



The SmartBarrel system uses a flexible liner, made of inert polymeric films with selectable oxygen permeability. This flexible liner is placed inside a rigid container which serves only to support the liner, and can be of any shape – vertical cylinder, cubic box, or horizontal barrel/drum. The material of construction of the rigid container is not important as the wine does not come in contact with it. The unique feature of the SmartBarrel is the diptube. This tube has three connections. 1) for filling and emptying 2) to vent gas and sample, and 3) overpressure relief valve. The outer container does not need to be pressurized or even be leak tight. The wine is entirely contained in the flexible liner with the container only serving as a physical support.

Components:

Please verify that you have all the supplied components:

1. Diptube cap with selected filling port (typically 1 ½" Triclamp)
2. Perforated tube.
3. Clear Cover Plate
4. Cover plate hardware (2 inserts and 2 thumb screws)
5. 2 inch triclamp and gasket
6. 2 x 3 feet foam sheet

Disposables

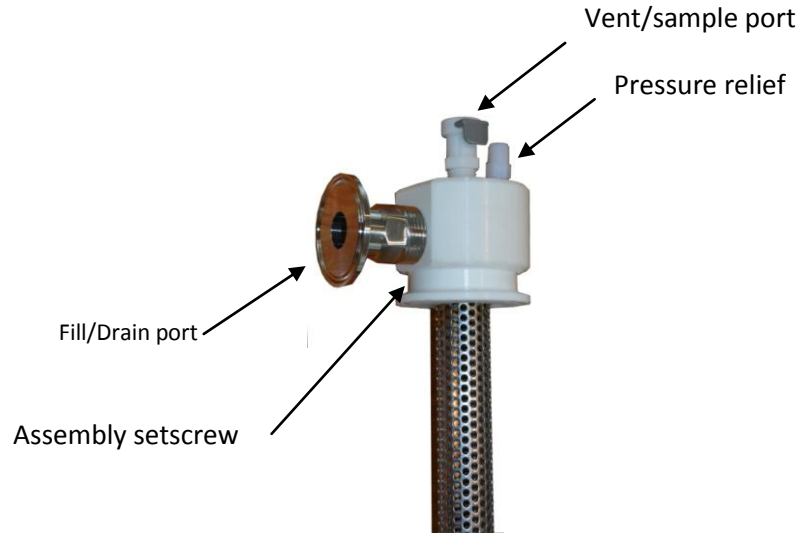
Single-use Smartbarrel liner

Preparing the barrel:

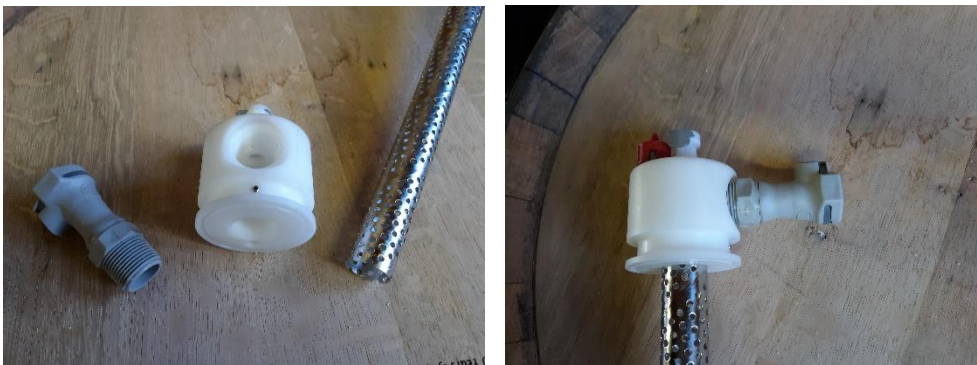
An opening will need to be cut at the bung hole to allow for the insertion and positioning of the liner. Barrel should be placed on rack or other solid mounting to prevent rolling. We recommend making a square opening from the edge of the 2 metal bands, no larger than 12" x 12". Sanding or filing of this cut edge is necessary to prevent damage to the liner during insertion. The interior of the barrel should be washed to remove any precipitates and checked for any sharp edges or splinters. The cover plate provided helps hold the diptube vertical while filling and pumping out, also helps keep drips or spills from entering the barrel. Use the plate as a template to mark where the mounting holes will be drilled into the barrel and the supplied inserts tapped in.



