

*Hobby Beverage Equipment Company*

Synonymous with Professional Equipment

Use & Care

The Affordable Conical  
MiniBrew  
**6.5**

# **Fermenter**

New threaded fittings thicker tank walls  
a superior quality tank  
still affordable

Designed for the small batch brewer  
of mead, wine, beer & cider

Conical Bottom - Polyethylene Construction - Large Top Opening - Professional Design

Dear Small Batch Brewer,

Whether your plans are to make wine, mead, beer or cider, 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 the new Affordable Conical fermenter you have the opportunity to brew great taste with the best professionally designed equipment available. All you need is a good imagination and you're on the road to brewing great taste. Microbreweries, wineries and brew pubs use our fermenters for pilot brews and yeast propagation. Affordable Conical Fermenters will last a lifetime if you follow the simple directions. Please fill out the registration card so we know who you are. If we find a good idea, we will let you know. If you have a good idea, or an improvement to our product line, please let us know. All ideas we use will be rewarded with a free gift.

### The Affordable Conical MiniBrew 6.5 gallon fermenter:

- Affordable means less cost to you - add attributes as you need them.
- New threads (welded in place) and thicker walls for a simpler assembly and superior design
- No need to ever lift a carboy again. Ever drop a glass carboy? Never again.
- Fill directly through the bottom and reduce the risk of infection. No more siphons.
- No need for a secondary transfer - remove the yeast - leave the brew in place.
- Stop OFF flavors - drain dead yeast cells daily without disturbing the wine or wort.
- Racking port is welded in place - use for tasting in process, specific gravity and for bottling.
- Measure specific gravity & temperature without risk of infection.
- Small size will fit into most refrigerators. Now you can lager with ease.
- Build cooling system by wrapping tubing around outside and circulate coolant.
- Gravity can do the work of moving the juice. No reason to buy a pump.
- Cleaning is easy. No more awkward bottle brushes or little tops to squeeze into.
- Collect yeast for reuse and flavor consistency. Create a trademark, a unique flavor.
- Open ferment in the proper (clean) environment. Make a Lambic style brew.
- Large five inch top opening allows for trub removal during fermentation the old fashion way.
- Rings in the stand act as handles - moving is easy - or it is easy to build a rack for the ice box.
- Brew more flavorful and tasty wine and beer - Makes better wine or beer!
- Now you can aerate with measured clean oxygen while filling from the bottom.

### About the Fermenter

There is now only one Affordable Conical model the f6.5. Please check all parts. If fittings or parts are missing, ask the retail dealer where you purchased the product or call Hobby Beverage Equipment Company. See packing list (on UPS label) and parts list for assembly instructions on page 5. The MiniBrew 6.5 Affordable Conical comes ready to brew. No other parts are required. All you need to do is clean thoroughly before use.

Thank you for purchasing the MiniBrew 6.5 Fermenter from the Hobby Beverage Equipment Company.

Cheers and Happy Brewing,

*Hobby Beverage Equipment Company*

YOU CAN'T BUY WHAT YOU CAN BREW

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## HOW TO USE

### **Clean all equipment**

Clean everything thoroughly. Sterilize by pouring 180 degree water down the sides or use agents recommended by your local homebrew store.

### **Filling the fermentor**

Gravity makes filling the fermentor a snap. Remember, liquid seeks its own level. You may have to raise the level of the kettle or container holding the juice. Cool the wort to near pitching temperature. Connect a hose from the bottom container or kettle outlet to the filling valve at the apex of the fermentor cone. The lid should be in place on the fermentor and all parts clean and sterilized. Open the valves and gravity will do the work. A closed hose system is ideal. It protects the sensitive liquid from outside bacterial infection and provides an opportunity for programed aeration. Once the fermenter is full, close the bottom valve and disconnect the hose. Even though the plastic is rated at 180°F it is a good idea to cool the wort before the transfer. Once in the fermenter, the hops, trub and lees will settle to the bottom and can be removed. It is imperative to spray the valve with bleach diluted (15 to 1) with water before opening and after closing.

