







# TKMSX 5

## COFFEE ROASTING MACHINE

## Technical Information

<b>MODEL:</b>	TKMSX 5	
<b>BATCH CAPACITY:</b>	5 Kg of green coffee	
<b>ROASTING TIME:</b>	Fast roast - 10 minutes Slow roast - 18 minutes	
<b>HOURLY CAPACITY:</b>	Fast roast - 25 Kg / Hour Slow roast - 15 Kg / hour	
<b>DIMENSION (H x W x L)</b> "PLEASE SEE SCHEMATIC DIAGRAM"	Height: 215 cm Length: 120 cm Width: 148 cm	
<b>WEIGHT:</b>	220 Kg	
<b>VOLTAGE:</b>	110-220-380-415 Volts, 50-60 Hz 1-3 Phases are available according to the customers preference.	
<b>TYPE OF FUEL:</b>	LPG / Natural Gas	
<b>NUMBER OF MOTORS:</b>	4 motors.	
<b>COLOR</b>	 Black	 Red
	 Green	 Customer preference
<b>ELECTRIC CONSUMPTION:</b>	<b>220 Volt / 50Hz / Single Phase</b>	<b>380 Volt / 50Hz / Three Phase</b>
	1,5 KW / 8 AMPERE	1,5 KW / 3,5 AMPERE
<b>GAS CONSUMPTION:</b>	<b>LPG</b>	<b>NATURAL GAS</b>
	14.400 Kcal / 57.100 BTU	18.720 Kcal / 74.300 BTU

## Body Finishing Types



## CHROME



## BRASS



## COPPER

### Security Systems :

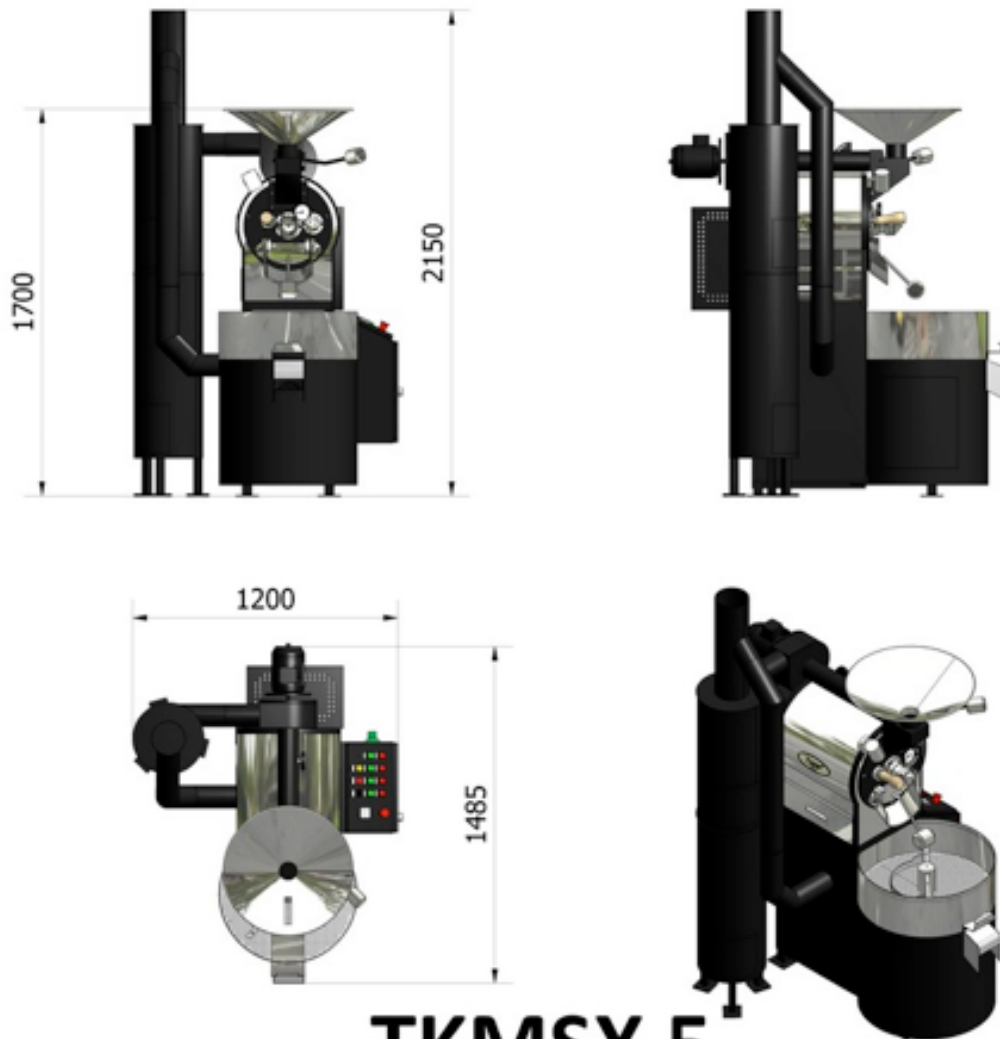
- **Gas Security & Pilot System for security and electronic ignition:** To stop the gas flow
- **Mixer Security System:** To protect any injury to user from rotating cooling tray arms.

