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KitchenAid

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For more information on this and other products, join us in the kitchen at **www.kitchenaid.com.au.**

Your safety and the safety of others are very important.

We have provided many important safety messages in this manual and on your appliance. Always read and obey all safety messages.



This is the safety alert symbol.

This symbol alerts you to potential hazards that can kill or hurt you and others.

All safety messages will follow the safety alert symbol and either the word "DANGER" or "WARNING." These words mean:

⚠ DANGER — **You can be killed or seriously injured if you don't immediately follow instructions.**

⚠ WARNING — **You can be killed or seriously injured if you don't follow instructions.**

All safety messages will tell you what the potential hazard is, tell you how to reduce the chance of injury, and tell you what can happen if the instructions are not followed.

IMPORTANT SAFEGUARDS

When using electrical appliances, basic safety precautions should always be followed, including the following:

1. Read all instructions.
2. To protect against risk of electrical shock, do not put Espresso Machine in water or other liquid.
3. Close supervision is necessary when any appliance is used by or near children. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
4. This appliance is not intended for use by persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved by a person responsible for their safety.
5. Unplug from the outlet when not in use, before putting on or taking off parts, and before cleaning. Allow to cool before putting on or taking off parts, and before cleaning.
6. Avoid contacting moving parts.
7. Do not use outdoors.
8. Do not let cord hang over edge of table or counter.
9. Do not place on or near a hot gas or electric burner, or in a heated oven.

10. The use of accessory attachments not recommended by the appliance manufacturer may result in fire, electric shock, or personal injury.

11. Do not operate any appliance with a damaged cord or plug, or after the appliance malfunctions, or is dropped or damaged in any manner. Return appliance to the nearest Authorized Service Facility for examination, repair, or electrical or mechanical adjustment.

12. Always turn the appliance off, then plug cord into the wall outlet. To disconnect, turn the appliance off, then remove plug from wall outlet.

13. This appliance is intended to be used in household and similar applications such as:
- staff kitchen areas in shops, offices and other working environments
- farm houses;
- by clients in hotels, motels and other residential type environments;
- bed and breakfast type environments

14. Use extreme caution when using hot steam.

SAVE THESE INSTRUCTIONS

Electrical requirements

⚠WARNING



Electrical Shock Hazard

Plug into a grounded outlet.

Do not remove ground prong.

Do not use an adapter.

Do not use an extension cord.

Failure to follow these instructions can result in death, fire, or electrical shock.

Voltage: 220-240 Volts A.C. only

Frequency: 50/60 Hz

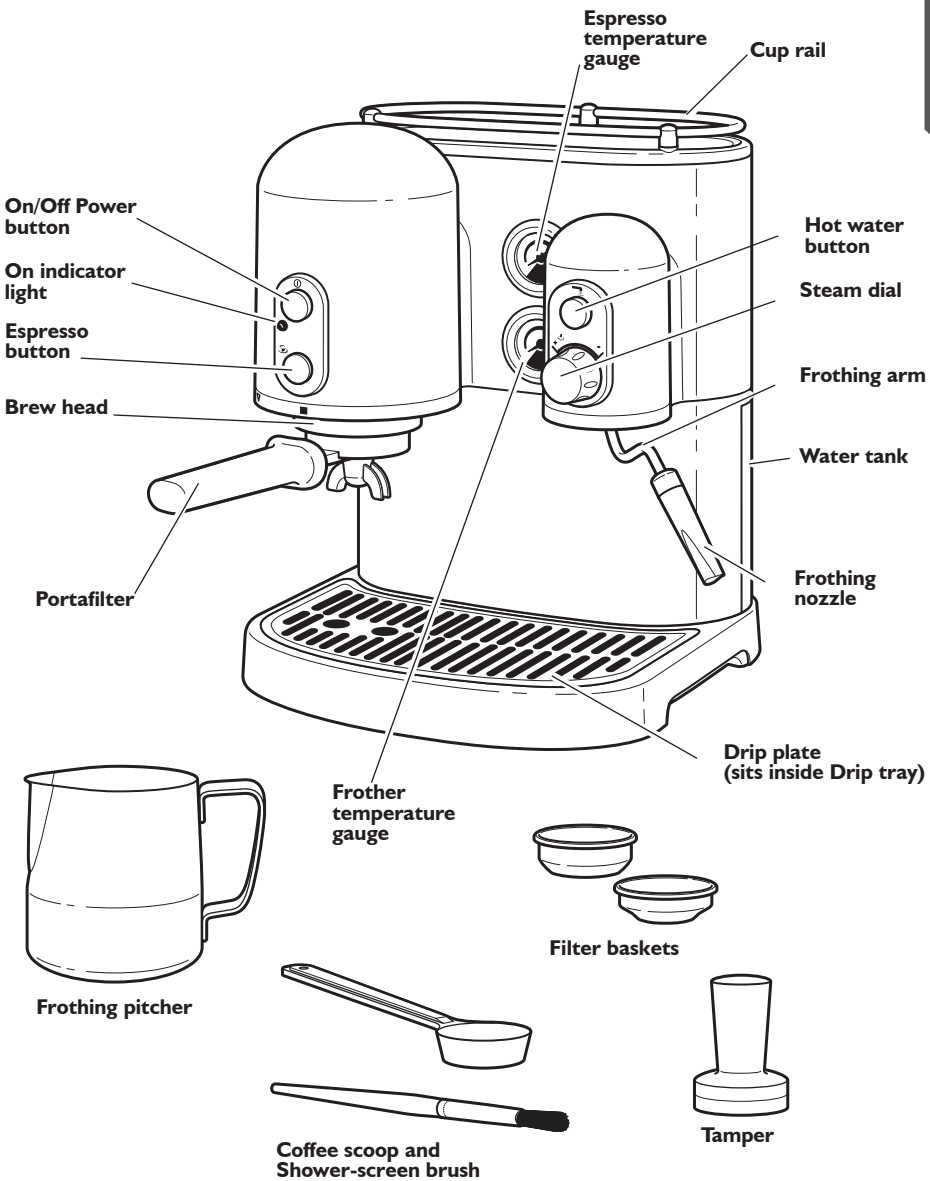
Wattage: Max. 1300 W

NOTE: If the plug does not fit in the outlet, contact a qualified electrician. Do not modify the plug in any way. Do not use an adapter.

Do not use an extension cord. If the power supply cord is too short, have a qualified electrician or serviceman install an outlet near the appliance.

GETTING TO KNOW YOUR ESPRESSO MACHINE

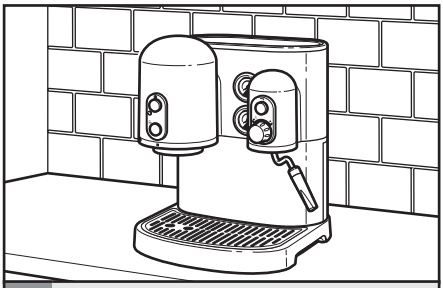
Parts and accessories*



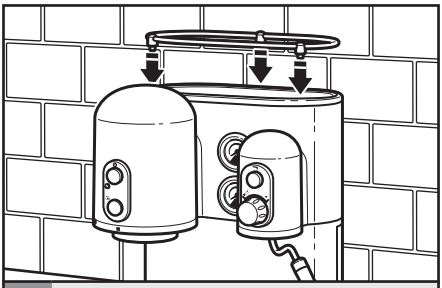
* For a glossary describing the parts of the Espresso Machine, see the "Tips for great results" section.

ASSEMBLING THE ESPRESSO MACHINE

Preparing the Espresso Machine for use

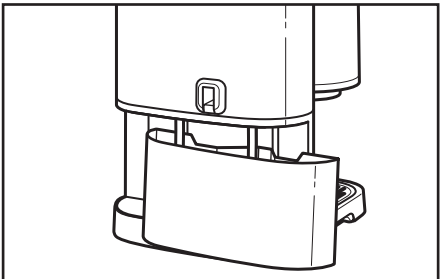


1 Place the Espresso Machine on a clean, dry, level surface.

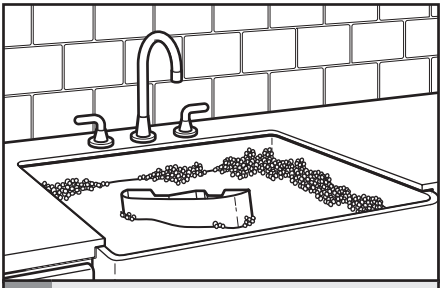


2 Align the three rail posts with the holes on top of the Espresso Machine. Then press the rail posts firmly into the holes.

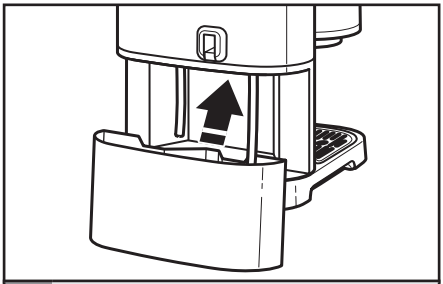
Washing the water reservoir



1 Lift the reservoir slightly, then remove by pulling the bottom of the reservoir from the Espresso Machine.



2 Wash the reservoir in hot, soapy water and rinse with clean water. The reservoir can also be washed in the top rack of the dishwasher.



