ULTRAFIL

A Business Growth Opportunity

Exploring new markets for UF applications

By Adam Kropp

How's business? It is a simple question and one you likely hear often. You probably respond with a quick "good," but could it be better? Are you looking at ways to grow your business or expand into new markets?

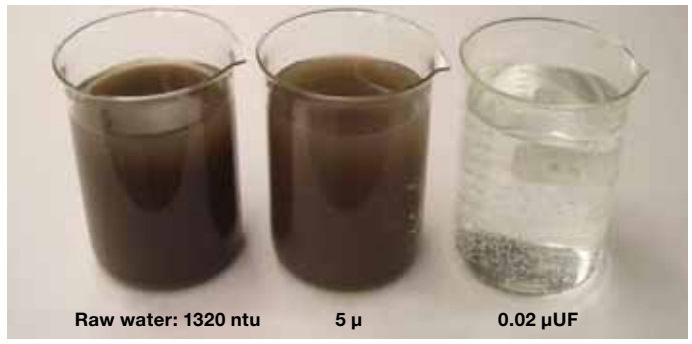
Differentiating your business can seem like a daunting task. Are you up for embracing the latest industry trends? Do you have access to the newest products on the market? What can help set you apart from the competition?

The U.S. market for ultrafiltration (UF) technologies was worth $940 million in 2010. It is estimated to be valued at $1.24 billion by 2015.[1] In this article, we will look into using UF in new niche market opportunities.

Savvy consumers are more aware of water quality issues and want to proactively manage the options available for their homes. Some consumers reach for bottled water. Others want to take a more sustainable approach and filter water for their homes—they just need help making the right filtration selection. UF technology can be a good solution for many consumers in untapped markets, such as private wells, office buildings and more.

UF is a separation process that uses hollow-fiber membranes to reduce bacteria, viruses, particulates and other natural organic matter from a water source.[2] Line pressure forces water and its contents against the hollow fibers, which physically retain high-molecular-weight substances. At the same time, water and low-molecular-weight substances are allowed through the membrane fibers.

By becoming more familiar with UF products and their new applications, you can decide if this is an opportunity for your business.



Top: Raw water at 1320 ntu (left) displays a dramatic change in quality after UF treatment.
Bottom: The quality of the source water (left) visibly improves after treatment with UF (right).

Residential Water Treatment

Private Wells. Consumers may not be aware of their well water quality, and may be unsure of how to improve it. In many cases, homeowners do not test their private wells annually unless local government requires it. Groundwater quality varies depending on many factors, which could leave consumers vulnerable to private well contamination. UF provides an immediate solution for clean and reliable drinking water at one or multiple outlets in the home.

Surface Water Sources. In many remote locations across North America, the only source for water is a lake, pond or river. These sources may contain pathogens such as *Cryptosporidium*, *E. coli* and fecal coliform, which can cause illness if consumed. As a result, owners of lake homes, for instance, may rely on bottled water, which needs to be purchased and delivered. UF offers convenience and promotes a sustainable lifestyle by reducing bottled water waste. Further, point-of-entry (POE) UF can offer a whole-home solution to purify surface water for drinking, cooking and bathing.

Boil Alerts. While municipal water systems in North America are generally quite safe, there are times, typically due to water main breaks or natural disasters, when reports of water contaminated by bacteria arise. Unfortunately, thousands of consumers can be inconvenienced or made ill by the contaminated water that triggers boil alerts. Boiling water or purchasing bottled water are two of the most common ways people get access to potable water during a boil alert. UF can offer a form of protection to a family, much like the way a backup generator provides access to power during an outage. The difference, however, is that UF can be used every day, not just when an alert calls for it.

Beyond Residential Water Treatment

Office Buildings. Many office buildings rely on the water jug next to the coffee machine for employee drinking water. These jugs can be heavy, costly and restrictive in that they allow for only one filtered water source in an office. UF can bring an end to the heavy lifting needed to place water jugs, not to mention the monthly cost of purchasing replacement jugs.

Farming Industry. Cleanliness can dictate productivity on dairy farms. Farmers use regulated water to rinse and sterilize dairy equipment multiple times per day. UF equipment can treat the water and prepare it for livestock consumption and dairy equipment cleaning.

Food Service. Across North America, restaurants, bars and coffee shops strive to produce high-quality products for consumers, and clean water is essential to delivering a safe and enjoyable experience. Many consumers have come to expect bottled water taste and quality at these establishments. UF ensures that

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the water for cooking, making ice and drinking is clean and great tasting.

System Selection

One important decision to make when treating water is whether to select a POE or point-of-use (POU) system. The POU market continues to work toward a much-needed wider offering of systems and components. The POE market offers a large number of viable solutions that have been tested and proven to perform.

POE UF systems deliver purified water to multiple outlets while maintaining high flow rates for consumers. Many systems are self-cleaning to create efficiencies and lengthen the life of the hollow-fiber membranes. They also have high virus and bacteria rejection rates,[2] while providing a valuable alternative to bottled water.

POU UF systems and components offer a cost-effective solution for clean and purified water at the tap. These components can be replaced easily, as needed, for added convenience to the consumer. These systems and components offer clean water to only one water outlet. Also, most POU systems do not provide a self-cleaning feature, thus filter cartridges must be replaced regularly.

Expanding your product portfolio is something to consider as you decide if or how you should differentiate your business from the competition. UF technology offers numerous application opportunities, and consumers are curious. The next time someone asks "How's business?" what will you say? Will it be, "Great, there are some really exciting things happening in UF?" *wqp*

References

1. *BBC Research Report 2010; CRISIL*
2. *Biovir Laboratories. 2010 Purifier Test Homespring Point of Entry Water Treatment System Device.*

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