

Hobby Beverage Equipment

Synonymous with Professional Equipment

Use and Care of

The MiniBrew
Mash Lauter Tun

Designed for the Small Batch Brewer

Flat False Bottom Will Not Float
Superior sparge head - less clogging & moving parts
Thermometer Mounting - Sight Glass
High Extraction Rates - Professional Design
Extra threads for RIMs and other uses

Dear Small Batch Brewer,

With a MiniBrew Mash Lauter Tun you have the opportunity to make your own wort. You have more opportunity to brew great beer. The new mt15 is designed for five and ten gallon batches. MiniBrew Mash Lauter Tun equipment will last a lifetime if you follow the simple directions. Please fill out the registration card. 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. We like to know what's brewin'.

ADVANTAGES OF THE MINI-BREW SYSTEM MASH LAUTER TUN

- ✓ Proven, time tested design, higher yields.
- ✓ Flat screen makes a superior filter and there is less chance of a stuck mash. It will not float.
- ✓ The NEW false bottom provides more screen support. It is secured down with a wing nut for easy removal.
- ✓ It is easier to stir without disturbing filter bed when you have a flat screen .
- ✓ The thick polyethylene walls hold the heat longer than stainless steel (colder areas may require a jacket).
- ✓ The sparge head distributes water gently and evenly. There are no moving parts.
- ✓ Channeling will more likely occur in slit pipe drain or domed shaped screen.
- ✓ Extra threads are provided in the sides. This means more opportunity for creative ideas such as RIMs and HERMs.
- ✓ New sparge head only requires a twelve inch water drop.
- ✓ The Teflon sight glass indicates, at a glance, the liquid level in the tun.
- ✓ The MiniMash will last longer than Gott or any other camping cooler ten to one.
- ✓ There is no comparison with the new MiniMash Lauter Tun.

What's included when you buy?

All MiniMash Lauter Tun orders include everything needed to mash and lauter. Please check all parts delivered against the list on page five of these instructions. If fittings or parts are missing, ask the retail dealer where you purchased the product or notify the Hobby Beverage Equipment Company. To begin, clean everything thoroughly, warm vessel and start cooking the grain. See parts list and assemble instructions in the back.

Thank you for purchasing our professionally designed MiniBrew System.

Cheers and Happy Brewing,

Hobby Beverage Equipment Co.

How to use

The lauter tub is the vessel used to separate the sweet wort from the mash solids. It is the most widely used method of wort separation in the world today. In other words, the lauter tub is a filtering system where the husks and other undissolved matter, acts as the filter.

The mash tun is where the grains are cooked. The cooking process accelerates the enzymatic activity started in the malting process and dissolves about 10 to 15 percent of the substance into solution. The thick polyethylene wall transfers heat (cools) slower than stainless steel or copper. The mash temperature can be regulated by adding hot water from a MiniHot Liquor Tank or kettle or by insulating the outside with a blanket.

Brewers may be concerned about extraction efficiency; the amount of wort obtained from a given amount of grain. The issues that effects efficiency are depth of the grain bed, pH, run off time, channeling, filter type, (screen or pipes) cooking temperatures, grain bed compaction and water level in the tun. Over suction with a RIM pump or just a wide-open valve may also be a cause of low extraction rates. The sight glass is helpful in maintaining the balance. The primary concerns are pH, temperature, aeration and destruction of enzymes.

Warming the Mash Tun

Warm the MiniMash before using by filling with hot water. Use water hotter than you want the expected grain cooking temperature. Once the tank is warm dump out the water and start filling with grain.

Grind the grain

Mill the grain into grape nut size chunks. If each grain was cut into thirds you would have the grain mill set about right. You should not have a lot of powdered grain or broken husks.

Placing the Grain in the Mash

Fill the Mash with water at the temperature called for in the recipe until it reaches the top of the screen. Pour in enough grain to cover the screen plus a few inches. The stainless steel bolt prevents the screen from floating. Add water from the sparge and more grain as quickly as possible so that all grain is wet. Check the temperature. Cold grain will lower the water temperature about ten degrees. Experiment so you know what temperature drop to expect. Good records will assist with the adjustments necessary to become more accurate with future brews. Record temperature, pH and time in your log. Use our ProMash recipe software. It comes in handy and provides great records.

Cooking the Grain

Maintain the predetermined temperature by adding hot water. Recirculate the water if the liquid level is too great. Recirculation may pick up husks and other small matter. Consider using the threads at the top rear of the tun as a wort inlet. Check the pH level during the process and adjust accordingly. See research articles that discuss temperature levels, the amount of water verses amount of grain and cooking time. Generally it takes about ninety minutes to cook the grain.

Sparging the Grain

Once the grain is cooked, the sweet wort must be filtered out. The new sparge head works like a sprinkler. About twelve inches of gravity creates enough pressure to spray hot water over the grain bed. The top of the grain bed should be one or two inches below the top sight glass hole. Leave enough room for 1 /2 inch or less of hot water on top of the grain. Keeping the grain flooded reduces the need for the sprinkler effect of the sparge head. See Tips from the Pros in the November 2000 issue of Brew Your Own.