3 Place the reservoir back into the Espresso Machine, making sure the water tubes are placed inside the reservoir. The ribs on the bottom of the reservoir fit into the grooves on the base of the machine.

ASSEMBLING THE ESPRESSO MACHINE

Connecting the Espresso Machine

⚠WARNING



Electrical Shock Hazard

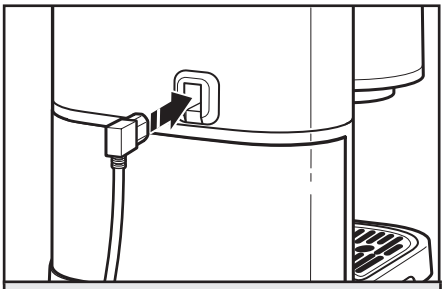
Plug into a grounded outlet.

Do not remove ground prong.

Do not use an adapter.

Do not use an extension cord.

Failure to follow these instructions can result in death, fire, or electrical shock.



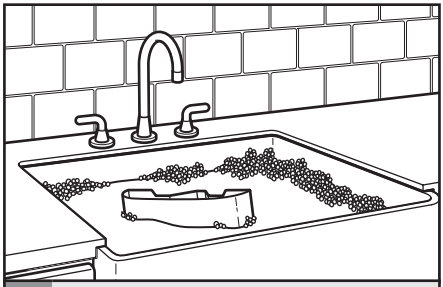
Insert the end of the electrical cord without prongs into the cord receptacle in the back of the Espresso Machine. Plug the other end of the cord into a grounded outlet.

OPERATING THE ESPRESSO MACHINE

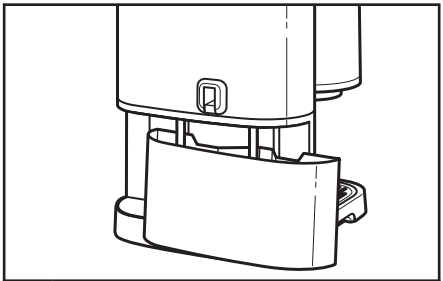
Rinsing and filling the boilers

The boilers need to be filled and rinsed before the Espresso Machine is used for the first time. The boilers will also need to be filled when:

- the Espresso Machine is not used for a prolonged period
- the water reservoir runs dry during use (this can damage the Espresso Machine)
- multiple beverages are steamed without brewing espresso or dispensing hot water



1 Remove the reservoir and rinse with fresh cold water, empty, and place back onto the Espresso Machine.

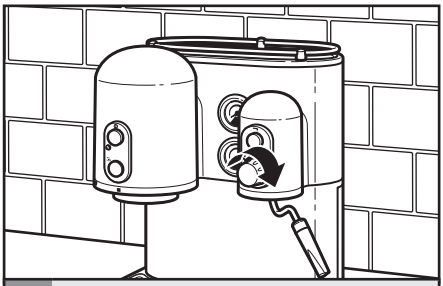


2 Slide the water reservoir left or right to expose the top, and fill with fresh cold water to the “max fill” line.

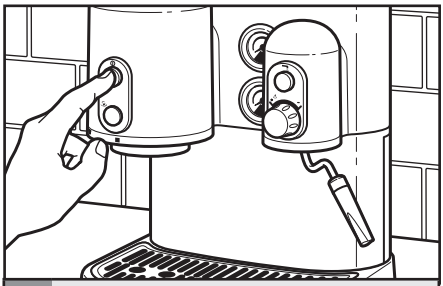
IMPORTANT: Distilled water or mineral water can damage the Espresso Machine. Do not use either to brew espresso.

OPERATING THE ESPRESSO MACHINE

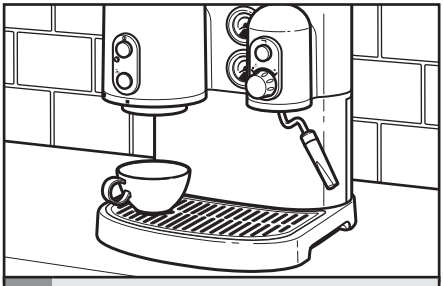
Warming the boilers



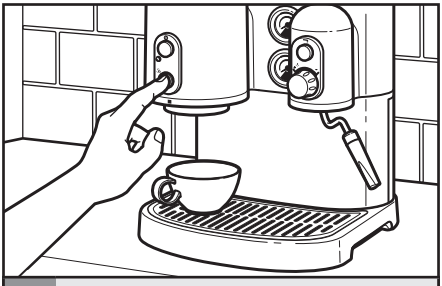
1 Make certain the steam dial is closed by rotating it clockwise as far as possible.



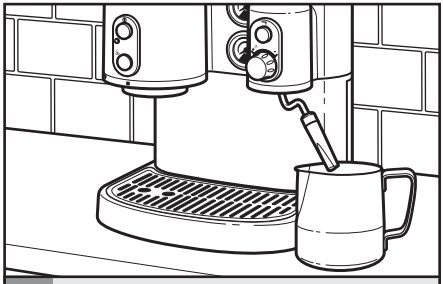
2 Press and hold the On/Off power button until the ON indicator lights up. The dual boilers will begin heating, and the Espresso and Hot Water functions will begin to operate.



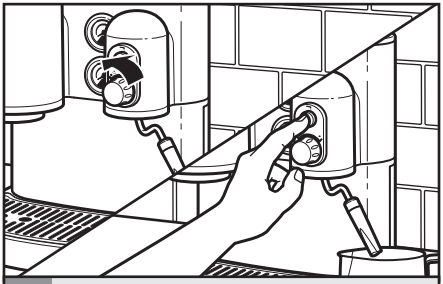
3 Place a coffee cup underneath the brew head. Do not attach the portafilter to the brew head.



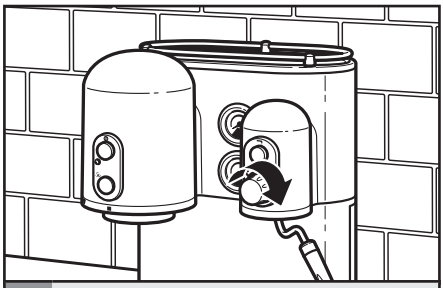
4 Press the Espresso button to activate the water pump and fill the brewing boiler with water. After a few seconds, water will flow from the brew head. When the cup is full, press the Espresso button again to stop the water pump. The brewing boiler is now ready for use.



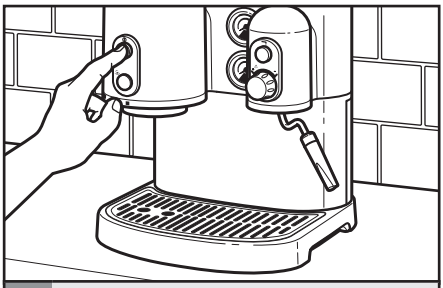
5 Place the frothing pitcher under the nozzle of the frothing arm.



6 Slowly open the Steam dial by turning it counter-clockwise; press and hold the Hot Water button to activate the water pump and fill the frothing boiler. After a few seconds, water will start flowing from the nozzle.



7 When the pitcher is about half full, release the Hot Water button and close the Steam dial by rotating it clockwise until it stops. The frothing boiler is now ready for use.

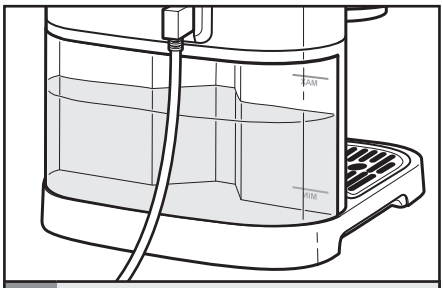


8 If no espresso is desired at this time, press the On/Off Power button to turn the Espresso Machine off.

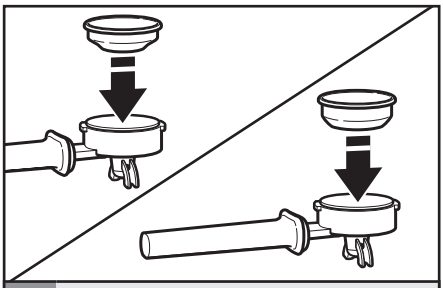
NOTE: Do not press the Espresso or Hot Water buttons without water in the reservoir. Damage to the water pump may occur.

Brewing espresso

Brewing perfect espresso is a skill that takes time to learn on any manual Espresso Machine. Your first attempts may need perfecting in order to produce the perfect consistency, smooth flavor and golden crema you expect. Practice consistently for a couple of weeks with this Espresso Machine, and you will soon produce a perfect cup every time. For better results when brewing espresso, see the "Tips for great results" section to fine tune your brewing technique.

