

Success Story: Eaton

Market Served
Manufacturing

On a roll with new coolant cleaning cart

Location:
Minnesota, USA

Problem:
Accumulated contaminants in cooling fluids are difficult and time consuming to remove

Solution:
Eaton's FloWash™ Industrial Filter Cart, the mobile shop floor filtration system

Results:
The portable system rotates to nine different machines and saves approximately \$12,000 a year

The cart is now being used on nine different machines and is moving through the plant on a rotational basis. Our initial estimate on cost savings is about \$12,000 per year.

Josh Saldivar, Plant Manager



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Background

Eaton's Hydraulics group is a well-recognized leader in delivering customized solutions to a diverse list of customers around the world. The group's comprehensive lineup of pumps, motors, transmissions, valves, cylinders, controls, and other components are used in both mobile and stationary applications.

Markets and industries supported by the group include agriculture, alternative energy, construction, forestry, manufacturing, material handling, mining, oil and gas, processing, transportation and utility equipment. Respected brand names under the Eaton banner include: Aeroquip®, Boston®, Char-Lynn®, Hydrokraft™, Hydrova™, Hydro-Line®, Integrated Hydraulics™, SEL®, Synflex®, Vickers®, Walterscheid™ and Weatherhead®.

With that scope of resources, Eaton takes pride in always finding a solution for just about anything large or small needing to be moved, turned, shaped, molded, lifted, dug or hauled.

Challenge

According to Josh Saldivar, plant manager for the Eaton PMC-Hydraulics Operations in Eden Prairie, Minnesota, the group also prides itself on routinely monitoring its own resources, and then doing something about it to make it better.

"We do a good amount of grinding work here in the making of spools and sleeves for hydraulic steering units and our Char-Lynn line of motors to give the components a smooth finish," says Saldivar. "That process requires a filtration system where coolant is used to help remove some of the grindings, which we call swarf."

"Over time, that swarf begins to accumulate at the bottom of our machining tanks. But it doesn't just sit there; it also makes the coolant less effective. As the swarf continues to build up, we have to shut our machines down, shovel it out of there, and then refill the machines with more coolant."

Time-consuming, labor intensive and costly, Saldivar decided it was time to implement some improvements.

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Eaton is a power management company providing energy-efficient solutions that help our customers effectively manage electrical, hydraulic and mechanical power. A global technology leader, Eaton acquired Cooper Industries plc in November 2012. The 2012 revenue of the combined companies was \$21.8 billion on a pro forma basis. Eaton has approximately 103,000 employees and sells products to customers in more than 175 countries. For more information, visit www.eaton.com

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Solution

He did not have to look very far for help. The Eaton filtration group, at the time, was preparing to launch their new FloWash™ mobile shop floor filtration system.

Rick Jacobs, president of Eaton's Filtration division, was visiting Saldivar's plant and asked him if he would be willing to take a look at the new product.

"We were discussing opportunities," adds Saldivar, "and coolant filtration was identified as a great opportunity."

The flexible FloWash system can operate in-line or as a stand-alone portable system. Capable of handling up to 45 gallons per minute of machining coolant, oil, water, and other liquids, it allows for rejuvenating fluids anywhere in a plant.

Key components on the FloWash industrial filter cart include:

- FLOWLINE II™ fabricated filter vessel with a unique one-piece body design with safe and reliable access for bag replacement that does not require any tools.
- Ergonomic integral cover handle is easy to open and close.
- Powered by compressed air, the double diaphragm pump does not require electric power.
- A variety of filter bag options are available, including: LOFCLEAR™, HAYFLOW™, DURAGAF™, SENTINEL® and UNIBAG™.
- Five separate vessel models are available.

Saldivar decided to give it a try.

Results

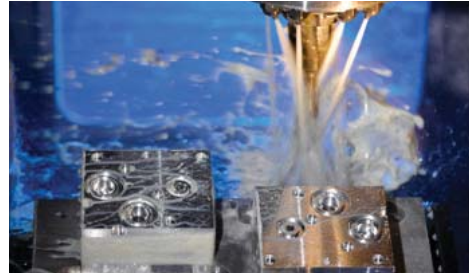
"The cart is now being used on nine different machines and is moving through the plant on a rotational basis," adds Saldivar. "Our initial estimate on cost savings is about \$12,000 per year. That's based on significantly reducing the filter paper that we were using, and also the cost savings associated with not having to clean the tanks as often."

Additional benefits include:

- Doubling coolant life
- Reducing the costs associated with recycling or disposing of coolant
- Improved tooling savings by having better coolant flowing through the machines
- Better overall quality of the finished components

The cart, he notes, is also helping his facility contribute to one of Eaton's top priorities—implementing sustainable business practices.

"I know we are sending out a lot less coolant from the plant," says Saldivar. "So we are definitely reducing our waste stream."



Cleaner coolant results in higher quality parts, longer lasting tools, and reduced machine downtime.



FLOWLINE II vessel incorporates an ergonomic integral cover handle for tool-free access. Unique internal body to basket seal prevents fluid bypass.



Eaton's FloWash Industrial Filter Cart is a flexible system that operates in-line or as a stand-alone portable filtration system. It is safe to operate and easy to maintain.