

ANVIL

BREWING EQUIPMENT

FERMENT IN A KETTLE OPERATION, ASSEMBLY & MAINTENANCE MANUAL

**** PLEASE READ THOROUGHLY PRIOR TO USE FOR IMPORTANT INFORMATION ****
Check out the video at www.youtube.com/watch?v=XHPuldEvqLY

For more information and a demonstration of use and assembly please check out the instructional video on anvilbrewing.com

OVERVIEW

The Ferment in a Kettle (FIAK) system allows the brewer to convert their ANVIL kettle into a versatile fermentor at a very low price! All-grain brewers will be able to convert their ANVIL hot liquor tank or mash tun into a fermentor after mashing and be ready to fill right after the boil is completed. Are you an extract brewer and have only one ANVIL kettle? Not a problem – simply rack your chilled wort to a bottling bucket taking care to leave as much hops and trub as possible in the boil kettle. Fermenting on excessive amounts of hops and trub can adversely affect beer flavor. Then clean and sanitize your kettle, install the FIAK kit, and transfer your cooled wort back into the kettle! Included with the kit is a patent pending lid seal, a patent pending rotating racking arm for transferring sediment-free beer, a sanitary nut for your thermometer, a lid grommet, and an air lock.

ASSEMBLY & OPERATION

Step One: Confirm that all parts, required hardware, and tools are ready and available for assembly. Refer to the table below, which includes a list of all parts and hardware that came with your ANVIL High Performance Burner.

PARTS LIST

ITEM NO.	DESCRIPTION	QUANTITY
1	Large black silicone lid seal	1
2	White Teflon washer	1
3	Stainless sanitary nut for thermometer	1
4	Small thermometer stem seal	1
5	Sanitary nut sealing washer	1
6	Rubber grommet for lid	1
7	Airlock	1



Fig. 1



Step Two - Cleaning and sanitizing: remove the dip tube and valve locking nut on the inside of the kettle using two adjustable wrenches. Using the same two wrenches, disassemble the valve and remove the ball and the sealing o-ring. Note that you may need to rotate the handle 90 degrees to remove the ball; it should fall right out. See Fig. 1 for details. If there is any soil on the parts soak them in a cleaning agent like Powdered Brewery Wash. Rinse and soak in your favorite non-chlorine sanitizer such as Five Star's StarSan. Reassemble the valve. Similarly, thoroughly clean your kettle to remove all soils and dry thoroughly. This

allows the protective passive layer to form on the surface of the stainless steel. Then insert the valve in the kettle and install the white Teflon washer over the threaded portion. Reinstall the nut firmly, but do not overtighten. Reinstall the dip tube. See Fig. 2 for details. Remove the hex nut from

your thermometer and replace with the included sanitary nut assembly. It is not necessary to remove this for future uses, but we do recommend an annual disassembly for a thorough cleaning. See Fig. 3 for details.

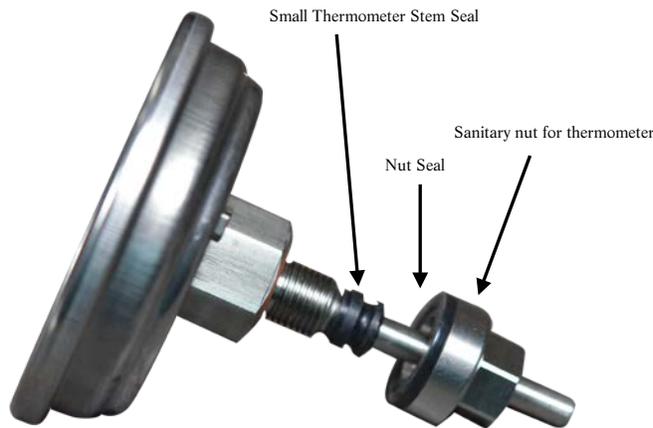


Fig. 2

TIP: install the dip tube horizontally facing in the same direction as the valve handle. That way you'll know the position of the tube as you rotate the valve when draining the fermentor.

TIP: if you have used your hot liquor tank as your FIAK you can simply drain out any excess water and you're immediately ready to ferment; the 170+ degree water has already sanitized your kettle!

Sanitize the large lid seal, lid and inside of your kettle using your favorite sanitizer. To sanitize the lid and kettle, we recommend StarSan as it is an effective surface sanitizer and can be applied using a spray bottle. Simply spray all inside surfaces with StarSan using a spray bottle. Let it sit for a few minutes and then repeat. Drain any remaining sanitizer from the kettle. This eliminates the need to fill the entire fermentor with sanitizer. Stretch the seal over the lip of the kettle as shown in Fig. 4.



Step Three – Filling & Fermentation: Place the sanitized grommet and airlock in the hole in the lid. Fill your fermentor with beer, aerate well, add your yeast, and place the lid on the kettle. Referring to Fig. 5 slip the lid seal up and over the lid and lip of the kettle using your thumbs to help slip the seal onto the lip. It is important to ensure that the lid is centered on the kettle and the seal is positioned onto the lip and lid. Having the seal wet with sanitizer helps to position it and get a proper seal. If the lid isn't quite centered simply slide it into position.

Step Four - Racking: After fermentation is complete, and the beer has had time to settle (usually 7-10 days for an ale), it is time to rack the beer into a bottling bucket or keg. Install a transparent drain hose (not included) to the valve of the kettle and remove the airlock so the fluid in your airlock isn't sucked into the beer. Place the bucket or keg below the height of the kettle and open the valve and begin to drain. Slowly rotate the valve counter-clockwise until you see just a little yeast in the clear hose, then rotate the valve slightly clockwise until the yeast pick-up stops. This ensures you'll get the maximum amount of beer without picking up a significant amount of yeast and trub.

