

Hobby Beverage Equipment Company

Synonymous with Professional Equipment

Use & Care of

MiniBrew
Fermenter

Designed for the small batch fermentation of
wine, beer and mead

Conical Bottom - Racking Valve
Thermometer Mounting
Full Size Man-Way Type Top
Rugged - Thick Wall - Polyethylene Construction

Dear Small Batch Brewer,

Whether you are starting a winery on your own land, have invented a new tea, building a small micro brewery, adding great tastes to your restaurant menu or just making great taste for your own consumption, we refer to everyone as a brewer and the product you are making as brew. We hope you don't mind. I guess we think of fermenting as brewing. With a MiniBrew fermenter you have the opportunity to brew great taste. If you are a restaurateur, micro brewery or brew pub, our small fermenters are an easy less expensive way to get started. You can develop the taste and the customer following before spending huge sums of hard earned cash. Once you gain the reputation and up grade to a larger unit, save our small vessel for yeast propagation and product development. If you are planning on making just enough for family and friends, you have purchased the right product. By following the simple directions your MiniBrew fermenter will last a lifetime. Please fill out the registration card and give us your comments on our products. If you have a good idea or improvement to our product line give us a call. All ideas we use will be rewarded with a free gift.

Advantages of the MiniBrew Fermenter

With a MiniBrew fermenter:

- Fill directly through the bottom and reduce the risk of infection. No more siphons.
- The large bottom valve will drain the thickest of yeast.
- Wine makers can add a nice blanket of CO₂ rather than top off or lowering the lid.
- No need for secondary transfer - brew like professional brewers - no more siphons.
- Prevent off-flavors by draining dead yeast cells daily without disturbing the brew.
- Use the racking port to fill kegs and bottles or for specific gravity samples and tasting.
- Measure specific gravity & temperature without risk of infection.
- Lager the wort by placing the fermenter in the refrigerator.
- Build a cooling system by wrapping tubing around outside and circulate cold water.
- Now gravity can do the work of moving the brew.
- Cleaning is easy. No more awkward bottle brushes or little tops to squeeze into.
- No more messy overflow – The stand is enclosed below the valve.
- Collect yeast for reuse and flavor consistency. Create a trademark, a unique flavor.
- Open ferment in the proper (clean) environment. Make a Lambic style beer.
- Full size top allows you to remove trub with a paddle the old fashion way.
- The ring around the fermenter and stand act as handles - moving is easy. Ever drop a carboy?
- Brew more flavorful and tasty beer and wine.
- Now you can aerate with measured clean oxygen while filling the fermenter.

About the Fermenter

All fermenter orders include the main fermenter vessel, stand, lid and all valves and parts necessary to ferment. Please check all parts delivered with the model you ordered. If fittings or parts are missing, ask the retail dealer where you purchased the product or notify the Hobby Beverage Equipment Company. All you need to do is clean thoroughly and start brewing. See parts list and assemble instructions in back.

The large 1" thread at the apex of the cone is designed so the thickest of yeast will flow and for filling directly from the kettle, primary red wine fermenter or cooling device without exposure to air or bacteria. The 1/2" thread on the side of the cone is for the racking arm valve. It is used for racking to either kegs or bottles, tasting and specific gravity testing without distributing the settled yeast or exposure to bacteria. The 1/2" thread on the side of the cylinder is for a thermometer. The two 1/2" threads in the lid are for an airlock and for our CO₂ injection pump. Thank you for purchasing the MiniBrew fermenter.

Cheers and Happy Brewing

Hobby Beverage Equipment Company

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HOW TO USE

Clean all equipment, everything thoroughly, with a good detergent. Rinse until all traces of soap and chemicals are removed. Sterilize with any of the standard agents available. We prefer 180 degree water.

Filling the fermenter

Gravity is a good way to fill the fermenter. However, pumps will work also. The lid should be in place on the fermenter and all parts clean and sterilized before proceeding. If you purchased the AirLock Kit it should be in place and clamped to the fermenter. Place the kettle or container holding the juice on a stand or table above the fermenter. Make sure the temperature is close to pitching temperature. Connect a hose from the container or kettle to the filling valve at the apex of the cone. The MiniQuick disconnect hose system is ideal for this application. Open the valves and gravity will do the work. A closed hose system is ideal because it protects the sensitive juices or wort from outside bacterial infection and provides an opportunity in the case of beer for programmed aeration. Once all liquid has drained from the container, close the fermenter bottom valve and disconnect the hose system.

Beer makers might consider a cooling system in-line between the kettle and the fermenter. Some brewers let the trub settle to the bottom or filter it out with an in-line filter during transfer. Once in the fermenter trub and lees will settle to the bottom for removal. White wine makers can go directly from the press to the fermenter. Red wine requires a primary fermentation in our 10 gallon MiniRed Wine Primary fermenter. Upon completion, press skins and lees then transfer the red juice into the MiniBrew fermenter for the final fermentation. Wine makers may consider our CO₂ injector pump. The pump allows you to add a layer of CO₂ on top of the wine for protection against bacteria. This may be more important near the end of the fermentation cycle.

