



Why Buy Genuine VIQUA Lamps?



Know the Dangers of Non-VIQUA Lamps

What goes into a VIQUA lamp?

****Consistent, continuous & safe UV disinfection, designed & certified as part of the original equipment****

**Maximum performance,
minimum environmental impact**

Tight dimensional tolerances

Ensures proper fit & physical functionality

Optimized mercury content

Correct gas pressure, 100% seal

Quartz lamp envelope

Far superior to soft glass in terms of UV transmission and life

UV Maintenance coating

Correct gas composition

Correct lamp wiring

Correct arc length

Consistent filament position

Strict control of these parameters is essential to ensure adequate UV light for disinfection

Consistent pin size

Proper pin alignment

Flame resistant base

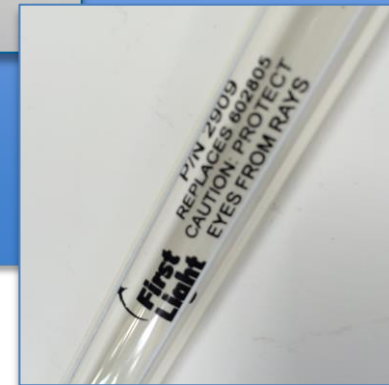
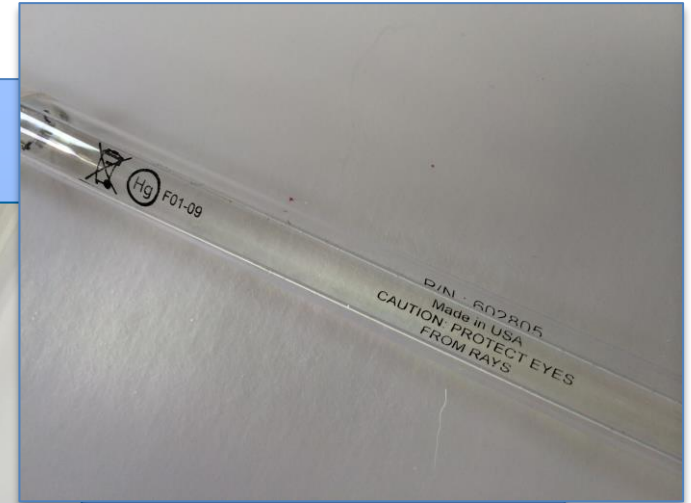
Prevents connector damage, arcing, overheating and risk of fire

Branding Indicators – Non-VIQUA Lamps

All genuine VIQUA lamps will have one of the following logos:



Examples of Non-Genuine Lamps





Physical factors of non-genuine lamps can SEVERELY compromise system performance and reliability of disinfection.

VIQUA UV systems are engineered as a COMPLETE unit (including the lamp)!

5 major risks of NON-VIQUA lamps

The risks of using non-VIQUA lamps in VIQUA UV systems can fall into 5 categories. Many faults are risk factors in several of these categories.



Fire Risk



Health Risk



Equipment Damage or Failure Risk



Lack of Reliability Risk



Certification Loss Risk

Fire Risk



At VIQUA, we ensure that we are using non-flammable materials in the manufacture of our UV systems and lamps. We cannot assure that components used in non-VIQUA replacement lamps meet the same material standards.

- No flame-resistant base
- Misaligned connector pins
- Excess solder
- Incorrect lamp wiring
- Inconsistent filament position
- Incorrect lamp wiring

Health Risk



People rely on VIQUA lamps to help provide safe drinking water to their families and customers. When non-VIQUA lamps are used in VIQUA systems, they can create a risk to health due to lack of proper UV dose, and therefore improper disinfection.

- Lack of long-life coating (Low UVT)
- Non-Quartz lamp envelope (Low UVT)
- Incorrect gas pressure (lamp won't fire)
- Lamp illuminated – NO UV output

Equipment Damage or Failure Risk



VIQUA UV systems are engineered as a complete system. This INCLUDES the lamp. Using Non-VIQUA lamps in VIQUA systems greatly increases the chance of equipment damage, or even complete equipment failure.

- Improper lamp dimensioning
- Incorrect lamp wiring
- Inconsistent filament height
- Excess Solder
- Misaligned Connector Pins
- Inconsistent pin specification
- Incorrect gas pressure

Lack of Reliability Risk



ALL physical differences, manufacturing issues, and engineering issues with non-VIQUA lamps can cause issues with system reliability. VIQUA UV systems are created as a complete system, and changing components can compromise the reliability of system performance.

