



Routine Process Monitoring

Troubleshooting Guide for Automatic Washers Instructions for use 012

Included Products:

- VeriTest Tags
- VeriTest Multi Basic
- VeriTest Multi 360

Included Processes:

- Routine Process Monitoring

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

IFU 012

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Important Information

Following IFU 001 “VeriTest Multi Usage”, section C, “Routine Process Monitoring – 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 Routine Process Monitoring procedure 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:

Routine Process Monitoring involves adding a loaded VeriTest Multi Device to a real wash cycle alongside surgical instruments destined for the operating room. The purpose of the monitoring process is to identify any failures and/or random issues with the wash process. The wash process should have been verified as effective during Process Verification (See IFU 001, section B).

Only verified processes should be used for the cleaning of surgical instruments. If a change is being made to the wash cycle/process, perform a Process Verification on the new method prior to its implementation. As the wash process has been verified, it is not expected that the VeriTest Multi should remain dirty in any way. Poor results from Routine Process Monitoring indicate a failure or an issue with the process, not simply that the process is inadequate.

Routine Process Monitoring should be conducted:

1. As often as required by local/national guidelines
2. According to your department’s specifications

NOTE: Aseptium recommends performing Routine Process Monitoring on each washer during every wash cycle to ensure optimal performance and to identify any issues as they appear.

To correctly carry out the Routine Process Monitoring procedure, please consult IFU 001 Section C for detailed instructions.

The following troubleshooting guide assumes that the user has followed Aseptium’s recommendation in IFU 001 Section C where it states that the Routine Process Monitoring procedure should ideally use the “location with poorest cleaning performance” as identified during the Cleaning Effectiveness Mapping process.

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 guide



RESULT: CLEAN TAGS

If all tags have been cleaned completely after the cycle, the equipment and process are working as intended and the instruments should go on to the next stage of reprocessing.

RESULT: DIRTY TAGS

If any tags fail the Routine Monitoring Process, the washer should be emptied of all instruments and the cycle should be repeated with only the VeriTest Multi in the same location.

This will determine whether the issue was simply shadowing caused by the load or if there is an issue with the washer itself.

OUTCOME 1:

If the repeated cycle produces all clean tags, it can be assumed that the issue was a simple loading issue and that the machine and wash cycle are performing as intended. Instruments should be inspected for contamination and rewashed if necessary.

OUTCOME 2:

If the repeated cycle continues to produce dirty tags, consult the troubleshooting guide below to identify the issue.

Process Verification Troubleshooting Guide

Result

Possible Cause/Solutions

One or more tags with visible contamination.
(See IFU 007, Universal Scale of Contamination)

IMPORTANT: Please consult the attached Multi Basic and Multi 360 examples and compare with your results. These examples represent real-life experiments under the described conditions that may allow for a quick diagnosis of the issue at hand.

As the wash cycle has previously been verified using the Process Verification method (IFU 001 Section B), the cause of one or more “failed” tags is most likely linked to either a mechanical fail or human error, not a result of a poor process.

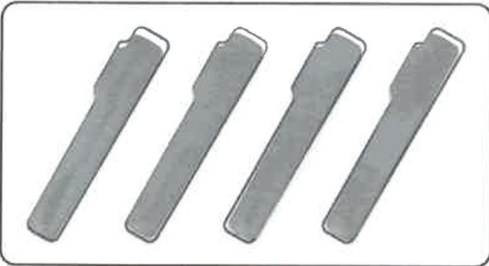
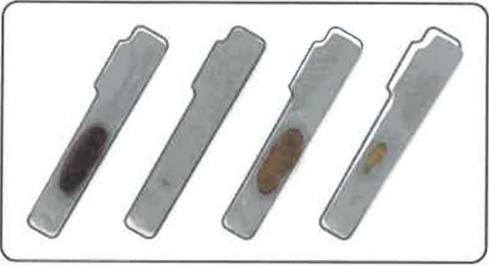
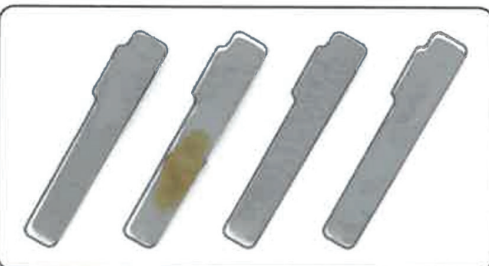
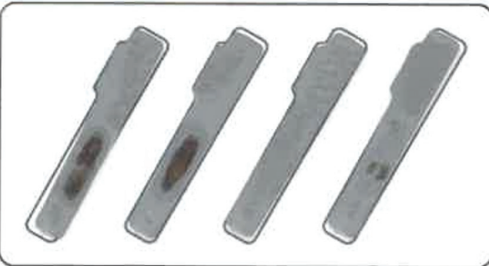
Possible mechanical issues:

