



**OPTIMIZING EQUIPMENT  
PERFORMANCE WITH  
CLEANING SOLUTIONS**

**MULTI-FACILITY EVALUATION  
RESULTS**

12.2016

CASE  
STUDY

## BACKGROUND

Central Sterile Supply Departments (CSSDs) are constantly challenged to improve efficiency and minimize waste to support surgical case growth, as well as meet department quality and financial goals.

To deliver these continuous improvement goals, CSSDs must increase sterile processing productivity. Key ingredients to enhancing CSSD performance are reduced wash/disinfection cycle times, minimized rework and improved instrument quality.

Belimed recently launched the Belimed Protect® line of Cleaning Solutions. Belimed engaged with key customers who expressed an interest in evaluating these new products.

### OF PARTICULAR INTEREST WERE PRODUCT BENEFITS THAT INCLUDED:

- The proprietary 3 enzyme Protect formulation designed to optimize the cleaning process in the company's low impingement washers/disinfectors. This combination can deliver improved CSSD efficiencies by 1) reducing cycle times and/or 2) reducing dosing levels. Additional efficiencies can be gained with reduction of the need to re-process previously cleaned instruments.
- The lack of subtilisin in the Protect enzyme formulations. Subtilisin has been linked to allergic reaction in CSSD workers. It has also been implicated in TASS (Toxic Anterior Segment Syndrome) the post-ophthalmic surgery condition.

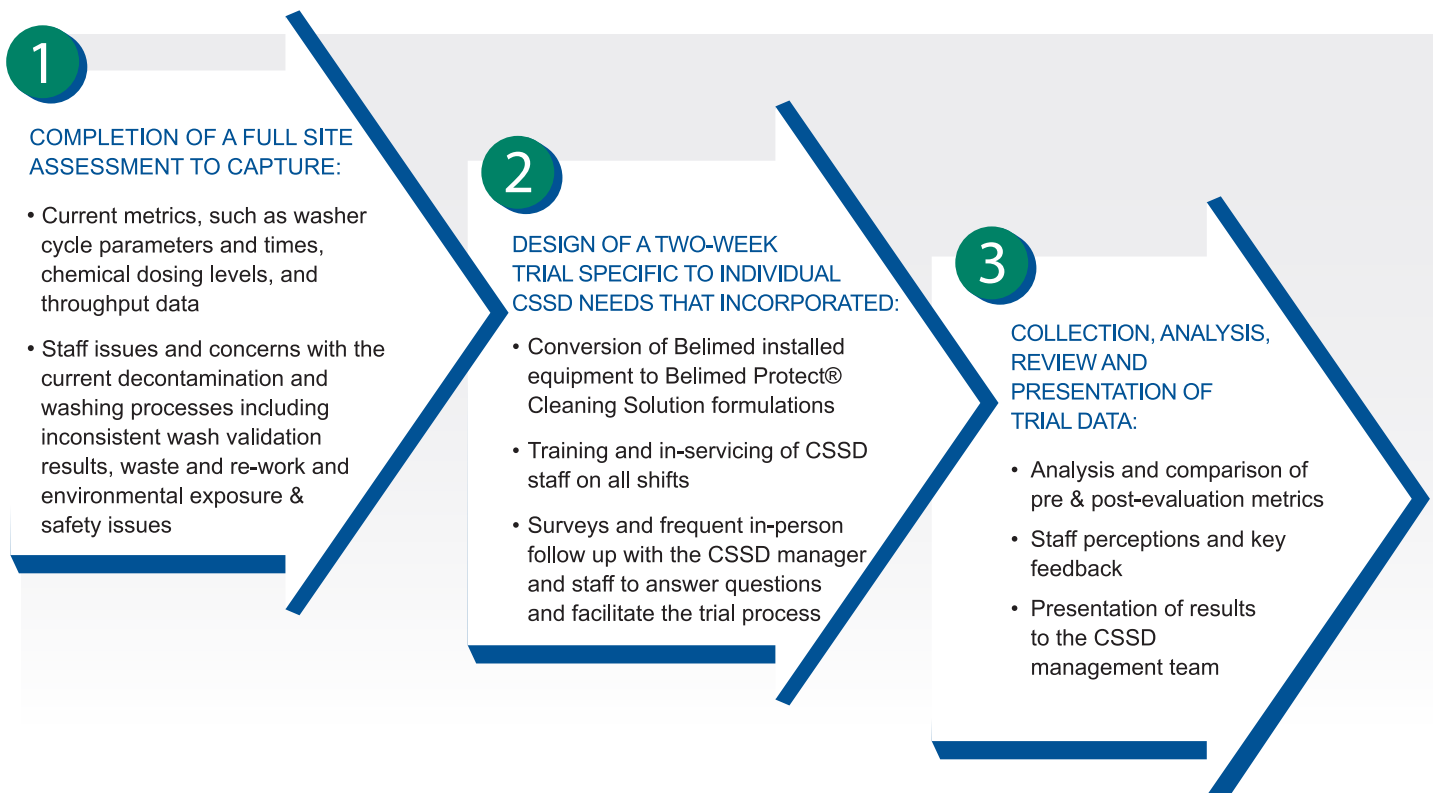
This case study summarizes actual Protect evaluation results over a 6-month period at twenty-six (26) separate facilities with installed Belimed equipment.

