

Coffee Roaster

Manual



Specification:

Name	: Gas Coffee Roaster
Brand	: KAKA COFFEE
Capacity	: Up to 400 grams of green bean (about 1 pound)
Materials	: Quartz glass drum, s/steel frames, steel base, wooden handle
Size	: L38 x W 21 x H 21.5 cm (box of 46 x 23 x 28 cm), G.W. 4.2 Kg
Motor	: Use DC 12V, 12W electric motor
Power	: Powered by DC 12V 1A universal power adapter (included)
Burner	: Direct heating, by Kitchen Stove, gas burner (not included)
Package	: The Roaster Set, Funnel, Power adapter, Manual.

The Manual Must Be Retained For Future Reference

WARNING

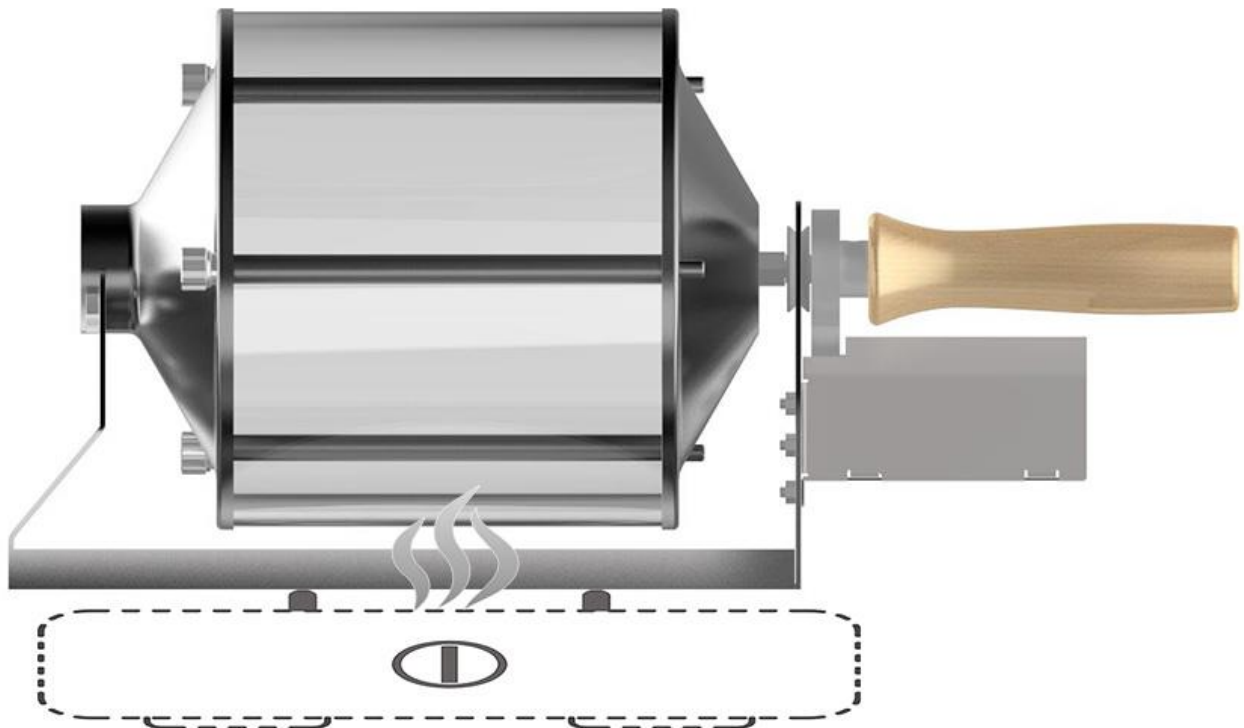
If you smell gas, turn off the manual shut-off valve from the propane (LP) or natural gas (NG) stove burner. Disconnect the electrical power to the appliance. Call your local gas service company to check the gas connection to your stove.