1. Issue with the spray arm(s).
 - Check for blockages
 - Check the arms spin freely
2. Foaming causing drops in pump pressure (caused by chemical).
 - Ensure the correct wash cycle programme is being used. Incorrect temperatures may cause excessive foaming of chemicals.
 - Ensure the chemical is within its “use by date”.
 - Ensure the correct chemical is being used.

Possible human errors:

1. Shadowing caused by incorrect loading methods/overloading.
Ensure the load is not excessive. Too many instruments can cause unwanted shadowing, impeding cleaning of nearby equipment, including the VeriTest Multi.
2. Wrong Detergent
It is possible that during the chemical refill, the incorrect chemical was placed in the washer.
3. Incorrect cycle chosen for the specific type of load
Some machines rely on technicians to select the load depending on the type of equipment to be cleaned. Ensure the correct program for the given load was selected.

VeriTest Multi Troubleshooting Guide

VERITEST MULTI RESULT	FAULT DESCRIPTION	TROUBLESHOOTING
	<p>Well optimised cycle.</p> <p>Result:</p> <ul style="list-style-type: none"> • No visible contamination on any surface 	<ul style="list-style-type: none"> • Well optimised cycle demonstrates good overall cleaning
	<p>Blocked spray arm above the VeriTest Multi Block.</p> <p>Result:</p> <ul style="list-style-type: none"> • Position 2 clean • Positions 1 and 3 visibly contaminated • Position 4 partially cleaned <p>Likely cause of the problem:</p> <ul style="list-style-type: none"> - Instrument blocking the spray arm - Nozzle blockage - Seized spray arm due to build-up of debris - Damage to the rack or spray arms 	<ul style="list-style-type: none"> • 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).
	<p>Blocked spray arm below the VeriTest Multi Block</p> <p>Result:</p> <ul style="list-style-type: none"> • Positions 1, 3 and 4 clean • Position 2 visibly contaminated <p>Likely cause of the problem:</p> <ul style="list-style-type: none"> - Instrument blocking the spray arm - Nozzle blockage - Seized spray arm due to build-up of debris - Damage to the rack or spray arms 	<ul style="list-style-type: none"> • 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.
	<p>Issue with with cleaning chemistry</p> <p>Result:</p> <ul style="list-style-type: none"> • Position 3 clean • Positions 1, 2 and 4 visibly contaminated <p>Likely cause of the problem:</p> <ul style="list-style-type: none"> - Chemical dosing system - Chemical itself - Dosing calibration - Leaks or obstructions in piping - Wrong programme or programme parameters - Excessive foaming - Insufficient water level, pump cavitation 	<ul style="list-style-type: none"> • 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	TROUBLESHOOTING
	Well optimised cycle Result: <ul style="list-style-type: none"> • No visible contamination on any surface 	<ul style="list-style-type: none"> • Well optimised cycle demonstrates good overall cleaning
	Blocked spray arm above the VeriTest Multi Block Result: <ul style="list-style-type: none"> • Position 2 and 3 clean • Positions heavily contaminated Likely cause of the problem: <ul style="list-style-type: none"> - Instrument blocking the spray arm - Nozzle blockage - Seized spray arm due to build-up of debris - Damage to the rack or spray arms 	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Position 3 clean • Position 1 and 2 visibly contaminated Likely cause of the problem: <ul style="list-style-type: none"> - Instrument blocking the spray arm - Nozzle blockage - Seized spray arm due to build-up of debris - Damage to the rack or spray arms 	<ul style="list-style-type: none"> • 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: <ul style="list-style-type: none"> • Position 2 borderline clean • Positions 1 and 3 visibly contaminated Likely cause of the problem: <ul style="list-style-type: none"> - Chemical dosing system - Chemical itself - Dosing calibration - Leaks or obstructions in piping - Wrong programme or programme parameters - Excessive foaming - Insufficient water level, pump cavitation 	<ul style="list-style-type: none"> • 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.