

Full time employees allocated to cleaning reduced from 9 to 4, with new COP tank and Ecolab's Maxi Plonge Manual Detergent

Application: From Manual to Cleaning Out of Place

Segment: Personal Care (makeup, skin care)

Challenge: Cleaning Optimization in manual washroom

Recommended product: Ecolab's Maxi Plonge

SITUATION

A global cosmetics manufacturer needed to **increase plant throughput** without expanding the number of lines. At the same time, the plant manager was tasked to **decrease costs associated with cleaning** of manufacturing equipment.

The manual washroom was particularly resource-intensive: for cleaning make-up, water-in-oil face creams, and mascara, **the established process involved 9 operators standing and manually scrubbing small parts** (fillers and pucks) in the sink, requiring 8 hours to return them to acceptable cleaning standards, all while consuming nearly 1922 gallons of water per cleaning. An in-house powdered laundry detergent, provided at no cost, was used.

SOLUTION

The plant manager at the facility had previous experience in working with Ecolab's technical team to resolve cleaning issues and requested a site survey. The team focused on maximizing process time reduction.

A new COP tank was introduced and validated with Ecolab's assistance. After the tank installation, a detergent that could allow further reduction of cleaning time, water and energy was tested. Coupon studies were performed with Ecolab's Maxi Plonge, a non-corrosive

pH product, specifically developed to effectively remove cosmetic soils.

Upon implementation, cleaning studies were conducted onsite regarding the process and to verify the projected savings. It was discovered that the **Maxi Plonge detergent dissolved the cosmetics completely**. A 3% solution was proposed but was further optimized to a 2% solution in order to reduce the level of foam in the tank and avoid potential overflows. Ecolab team members remained onsite to provide support throughout the various tests and validation efforts.

RESULTS

Using these solutions, the plant was able to optimize their process for cleaning small parts. The previous SOPs created the desired result, but required more time, energy and water. After instituting Ecolab's recommended process and product, the following client supplied results were achieved. It is estimated that water and wastewater were reduced by 79%. **Cleaning time was reduced by 63%** as each cleaning cycle only required 180 minutes compared to the previous cycle time of 480 minutes. This directly impacts labors expenses as well, as \$130,000 per year will be saved having **only four operators required per day for cleaning**, down from the nine needed previously.

ANNUAL SAVINGS*

WATER

79%

reduction in both water and wastewater after implementation of COP tank

PRODUCTIVITY

63%

faster cleaning cycle

COSTS

From 9 to 4 FTES equivalent to

\$130k

savings in labor costs

TOTAL VALUE DELIVERED

Over

\$237k

saved per year

ECOLAB MAXI PLONGE

This detergent is ideal for manual cleaning and foaming applications in personal care and cosmetics processing equipment. Ecolab's Maxi Plonge is designed for cleaning of removable machine parts, small items (buckets, spatulas, etc.) and manufacturing accessories. It is highly effective on cosmetic soils, non-corrosive, and safe for manual use applications.



*Client supplied data

How Ecolab Adds Value



Site Surveys

Ecolab offers site-surveys from a trained technical team to review new or existing manufacturing and cleaning process.

VALUE+

- Technical recommendations are matched to your most relevant objectives and key performance indicators (safety, water savings, efficiency, etc.)
- Formal report summarizes potential savings
- Delivers implementation strategy that minimizes production disruptions



Lab Studies

Ecolab offers a laboratory team that can analyze soils, identify residues and test samples.

VALUE+

- Creates a quicker and more successful cleaning recommendation
- Ensures the chemistry solution is effective against your unique, targeted soils
- Helps determine optimal dilution and implementation parameters



Disinfection with Chemistry vs. Water

Ecolab can help implement a validated strategy to clean CIP systems with registered chemical disinfectants as an alternative to water.

VALUE+

- Saves water which can help meet sustainability goals
- Reduce energy and time needs by removing need to heat water to required temperature



Validation Assistance

Ecolab can assist with the complex validation process and change controls by providing guidance and documentation.

VALUE+

- Guidance includes:
 - Cleaning process design and development
 - Cleaning process validation
 - Continuous cleaning process verification
- Helps ensure process stays in line with regulatory expectations and acceptance criteria



Dedicated Regulatory Team

Ecolab leverages industry expertise to deliver insights and guidance on regulatory expectations, trends and available tools to help ensure compliance for product safety and quality.

VALUE+

- Helps ensure compliance with cGMP to ensure cleaning and disinfection meet product safety and quality requirements
- Help implement validations that meet regulatory expectations



Customer Training

Ecolab's team is comprised of experts to help you implement, manage, and maintain quality & compliance requirements and protocols.

VALUE+

- Gain valuable best-practices and implementation strategies from trained field and technical experts
- Reduce troubleshooting time from on-site support and process training to resolve problems quickly

**ECOLAB'S BIOQUELL
NORTH AMERICA**
702 Electronic Dr., Suite 200
Horsham, PA 19044
www.bioquell.com

**WORLDWIDE
HEADQUARTERS**
1 Ecolab Place
St. Paul, MN 55102
www.ecolab.com/lifesciences