5 Gallon Batch instructions

Part 1 - Brewing

Equipment:
- Stove or Turkey Fryer Burner (with propane)
- Brew Kettle - 5 Gal for partial boil or 10 gal for full boil
- Beer Kit
  - Liquid Malt Extract (LME) or Dry Malt Extract (DME)
  - Specialty Grains (if included in recipe or kit)
  - Hops - Bittering (@60 minute) & Aroma (@5 minute)
  - Yeast - Dry or Liquid
- Misc:
  - Whirlflock tablets or Irish Moss
  - Hop mesh bags
  - Specialty grain mesh bag
  - Kettle Thermometer
  - Hydrometer, to measure gravity
- Water - filtered if possible, try to remove the chlorine, OR bottled spring water
- Big Spoon
- Chiller (optional)

1. Pre-brew:
   a. Make sure you have your gear and ingredients ready to go.
   b. Clean and sanitize your fermenting bucket & cover. Cover it.
   c. If using LME container in hot water to thin it up a bit.

2. Steeping:
   a. Fill your kettle with 2.5 gallons of water, heat to 152-156 degrees.
   b. Put specialty grain in mesh bag and steep for 15-30 minutes at 152-155, agitate it occasionally.
   c. Remove the bag. Let it drip, but don’t squeeze it. It will be hot!

3. Boil:
   a. Bring the water to a boil, stir in the Malt Extract during the first 30 minutes. Be careful not scorch the extract.
   b. Add 1 oz Bittering hops at start of boil. This will mark the start of a 60 min. boil.
   c. Optional - With 15 minutes left (or 45 min. into the boil) add Irish Moss OR Whirlflock
   d. It’s a good time to set up your cooling system, an Ice Bath or Immersion Chiller
   e. Aroma Hops - With 5 minutes left in the boil (or 55 min. into it) add your aroma hops.
   f. If you’re using an immersion chiller, drop it into the kettle now.
   g. At the 60 minute mark, turn off the heat and remove the kettle if using a stove.

4. Cool your wort to 70-75 degrees.
   a. Make sure everything the wort touches from this point must be sanitized.
   b. Ice bath - Fill sink with ice and cool water, set covered kettle in the sink. Stir wort with a
sanitized spoon to accelerate cooling. Can take up to an hour or longer.

c. Immersion Chiller - Sitting in the boil sanitizes it. Also still a good idea to create an ice bath. Hook to your water source and let it do it’s magic. You can stir your wort with a sanitized spoon to accelerate cooling. About 15-20 minutes.
d. Counterflow/Plate Chiller - Requires plumbing. Advanced cooling method with a heat exchanger.

5. Aerate and Top off:
   a. Dump method: Dump the chilled wort into your sanitized fermenting bucket.
   b. Shake the bucket to aerate (Or get a aeration system with air or pure oxygen)
   c. Add chilled water to top off about 5.25 gallons.
   d. Get sample with sterile thief and use the hydrometer to get your Original Gravity.

Part 2 - Fermentation

Equipment:
- Fermentation bucket or Carboy with Plug
- 3-piece Airlock ( or blowoff tube and growler)
- Yeast (dry or liquid)
- StarSan
- Sanitizer bucket (5 gallon bucket to hold sanitizer)
- Wallpaper trays (to sterilize spoons, racking canes, etc) (optional)

1. Make sure everything the wort touches is sanitized. StarSan rocks, don’t fear the foam. It is rinseless -- DO NOT RINSE!
2. Your chilled wort should be in the fermenter.
3. Add your yeast. If you have dry yeast you can sprinkle it in the wort, or hydrate it.
   a. To hydrate dry yeast, boil water, cover it, then let it cool to about 70-80
   b. Remember to keep it sterile, open yeast and pitch into your wort.
4. Put on your bucket' sanitized lid , insert the airlock and put water (or cheap vodka) in it.
5. Place the fermenter in a dark, cool area, preferably about 68 degrees. (Can go 65-72).
6. Primary fermentation should start in 12-24 hours. The beer will produce CO2 and cause the airlock to bubble. A nice foam will form on top of your beer, that’s the Krausen.
7. Primary fermentation takes 4-7 days.
   a. Optional, you may rack (siphon) it into a “secondary” fermenter vessel.
   b. You don’t have to. If using only 1 fermentation container, let the beer sit 2-3 weeks before bottling.
8. Two weeks for Secondary is ideal, for a total of 2.5-3 wee full fermentation.

Part 3 - Bottling

Equipment:
- Bottling Bucket
- Bottle Filler & Tubing
- Racking Cane (or AutoSiphon) & Tubing
- Bottle caps & Capper tool
- Empty crown top beer bottles. Twist off won’t work. 22 oz. Bombers are nice.
- PBW (or B-Brite)
● StarSan
● Priming Sugar (it'll come in your kit)

1. Prepare priming sugar by boiling 5 oz in 1 cup of water. Allow to cool to room temperature. Keep it sanitized!
2. Wash your bottles and rinse. PBW is the best for cleaning
3. Sanitize your bottles. Dip in sanitizer then pour out. A bottling tree or fast rack is good for drying. Spray down with sanitizer first.
4. Sanitize your bottling bucket and siphoning equipment.
5. Take a gravity reading to determine alcohol content
6. Put the cool priming sugar solution into the bottling bucket.
7. Siphon beer into your bottling bucket, be careful not to splash, which get oxygen in the beer.
8. Time to bottle, best done with a friend or two
   a. Fill each bottle and put on a cap. The CO2 helps push oxygen out. Let them sit before you crimp.
   b. Use a capper to crimp the caps onto the bottles.
9. Let the bottles sit in a dark room-temperature area. You don’t want it cool, the remaining yeast needs to turn the sugar in CO2.

Sample Recipes

Pale Ale - 2.5 gallon

● 4 oz. C40 specialty grain - Steep at 152 for 20-3 minutes
● 4 oz. Carapils specialty grain - Steep at 152 for 20-30 minutes
● 3 lbs Golden Light LME OR 2.5 lbs Golden Light DME - bring to boil
● 1 oz. Cascade hops @ 60 minute boil
● 1 Whirlflock tablet or Irish Moss @ 15 minute boil
● 1 oz. Cascade @ 5 minute boil
● Safale 05 dry yeast into fermenter (or White Labs California 001/Wyeast 1056 liquid yeast)

Wheat Ale - 2.5 gallon

● 4 oz. Munich Malt specialty grain - Steep at 152 for 20-30 minutes
● 2 lb Pilsin DME - bring to boil
● 1 lb Wheat DME - bring to boil
● 1 oz. Tettnang hops @ 60 minute boil
● 1 Whirlflock tablet or Irish Moss @ 15 minute boil
● 1 oz. Willamette @ 5 minute boil
● Yeast
  o Safale 06 dry wheat yeast into fermenter for “wheat beer” or Hefeweizen flavors
  o Safale 05 dry american ale yeast for clean, neutral yeast flavors.

Blonde Ale - 5 gallon

● 8 oz. Carapils specialty grain - Steep at 152 for 20-30 minutes
● 6 lbs Pilsin Light LME OR 5lb Pilsin DME - bring to boil
● 1 oz. Cascade hops @ 60 minute boil
● 1 Whirlflock tablet or Irish Moss @ 15 minute boil
● 1 oz. Willamette @ 5 minute boil
● Safale 05 dry yeast into fermenter (or White Labs California 001/Wyeast 1056 liquid yeast)