

# XFLO SYSTEMS UV STERILIZER

Professional grade equipment for the home aquarist and pond enthusiast



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# XFLO SYSTEMS

## by RK2

### Introducing a new option in UV Sterilization

Looking for a better and more reliable UV option for your backyard pond, water feature, or home aquarium? RK2 is proud to offer our new XFLO UV Sterilizer. Our design team has a combined 60+ years experience and we meticulously worked to create the most user friendly UV solution available while ensuring users a technically sound product they can trust to get the job done right. Whether choosing our XFLO UV Sterilizers with our standard output, three inch diameter model, or our high output five inch diameter model, XFLO UV has the best solution for your specific needs.

#### Harmful Pathogens

#### UV Dose

##### Algae

Chlorella Vulgaris (waterborne algae)	22mJ/cm <sup>2</sup>
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##### Bacteria

Aeromonas Salmonicida	3.6mJ/cm <sup>2</sup>
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Pseudomonas Fluorescens (Fin rot)	11mJ/cm <sup>2</sup>
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Vibrio Anguillarum	30mj
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##### Fungus

Saprolegnia Diclina (zoospores)	40-170mJ/cm <sup>2</sup>
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##### Protozoa

Trichodina Sp.	35mJ/cm <sup>2</sup>
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Ichthyophthirius Multifiliis (Freshwater Ich)	100mJ/cm <sup>2</sup>
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Amyloodinium Ocellatum (Marine Velvet)	105mJ/cm <sup>2</sup>
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Trichodina Nigra	159mJ/cm <sup>2</sup>
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Cryptocaryon irritans (Marine Ich)	280mJ/cm <sup>2</sup>
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Costia Necatrix	318mJ/cm <sup>2</sup>
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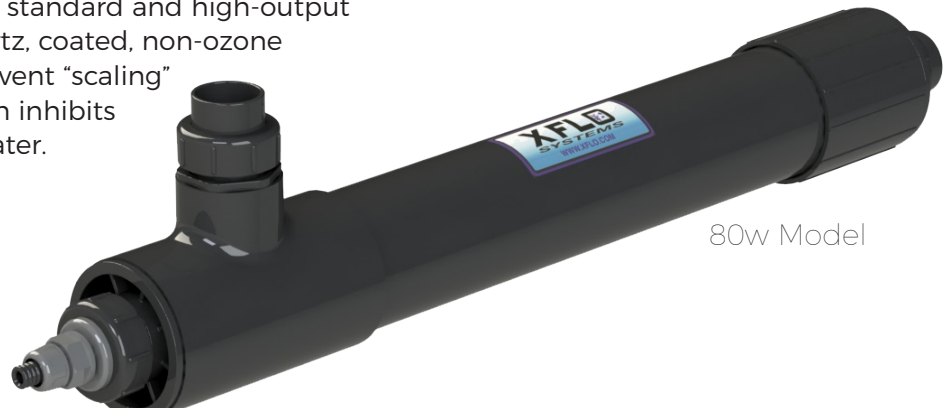
Each micro-organism has its own UV dose or “kill rate”. Determining what micro-organism you are trying to apply UV sterilization to is key to how successful you will be in using a UV Sterilizer. The dose the UV sterilizer will produce is determined by the water flow rate through the sterilizer body and across a specific UV lamp. Accurate information from the manufacturer is a must when operating any UV sterilizer.

## XFLO UV Sterilizers Feature:

- “L” Shaped flow pattern. Allows for better hydraulic mixing of incoming water. This virtually eliminates “dead” zones within the UV body and allows for more efficient UV Sterilization.
- Unionized water ports. The 3” XFLO models are standard with 1.5” Unions while the 5” XFLO High Output models come with 2” unions
- Single ended UV lamp and quartz sleeve access. Makes for easy replacement of lamps and sleeves. You can now change or clean a quartz sleeve without disassembling the entire front end of the UV!
- No twist lamp cable fittings. Remove lamp cables without the use of tools and prevents the cable from twisting while unscrewing, which could possibly damage the wires inside.
- American-made UV lamps. XFLO standard and high-output lamps are made using hard quartz, coated, non-ozone emitting lamps. These lamps prevent “scaling” of lamp and quartz sleeves which inhibits UV light from penetrating the water.



