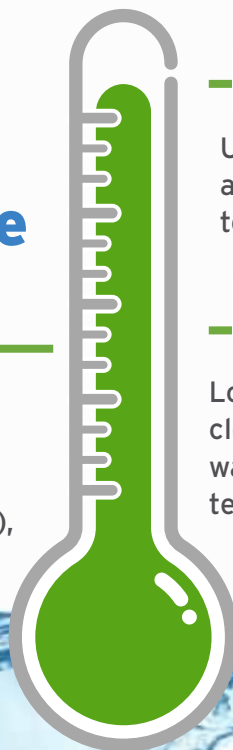


1 Clean at the Correct Temperature



New state-of-the-art formulations of personal care cleaning agents allow for cleaning of cosmetic products (also with high pigment concentrations), within a lower temperature range (60°C - 70°C).



Use an automated cleaning system that allows for free selection of the cleaning temperature.



Lower temperature means starting your cleaning process faster as you're not waiting to bring water to the appropriate temperature.

3

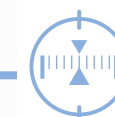
WAYS TO REDUCE CLEANING TIME

Cleaning procedures that were developed for the personal care or cosmetic industry historically have tended to have long cleaning times to ensure quality, however, those cleaning procedures may not have been optimized to increase productivity.

2 Replace thermal sanitization with chemical sanitization, and choose purpose built detergents



Using a sanitizer that's effective at ambient temperature eliminates time that would be needed to heat water to a sanitizing temperature. Additionally, using a sanitizer eliminates the wait time that would be required for equipment to cool down - getting operators back to production faster.



Improve the efficacy of your chemistry by utilizing fit for purpose detergents that can target soils better to help prevent re-cleaning.



Specifically developed chemistry is recommended to remove residues from personal care products. The typical soiling requires high levels of detergency and other cleaning active ingredients (e.g. solubilizer, complexing agents and many more).

3 Move from manual cleaning to automated or semi-automated processes



Cleaning via scrubbing, soaking or hand washing is labor intensive, often requires disassembly and is filled with risk of injury for the employee. Additionally, It is difficult to perform validation studies successfully and ensure the validated state is maintained.

Manual procedures can be upgraded with automated clean-in-place systems. Newer developments include portable CIP carts and/or satellite CIP stations reducing significant installation and plant floor space. Spray balls or spray "machines" can also be custom designed to provide detergent contact and mechanical action for efficient cleaning.