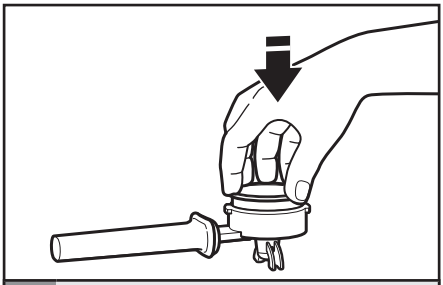


1 Make certain the water reservoir has an adequate supply of water (the water level should be between the "max" and "min" fill lines).

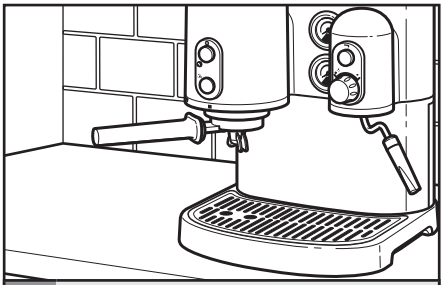


2 Select the small or large capacity filter basket. Use the small capacity basket for a single shot of espresso (23.35 g), and the large capacity basket for a double shot (56.7 g). The small capacity basket can be used with paper coffee pods*.

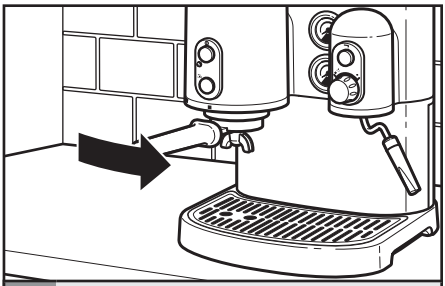
*Paper coffee pods are available for purchase at specialty coffee shops, or online.



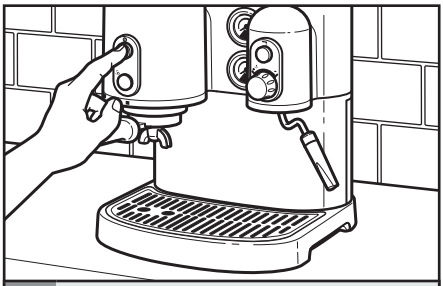
3 Press the filter basket into the portafilter until it snaps into place. Do not fill with coffee at this time.



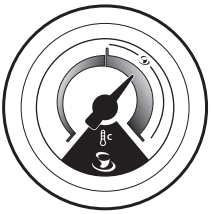
4 Position the portafilter underneath the brew head and align the handle with the arrow on the left side.



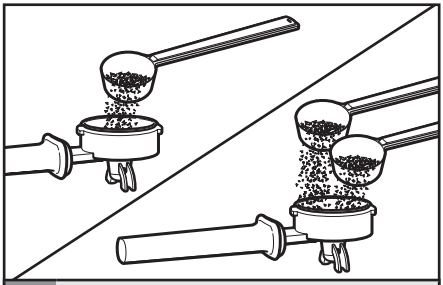
5 Raise the portafilter into the brew head and tighten it with a firm twist to the right. When in place, the handle will point forward or slightly to the right.



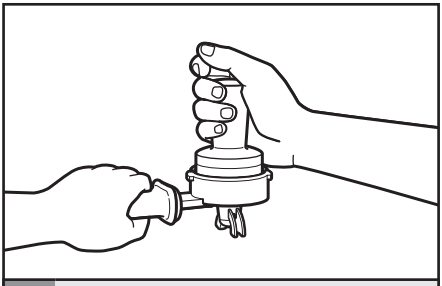
6 Press and hold the On/Off power button until the ON indicator lights up.



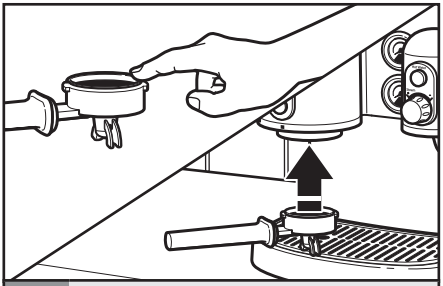
7 Wait until the Espresso Machine has reached operating temperature; this will take approximately 6 minutes. When the boiler temperature gauge needle climbs into the "ready" zone, the Espresso Machine is ready to brew.



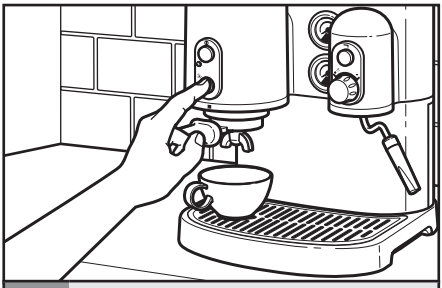
8 Remove the portafilter from the brew head by moving the handle to the left. Place one level measure of ground coffee (or a paper coffee pod) in the small filter basket, or two measures of ground coffee in the large filter basket. Be sure to use a fine espresso-style grind for your coffee.



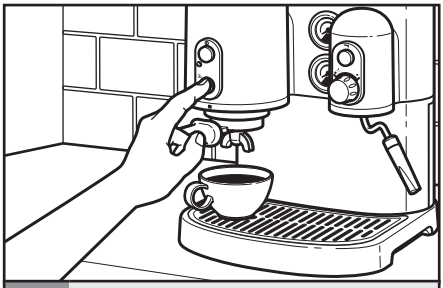
9 Using the tamper, tamp the coffee down firmly with a twisting motion. Make sure the surface of the coffee is as level as possible. See "Leveling" and "Tamping" chapters in the "Tips for great results" section for details.



10 Sweep any excess grinds from the rim of the portafilter, and insert into the brew head.

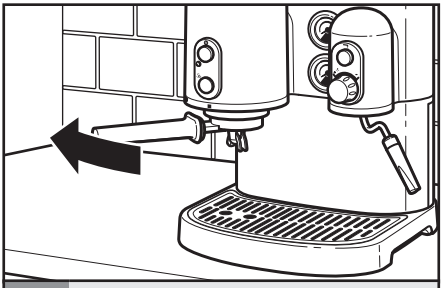


11 Place one or two espresso cups on the drip plate under the spouts of the portafilter. Press the Espresso button, and espresso will start to flow into the cups.

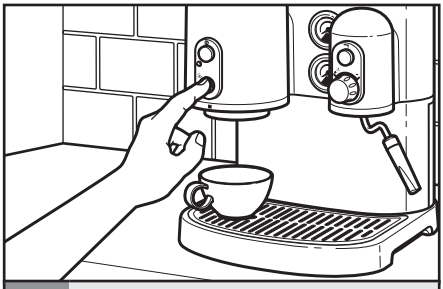


12 When the desired amount of espresso has been brewed (30 ml using the small filter basket or 59 ml using the large filter basket), press the Espresso button to stop brewing.

NOTE: Do not remove the portafilter when brewing.



13 The Espresso Machine is equipped with a 3-way solenoid valve that instantly releases pressure in the brew group when the water pump is switched off, so the portafilter can be removed immediately after brewing. Remove the portafilter by moving the handle to the left. Knock the used coffee grounds out of the filter basket into a waste container.

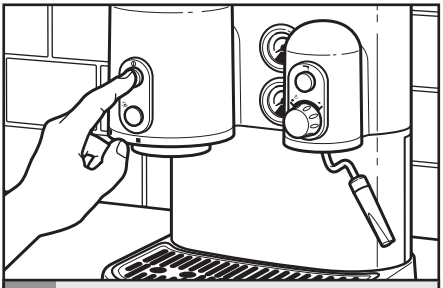


14 After removing the portafilter, place a cup under the brew head and press the Espresso button for a second or two. This cleans the shower screen and flushes out any coffee oils and grounds that have migrated into the brew head.

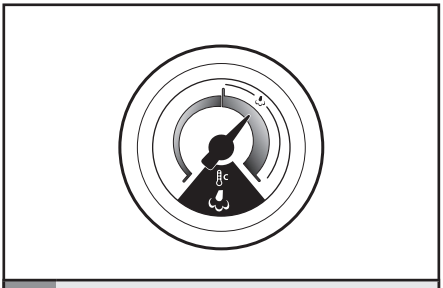
NOTE: When knocking coffee grounds from the filter basket, avoid striking the portafilter handle.

Frothing and steaming milk

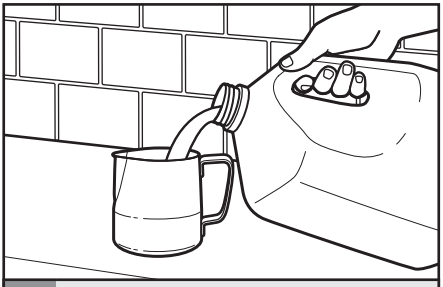
Frothing and steaming milk requires a bit of practice, but you'll be surprised how quickly your skills will develop. The Espresso Machine gives you all the tools you need: a 325 ml stainless steel pitcher shaped especially for frothing (with a spout perfectly designed for latte art), a frothing arm that adjusts horizontally and vertically for a comfortable working position, a frothing nozzle designed to enhance frothing, and a Steam Dial that lets you precisely control the volume of frothing steam.



