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|--|--|---------|-------|--------|
| <br><b>ENGINEERED SYSTEM</b><br><b>ROSEMONT, IL USA</b> | <b>PFOA REDUCTION POE SYSTEM</b>                           |         |       |        |
|  | <b>CULLIGAN PORTABLE EXCHANGE<br/>CARBON FILTER SYSTEM</b> |         |       |        |
| SIZE   | DATE   | DWG NO  |       | REV    |
|  | 03-13-2016   |         |       |        |
| SCALE  | NTS  | BY: GPI | SHEET | 1 OF 1 |

## Reif, Maizie L - DNR

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**From:** Bedard, Michael <Michael.Bedard@arcadis.com>  
**Sent:** Thursday, October 11, 2018 12:22 PM  
**To:** Merry, JaNelle P - DNR  
**Cc:** Richard L. Mator; Christopher D Behrend; Chronert, Roxanne N - DNR; Neste, David E - DNR; Rutkowski, Lisa; Verburg, Ben  
**Subject:** [WARNING: ATTACHMENT(S) MAY CONTAIN MALWARE]RE: Town of Peshtigo wells - Treatment system questions  
**Attachments:** VIQUA\_Culligan\_sell sheet\_EN 2012-p.pdf

JaNelle,

Answers to your questions are provided in red font below. The attached specification sheet from Culligan also may be useful for you. The specification sheet covers a few different UV unit model numbers. We have used the S8Q-PA-C unit (10 gpm) for the POET systems installed to date.

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**From:** Merry, JaNelle P - DNR <Janelle.Merry@wisconsin.gov>  
**Sent:** Friday, October 5, 2018 9:09 AM  
**To:** Bedard, Michael <Michael.Bedard@arcadis.com>  
**Cc:** Richard L. Mator <richard.mator@jci.com>; Christopher D Behrend <christopher.behrend@jci.com>; Chronert, Roxanne N - DNR <Roxanne.Chronert@wisconsin.gov>; Neste, David E - DNR <David.Neste@wisconsin.gov>  
**Subject:** Town of Peshtigo wells - Treatment system questions

Hi Mike,

Thank you for providing some information on the treatment systems at the 10am phone call yesterday. Some more questions have come up that I'm hoping you can answer.

Is the UV system being installed a 4-log treatment device? **Yes.**

Is the UV system installed in line before or after the GAC treatment systems? **After.**

Why are UV systems being installed? **The UV units provide disinfection for the water after carbon treatment.**

Are there properties that have the GAC system installed but NOT the UV system? If so, why? **No, all of the POET systems have an UV unit installed after the carbon.**

I appreciate you taking the time to answer these questions for me.

Feel free to call me if you wish to discuss this on the phone.

**We are committed to service excellence.**

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

**JaNelle Merry**

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## S5Q-PA-C, S8Q-PA-C, S12Q-PA-C



S5Q-PA-C – flow rates of 22.7 L/min (6gpm)  
S8Q-PA-C – flow rates of 37.9 L/min (10 gpm)  
S12Q-PA-C – high flow 57 L/min (15 gpm)

This compact line of ultraviolet disinfection systems is ideally suited for point-of-use filtration, RO pre or post disinfection or with a myriad of other applications requiring the flexibility this design offers. The hard glass germicidal lamps provide an economical way of treating water requiring a 4-log (99.99%) reduction of bacteria, virus and protozoan cysts (*Giardia lamblia* and *Cryptosporidium*). This process is accomplished without adding any harmful chemicals to your drinking water.

Sterilight is the most ecological way of treating your water... and all for just pennies a day!  
These disinfection systems are designed for easy homeowner maintenance. The UV lamp can be changed without interrupting the water flow. The quartz sleeve design allows for maximum UV output and operating efficiency.

