

LifeAGE®
THE MOST EFFECTIVE
TECHNOLOGY NOW

LifeAGE® UV
A BREAKTHROUGH
IN UV-M
TECHNOLOGY

- **Operational costs cut by 30%**
- **UV lamp lifetime extended by 100%**
- **Fully automatic optimum operation**
- **Protect our the environment and Earth - drastic reduce of your carbon footprint (CO₂)**

LIFETECH, a known producer of ozone generators and UV-M (ultraviolet) systems, has developed and produces, the unique LifeAGE® UV-M systems (patent pending). Thanks to this innovation medium-pressure UV systems, originally used only in professional drinking and waste water plants and public swimming pools, are now also affordable for smaller and private applications such as private pools and small water purifying installations. LifeAGE® UV technology can cut your operational costs by 30% compared to UV-M systems with standard magnetic power supply. The life-time of LifeUVM® lamps can reach up to an astounding 18 000 hours. For this reason, LifeAGE® not only saves money but also significantly contributes to protecting the environment.

The advantages of the unique LifeAGE® technology is based on longtime deep research in UV lamp, UV power supply and UV technology. The LifeAGE® technology optimizes energy transfer from power to LifeUVM®, continuously can change power to LifeUVM® lamps in wide energy range, in models including UV sensors can automatically (without any additional equipment) optimize UV power according to actual needs for water quality and thus to save you additional money. UV models with unique LifeAGE® technology without UV sensors using an intelligent system for optimized operation of LifeUVM® lamps. This system was based on our expertise knowledge of UV technology. Another big advantage of our LifeAGE® technology is that your UV system will be operated according to the optimized parameters known at that time. It means your system will profit each time from latest (up-to-date) development in UV technology. (This information is supplied to you with every new LifeUVM® lamp) To obtain maximum reliability of UV systems each LifeUVM® lamp is tested in our firm.

ESTIMATION OF OPERATION COST SAVINGS

You can estimate your operation cost savings for given UV power in relation to UV systems with standard magnetic power in the calculator on our website www.lifetechozone.com. Here we can give you only two examples, for 1kW and 9kW.

Advantage of LifeAGE® technology against standard magnetic UV technology, you can imagine, is also protecting the environment in quantity of saved tons of coal and therefore tons of CO₂ emissions (so called carbon footprint). From 1 kg black coal can be produced cca 1.8 kWh electric energy and will be produced cca 1.8 kg carbon dioxide emissions - carbon footprint is cca 1kgCO₂/ 1kWh. ¹⁾

In order to calculate operation cost savings it is necessary to take a certain operation period. Here we calculated with 10 period. We suppose for saving estimation that UV systems is operated continuously (10 years*365days*24hours) and therefore energy saving with LifeAGE® technology is 30% compared to UV system with magnetic power.

LifeAGE® technology savings for 1kW UV system

UV lamp Power in kW	1		
Number of UV lamps	1		
Total UV lamps Power in kWh	1		
Your local price for kWh	0,2	EUR	
Price for 1pc of UV lamp	400	EUR	
Your local price for one time service - lamp replacement (transport, working cost)	200	EUR	
	Standard magnetic power	UV with LifeAGE® tech.	Savings with LifeAGE® tech.
Number of UV lamps and services	14,6	7,3	7,3
UV lamps cost	5840	2920	2920
Service cost	2920	1460	1460
Electric Energy Cost	17520	12264	5256
saves you after 10 years		9636	EUR
saves you each year in average		964	EUR
Savings of kg black coal/10years			14600
Savings of your carbon footprint - kg			26280

LifeAGE® technology savings for 9kW UV system

UV lamp Power in kW	3		
Number of UV lamps	3		
Total UV lamps Power in kWh	9		
Your local price for kWh	0,2	EUR	
Price for 1pc of UV lamp	400	EUR	
Your local price for one time service - lamp replacement (transport, working cost)	200	EUR	
	Standard magnetic power	UV with LifeAGE® tech.	Savings with LifeAGE® tech.
Number of UV lamps and services	14,6	7,3	7,3
UV lamps cost	17520	8760	8760
Service cost	2920	1460	1460
Electric Energy Cost	157680	110376	47304
saves you after 10 years		57524	EUR
saves you each year in average		5752	EUR
Savings of kg black coal/10years			131400
Savings of your carbon footprint - kg			236520

As you see from above table, you can save with our UV system with unique LifeAGE® technology after 10 years **9 636 EUR** for 1kW UV system and **57 524 EUR** for 9kW UV system, respectively. These savings are almost the price of two new UV systems.

Another operation cost saving will bring you UV systems equipped with UV sensors - in this case we can create a synergy between the advantages of LifeAGE® technology and knowledge about real demand of UV dose. Experience of our clients in public pool industry is that their investment into our UV systems with LifeAGE® technology is returned back (due to operation UV cost, water and energy savings) during 8 months to 16 months - an excellent result.

To have better image about quantity of saved coal and carbon footprint (kg of CO₂) /1/ we can do following rough estimation for e.g. public aqua parks. Number of aqua parks in Germany is more than 500. Suppose that average UV power is about 5kW. It means that after 10 years total power consumption is about 219 000 000 kWh. Savings due to LifeAGE technology is about 65 700 000 kWh. This corresponds to carbon footprint savings 65 700 000 kg CO₂ = 65 700 tons CO₂, 6570 tons CO₂/year. Estimation of black coal saving for electricity production is 36500000 kg of coal/10years, 3 650 tons of coal/year = cca 730 trucks/year with load 5 tons. Estimation of saving is done just for aqua parks. You can do estimation for another application - drinking water disinfection, waste water disinfection, etc. Support our Earth and decrease your carbon footprint.

LifeOX® ADVANCED OXIDATION

The effect of high energy polychromatic UV radiation can be greatly enhanced by its combination with ozone or hydrogen peroxide dosing (AOP - Advanced Oxidation Process). LIFETECH supplies its own LifeOX® technology based on synergic action of ozone and UV radiation.

The main fields of the company's activity are the development, design, manufacture, supply, and service of ozone generators; UV (ultraviolet) systems and other devices and equipment complexes for water; air treatment and power sources for plasma treatment and nanotechnology.

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.
By using our LifeAGE® technology you protect the Earth

