



# Sterilization In Place –Vessel Execution Record

(Ref. [SOP VAL-225](#))

## 1. OBJECTIVE

Using an appropriate sterilization cycle, demonstrate that the tested cycle will sterilize the vessel with a high degree of assurance. Each cycle should consider the location(s) within a vessel considered to demonstrate worst-case conditions.

## 2. PROCEDURE

### 2.1. Standard Procedures and Operator Instructions

Before commencement of the qualification, ensure a pre-sterilization documentation review has been conducted as per VAL-270 “Critical Documentation Verification during a Validation Study” and documented in attachment Form-910.

Initial / Date

**NOTE: THIS DOCUMENT MUST BE REPRODUCED FOR EACH CYCLE**

**Cycle Type**  
*EMPTY / FULL*

Load Description (include volume if full vessel cycle)

### 2.2. Test Instrumentation

Instrument Number	Instrument Name or Description	Date of Calibration	Calibration Due Date

### 2.3 Calibration and Verification of Test Devices

Confirm that the data logger has a minimum sample rate of 5 seconds and that all test equipment has been calibrated and verified as per written instructions.

Initial / Date



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Project Number	Vessel number	Run Number	Number of Runs

## 2.4. Biological Indicators

Indicator Type ( <del>strikerthrough non-relevant indicator(s)</del> )	EZ-Test Crushable Ampoule (DRY)	Glass Ampoule (WET)	Spore Strip (DRY)
Lot Number			
Organisms	<i>G.Stearothermophilus</i>	<i>G.Stearothermophilus</i>	<i>G.Stearothermophilus</i>
Population			
Manufacturer			
Manufacture Date			
Expiration Date			

Confirm that the BIs have not expired the manufacturers and expiration date.

Initial / Date

## 2.5. Thermocouples and Biological Indicator Placement

Record and confirm the distribution of thermocouples and BIs throughout the vessel in attachment Form-885.

Initial / Date

## 2.6 Filter Inlet Sterilisation (External Temperature Monitoring)

Start the data logger and commence the inlet filter sterilization when the internal temperature reads above the minimum sterilization temperature and/or the SOP conditions are met for the commencement of filter Sterilization.

For initial sterilization validation only, record the surface temperatures at five-minute intervals for the duration of the sterilization cycle time.

Record the external temperatures at the start, middle, and end of the SIP procedure for routine re-validation. Use Form-890 to record the external temperature monitoring data.

Sterilization Start Time	Sterilization Finish Time	Sterilization Duration (min)	Minimum External Temp. Achieved (°C)

Initial / Date: \_\_\_\_\_



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## 2.7 Vessel Sterilisation External Temperature and Pressure Monitoring

Start the data logger and commence the heating until the minimum SIP temperature is reached at all monitoring locations and/or the SOP conditions are met for the commencement of vessel sterilization.

Record the external surface temperature and vessel gauge pressure at five-minute intervals for the duration of the sterilization cycle time for initial sterilization validation.

For routine re-validation external temperature monitoring is not required during the vessel SIP procedure evaluation.

SIP Stage	Start Time	Finish Time	Duration (min)	Minimum External Temp. Achieved (°C)	Pressure Range during SIP (kPa)
Heating					
Sterilization					

Initial / Date: \_\_\_\_\_

**Note:** Cool the vessel on completion of the sterilization cycle to a minimum of 60°C.

## 3. Post Cycle

	Circle Applicable	Deviation No.
Biological Indicators were retrieved from each location and submitted along with both the exposed and control BI. During submission, the indicator-dependent Test Results Sheets shall have been submitted to Quality Control for sterility testing.	YES / NO	
Post-calibration verification results of thermocouples have been recorded.	YES / NO	
Thermocouples are within reference checkpoint verification temperature ranges as stipulated in VAL-275 "Preparation and Calibration of Thermocouples for use in Thermal Validation Studies".	YES / NO	

Initial / Date: \_\_\_\_\_