



# CASE STUDY

Hydrite Hydri-Pro™

## INTRODUCTION

**Current State:** Plant employees at a U.S. farmer-owned dairy cooperative were manually hand pumping, transporting and adding twenty-one different chemicals across thirteen different processing systems in the plant; including the milk evaporator, milk separator, and eleven membrane filtration units.

**Outcome:** Hydri-Pro fully automated chemical adding to the thirteen different processing systems in the plant.

## CHALLENGE

To simplify the safe handling of chemical and sanitizer products from the dock and/or storage to thirteen different processing systems, across multiple production shifts, as well as reduce the traffic and clutter on the plant floor.

## GOALS

- As safety is a priority, the Hydri-Pro eliminates the need for hand pumps, secondary containers, portable pumps, and numerous chemical drums around the plant.
- Implement an automated chemical delivery system that could be controlled from anywhere in the plant.
- Provide a method to control the usage of products and monitor the performance.
- Supply detailed usage reports.

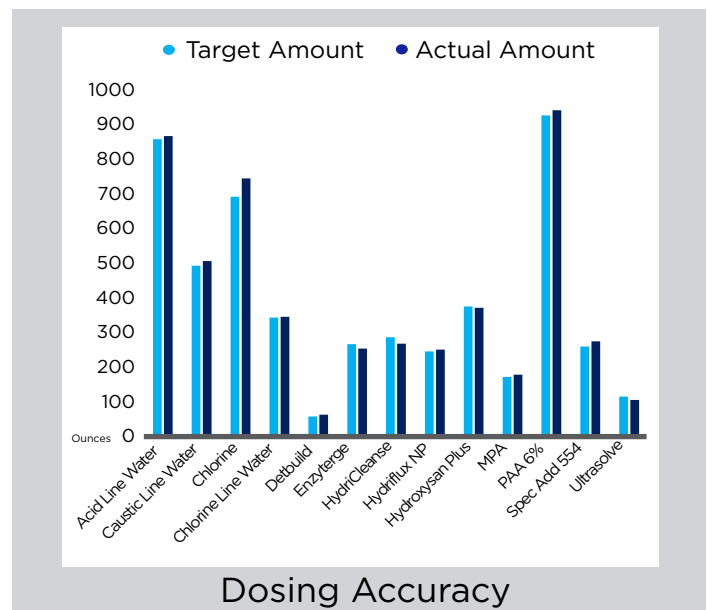
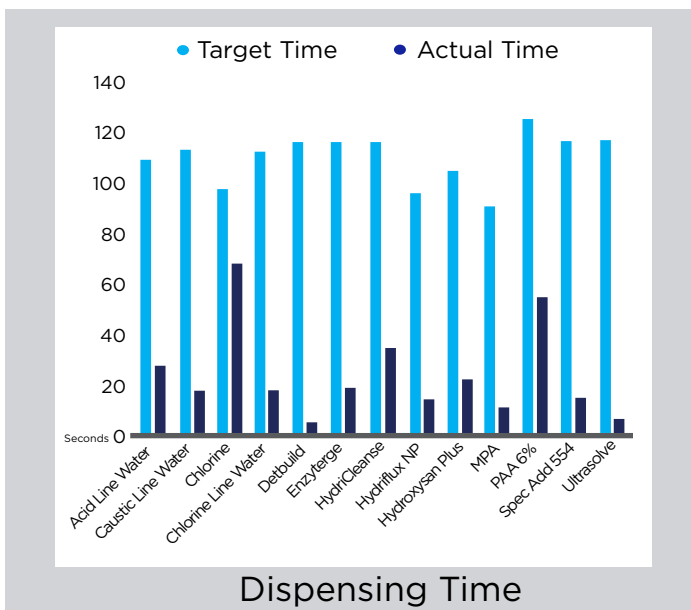
## SOLUTION & RESULTS

**Delivery Accuracy** - All chemistry is measured within a tenth of a fluid ounce via industrial grade flow meters.

**Full Integration** - The Hydri-Pro is a PLC based platform that ties directly into the customers controls network. Plant employees can control and monitor the Hydri-Pro performance from any HMI in the plant.

**Customizable Cleaning Formulas** - Based on the needs of the plant and the desire to optimize chemical costs, cleaning recipes can be updated or modified as required.

**Reporting/Verification of Delivery** - Detailed usage reports are automatically generated and emailed to the customer and Hydrite on a daily frequency.



The data displayed shows how accurate the Hydri-Pro is as compared to target volumes programmed into an integrated system. Targets based upon customer's process improvement goals.

## VALUE CREATED



### Membrane Life

Metered dosing versus “slug” hand dosing will improve membrane life due to limiting chemical “shock”.

### CIP Time Reduction

With equipment no longer needing to wait on operators to manually feed chemical, overall CIP time has been reduced by 30 minutes increasing production time.

### Equipment Sustainability

With the water flush feature the Hydri-Pro provides, all chemical lines, pumps and headers are not subjected to chemical “sitting” in the distribution network. This greatly reduces corrosion and equipment degradation concerns.

## CONCLUSION

With the implementation of the Hydri-Pro, the customer made marked improvements in employee health and safety through eliminating the manual handling of cleaners and sanitizers. The customer lowered chemical dispensing time and improved consistency of cleaner and sanitizer dispensing volume accuracy. The Hydri-Pro has significantly reduced time for cleaning and sanitation, and eliminated the need for hand pumps, secondary containers, portable pumps, and numerous chemical drums. All Hydri-Pro chemicals are now located in one general area, freeing up more space in the plant.

## Benefits of Using the Hydrite® Hydri-Pro™

SAFE & CLEAN FACILITY



DELIVERY ACCURACY



MEMBRANE LIFE



CIP TIME REDUCTION



FULL INTEGRATION



REPORTING VERIFICATION



EQUIPMENT SUSTAINABILITY



## The HYDRITE Advantage

### Chemical Experts

Our team is experienced and dedicated to providing technical support and services that help maximize efficiency and profitability all while maintaining or enhancing the quality of your end-product. Partner with Hydrite to see how our people make the difference.

### Customized Programs

Every plant is unique and we understand that. We customize a solution for each location and application. Contact us today to learn more about our quality products, services, technology, and solutions.

### Quality Focus

We understand how important it is to protect your brand and maintain the trust your customers place in you. Let us help you by delivering a quality solution at the most efficient cost.

### Customer Service

At Hydrite, we form partnerships with our customers and provide them with the best possible and most efficient operational solution. Contact us today to see how we are different.

### Supportive Approach

We feature a variety of creative solutions designed to lower operating costs, improve efficiency, and help you protect your brand. Join the many satisfied Hydrite customers that have experienced the Hydrite Advantage.

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