- Sub-standard materials
- Sub-standard manufacturing practices
- Different quality standards
- Lack of engineering
- Insufficient safety precautions

Loss of Certification



VIQUA lamps are an integral and proprietary part of our UV systems. ALL system certifications (UL, NSF, CSA, etc) have been awarded on the FULL VIQUA SYSTEM. Our lamps meet these strict certification specifications for electrical and other standards. Using Non-VIQUA lamps in VIQUA systems invalidates these certifications.

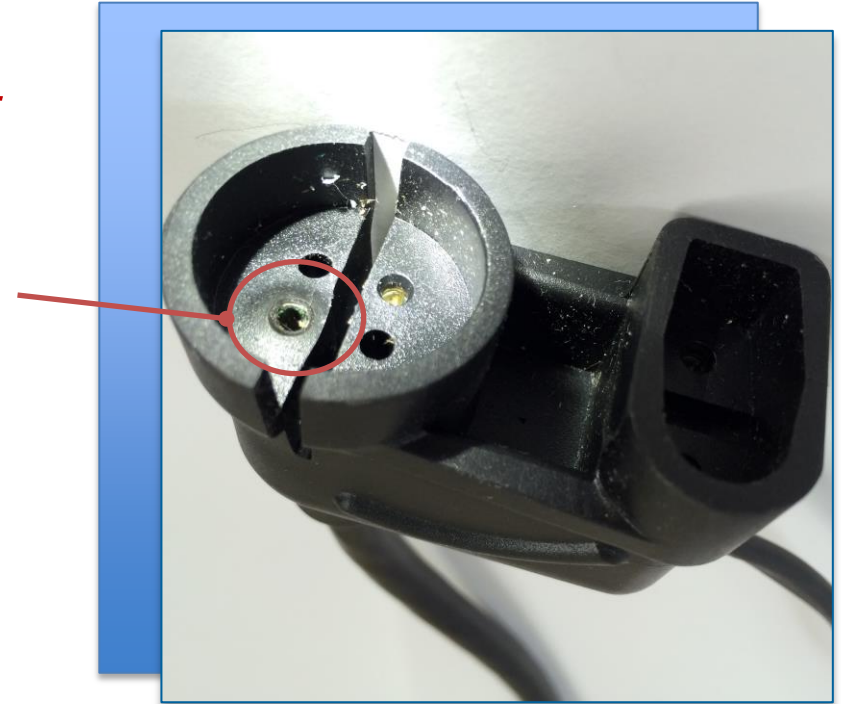
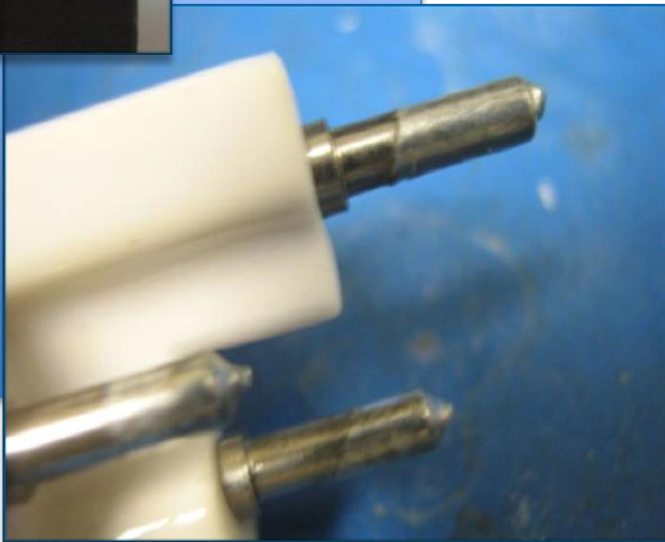
- Loss of Electrical Certifications
- Invalidation of NSF Certification
- Issues in Regulated Markets

Misaligned Lamp Pins

More than half of non-VIQUA lamps failed pin-alignment test



Lamp harness is distorted from misaligned pins



Poor Quality Lamp Pins

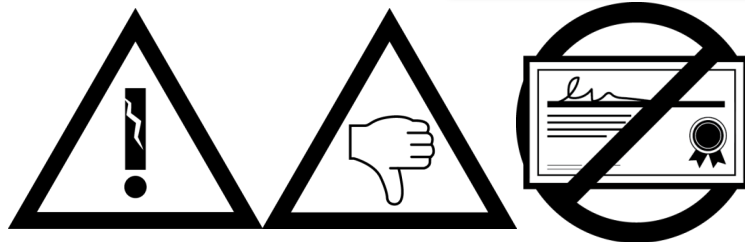


Misaligned Connector Pins

Short Circuit Risk
Overheating Risk
Connector Damage Risk
Fire Risk



Excess Solder
Bad connection
Overheating Risk
Connector Damage
Fire Risk



Inconsistent Pin Specification



**VIQUA ONLY
USES FLAME-
RESISTANT
MATERIALS!**

Problems with:
Too big/small
Too long/short
Not aligned
Excess solder



[VIQUA](#) uses dip soldering- this
prevents arcing.

