



Eaton filter housing helps General Finishes keep up with demand

Location:
East Troy, Wisconsin

Challenge:
Reduce operator intervention, downtime and increase production to meet growing demand

Solution:
Replace current filtration system with a SIDELINE single bag filter housing to reduce product loss, and increase productivity.

Results:
The new SIDELINE bag filter housing provides increased capacity and the top-quality finished product that General Finishes customers expect

"The filter housings from Eaton just work. It's nice to know that we can rely on this equipment, and we aren't going to have problems with them. They are built to last and can grow with us as we continue to meet the demand for our products."

*-Justin Schiemann,
Maintenance Manager
General Finishes*

Background

Whether you're talking about running a race, a tough work assignment or a home improvement project, a strong start can build momentum for an impressive finish.

After more than 85 years as a leading manufacturer of high quality and durable water-based and solvent-based wood finishes, coatings and flooring products, General Finishes is off to a great start.

The company was founded in 1928 by a Milwaukee lumber company to make finishes for its cabinet shop customers. In 1984, operations were contained to a 2,000-square-foot storefront formerly occupied by a dry cleaning business. Four years later, the business expanded into a manufacturing plant, added a six-head pour machine with an automatic ladder, bought a used forklift and tripled the workforce.

Intense product demand has prompted three subsequent facility expansions and investments in more sophisticated, higher capacity equipment. General Finishes now produces one of the

deepest and broadest lines of professional water-based products in the country: pigmented stains, dye stains, pigmented and clear poly, glazes, exterior stains and wood coatings, pre-catalyzed urethanes and sanding sealers.

And thanks to the power of social media, and its strong customer base online and in specialty boutique shops, keeping up with the demand is still a challenge - but one the team at General Finishes embraces.

Challenges

When customers open a container of finish, they expect quality - no grit, discoloration or contaminants - just the color and consistency they demand. General Finishes can't promise this experience without a powerful filtration system capable of maintaining the integrity of their product while keeping up with the speed of production.

To accommodate the increased product demand, the company opened a new 30,000 square foot addition to double their current facility in 2015 and needed to invest in new



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equipment to transition from a labor-intensive manual manufacturing process to a more efficient, automated one.

The new, automated system required a higher gallon per minute (GPM) flow rate, prompting the need for a filtration system that could keep up.

The old filtration equipment did not have that capacity. The process used nylon mesh or bag filters, which were directly pumped out through process tanks right before the point of filling. The filter bags were changed depending on which type of product was being filtered and the micron level required.

"The old system just didn't have the capacity for the new automation we needed to help us continue to grow," said Justin Schiemann, Maintenance Manager at General Finishes. "One of our other big challenges was that the old system required frequent maintenance, bag changes and sometimes o-ring replacements, which increased our downtime. We were looking for a more automated filtration solution built to last and able to meet our needs."

Solution

General Finishes, reached out to Eaton representative Chris Johnson, Process Engineer, from Crane Engineering to find the best filtration solution to meet their increased capacity and flow rates. He recommended Eaton's SIDELINE™ Bag Filter Housing that would be compatible with their system.

"Chris did an outstanding job matching up our system with a filtration solution from Eaton that is maintenance-free and able to grow with us without a problem," said Schiemann.

The SIDELINE single bag filter housing is designed specifically for industrial applications like General Finishes. It features a bead blasted finish that makes cleaning complete and a cover that can be easily adapted to different opening directions and piping layouts. The hinged cover with swing bolts and an integral cover handle for quick opening and closing decreases filter change time, prevents spillage of unfiltered liquid and improves the product sampling efficiency.

"Being able to easily draw a sample is a big advantage," said Schiemann. "We can just use the valve to depressurize the system and use the ports on the side of the housing to get a sample of the product. We used to have to kill the pump and drain the product to get a sample. This new housing decreases our downtime from thirty minutes to five."

The SIDELINE also provides all of the benefits of stainless steel at a carbon steel price. Even if a process doesn't require stainless steel, stainless steel's superior corrosion resistance and consistency of performance are beneficial.

Results

Eaton's filter housings have been helping General Finishes keep up with product demand for about a year. Since moving from the manual operations to the automatic system, using three to four machines, that include the housings, production has increased 305%. Using the old system, the customer was pouring 4 gallons per minute, but now the rate is 9.5 gallons per minute.

"It's pretty amazing how our production has increased," said Schiemann. "By size, we aren't a large company in the market, but we outperform our competitors because of our technical expertise. Our chemists are always the first to develop the new technology, and we also attribute much of our growth to social media and word of mouth."

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SIDELINE single bag filter housing is a cast filter suitable for most heavy duty industrial applications. Side inlet with evacuation cover prevents spillage of unfiltered liquid, allowing for clean and easy filter bag change-outs.

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08-2016