WARNING

Keep the area around the appliance free and clear from combustible materials. Minimum clearance to adjacent combustibles should be 30 cm (one feet) from the side and back of the appliance.

roasted coffee will soon be a regular part of your life. As a home coffee roaster, it will dramatically demonstrate your commitment to freshness and quality and your family will taste the freshest coffee they have ever had.

Depending on the degree of darkness of the roasted coffee and the type of green coffee bean, it should take between seventeen and twenty minutes to produce a roasted and cooled pound of coffee. In a ten hours day, you can easily roast twenty or twenty-five pounds of high quality coffee with just one of our machines. (Allow the coffee to sit for 48 to 72 hours before grinding and brewing, to allow the flavor to develop.)



2. Three important points to keep in mind:

1. Roasted coffee loses its freshly roasted flavor in about a week, so it is very important to keep track of the age of your roasted coffee. If you are going to sell whole bean coffee, put the "date roasted" right on the bag! Sell it or brew it within a few days of roasting, and the flavor will be genuinely memorable.
2. Always use top quality coffee. You will get better roast consistency, produce less smoke, and get much better flavor out of clean, well-graded, specialty coffees. The difference in price between top quality specialty green coffee and lower quality coffee is definitely not worth the disappointment.
3. Great fresh coffee can be ruined by poor grinding and brewing. Our representatives will be glad to help if you have questions about your brewing equipment or practices.

3. Installation and Accessories:

Before installing the coffee roaster, unpack the appliance and review the parts list supplied in the accessory kit. If anything is missing please contact us immediately. Read and understand this installation and operation manual.

4. Green Coffee:

It is important to know that not all green coffees are equal. While most green coffees will roast well in our machine, some poorly processed coffees will not. However It maintains a good variety of excellent specialty green coffees that have been tested for suitability for our roaster.

The roaster is designed to roast normally processed (washed or dry-process) coffees, which produce a certain amount of chaff towards the end of the roasting cycle. Decaffeinated coffees, which have no chaff, should roast fine in the roaster. If you are having problems roasting decaffeinated coffees, contact us and or check further at the internet

5. Things To Remember:

The coffee roaster has been designed to be simple to operate. But before you start you must understand some basic principles of operation.

- Do not use the power switch to stop a roast. If a roast appears to be going too dark, just turn off the Stove, and let the roaster keeps rotating, to finish cooling cycle.
- Always use the "Funnel" supplied with the roaster, to fill the drum with green beans up to 400 grams. This is approximately 1 pound of green coffee and will yield approximately 320 grams of coffee roasted. Do not overfill the drum.
- Keep the roaster clean. Refer to the Roaster Maintenance section for proper cleaning procedures. It is important to maintain the roaster to keep it operating at its best.
- Do not leave the roaster to run completely unattended. As with any appliance, unusual conditions such as a power outage, blocked vent, or failure to properly maintain the roaster can cause coffee to smolder and generate smoke in the roast chamber.
- Be careful not to chip or scratch the glass roasting chamber. The roasting chamber is made of high quality quartz glass which is capable of handling thermal stress greater than that produced by the roaster. The glass will not however handle thermal cycles after being damaged due to impact or abrasion. The roasting chamber is expensive and must be handled with care. we will not be held liable for breakage.

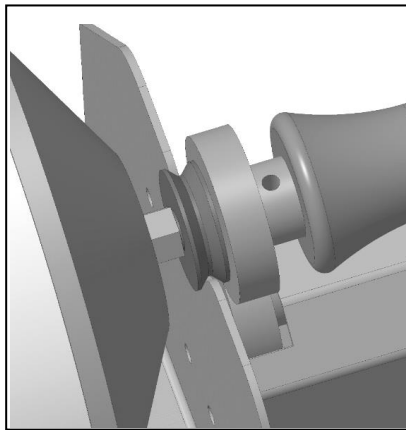
6. Filling The Roaster:

- Empty contents of level filled can into roast chamber. The roaster is designed to operate correctly with a fixed volume of approximately 1.4 lbs of green beans in the roast chamber and is easily measured using the supplied metal can. This volume ensures correct air flow balance through out the entire roasting process.
- Remove roast chamber by lifting straight up and back.
Caution: The roast chamber is able to withstand much higher temperatures than the roaster is capable of producing. However, it can be damaged if impact occurs on a hard surface and then subsequently heated during a roast.
- Fill the supplied measuring can level to the top. Caution: The supplied can must be used in order to achieve the correct volume of beans.

