

## Beerworks Craft Series Instructions

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Check you have everything before you start. A full list of the ingredients for individual kits are listed on the product page of the website.

### Beerworks Beer Kits (with the addition of grain)

For All beer kits that contain dry grain or crystals (like the Newkie Brown Ale and Indian Red Ale) please place this in a pan of boiling water (approx. 1ltr). Return to the boil then simmer for 60 minutes. At the end of the boil, we need about one litre of liquid left, so if the grain absorbs the water just add more. Pour through a sieve or colander into the bucket (discard the grain) at any stage you are topping up with water. This will raise the temperature so be careful when pouring it. This should be done before you start.

### Instructions

Please read these instructions fully. There are some major changes (like the fermentation time and the length of time you'll need to prime) to the way you may have made beer before, so it's essential you fully follow these instructions. Make sure all your equipment (that's everything that will come into contact with the beer; like the hydrometer, thermometer, mixing spoon, bucket and lid) is clean and sterilised before you start. Regarding sterilising - the LB No Rinse or LB Cleaner / Steriliser are perfect. Be sure to follow the manufacturer's instructions. Having a bucket with graduations on the side is a real bonus, so if yours doesn't have this, it will pay to measure out 23 litres (5 gallons) using water and mark this on the outside of the

bucket for later.

### Kit Contents

1. Large Pouch(es) of Malt Extract.
2. Hops (in foil bag(s)).
3. Large Bag of Glucose Powder (select kits only).
4. 1.2kg Liquid Malt Extract or 1.5kg can of liquid malt (selected kits only).
5. Small Bag of Glucose Powder (Priming Sugar).
6. Yeast.
7. Small mesh bag with tie cord (siphon filter).

### Kit Groups

- Group A: All Bitters, IPA, APA & Stouts (excl. Russian Lager & Pilsner) plus any others.
- Group B: Russian Imperial Stout only.
- Group C: Only Lagers and Pilsner

1. Place the large pouch(es) of malt in a pan or bowl of hot water (50-60°C) for about 10-15 mins. This will help to soften the malt and make it easier to pour into the bucket. This can be done while you are waiting for the equipment to be sterilised.

2. Cut the pouch and pour the malt into the clean bucket being careful when handling this as it will be hot. We suggest you hold the pouch with a clean towel. When almost empty, add more hot water (be careful) to the bag to make sure there is no malt left and add this to the bucket.

3. Add the following (if included with your kit): -
  - Large bag of glucose powder, or
  - 1.2kg bag of liquid malt extract, or
  - 150g bag of lactose sugar (for Mackie's stout only). Some kits may have two of the above.All you should now have left is the hops, yeast, priming sugar (small bag) and mesh bag. If you have anything else left add it now.

4. Add a further 5 litres of warm water and mix well then top up the bucket to 23 litres (5 gallons) with a mixture of hot and cold so the start temperature of the liquid is between 20-25°C and stir well.

Now take a hydrometer reading. Stir again and take another hydrometer reading. This should be the same as the first one you have just

taken. If it's higher repeat this process until you have two readings the same. This reading will be needed later so make a note of this figure.

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5. Using a mixing spoon, stir the diluted malt vigorously for around 2 minutes, making sure that stirring is vigorous enough to create bubbles at the surface of the liquid. This will provide plenty of oxygen for healthy yeast growth and reliable fermentation. This is particularly important for the lager.
6. Open the yeast sachet and sprinkle over the surface of the beer. Stir this in. Replace the lid and leave in an area where we can maintain a room temperature between 20-25°C. The closer to 20°C the better. The fermentation will start in about 24-48 hours. If you have a hole in the lid of the bucket for an airlock, then half fill the airlock with clean water and place this in the grommet/bung. You will see fermentation is taking place as bubbles will start to come through the airlock. If this is not happening don't panic. Simply take a hydrometer reading and if this has gone down since the initial one, we took in step 4, then all is good. Sometimes the gases given off during fermentation will not come through the airlock as the seal might not be perfect. It's also very important not to open the lid during fermentation (unless a hydrometer reading is needed). As long as bubbles are going through the airlock then leave alone.
7. Add the foil bags of hops as below: - Group A on Day 5.  
- Group B on Day 8.  
- Group C on Day 10.
8. To do this, empty the hops into a clean jug and pour boiling water over them. This is just to kill any possible infections. With leaf try cutting with a knife (no need with pellets) Both need the excess water pouring away. Just add the hops to the bucket and give a light stir. Leave the bucket lid open for as little time as possible to prevent contamination. Stir the bucket contents gently.

Reseal the lid and do not open again until:

- Day 10 for Group A. - Day 13 for Group B.
- Day 15 for Group C.

