

PATsmart™ FlowVPX® with Beams™ System

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		✓		
System Suitability Test			✓	
Repligen Preventive Maintenance Service				✓

System Maintenance Guidelines

Quick Check Test	System Suitability Test
Perform with a new or clean Fibrette Optical Component. Passing criteria: 40.00% Transmission at Beams wavelength. Quick Check can be initiated in the Quick Kinetics app by clicking the icon (see right) in the top navigation bar. 	Run the recommended standard for the Beams wavelength: 260 nm, 280 nm, 310 nm: CHEM013 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. Clean fused silica vessels after each use. Rinse with water followed by cleaning agent (IPA, methanol, or ethanol). Rinse with water again, then air dry or spray with compressed air.
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.	
Optical Pathway Cleaning	Flow Cell Cleaning and Storage
Clean the optical path of the system to ensure optimal light transmission. - Use a lint-free wipe and compressed air to clean the Delivery Fiber tip. - Use a lint-free wipe with isopropyl alcohol to gently clean the Flow Cell window and detector module. - Wipe in a single direction 3 to 5 times. - Follow with a dry wipe as needed.	Flush with 0.1–0.5 M NaOH followed by deionized (DI) water or WFI. Short term (up to 2 weeks): Store in-line with 0.1 M NaOH in the flow path. Long term: Store dry. Flush with NaOH and then DI or WFI before letting dry. Use the plastic protective cylinder included in packaging to store the Flow Cell.

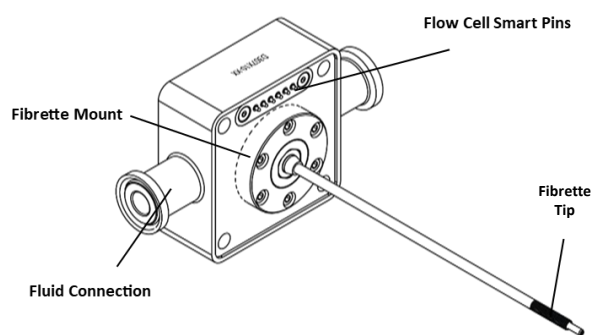
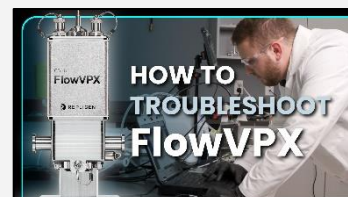
For additional help resources, check out the Repligen Knowledge Base: www.repligen.com/support/knowledge-base



Running a System Suitability Test



Cleaning & Maintenance

**Flow Cell Components****General Troubleshooting****Loading and Unloading the Flow Cell****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 Zero Not Found

On first failure, try again. On second failure, contact Analytical Support.

Transmission Test Failed

- Clean the end of the Delivery Fiber and 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 with 0.1 M NaOH followed by DI water or WFI.
- If the Transmission Test still fails, contact Analytical Support.

Flow Cell Specifications

Part Number	Type	Size	Max Flow Rate	Hold-up Volume	Max Pressure	Operating Temperature
OC2002-2	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	109.4 mL	4.1 bar (60 psi)	1°C – 40°C
OC2014-XR	Single Use	0.5 in	20 LPM	31.1 mL	4.1 bar (60 psi)	1°C – 40°C
OC2016-XR	Single Use	1 in	100 LPM	145.4 mL	4.1 bar (60 psi)	1°C – 40°C