Process Verification

Troubleshooting Guide for Automatic Washers Instructions for use 010

Included Products:

- VeriTest Tags
- VeriTest Multi Basic
- VeriTest Multi 360

Included Processes:

- Process Verification

For best results, read the entire instruction manual before using VeriTest devices.

IFU 010

Release 01.002
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Important Information

Following IFU 001 “VeriTest Multi Usage”, section B) “Process Verification – Automatic Washers”, the following troubleshooting guide will walk through the possible outcomes of the Process Verification process and give detailed solutions and possible causes for a range of results. Please consult IFU 001 for detailed instructions on how to carry out the Process Verification process for both Automatic Washers and Ultrasonic Washers and ensure that you are using the correct troubleshooting guide for the type of washer in question.

NOTE:
It is crucial that Process Verification is conducted with both multi devices in the washer **and a normal load of instruments**, as this procedure is designed to extensively evaluate a real-life cleaning process involving surgical instruments, which requires a typical load to be present.

Process Verification should be conducted:

1. Any time there is a change to the programmed wash cycle.
2. When a new chemical is being used.
3. When the washer has undergone a repair/change that may affect cleaning performance.

To correctly carry out the Process Verification procedure, please consult IFU 001 Section B for detailed instructions.

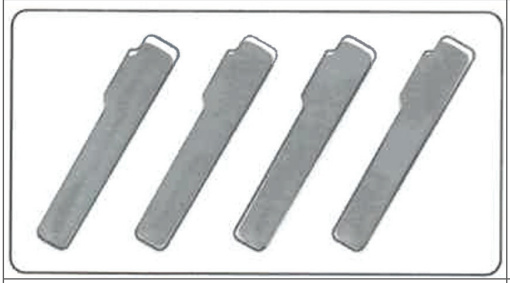
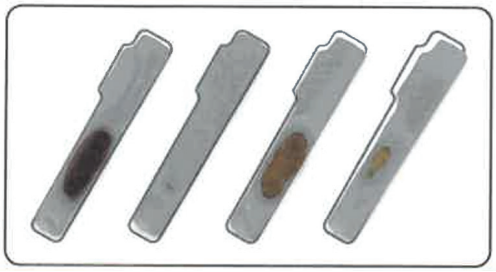
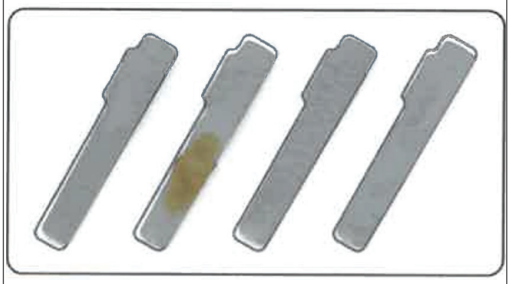
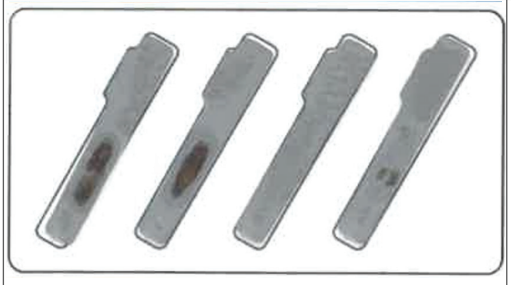
The following troubleshooting guide assumes that the user has followed Aseptium’s recommendation in IFU 001 Section B where it is states that the Process Verification procedure should ideally be repeated for a total of three times.

