

General Home Roasting Observations for the **Gene Café Roaster** from *Sweet Maria's*

Roasting is fun. It's as easy as you want to make it, or as exacting and technical as you care to be. The roasting process unfolds slowly at first as the coffee loses moisture and turns yellow, then tan in color. Later in the roast, each few seconds can have a large influence on the flavors in the cup. You can roast too dark, burn coffee and damage the roaster, **never leave a roaster unattended while in use!**

- Coffee roasting produces a fragrance, unobtrusive with light roasts but smokier if you roast dark. Operating any type of exhaust fan helps if the smoke is too intense. You can roast on a porch or near an open window, weather permitting. Cold temperatures (and use of an extension cord) can severely affect the roast, and may make it stall.
- Roasting produces chaff, a fine skin that detaches from the bean as they roast. You need to empty the chaff collector after every roast. Remove visible chaff from the roast chamber every roast and dislodge any small beans that may become stuck in the chamber. Every five roasts, tip the machine to empty out any chaff in the housing... better yet, use a shop vac to suck out any chaff from where the air exits the drum, and where the chaff collector attaches to the chassis. Every 20 roasts, take apart the chaff collector and soak and scrub the screens in hot water.
- Built-up coffee oils in the roast chamber are of no real consequence until they impede visibility or become a fire hazard. (In fact, a professional drum roaster requires hours of roasting initially to properly "season" the drum.)
- Batch size is critical in any roast process; if the amount of coffee you put into the roaster varies, the roast will vary too. Ideally, it is best to roast by weight, not volume. I use 8 ounces or a half-pound by weight. **PLEASE NOTE: The manual says 300 grams is the max. batch but I never use that much. For Dry Processed coffees with lots of chaff – you never want to use this much - 240 grams max.**
- Take care in handling the glass drum. Seat the drum into the roaster chassis at an angle. Do not force it, let it drop in.
- The drive motor stops at a particular position (vertical or just a tad before vertical) to allow the drum to be removed. A couple times, after the cooling cycle finishes, I noticed the drum stopped a little out of position. If this happens, turn the roaster off, then on (push the red knob twice). The drum will rotate and will land on the correct position to remove the drum. Don't try to remove or replace the drum if the motor is in the wrong position.
- Always use the provided "drum stand" when the drum is out of the roaster- it stands the drum on end for loading.
- I use the highest temperature setting (482) for the coffee up 'til the start of 1st crack, then bring the temperature down to finish the roast. In my tests, 482 @15 minutes is a City roast. **PLEASE NOTE: The roaster will not reach 482 degrees – that is too hot for roasting. Use the highest setting to ramp up to temperature faster.**
- Anticipate the roast color/degree you want, and stop the roaster a bit shy of that. Your City roast will tend to "coast" into City. To get the exact degree of roast, it is always preferred to manually stop the roast (by hitting the Cool button) when you see, hear & smell the signs of the roast you prefer. Start out by setting longer roast times and stopping the roast manually to get a feel for how the roaster is operating on your specific household voltage. (Yes, it makes a difference! Household voltage varies greatly from 106 to 130 in the U.S.)
- The drum and instruction booklet designate a different roast volume for "Brazil Coffee." What they mean is that chaff-laden dry-process coffees will heat up the roast chamber more than less chaffy wet-processed coffees. Not just Brazilian but natural Ethiopian, Yemeni, Indonesian coffees as well - or blends containing these coffees. In my tests, all coffees - dry-processed, wet-processed and decafs- roast fine with an 8 oz. batch. **Keep an eye on the roast (which you always should)** to adapt the heat and roast time and make adjustments for chaff-laden coffees. Their "Brazil Coffee" setting does not account for pulped natural Brazils (less chaff) or anomalous wet-processed coffees that have tons of chaff (Bolivia Cup of Excellence comes to mind). One person reported some chaff igniting in the chamber - causing no damage - but can be a result of using a full batch of a chaff-heavy dry process coffee.
- I prefer to dump the coffee into a stainless mesh colander after the cooling cycle completes, to get the coffee away from the warm metal/glass surfaces. When room temp. transfer it to canning jars. Coffee is better after 4 hours of "resting", which allows the CO2 to de-gas from the coffee. It is at its flavor peak at 12-72 hours.
- Warranty is provided by Fresh Beans Inc Phone: 435-940-1616 Fax: 435-940-1964 Email: skales@tfb.com Your order confirmation is proof of purchase. Call them if you have a mechanical problem. **READ the instructions!!**

In a nutshell, here is the roasting process you will be observing:

• For the first few minutes the bean remains greenish, then turn lighter and emit a grassy smell. • The beans start to steam as their internal water content dissipates. • The steam becomes fragrant. Soon you will hear the "first crack," an audible cracking sound as the real roasting starts to occur: sugars begin to caramelize, bound-up water escapes, the structure of the bean breaks down and oils migrate from their little pockets outward. • After the first crack, the roast can be considered complete any time according to your taste. The cracking is an audible cue, and, along with sight and smell, tells you what stage the roast is at. • Caramelization continues, oils migrate, and the bean expands in size as the roast becomes dark. • At this point a "second crack" can be heard, often more volatile than the first. Small pieces of the bean are sometimes blown away like shrapnel! It can be more difficult to hear than the first crack though. • As the roast becomes very dark, the smoke is more pungent as sugars burn completely, and the bean structure breaks down more and more. • Eventually, the sugars burn completely, and the roast will only result in thin-bodied cup of "charcoal water."

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