

Duke's Desert Dunkel

STEP 1: Sanitizing

Cleaning is one of the most important steps in brewing. It kills microscopic bacteria, wild yeast, and molds that may cause off-flavors in your beer. **Make certain to clean all equipment that comes in contact with your beer by following the directions below:**

1. Fill clean keg with warm water to line mark 1 on the back, then add ½ pack (about 1 tablespoon) of No-Rinse Cleanser and stir until dissolved. Once dissolved, the solution is ready to use. Save the remaining ½ of No-Rinse Cleanser because you will need it for bottling.
 2. Screw-on the lid and swirl the keg so that the cleaning solution makes contact with the entire interior of the keg, including the underside of the lid. Note that the ventilation notches under the lid may leak the solution. Allow to sit for at least 2 minutes and swirl again.
 3. To clean the spigot, open it fully and allow the liquid to flow for 5 seconds, and then close.
 4. Pour the rest of the solution from the keg into a large bowl. Place your spoon/whisk, can opener, and measuring cup into the bowl to keep them cleaned throughout the brewing process. Leave them immersed for at least 2 minutes in a cleaning solution prior to use.
 5. After all, surfaces have been thoroughly cleaned, do not rinse or dry the keg or utensils. Return lid to the top of the keg, proceed immediately to brewing.
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STEP 2: BREWING

Brewing beer is the process of combining a starch source (in this case, a malt brewing extract) with yeast. Once combined, the yeast eats the sugars in the malt, producing alcohol and carbon dioxide (CO₂). This process is called fermentation.

1. Remove the yeast packet from under the lid of the can of Brewing Extract, then place the unopened can & LME's in hot tap water.
2. Weigh out 1.5oz of chocolate malt and then combine with the entire packet of Munich malt in a muslin sack. Tie it closed so that the grain can flow freely within the sack. Set aside.

3. Add 6 cups of water to a 1-gallon boil pot. Begin heating the water to 155 degrees F and hold, at this range. Next, add the grain sack into the water, and maintain the 155temp for 30 minutes.

4. While grain steeps for 30 minutes, add the packet of Hallertau hops to the second muslin sack and tie it closed so that the hops can expand and flow freely within the sack and set aside.

5. After the 30-minute steep has completed, turn off the heat and remove the grain sack from the pot and place it into a colander to drain, allowing the runoff to flow back into the pot, and rinse the grain with one cup of hot water (around 160 degrees), letting the excess runoff flow back into your pot. DO NOT squeeze the grain sack. Once drained, discard the grain sack.

6. Next, bring grain water to a rolling boil and add in the hop sack you prepared earlier. This will boil for 5 minutes.

7. After the 5-minute hop boil, remove the pot from the heat and add Both LME packets and the HME can to the grain water and hop mixture, stir well to combine.

8. Fill your fermenter with cold water to mark 1 (4 quarts) on the back. If using any other fermenter this would be approximately 1 gallon of water.

9. Pour the wort including the hop sack, into your fermenter, and then bring the volume of the fermenter to mark 2 by adding more cold water, WATER MUST BE COLD. (If you have a different fermenter top it off to 8.5 liters).

10. Stir your wort mixture vigorously with your sanitized spoon or whisk.

11. Sprinkle in the packet of Saflager W-34/70 Dry Lager yeast, do not stir, and screw on the lid.

Put your fermenter in a location with a consistent temperature between 55° and 60° F, and out of direct sunlight. Ferment for 21 days.

STEP 3: Bottling & Carbonating

After 21 days, taste a small sample to determine if the beer is fully fermented and ready to bottle. If it tastes like flat beer, it is ready. If it's sweet, then it's not ready. Let it ferment for 3 more days (24 total). At this point, it is time to bottle. *Do not let it sit in the fermenter for longer than 24 days total.*

1. When your beer is ready to bottle, fill a 1-gallon container with warm water, then add the remaining ½ pack of the No-Rinse Cleanser and stir until dissolved. Once dissolved, it is ready to use.
2. Distribute the cleaning solution equally among the bottles. Screw-on caps (or cover with a metal cap if using glass bottles) and shake bottles vigorously. Allow to sit 10 minutes, then shake the bottles again. Remove caps and empty all cleaning solution into a large bowl. Use this solution to clean any other equipment you may be used for bottling. Do not rinse.
3. Add 2 [Carbonation Drops](#) to each 740-mL bottle. For 1-liter bottles, add 2 ½ drops; for ½-liter bottles add 1 drop. Alternatively, you can add table sugar using [this table as a guide](#).
4. Holding the bottle at an angle, fill each bottle to about 2 inches from the bottle's top.
5. Place caps on bottles, hand tighten, and gently turn the bottle over to check the bottle's seal. It is not necessary to shake them.
6. Store the bottles upright and out of direct sunlight in a location with a consistent temperature between 70°-76°F or 21°-24°C. Allow sitting for a minimum of 14 days. If the temperature is cooler than suggested it may take an additional week to reach full carbonation.

Tip from our Brewmasters

After the primary carbonation has taken place your beer is ready to drink. We recommend putting 1 bottle in the refrigerator at first for 48 hrs. After 48hrs. give it a try and if it is up to your liking put the rest of your beer in the fridge. If it does not taste quite right, leave the bottles out at room temp for another week or so. Keep following this method until your brew tastes just how you like it.

This process is called conditioning and during this time the yeast left in your beer can help clean up any off-flavors. Almost everything gets a little better with time and so will your beer.