

The Case for Burr Grinders

Coffee aficionados rave about burr grinders. Are they worth the investment? We went through 110 pounds of coffee to find out.

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Burr coffee grinders are the gold standard in the coffee industry. Their pepper mill-like, grooved burrs spin to transform whole beans into smaller particles. Burr grinders can repeatedly produce evenly ground coffee, ensuring consistency in your cup of joe. Another advantage is that they are customizable. With settings from fine to coarse, burr grinders allow coffee hobbyists to easily switch from coarse grinds for cold-brew coffee to superfine grinds for an espresso.

To find the best burr grinder, we ground 110 pounds of light, medium, and dark roast coffee beans to various finenesses. Generally, a single batch of coffee grounds can be categorized into three sizes: medium pieces, larger “boulders,” and smaller “fines.” The higher percentage of the medium pieces, the better. Fines can release bitterness, while boulders take longer to release flavors, resulting in weak coffee.

We then held tastings with our colleagues as well as coffee professionals from Counter Culture Coffee and George Howell Coffee, comparing coffees



brewed with grounds produced by each grinder. We used refractometers to record the Total Dissolved Solids (TDS) of each batch of coffee we brewed to evaluate the consistency and repeatability of each model. We also compared the results to our winning blade grinder.

How Burr Grinders Work

A basic burr grinder has a hopper, a grinding chamber, and a bin to catch the grounds. Inside the grinding chamber, you'll find two steel rings called burrs. The rings are either stacked on top of each other (aka flat burrs) or one inside the other (aka conical burrs). The distance between the rings, which is adjustable, controls how finely the beans are ground. To operate, you load the beans into the hopper and hit start. Some grinders are equipped with timers, which allow you to grind for a set amount of time that corresponds to a desired amount of grounds. However, weighing coffee on a precision coffee scale before you grind is more accurate because different types of beans and roasts have different weights; it depends on how nerdy you want to get.

The Best Burr Coffee Grinders

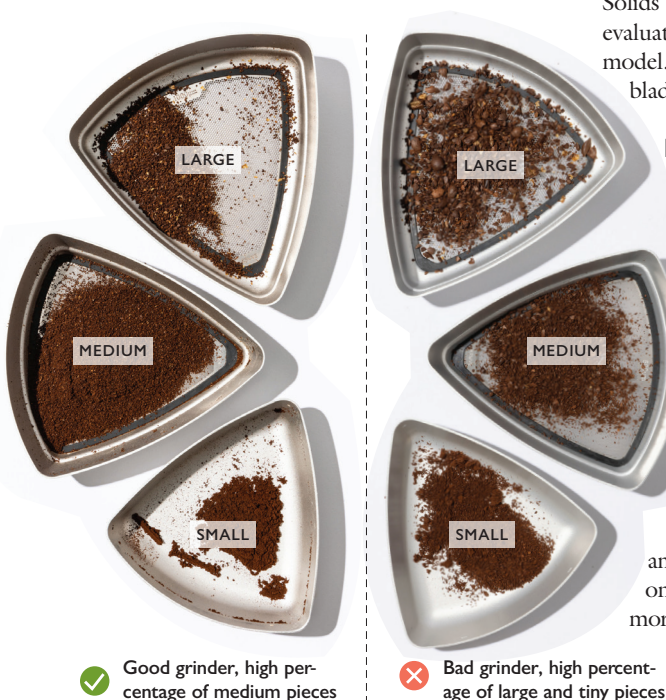
Some grinders were customizable, tidy, and luxurious, while others were a pain and left our counters dusted with coffee grounds. Here's what mattered.

What About Blade Grinders?

Blade grinders are a less expensive alternative to burr grinders. To operate one, you load the beans into the grinding chamber, top it with the lid, and press down on the cover to start the motor that spins the blade, which creates a vortex and randomly slices and chops whatever it comes in contact with. The longer you hold down the button, the more finely ground the beans become.

In our taste tests over the years, we've been surprised that most of our coffee experts couldn't discern between the coffee made with beans ground by burr grinders and that ground by blade grinders. Burr grinders can grind beans to different sizes in order to brew different styles of coffee. Conversely, blade grinders, which are dependent on human judgment to determine doneness, can't achieve the same level of precision and consistency that burr grinders do—as we've found that blade grinders produce more fines than the average burr grinder.

A blade grinder will do for some, but if you want a mostly hands-off option with repeatable consistency and the flexibility to brew different styles of coffee, a burr grinder is your best bet.



✓ Good grinder, high percentage of medium pieces

✗ Bad grinder, high percentage of large and tiny pieces

To judge how evenly the grinders ground coffee, we sifted final ground products from each model through a set of Kruve sifters, a tool used by baristas to determine grind size and verify burr grinders' quality.

