

LifeAGE®
THE MOST EFFECTIVE
TECHNOLOGY NOW

**MEDIUM
UV SYSTEMS ARE
MORE EFFECTIVE IN
DISINFECTION**

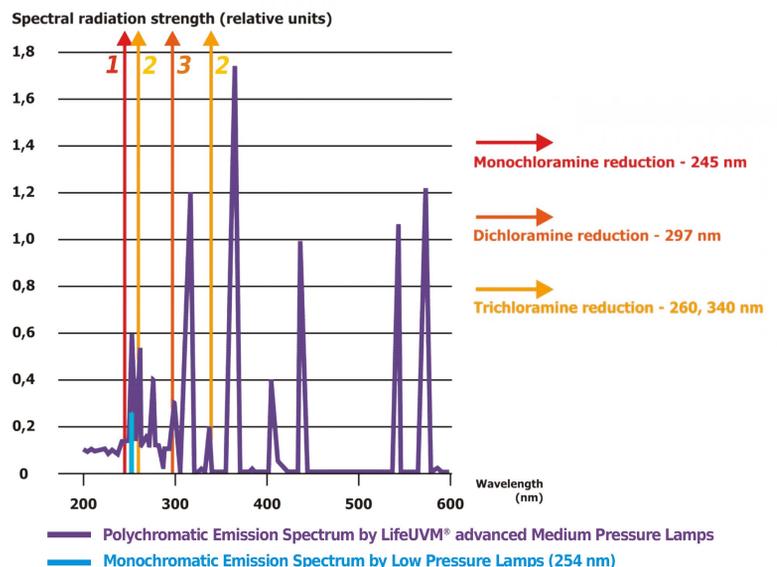
WHY MEDIUM UV SYSTEMS ARE BETTER THAN LOW PRESSURE UV SYSTEMS

- Preventing reactivation of bacteria = permanent disinfection of treated water¹⁾
- Disinfection of pool water and removing combined chlorine simultaneously²⁾
- Due to unique technology LifeAGE® lamp lifetime can reach up to 18 000 hours

PERMANENT DISINFECTION

It is well-known that bacteria and other microorganisms are capable of repairing their DNA following damage by ultraviolet (UV) radiation. Known as 'reactivation', it is a natural defense mechanism that has evolved over millions of years. This self-repair ability poses obvious problems when UV disinfection technology is used to treat potable water, swimming pool water, effluent or other liquids.

A study ¹⁾ proved that polychromatic medium pressure UV radiation causes irreparable (permanent) damage to bacteria and microorganisms, where monochromatic low pressure UV does not. For any industry where UV is used to disinfect water or effluent, the operator needs to be sure that the treatment is permanent – that is reason why to use medium pressure UV systems!



1) Zimmer, J. L. & Slawson, R. M. (2002). Potential repair of Escherichia coli DNA following exposure to UV radiation from both medium- and low-pressure UV sources used in drinking water treatment. Applied & Environmental Microbiology, Vol. 68, No. 7, 3293-3299.

2) The latest version of the German NORM for pools DIN 19643, November 2012

MEDIUM UV SYSTEMS LifeUVM® WITH UNIQUE LifeAGE® TECHNOLOGY



LIFETECH produces medium UV systems from 400 W to 18 kW as standard. Another types on request.
Left: type CHARM (400 W), right: type RUBY (up to 18 kW)

COMBINED CHLORINE REMOVING IN SWIMMING POOLS ²⁾

In chlorinated pools the content of chloramine is used as the parameter to measure the water quality, the so called combined chlorine. Unfortunately exactly these combined chlorines are those responsible for the known unpleasant chlorine smell and are causing eye and respiratory complaints. Furthermore, especially trichloramine, is a known cause for an eventual increased incidence of asthma for children which are regular swimming in chlorinated pools. Also the staff of the swimming pool such as lifeguards and instructors can easily run into these health problems. A last thing not to forget is that trichloramine is causing also corrosion so its presence can lead to damages of the building construction.

Therefore the reduction of chloramine in the pool water protects the health of all AND it protects the building construction itself resulting in cost savings for repairs.

The last version of Norm DIN 19643 clearly say's:

Only UV-M (medium pressure UV) systems can properly disinfect swimming pool water and lower the level of combined chlorine. Low pressure UV systems are therefore not appropriate to be used for these effects.

LifeAGE® UV - A BREAKTHROUGH IN MEDIUM PRESSURE UV TECHNOLOGY

LifeAGE UV SYSTEM - A BREAKTHROUGH IN MEDIUM PRESSURE UV TECHNOLOGY One of the main reasons why a lot of main institutions were not using medium pressure UV technology was the life cycle of the lamps. Now with expected 18 000 hours of UV lamp lifetime, we can forget about this worry.

LIFETECH, the leading manufacturer of ozone and UV systems produces its own ozone generators with an output range from milligrams to tens of kg O₃/h and UV systems that are equipped with low or medium pressure UV lamps. The products are used for drinking, for process or waste water treatment, for water recycling, for treatment of water in swimming pools, for air disinfection and deodorization and for other applications in the private and public sectors.

LIFETECH has its own development department and long-term collaboration with reputable companies and universities in Germany, Holland, France, the UK, Switzerland, the USA and the Czech Republic for development of new equipment and technology. Our clients can therefore enjoy professional and state-of-the-art products and technologies.

LIFETECH - Confidence acquired through quality and fair play