7. Starting the Roaster:

Initiate the roast with four simple steps:

1. Fill in the green beans into drum. Put the chamber back to its base properly (see explanation, as below picture), on the top of the gas stove.
2. Switch the power switch on, turn the gas stove (burner) on
3. Always attend the machine during roasting. You can see thru' the change of processes.
4. After color of beans change to your desired level (recommended soon after the 2nd crack), turn the stove off. Immediately pour out the roasted beans into the colander or the tray, shake for few minutes to let the chaff out off tray (clean). And let the roasted beans cool down for hours.



8. The Roasting Process:

Once the start button is pushed, turns On the stove, it starts roasting and the following will be observed during the process

- The machine is now roasting the coffee and will continue to increase the bean temperature closer to the final roast level.
- During the roasting process, the beans will go through changes in color, size, and weight.

Color : As the bean temperature increases, the first noticeable difference is the darkening color from green to light brown then to dark brown with oils on the bean surface.

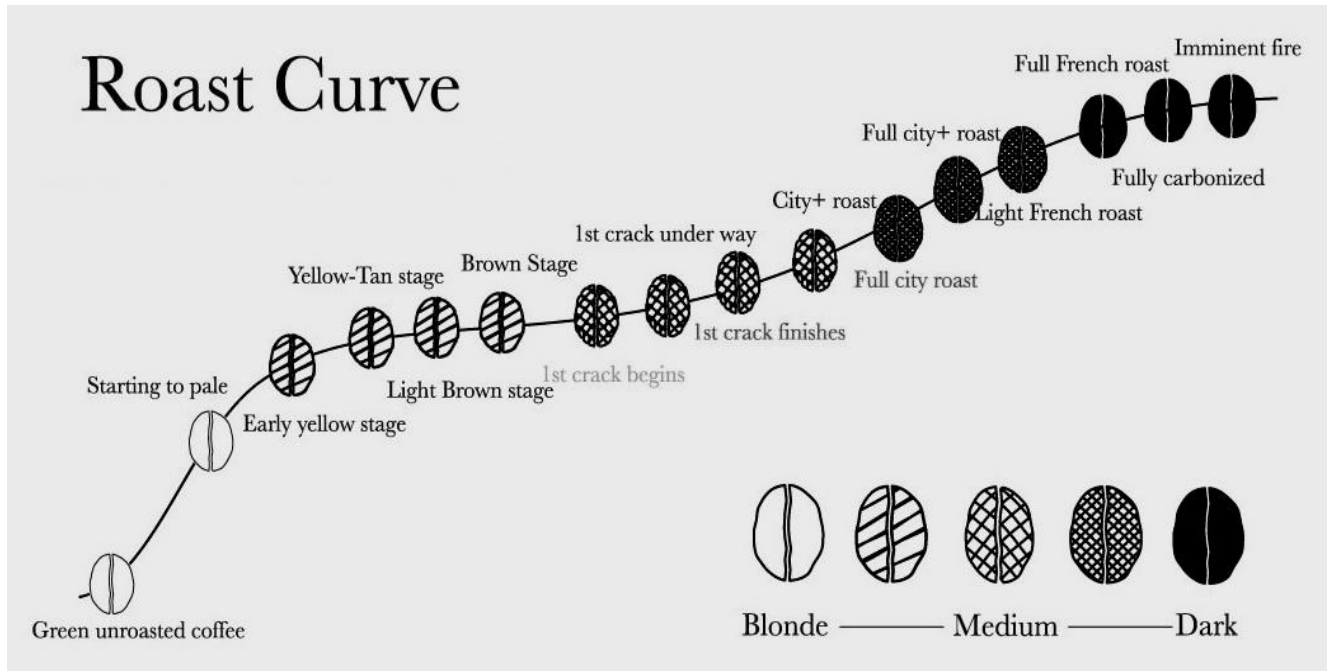
Note : Decaffeinated coffee will look brown before roasting due to the decaffeination process.

