

ClorDiSys

"Infection Prevention from A to UV"

Providing you with UV solutions for your disinfection needs

Torch-Flex

Description:

The Torch-Flex is an easily transportable, ultraviolet light (UV-C) generator designed for use in any healthcare, pharmaceutical, manufacturing, laboratory, or research setting. It is used to provide a rapid and highly effective method to disinfect items and surfaces to reduce the transfer of dangerous organisms. The Torch-Flex provides UV-C from a flexible arm in order to highlight certain surfaces or items that are more difficult to reach with traditional cleaning methods or traditional ultraviolet light disinfection systems.

The Torch-Flex produces an efficient UVC output of $180 \mu\text{w}/\text{cm}^2$ at a distance of 4 ft, which is capable of achieving a calculated 99% reduction of MRSA in 10 seconds and *Clostridium difficile* in 1 minute. The Torch-Flex offers a 200° radius to set the flexible arm prior to disinfection. The arm can be held at any angle to provide disinfection; angles under 90° provide better coverage of areas such as the underside of tables, beds, and equipment, and a 90° angle (parallel to the ground) provides excellent coverage to the top side of tables, beds, and other equipment less than 46" in height.

Features:

Efficacy:

- The Torch-Flex contains two protected UV-C bulbs, one on the top and one on the bottom of the flexible arm, to provide increased disinfection coverage.
- The Torch-Flex's flexible arm has a 200° turning radius and can be set and held at any angle to provide pinpointed disinfection of surfaces in non-ideal locations.
- The Torch-Flex'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 UVCmeter.

Operation:

- Easily operated with minimal training.
- No chemicals to store and handle.
- Simple manual timer to set disinfection time.

Safety:

- The Torch-Flex arm is housed behind a protective door when not in use.
- The Torch-Flex utilizes a delay timer to activate the bulbs after the exposure timer is set.



Specs:

Overall Dimensions:

46"H x 18"D x 12"W

Weight: 10 lbs

Power:

115 VAC, 60 Hz, 4 Amps

UV-C Output: $10.8 \text{ mJ}/\text{cm}^2$ per minute ($180 \mu\text{w}/\text{cm}^2$) at 4 ft.



Disinfection Length Timer



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UV Dose Required (mJ/cm²) to Achieve a Given Log Reduction*

	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	24.32	46.2				Light Sources Inc. 2014
Bacillus subtilis ATCC6633	24	35	47	79		Mamane-Gravetz and Linden 2004
Bacterium						
Bacillus anthracis - Anthrax	4.52	8.7				Light Sources Inc. 2014
Campylobacter jejuni ATCC 43429	1.6	3.4	4	4.6	5.9	Wilson et al. 1992
Clostridium tetani	13.0	22.0				Light Sources Inc. 2014
Corynebacterium diphtheriae	3.37	6.51				Light Sources Inc. 2014
Escherichia coli	3.0	6.6				Light Sources Inc. 2014
Escherichia coli O157:H7	1.5	3	4.5	6		Tosa and Hirata 1999
Klebsiella pneumoniae	12	15	17.5	20		Giese and Darby 2000
Legionella pneumophila	1.9	3.8	5.8	7.7	9.6	Oguma et al. 2004
Mycobacterium tuberculosis	6.2	10.0				Light Sources Inc. 2014
Pseudomonas aeruginosa	5.5	10.5				Light Sources Inc. 2014
Salmonella enteritidis	5	7	9	10		Tosa and Hirata 1998
Salmonella typhosa - Typhoid fever	2.15	4.1				Light Sources Inc. 2014
Shigella dysenteriae - Dysentery	2.2	4.2				Light Sources Inc. 2014
Staphylococcus aureus ATCC25923	3.9	5.4	6.5	10.4		Chang et al. 1985
Vibrio comma - Cholera	3.375	6.5				Light Sources Inc. 2014
Molds						
Aspergillus flavus	60.0	99.0				Light Sources Inc. 2014
Aspergillus niger	132.0	330.0				Light Sources Inc. 2014
Mucor racemosus A & B	17.0	35.2				Light Sources Inc. 2014
Viruses						
Adenovirus type 15	40	80	122	165	210	Thompson et al. 2003
Adenovirus type 2	20	45	80	110		Shin et al. 2005
Bacteriophage - E. Coli	2.6	6.6				Light Sources Inc. 2014
Calicivirus canine	7	15	22	30	36	Husman et al. 2004
Calicivirus feline	7	16	25			Husman et al. 2004
Coxsackievirus B5	9.5	18	27	36		Gerba et al. 2002
Hepatitis A	5.5	9.8	15	21		Wiedenmann et al. 1993
Hepatitis A HM175	5.1	13.7	22	29.6		Wilson et al. 1992
Influenza	3.4	6.6				Light Sources Inc. 2014
Poliovirus 1	8	15.5	23	31		Gerba et al. 2002
Staphylococcus aureus phage A 994	8	17	25	36	47	Sommer et al. 1989

***The Torch-Flex provides 10.8 mJ/cm² per minute at 4' distance**



CD ClorDiSys

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