbs, and plugs into any wall outlet. The disinfection chamber produces an efficient UVC output of 60 mJ/cm<sup>2</sup> every minute to get a calculated 99.9% reduction of MRSA in 10 seconds and a 99% reduction of spores with one minute exposure time on conveyor.

### Features:

#### Efficacy:

- The Flash Tunnel contains 16 protected UV-C bulbs to provide increased disinfection coverage of items placed on the conveyor.
- Bulbs have a 12,000 hour lifespan.
- The Flash Tunnel provides over 1000  $\mu\text{W}/\text{cm}^2$  of UV-C intensity. This intensity correlates to a 60 mJ/cm<sup>2</sup> UV-C dosage during a one minute exposure.
- The Flash Tunnel's UV-C output was validated using two independent UV-C Sensors, the Solar Light Company's PMA1122 Germicidal UVC Sensor and the General<sup>®</sup> UV512C Digital UVC Meter.

#### Specs:

Interior Size: 24"H x 24"W  
Overall Dimensions: 5'H x 10-15'L x 30"W  
Power: 115 VAC, 15 Amps

### Operation:

- Easily operated with minimal training.
- No chemicals to store and handle.
- Simple manual timer to set disinfection time.
- The Flash Tunnel has open ends, allowing visual confirmation that the unit is working properly.



### Safety:

- The UV-C bulbs are shielded by the metal enclosure which blocks UV-C wavelengths from passing through.



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## Disinfection Dosage Times:

The chart below describes the required dosage time necessary to achieve a given log reduction of that particular organism, based on published data. Times are rounded up to the nearest half minute. The chart can be used to determine the necessary length of UV-C exposure time is needed to get the disinfection level desired.

Time Required (mJ/cm <sup>2</sup> ) to Achieve a Given Log Reduction <sup>1,2</sup>						
	1-Log (90%)	2-Log (99%)	3-Log (99.9%)	4-Log (99.99%)	5-Log (99.999%)	Reference
<b>Spore</b>						
Bacillus anthracis spores - Anthrax spores	.5 min	1 min				Light Sources Inc. 2014
Bacillus subtilis ATCC6633	.5 min	1 min	1 min	1.5 min		Mamane-Gravetz and Linden 2004
Clostridium difficile spores	3 min	5.5 min				Antimicrobial Test Laboratories 2015
<b>Bacterium</b>						
Bacillus anthracis - Anthrax	.5 min	.5 min				Light Sources Inc. 2014
Campylobacter jejuni ATCC 43429	.5 min	.5 min	.5 min	.5 min	.5 min	Wilson et al. 1992
Clostridium tetani	.5 min	1 min				Light Sources Inc. 2014
Corynebacterium diphtheriae	.5 min	.5 min				Light Sources Inc. 2014
Escherichia coli	.5 min	.5 min				Light Sources Inc. 2014
Escherichia coli O157:H7	.5 min	.5 min	.5 min	.5 min		Tosa and Hirata 1999
Klebsiella pneumoniae	.5 min	.5 min	.5 min	.5 min		Giese and Darby 2000
Legionella pneumophila	.5 min	.5 min	.5 min	.5 min	.5 min	Oguma et al. 2004
Mycobacterium tuberculosis	.5 min	.5 min				Light Sources Inc. 2014
Pseudomonas aeruginosa	.5 min	.5 min				Light Sources Inc. 2014
Salmonella enteritidis	.5 min	.5 min	.5 min	.5 min		Tosa and Hirata 1998
Salmonella typhosa - Typhoid fever	.5 min	.5 min				Light Sources Inc. 2014
Shigella dysenteriae - Dysentery	.5 min	.5 min				Light Sources Inc. 2014
Staphylococcus aureus ATCC25923	.5 min	.5 min	.5 min	.5 min		Chang et al. 1985
Vibrio comma - Cholera	.5 min	.5 min				Light Sources Inc. 2014
<b>Molds</b>						
Aspergillus flavus	1 min	2 min				Light Sources Inc. 2014
Aspergillus niger	2.5 min	5.5 min				Light Sources Inc. 2014
Mucor racemosus A & B	.5 min	1 min				Light Sources Inc. 2014
<b>Viruses</b>						
Adenovirus type 15	1 min	1.5 min	2.5 min	3 min	3.5 min	Thompson et al. 2003
Adenovirus type 2	.5 min	1 min	1.5 min	2 min		Shin et al. 2005
Bacteriophage - E. Coli	.5 min	.5 min				Light Sources Inc. 2014
Calicivirus canine	.5 min	.5 min	.5 min	.5 min	1 min	Husman et al. 2004
Calicivirus feline	.5 min	.5 min	.5 min	.5 min	1 min	Husman et al. 2004
Coxsackievirus B3	.5 min	.5 min	.5 min	1 min		Gerba et al. 2002
Hepatitis A	.5 min	.5 min	.5 min	.5 min		Wiedenmann et al. 1993
Hepatitis A HM175	.5 min	.5 min	.5 min	.5 min		Wilson et al. 1992
Influenza	.5 min	.5 min				Light Sources Inc. 2014
Norovirus	.5 min	.5 min	.5 min			Lee et al. 2008
Poliovirus 1	.5 min	1 min	1 min	1.5 min		Gerba et al. 2002

1. Disinfection times are rounded up to the nearest 30 seconds
2. Not to be used in a hospital setting for medical devices for humans



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