Size: As the bean is heated, the internal cell walls of the bean will expand from the heat and cause the bean to increase in size by nearly a third. This expanding of the bean is referred to as the "crack" and can be heard as a light snapping or cracking sound, typically occurring first around seven minutes and again near ten minutes (that is, the first crack and second crack).

Weight : Before roasting begins, the bean is considered "heavy" or "green" due to the moisture trapped inside. During the roasting process the moisture is driven out of the bean. Towards the end of the roast the beans will appear to be bouncing around the roast chamber more rapidly due to the "weight loss".

- About ten to twelve minutes, the beans will reach the final roast level temperature at which time to turn off the stove. Pour the roasted beans into the colander or tray. Let them cool down. Let the quartz glass chamber (drum) temperature cool down, before cleaning or start new roast!

Roast Curve



9. Handling Roasted Coffee:

After the roasting and cooling process is completed, the beans can be placed directly into a bag or bin. Freshly roasted coffee must be allowed to sit for 48 hours before grinding and brewing to allow the flavor to “develop”. This process, known as “**degassing**”, allows the gasses to escape as the flavors emerge in the bean.

Proper handling should include allowing the beans to sit in a covered but unsealed bin before use. If the bin is sealed tightly, the gases cannot escape and the flavor development process will slow. Do not allow the beans to become wet or come into contact with syrups.

10. Preparing for the Next Roast:

The quartz glass chamber may need to be cleaned prior to starting the next roast to ensure that each roast will be consistent with previous batches. The following is a description of the fundamental operation and the maintenance required between roasts. The entire process should take no more than one minute to complete.

As discussed, the bean will expand and increase in size during the roasting process. During this expansion phase the bean will “crack” and shed its “skin” also known as **chaff** (the outer skin of the coffee bean). This chaff is captured inside the chamber too. The chaff also acts to balance the air flow in the system as the bean becomes lighter during the roast due to the moisture being driven off.

12. Roast Chamber:

It is important that the roast chamber be cleaned after every roast to prevent the build-up of oils on the glass surface as well as the bottom plate. Oil build-up will affect the roaster performance if the build-up becomes excessive. The beans must move around freely in the roast chamber to properly mix with hot air for an even and consistent roast throughout all of the beans.

Oils deposited on the glass cylinder and walls create a rough surface that can cause the beans to slow down in the roast chamber due to friction. This “slowing” of the beans can cause darker and

inconsistent roasts. Wiping the roast chamber glass and bottom plate with a dry terry cloth or paper towel after every roast will reduce the build-up of oils.

- To prevent breakage, avoid resting the roast chamber on a table or counter top during cleaning.
- With a firm grip on the roast chamber; wipe the walls of the roast chamber.

Note: Some heat discoloration on the bottom plate is normal.

Caution: The roast chamber is one of the more costly components of the roaster, especially the quartz glass cover. Care must be taken when handling to prevent damage or breakage.

- At the end of the day, clean the entire roast chamber inside and out with a towel, warm water, and mild detergent to completely remove excess oils.

13. Daily Maintenance:

Daily maintenance is important to keep the roaster operating and looking its best. A maintenance routine at the end of every roasting day will allow the roaster to be began operation the next morning without delay. The daily maintenance includes:

- Make sure the chaff is poured out of the chamber, after the roasting
- If necessary, clean the entire roast chamber inside and out with a towel, warm soapy water, and mild detergent (or toothpaste) to completely remove excess oils.
- Clean external surfaces of the roaster, basement etc. with a damp cloth and mild detergent.
- Clean the area around the roaster to minimize the chaff build-up in the work area.



