

# Torrefattore/FZ-94

100 gram – 2.4 Kg Pro-Lab Roaster

**COFFEE-TECH ENGINEERING**

*Advanced Roasting Systems*

Our ambition to lead the market with cutting-edge technology and brave ideas requires that we carefully follow the evolving trends of the coffee world. Our research on small lab roasters has led us to understand that the market demands have changed, with no single piece of equipment providing the answer. Current Lab roasters are too small in capacity, too expensive for most new coffee establishments and too simplistic in their control features.

Today, Roast-masters need more flexibility with capacity. Indeed, as production ranges expand, small batch production capability is a must-have due to the wide variety of requests made on the specialty coffee market.

On the other hand, daily sampling of small quantities should remain part of the standard working method. These two tasks should, and can, be performed more efficiently by one well-made machine. Moreover, it is advantageous to sample from the same machine you actually roast with for production.

Today, the various types of coffee differ greatly from one another and vary more in their specs (size, density, shape) than when most of the available coffee was commercial grade. This change shows that yesterday's machines are suffering from a lack of control features as well as old, irrelevant drum-heat configurations.

The FZ-94 pro lab-roaster was designed with Roast-masters in mind. It is the most advanced roaster of its kind. This unique machine guarantees complete control over the roasting process while still maintaining a small footprint, user-friendly operations, a stunning design and outstanding roasting quality

throughout the entire range of capacity - 100gr to 2.4kg. The FZ-94 enables Roast-Masters and true aficionados to experience and experiment with the widest possible spectrum of roasting factors.





/Control panel

The FZ-94 utilizes unique roasting methods – infrared radiation, conduction and convection - all at the same time and in the same drum. With a speed control for both the drum and the drum venting blower, the user is able to make even the tiniest of adjustments. The three powerful, individually controlled electrical heaters produce clean, stable, consistent heat and relieve users of the well-known hassle of primitive and inconsistent gas-powered heaters. Individual control over each of the three heating elements allows a wide range of heat suitable for any type of bean or capacity. Temperature control is measured by three individual digital probes and PID controllers:

- / In the drum space where heaters are activated/deactivated.
- / On the machine's exhaust for monitoring the air temperature.

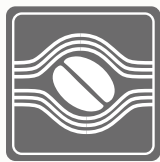
/ On the beans, reading their temperature at any given moment.

Exploring the full range of possibilities in professional roasting has never been as accessible as it is with the FZ-94 pro Lab-Roaster. This enormous flexibility allows you to research and examine issues such as the various balances between conduction and radiation. One can also experiment with drum speed - the slower the drum turns the more contact the beans get with the metal of the drum, the faster the drum spins, the more time the beans spend “in the air”-creating roasting processes that relies on infrared radiation and exposure to convection. Combining this process with the variable speed of the airflow blower or stepping up and down heating elements at different stages, can yield a stunning range of results. Furthermore, the FZ-94 can be coupled with our PC roasting management software for extensive data logging and recording.

The FZ-94 pro lab-roaster's design features the same professional specifications as our commercial coffee roasters, and was built using high quality industrial grade components, assuring reliable roasting for many years. The FZ-94 is a fully manual roaster for those who aim to become true roasting masters, yet can also be coupled with computerized profile software for a more streamlined process.

FZ-94 features a highly efficient outer cooling group for continuous roasting. The cooling system features a separate chaff collector ensuring the cleanest possible operation. FZ-94 is equipped with an external heavy-duty drum-venting blower, with speed control. All machine ducting parts, including the drum blower and cyclone, can be completely dismantled using metal “thumb nuts”, allowing them to be efficiently cleaned without tools. Cleaning – crucial to performance in roasters – has never been easier.

## Heating Technology



Convection



Infrared Radiation



Conduction



Thermosiphon Heat Exchange



Smoke Free



Green Product



Automatic

## Optional

## Roasting Methods



Drum Roasting



Fluid Bed Roasting

## General Features



Low Energy Consumption



Maintenance Free



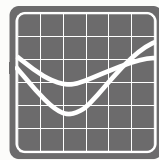
Multi Point Temp



Blower Speed Control



Drum Speed Control



RDL

# Technical Specifications

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**/Batch Capacity:**

0.1 – 2.4 Kg (0.4 – 5.3 lbs.) of green coffee

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**/Roasting Cycle:**

16-18 minutes for full batch (after preheat)

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**/Roasting output:**

~10 Kg per hour

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**/Operation method:**

Individual manual operation of heating elements; digital frequency inverters for controlling convection ratio(airflow blower) & drum speed

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**/Electrical Specifications:**

220-240 Volts 50/60 Hz. 3200 Watt single phase

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**/Drum Motor:**

1/8 HP AC, heavy duty

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**/Heating Method:**

Electrical; specially made high temperature metal infrared heating elements (3X1000 Watt)

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**/Cooling:**

An external group, removable aluminum perforated pan for immediate heat absorption and heat transformation, with high capacity centrifugal blower

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**/Process Quality Control:**

Large Pyrex lens, sampler and three separate temperatures displays (beans, drum ambience and exhaust air) for optimal monitoring of roasting progress

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**/Chaff Collection:**

Cyclone type for roasting and additional trap box type chaff collector for the cooling

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**/Dimensions:**

65(w) X 77(d) X 88(h)

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**/Weight:**

65Kg

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