

How to select the Right Size Ultra Violet Sterilizer for your System

To match the best strength of a UV Sterilizer is determined by the volume of water to be treated. It is also important to consider the depth of the water and its exposure to sunlight. A shaded pond and a deep pond can benefit from not requiring a larger U.V. Unit than a body of water in full sun or one that is less than 3 feet deep. One important factor is to consider the flow rate needed and the contact time of the water passing through the UV Sterilizer.

One would need the pumps gallons' /min output, the contact time of the water and type of lamp, and the strength or wattage of the lamps; this will give you the killing power/ dosage you would need to kill bacteria, protozoa and viruses in the water.

If one just wants clear water, they would need to get rid of Algae (*Chlorella Vulgaris*). Algae would need the strength of 22,000 microwatts or 22mJ in order to kill it providing the total volume of water passes through the UV once every 3 hours for conditions deeper than 3 feet and at the right flow rate for contact time.

The strength of normal lamps is around 30,000-40,000 microwatts.

The strength of High Output lamps is around 70,000-80,000 microwatts. The strength of our Amalgam Lamps is 600,000 microwatts right at the lamp. The Amalgam lamps are much stronger than the other lamps and offer much higher killing power.

The design of W Lim Corps. UV's body maximizes the contact time between the water and the lamps making the most out of the U.V. lamps power. This allows the lamps to maintain its maximum strength. W Lim Corp. U.V. Lamps have been proven by 3rd party testing to last much longer and operate at a much stronger dosage than other brands available because the W Lim Corp. U.V. Lamps are private made to their higher standards.

For sterilization flow rates, the system that the UV sterilizer is paired with must have the water cycle completely at least once per hour, depending on the fish's requirement. The hourly water current divided by 60min will get the GPM (gallon per min).

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Volume of Water & Speed of Running Pump= CONTACT TIME

More water in cylinder (UV body) = More Contact Time

Slower or Faster = Different Size Dosage

Scenario Sample: Iron High Temperature

MOVEMENT iron on your clothes- Will un wrinkled clothes. (Fast Contact Time)

NO MOVEMENT- If Iron left on top of clothes, Clothes will get burned. (Slow Contact Time)

Answer: System Design

If your system needs 1 hour per cycle. Or Maybe 6 times or more per hour.

90gpm (Gallons per Minute) your UV giving you Dosage.

- Bigger body gives more volume
- Stronger Lamp / Multi-Lamps gives more strength to give stronger Dosage.
- 1,000gpm = 1000 mega-Joules

Smaller / Larger give you MAX Flow Rate. Refer to Friction Loss Calculator

We can custom build Inlet & Outlet size to meet your system requirements.



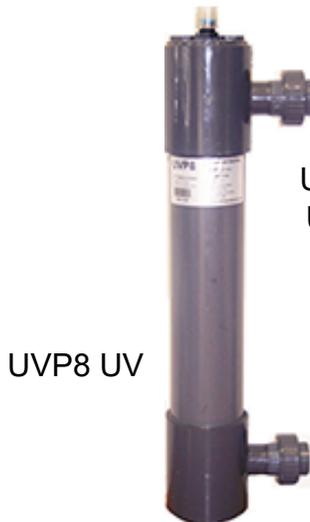
Amalgam UV



Wave Uv
Dual Lamps



Wave Uv



UVP8 UV

UVP8 & Skyhawk
UVS Available in
2, 3 or 4 Lamps



SkyHawk UV