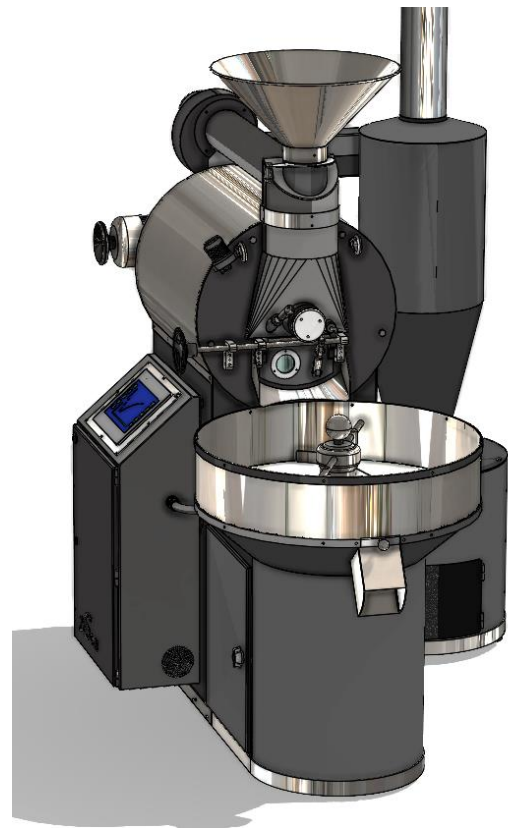


NATURAL ROASTER TN-12 PRO

Professional equipment designed for natural roasting of products such as coffee beans, cereals, nuts, cocoa and other granulated products. Maximum load capacity of 16kg depending on the sieve and grain density with adjustable cycles from 13 up to 20 minutes depending on the product and roasting point.

This roaster has been designed in close collaboration with Baristas and Master roasters that need the best equipment for the roasting of specialty and premium coffees. As a result, Discaf has manufactured a machine that respects the coffee's organoleptic characteristics and that allows the full development of the coffee, extracting the most from each bean. This roaster includes all the electronic and mechanical components necessary to achieve the perfect roast.

The roaster has an automated system that adjusts the air flow and speed based on the volume of coffee inside the drum, the condition of the chimney, external atmospheric pressure, etc. This means that we'll always have the same amount of air passing through the coffee, resulting in a much more precise and homogeneous roasting process.



The new software is supported by a state-of-the-art Siemens PLC and a large 10" touchscreen to properly display all the necessary parameters. It can be used in three different ways:

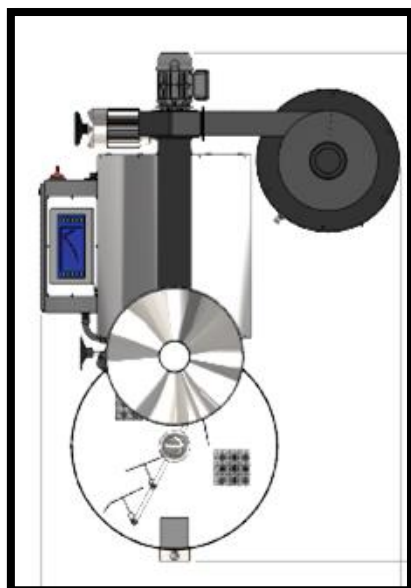
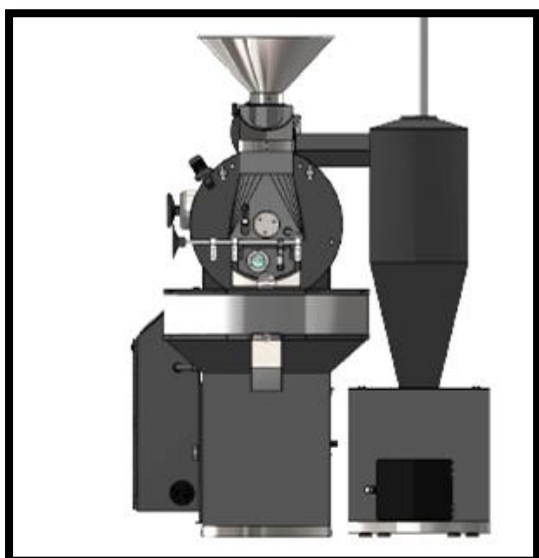
- In manual mode: one can manually create roasting profiles using a super-sensitive potentiometer that modulates the heat. The screen informs the user in real time of the status of all the machine's temperatures by graphically representing the 4 integrated rapid-response probes, consequently the Roaster master has all the necessary information to execute the roasting process.
- In automatic mode: There are two ways to use the recorded roasting profiles (recipes)
 - Automatic mode: This is a system that allows the faithfully automatic reproduction of any previously saved graph, regardless of the volume of coffee added inside the drum, its temperature, the room temperature, etc. This system ensures that the coffee has always undergone the same thermal process, and makes the machine easy to use, so anyone will be able to work with it with the confidence that the product will not change its properties.
 - Semi-automatic mode: This system allows to use a saved roasting profile and modify the five set points of temperature and time. The machine automatically creates a new roasting profile for these new parameters, by traversing through those points and automatically recalculates all the necessary gradients needed to ensure a smooth connection between the points. Once the roasting cycle is finished, this new roasting profile can be saved as a new recipe.



TECHNICAL DATA

Roasting drum with dual chamber	Fast response probe for chassis temperature
Hearth in stainless steel material	Automatic air pressure control system
Touchscreen: Proface de 10"	Optional remote connection
Software with smart roasting profile control	Cooler in stainless steel material
Drum speed control	Special real modulating burner
Airflow speed control	Stainless steel finishes
Fast response probe for coffee temperature	Increased air flow
Fast response probe for air inlet temperature	Low level of energy consumption
Fast response probe for outlet temperature	Aesthetic design for public-facing establishments

GENERAL MEASURES



Long: 210 cm
 Width: 210 cm
 Height: 220 cm
 Weight: 900 kg

MÁXIMUM ENERGY EFFICIENCY

Thanks to our own software's new way of generating the roasting profiles and changes in certain elements, the roaster is able to modify the air circulation and fire control flows, achieving a greater energy savings. Now the machine uses just the right amount of energy at any given time and only applies heat when the hot air return from recirculation isn't sufficient to follow the roasting pattern.

The current burner of these new roasters is different from traditional burners; this new type is specifically designed for roasters. The burner modulates with a true proportional ratio, so the modulation of heat intensity is completely precise in percentage terms and does not require all-or-nothing combinations. Thermal regulation is provided by a special solid-state relay that adjusts the voltage precisely at all times. This system allows the use of only the necessary energy at all times, thus achieving energy savings and money savings.

Taking into consideration all the previous explanations, this new technological system will mean a much more efficient work process, and consequently, the roaster will be more environmentally friendly.