### Features of the Culligan UV water purification system

- The Culligan electronic controller featuring constant output current over the entire operating range independent of voltage or frequency. This controller covers 100-240V/50-60Hz and comes with a 4-segment visual display indicating Lamp Life Remaining and Total Controller Running Time. The controller has active power factor correction and comes in a redesigned water-tight enclosure.
- UV lamps - These lamps feature an advanced proprietary coating allowing for consistent UV output over the entire life of the lamp, which is one year or 9000 hours. They also offer more UV energy in a smaller, more compact space.
- Compact design incorporating 304 stainless steel axial flow reactor chambers with 600 grit polish (A249 pressure rated tube)
- Easy servicing – no need to disconnect water flow to change UV lamp.
- Over-moulded connector allows for quick and simple removal of the lamp connector without any special tools or assistance.
- Domed quartz sleeves and aluminum gland nuts for optimum operating temperature and sealing efficiency.
- 4-log (99.99%) destruction of bacteria, virus and protozoan cysts (*Giardia lamblia* and *Cryptosporidium*) at rated flow.
- Nature's way to protect your water without the addition of harmful chemicals.
- Compact design requiring small installation footprint.
- Seven year warranty on reactor chamber for unparalleled protection.

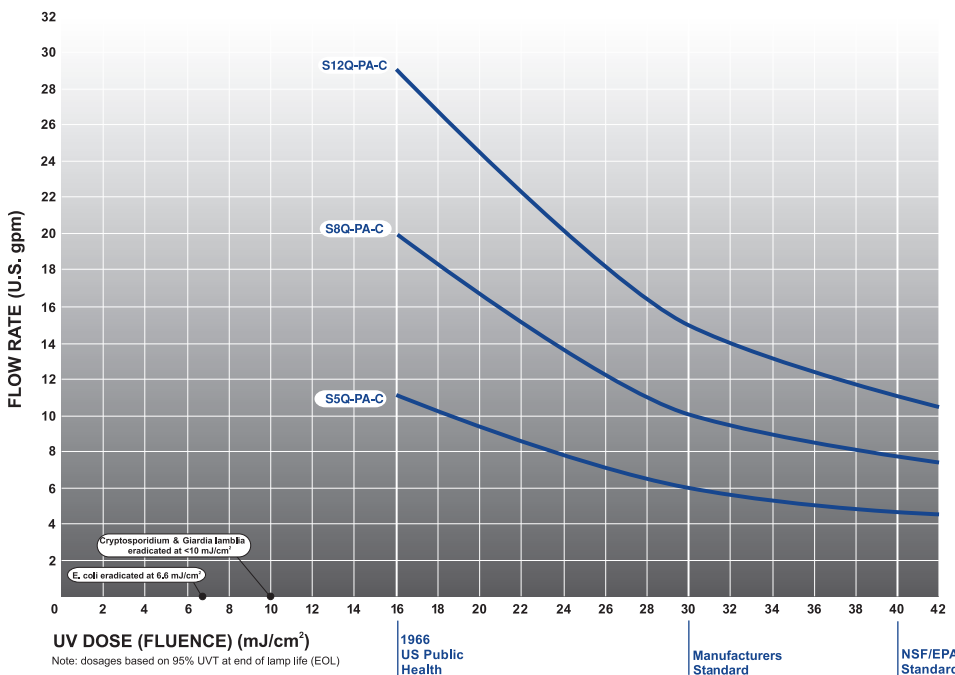


In addition to bacteria ( *E. coli* ), virus, algae, mould and others, Culligan UV systems are effective against protozoa such as *Cryptosporidium* and *Giardia lamblia*. UV effectively DESTROYS these protozoan cysts at dosage levels well within the levels delivered by all Sterilight ultraviolet disinfection systems.