Complementary : ① Funnel :

Warranty

We warrant the KAKA coffee roaster against defects in workmanships or materials for a period of one year from the date of purchase as follows:

1. If the product is determined to be defective, we will repair or replace product for free.
2. This warranty does not cover replacement of the glass roasting chamber.
3. This warranty does not cover problems resulting from poor installation or operator abuse.

Roasting anything other than green coffee beans in the machine will void the warranty. Repair or replacement as provided under this warranty is the exclusive remedy of the purchaser. We shall not be liable for any incidental or consequential damages for breach of any express or implied warranty on this product.

Coffee Roast Guide

Roasting is a heat process that turns coffee into the fragrant, dark brown beans we know and love.

Why roast ?

Coffee Bean Roasting Chart

Roast Level	AKA	Surface	Acidity	Flavor
Light	Cinnamon roast, half city, New England	Dry	High	Light-bodied and somewhat sour, grassy, and snappy
Medium	Full city, American, regular, breakfast, brown	Dry	High	A bit sweeter than light roast; full body balanced by acid snap, aroma, and complexity
Dark	High, Viennese, Italian Espresso, Continental	Slightly shiny	Medium	Somewhat spicy; complexity is traded for rich chocolaty body, aroma is exchanged for sweetness
Darkest	French	Very oily	Low	Smokey; tastes primarily of roasting, not of the inherent flavor of the bean

Roasting brings out the aroma and flavor that is locked inside the green coffee beans. Beans are stored *green*, a state in which they can be kept without loss of quality or taste. A green bean has none of the characteristics of a roasted bean -- it's soft and spongy to the bite and smells grassy. Roasting causes chemical changes to take place as the beans are rapidly brought to very high temperatures. When they reach the peak of perfection, they are quickly cooled to stop the process. Roasted beans smell like coffee, and weigh less because the moisture has been roasted out. They are crunchy to the bite, ready to be ground and brewed.

Once roasted, however, they should be used as quickly as possible before the fresh roast flavor begins to diminish.

Roasting is both an art and a science

It takes years of training to become an expert roaster with the ability to "read" the beans and make decisions with split-second timing. The difference between perfectly roasted coffee and a ruined batch can be a matter of seconds.

Know your roasts

Most roasters have specialized names for their favored roasts and there is very little industry standardization. This can cause some confusion when you're buying, but in general, roasts fall into one of four color categories — light, medium, medium-dark and dark.

Many consumers assume that the strong, rich flavor of darker roasts indicates a higher level of caffeine, but the truth is that light roasts actually have a slightly higher concentration.

The perfect roast is a personal choice that is sometimes influenced by national preference or geographic location. Within the four color categories, you are likely to find common roasts as listed below. It's a good idea to ask before you buy. There can be a world of difference between roasts.

Light roasts

Light brown in color, this roast is generally preferred for milder coffee varieties. There will be no oil on the surface of these beans because they are not roasted long enough for the oils to break through to the surface.

- Light City
- Half City
- Cinnamon

Medium roasts

This roast is medium brown in color with a stronger flavor and a non-oily surface. It's often referred to as the American roast because it is generally preferred in the United States.

- City
- American
- Breakfast

Medium dark roasts

Rich, dark color, this roast has some oil on the surface and with a slight bittersweet aftertaste.

- Full City

Dark roasts

This roast produces shiny black beans with an oily surface and a pronounced bitterness. The darker the roast, the less acidity will be found in the coffee beverage. Dark roast coffees run from slightly dark to charred, and the names are often used interchangeably — be sure to check your beans before you buy them!

- High
- Continental
- New Orleans
- European
- Espresso
- Viennese
- Italian
- French

