

CD ClorDiSys

"Infection Prevention from A to UV"

Providing you with UV solutions for your disinfection needs

Flash-Thru UV Disinfection Chamber

Description:

The Flash-Thru UV Disinfection Chamber is a simple disinfection pass-through system designed for use in any setting, but particularly caters to the needs of those in healthcare, pharmaceutical, laboratory, or research settings. Flash-Thru provides a swift and highly effective method to disinfect equipment, tablet computers, laptops, keyboards, phones, miscellaneous electronics, instruments, and components to reduce the transfer of organisms. Flash-Thru offers dual-door design to enable a way to disinfect components in between an ordinary room and a clean, disinfected room without any risk of cross-contamination. Items enter the Flash-Thru, remain in the chamber until exposure time has elapsed, and then the items are ready to be accessed inside the clean room from the chamber's door on that end. Items are now disinfected and can be appropriately used without risk of contaminating the facility.

The Flash-Thru contains 2 shelves to support the item(s) being disinfected and plugs into any wall outlet. The disinfection chamber produces an efficient UV-C output of 60 mJ/cm² every minute to get a calculated 99.9% reduction of MRSA in 10-seconds and a 99% reduction of *Clostridium difficile* spores in 1-minute.

Features:

Efficacy:

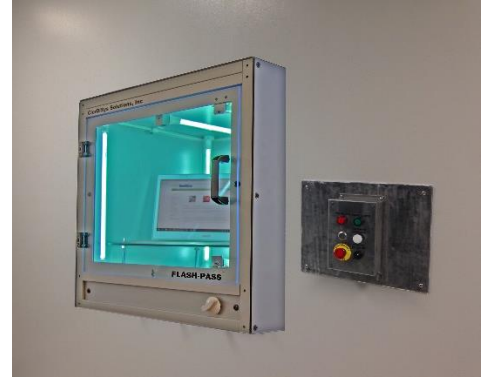
- The Flash-Thru contains 6 protected UV-C bulbs to provide increased disinfection coverage of items placed inside the chamber.
- The Flash-Thru provides over 1000 $\mu\text{W}/\text{cm}^2$ of UV-C intensity. This intensity correlates to a 60 mJ/cm² UV-C dosage during a one minute exposure.
- The Flash-Thru's UV-C output was validated using two independent UV-C Sensors, the Solar Light Company's PMA1122 Germicidal UVC Sensor and the General® UV512C Digital UVC Meter.

Operation:

- Easily operated
- No chemicals to store and handle.
- Simple manual timer to set disinfection time.
- The Flash-Thru has two transparent doors, allowing visual confirmation that the unit is working properly.

Safety:

- The door contains a safety switch which turns the unit off if the door is opened during an exposure.
- The glass door blocks UV-C wavelengths from passing through, such that it is safe to look through the glass while the unit is running.



Specs:

Usable Space for items: 14"H x 21.5"D x 21.5"W

Overall Dimensions: 24"H x 24"D x 24"W

Power: 115 VAC, 60 Hz, 3 Amps

UV-C Output: 60 mJ/cm² per minute (1000 $\mu\text{W}/\text{cm}^2$)



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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 ²) to Achieve a Given Log Reduction ^{1,2}						
	1-Log (90%)	2-Log (99%)	3-Log (99.9%)	4-Log (99.99%)	5-Log (99.999%)	Reference
Spore						
Bacillus anthracis spores - Anthrax spores	.5 min	1 min				Light Sources Inc. 2014
<i>Bacillus subtilis</i> ATCC6633	.5 min	1 min	1 min	1.5 min		Mamane-Gravetz and Linden 2004
<i>Clostridium difficile</i> spores	3 min	5.5 min				Antimicrobial Test Laboratories 2015
Bacterium						
Bacillus anthracis - Anthrax	.5 min	.5 min				Light Sources Inc. 2014
<i>Campylobacter jejuni</i> ATCC 43429	.5 min	.5 min	.5 min	.5 min	.5 min	Wilson et al. 1992
<i>Clostridium tetani</i>	.5 min	1 min				Light Sources Inc. 2014
<i>Corynebacterium diphtheriae</i>	.5 min	.5 min				Light Sources Inc. 2014
<i>Escherichia coli</i>	.5 min	.5 min				Light Sources Inc. 2014
<i>Escherichia coli</i> O157:H7	.5 min	.5 min	.5 min	.5 min		Tosa and Hirata 1999
<i>Klebsiella pneumoniae</i>	.5 min	.5 min	.5 min	.5 min		Giese and Darby 2000
<i>Legionella pneumophila</i>	.5 min	.5 min	.5 min	.5 min	.5 min	Oguma et al. 2004
<i>Mycobacterium tuberculosis</i>	.5 min	.5 min				Light Sources Inc. 2014
<i>Pseudomonas aeruginosa</i>	.5 min	.5 min				Light Sources Inc. 2014
<i>Salmonella enteritidis</i>	.5 min	.5 min	.5 min	.5 min		Tosa and Hirata 1998
<i>Salmonella typhosa</i> - Typhoid fever	.5 min	.5 min				Light Sources Inc. 2014
<i>Shigella dysenteriae</i> - Dysentery	.5 min	.5 min				Light Sources Inc. 2014
<i>Staphylococcus aureus</i> ATCC25923	.5 min	.5 min	.5 min	.5 min		Chang et al. 1985
<i>Vibrio comma</i> - Cholera	.5 min	.5 min				Light Sources Inc. 2014
Molds						
<i>Aspergillus flavus</i>	1 min	2 min				Light Sources Inc. 2014
<i>Aspergillus niger</i>	2.5 min	5.5 min				Light Sources Inc. 2014
<i>Mucor racemosus</i> A & B	.5 min	1 min				Light Sources Inc. 2014
Viruses						
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 internal medical devices for humans

