

Home Roasting Observations: Zach & Dani's Home Coffee Roaster *from Sweet Maria's*

Please note: Your roaster package might contain 12oz Costa Rica that is NOT from Sweet Maria's. This coffee cups as an old, past-crop lot. Use it to test your roaster, or save it for a desperate situation (no coffee!)...

Home roasting is fun. You will be amazed how easy it is. Pay attention to the process, especially toward the end of the roast where the exact "degree of roast" is determined: City (med.), Full City, Vienna, French, then Fire!

- Coffee roasting produces a fragrance, unobtrusive with light roasts but smokier if you roast dark. Your roaster has an excellent smoke-eliminating "catalytic converter, but some strong roast aromas will prevail.
- Roasting produces chaff. Chaff is a fine skin that detaches from the bean as your roast is agitated. Your roaster takes care of chaff, but if you are careless, you may have to do some sweeping. Empty the chaff collector between every roast and brush it out to get perfectly consistent results. It is very handy, but not always practical, to have a ShopVac near your roasting station.
- Never leave the room while you are roasting coffee, even though the roaster is automated.
- Built-up coffee oils in the roaster 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. We currently offer an accurate Salter digital scale for this purpose. I find the ideal batch size for the Z&D is 4 oz. Larger amounts will fail to reach darker roast levels. The roast chamber glass now has bean fill-level marks on it for Regular roast, and for darker French roasts. These seem to work quite well.
- On the Zach & Dani's, the roast setting is made by adjusting the keypad number up (for darker roast = more time) or down (for lighter roast = less time). This roaster produces very even light roasts, but if actual household voltage is low (110v or less), the roaster will take a long time to achieve a French roast, and might not make it at all. Every coffee varies slightly in how it roasts, and every roaster operates a little different based on household voltage, but here are some roaster settings that work as a starting point:
Roast: City Full City (med-dark) Vienna (Light French) French (Dark)
Roaster Setting: 23 24 - 25 26 - 27 28+
- Another great way to roast to get the exact degree of roast is to set the roaster at the highest number and manually stop the roast by hitting the Cool button when you see, hear & smell the signs of that roast you prefer! Trust your ears and senses to get best results...
- Remove the coffee from the roast chamber into a stainless mesh colander after the cooling cycle completes! You want to get the coffee away from the warm metal/glass surfaces. When the coffee is room temp. I transfer it to canning jars. Coffee is better after 12 hours of "resting", which allows the CO2 to de-gas from the coffee. It is at its flavor peak at 12-72 hours. When you open the jar, you will know what I mean!
- No home roaster is designed to do serial batches! Wait for the machine to cool before doing another batch. For the most consistent results wait for the machine to completely cool before doing a second batch -at least 20 min.
- Zach & Dani's provides an excellent warranty Call them directly at (toll free) 877-470-0330 if you ever have a mechanical problem with the roaster. And READ their instruction book!!!

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

- For the first 4 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. You will hear the "first crack" (12.5 min) 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 is thoroughly complete, 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. I would say that the minimal roast time on the Z&D is 16 minutes (21 setting).
- 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 (oils burn against the hot surfaces of the roast chamber) 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."