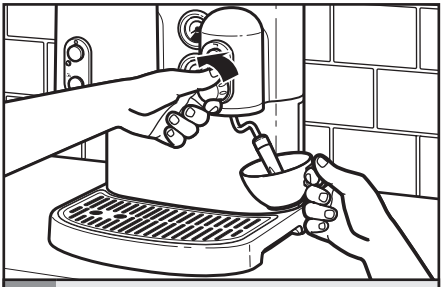
1 Press and hold the On/Off power button until the ON indicator lights up.



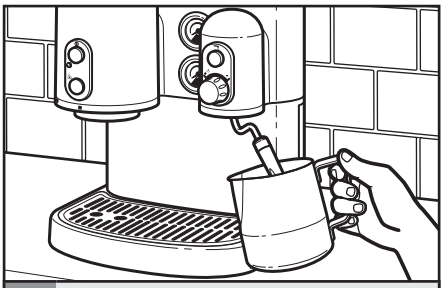
2 Wait until the Espresso Machine has reached operating temperature; it may take approximately 6 minutes. When the frothing boiler temperature gauge needle climbs into the "ready" zone, the Espresso Machine is ready to froth.



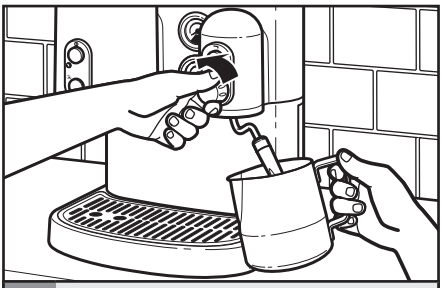
3 Fill the frothing pitcher 1/3 full with cold milk.



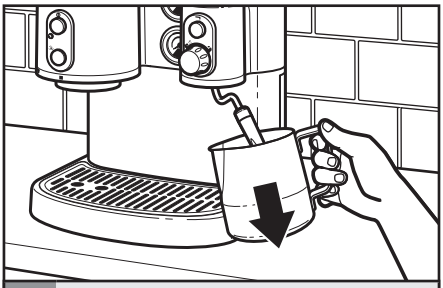
4 With the frothing arm pointed into an empty cup, open the Steam dial for a moment to purge excess water from the line. To open the Steam dial, turn it slowly counter-clockwise. To close the Steam dial, rotate it clockwise until it stops.



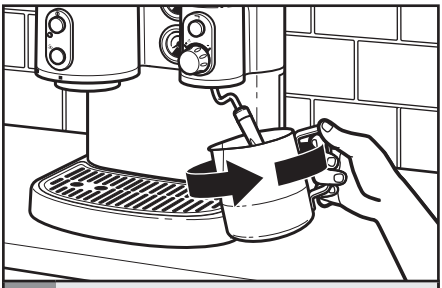
5 With the Steam dial closed, adjust the frothing arm so it's in a comfortable working position, and submerge the tip of the frothing nozzle just below the surface of the milk in the frothing pitcher.



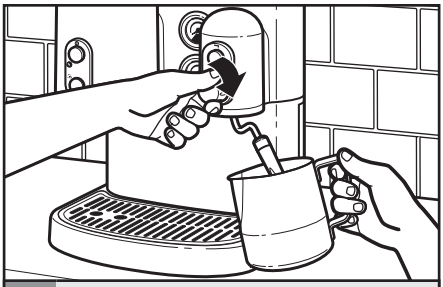
6 Slowly open the Steam dial by turning it counter-clockwise. The further the Steam dial is rotated, the greater volume of steam will be released. Tilt the pitcher to one side to create a whirling motion in the milk, keeping the tip of the frothing nozzle about 6.4 mm below the milk's surface.



7 As the froth expands, it is necessary to lower the pitcher. This is called the stretching phase of frothing. When the frothed milk has expanded to about 3/4 the volume of the pitcher, lower the frothing nozzle into the pitcher to finish steaming (heating) the milk.



8 Keep the pitcher tilted to maintain a whirling motion in the milk. Steam the milk until it's between 60 and 73.9°C. (At these temperatures, the pitcher will be very warm to the touch.) Avoid scalding the milk, which occurs at 79.4°C.



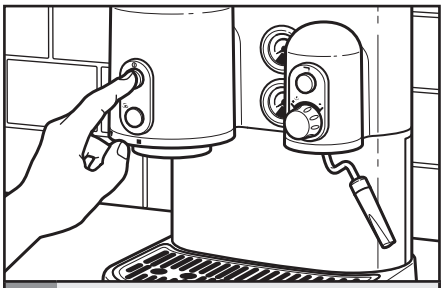
9 To avoid splattering, close the Steam dial by turning it clockwise until it stops before removing the frothing arm from the milk.

NOTE: KitchenAid recommends using a standard kitchen thermometer to determine when the milk reaches 60°C -73.9°C when learning to steam milk. Typically the pitcher is almost too hot to touch when this temperature is reached.

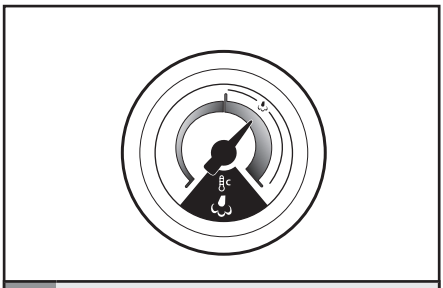
Dispensing hot water

Hot water can also be dispensed from the frothing arm. This provides a convenient way to make Americanos, tea, or hot chocolate. Filling a demitasse with hot water is also a great way to warm it before brewing espresso.

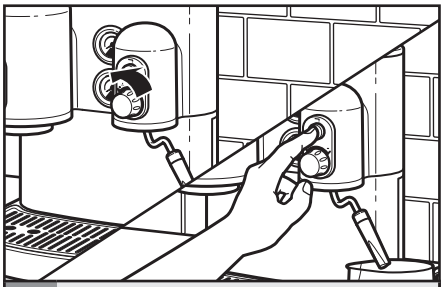
NOTE: Always dispense hot water into an empty container – dispensing into a cup or pitcher containing other ingredients may cause splattering.



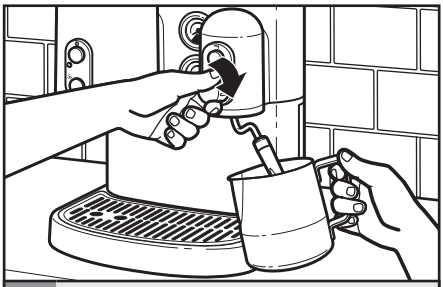
1 Press and hold the On/Off power button until the ON indicator lights up.



2 Wait until the Espresso Machine has reached operating temperature; this will take approximately 6 minutes. When the frothing boiler temperature gauge needle climbs into the "ready" zone, the Espresso Machine is ready to dispense hot water.



3 With the frothing arm pointed into an empty cup, open the Steam Dial by turning it slowly counter-clockwise. Then press and hold the Hot Water button to dispense water.



4 When the desired amount of water has been dispensed, release the Hot Water button and close the Steam dial by turning it clockwise until it stops.

NOTE: Residual frothing steam may exit the nozzle before water dispenses. It may take several seconds for water to begin flowing from the nozzle.

TIPS FOR GREAT RESULTS

What is espresso?

Espresso began as an attempt in the 1800s to quickly brew coffee on demand, by the cup. The goal was to serve the freshest, most flavorful coffee possible and avoid the burned, stale taste of coffee kept warm on a stovetop. To speed the brewing process, coffee pioneers struck upon the idea of forcing water through the grounds under pressure. Steam was initially used to supply the pressure, followed by compressed air, lever operated pistons, and finally, the electric water pump.

Through the decades, the elements of espresso brewing were tested and refined to produce the standards we have today: 28.35 grams of true espresso comes from exposing 7 grams of finely ground and packed coffee to 90.6-96.1° C water under 9 bars of pressure. In a brief 25 seconds, most of the highly flavorful coffee aromas and oils are extracted, while the more bitter compounds and off-tastes are left behind.

When the ground coffee is fresh and the brewing is done well, the pressurized brew water emulsifies the coffee oils into the golden foam called crema, which crowns the espresso shot with ultimate flavor and aroma.

Overextraction and underextraction

Brewing great espresso takes an understanding of what actually winds up in the cup when coffee is exposed to water. Roughly 30% of a roasted coffee bean is made of water soluble compounds. 20% of those compounds dissolve fairly easily, while the remaining 10% take a little more work – which is a good thing, because that less-soluble 10% is acidic, bitter, and generally unpleasant. The goal of all coffee making is to extract the easily dissolved oils and compounds while leaving the rest in the grounds.