**Temperature Control:** Digital temperature controls and digital temperature indication

### Other Specifications:

- Standard timer
- Security drawer for the beans
- New type of chaff collector for easy chaff discharging.
- Simultaneous roasting and cooling at the same time.
- Sampler and Glass window to control roasting
- Installation and start up manual for easy using
- High capacity suction for cooling fan
- 2 year guarantee
- Gas and electric components are compatible with CE – UL standards
- **After burner (Optional)**
- **Touch Screen Profile System (Optional)**
- **Cropster (Optional)**

## Schematic Diagram



**TKMSX 5**

## Main parts of Toper TKM-SX 5 Gas Coffee Roaster



- 1- **GREEN COFFEE HOPPER:** It is used to put green coffee inside the drum.
- 2- **GREEN COFFEE HOPPER VALVE:** By opening this valve, the green beans fall inside the drum.
- 3- **SAMPLER SPOON:** Enables to check the beans during the roasting.
- 4- **DUST ROOM GATE:** To open and clean inside the dust room. There are two gates on the dust room. Upper gate is not usable during the roasting. Do not open it during roasting. You can use the below gate for cleaning the dust room during roasting.
- 5- **COOLING TRAY:** Cools the coffee beans in three minutes.
- 6- **MIXER DISCHARGE GATE:** You can get the coffee beans out from this gate.
- 7- **VIEWING WINDOW:** Enable to see roasting process inside the drum during the roasting.
- 8- **BURNER ROOM:** Pilot flame and burner is inside this area as well as the flame.
- 9- **DUST DRAWER:** For cleaning the chaffs which drop down during the roasting from the drum gap.
- 10- **EXHAUST AIR VALVE:** Enable to adjust the exhaust fan suction. Closing this valve makes the drum heat-up faster. Also by changing the pressure of the drum enables you to adjust the inner pressure of the coffee beans as well. This helps either increase or decrease the roasting time
- 11- **ELECTRICAL CONTROL BOX:** All electric circuits are included inside this box.