# S5Q-PA-C, S8Q-PA-C, S12Q-PA-C

| SPECIFICATIONS                               | S5Q-PA-CA                                      | S8Q-PA-C                                       | S12Q-PA-C                                      |
|--|--|--|--|
| <b>FLOW RATES<sup>1</sup></b>                |  |  |  |
| US Public Health 16 mJ/cm <sup>2</sup>       | 41.6 lpm (11 gpm) (2.5 m <sup>3</sup> /hr)     | 75.7 lpm (20 gpm) (4.5 m <sup>3</sup> /hr)     | 110 lpm (29 gpm) (6.6 m <sup>3</sup> /hr)      |
| Manufacturers Standard 30 mJ/cm <sup>2</sup> | 22.7 lpm (6 gpm) (1.4 m <sup>3</sup> /hr)      | 37.9 lpm (10 gpm) (2.3 m <sup>3</sup> /hr)     | 57 lpm (15 gpm) (3.4 m <sup>3</sup> /hr)       |
| NSF/EPA 40 mJ/cm <sup>2</sup>                | 17 lpm (4.5 gpm) (1.0 m <sup>3</sup> /hr)      | 29.3 lpm (7.8 gpm) (1.8 m <sup>3</sup> /hr)    | 42 lpm (11 gpm) (2.5 m <sup>3</sup> /hr)       |
| <b>DIMENSIONS</b>                            |  |  |  |
| Reactor                                      | 56 cm x 6.4 cm (22" x 2.5")                    | 90 cm x 6.4 cm (35" x 2.5")                    | 94 cm x 8.9 cm (37" x 3.5")                    |
| Controller                                   | 18.6 cm x 8.1 cm x 6.4 cm (7.3" x 3.2" x 2.5") | 18.6 cm x 8.1 cm x 6.4 cm (7.3" x 3.2" x 2.5") | 18.6 cm x 8.1 cm x 6.4 cm (7.3" x 3.2" x 2.5") |
| Inlet/Outlet Port Size                       | 3/4" MNPT                                      | 3/4" MNPT                                      | Combo 3/4" FNPT/1" MNPT                        |
| Shipping Weight                              | 3/4" MNPT                                      | 3/4" MNPT                                      | 1" MNPT  |
| <b>ELECTRICAL</b>                            |  |  |  |
| Voltage                                      | 100-240V/50-60Hz                               | 100-240V/50-60Hz                               | 100-240V/50-60Hz                               |
| Power Consumption                            | 30 W   | 46 W   | 48 W   |
| Lamp Watts                                   | 25 W   | 37 W   | 39 W   |
| Maximum Operating Pressure                   | 8.62 bar (125 psi)                             | 8.62 bar (125 psi)                             | 8.62 bar (125 psi)                             |
| Ambient Water Temperature                    | 2-40°C (36-104°F)                              | 2-40°C (36-104°F)                              | 2-40°C (36-104°F)                              |
| Lamp Type                                    | Sterilume™ - EX (Standard-output)              |  |  |
| Visual "Power-On"                            | Yes  | Yes  | Yes  |
| Audible Lamp Failure                         | Yes  | Yes  | Yes  |
| Lamp Replacement Reminder                    | Yes  | Yes  | Yes  |
| Visual Lamp Life Remaining                   | Yes  | Yes  | Yes  |
| Total Running Time                           | Yes  | Yes  | Yes  |
| Chamber Material <sup>2</sup>                | 304 SS   | 304 SS   | 304 SS   |

<sup>1</sup> Flow rates stated @ 95% UVT EOL    <sup>2</sup> 316L stainless steel available on request



## Replacement Parts

- S463RL** – UV lamp for S5Q-PA/SSM-24
- S810RL** – UV lamp for S8Q-PA/SSM-37
- S36RL** – UV lamp for S12Q-PA/SSM-39
- QS-463** – quartz sleeve for S5Q-PA/SSM-24
- QS-810** – quartz sleeve for S8Q-PA/SSM-37
- QS-012** – quartz sleeve for S12Q-PA/SSM-39
- OR-212** – o-ring for quartz sleeves
- RN-001** – gland-nut for all systems
- BA-ICE-SN** – controller (100-240V/50-60Hz.)

## Warranty

Culligan disinfection systems carry a seven year warranty on the stainless steel reactor chamber, a one year warranty on UV lamps and quartz sleeves, and a five year pro-rated warranty on all other components.



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