Aeration

Boiling removes air from the wort and the yeast needs air to survive and work. Air, or better yet, clean oxygen needs to be replaced. The ideal way is to inject clean oxygen used for medical applications into the wort as it drains from the kettle into the fermenter. This can best be accomplished by using our new Aerator pump or insert a "T" fitting in the hose system in-line between the kettle and the fermenter. If you use an in-line cooling system or filter, place the "T" last in the line before the fermenter. The clean air needs space to mix with the wort. Therefore, place the "T" at least five tubing feet away from the fermenter. The oxygen flow rate needed is approximately 2 PSI. With our new oxygen Aerator Pump there is no need to shake the fermenter as is recommended by some. Wine does not need aerating.

Pitching the yeast

Once you have the wort or wine juice in place and the right pitching temperature, pitch the live yeast. Either pour it through the airlock hole or lift the lid. Replace cover or airlock immediately. Fermentation should start within a few hours. Without an airlock it is more difficult to tell when it starts. Do not worry, you will get used to the feel and the sound of fermentation. Check with your home wine and beer supply store for the proper live yeast starter size for the batch size you are fermenting. Within 24 hours of fermentation start, cells will start to die and collect at the bottom. Place a container under the bottom valve and open carefully. Do not open full. Remove the dead cells daily. You can't remove all of them, don't even try. A spray bottle filled with a mixture of bleach and water is needed to spray the valve end each time before it is opened and after closing. This procedure will wash out any excess yeast and disinfect the valve. The live yeast in suspension will become more active each time old cells are removed. A small amount of wort or wine can be removed from the racking valve each day for tasting and specific gravity reading. Record the specific gravity and liquid temperature in a log daily. Sometimes very active beer yeast will bubble over the top. The excess will run down the sides into the bottom. When this occurs, spray the outside of the fermenter and inside the stand with a bleach solution after soaking up excess with a clean cloth. Because CO₂ is heavier than air, our new Injector Pump will place a layer that will settle on top of the wine protecting it from bacteria. The thickness per cylinder ranges from 1 1/2 inches for the 40 gallon fermenter to 3 1/2 inches for the 8 gallon fermenter. Add more anytime.

Racking

Once you have reached your projected specific gravity and you are satisfied fermentation is complete, prepare for racking. The valve on the side of the cone is for specific gravity testing, bottling and keg filling, called racking. If you choose to save live yeast for your next batch, do not remove the yeast from the bottom the day before you rack. About 30 percent of the yeast is alive. Check with your local retail store for instructions on cleaning and saving yeast. You can rack directly to bottles or a soda keg. Use a bottle filler and racking hose to fill bottles. The plastic bottle filler tube is much easier than other methods of bottling. For keging, connect the racking hose ball lock to the keg

on the outlet side. This is the side with the stainless steel tube inside. Press the other end of the hose to the racking valve barb connector or quick disconnect on the racking valve. Open the racking valve and fill the keg. Once the keg is full, close tight and in the case of beer pressurize to 22 PSI, shake and place in a cold room or ice box. With wine, hook up to a dispensing system cool and bottle as needed or serve.

Yeast Propagation

The final yeast left in the bottom after racking can be reused. Brewers like to use the same yeast over and over again for three reasons. One: Provides consistency to a product. Two: Reduces cost. Three: I feel the most important reason is yeast will grow and develop into a unique product; a special taste that is yours alone. It becomes your personal trademark. The most important issue that you must be aware of is the yeast could become infected. Home brewers have told me they do not reuse the same yeast more than four or five time. Professional brewers have access to laboratories with a microscope. They check for bacteria daily. The local winery or brew club might be interested in a joint purchase of a surplus microscope. The volume of yeast needed for reuse is very small. The yeast left in the bottom of the fermenter will layer. The middle layer is the best. This good yeast has a color that is almost white with a slightly yellow cast. Therefore, drain off the bottom and watch for the color to change. Collect the middle layer, just a scoop full is enough. Place in a sterile jar and save at 38°f. This slurry of cropped yeast should last about two weeks. You will need to propagate the slurry up to the required volume a day or two before your next ferment. This will also ensure that your yeast is healthy and viable. Wash away the excess. Now you are on the road to creating your own unique flavors and tastes. Ask your local retail store for more information on yeast propagation.

Care and Cleaning

Clean all parts before assembly. Once assembled, remove the top and clean again. Rub the inside thoroughly with a soft cloth and a nonabrasive cleaner. A Teflon® type cleaning pad can be used. Always be careful to remove all residues from inside the MiniBrew fermenter after use. The last step is to sterilize. Pour hot water at 180° temperature down the sides or use two gurgles of bleach diluted with water.