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## PROCESS

To minimize department disruption and to decrease variability during the Protect Cleaning Solutions trials, the Belimed team followed a standardized 3 step evaluation process at all facilities:



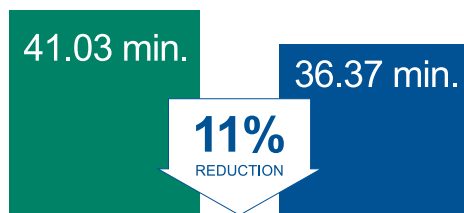
## RESULTS

Evaluation results from the 26 facilities contain both quantitative and qualitative results.

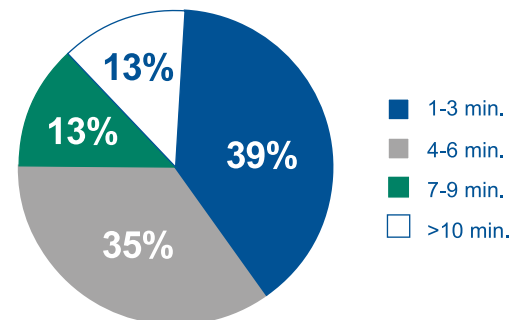
### QUANTITATIVE

Before the Protect trials began, the CSSD managers identified **improved washer performance** and **reduced washer cycle time** as key evaluation metrics. Average cycle time was reduced by 4.5 minutes, which represents an 11% improvement.

In addition, 61% of customers experienced a greater than 4 minute cycle time improvement, and 26% saw 7 minutes or more shaved from their cycle.



Average Pre & Post-Evaluation Washer Cycle Time



Washer Cycle Time Reduction

Reduced washer time translates into the ability to complete more wash cycles in a 24-hour period. When instrument throughput increases, the amount of sterile inventory rises, and more surgical cases and on-time operating room starts can be supported.

IMPACT OF REDUCED WASHER TIME

An analysis of the average washer cycle time saved in these evaluation facilities demonstrated the ability to process

**5 more** WASHER LOADS  
IN A 24-HOUR PERIOD

**14.2%**  
IMPROVEMENT

### QUALITATIVE

CSSD staff and management were interviewed to capture their observations and opinions. Typical results were:



*In general, staff reported that during the evaluation, instruments consistently came out “clean and shiny, with no white film after washing” and, as instruments moved from “decon to clean, less bioburden and less rust was seen.” They also mentioned reduced rework. “We scrub less. We don’t have to brush as much, we don’t have to clean as much.”*



*“Competitor’s [products] would bother people’s sinuses, their eyes would be watering from the fumes, a lot of them had redness around the wrist and forearm area, we’re not experiencing that now which is nice.”*

## CONCLUSION

Protect Cleaning Solutions stated benefits of optimized equipment performance, protection of patients & staff, and superior cleaning results were confirmed during this 26-facility evaluation.

Information presented here is based on actual facilities but the institutions have requested anonymity in this case study. The results discussed are specific to these healthcare facilities and may differ from those achieved by other institutions.



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