Incorrect Filament Position

Filament position is extremely important for the proper operation of the lamp.

VIQUA Lamp

Non-VIQUA Lamp

Non-VIQUA Lamp



3-piece filament is visible where it should be

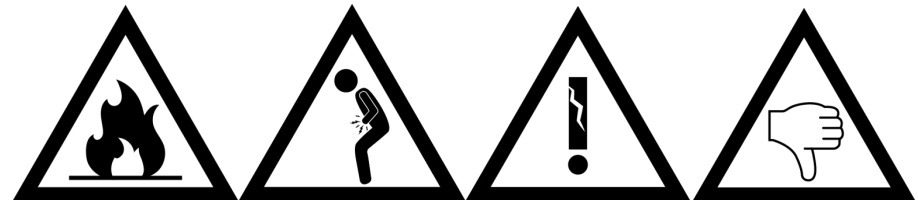


**??
Where is the filament?**

Filaments located below the end cap present a fire risk, as well as failure risk.



Filament is inside the base.



Incorrect Filament Position



Non-VIQUA lamp filament positioned inside lamp base, causing the plastic cap to melt.



IMPLICATIONS

- Premature lamp failure
- Arcing
- Cracking
- Mercury exposure
- Fire hazard
- Heat damage



3 Pc. Vs. 1 Pc. Filament

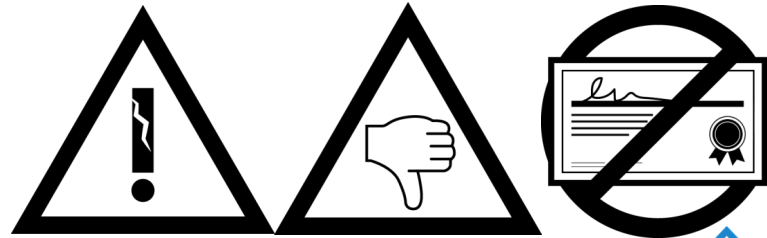
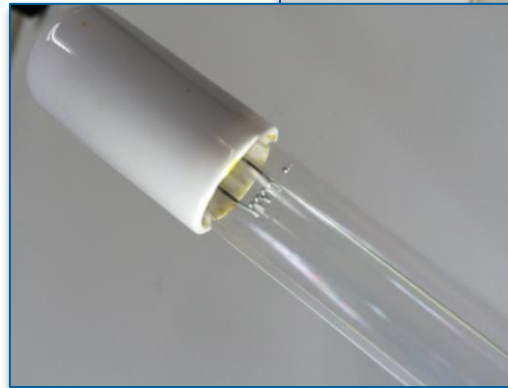
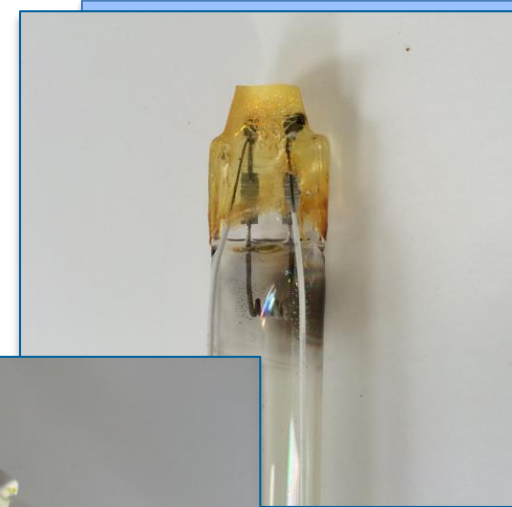
VIQUA Lamp



VIQUA 3 piece filament is designed for improved stability and long life.

