Small UV Water Purification Systems

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Most UV water purification systems are manufactured for the wide variety of both Point-of-Use (POU) (e.g., a system for a single family home) and Point-of-Entry (POE) (e.g., a system for an apartment building). Over the past few years we have been consistently amazed at the ingenuity of our customers in the use of UV purification over a wide range of applications.

Interesting POU applications have recently included installations of small 1-GPM systems in recreational vehicles. The RV industry is ideally suited to the use of UV as a convenient, chemical-free method of drinking water purification, as the quality of source water across many of North America's campgrounds becomes increasingly suspect.

POU systems are also very popular with makers and dealers of home and office water coolers. The compact size of a 1-GPM system makes it ideal as an integral part of the guts core of a water cooler where it is used as a final treatment as the water is dispensed.

The boating industry and the explosion in popularity of the cottage get-away have generated wide interest in UV options. Many in the boating community employ a combination of water purification technologies including reverse osmosis (RO) and ozone treatment. The addition of UV to this product mix has given great comfort to many boaters especially concerned with bacterial contamination of drinking water supplies in wide and varied regions of the world.

The typical application for UV in the boating community is a 5-GPM system including prefiltration to the 5 micron range, although many larger ships are using systems from 8- to 50-GPM. Many UV units are equipped to operate on 12 volt or 24 volt power supplies in order to provide ease of installation and use. Cottage residence installations typically follow the same general configurations.

Agriculture and aquaculture industries have recently taken an interest in UV applications, as many farms are now employing UV treatment of drinking water for cattle. Farm customers have indicated a concern for the quality of their groundwater sources due to the extremely large amounts of animal waste being spread on crop fields as fertilizer.

Aquaculture operations are enthusiastically applying UV to improve the quality of water used in fish tanks of all sizes. This can effectively reduce the amount of fresh water needed as UV-treated water can often be recycled as source water in the operation and therefore provides a cost savings measure as well as overcoming a water quality issue.