

CTech™ FlowVPE 10 mm GxP Flow Cell Loading Procedure

Introduction

The purpose of this document is to become familiar and comfortable with handling the various components of the GxP Flow Cell as well as correctly following the loading and unloading procedures. The following instruction details these procedures, as well as the setup required for the FlowVPE hardware prior to the loading procedure.



WARNING



These instructions must be followed very closely, as they ensure proper loading and operation of the FlowVPE System. Failure to do so may result in damage to the Flow hardware.



The User is the Critical Link Between the Software and Hardware:

The user must tell the software when the Flow Cell is mounted and demounted. The software is set up to prompt accordingly, but the user must be aware of the current state of the hardware for safe and effective use of the FlowVPE System.

How to Load the GxP Flow Cell and Fibrette

1. Click on Load Controls in the FlowVPE sidebar. The Flow Head moves to the loading position and opens the Load Controls window.

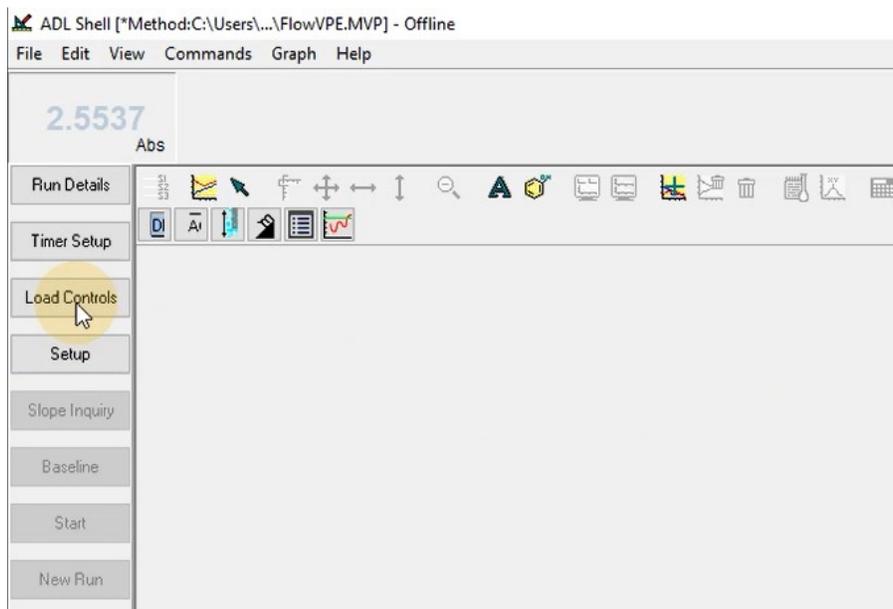


Figure 1. Load Controls button.

2. Make sure the Flow Cell is selected in the dropdown menu. Select FC-GxP10-SS for the 10 mm GxP Flow Cell.

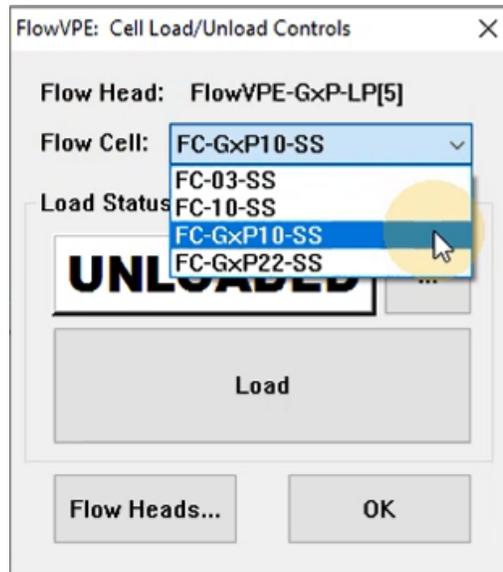


Figure 2. Select Flow Cell from Cell Load/Unload Controls window.



DO NOT CLICK LOAD UNTIL YOU HAVE MOUNTED THE
FLOW CELL AND FIBRETTE.



3. Input the serial number, which is located on the side of the Flow Cell. Make sure to type the serial number without the hyphen.

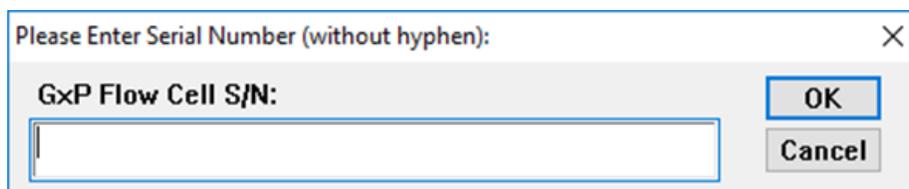


Figure 3. Serial Number prompt.

4. Line up the dovetail on the Flow Cell with the dovetail on the Detector Module, and gently slide the Flow Cell into place (see Figure 4). DO NOT FORCE THE CELL IF IT DOES NOT SLIDE EASILY. Remove the Flow Cell and try again, ensuring both sides of the Flow Cell are engaged with the Detector Module. For assistance in mounting the Flow Cell properly, refer to General Troubleshooting in the *FlowVPE User Manual* DOC0096.