Miscellaneous

Now you can brew with all the convenience and the options of a Master wine maker or brewer. Ask your local homebrew and wine store for details on future MiniBrew products. Please contact your local retail store for directions on use. They will assist you if you want to connect a pump or change fittings.

Other uses

Becton Dickinson, the billion dollar pharmaceutical company purchases our 8 gallon fermentation tanks (without the label) for use in a blood plasma separation device they manufacture. Blood is drained into the tank and part of the liquid is absorbed by material in the tank with the clean blood removed from the bottom. The United States Geological Survey has purchased our 40 gallon fermenters for use in checking on pollutants of our river and streams. The suspected water is placed in the tank and the illegal substance settles to the bottom valve and removed for inspection testing.

Manufacturing

MiniBrew products are manufactured from high density food grade polyethylene. Threads are molded separately for added strength and quality. The inserts are welded in after the mold cools. The molding process creates a stress free product. This is why we can drop test without damage. The plastic is sealed in the manufacturing process. A scratch could create a place for bacteria to grow. Many say a scratch will ruin plastic. If this is true, will a scratch also ruin stainless steel? Scratches in plastic can be repaired with much less effort than stainless steel. Plastic will not oxidize. Stainless steel can rust. The plastic resins used are HD-8600 series Escorene linear high density polyethylene. This tough plastic is resistant to all chemicals used in the brewing process. The plastic melts at 250°. Your new equipment will last a lifetime with proper care.

FOR BEST RESULTS BREW WITH PROFESSIONAL EQUIPMENT

The MiniBrew Fermenter

Parts include:

- 1 1/2" racking port valve
- 3 1/2" npt plugs - two for the lid and one for the thermometer mounting thread.
- 1 1" loading & dead yeast removal valve
- 1 1" threaded nipple for the bottom valve
- 1 1/2" threaded nipple for the racking port valve
- 1 1/2" threaded X barb connector for the racking port valve
- 1 Stand
- 1 Fermenter
- 1 Manway type lid
- 1 Teflon Tape
- 1 Directions - Use & Care

How to place measure marks.

Use a felt tip pen for marking - Don't worry, acetone will remove the mistakes and not hurt the plastic. Use a container that you know to measure one gallon. Close all the valves - pour in one gallon and mark - continue this until full.

Hobby Beverage Fermenters

SIX RECIPE SIZES

- f6.5 - capacity 6.5 gallons
- f8 - capacity 8 gallons
- f15 - capacity 15 gallons
- f25 - capacity 25 gallons
- f40 - capacity 40 gallons
- f100 - capacity 100 gallons

Assembly Instruction

- 1 Clean and sterilize everything. Do it again.
- 2 Teflon wrap all threads - **DO NOT OVER TIGHTEN THE FITTINGS.**
- 3 Make sure the ball valves will open and close. They stick sometimes the first try. Screw the 1" nipple into one end of the large valve. Think about which way you want the valve handle to open
- 4 With the fermentor on its top set the 1" nipple and valve into the threads. Turn backwards a few turns then forward making sure the nipple and valve screw in straight. Be careful not to cross thread. After a few turns look at the valve. Is it going in straight? Tighten so the handle centers below the label.
- 5 Place the fermentor on the stand.
- 6 Screw the 1/2" nipple into the 1/2 inch valve. Screw the 1/2" nipple and valve into racking threads.
- 7 Screw the 1/2" plug (or thermometer) into the 1/2" mounting thread on the side of the cylinder.
8. Screw the two 1/2" plug into the threads on the lid. If you purchased an Air Lock Kit, screw the airlock fitting into the threads in the lid. If you purchased the CO₂ Injector pump, screw the 1/2 inch fitting with the Schrader valve in the center into the other 1/2" thread in the lid.
9. The threaded barb connector is for connecting a tube to the racking valve. Screw into the 1/2" valve.

CAUTION

CROSS THREADING IS EASY

Turn fittings backwards on threads before screwing into tank
Check and make sure the valves and fittings are straight

BE CAREFUL

DO NOT

Cross thread when installing screw in parts - Over tighten screw in parts - Use abrasive cleaners

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Registration Form

Thank you for purchasing our brewing equipment. We have designed these products for you, the small batch brewer. We would like to know more about you and the store where you purchased our equipment. Please help us provide the equipment or supplies you need. Kindly take a minute to complete and mail.

Name _____
Address _____
City, State and Zip code _____
Telephone _____ Product purchased _____
Name of store where purchased _____
Purchased _____ Gift _____ Date acquired _____ Price paid \$ _____
How did you hear about our us? Store _____ Advertising _____ friend _____
Would you like to be on our mailing list? Yes No
Years brewing? _____ Batch Size _____ Extract or Grain _____
What would help you brew better Wine, Beer, Tea, Mead? _____
What products do you need? _____
Other comments that might be useful about our products.

Fold here

We thank you - Happy Brewing,

Hobby Beverage Equipment