Serim® PINNACLE™ Monitor for Automated Cleaning (AEC)
Product Code 5176

Cleaning Cycle Failure Checklist for diagnosing "FAIL" test results

Effective cleaning is a multistep process relying on several interdependent factors[1]. Cleaning cycle failures are caused by a deficiency with one or more of the four critical components of cleaning (**enzyme concentration** and **activity**, **wash cycle time**, **wash cycle temperature**, **mechanical action**). Incorrect placement or reading of the strips may also produce a "FAIL" result. Please refer to the PINNACLE AEC IFU/Reference guide and this checklist to help determine common reasons for cleaning cycle failures (FAIL test result).

Issues with reading the strip

__ Are the pads on the AEC strip still wet?
Wet strips may appear similar in color; blotting the strip by **firmly** pressing the pads face down onto a dry paper towel can enhance color differentiation and interpretation (See product IFU).

__ Was the test removed from the cleaning unit before completing the entire wash cycle?

__ Are the test pads easily visible (facing up)?

__ Does the reader understand pass/fail results?

Issues with test placement

__ Was the test strip properly placed in the holder and exposed to the cleaning solution during the wash cycle? (see product IFU)

__ Was the test strip covered or obstructed during the cleaning cycle?

__ Was the test strip placed on the bottom or against the sides of cleaning unit?
Refer to equipment manual for recommended instrument placement.

Issues with the enzymatic detergent

__ Are you using an enzymatic detergent and was it diluted correctly?

__ Are you using the correct detergent for the cleaning unit?

__ Is the detergent past its expiration date? Detergents near or past expiration date have reduced enzymatic activity which may decrease it effectiveness. Lower enzyme activity may also increase the effect of other cleaning deficiencies.

__ Was the detergent stored according to the manufacturer's instructions (before, during and after shipping)?

__ Are there any water quality issues that may be affecting the cleaning process?

NOTE: The PINNACLE Monitor for Manual Enzymatic Cleaning (PINNACLE MEC) test can be used to confirm the presence of active enzymes in your detergent solution. Please refer to the list of validated detergents on the PINNACLE MEC web page: (Serim.com/PINNACLE) and the PINNACLE MEC IFU.

Issues with Wash Cycle Time

__ Was the wash cycle time set correctly and accurate?

__ Was the wash cycle too short for the detergent and type of cleaning unit?
NOTE: A combination of shorter cycle (less than 5 – 8 minutes in ultrasonic cleaners) and the lowest recommended detergent concentration may result in cleaning cycle failure. This can be more common when using a detergent with a lower enzyme activity.

Issues with Wash Cycle Temperature

__ Is the temperature set correctly for the detergent use? Temperatures that are too cold or too hot will reduce or kill enzyme activity.

__ Does the temperature exceed the detergent manufacturer's instructions at any point during the cleaning cycle?

__ Does the cleaning unit heat the detergent solution at the proper time in the wash cycle?

__ Is the water temperature different throughout the day (too hot or too cold)?

__ Is the heating element working properly and displayed accurately?

__ Is the temperature consistent throughout the cleaning unit?

Mechanical Issues of the Cleaning Unit

__ Are the washer spray arms working properly?

__ Are any washer spray arms clogged reducing water pressure in some areas and increasing in other areas?

__ Are all transducers working properly in ultrasonic units?

__ Are there any issues with delivery of the detergent such as broken/cracked/clogged lines, broken pumps etc.?

__ When is the enzymatic detergent added to the washer-disinfector? Is it added early in wash cycle before cycle temperature setting is reached or added later when water temperature may be too hot?

Please contact Serim Research for additional help and more information.

1.   AAMI ST79: Comprehensive guide to steam sterilization and sterility assurance in healthcare facilities (2017)

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