Step Five – After Use Cleaning: Remove and disassembly the valve as shown in step two above. Scour the inside of the kettle using your favorite cleaner. Take care not to excessively scour the graduations in the kettle. Rinse and allow to dry thoroughly. Note that it is not necessary to remove the thermometer sanitary nut for proper cleaning. Reassemble and the kettle is ready for your next brew day!



Fig. 3



Fig. 4

IMPORTANT: The lid seal has a fail-safe feature if the internal pressure rises from a plugged airlock or blowoff tube; the lid will lift out of the seal to safely relieve the pressure. If this occurs clean out the hose/airlock and slip the seal back in place. To reduce the chances of this happening, we highly recommend the use of Fermcap S in the fermentor to reduce krausen (foam) level in the fermentor. Another option is to use a 1/2" OD blowoff hose as shown in Fig. 5. Simply remove the grommet and install a 1/2" OD hose into the lid hole, and place the other end of the hose into a container with water or sanitizer. Make sure that the container is below the surface of the beer so it doesn't siphon into the beer.



Fig. 5

ANVIL BREWING EQUIPMENT PRODUCT WARRANTY

A. LIMITED WARRANTY

1. ANVIL Brewing Equipment warrants to the original purchaser that this product will be free from manufacturing defects in material and workmanship for a period of one (1) year from the date of purchase by the customer. Proof of purchase is required. ANVIL Brewing Equipment's obligation to repair or replace defective materials or workmanship is the sole obligation of ANVIL Brewing Equipment under this limited warranty.
2. This product is for home use only. The limited warranty covers only those defects that arise as a result of normal use of the product and does not cover any other problems, including, but not limited to, those that arise as a result of:
 - a. *Improper maintenance or modification;*
 - b. *Damage due to incorrect voltage or improper wiring by customer;*
 - c. *Operation outside of the product's specifications;*
 - d. *Carelessness or neglect to operate the product in accordance with instructions provided with the product;*
 - e. *Damaging the tamper label on the product;*
 - f. *Damage by over-tightening the fasteners;*
 - g. *Failure to follow cleaning and / or maintenance procedures; or*
 - h. *Exceeding published operational temperatures.*
3. ANVIL Brewing Equipment reserves the right to request delivery of the defective component for inspection before processing the warranty claim. If ANVIL Brewing Equipment receives, during the applicable warranty period, notice of a defect in any component that is covered by the warranty, ANVIL Brewing Equipment shall either repair or replace the defective component with a new or rebuilt component at ANVIL Brewing Equipment's option.
4. ANVIL Brewing Equipment must be notified within seven (7) days of the delivery date of any shipping damage. Customer is responsible for shipping damage outside of this time period. Approval for return must be provided by ANVIL Brewing Equipment prior to any return. Customer is responsible for keeping all original packaging material for warranty returns. ANVIL Brewing Equipment is not responsible for damage from improperly packaged warranty returns, and these repair costs will be the sole responsibility of the customer. Shipping costs for warrantee returns are covered only for the contiguous United States.
5. ANVIL Brewing Equipment's limited warranty is valid in any country where the product is distributed.

B. LIMITATIONS OF WARRANTY

6. Any implied warranty that is found to arise by way of state or federal law, including any implied warranty of merchantability or any implied warranty of fitness, is limited in duration to the terms of this limited warranty and is limited in scope of coverage to this warranty. ANVIL Brewing Equipment disclaims any express or implied warranty, including any implied warranty of fitness for a particular purpose or merchantability, on items excluded from coverage as set forth in this limited warranty.
7. ANVIL Brewing Equipment makes no warranty of any nature beyond that contained in this limited warranty. No one has authority to enlarge, amend, or modify this limited warranty, and ANVIL Brewing Equipment does not authorize anyone to create any other obligation for it regarding this product.
8. ANVIL Brewing Equipment is not responsible for any representation, promise, or warranty made by any independent dealer or other person beyond what is expressly stated in this limited warranty. Any selling or servicing dealer is not ANVIL Brewing Equipment's agent, but an independent entity.

C. LIMITATIONS OF LIABILITY

9. The remedies provided in this warranty are the customer's sole and exclusive remedies.
10. Except for the obligations specifically set forth in this warranty, in no event shall ANVIL Brewing Equipment be liable for direct, indirect, special, incidental, or consequential damages, whether based on contract, tort, or any other legal theory and whether or not advised of the possibility of such damages.
11. This warranty does not cover, and in no event shall ANVIL Brewing Equipment be liable for, travel, lodging, or any other expense incurred due to manufacturing defects in material and workmanship, or any other reason.
12. Any performance of repairs after the warranty coverage period has expired or performance of repairs regarding anything excluded from coverage after this limited warranty
13. Shall be considered good-will repairs and they will not alter the terms of this limited warranty, or extend any warranty coverage period.
14. Venue for any legal proceedings relating to or arising out of this warranty shall be in Tippecanoe County, Indiana, United States, which courts will have exclusive jurisdiction.
- 15.

D. LOCAL LAW

16. This warranty gives the customer specific legal rights. The customer may also have other rights that vary from state to state in the United States or other countries.
17. To the extent that this warranty is inconsistent with local law, it shall be deemed modified, only to the extent necessary to be consistent with such local law.