If ground coffee steeps in water too long, all the soluble compounds will be extracted, which makes for a very bitter brew. This is called overextraction. The opposite of overextraction is underextraction, which occurs when coffee is not exposed to the brew water long enough, leaving the essential flavors and aromas locked in the grounds. Underextraction results in coffee that is weak in taste.

Whether brewed coffee is overextracted, underextracted, or just right depends on several factors, including the ratio of coffee to brew water, the fineness of the grind, the brewing temperature, and the length of time the water is in contact with the coffee. All these factors are either directly or indirectly affected by the barista's technique.

Before brewing: the elements of great espresso

Before the espresso machine is even plugged in, you'll need several elements to produce great coffee.

Fresh Coffee Beans
Great coffee can only come from fresh coffee beans, properly roasted. Many baristas recommend buying beans roasted no darker than a medium roast, the color of which appears as an even chocolate brown. This roast preserves the natural sugars and flavor of the bean, which sets the stage for excellent espresso. A medium roast is the darkest a bean can be roasted without oils developing on the surface.

Darkly roasted beans – which appear dark brown or nearly black – look great, but the extra roasting overwhelms the more delicate coffee flavors and caramelizes any sugars. A heavy "roasted" coffee flavor, often bitter and sharp, will predominate with a dark roast.

To preserve the freshness of coffee beans:
Keep beans in an opaque, air-tight container and store them in a cool, dry place. Refrigeration is not recommended, as condensation tends to form on the beans whenever the container is opened. Freezing can help preserve beans stored for an extended period, but it will also impair flavor.

TIPS FOR GREAT RESULTS

Great Tasting Water
An often overlooked element of great espresso is the brew water. If you don't enjoy the flavor of your tap water, don't use it to brew espresso – use bottled, purified water instead. Since it doesn't take long for fresh water to acquire a "flat" quality and taste, it's also a good idea to change the water in the reservoir often and refill the boilers after a long period of non-use.

Do not use mineral water or distilled water – they can damage the Espresso Machine.

The Right Grind – and Grinder
Espresso demands a very fine, very consistent grind. Blade grinders and inexpensive burr grinders usually fall short when it comes to producing the grinds needed for outstanding espresso. The best espresso requires a quality burr grinder which will maximize the flavor and aroma of espresso by producing an extremely consistent grind with very little frictional heating.

Espresso brewing technique

Brewing Temperature
Water temperature and temperature consistency have a direct impact on the flavor of espresso. Great espresso comes from brewing at an optimum temperature, ideally between 90.6 and 93.3°C. Modern boilers and thermostats excel at producing and maintaining the right temperature, but there is a complicating factor that is a major concern for baristas: maintaining heat in the brew group.

If water is pumped from the boiler at a near perfect 93° C, but flows into a portafilter that's at room temperature, the water will cool dramatically – and the actual brewing temperature will be far less than what the best espresso requires. If the water temperature drops below 90.6° C, the espresso might still exhibit good crema, but it will acquire a distinctly bitter or sour note.

Proper Brewing Temperature:
- Always attach the portafilter (with filter basket) to the brew head when the espresso machine is heating. This warms the filter.
- Always wait until the boilers are fully heated before brewing – approximately 6 minutes.
- Dose and tamp your coffee quickly, and brew immediately. This prevents the portafilter from cooling significantly.
- Never rinse the portafilter with cool water if you are brewing additional shots. After knocking the old grounds from the filter, wipe leftover grounds from the basket with a clean towel. Make sure the filter basket is dry before adding more coffee.
- Keep the empty portafilter attached to the brew head when you're engaged in other tasks, like grinding or frothing.
- Warm a cup or demitasse by placing it on top of the Espresso Machine before brewing. Cups can also be heated instantly with a shot of steam from the frothing arm.

The Espresso Machine is designed to provide an optimum brewing temperature. Dedicated dual boilers eliminate the temperature fluctuations common with single boiler designs when alternating between brewing and frothing. The nickel-plated brass brew group heats quickly, and is commercial-size for a very good reason: commercial-size groups retain heat better than smaller groups. The Espresso Machine does its part to provide the right brewing temperature. The rest is up to the barista!

Grinding
Great espresso demands the freshest coffee, and the freshest coffee is always ground immediately before brewing. The most delicate aromatic compounds in coffee go stale within a few minutes of grinding, so grind only as much as you intend to brew immediately.

Dosing
Dosing is the process of measuring ground coffee into the filter basket. A single shot of espresso requires 7 grams of coffee – a double shot, twice that. If filled level with finely ground coffee, the scoop included with the Espresso Machine is a near perfect measure for one shot of espresso.

Accomplished baristas usually don't bother making precise measurements when dosing: they simply fill the basket nearly to the brim

and sweep any excess coffee from the filter with their fingers, leaving exactly what they need. After you've had some experience dosing, leveling, and tamping your coffee, you'll be able to consistently dose your coffee by sight, just like the pros.

If you're dosing coffee without the aid of a measuring scoop, it is important not to overfill the filter basket. Coffee needs room to expand when brewing. If the coffee is crushed against the shower screen, it will prevent an even dispersion of water across the filter, leading to uneven extraction and poor espresso.

Here's how to tell if you're overfilling the filter basket:

- Fill the basket, level the coffee, and apply a good tamp (see the next section, "Proper tamping technique").
- Attach the portafilter to the brew head, then remove it immediately.
- If the coffee in the portafilter has an imprint of the shower screen or the shower screen screw, there is too much coffee in the filter basket!

Leveling

Leveling the coffee after it has been dosed into the filter is a critical technique for great espresso. If the coffee isn't evenly distributed in the filter, tamping the coffee will create areas of high and low density. The high pressure brew water will inevitably follow the path of least resistance, flowing heavily through the low density coffee – overextracting the bitter coffee compounds – and flowing lightly through the higher density coffee, underextracting the flavorful essences. This uneven extraction results in thin, weak, bitter espresso.

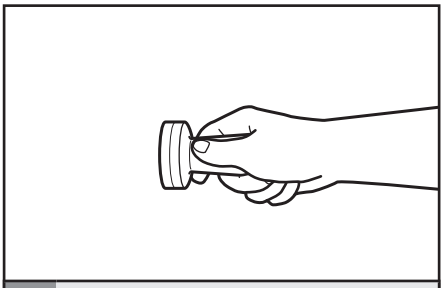
To Level Coffee In the Filter Basket:

- Make sure the filter basket is dry before adding coffee; moisture in the basket will create a path of least resistance for the brew water.
- After dosing the filter with coffee, level the coffee by sweeping a finger back and forth over the filter. Do not sweep in one direction only – this will cause the coffee to pile up on one side of the basket and produce uneven extraction. Try to impart a slight bowl shape to the coffee, with the center lower than the sides.
- Make certain there are no gaps between the coffee and the sides of the filter.

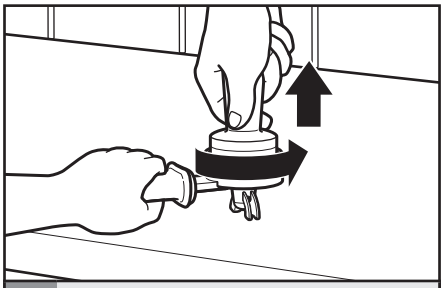
Tamping

Tamping compresses the coffee into a level disc (also called a puck) that provides uniform resistance to the high-pressure brew water. Properly leveled and tamped coffee will produce an even extraction of coffee compounds – and great espresso. Coffee that is tamped too softly will be deformed by the brew water, resulting in uneven extraction, a fast brewing time, and mediocre espresso. Coffee tamped too firmly will slow the brewing time, making for a bitter, overextracted beverage.

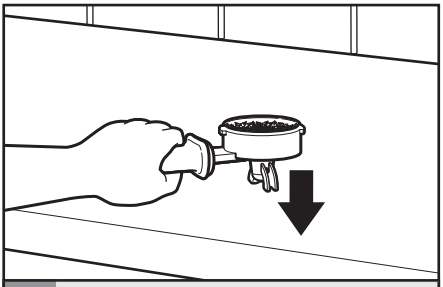
Proper tamping technique



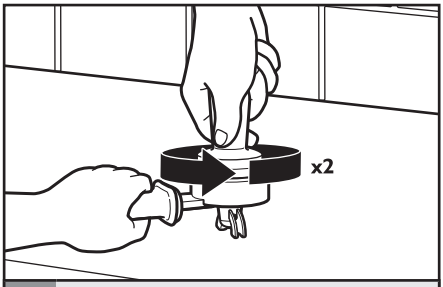
1 The tamper handle should be grasped like a doorknob, with the base of the handle firmly against the palm. When tamping, try to keep the tamper, wrist, and elbow in a straight line.



