Donaldson Co. jumps into beverage filtration with heavyweight customers
21 September 2016, by Dee Depass, Star Tribune (Minneapolis)

It took the Donaldson Co. two years, 40 scientists and millions to build a better mouse trap - or a microbe trap, to be exact - for beverage and yogurt manufacturers.

The filtration giant - known for devices that purify air, steam and gases inside factories - recently threw its filtration expertise into the world of consumable liquids for the first time.

The result is LifeTec, an ultrafiltration cartridge that captures microbes, bacteria and particles from beverages. Officials cut the ribbon on a new manufacturing plant in Haan, Germany, earlier this month that will make the product and said it could result in big changes in the market.

LifeTec liquid filters capture dust, bacteria and the cryptosporidium and giardia parasites that could sicken humans and cripple most food makers if the microscopic pests accidentally squirmed into a product.

The food industry depends on filters and uses them vigorously to protect its products and reputations. Food producers came to Donaldson, headquartered in suburban Minneapolis, to help them develop liquid filters that were stronger, that didn't break and that could be changed less often.

Two years ago, Donaldson started working with customers such as Coca-Cola, Nestle, Dannon, Molson Coors-Romania and 20 other companies. Many of the firms, now beta testing the new liquid filters, already knew Donaldson as a maker of air filtration equipment that inflates shrunken soda and water bottle "preforms" into three-dimensional bottles using blasts of sterilized air.

Others knew Donaldson for its ability to make and insert a pocket of sterile air between each cup of yogurt and its lid. Others relied on the company to purify the air in clean rooms and factories.

That familiarity with the company is why they turned to Donaldson for the better liquid filter.

The LifeTec cartridge is designed for firms that must filter and sterilize water and other liquids to make mineral water, soda, cheese, yogurt, wine, beer and other beverage products.

Donaldson is entering a business fraught with competition, including huge players in Europe as well as local stalwarts such as 3M Co., Pentair PLC and Ecolab. The global food-and-beverage filtration market is already worth about $4.2 billion.

Donaldson wants its share and will not be put off by competition, officials said.

"We didn't want to do (LifeTec) unless we could actually bring something that was better to the marketplace," said Graeme Fuller, general manager of Donaldson's process filtration business. "We are ready."

Sales are eventually expected to reach "tens of millions" a year, he said.

A team of 40 Donaldson chemists, materials scientists, product designers and marketers spent two years and $6 million to bring LifeTec to market.

The device's cartridge boasts better flow rates and is "three times stronger than our closest competitor," so it won't torque and leak filtered contaminants back into the beverages, Fuller asserted.

"It offers (manufacturers) peace of mind," he said.

The cartridge also contains 20 percent more filtration media, lasts 25 percent longer and uses less pumping energy than other filters, he said.

That means it's cheaper to operate and food producers don't have to shut down production lines.
LifeTec comes in various lengths starting at 10 inches and surpassing 40 inches. Each cartridge should last one to three months before needing changing - depending on beverage-factory conditions, said Jessica Exley, director of process filtration for Donaldson North America. Product prices are still being determined but could range from $100 to $1,000 each, she said.

While officially launched this month during the plant opening in Germany, LifeTec soon faces a whirlwind of global introductions at trade fairs, including the world’s largest industrial trade show - the Hannover Fair in Germany. Launch events follow in France, Italy and Germany.

In the U.S., LifeTec will make its debut at the Northwest Food and Beverage Manufacturers Expo in Oregon in January and the Process Expo in Chicago in September 2017.

"We plan to do a media blitz and major promotional program to our current and potential channel partners and food and beverage processors," said Donaldson spokeswoman Becky Cahn.

Fuller can't wait.

"This is the single most exciting thing in my career," he said. For the food industry and Donaldson, "this is a pivotal moment."

Coca-Cola's factories in Spain and Portugal recently placed a large order for the filters.

"We are on our way," Fuller said.