

# Comparison of Four Commercially Available Test Systems for the Efficacy Monitoring of the Washing Step in Washer-Disinfectors

The following is a summary and interpretation of test results generated by the "Council of Evaluation of Testing Methods" of the Austrian Association of Sterile Supply (Fachausschuss Pruefwesen der OeGSV) and presented at the Annual Conference of the Austrian Association of Sterile Supply on May 07/08, 2009 in Keutschach, Austria.

## Scope of study

The scope of the Council's work was to evaluate the performance of several reference test methods as described in EN ISO 15883-5, including some recent modifications. In addition, the Council evaluated the performance of four commercially available washing monitoring systems and linked the results to the data obtained when using the Reference Soil recommended by the Austrian Association. The four washing monitoring systems are Wash-Checks (SteriTec), Tosi (Pereg), STF- Load Check (Steris/Browne) and Simicon (German supplier).

## Test design

All tests were conducted using a standardized cleaning protocol which was set up to demonstrate an insufficient/failed washing cycle. The testing was expected to obtain failure detections when using a reference test soil or any of the commercially available test system.

It is the understanding of the author of this summary that the induced failure cycle was selected so that a small failure could be represented; however not cause a spectacular break down of the device. Consequently, the test systems compared should have been able to identify the failure if the test system is qualified for its intended use.

## Test results

In 78% of the experiments, the reference method preferred and recommended by the Austrian Association of Sterile Supply (OeGSV) was able to detect the induced failure by reporting incomplete removal of the test soil contamination on Crile clamps.

Among the **four commercially available test methods** investigated in this study **only one test** method was able to match and exceed the performance of the recommended reference method, while the other three other test systems failed significantly.

The test results reflect the findings of the Austrian Council. The findings state that Tosi was only able to detect 4 out of 10 fail cycles, while STF-LoadCheck (Steris/Browne) did not detect a single failure and Simicon (German supplier) detected less than 5 % of the induced FAIL cycles.

**Solely Wash-Checks met expectations by detecting significantly more than 85% of the induced FAIL cycles, exceeding the performance of the reference test soil.**

## Summary of results:

The study of the Austrian Council **confirmed the capabilities of Wash-Checks** to serve as an **efficient monitoring system for the detection of the washing efficacy** in Washer-Disinfectors when comparing performance to an accepted reference method under controlled conditions while three other commercially available test systems failed to achieve the stated performance criteria.

Consequently the Austrian Association of Sterile Supply concluded in its summary that **only Wash-Checks will be considered an appropriate tool for routine control of washer-disinfectors**, while Tosi, STF-LoadCheck, and Simicon will only have minor potential to serve as a routine monitor to control washer-disinfectors.

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