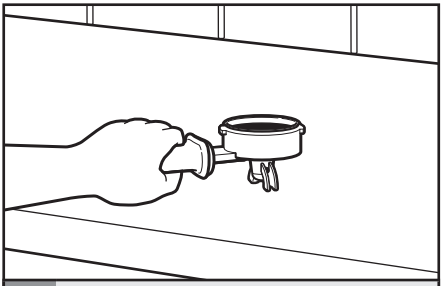
2 With the bottom of the portafilter resting on a solid surface, gently press the tamper into the coffee with the goal of creating a level surface. Remove the tamper from the filter basket with a slight twisting motion.



3 After removing the tamper, some grinds may stick to the side of the filter basket. Tap the portafilter gently on the table to jostle loose grinds onto the tamped coffee disc. Do not tap too hard, or the tamped coffee will dislodge or fracture.



4 Apply a second, finishing tamp (also called a polishing tamp). Press straight down on the coffee with about 2.4 bars of pressure, then relax the force slightly (to about 1.4 bars) and polish the coffee by turning the tamper completely around twice.



5 Inspect your tamp. The coffee disc should be smooth and level with no gaps between the side of the filter basket and the coffee.

Measuring Tamping Pressure

1.4 bars, 2.0 bars – how do you know how much tamping force you are actually using? Do what the baristas do: use a bathroom scale! Place a scale on a table or countertop, and tamp your coffee on top of it. Pretty soon, you will develop a feel for how much 1.4 or 2.0 bars of force is.

Espresso extraction technique

Shot Volume
The brew group and boilers are heated. The fresh coffee has been ground, dosed into the portafilter, expertly leveled, and precisely tamped. Now comes the moment of truth: brewing!

For the best espresso, never extract more than a single shot (30 ml) using the small filter basket or a double shot (59 ml) using the large one. Brewing more will overextract the coffee and result in thin, bitter espresso.

As it pours, perfect espresso is a deep reddish brown with a thick texture like honey running off a spoon. It often forms what are called mouse-tails, or thin syrupy streams. As increasingly bitter and acidic compounds are extracted, the espresso pour will begin to lighten; in some cases, the pour will become almost white. Expert baristas will watch the pour carefully and quickly stop brewing if it starts to lighten.

Espresso Ristretto is espresso brewed with less than normal shot volume. Prepare the espresso machine to brew a double shot, but stop brewing when only 44 ml have been extracted. What you've done is restrict the pour to include only the most flavorful and least bitter coffee oils and essences.

Extraction Rate
Decades of experience have shown that the best espresso – whether a single or a double shot – takes about 20–25 seconds to brew.

If your espresso is brewing much faster or slower than 20–25 seconds, and your tamping technique is good, adjust the grind! Grind finer for a slower extraction rate, and coarser for a faster one. Keep the dose and tamp the same.

Coffee is sensitive to the ambient humidity and will absorb moisture readily. This will affect the extraction rate. In a humid environment, the extraction rate will slow down; in dry conditions, the extraction rate will speed up. You may find yourself adjusting the grind according to the season – or the day's weather.

Some grinders do not allow the fine adjustments necessary to correct the extraction rate. The best solution is to invest in a quality burr grinder. If this isn't possible, experiment with the tamping pressure. Tamp with less force for a faster pour, and more force for a slower one.

The Golden Crema
A mark of fine espresso is crema, the dense golden foam of emulsified coffee oils that captures the essence of coffee flavor. Good crema should be thick and cling to the side of the cup when it's tilted; the best crema should be able to support a sprinkling of sugar for nearly 30 seconds.

Troubleshooting Espresso As It Brews
As it pours, if your espresso…

…has more of a cinnamon color, instead of being deep brown:

- make sure your brew group and boilers are fully heated
- use a less acidic blend of coffee

…is whitish with thin brown streaks:

- review your tamping technique – the tamped coffee has fractured, or a gap has developed between the coffee and the side of the filter basket

…is thin and fast-flowing:

- review your tamping technique – the tamp may not be firm enough to provide an even resistance to the brew water
- use a finer grind
- check coffee freshness

…barely dribbles out the portafilter:

- review your tamping technique – the tamp could be too firm
- use a coarser grind

TIPS FOR GREAT RESULTS

Barista tips

When brewing multiple shots:

- Use a towel to clean and dry the filter basket before filling with coffee. This will help to achieve even coffee extraction.

To maintain the proper brewing temperature, it is important to keep the brew group warm, so:

- Do not rinse the portafilter with tap water – doing so will cool the filter. It's best to wipe leftover grounds from the filter with a towel.
- When you're busy with other tasks, like grinding coffee or frothing milk, keep the empty portafilter warm by attaching it to the brew head.
- Clean the frothing arm and nozzle immediately after use. See "Care and Cleaning" section.
- Lower fat milks are generally easier to froth. Skim milk can be tricky because it froths very easily, with a tendency to form large bubbles and dry peaks that mar its texture. Ultimately, the choice of milk is a matter of experimentation and taste. The most important factors in producing a superior froth are experience and good refrigeration: the colder the milk you use, the better.

Preparing Cappuccino

- The Italian word Cappuccino is derived from Capuchin, an order of monks who wear garments the color of this most popular espresso drink. A standard Cappuccino is a combination of steamed milk and espresso that's capped with a layer of frothed milk; it's usually served in a bowl-shaped cup of 177 to 207 ml volume.
- To prepare Cappuccino, froth and steam the milk before brewing the espresso. This allows the froth to gel slightly and fully separate from the milk. Once the milk is prepared, brew a single shot (30 ml) of espresso into a Cappuccino cup, then pour the frothed and steamed milk into the cup with a gentle shaking motion. For a show-stopping flourish, top your Cappuccino with nutmeg, cinnamon, chocolate powder, or chocolate shavings.

Preparing Café Latte

- A basic Café Latte is a single shot (30 ml) of espresso topped with 237 to 296 ml of steamed milk and about 6 mm of foamed milk. Lattes are often flavored with 30 to 59 ml of syrup, the most popular being almond and hazelnut. If you use chocolate syrup and garnish the drink with whipped cream and chocolate shavings, you'll have that chocolate and coffee lover's dream, the Café Mocha.
- To prepare a Café Latte, you will need a pitcher larger than the one supplied with the Espresso Machine. A 473 ml capacity pitcher is perfect. Fill the pitcher 1/2 full with cold milk. The steaming technique for Lattes is almost the same as Cappuccino, except the goal is to impart a velvety texture to the milk while minimizing froth. Keep the frothing nozzle deeper in the milk so the milk volume expands more slowly. No large bubbles or froth should form.
- Once the milk is prepared, brew the espresso into a Latte mug, add the syrup if any, and gently fill with steamed milk.

Glossary of espresso drinks

Americano
177 to 237 ml of hot water added to a single shot of espresso. This makes a superb cup of coffee.

Café Latte
237 to 296 ml of steamed milk added to a single shot of espresso. Lattes are often flavored with 30 to 59 ml of syrup.

Café Mocha
A Café Latte with 59 to 100 ml of chocolate syrup added, and usually topped with whipped cream and chocolate flakes. It can also be prepared without syrup using steamed chocolate milk.

Cappuccino
A standard Cappuccino is a combination of steamed milk and espresso that's capped with a layer of frothed milk; it's usually served in a bowl-shaped cup of 177 to 237 ml volume. Powdered cocoa or cinnamon may be sprinkled on top as a garnish.

Classic Cappuccino
Classic Cappuccino is common in Italy, and is simply espresso topped with frothed milk.

Doppio
A double shot of espresso.

Espresso Breve
Espresso with steamed half & half poured on top.

Espresso Con Panna
Espresso topped with a dollop of whipped cream.

Espresso Lungo
Espresso "pulled long" – that is, brewed with a greater than normal shot volume. This technique produces caffeine-heavy espresso which is thinner, lighter-colored, and less full-bodied than normal. To make Espresso Lungo, brew 44 ml using the small filter basket, or 89 ml using the large filter basket. Use a slightly coarser grind to keep the brewing time between 20–25 seconds; extending the brewing time beyond 30 seconds will make the Espresso Lungo excessively bitter.

Espresso Lungo is often used to make stronger-tasting Americanos or Lattes.

Espresso Macchiato
Espresso with a dab of steamed milk added to the top.

Espresso Ristretto
An espresso "pulled short" – that is, brewed with less than normal shot volume to maximize flavor and minimize bitterness. For ristretto, simply brew about 22 ml using the small filter basket or 44 ml using the large basket.

Glossary of Espresso Machine parts

Brew group
The part of the Espresso Machine that holds all the working parts that allow you to brew your drink. There are two brew groups on your Espresso Machine. The first holds the On/Off Power button, the On indicator light, the Espresso button, the brew head, and the shower-screen. The portafilter attaches to this brew group. The second brew group holds the Hot Water button, the steam dial, and the frothing arm/nozzle.

Brew head
The round area that allows you to attach the portafilter when brewing espresso.

Shower-screen and Shower-screen brush
Water comes through the shower-screen at a precise speed in order to extact a perfect shot of espresso from the filter basket. The shower-screen brush allows you to gently clean the shower-screen between uses so that the water flow is not blocked.