### **Aeration**

Wine makers can skip this section. 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, hospital type oxygen into the wort as it drains from the kettle into the fermentor. This can best be accomplished by inserting a "T" fitting in the hose system in-line between the kettle and the fermentor. If you use an in-line cooling system or pump, place the "T" last in the line before the fermentor. The "T" needs about five feet of tubing before the fermenter to assure a good mix of air and wort. An oxygen bottle and regulator can be rented or purchased from a hospital supply store. Set the oxygen flow regulator to approximately 2 pounds. The new Hobby Beverage oxygen injector also works great and is easy to use. With our injector there is no need to shake the fermentor as some recommend or place an aeration stone in the tank.

### **Pitching the yeast**

Once you have the wort or juice in place and the right pitching temperature, lift of the lid and pitch the live yeast. Replace the lid immediately. Fermentation should start within a few hours. Check with your home wine and beer supply store for the proper live yeast starter size for five-gallon batches. Within 24 hours of beginning, fermentation cells will start to die and collect at the bottom. Place a container under the bottom valve, open carefully and remove the dead cells daily. A spray bottle filled with a mixture of bleach and water is needed to spray into the valve before opening and after closing. This procedure will wash out any excess yeast and disinfect the valve. The live yeast in suspension will become more active (this doesn't happen with a carboy) each time old cells are removed. Save a small amount of the last part of the wort removed each day, for tasting and specific gravity reading. Record the specific gravity and wort temperature in your log. Sometimes very active yeast will bubble over the top. The excess will run down the sides. When this occurs, spray the outside of the fermentor with a diluted bleach solution. Soak up the excess liquid with a clean cloth. Wine makers need not remove the dead yeast cells everyday. Wine does not produce as much yeast as beer.

### **Racking**

Once you have reached your projected specific gravity and you are satisfied the beer or wine is finished, prepare for racking. With the Affordable Conical this is done from the 1/2 inch racking port valve. Set the fermenter on a table above the bottles or keg for filling. Before you begin racking, open the valve to clear trub and dead yeast cells from the valve. Connect a 1/2 inch tube to the racking port plastic barb connector. Place the other end of the tube in the keg or container to be filled. The racking tube should touch the bottom of the keg so the beer or wine does not splash and become infected. Open the valve and drain all the finished juice into the keg. Close the keg and add recommended pressure for beer. With wine, inject just enough CO<sub>2</sub> to cover the new wine. Bottles can be filled from the keg also. Clear the bottle filler line before filling the bottles by draining some liquid into a cup. Clean and sterilize the fermenter and all equipment after use.

## Yeast Propagation

The racking port has another use besides racking. The port location (the smooth circle on the side of the cone, a few inches above the apex or a 1 5/8 inch hole depending upon the AC model purchased) is placed so the finished beer *can* be removed, leaving some live yeast below the port. If you did not purchase the racking port assembly, the yeast should be removed before racking from the bottom valve. About 30 percent of the settled yeast is alive and 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: If handled properly, it will grow and develop into a unique product; a *special* taste that is yours alone. It is your unique trademark. The most important issue that you must be aware of, is the yeast may become infected. Home brewers have told me *they do not* reuse the same yeast more than four or five times. Professional brewers have access to laboratory equipment such as a microscope. They check for bacteria daily. Your homebrew club could check into the purchase of a surplus microscope. The volume of yeast needed for reuse is very very small. The yeast as it settles to 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, as you drain off the yeast, watch closely and collect the middle layer (use a small scoop or spoon) place it in a sterile jar and save at 38°F. This yeast slurry should last about two weeks. You will need to propagate the slurry up to the required volume a day or two before your next brew. 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 taste. Ask your local homebrew 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 may be used. Cleaning is easier if after use you remove all residue from inside the fermenter before it dries. The last step before use is to sterilize. Use a diluted solution of bleach in water or pour 180 degree water down the side. The heat sinks into the plastic and will kill all bacteria. However, all popular sterilizing agents will also work great and none will harm the plastic. PBW with hot water is an excellent agent. Try a tube of Cascade Plastic Booster gel from the supermarket, it has caustic soda in it and works great. The plastic will melt at 250 degrees. There is no reason to boil the parts.

## How to place measure marks.

The MiniBrew 6.5 has gallon marking as a part of the mold. However, you may have special levels you wish to mark. Don't worry, acetone will remove the mistakes. Use a container that you know will measure the quantity you want. Close all the valves, using water to pour in the right amount. Mark with a felt tip pen.

