



# CHAMP in Action: Cutting Downtime and Costs with Proactive Monitoring

## The Challenge

A manufacturer of tubes and cases for the cosmetic and other industries began having issues using its degreasing process to clean parts before a final finish. The pH levels began to drop over time, and they had to continually add more stabilizer to keep the solution from turning to acid.

The company spent several days repleting the stabilizer to try to correct the low pH levels, but the problems continued. With the bath beginning to turn to acid and ruining parts, the manufacturer faced the expensive proposition of dumping the bath, which would have shut down the production line for an extensive amount of time as it used expensive chemicals to restart the process. Even then, there was no immediate solution to the issue of the pH dropping.

## The Approach

The manufacturer has an agreement with Hubbard-Hall to provide weekly testing of the degreasing process. The process is known as CHAMP for Chemical Handling, Analysis, Management, and Process Services; the goal is to establish and maintain consistent quality, as well as identify issues before they occur.

In fact, Hubbard-Hall Analytical Service Technician Bill Russell is the one who discovered the issue with the pH during one of his weekly visits to the manufacturer, in which he takes samples and checks various levels. He began noticing the pH dropping and had the

## Executive Summary

**Hubbard-Hall's CHAMP program helped a manufacturer avoid costly downtime by identifying and resolving a mechanical issue in their vapor degreasing machine.**

- Low pH detected during weekly check.
- Clogged drain identified and fixed.
- Bath and machine damage avoided.
- No production shutdown needed.
- Ongoing monitoring continues.



manufacturer add more stabilizers; when the problem continued, Russell notified plant management that a serious problem was occurring with the degreasing machine, which holds almost 600 gallons of trichloroethylene.

While the manufacturing team was working to find out the reason the pH kept lowering, Russell helped them discover that the degreasing machine trough to allow excess water to escape the machine was clogged, forcing the water to back up into the degreaser and causing the pH to lower and the expensive bath to begin to turn acidic.

“Not only does the excess water harm the bath and cause it to turn to acid, but the overflow back into the system starts to deteriorate the machine,” Russell says. “It’s obviously a very harsh environment in there, and it’s hard for the metals to hold up.”

## The Outcome

The manufacturer took Russell’s advice and repaired the machine so that the water that was supposed to leave the machine through the trough was finally able to do so. The reduction in the overflow water allowed the pH to stay at the appropriate level, and the manufacturer not only did not need to use an additional stabilizer for the system, but it did not have to take the extreme step of dumping the bath because of high acidity, thus saving it from incurring significant downtime and increased manhours.

The manufacturer maintains the CHAMP services with Hubbard-Hall to monitor the system’s chemical use and status levels, and Russell visits the plant weekly to check on pH levels and other vital levels to ensure the manufacturer is not using excessive chemistry and that the degreasing machine is running to specification.

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**Bill Russell,**  
Hubbard-Hall  
Analytical Service  
Technician

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