Portafilter
The portafilter holds the filter basket filled with espresso grounds in place on the brew head, and has a long handle for ease of use.

Filter baskets
The small filter basket brews one (30 ml) shot of espresso. The large filter basket brews 59 ml of espresso.

Tamper
This tool is used to compress or "polish" your espresso grounds in the filter basket.

Frothing arm and Frothing nozzle
The frothing arm and nozzle allow you to make steamed milk for espresso drinks. The arm adjusts horizontally and vertically, allowing you to position the nozzle in a comfortable working position. The nozzle is designed to enhance frothing.

Steam dial
Precisely controls the pressure and volume of steam coming through the frothing nozzle.

Frothing pitcher
The 325 ml stainless steel pitcher is shaped especially for frothing milk, and has a spout designed for latte art.

Espresso temperature gauge
This gauge reads the temperature of your espresso brewing boiler, which must be heated to the right temperature to extract a shot of espresso.

Frother temperature gauge
This gauge reads the temperature of your steam boiler, which must be heated to the right temperature to produce steam for frothing milk.

Drip plate and Drip tray
The drip plate sits inside the drip tray and catches any spilled espresso while the machine is in use.

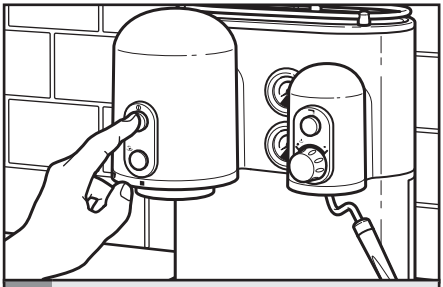
Cup rail
The top of the Espresso Machine is a good place to warm your espresso cups before making espresso. The cup rail will keep cups from falling off the top while warming.

CARE AND CLEANING

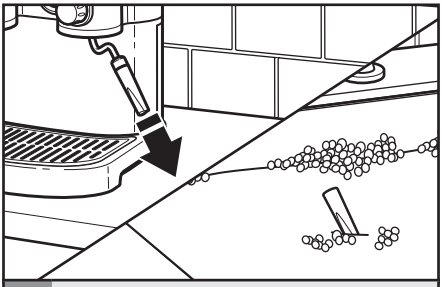
Cleaning the Espresso Machine

Keeping the Espresso Machine clean is vital to brewing the best espresso possible. You might notice that your machine is taking longer to brew, or the brew head is spewing or sputtering. These can be signs that it's time to clean your Espresso Machine. Stale coffee oils on the portafilter, filter baskets, and shower screen will ruin the flavor of the most expertly prepared coffee, and any milk left on the frothing arm should be removed for best performance and taste.

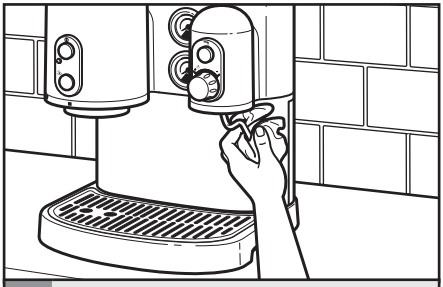
Cleaning the frothing arm and nozzle



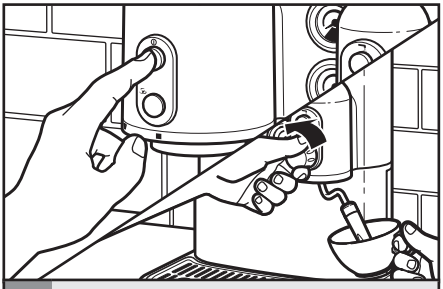
1 Turn off the Espresso Machine. Unplug the Espresso Machine from the wall outlet, or disconnect power. Let the Espresso Machine, and any attached parts or accessories, cool.



2 The frothing arm and nozzle should always be cleaned after milk is frothed. Remove the frothing sleeve from the frothing nozzle by pulling it downward. The frothing sleeve can be washed in warm, soapy water. Make sure any openings in the sleeve are free of residue.

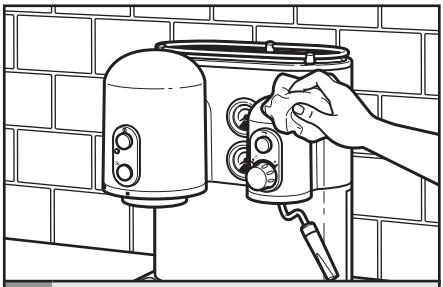


3 Wipe the frothing arm and nozzle with a clean damp cloth. Do not use an abrasive scouring pad.

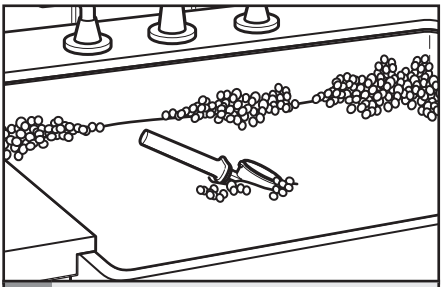


4 Plug into a grounded outlet and turn on the Espresso Machine; let the boilers reach operating temperature. Point the frothing arm into an empty cup and momentarily open the steam dial to run steam through the frothing nozzle. This will clean the nozzle tip.

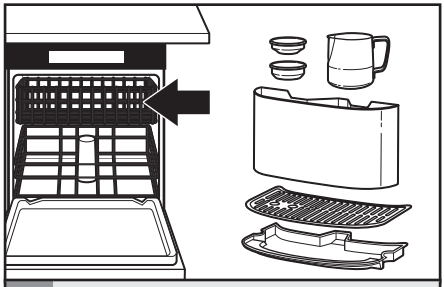
Cleaning the housing, filters, drip tray, drip plate, reservoir, and pitcher



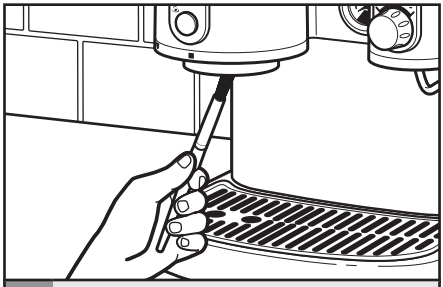
1 Wipe the Espresso Machine housing with a clean damp cloth and dry with a soft cloth. Do not use abrasive cleansers or scouring pads when cleaning the Espresso Machine, or any part or accessory.



2 Wash the portafilter in warm, soapy water and rinse with clean water. Dry with a soft cloth. Do not wash the portafilter in a dishwasher.



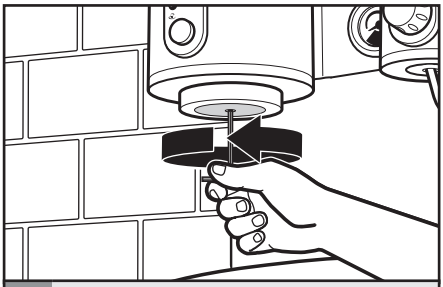
3 Wash the filter baskets, drip tray, drip plate, water reservoir, and frothing pitcher in the top rack of a dishwasher, or by hand in warm, soapy water. If washing by hand, be sure to rinse with clean water and dry with a soft cloth.



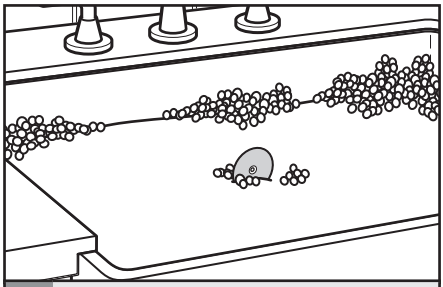
4 Use the shower screen brush or a damp cloth to brush or wipe coffee grounds from the brew head gasket and shower screen.

Cleaning the shower screen

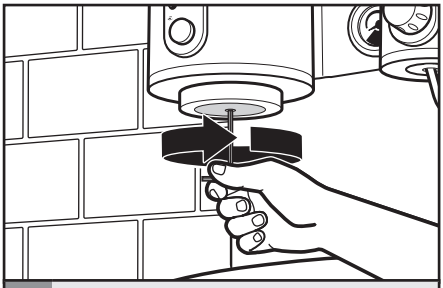
Once every 75 to 100 shots of espresso, the shower screen should be removed from the brew head to clean thoroughly.



1 Using an allen wrench, remove the screw at the center of the shower screen by turning it counter-clockwise. Once the screw is free, the shower screen should drop from the brew head.



2 Wash the shower screen in warm, soapy water, and rinse with clean water. Do not wash the shower screen in a dishwasher.

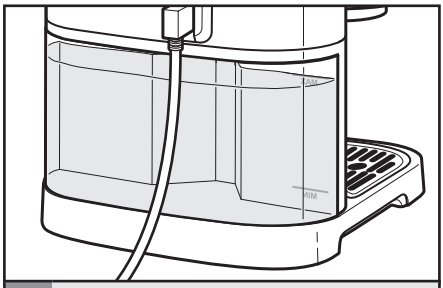


3 Place the shower screen into the brew head with the smooth side facing down, and attach with the shower screen screw. Turn the screw clockwise until snug.

