



SoloVPE Best Practices – V3

Solo Service Direct

Recommended Steps For Maintenance, Cleaning & Proper Use

908-707-1201

DOC0127 Rev. 01 Dated 04/14/2017

System Maintenance

Daily

Weekly

- **Perform a Daily Quick Check test: (%T ≥ 70%)**
- **Vessels:** Clean after each use. Follow your current procedure for quartz vessel cleaning. Water rinse followed by cleaning agent (IPA, Methanol or Ethanol). Rinse then dry.
- **Fibrettes:** After each use of a fibrette, you will store them in distilled water in a small beaker or neoprene tube to keep them wet. **Note: Do not soak too many Fibrettes in a container, otherwise will clump together.**
 - At the end of the day pour out water (**minimum 30 minutes**) and fill tube with IPA, Methanol or Ethanol and let it soak for 2 to 5 minutes.
 - Pour out solution and lay fibrettes out on paper towel to dry.
 - Wipe entire length of fibrette with a Kimwipe then **SPIN BOTH ENDS** on a folded Kimwipe.
 - Place the fibrette back in the clean tube for future use.

Fibrettes are not to be stored in water for longer than one day.

- **Cary Spectrophotometer:** Restart the Cary once a week. This is recommended by Agilent for consistent performance.
- **SoloVPE:** See section 4.1.2 in manual for *How To: Clean Delivery Fiber Surfaces.*
 - Disconnect Delivery Fiber from SoloVPE turning the nut counter-clockwise.
 - Fold a Kimwipe and firmly wipe the surface of the fiber connector surface in one direction three times.
 - (Optional) Use compressed air over connector surface
 - Reconnect Delivery Fiber making sure the connector key is properly positioned in the Delivery Fiber mount and tighten by turning nut clockwise
 - With no Vessel and no Vessel holder installed, blow compressed air across the Detector Window in the Sample Platform. Clean with a Kim Wipe if necessary.



- **Perform All Daily Maintenance Steps**

Monthly

Annually

- Perform All Daily and Weekly Maintenance Steps
- Run provided standard CHEM013 or your current UV standard. (ex: B.S.A.)
- Perform a Coupler Check. See section 4.4.7.2 in manual for *How To: Run a Coupler Check Test (%T ≥ 50)*.



- Annual System P.M. performed
- Service Contract

Both Services Provided by C Technologies, Inc

If issues arise during the performance of these procedures, contact the System Owner, Maintenance Group or the Vendor.
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Recommended Volumes

Vessel Size	Concentration Range	Sample Type	Volume
Micro	10mg/ml to 330mg/ml	Antibody / Protein	10ul / 20ul
Micro	1mg/ml to 5mg/ml	Antibody / Protein	30ul / 50ul
Micro	.1mg/ml to .9mg/ml	Antibody / Protein	100ul
Small			
Small	10mg/ml to 330mg/ml	Antibody / Protein	20ul/30ul
Small	1mg/ml to 5mg/ml	Antibody / Protein	50ul / 100ul
Small	.1mg/ml to .9mg/ml	Antibody / Protein	150ul / 200ul
Large			
Large	.01mg/ml to .09mg/ml	Antibody / Protein	2ml
Peptide			
Micro	10mg/ml to 80mg/ml	Peptide	10ul / 20ul
Small	.5mg/ml to 1mg/ml	Peptide	30ul / 50ul
Small	.01mg/ml to .1mg/ml	Peptide	80ul / 100ul

Best Practices for Use and Helpful Tips

Most Common Red Flag Regarding Cleaning or Low %T: If you start to see poor R² values, (less than .999) during measurements on samples you have had a successful history it could be a sign that something is dirty. Follow the weekly procedure and clean the optical fiber. Remember you want to see a %T value at or over 70% when using Quick Check. Now re-test the sample with new fibrette.

Fibrette Installation: Remember “Up to stop, then down a drop”. Fibrette loading is an important part of SoloVPE use. It is critical to remember to pull the Fibrette down slightly (3-8mm, if system has blue TBA coupler) after it touches. *It is better to err on the side of pulling down too much rather than too little*, especially when measuring highly concentration compounds. When wearing gloves users can mistakenly feel the displacement of the glove rather than the Fibrette.

Note: New Quickset Fibrette Coupler, you need to insert the Fibrette “Up to Stop, Up and Drop”. It is equipped with SureSet Fibrette technique allowing consistent Fibrette loading.

Keep It Clean: Like all spectroscopy measurement systems, cleanliness is critical. Always makes sure to use clean Sample Vessels and Fibrettes when making measurements. Follow the recommended cleaning procedures and schedules.

Baseline Correction Required? When making *Slope* based concentration measurement, frequently Baseline Correction is NOT Required. When there is no pathlength dependent absorbance contribution by buffer components at the method wavelength (e.g Water) Slope based method will yield equivalent results without performing Baseline Correction which saves times and consumables.

***Run your buffer using Quick Slope and if your Slope is at “≤ 0.01” at your WL of interest then Baseline Correction is not required.**

When Using Baseline Correction: When Baseline Correction is necessary, it is recommended that the **SAME FIBRETTE** be used for the Baseline acquisition and the Sample Data acquisition. Simply perform gentle wipe of the Fibrette while loaded in the SoloVPE with a Kimwipe or dry with canned clean air. Remember to “Up to Stop, Up and Drop” for the Baseline and Sample.