Synder Filtration offers array of membrane technology, superior customer service for dairy

By Alyssa Mitchell

VACAVILLE, Calif. — A Bay Area filtration technology company is making increased inroads into the dairy sector with its wide array of membrane technology offerings and services.

Synder Filtration, Vacaville, Calif., has a unique understanding of the membrane industry from its history as both a buyer and a supplier of membrane technology, notes Jeff Yeh, president, Synder Filtration.

Established in 1989, Synder Inc. originally specialized in manufacturing industrial enzymes, in which spiral membrane technology was a vital part of the overall process.

Jeff Yeh's father, Edward Yeh, founded the company with two partners. The dairy industry wasn't the company's main focus at first as it focused on bioprocess applications.

Over time, the founders became frustrated with the inconsistent product quality and lack of support from their existing membrane supplier, Jeff Yeh says. After a search for suitable alternatives ended in futility, the founders saw an opportunity to fill a void in process separations. As a result, Synder Filtration was established in 1994, a U.S. wholly-owned membrane manufacturer in the San Francisco Bay Area. The founders had a vision to provide customers with the outstanding membranes, specialized process knowledge, flexibility and service demanded by the founders themselves.

"The company was built from scratch with our own money," Jeff Yeh says, noting this financial independence has allowed the company to do some unique things.

"It's one of the things that sets us apart and is a foundation for how we do business," he says.

For example, the financial independence has allowed the company the ability to quickly make decisions on ways to invest in its infrastructure and technology, Yeh says.

In 2012, Synder Filtration purchased the building next door to the 66,000-square-foot facility it has occupied since 2004 to make room for an expansion of its R&D and application development labs to push its capabilities even further, he notes as one example.

"We now have four full-time R&D and application development staff," Yeh says.

Sixty-three people work at Synder Filtration, with 55 working out of the company's headquarters, Yeh says.

The company's new 53,000-square-foot building is now completely renovated and supporting the R&D team in developing new products and applications, he adds.

"The most exciting part of this expansion is that we were able to design a lab for development," Yeh says. "We can now synthesize our own polymers as well to use in membrane development. This opens a lot of doors for us in quick membrane development."

Synder Filtration is an ISO-9001:2008 certified manufacturer of membrane products, including systems designed for industrial process applications.

ISO-9001 is the manufacturing standard for total quality management, Yeh notes. The company is audited twice a year by an independent firm, and it has to show continuous improvement in order to maintain its certification.

At Synder Filtration, membrane products can be fully customized to achieve the specific process separation goals of the company's customers, Yeh says.

He adds that the company does a lot of feasibility and pilot testing for its customers.

"Sometimes this results in the need to develop new membranes, and we can develop membranes specifically for customers' applications," Yeh says.

In fact, 20 percent of Synder Filtration's current membranes are from custom developments, he adds.

The company offers nanofiltration (NF), ultrafiltration (UF) and microfiltration (MF) technologies.

Synder Filtration offers a suite of nanofiltration membranes that are engineered to provide optimal flux and rejection and can be customized to meet the unique requirements of specific process applications, Yeh says. Available in both spiral-wound and flat-sheet formats, Synder's NF membranes are capable of rejecting multivalent salts, lactose and larger molecules, while selectively rejecting varying amounts of monovalent salts.

"If required, we can even develop new nanofiltration membrane materials to meet specific process goals, in partnership with our customers," Yeh adds.

The company also offers a wide range of ultrafiltration membranes to provide maximum flexibility in solving process challenges, Yeh says. Available in both spiral and flat-sheet configurations, Synder can customize ultrafiltration

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membranes and membrane systems to meet the specific application goals of its customers.

Yeh adds that as opposed to conventional filtration which causes a quick build-up of solids onto the membrane surface, cross-flow filtration increases the passage of permeate through the membrane. Also known as tangential flow ultrafiltration, this is a separation process where the feed stream is in parallel to the membrane surface, which helps to control the formation of the gel layer, greatly improving flux stability and membrane life vs. perpendicular flow systems.