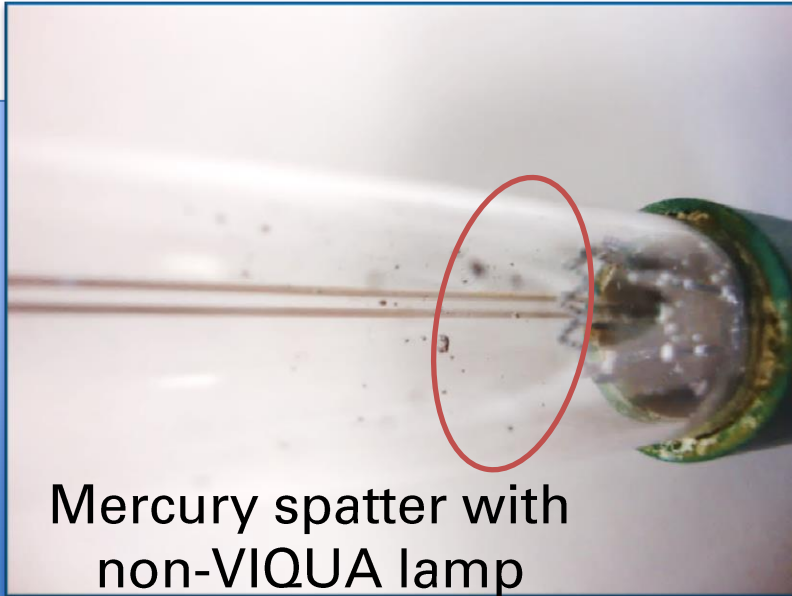
Non-VIQUA Lamps

1-piece filaments can drastically reduce lamp life.



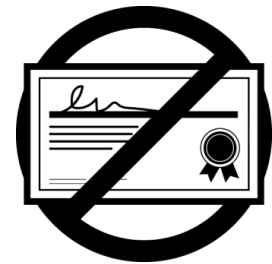
Optimized Mercury Content

- Specs are for Maximum 10 mg of mercury.
Many lamps reviewed were **over spec!**



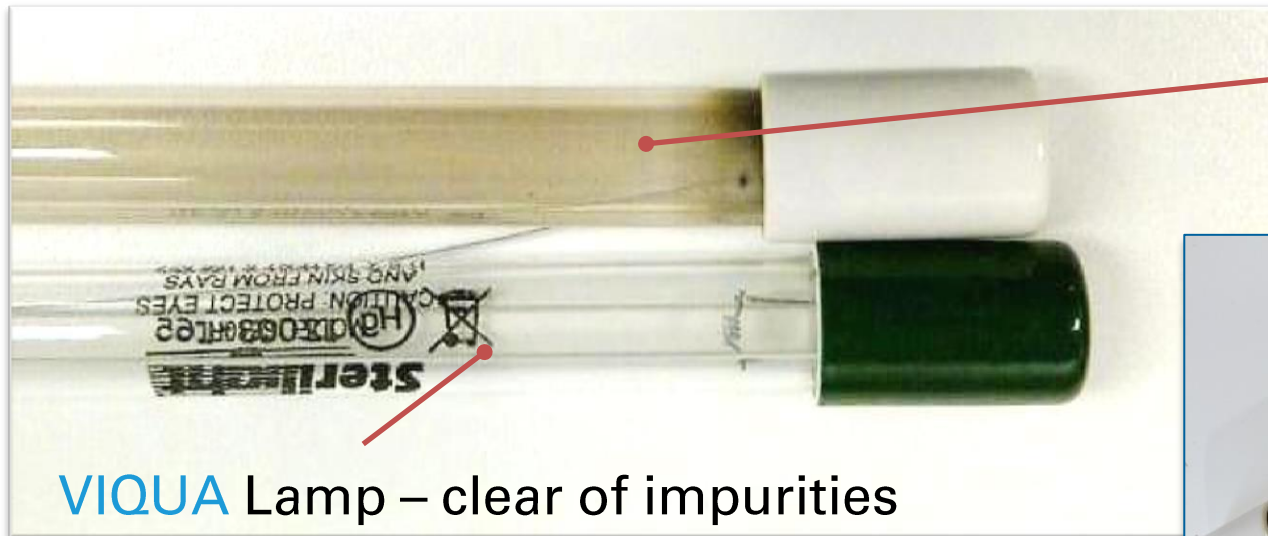
VIQUA lamps have controlled mercury content to minimize environmental impact and ensure proper performance.

Many non-VIQUA lamp manufacturers use elemental mercury. This results in wasted mercury, and can cause spattering as impurities escape. VIQUA uses pellet mercury. This allows better control over the mercury injection process, and produces less waste overall.