**Brewers win Gold Medals** with beer fermented in plastic fermenters at the Great American Beer Festival. With the MiniBrew fermenters the Gold Medal is up to you. You can brew with all the convenience and the options of a commercial brewer. Ask your local homebrew store for details on future Hobby Beverage Equipment products. Please contact your local homebrew store for directions on use. They will assist you if you want to connect a pump or change fittings.

BREW WITH PROFESSIONALLY DESIGNED EQUIPMENT

## Manufacturing

The MiniBrew products are manufactured from food grade polyethylene. The molding process creates a stress free product. No bending and welding. No coating to penetrate as with stainless that causes deterioration. Some people say, "a scratch will ruin plastic fermenters." If this is true, will a scratch also ruin stainless steel? Scratches in plastic can be sterilized quite easily. Plus is no reason to worry about rusting. Plastic welds will not oxidize and leak as with stainless. 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. Your new equipment will last a lifetime with proper care.

### MiniBrew Fermenter sizes

**MiniHot Liquor Tank**  
15 gallons

6.5 gallons  
8 gallons  
15 gallons  
25 gallons  
40 gallons  
100 gallons

**MiniMash Lauter Tun**  
holds up to 35 pounds of grain  
and 15 gallons of water

## MiniBrew 6.5 Gallon Fermenter (f6.5)

### Fermenter Parts:

1 3/4 inch ball valve  
1 3/4 inch nipple  
1 1/2 inch ball valve  
1 1/2 inch nipple  
1 1/2 inch thread/barb connector  
1 Airlock with stopper  
1 Yellow lid

### Stand parts:

3 17 inch aluminum legs  
2 white 10 inch pvc rings  
6 bolts, washers and nuts  
6 black leg end plugs

### Stand assembly instructions:

Set the two PVC rings on a table, one on top of the other. Locate the six bolts, nuts and washers. The top of the aluminum legs are identified by the bolt holes closest to the end. Hold one leg vertical and place one ring against the top inside of the hole. Push a bolt from the outside of the leg through the PVC until it protrudes to the inside. Place a washer on the protruding bolt, finger tighten the nut. Repeat this procedure until all three legs are bolted to the top ring. Complete the lower ring in same manner. Once assembled, stabilize and tighten nuts, careful not to overtighten. Scratches in the rings and legs can be removed if necessary. Use steel wool or a buffing compound. You may build a box with two circles, one smaller than the other, to support the fermentor.

### Tank assembly instructions:

**Clean and sterilize everything. Do it again.** Teflon wrap (2 or 3 turns) all threads. **Do not over tighten.** Make sure the ball valve will open and close. They are a little stiff during the first few uses. Screw the plastic nipple (short tube with threads) into the valve. With the fermentor setting upside down, on its top, set the nipple and valve into the threads at the end of the cone. Turn backwards a few turns then forward making sure the nipple screws in straight. Be careful not to cross thread. After a few turns look at the valve. Is it going in straight? Line up the handle with the label. **Do not over tighten.** Place the fermentor on the stand.

### Racking port assembly instructions:

The new racking port is welded into the tank and is a permanent part of the Affordable Conical Fermenter. I think you will agree the welded fitting is far superior to the old bulk head fitting used on older model Affordable Conical fermenters. Put two turns or more of Teflon tape on the nipple before starting to thread. Screw the 1/2 inch nipple into the 1/2 inch valve. Now place the nipple with valve attached into the racking port thread on the side of the cone. Don't forget to add Teflon tape to this end also. Turn backwards a few turns before starting the nipple into the threads. It is easy for the threads to screw in crooked. Make sure the threads are going in straight. Once started straight, screw in until tight. Now Teflon tape the thread/barb connector and screw into the outside end of the 1/2 inch valve. Tighten securely and test for leaks with water. If there are leaks, take apart and use more Teflon tape. The racking port is used to test for specific gravity, tasting and for racking into your bottling line or kegs.

**DO NOT  
CROSS THREAD WHEN INSTALLING SCREW IN PARTS  
OVER TIGHTEN FITTINGS ---- USE ABRASIVE CLEANERS**

STAMP

Hobby Beverage Equipment Company  
Box 1387  
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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, mead tea? \_\_\_\_\_  
What products do you need? \_\_\_\_\_  
Other comments that might be useful about our products.

Fold here \_\_\_\_\_

We thank you - Happy Brewing,

*Hobby Beverage Equipment*