In addition, Synder Filtration offers a wide selection of microfiltration membranes developed specifically to solve complex process challenges such as microbial removal, protein fractionation and pretreatment to other membrane processes, Yeh says. Available in both spiral-wound and flat-sheet configurations, microfiltration membranes and membrane systems can be customized to meet specific application goals with efficiency.

Synder Filtration currently offers three types of polymeric microfiltration filters, all of which maintain good resistance to pH, temperature and fouling tendencies, Yeh says. They also are commonly used as a pretreatment step for other membrane separation processes.

The company keeps an extensive inventory of its most common membrane models, allowing it to have some of the fastest lead times in the industry, Yeh adds.

"Invariably, every plant will have an upset at some time," he says. "We answer the phone when people call us and are able to deliver quickly.

"We can ship products quickly, sometimes overnight," he adds.

The company has been featured on the Science Channel's "How It's Made," Yeh notes. An episode featuring "Membrane Filtration" on April 24, 2014, was shot at Synder Filtration's headquarters in Vacaville.

Synder Filtration also recently revamped its website at www.synderfiltration.com.

"We really wanted to highlight some of our new capabilities and wanted to make the site more of a learning tool for membrane technology," Yeh says.

The new website features education videos on membrane technology as well as an extensive collection of technical articles that R&D staff wrote, he notes.

"It really showcases what we can offer," he says.

Despite expansion into many new industries throughout the world, Synder has not lost sight of its roots in quality, flexibility and service, he adds.

"The company is very near and dear to me; I've worked here since I was 14 years old, and I've been in the industry for 20 years, serving as president of Synder Filtration for six years," Yeh says. "I have every intention to continue growing the company, not just in the dairy industry, but in other industries as well." **CMN**

USDA's KCCO to buy natural American cheese

KANSAS CITY, Mo. — USDA's Kansas City Commodity Office (KCCO) this week announced it is purchasing up to 76.2 million pounds of natural American cheese in 2015 from six U.S. companies.

The purchase price for each delivery period is the accepted differential price per pound indicated below plus the applicable previous month's average of the Chicago Mercantile Exchange's cash market price for block or barrel cheese trading as reported in USDA's Dairy Market News.

Up to 53 percent was awarded under small business set-aside programs to firms eligible to compete for these set-aside quantities. A maximum of 3.0 million pounds of cheese was not awarded due to no offers. KCCO says it reserves the right to solicit for this cheese at a later date.

Associated Milk Producers Inc., New Ulm, Minn., will supply up to 5.8 million pounds of natural American cheese in 500-pound barrels for a differential of $0.0000-$0.6050.

Bongards' Creameries, Norwood, Minn., will supply up to 14.2 million pounds of natural American cheese in 500-pound barrels, $0.2374-$0.2874, and up to 1.1 million pounds of reduced-fat natural American cheese in 500-pound barrels, $0.2874-$0.3374.

Land O'Lakes Inc., Arden Hills, Minn., will supply up to 40.4 million pounds of natural American cheese in 500-pound barrels, $0.3046-$0.3046.

Masters Gallery Foods Inc., Plymouth, Wis., will supply up to 10.3 million pounds of generic reduced-fat, shredded Cheddar in 6/5-pound bags, $0.2054-$0.3044, and up to 3.5 million pounds of generic shredded Cheddar in 6/5-pound bags, $0.2191-$0.2985.

Pacific Cheese Inc., Hayward, Calif., will supply up to 38,400 pounds of generic reduced-fat, shredded Cheddar in 6/5-pound bags, $0.2594-0.2594, and up to 230,400 pounds of generic shredded Cheddar in 6/5-pound bags, $0.2345-$0.2594.

Robert H. Barrios, San Diego, will supply up to 799,000 pounds of generic Cheddar in 4/10-pound cuts, $0.3820-$0.4270. **CMN**