 **VIQUA**
simply safe water™

Non-VIQUA Lamp – No Guarantees



VIQUA Lamp – clear of impurities



Non-VIQUA Lamps – quickly fouled

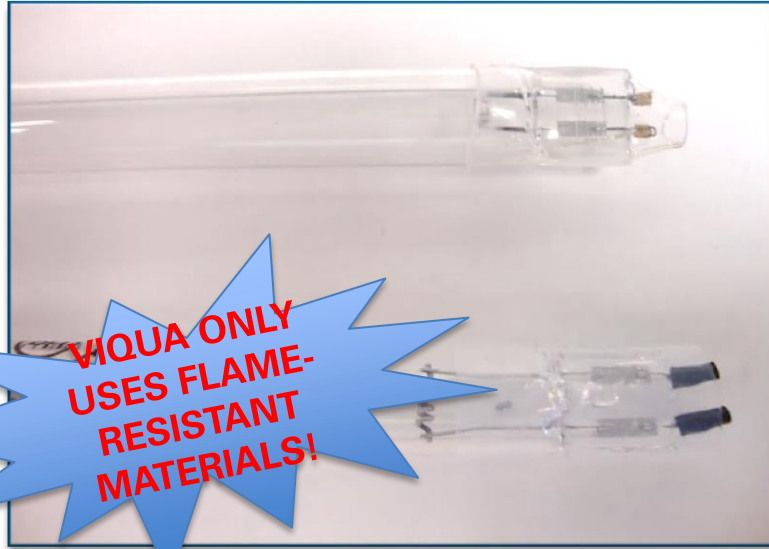
VIQUA's proprietary lamp coating helps prevent impurities from sticking to the quartz glass and reducing UV transmission.

VIQUA uses a very specific type of the best quality quartz to manufacture our lamps. This further prevents solarization and fouling from off-gassing of impurities in lower-quality materials, or lower standard manufacturing processes.

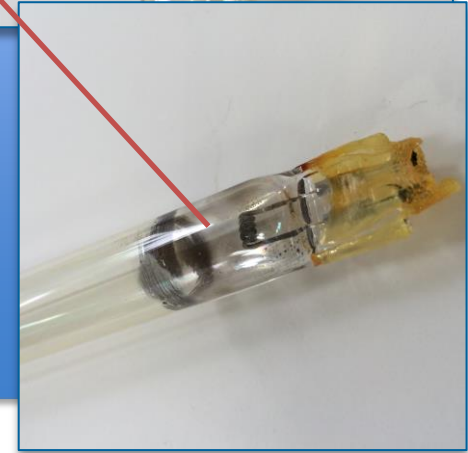
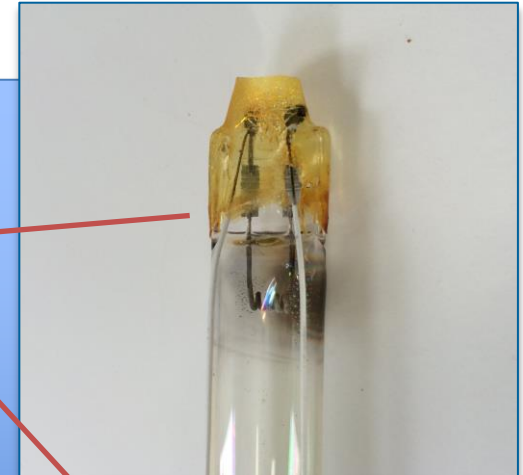


Inferior Materials Found In Non-VIQUA Lamps

VIQUA Lamp – Teflon (heat stable)

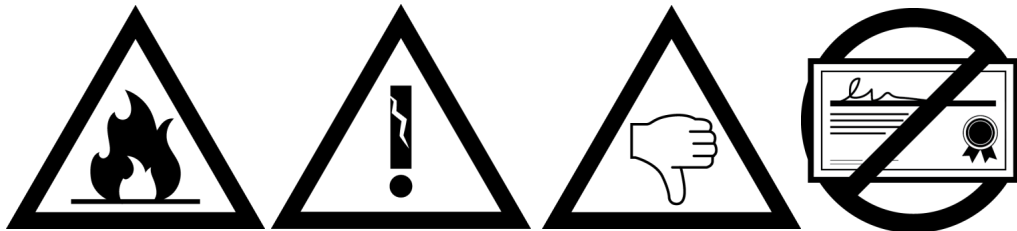


Non-VIQUA
Lamp:
Plastic melts
Fire hazard



Using inferior, non-UV resistant materials (such as plastic) can DRASTICALLY reduce the lifetime of the lamp and proper disinfection.

Lamps made of soft glass will have more impurities, and therefore will foul lamp and sleeve more quickly, reducing UVT.



Health Risk with non-VIQUA lamps



Test: Non-VIQUA lamp is
illuminated but is
producing
NO GERMICIDAL UV
OUTPUT!



Just because your lamp is on
does not mean it's safe.

Why take the risk??

**Ensure proper VIQUA
UV system
performance.**

**Always specify VIQUA
genuine replacement
parts!**

