

**LifeAGE®**  
THE MOST EFFECTIVE  
TECHNOLOGY NOW

**OPERATIONAL  
BENEFITS  
OF UV TECHNOLOGY  
LifeAGE®**

## DIFFERENCE BETWEEN OPERATION AND MAXIMUM POWER OF DIFFERENT UV SYSTEMS

In addition to the cost of UV technology, another important parameter for operators of UV systems are operating costs. These are the sum of costs of the consumed energy and the cost of service associated with periodic replacement of UV lamps (lamp's price and labour). Here we focus only on explaining why are the UV systems with unique technology LifeAGE® energetically more friendly than the standard UV systems, which may declare a lower maximum power consumption.

Standard UV systems by other producers, whether magnetically or electronically powered are able to change power consumption of the UV lamps only gradually. For example, they can set outputs only to 70%, 85% or 100% of the maximal UV lamp power. In contrast to that, UV systems LifeUVM® with unique LifeAGE® technology can continuously regulate power of the UV lamps in the whole range from 20% to 100% and thus set UV lamp power exactly according to required demands for water treatment. It means that LifeAGE® technology ensures minimum energy consumption.

For example, if a UV system with maximal power of 8 kW is needed for water treatment, we recommend to install medium pressure system LifeUVM® with LifeAGE® technology with maximum power of 9 kW and thus to have a reserve for unforeseen lowering of water quality. Standard UV systems would be designed with maximum power of only 8kW. If there is an 8kW need for water treatment or not, system LifeUVM® constantly adjusts UV lamp power to 8kW. In case that the water quality (e.g. smaller number of swimmers in the pool) requires UV lamps power of only 3kW, LifeUVM® system continuously reduces UV lamp power to this value. This process can be fully automatized in LifeUVM®, without need of installing additional equipment. Standard UV system may reduce power of the UV lamp only to around 5.6 kW. In this case, LifeUVM® system with LifeAGE® technology saves you 2.6 kWh per hour compared to standard UV systems. In just one year these savings would be 4555 Euro (0.2 Euro per 1 kWh) (22,776 kWh) - and this is a significant financial saving. Therefore it is crucial to take into account differences in maximum power declared between a standard UV system and a state of the art LifeUVM® system with LifeAGE® technology in order to assess the electricity consumption.

Thus, although declared maximum power of the UV system with LifeAGE® technology is higher it ensures minimum operating power consumption and also gives you a reserve for unforeseen situations, when you need higher doses of UV radiation than was originally expected.

Unique LifeAGE® technology brings even more savings in operating costs due to the extended life of UV lamps up to twice as long as standard UV technologies.

## 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)

### 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.

**LIFETECH, the leading manufacturer of ozone and UV systems produces its own** ozone generators with an output range from milligrams to tens of kg O<sub>3</sub>/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