Troubleshooting Disclaimer

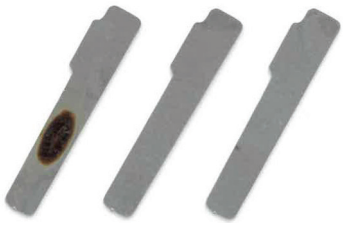
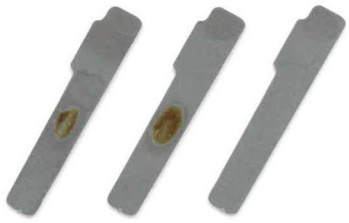
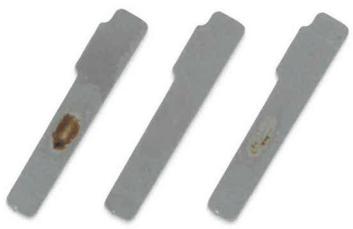
The following troubleshooting guide has been designed by our team at Aseptium using our extensive knowledge of process challenge devices and washers, both Automatic and Ultrasonic. We have worked tirelessly to produce a troubleshooting guide that represents real-life results that you may expect to find when using our products. Our hope is that these guides allow you to quickly identify and diagnose issues with equipment and processes to reduce costly downtime of equipment. It is important to note that cleaning cycles in both Automatic and Ultrasonic washers are subject to countless variables and random events. For this reason, these troubleshooting guides should be used as a supplement to aid in the identification of issues and not be used as the ultimate basis for any decision making. If in doubt about the working condition of a washer, always consult your maintenance service provider. Aseptium does not accept any responsibility for consequences following any decisions that may be made after consulting these troubleshooting guides.

Process Verification Troubleshooting Guide	
Result	**Possible Cause/Solutions**
Random tag(s) at a single location within the washer failed once or more out of three cycles.	The most likely cause of a random failure across the replicate cycles is shadowing/blocking caused by the instrument load. This describes instances where the positioning of other surrounding instruments impedes cleaning from a particular angle, as the misplaced instrument blocks the cleaning action of the spray arms from reaching the contamination. If results such as these occur on a regular basis: **1.** Reassess the loading procedures within the department. Ensure staff are following appropriate loading procedures and are not overloading the carriers **2.** Check for intermittent or impeded rotation of the spray arm(s). **3.** Check spray arms are clear of debris/blockages **4.** Ensure the dirty tag is correctly held within the VeriTest multi and has not been displaced.
Same tag(s) failed in all three cycles	This issue suggests that there is a consistent issue within the washer that must be addressed. The first possible cause of this is shadowing/blocking of the VeriTest Multi. In this case, where the results are consistently dirty, it is important to include the baskets as possible causes of shadowing, not just the instrument load. Check the basket and its design are not blocking water from the spray arms reaching the tag in question. Note the particular instruments and their orientation in the areas surrounding the affected tag(s). Firstly, try removing or repositioning these immediate instruments and repeat the cycle. If the tag(s) in question are still not clean following this, assess the following possibilities: **1.** Check that all spray arms move freely and are not blocked by debris. **2.** Check for excessive foaming - some chemicals may foam excessively under certain conditions (usually colder conditions). The presence of a large amount of foam can often impede the cleaning performance by introducing air into the system (which can lead to intermittent or continuous drops in pump pressure). • Check the chemical being used. • Ensure the chemical has not passed its “use by date”. • Check the recommended dosage and temperature requirements are being met. • Check at which temperature the chemical is being administered. When introduced outside the given range of temperatures, chemicals can be prone to excessive foaming.