40w Model



80w Model

XFLO MODEL	WATTAGE	NO. LAMPS/ WATTS	DIA.	LENGTH	INLET/ OUTLET	FLOWRATE (30mj/cm2)	FLOWRATE (180mJ/cm2)	REC'D AQUARIUM SIZE* (GAL.)	REC'D POND SIZE** (GAL.)
XFL3-18L	18	(1) 18	3"	20 7/8"	1.5	240 GPH	36 GPH	40	1,000
XFL3-25L	25	(1) 25	3"	32 7/8"	1.5	480 GPH	60 GPH	60	2,000
XFL3-40L	40	(1) 40	3"	47 7/8"	1.5	1,020 GPH	168 GPH	150	4,500
XFL5-50H	50	(1) 50	5"	34 7/8"	2	1,500 GPH	240 GPH	240	6,000
XFL5-80H	80	(1) 80	5"	49 3/8"	2	2,700 GPH	420 GPH	400	10,000
XFL5-120H	120	(1) 120	5"	61 7/8"	2	3,840 GPH	600 GPH	600	14,000
XFL5-150H	150	(1) 150	5"	78 7/8"	2	6,000 GPH	1,020 GPH	1000	20,000
XFL6-100ML	100	(2) 50	6"	35"	3	2,580 GPH	420 GPH	400	8,000
XFL6-160ML	160	(2) 80	6"	49 3/4"	3	4,860 GPH	840 GPH	900	17,000
XFL6-240ML	240	(2) 120	6"	62 3/8"	3	6,600 GPH	1,080 GPH	1,100	22,000
XFL6-300ML	300	(2) 150	6"	76 1/2"	3	10,400 GPH	1,740 GPH	1,800	36,000

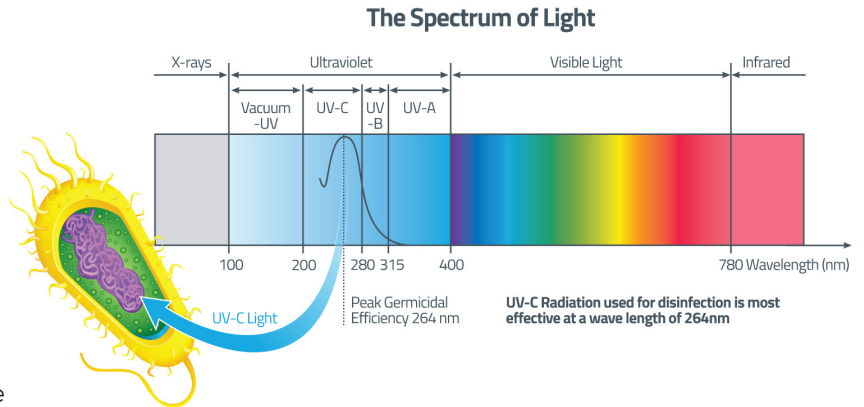
\* = Aquarium Size based on 180mJ/cm Flow rates and 1 turnover per hour

\*\*= Pond Size Based on 30mJ/cm2 Flow rates and 1 Turnover every 3-4 Hours

## What is UV-C?

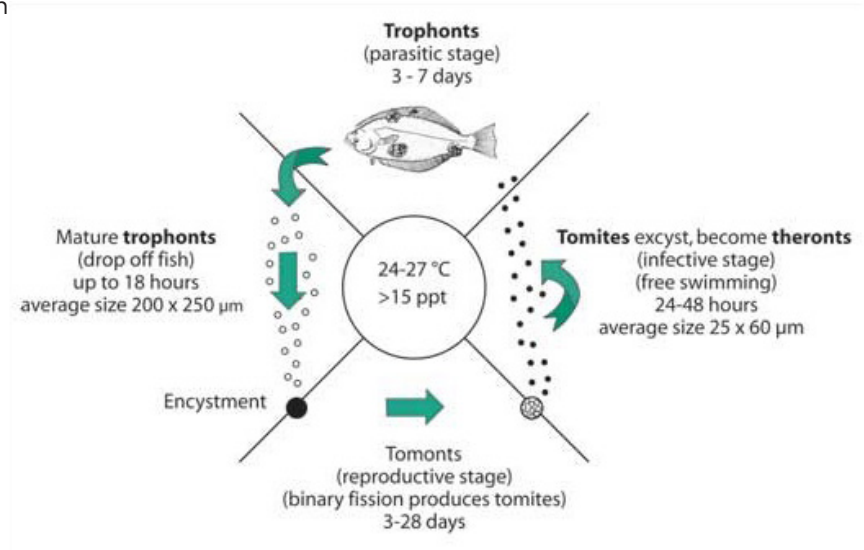
UV-C light, when used properly, is the safest and most effective solution for waterborne pathogens and nuisance waterborne green algae (pea soup green water). Using UV-C light leaves no residual chemicals in the water and is much safer to use than medications. Best of all it's natural!

Ultra Violet light is a spectrum of light just outside the range of light that is visible to the human eye. UV-C light is one of the four subgroups of Ultra Violet Light. UV-C falls in the spectral range of 250-280nm, with the peak being 264nm. This is what is called the germicidal range and is capable of altering or destroying DNA. By exposing pathogens and waterborne algae to the UV-C, its DNA is either altered or destroyed and leaves the micro-organism incapable of reproducing.



## When is UV most effective against a pathogen?

The diagram to the right showcases the complex life cycle of the warm water protozoa Cryptocaryon, (Marine Ich). It is important to note that UV sterilization is most effective when these micro-organisms are in their free swimming life cycle stage, (right portion of diagram).



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