Diptube assembly:



Insert **open end of perforated tube** in to the head of the diptube assembly and secure with set screw (hex key included). Attach filling port adaptor ordered and use wrench to tighten.



Check the height of the assemble in your barrel, it should rest on the bottom and the triclamp connections should be 1 inch above the top of the barrel, this will accommodate the coverplate to lay flat across the cut opening and the connection of the liner to be above the opening. The length of the perforated tube may need to be cut to length because of the varying diameter of barrels, this is easily done with a hack saw.



Inserting the Liner and diptube assembly:

Inspect interior for anything that may damage the liner, sanding the interior may be necessary and insure it is clean and dry. Make sure that any tartarate crystal deposits are thoroughly removed by washing with hot water. These are sharp and can damage the liner. Place the supplied foam sheet inside the barrel so it covers the bottom surface. This sheet protects the liner from any sharp debris or wood splinters.

Liner placement is important to maximize filling volume by avoiding folds and pockets. If you are planning to add oak products, it is easiest to add them into the liner at this time. Next, lay the liner on a flat surface, folding the 4 corners up toward the opening of the liner.



Next, put the gasket on triclamp port and insert the dip tube. Brace the diptube against the flat surface and clamp the triclamp. Pull up the four corners of the liner and insert into barrel. Push out the four corners of the liner to maximize filling capacity.



Slide the plexiglass cover on with the slot facing away from the fill/drain port. Fasten the cover using the supplied knob screws

Filling the Liner:

Filling the liner can be done with almost any pump setup and even by gravity. Maximum fill rate is 10 gallons per minute. We offer 3 types of attachments, CPC HFC12 quick connect, 1½" TC or 2" TC, but also any fitting can be used that mates with a ¾" female NPT thread on the diptube.



Before starting to fill, inspect all connections to prevent leaks.

- Verified hose clamps are present and tight on all hose barb connections
- Check all threaded connections are tight, Teflon tape may be needed.
- Inspect hoses for any damage, small cuts or cracks.
- Inspect all o-rings on quick connections, if used.
- Inspect triclamp connection and condition of gasket between diptube and liner.

Nearing the end of the fill, pay attention to the small red pressure vent on the diptube assembly. We recommend attaching a small tube that runs to a container to catch the overflow indicating a full liner. A final air removal from the sampling port may be required to maximize the fill. Depending on connections used, disconnect your filling line from the diptube assembly. If a quickconnect is used then your liner will automatically be sealed, but if another type is used, **a cap or valve will be needed to close off the diptube inlet.**

Removing air or gases in headspace:

Any air trapped in the liner should be removed. Especially with a partial fill. Connect our cordless aspirator to the sampling port on the diptube and run it until wine is collected in the aspirator bottle.

Sampling

The wine may be sampled by attaching a hose to the sampling port and sucking out a sample. Our cordless aspirator makes this easy. The sample collected in the aspirator bottle can be removed and the contents analyzed.



Cordless aspirator/sampler

Emptying

The wine can be transferred out of the SmartBarrel by connecting a hose to fill/drain port. A pump is used to pump the wine out. The patented design of the perforated SmartBarrel diptube ensures that the wine is drawn from the surface. This ensures that the clearest wine is removed first. The liner will collapse around the diptube as the wine is removed. No headspace is created, and no topping off is ever necessary.

Removing the used bag

When the liner is empty, remove the plexiglass cover plate and pull out the empty liner. With standard 7" spacing steel rack this can be done without having to remove the barrel

Cleaning the assembly:

To thoroughly clean the assembly, it may be necessary to disconnect the head from the tube by loosening the set screw and pulling the tube out. A small brush can be used to clean the inside of the head. If using quickconnects, a male piece should be inserted to open the shut off on the female attachment. Also, if needed the red pressure relief can be opened, when reassembling be sure both O-rings are present and the spring loaded part is oriented to vent out the top.

Notes:

Only a small amount of gas buildup from primary fermentation or Malolactic fermentation can be handled by the small red pressure relief vent, another suitable setup should be used if primary fermentation is not complete.

The dip tube can be removed at any time to add oak alternatives into the liner bag. Then reinstall the dip tube and vacuum out any headspace through the sample port.

Scan to see the setup video:



Support: www.GOf fermentor.com

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