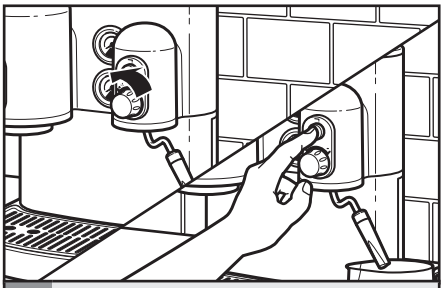
NOTE: When the shower screen is attached, the center screw should be flush with the surface of the screen. If it is not, remove the screen, turn it over, and re-attach.

Priming after long periods of non-use

For the best tasting espresso, prime the Espresso Machine with fresh water after a long period of non-use. Priming will also ensure that the boilers are filled and the Espresso Machine is ready to operate.



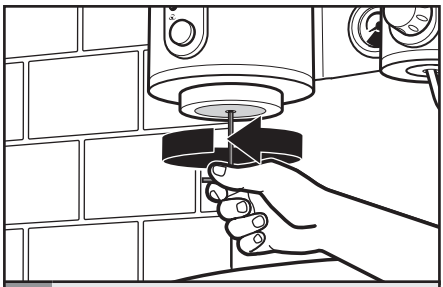
1 Remove the reservoir, empty any stale water, replace, and fill the reservoir with fresh water to the max fill line.



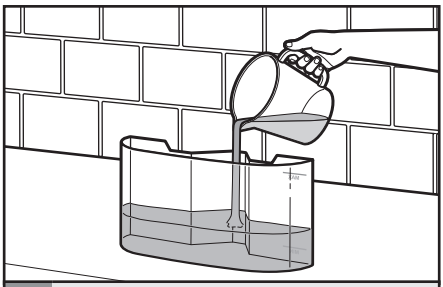
2 Fill the boilers with the fresh water. For instructions, see "Rinsing and filling the boilers" section.

Descaling

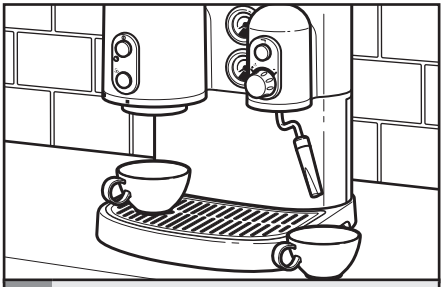
Calcium deposits ("scale") from water will build up in the Espresso Machine over time and may impair espresso quality. Scale should be removed every four months; local hard-water conditions may require more frequent descalings. Use a packaged descaling agent or appropriate decalcification tablets to remove scale. These can be found online, or at coffee specialty shops. KitchenAid does not recommend using vinegar and water solutions or home remedies in place of a commercial descaler for the Espresso Machine.



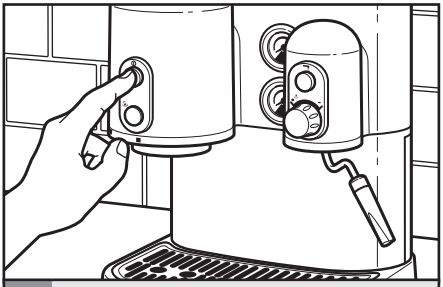
1 Remove the shower screen from the brew head. See "Cleaning the shower screen" section for instructions.



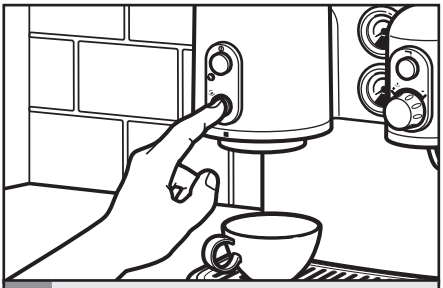
2 Make certain the water reservoir is empty. Following the directions on the descaling agent packet, mix the descaling solution and add it to the reservoir.



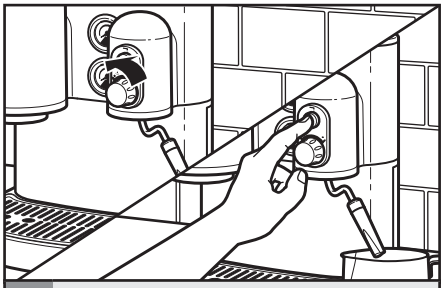
3 To catch the cleaning solution, place a large cup under the brew head (do not attach the portafilter), and another under the frothing nozzle.



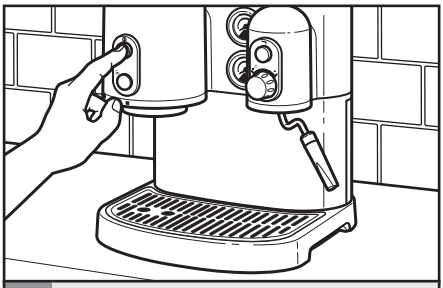
4 Press and hold the ON/OFF power button until the ON indicator lights up. It is not necessary for the boilers to heat before proceeding to the next step.



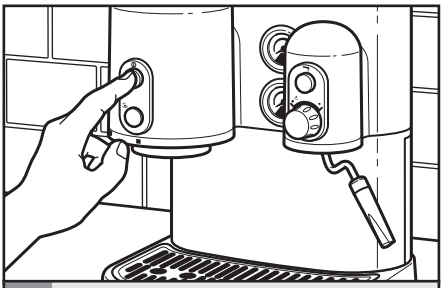
5 Press the ESPRESSO button and dispense cleaning agent through brew head for 15 seconds; press the ESPRESSO button again to shut off.



6 Open the Steam dial by turning it counter-clockwise, then press and hold the HOT WATER button for 15 seconds to dispense cleaning agent through the frothing arm and nozzle.



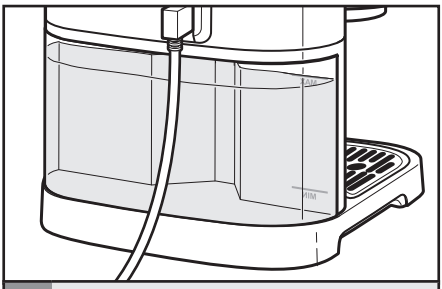
7 Press the ON/OFF power button to turn the Espresso Machine off.



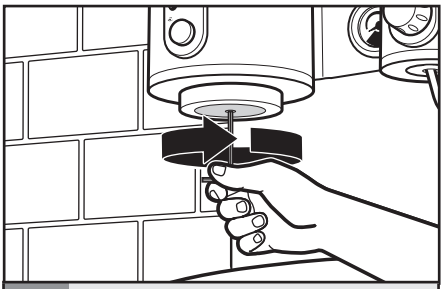
8 Wait 20 minutes, then repeat steps 4–7. Every 20 minutes, keep repeating steps 4–7 until nearly all the solution in the reservoir has been run through the Espresso Machine. Do not allow the reservoir to run completely dry.

NOTE: After each repetition, be sure to check that there is enough water in the reservoir by easily pulling the reservoir out to the side, before starting another cycle.

CARE AND CLEANING



9 Remove the water reservoir and rinse with fresh water, then replace and fill with fresh water to the max fill line. Press and hold the ON/OFF power button until the ON indicator lights up, and flush the Espresso Machine by quickly dispensing the contents of the reservoir, alternating between the brew head and frothing arm. Do not allow the water reservoir to run completely dry.



10 Attach the shower screen to the brew head. See "Cleaning the shower screen" section for instructions. Be sure to add additional fresh water to the reservoir for brewing.

TROUBLESHOOTING

1. If the power light remains off and the boilers fail to heat when the On/Off power button is pressed:

- Check to see if the Espresso Machine is plugged in; if it is, unplug the Espresso Machine, plug it back in, and press the ON/OFF power button again. If the Espresso Machine still does not operate, check the fuse or circuit breaker on the electrical circuit the Espresso Machine is connected to and make certain the circuit is closed.

2. If coffee does not flow from the portafilter, the…

- water reservoir may be empty, or the brewing boiler may not be filled
- reservoir siphon hose may be kinked or improperly placed
- shower screen may require cleaning
- Espresso Machine may need to be descaled
- coffee may be too finely ground
- coffee may be too firmly tamped

3. If the water pump is noisy, the…

- water reservoir may be empty
- reservoir siphon hoses may be kinked or improperly placed
- boilers may not be filled

4. If water leaks from the portafilter…

- the portafilter may not be properly attached to the brew head
- coffee grinds may be clinging to rim of portafilter or brew head gasket
- the brew head gasket may be dirty or worn

5. If little steam or froth is being produced, the…

- frothing boiler may not be at operating temperature
- steam dial may not completely open
- frothing nozzle may be need to be cleaned
- water reservoir may be empty, or the frothing boiler may not be filled

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