Figure 4. Flow Fibrette Flange fitting into Fibrette clamp.

5. Slide the Flow Cell and Flow Fibrette into place. The Flow Cell will make a hard stop on the pin at the back of the Detector Module. The Fibrette will slide into the Fibrette Clamp.



Figure 5. Flow Cell mounting to Flow Head.

6. Secure the Flow Cell into the Detector Module using the four captive fasteners.



Figure 6. Securing Flow Cell to Detector Module.

7. Push up on the Handle Lock on top of the Fibrette Clamp to move it out of the way of the Clamp Handle, as shown in Figure 7 (left).
8. Pull the Clamp Handle down, towards yourself, to close the Fibrette Clamp over the Fibrette Flange, as shown in Figure 7 (right).
9. Apply pressure until the Handle Lock falls into place behind the Handle.



Figure 7. Closing Fibrette Clamp over Flow Fibrette.

10. Swing the Clamp Lock Arm all the way to the right and seat the thumb nut into the mating counter bore.

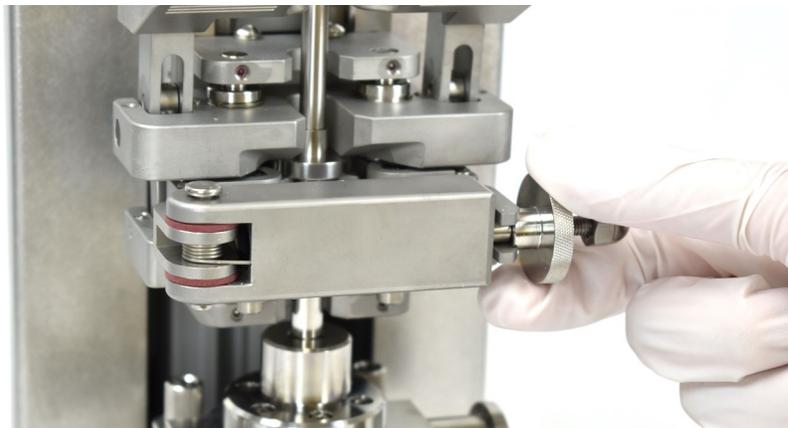


Figure 8. Locking Fibrette Clamp position.

11. Tighten the thumb nut into the mating counter bore until it makes a hard stop.

12. Connect the SC-ST adapter to the Flow Fibrette by aligning the spline of the Fibrette with the channel of the adapter. Gently insert the adapter fully into the locking collar of the Fibrette. Lift up and twist the collar to secure the pegs on either side, as shown in Figure 9.

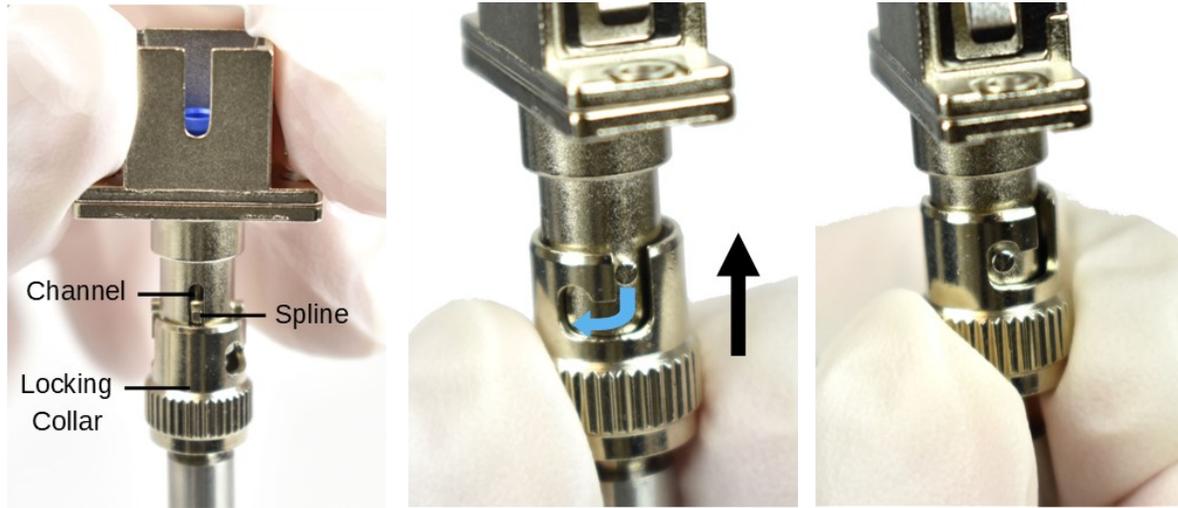


Figure 9. Securing SC-ST adapter to Flow Fibrette.

13. Insert the tan portion of the Delivery Fiber into the SC-ST adapter so the small spline on the tan Delivery Fiber connector lines up with the channel in the adapter.