VeriTest Multi Troubleshooting Guide

VERITEST MULTI RESULT	FAULT DESCRIPTION	TROUBLESHOTING
	Well optimised cycle. **Result:** • No visible contamination on any surface	• Well optimised cycle demonstrates good overall cleaning
	Blocked spray arm above the VeriTest Multi Block. **Result:** • Position 2 clean • Positions 1 and 3 visibly contaminated • Position 4 partially cleaned **Likely cause of the problem:** - Instrument blocking the spray arm - Nozzle blockage - Seized spray arm due to build-up of debris - Damage to the rack or spray arms	• Check the spray arm above the Multi Block for ease of rotation – it should rotate easily and smoothly when pushed by hand. • **Check for any blocked nozzles or debris trapped inside or on the outside of the spray arm.** • On the next cycle place the block in the same place and inspect the rack and shelf above for any damage of deformation that may block the spray arm. • **Inspect and loading of instruments to ensure nothing blocks the rotation.** • Compare the speed of rotation of the spray arm in question with others by counting revolutions per minute (it should be within +/- 10% of the average).
	Blocked spray arm below the VeriTest Multi Block **Result:** • Positions 1, 3 and 4 clean • Position 2 visibly contaminated **Likely cause of the problem:** - Instrument blocking the spray arm - Nozzle blockage - Seized spray arm due to build-up of debris - Damage to the rack or spray arms	• Check the spray arm below the multi block for ease of rotation – it should rotate easily and smoothly when pushed by hand. • **Check for any blocked nozzles or debris trapped inside or on the outside of the spray arms.** • On the next cycle place the block in the same place and inspect the rack and shelf for any damage of deformation that may block the spray arm. • **Inspect the loading of instruments to ensure nothing blocks the spray arm rotation.** • Compare the speed of rotation of the spray arm in question with others by counting revolutions per minute (it should be within +/- 10% of the average). • **If no issue is identified inspect the chemicals as per the point below.**
	Issue with with cleaning chemistry **Result:** • Position 3 clean • Positions 1, 2 and 4 visibly contaminated **Likely cause of the problem:** - Chemical dosing system - Chemical itself - Dosing calibration - Leaks or obstructions in piping - Wrong programme or programme parameters - Excessive foaming - Insufficient water level, pump cavitation	• Inspect the chemical bottle and connections to make sure the right detergent is dispensed. • **Check the use by date of the chemical.** • Check for leaks from the bottle and tubing (in the chemical compartment as around the machine). • **Check whether chemical delivery tubing is not bent, twisted or squashed.** • Investigate the volume of the chemical dispensed and verify dosing calibration. • **Check for abnormal noise while dosing pump is running by comparing it with other dosing pumps.** • Check for excessive foaming, main pump cavitation (inconsistent sound), intermittent drop in pump pressure and spray arm rotational speed.

VeriTest Multi 360 Troubleshooting Guide

VERITEST MULTI RESULT	FAULT DESCRIPTION	TROUBLESHOTING
	**Well optimised cycle** **Result:** • No visible contamination on any surface	• Well optimised cycle demonstrates good overall cleaning
	**Blocked spray arm above the VeriTest Multi Block** **Result:** • Position 2 and 3 clean • Positions heavily contaminated **Likely cause of the problem:** - Instrument blocking the spray arm - Nozzle blockage - Seized spray arm due to build-up of debris - Damage to the rack or spray arms	• Check the spray arm above the Multi Block for ease of rotation – it should rotate easily and smoothly when pushed by hand. • **Check for any blocked nozzles or debris trapped inside or on the outside of the spray arm.** • On the next cycle place the block in the same place and inspect the rack and shelf above for any damage of deformation that may block the spray arm. • **Inspect and loading of instruments to ensure nothing blocks the rotation.** • Compare the speed of rotation of the spray arm in question with others by counting revolutions per minute (it should be within +/- 10% of the average).
	**Blocked spray arm below the VeriTest Multi Block** **Result:** • Position 3 clean • Position 1 and 2 visibly contaminated **Likely cause of the problem:** - Instrument blocking the spray arm - Nozzle blockage - Seized spray arm due to build-up of debris - Damage to the rack or spray arms	• Check the spray arm below the multi block for ease of rotation – it should rotate easily and smoothly when pushed by hand. • **Check for any blocked nozzles or debris trapped inside or on the outside of the spray arms.** • On the next cycle place the block in the same place and inspect the rack and shelf for any damage of deformation that may block the spray arm. • **Inspect the loading of instruments to ensure nothing blocks the spray arm rotation.** • Compare the speed of rotation of the spray arm in question with others by counting revolutions per minute (it should be within +/- 10% of the average). • **If no issue is identified inspect the chemicals as per the point below.**
	**Issue with with cleaning chemistry** **Result:** • Position 2 borderline clean • Positions 1 and 3 visibly contaminated **Likely cause of the problem:** - Chemical dosing system - Chemical itself - Dosing calibration - Leaks or obstructions in piping - Wrong programme or programme parameters - Excessive foaming - Insufficient water level, pump cavitation	• Inspect the chemical bottle and connections to make sure the right detergent is dispensed. • **Check the use by date of the chemical.** • Check for leaks from the bottle and tubing (in the chemical compartment as around the machine). • **Check whether chemical delivery tubing is not bent, twisted or squashed.** • Investigate the volume of the chemical dispensed and verify dosing calibration. • **Check for abnormal noise while dosing pump is running by comparing it with other dosing pumps.** • Check for excessive foaming, main pump cavitation (inconsistent sound), intermittent drop in pump pressure and spray arm rotational speed.