

# Colorguard® UV Replacement Lamps

Aquafine Corporation High Performance Ultraviolet Systems

Each Aquafine UV model is engineered to focus the power of concentrated UV light, providing optimum disinfection, ozone destruction, TOC reduction and chlorine/chloramine destruction. At the heart of each model lies one or several specially designed Aquafine Colorguard® UV lamps.

Low cost competitor UV lamps are sold with the promise of being "as good as Aquafine." Field failure of the lamps can and has gone undetected, until unacceptable bacteria counts have caused real problems. Aquafine's record is unmatched. The percentage of genuine Aquafine UV lamps which fail is less than .05%.

Aquafine Colorguard® UV lamps are specially manufactured with ceramic lamp bases. The ceramic material offers advantages over non-ceramic material such as greater high voltage electrical insulation, superior strength, rigidity, improved temperature tolerance and are impervious to UV degradation. These lamps are exclusive to Aquafine, and make mixing of different lamp types virtually impossible during change-out.

## Advantages

- *Guarantee of Origin - Each Lamp Inscribed with Aquafine Logo*
- *Colorguard® featuring Ceramic Lamp Bases*
- *Help Lower Operational & Maintenance Costs with Lamp Lok™ Upgrades*
- *Validated Lamps Available for Critical Applications, Including "Burn-In" and Validation Documentation*

Aquafine offers the opportunity to upgrade existing UV systems with the Single-ended (SE) advanced UV lamp design. Lamp Lok™ is an Aquafine patented socket lock design with a self-locking mechanism on the lamp base which centers the SE lamp within the quartz sleeve, making lamp change-outs easy. Reduced manpower, easier maintenance and enhanced performance of your water treatment processes are the advantages of upgrading with Aquafine's patented Lamp Lok™ SE UV lamps.

Optional validated lamps are also available. These go through a "Lamp Burn-In/Stabilization Quality Process" for conformance to minimum required intensity values. Each validated lamp is individually challenged, traceable to a lot number and includes a "Validated Lamp Test" certificate.

Regular maintenance is essential in keeping your UV equipment operating at peak performance year after year. The best performance and highest reliability will be obtained by insisting upon genuine Aquafine replacement parts.

Available for:

- Optima/HX
- SCD/H
- CSL
- RBE
- DW
- SP-SL
- Skid Systems



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Colorguard® UV Lamp Color-coding:

SINGLE-ENDED (SE) UV LAMP DESIGN 30" & 60"		
APPLICATION	TYPE	COLOR
TOC REDUCTION/ CHLORINE DESTRUCTION	185 nm STANDARD	BLUE
DISINFECTION/OZONE DESTRUCTION	254 nm STANDARD	MAUVE
TOC REDUCTION/ CHLORINE DESTRUCTION	185 nm VALIDATED	YELLOW
DISINFECTION/OZONE DESTRUCTION	254 nm VALIDATED	GREEN
TOC REDUCTION/ CHLORINE DESTRUCTION	185 nm HE	VIOLET
DISINFECTION/OZONE DESTRUCTION	254 nm HE	CYAN
TOC REDUCTION/ CHLORINE DESTRUCTION	185 nm HE VALIDATED	ORANGE
DISINFECTION/OZONE DESTRUCTION	254 nm HE VALIDATED	BLACK
TOC REDUCTION/ CHLORINE DESTRUCTION	185 nm HX	SILVER
DISINFECTION/OZONE DESTRUCTION	254 nm HX	GOLD
TOC REDUCTION/ CHLORINE DESTRUCTION	185 nm HX VALIDATED	TAN
DISINFECTION/OZONE DESTRUCTION	254 nm HX VALIDATED	CREAM

DOUBLE-ENDED (DE) UV LAMP DESIGN 15", 30" & 60"		
APPLICATION	TYPE	COLOR
TOC REDUCTION/ CHLORINE DESTRUCTION	185 nm STANDARD	BLUE
DISINFECTION/OZONE DESTRUCTION	254 nm STANDARD	MAUVE
TOC REDUCTION/ CHLORINE DESTRUCTION	185 nm VALIDATED	YELLOW
DISINFECTION/OZONE DESTRUCTION	254 nm VALIDATED	GREEN

All specifications are subject to change without notice.

The performance of Aquafine UV equipment is guaranteed, providing it is properly operated and maintained. Aquafine UV equipment reliability and actual performance cannot be guaranteed by Aquafine if non-genuine Aquafine replacement parts are used. Ensure you keep your Aquafine Warranty, UL and CE listings valid. Use only genuine Aquafine parts.

Please contact your local Aquafine Distributor or Aquafine direct for pricing and availability. Specialty lamps such as the SP-1, SP-2, High Temperature and Low Mercury UV lamps are also available.

Description:

Aquafine UV lamps and quartz sleeves are produced from the finest quality materials available in the industry. Over the years, it has been demonstrated that the amount of UV dosage available to the water stream declines as a function of the lamps operating time.

Studies have shown that degradation of the quartz sleeves, caused by continuous exposure to UV radiation, reduces the amount of UV radiation transmitted into the water stream. Based on these findings, Aquafine recommends the annual replacement of the quartz sleeves, in addition to routine cleaning to achieve optimal intensity, especially for critical water processes.

Aquafine works closely with suppliers to ensure only the best components are engineered into the UV lamps, with matching power supplies for optimized UV output. The less expensive lamps available are typically manufactured from soft glass. While these lamps look and feel similar to their hard glass counterparts, their performance falls short with shorter lamp life and less UV output.

Hard glass lamps are utilized in all Aquafine UV equipment. Some of the key components within the lamp that contribute to the overall performance include:

- Quality and number of coils on filament
- Length and position of filament within treatment chamber
- Location of filament to maximum arc length
- Ceramic lamp bases to protect against UV oxidation
- Tight specification for secure fit into the lamp socket and socket retention assembly.

Application Specific Lamp Designs

- STANDARD - These lamps have been the mainstay of Aquafine UV systems for decades. Like all Aquafine UV lamps, they undergo a rigorous quality control inspection and testing program. Available in SE and DE.
- HIGH EFFICIENCY (HE) - A low pressure, long life, high intensity lamp which greatly increases the capacity and performance of the unit. Available in SE only.
- HIGH OUTPUT (HX) - These lamps feature a higher UV intensity output. They are especially ideal for critical TOC reduction applications. Available in SE only.
- VALIDATED - As well as Aquafine's rigorous testing, these lamps also undergo a complete lamp "burn-in" procedure, are individually challenged and traceable and are shipped complete with validation documentation. Available in SE and DE.

All Colorguard® UV lamps are manufactured to exclusive specifications for optimal performance in Aquafine UV equipment.



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