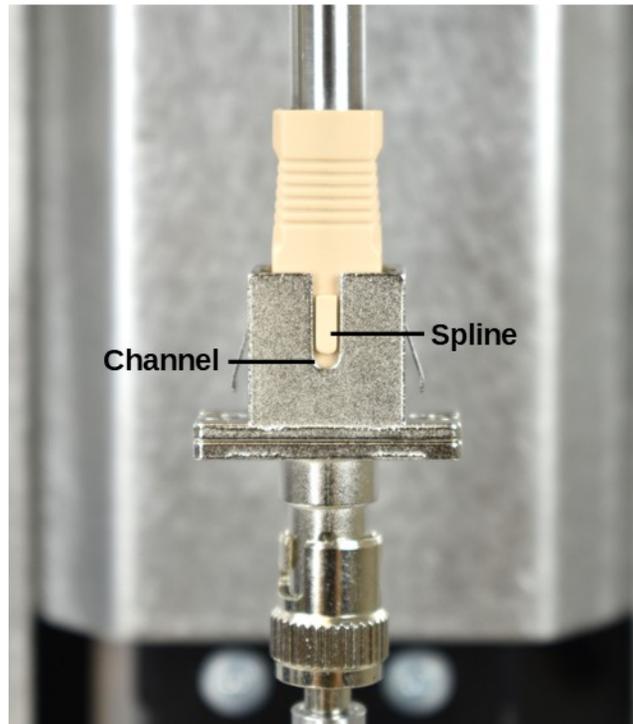


Figure 10. Delivery Fiber connected to Flow Fibrette.

14. Close the cover door. When the Flow Cell and Flow Fibrette have been mounted onto the Flow Head properly, the FlowVPE instrument will appear as shown in Figure 11. Continue the steps to finalize the setup process.



Figure 11. FlowVPE instrument with mounted Flow Cell.

15. Click Load to tell the program that the Flow Cell and Fibrette are mounted into the Flow Head properly.

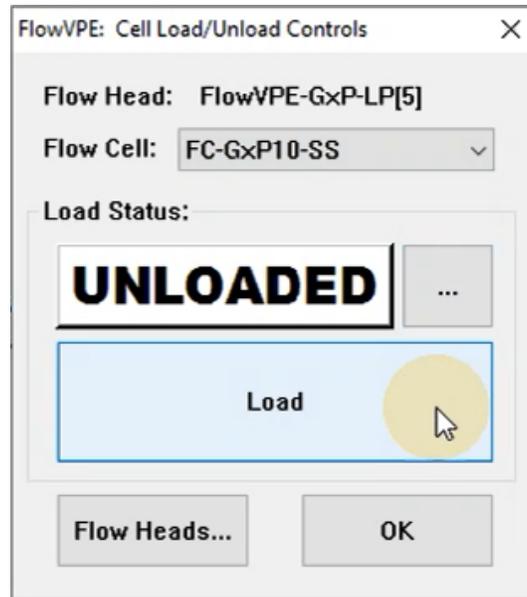


Figure 12. UNLOADED Status in Cell Load/Unload Controls window.

16. The Load Status in the center of the Load/Unload Controls box will turn blue and will show the Load Status as LOADED to confirm that the Flow Cell is loaded.

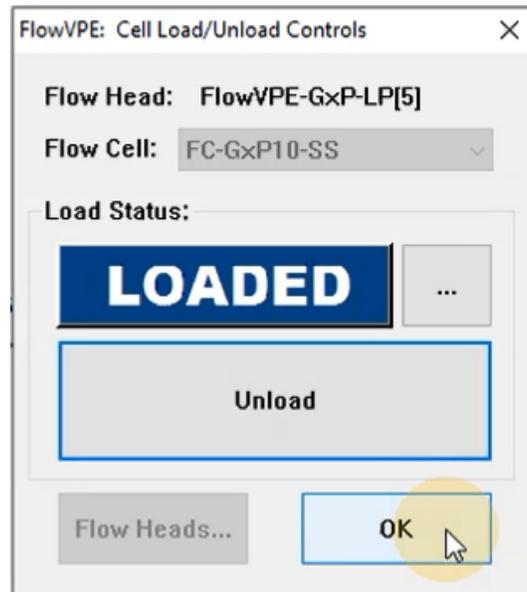


Figure 13. LOADED Status in Cell Load/Unload Controls window.

Congratulations, you have now successfully loaded the Flow Cell!

How to Unload the GxP Flow Cell and Fibrette

1. Select Load Controls from the sidebar in the FlowVPE software (Figure 1).
2. Open the FlowVPE instrument cover.
3. Disconnect the Delivery Fiber from the Flow Fibrette.
4. Loosen and open the Clamp Lock Arm by turning the thumb nut counterclockwise.
5. Push back on the Handle Lock.
6. Push up on the Clamp Handle to open the clamp.
7. Loosen all four captive fasteners on the Flow Cell Body to remove the Flow Cell from the Detector Module.
8. Gently slide the Flow Cell out of the Fibrette Clamp.
9. In the FlowVPE software, click on Unload in the Load/Unload Controls window.
10. Follow prompts in the software to fully unload the Flow Cell.
11. The Load Status in the Load/Unload Controls window should now read UNLOADED.