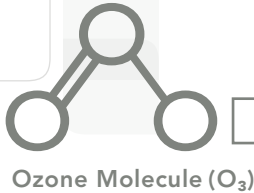


OZONE AND UV COMPARISON

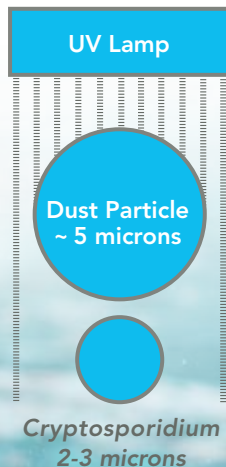
OZONE	UV
✓ Ozone kills <i>cryptosporidium parvum</i>	✓ UV inactivates <i>cryptosporidium parvum</i>
✓ Ozone kills microorganisms	✓ UV inactivates microorganisms
✓ Ozone is a powerful oxidizer	UV is not an oxidizer
✓ Ozone passes into the pool at low levels to provide additional oxidation	UV affects the water only as it passes through the UV chamber
✓ Ozone functions well in cloudy water, and is a micro-flocculent, which aids water clarification	Only clear water can be effectively dosed with UV; cloudiness in the water can absorb the UV light
✓ Ozone oxidizes the organics and inorganics that create chloramines, eliminating their production	UV breaks down chloramines that have been previously created
✓ Ozone utilizes ORP (REDOX) to measure the cleanliness of the water	UV systems utilize a UV intensity meter which measures the UV dose regardless of water quality
✓ Ozone's reaction with free available chlorine (FAC) is very slow and in a pool will not affect the FAC levels; only chloramine destruction	UV can break down free available chlorine in the water while it breaks down chloramines
✓ Ozone cells require no replacement; require annual periodic cleaning; no hazardous components	Mercury vapor lamps are replaced at 3-12 mos.; disposal procedures must be considered as lamp gases are considered hazardous waste
✓ Ozone destroys biofilm	UV does not affect biofilm
✓ Ozone destroys Humic and Fulvic Acid	UV does not affect Humic and Fulvic Acid

ALL SECONDARY DISINFECTION SYSTEMS ARE NOT CREATED EQUAL



Single bond of ozone molecule breaks, destroying oxidizable substance on contact and leaving no harmful byproducts or odors.

Dirt particles render UV light ineffective against microbials.



Ultraviolet sterilization (UV) has recently emerged as a popular secondary disinfectant supplement to chlorine in commercial pool applications; however, unlike ozone, UV **does not destroy biofilm** and provides no oxidation of organics, which can render the water dull and lifeless. Only crystal clear water can be effectively sanitized with UV; any micro-debris (cloudiness) or turbidity in the water will absorb the UV light rendering it ineffective as an antimicrobial or chloramine reducer.

UV lamps (mercury vapor) must be replaced every 3-12 months, creating additional, on-going costs and potential disposal issues, while DEL Ozone systems require minimal maintenance.

Beyond added protection against Recreational Water Illness (RWI), ozone can eliminate chloramines and their off-gas ("chlorine odor"), providing impeccable water quality and clarity as well as air quality. DEL Ozone's complete turn-key systems with easy installation and operation provide a 50% reduction in chlorine consumption, a dramatic improvement in indoor air quality and unsurpassed swimmer comfort.

“ WE JUST WEREN'T SATISFIED WITH MERELY MEETING THE STANDARDS

WE WANTED TO EXCEED THE STANDARDS

We've purchased and installed one of the most advanced ozone systems in the industry from DEL Ozone and, with 14 years of impeccable performance, may have the healthiest pool and whirlpools in New York City.”

David Schmeltzer, Director
92nd Street Y May Center for Health, Fitness & Sport