



CTech™ FlowVPX® & Beams™ Systems: Best Practices

Recommended Steps for Maintenance, Cleaning, & Proper Use

Best Practices



System Maintenance Checklist

	Per Run	Weekly	Monthly	Annually
Quick Check Test	✓			
Clean Flow Cell	✓			
Restart Software & Beams Source		✓		
Run System Suitability Test			✓	
Repligen Preventive Maintenance Service				✓

System Maintenance Guidelines

Quick Check

Perform with a clean Flow Cell and Fibrette® Optical Component.

ViPER Passing Criteria: 40.00% Transmission at Beams wavelength

Quick Check can be performed from the Quick Kinetics app by clicking the icon (right) in the top navigation bar.



Run System Suitability Test

Run recommended standard for Beams wavelength options:

260 nm, 280 nm, 310 nm: CHEM013 Reference Standard

272 nm: ConfiRM® Slope Reference Material

It is recommended to perform a Transmission Check via Transmission Tool prior to System Suitability tests to ensure adequate transmission.

Restarting Software & Beams Source

Disconnect the Beams Source from the Controller and reconnect it on a weekly basis. If Beams System is in continuous use for more than a week, disconnect and reconnect between runs.

Flow Cell Cleaning

Flush with 0.1 – 0.5 M NaOH followed by deionized (DI) or WFI water.

Optical Pathway Components (only if cleaning)

Clean the optical path of the system to ensure optimal light transmission.

- Use a lint-free wipe and compressed air to clean the Flow Fibrette tip.
- Use a lint-free wipe soaked in isopropyl alcohol to gently clean the Flow Cell window, Flow Fibrette, and detector module.
- Wipe in a single direction.
- Follow with a dry wipe as needed.

Flow Cell Storage

Short Term: If storing Flow Cell in-line for up to 2 weeks, store with 0.1 M NaOH in the flow path.

Long Term: Store dry. Flush the Flow Cell with NaOH and then DI or WFI water before letting dry. If the Flow Cell is unloaded, use the plastic protective cylinder included in shipping package to store the Flow Cell.

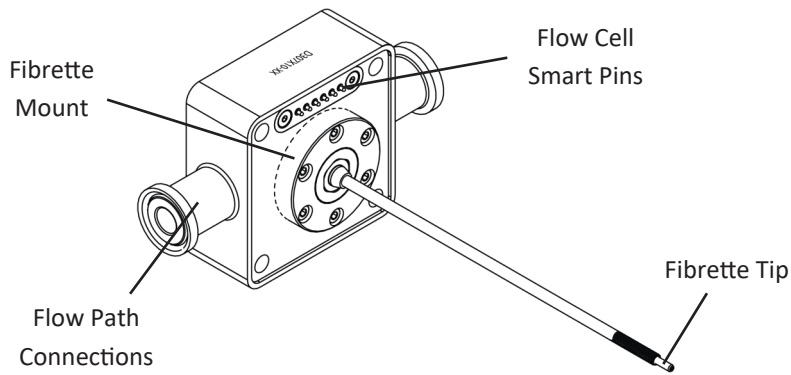
For additional resources, check out the Repligen Knowledge Base: repligen.com/support/knowledge-base



Running a System Suitability Test for the CTech FlowVPX System



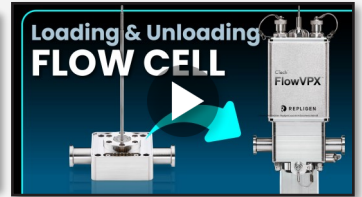
Cleaning & Maintenance for the CTech FlowVPX System



Flow Cell components and parts



General Troubleshooting for the CTech FlowVPX System



Loading and Unloading the Flow Cell for the CTech FlowVPX System

Flow Cell Troubleshooting Tips

Flow Cell Not Detected

Clean the Smart Pins using a lint-free wipe and IPA. Ensure the pins can be gently pushed down and spring back when released. Use a new, clean spot on the lint-free wipe with IPA and wipe the contact pads on the FlowVPX System.

Flow Cell Zeroing Unsuccessful

On first failure, try again. On second failure, contact Repligen's Analytics Support.

Transmission Test Failed

- Clean the end of the Flow Fibrette using a lint-free wipe and compressed air.
- Clean the Flow Cell window and the Detector Module window using a lint-free wipe and IPA.
- For Stainless Steel Flow Cells only, flush the Flow Cell with 0.1 M NaOH followed by DI or WFI water.
- If the Transmission Test still fails, contact Repligen's Analytics Support.

Flow Cell Specifications

Part Number	Type	Size	Max Flow Rate	Hold-up Volume	Max Pressure	Operating Temperature
OC2002	Stainless Steel	3 mm	1.5 LPM	0.9 mL	5.5 bar (80 psi)	1°C – 49°C
OC2001	Stainless Steel	10 mm	20 LPM	9.0 mL	5.5 bar (80 psi)	1°C – 49°C
OC2004	Stainless Steel	22 mm	160 LPM	47 mL	5.5 bar (80 psi)	1°C – 49°C
OC2017	Stainless Steel	1.5 in	225 LPM	144 mL	6.2 bar (90 psi)	0°C – 48°C
OC2012	Stainless Steel	2 in	250 LPM	266 mL	6.2 bar (90 psi)	0°C – 48°C
OC2008(-XR)	Single Use	3 mm	1.5 LPM	2.9 mL	4.1 bar (60 psi)	4°C – 40°C
OC2009(-XR)	Single Use	10 mm	20 LPM	24.6 mL	4.1 bar (60 psi)	1°C – 40°C
OC2010(-XR)	Single Use	22 mm	160 LPM	~130.7 mL	4.1 bar (60 psi)	1°C – 40°C