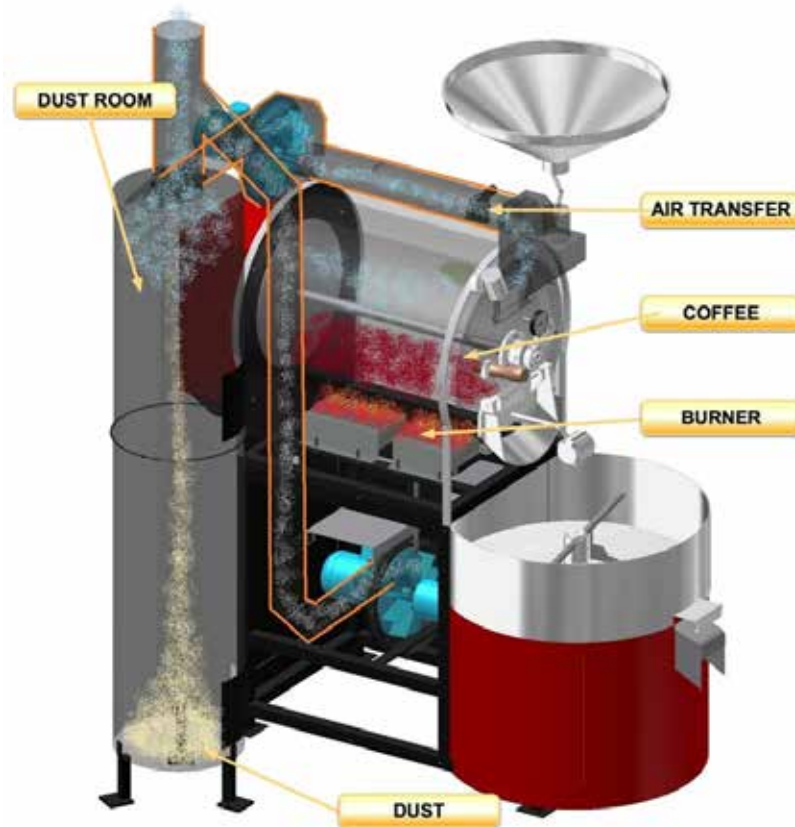


**12- DUST ROOM (CHAFF COLLECTOR):** Collects the chaff and dust from the exhaust air flow and then it traps inside this chaff preventing any chaff from going out.

**13- LAMP:** Enable to observe the roasted beans in the same light conditions in every roasting.

**14- EXHAUST PIPE:** Chimney connection point

## Working principles of a Toper Roaster



- Fill the green bean hopper with the coffee in accordance with the batch capacity
- Then get the beans inside the drum after heating-up the roaster
- The roasting process occurs inside the drum.
- During the process the dusts and chaffs get out through the dust room by the exhaust fan.
- The dusts and chaffs are collected and the smoke is given out.
- Homogenous heat is transferred to all coffee beans
- And then the beans are dumped to the cooling tray
- The cooling tray cools the coffee by sucking the heat from the coffee
- You may roast another batch when your previous roasted coffee is in the cooling tray.
- Enjoy your roasting.

# Coffee Roasting Types



1. Green coffee beans (un-roasted) - 23 °C / 75 °F
2. Starting to pale - 132.2 °C / 270 °F
3. Early yellow phase - 163.9 °C / 327 °F
4. Yellow tan phase - 173.9 °C / 345 °F
5. Light brown phase - 187.8 °C / 370 °F
6. Brown phase - 200.5 °C / 393 °F
7. 1st crack begins - 205 °C / 401 °F
8. 1st crack phase - 212.8 °C / 415 °F
9. End of the 1st crack - 218.9 °C / 426 °F
10. City+ roast - 223.9 °C / 435 °F
11. Full City roast - 228.9 °C / 444 °F
12. Full City+ roast - 234.4 °C / 454 °F- 2nd crack begins
13. Vienna/Light French roast - 240.6 °C / 465 °F - 2nd crack phase
14. Full French roast - 245.5 °C / 474 °F- End of the 2nd crack
15. Fully carbonized - 252.2 °C / 486 °F
16. Imminent fire - 258.3 °C / 497 °F

## Brazilian Rio Minas roasting guide

### Lightest roast

10 minutes - 180-190 °C (356-374 °F)  
High acidity, low taste, light brown color

### Cinnamon roast

10.5 minutes - 180-190 °C (356-374 °F)  
Partial acidity, Turkish / American coffee, cinnamon color

### Medium roast

11 minutes - 180-190 °C (356-374 °F)  
Acidity, heavy taste, American coffee, snack color

### High roast - Light dark

11.5 minutes - 180-190 °C (356-374 °F)  
Acidity, tastes stronger than bitter

### City Roast - Medium medium

12 minutes - 180-190 °C (356-374 °F)  
Regular taste (optimum New York type taste)

### Full City Roast - Medium Dark

12.5 minutes - 180-190 °C (356-374 °F)  
Higher acidity than bitter, Cold tea etc.

