

Facts About Drip Coffee Makers

Oregon State University Extension Service

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Drinking coffee has become part of our social custom. It is often the first thing you are offered as a guest in someone's home, at an interview, even when you visit the doctor, dentist, or beauty shop. On TV, we're exposed to Mrs. Olson popping up when she is least expected, or the "poor husband" who only gets half-a-cup because his "little wife" is trying to "decaffeinate" him.

Instant coffee lets us have coffee in just minutes, but many people miss the brewed flavor and aroma. The concern has been to devise a way to extract the brew from the bean and meet today's need for speed and convenience. With rising coffee prices, it becomes even more critical to get a good brew with a minimum of waste from grounds used.

These concerns have caused many coffee drinkers to put away certain models of coffee makers. Though they may brew a good cup of coffee, some coffee makers have been found to be too much trouble to use and clean, and take too much brewing time.

The latest compromise toward quickly brewing a good cup of coffee is the electric drip coffee maker.

Coffee Makers

Though there are many types of coffee makers, this fact sheet is concerned with two drip-type models, the percolator type and the flow-through type. The percolator type pumps water over the grounds. In this model, water is placed in a reservoir, fed into a heating chamber, forced up a feed tube and sprayed over the grounds, then accumulated for serving. The flow-through type is the second drip-type to be discussed. In this model, the water reservoir is over the grounds. Gravity causes the water to flow past a heating coil, down into a filter basket holding the grounds, and into a reservoir where it is accumulated for serving.

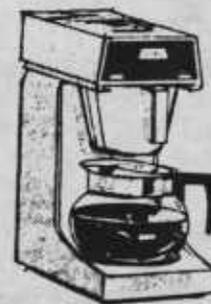
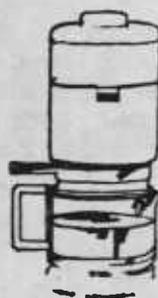
Another type heats the water in the reservoir; then the hot water flows through the grounds in a filter basket where extraction of the coffee takes place. The brew is then accumulated for serving.

Factors Affecting Quality

The quality of coffee is affected by these factors regardless of the model of coffee maker used:

- freshness of the ground coffee
- fineness of the grind
- minerals present or not present in the water
- length of time water remains in contact with ground coffee
- temperature of water during extraction
- fineness or coarseness of the filter
- temperature at which coffee is held

In most drip-type models the coffee is accumulated in a serving carafe which sits on a heating element. The main heating element should turn off when brewing is finished and hold the brew at a "keep warm" or "ready to serve" temperature.



Temperatures

The Coffee Brewing Center (CBC), a trade-supported research and testing center, recommends:

- holding temperature should be between 185° F and 190° F for at least ½ hour after preparation of the beverage
- start with 6 ounces of water and 2 level tablespoons of fresh coffee of the model's recommended grind
- water heated to not less than 185° F and not more than 205° F
- water mixed evenly with grounds and held in contact:
 - Regular grind — 8 minutes
 - Drip grind — 6 minutes
 - Fine grind — 4 minutes

What is a Good Cup of Coffee?

This is a case of personal preference. Generally the darker brews are stronger in flavor, and also the more turbid (dense) the brew the more flavorful the beverage. If strong brew is preferred, a maker whose coffee is darker and more dense (turbid) will be the preference. If you are not a lover of strong brew, a coffee maker producing a lighter beverage will be your choice. Those that prefer a "weaker" brew might remember it is more desirable that coffee be brewed full strength and then diluted with hot water to the taster's preference.



To Buy or Not to Buy

—A coffee maker works most efficiently when used to capacity. It would be a good decision for those who consistently brew only a small amount of coffee to purchase a coffee maker with a maximum capacity close to the most often needed amount of coffee. Those who plan to use the maximum or near maximum capacity most of the time, might best consider a coffee maker with the highest maximum capacity. If demands for coffee vary, it's best to consider one's average needs.

—Speed of brewing refers to the time it takes to brew a pot of coffee. A coffee maker that delivers 63.5 Btu per minute will make coffee twice as fast as one that delivers heat at 31.7 Btu per minute.

—Other uses might be considered but remember: Coffee makers heat water. No other liquid should be put through the filter system other than the exception* discussed below. Putting water through the brewing cycle without coffee grounds or filter will produce hot water for soups, tea, or hot cocoa. The hot plate under the

* Use of liquid other than water—vinegar: As with other water-heating devices, a deposit or scale of minerals from the water builds up inside the heating areas and may clog the passageway. Manufacturers recommend running a solution of vinegar and water through the brewing cycle several times to dissolve deposited minerals. This is called de-liming. Be sure to rinse the coffee maker several times by running clear water through several brewing cycles with no coffee. Specific models may have de-liming processes included in the use and care manuals, but essentially the process is the same.

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If a standard filter is required, you are more likely assured easy replacement. Models which require a limited specification for replacement may cause inconvenience and/or the model may become obsolete faster because the supply of filters is no longer available. Filter costs should also be figured in when purchase price is being considered. Some models do not have separate filters.

—Capacity tells us how much coffee the model will brew in 6 oz. cups. Models come with either a carafe with cup markings on the side or a separate calibrated flask in which you measure the volume of water for the amount of coffee you want. Some water is absorbed as it is passed through the filter so you do lose a bit of the volume in the brewing. Remember: Your coffee mugs may not be the same size as the calibrated cups, so serving adjustments will have to be made with experience.

—Size—not only in capacity but for use and storage. Because these types of coffee makers are designed for convenience, where you will keep the appliance should be an important consideration. Already crowded work areas in the kitchen may need reconsideration before the additional item is added. If you plan to store it in a cupboard—think again before you buy. How often would you bring it out to make just a few cups of coffee? Will it be used by the person for whom you want to buy one?

These points for consideration should be helpful as you evaluate a piece of equipment which essentially heats water.

Prepared by Janice M. Weber
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Drip-Filter Coffee Makers

Oregon State University Extension Service, May 1977, EC 928



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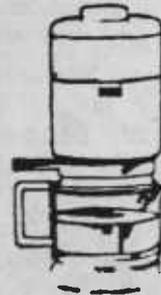
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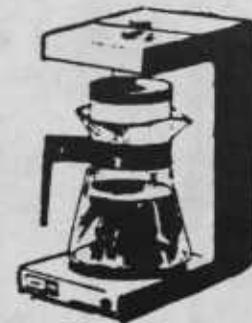
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