The mash solids form the filter bed on the false bottom. The dough-like fines settle first with small particles of endosperm generally increasing in size, until the top layer will consist of husks not crushed in the grinding process. The gentle circulation of the liquid and grain in the MiniMash/Lauter helps to establish the filter bed. Raking the grain occasionally allows the husks to settle and form a good filter. Do not disturb within 1 /2 an inch of the

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screen. A large wide plastic or stainless steel fork with four or five tines bent in the shape of a rake will work as a tool to mix and stir the grains. Stir the grain again so particles are free to settle randomly on the screen. The filter bed is critical to the sparge process. Some brewers say the filtering action of the lauter tub maybe one of the most important steps in the brewing process. Stirring prevents channeling and compaction of the bed. When the wort is ready it will run clear and can be drained directly into the kettle for boiling.

Transferring to the Kettle

Wort can become infected or aerated when transferred from the tub to the kettle. The hose from the MiniMash Lauter Tun should reach to the bottom of the kettle. If your kettle has a lower valve, fill the kettle through this valve and leave the kettle covered. In any case, do not let the wort splash on the bottom. A closed hose system, such as the MiniQuick Hose, is ideal to prevent infection and aeration.

Suggested Reading

Brew Your Own November 2000 edition page 9, Tips from the Pros section. Brewing Techniques Magazine volume 5(4) September 1997, volume 5(3) May/August 1997, volume 3(4) September/October 1995, volume 3(3) May/June 1995, volume 3(2) March April 1995. See the RealBeer Page on the web for BT articles.

Care and Cleaning

Clean all parts before assembling. Once assembled clean again. Rub the inside thoroughly with a soft cloth and a nonabrasive cleaner. A Teflon© type cleaning pad may be used. Always be careful to remove all residues from inside the MiniMash Lauter Tun after use. A diluted solution of bleach works well for sterilization. The new sight glass is Teflon tubing and with stand very hot temperatures. The last step is to sterilize. Pour 180 degree water over everything. There is a new plastic cleaning on the market. It is called Casacade Plastic Booster. You can buy it in the grovcery store. Look for a green 8 ounce tube in the soap/dishwasher section. This new cleaner will take out all stains and and odors. Wash your equipment with this new cleaner. Follow the directions on the tube.

CAUTION

CROSS THREADING IS EASY

Turn fittings backward on threads before screwing in

BE CAREFUL

DO NOT

Cross thread when installing screw in parts

Over tighten screw in parts

Use abrasive cleaners

Product Manufacturing

MiniBrew System products are manufactured from high quality food grade high density polyethylene. The molding process creates a stress free product. 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? Plastic can be sterilized by pouring 180 degree water down the sides killing all bacteria. Also, the scratch can be repaired by scraping (you must grind then polish stainless steel) away the plastic around the edges so as to widen the width of the scratch. This allows cleaning agents to get into the area. Threads are molded separately for added strength and quality then spin welded in place after the initial mold cools. Each weld is a food grade process.

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.

The MiniMash Lauter Tun Parts include:

- ✓ 2 1/2" npt X 3/8" barb connector
- ✓ 1 1/2" ball valve
- ✓ 3 1/2" npt plugs for thermometer hole threads and RIMs threads
- ✓ 2 1/2" threaded nipples (one brown and one white)
- ✓ 1 One Mash Lauter Tun - a professional designed Mash Tun and Lauter Tub combined.
- ✓ 1 Lid with sparge threads
- ✓ 1 Spargehead with 1/2 inch threaded nipple or sparge arm (sa12)
- ✓ 1 Roundscreen - the false bottom with stainless steel bolt, wing nut and washer.
- ✓ 1 Teflon tape
- ✓ 1 Directions Use & Care

Assembly Instruction:

1. Clean and sterilize everything. Use a clean tooth brush in the treads.
2. Teflon wrap all threads - Do not over tighten the fittings.
3. Screw the " brown nipple into the true bottom thread to the left of the label.
4. Screw the 1/2" valve onto the 1/2" brown nipple. Be careful not to cross thread. After a few turns look at the valve. Is it going in straight? Stop and check.
5. Screw one npt barb connector into the outside top of the lid and the other connector into the valve.
6. Screw the 1/2" black sparge head into the 1/2" white nipple. Screw the white nipple end of the sparge into the inside of the lid. The white plastic strainer may be useful if you are recirculating.
7. Push the 3/8" hose from the hot water source on to the 3/8" barb connector on the cover.
8. If you purchased a thermometer screw it in place above the false bottom. Otherwise use the 1/2" plug.
9. Place the screen on the false bottom ledge and rotate until the bolt protrudes through the center hole of the screen. Place the washer on the bolt and tighten securely with the wing nut. If the screen bows downward turn it over so tightening the center wing nut presses the screen edges tight against side ledge. Make an L shaped hook out of an old wire coat hanger for lifting the screen off the bottom after removing the wing nut.
10. Screw the remaining 1/2" plugs into the unused threads. The extra threads can be used for a RIMs hook up or as a by pass inlet into the top so the recirculating wort does not pass through the sparge head.

Hobby Beverage Equipment Company
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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. We would also like to know the store where you purchased our equipment. Please help us provide the equipment and 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 us? Homebrew 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 Beer _____

What products do you need? Other comments that might be useful about our products.

Thank you

Hobby Beverage Equipment