



PRODUCT SAFETY ALERT

Issue/Date:	April 2, 2014	Bulletin Number:	AQ020414
Subject:	Sleeve Bolts	Product Line:	TrojanUVLogic™, TrojanSwift™SC, TrojanUVFit™, SwiftBeverage™, UVK™ Series 1000-30000
Topic:	Sleeve Bolts Safety Alert		

Dear Aquafine Customers:

The purpose of this product bulletin is to warn you of possible safety related issue of TrojanUVLogic™, TrojanSwift™SC, TrojanUVFit™, SwiftBeverage™, and UVK™ Series 1000-30000 UV systems, if operated above or outside their specified temperature (50°C) and pressure (150 psi) limits. This product safety alert explains the issue and the steps to safely operate the Aquafine UV Systems.

Problem Description

In rare circumstances when TrojanUVLogic™, TrojanSwift™SC, TrojanUVFit™, SwiftBeverage™, or UVK™ Series 1000-30000 disinfection systems are exposed to high temperatures outside of their specified operating range, the polymer sleeve bolts can degrade and ultimately fail under pressure, leading to a potential hazard if a quartz sleeve is ejected.

Causes

The circumstances that can lead to extreme temperatures:

1. Operating the UV system in a dry state or operating with no flow for extended periods. In order for degradation to occur, these extreme conditions must be maintained for extended periods.
2. Operating or exposing the UV systems above the specified temperature and pressure conditions.

Detection

Operation of the unit with little to no flow (dry state):

This condition can be detected by observing the error log on the UV unit. If these extreme operating conditions are present, there will be multiple instances of an over-temperature alarm recorded consecutively. The UV unit will shut itself down, and upon returning to a cooler state, will re-start until the over-temperature switch shuts down the system again. This cycle would be needed to be repeated numerous times for meaningful degradation to occur.

Operating and exposing the UV systems above its specified temperature:

This condition is difficult to detect if the unit is turned off while subjected to high temperature and/or pressure environment. However, sanitization procedures such as performing clean-in-place (CIP), hot water sanitization, and steam cleaning process expose the UV systems to temperatures above its specified limits.

Product Identification

Polymer sleeve bolt.



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Figure 1

Product Lines Affected

TrojanUVLogic[™], TrojanSwiftSC[™], TrojanUVFit[™], SwiftBeverage[™], UVK[™] Series 1000-30000

Solution

Aquafine has developed the metal version of the sleeve bolts. (Figure 2) Metal sleeve bolts are less heat sensitive and will not be adversely affected by high temperatures conditions.

Metal Sleeve bolt.



Figure 2

Required Customer Action

If you are exposing the UV systems to high temperature and pressure, or you are performing clean in place where temperature of the unit can reach above specified limits, or you believe your UV system may have been subjected to extended periods of operation at very high temperatures, or the error log on your UV system reports extended cycles of over-temperature, or you have reason to believe that it is likely to happen in the future, please contact Aquafine to purchase replacement metal sleeve bolt kit as soon as possible.

Please ensure that all precautions have been taken to ensure that these high temperature situations do not occur for an extended period of time.

Temperature and Pressure Limits with Metal Sleeve Bolts

Maximum operating temperature is 50°C and maximum operating pressure is 150 psi with metal sleeve bolts installed. But for cleansing purpose the UV reactor can be subjected to high temperature not exceeding 150°C for short period of time. Do not increase the pressure inside the reactor above 150 psi at any time. For more information refer to your O&M manual.



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Assistance

If you require technical assistance or have any comments, please contact your authorized Aquafine distributor. For contacting Aquafine directly, you can reach our customer care representative or technical support at:

Email: sales@aquafineuv.com

Email: techsupport@aquafineuv.com

We appreciate your immediate cooperation in this matter. If you have any questions, please contact us.