What to Look For

➤ NUMBER OF SETTINGS:

- For a **basic burr grinder**, look for at least 10 grind settings; this amount allows you to produce grounds for a variety of brewing methods and to customize within each method.
- For a **grinder that excels at espresso**, we found that machines with at least 40 settings offered the range and tiny increments of adjustment desired by espresso fans.



➤ **FEWER STRAY GROUNDS:** The contact between metal burrs and coffee beans causes electrical charge buildup that leads to grounds clinging to surfaces, which causes a mess. We liked models that produced minimal stray grounds and static cling.

➤ **A HEAVY BASE:** The grinding motor can cause the machine to rattle. Heavy bases that weighed 5 pounds or more helped secure the grinder in place.

➤ **CLEAR MARKINGS AND LABELS:** We liked models with markings that helped us easily adjust the grind size.

➤ DETACHABLE AND REPLACEABLE

PARTS: We preferred models that were easy to disassemble and clean. We also liked the manufacturers that sell replacement parts, which are less expensive and less wasteful than buying a new machine; small fixes here and there can keep these machines running for years.

➤ **TINTED HOPPERS:** Tinted hoppers help reduce static buildup, which causes a mess.



➤ **USER-FRIENDLY GROUNDS CONTAINER DESIGN:** We liked the containers that had sharp edges that helped us more easily angle and dispense grounds into a coffee maker.

OUR TOP PICKS



HIGHLY RECOMMENDED

WINNER

BARATZA Encore ESP

MODEL: ZCG495 PRICE: \$199.00

STYLE: Conical Steel Burr

NUMBER OF SETTINGS: 40

HIGHEST PERCENTAGE OF MEDIUM PIECES: 64%

COMMENTS

This model is an upgrade of the original Encore. It has 40 settings, 20 of which are finer grinds for espresso. It was one of the most consistent grinders we tested, producing a high percentage of medium-size grounds and brewing “full bodied” coffee with “decent sweetness with minimal acidity.” Over time, there was a bit of static cling, but a wipe took care of it.



BEST UPGRADE

BARATZA Sette 270

MODEL: ZCG1270 Price: \$399.95

STYLE: Conical Steel Burr

NUMBER OF SETTINGS: 270

HIGHEST PERCENTAGE OF MEDIUM PIECES: 79%

This sleek model has all the bells and whistles any espresso drinker ever needs. Its massive menu selection gives you 270 settings to choose from and clear markings for brewing methods make it easy to use. It was reliably consistent and brewed “full-bodied” coffee. It weighed about 7 pounds and sat securely on our counter.



Other brands we tested were Fellow, Breville, Technivorm, Eureka, De'Longhi, Capresso, Mr. Coffee, and Chefman. For the complete testing results, go to AmericasTestKitchen.com/FEB25.

How to Clean and Care for Your Burr Grinder

DO I NEED TO CLEAN MY COFFEE GRINDER?

Yes, because coffee beans contain oils that can build up and leave a residue in the coffee grinder. As Peter Giuliano, chief research officer of the Specialty Coffee Association, explained, “This residue can oxidize and develop rancid aromas, not unlike other kinds of oil buildup in the kitchen. An occasional cleaning keeps everything smelling fresh and operating well.”

WHAT'S THE BEST WAY TO CLEAN AND MAINTAIN A BURR GRINDER?

Once you've figured out that your grinder needs some attention, you'll take it apart according to the manufacturer's instructions in the user manual. And whatever you do, don't use any water. “Any moisture leftover will mess up your coffee grind,” said Cara Mitchell, retail training manager at Joe Coffee Company.

Mitchell starts her process by brushing out any of the coffee that's stuck between the teeth of the burrs. Wipe down any oils with a dry cloth. Kaleena Teoh, the co-founder of the Coffee Project New York, likes compressed air, which comes in sprayer bottles typically used for cleaning keyboards. Teoh also uses Grindz, a specialty tablet popular in the coffee industry.

HOW OFTEN SHOULD I CLEAN MY BURR GRINDER?

There's no one-size-fits-all answer—it depends on how often you use your grinder. Look for brown, oily buildup on the inside of the coffee hoppers or other surfaces of the grinder that looks like an “oily chocolate residue,” recommended Peter Giuliano, chief research officer of the Specialty Coffee Association.

Sometimes your nose does a better job of telling you when it's time. Giuliano suggests sniffing your grinder: “Over time, coffee residue develops an unmistakable, unpleasant aroma that is the result of oxidized coffee oils. An empty grinder should smell like fresh, good coffee. If it smells unpleasant or rancid, it needs a good deep cleaning. Your nose knows!”

The type of roast you use may also determine how frequently you need to clean the grinder. “Dark-roasted coffee is oilier than light-roasted coffee, and therefore dark-roast lovers will need to clean more often than light-roast coffee lovers,” Giuliano explained.

If you grind coffees of different varieties and origins, it's a good idea to clean your grinder between each type to keep the flavors from mixing.