### French Roast - Dark

13 minutes - 180-190 °C (356-374 °F)  
Strong bitterness, rich and unique taste, French type  
European coffee, iced coffee

Above you can find a table for different coffee beans in different roasted color results from all around the world in different origins.

Also please note that there are still many different colors available in roasting results in between any two different color ranges on the table below.

**Attention:** Only color number #1 is raw coffee bean which is un-roasted. All the other specified numbers are shown as roasted coffee beans in different colors.

- You can roast all the different coffee bean origins and speciality coffee Beans from around the World in different color selections by using Toper Roasting Machines.
- You can roast with Toper Machines in different color ranges as you can see on the table above.

- You are able to get even roasted Beans results every time you roast your green coffee beans. This means that you do not need any color sorting machines.
- As a coffee supplier you will always get full customer satisfaction because you will always be able to roast in a standard way and quality in roasting results with your Toper Roasting Machine.



With our experience for over half a century and knowledge of coffee roasting and grinding in 132 countries in 5 continents, following the ones in Canada, Taiwan and China, we take the first coffee school of Turkey, Middle East and Africa with official SCAE education into use of baristas, coffee professionals and everyone who set his heart on coffee.

When you purchase a Toper Roasting Machine, you are entitled to have a free course on **"Roasting Foundation"** which will be given by our SCAE Authorized Trainers.





## What you will gain if you prefer Toper products?

- 1- Our machines are user friendly compared to other brands. It does not require a Professional user as hiring cost of a professional is a big cost. With respect to country conditions; our machine helps to gain up to 50-60% from labour cost.
- 2- If you decide to buy our roasting machine, it comes with a complementary academic education that is authorized by Specialty Coffee Association of Europe.
- 3- Good quality raw materials are used in production of our machinery to serve for long years without causing any trouble to users. Machines run without any trouble unless deliberate harm is made to machine. Compared to other brands, our machines help to gain 5-10% from servicing and spare part cost.
- 4- Unless any deliberate misuse is made, our machines are protected against any injury to user by security systems. Our machines help to gain 2-5% from user efficiency.
- 5- Our machines are assured to consume low electricity. By automatic digital control system; heat insulation, heat transfer, electric wastage is prevented. Our machines help to gain 30% from electricity consumption.
- 6- When electrical motors are chosen, low electricity consuming and durable motors are preferred. The system lets you control motors individually when necessary. This helps to gain 10-30% from electrical consumption.
- 7- Toper products and designs come from years of experience. Our machines are compact and designed to help you save some space in your work environment.
- 8- We customize the machinery layout for the buildings which are still under construction or already finished. We optimize the layouts in utmost efficient ways. These 3D designs will give you an idea of how the machine will be placed and look in your factory or coffee shop. According to the customer's preference we can customize the color and the body finishing of the machine.
- 9- Coffee that is roasted with a Toper can gain some characteristic aromas and flavors. Thousands of aromatic components in the coffee can be formed in accordance to your desire. Sustainable quality production is assured in each roast.
- 10- Roasting coffee and revealing its magical aroma needs the utmost care. If you overheat the coffee, there will be excess loss in weight of coffee. Although other brands' loss percentage is 20%, it is 14% with Toper. The gain in coffee quantity is 6%.
- 11- Our machineries are eco-friendly. We use afterburners which assure a smoke-free environment.
- 12- You can manually discharge the drum during a blackout which prevents the hazards that may occur.
- 13- Airflow adjustment is available



- 14- Flame level adjustment is available
- 15- Exhaust and bean temperature probes are standard.
- 16- Ability to roast fast or slow in accordance with the latest roasting techniques.
- 17- Our products have quality certifications like; ISO, UL, CE, KGS and GOST.
- 18- 2 year international warranty
- 19- Toper Family does not have customers as we have friends from all over the world. Our main goal is providing the best service to our friends. Our wealth comes from our friends in 132 different countries all over the world.

Best Regards,

Ramazan Karakundakoglu  
General Manager



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