9. The Lager will take much longer than the others as it's a fantastic strain which we use and will produce the best lager on the market so be patient as it will be worth waiting for. These fermentation times are really important to note but the true test will be found on your hydrometer.
10. The hydrometer reading should show approx: -Group A 1010 - or less. - Group B 1018 - or less.  
- Group C 1004 - or less. When it's the same reading over a 48-hour period you will know it's finished. This can be difficult due to the presence of the hops, but if in doubt just go on the recommended number of days for the fermentation.
11. If barrelling your beer, we recommend siphoning the beer directly into the barrel (which needs to be cleaned and sterilised) leaving as much sediment behind as possible. Add the small mesh bag to the end of your siphon & tie it in place. This will help stop the flow of hops blocking the siphon. If this happens carefully take the siphon tube out of the liquid and remove the blockage by gently tapping the tube on the side of the bucket. Add the priming sugar (dissolve in a little hot water) to the barrel and seal with an appropriate top.
12. If Bottling, then make sure the bottles are designed to hold pressure. The bottles should be cleaned and sterilised before use. Mix the priming sugar with 350ml of hot water (this will give you 400ml in total). Add the small mesh bag to the end of your siphon & tie it in place. This will help stop the flow of hops blocking the siphon. We would recommend siphoning into a second bucket rather than straight into bottles. Siphon the brew to your chosen bottles leaving about 50ml (2") from the top of the bottle and add the priming sugar liquid at

the quantity of 10ml per 565 ml (or per pint). If you can't measure this then use a teaspoon (about 4g) of priming sugar (don't dissolve in water first) per pint or pro rata. Replace the cap.

13. Transfer the sealed Barrel/Bottles to a warm place (20-25°C) for 5 days. This will allow the secondary fermentation to get going. This will create the necessary pressure to get the beer conditioned and

can deliver it with sufficient a level of carbonation. The Barrel/Bottles can then be transferred to somewhere cool to clear.

14. Clearing times will vary but it's normally around 2 weeks and depending on whether it's a Bottle (slightly quicker to clear) or Barrel. Enjoy your beer.
15. All dry hopped beer should be drunk within 6 months.

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### **Some Useful Additional information.**

**Temperature:** This is very important as the yeast can be easily killed if it's too hot or too cold. We are able to offer heat trays (the container can sit on this during fermentation), brew belts (which wrap around the bucket) or immersion heaters (which drop inside the container and remain in the liquid throughout fermentation) if you have a problem in this area.

We like the immersion heater, as it can be thermostatically set so it's easy to maintain the temperature. The heat trays are also great but work best when used with a time clock.

See the video on temperature (<http://www.lovebrewing.co.uk/videos/product-demos/temperature-control/>) for more information. Never allow your fermentation to exceed 25°C as this will reduce the quality of your beer. Similarly, don't let the temperature drop below 20°C. These are room temperatures. Bucket will be 2-3° higher due to yeast activity.

**Airlocks:** If using a grommet in the bucket lid it might be good to make sure you have a good seal. If it does not bubble through the airlock check the seal and add some food grade approved Vaseline.

**ABV (Alcohol by Volume):** By taking a hydrometer reading at the start and the finish we can accurately work out the ABV of the Beer. Simply take one from the other and divide this by 7.2 to give you the ABV. For example, Start Gravity 1040 finish 1008 drop is 32 divided by 7.2 is approx. 4.4%. This is only a guide and doesn't work for all beers.

**Hydrometer:** This can be placed directly into the bucket and the reading should be taken off the liquid line. There are instructions inside, but we also have a video showing how to use this. (<http://www.lovebrewing.co.uk/videos/productdemos/using-a-hydrometer/>). Priming sugar solution is designed to add at the rate of 10ml per 570ml bottle. You will need to adjust accordingly depending on the size of your bottle. We also sell a syringe which will help you measure this out.

**Bottles:** If you are looking for a fully carbonated drink (like a commercial Lager you would buy) then the only way to achieve this is by bottling. Any PET bottle that has held a carbonated drink (like Lemonade or Coke for example) will do the job. We prefer glass but make sure they have been designed to hold pressure. The standard heavy brown (or sometimes you can get clear) pint and Grolsch style (the ones with the flip top lids) are perfect. The little bottler is great for helping with this (<http://www.lovebrewing.co.uk/videos/beer-making-videos/bottling-your-beer-the-easy-way/>).

**Barrelling:** Always check your barrel before transferring the beer to make sure it will hold pressure. They should be fitted with a suitable pressure release valve. The rubbers on these valves need changing on a fairly regular basis. Also check there are no leaks around the tap area as again the rubber washers need changing ever so often. For safety, never store the barrel in an area where it could cause damage to furnishings if it were to leak.

**Hops:** The amount of hops in the kit are designed to produce a super hoppy beer, with lots of taste & bitterness. If you don't want a full hoppy taste, we would recommend reducing the amount of hops added to between half to three quarters. Some will have hops and others hop pellets. In point 8 you will find the

leaf hops need cutting and breaking down. The pellets will turn into a mush. Just add to the bucket leaving as much liquid behind as possible.

**Yeast:** We use some really excellent strains of yeast for all the Beerworks Craft Series. This is one reason why they taste so fantastic. We don't recommend you make a starter yeast just simply add it to the fermenter and give it a stir. The lager yeast is very special and is designed to ferment at ambient room temperature (20-25°C). If you ferment at lower than this, it won't work.

**Water:** We know this is a major ingredient in your beer. We do recommend you taste the water supply before starting. If it has a chlorine taste (not good) we suggest you leave it for a few hours and try again. Alternatively leave the water in a bucket for 24 hours and stir it very slowly. Bottled water is also an option, but we have to say 90% will be made with ordinary tap water. Don't use hot water that comes from an immersion heater (can cause bugs) but a combi boiler or kettle is fine.