brovind®

RI
continuous

INFRARED DRY ROASTERS

MAIN CHARACTERISTICS AND ADVANTAGES

- ✓ Versatile
- ✓ Continuous working
- ✓ Great roasting uniformity (in terms of colour, texture and taste)
- ✓ Controlled and stable roasting temperature
- ✓Gentle product handling
- ✓Compact, solid and reliable
- ✓High efficiency and low running costs
- ✓User friendly
- ✓Easy to clean
- ✓No fuel, flames or burners
- ✓Easy and fast installation

TECHNICAL FEATURES

- ✓ Construction in painted carbon steel
- ✓ High efficiency infrared rays ceramic lamps + electrical resistances
- ✓ Two dedicated fans: one for roasting air re-circulation and one for moisture extraction
- ✓ Continuous product mixing and overturning during roasting
- ✓ Thermal insulated roasting chamber
- ✓ Cooling/peeling unit at the outlet of the roaster for fast cooling of the product after roasting (OPTION)
- ✓ Wide opening side inspection doors for easy access

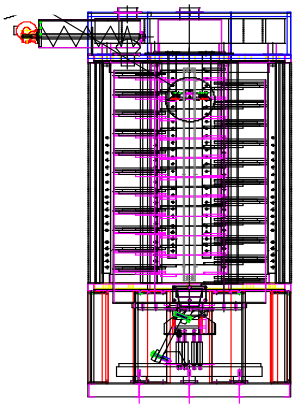
PERFECT FOR

✓Hazelnuts
✓Peanuts
✓Almonds
✓Seeds
✓…
And special applications:
Cereals, Flours…

DESCRIPTION AND WORKING

The Infrared Rays (RI) continuous roasters are suitable to process different kind of natural products, like dried nuts, seeds, cereals, flours. It is not possible to use Brovind <RI> family roasters to roast salted or seasoned products.
The roasting chamber is vertical axis type, with octagonal base. The roasting chamber is thermal insulated to improve the energetic efficiency of the roaster. Inside the chamber, an helical steel track wrapped around a cylinder (to which it is fixed) extends from the top to the bottom of the height of the chamber. The cylinder carrying the helical steel track is integral to a vibrating base. The product is loaded, in controlled quantity, from the top of the machine by an apposite screw conveyor, directly onto the helical steel track. Then, thanks to the combination of the slope of the track and of the controlled vibrations impressed by the vibrating base, the product descends towards the bottom of the chamber, along the helical track. By varying the frequency of the vibrations it is possible to control the advancing speed of the product, thus adjusting the retention time inside the roasting chamber. The <RI> continuous roaster allows to set the roasting time in a range between 6 minutes and 14 minutes. Special deflectors and steps, placed all along the helical track, mix the flow of the product and overturn the single kernels in order to grant homogeneous roasting.
The thermal energy for the roasting process is generated by apposite high efficiency ceramic lamps placed on top of the helical steel track, along the whole length. Said ceramic lamps radiate the product with infrared rays. Additional heating is provided by electrical resistances mounted along the sides of the roasting chamber. The <RI> continuous roaster is divided into five independent temperature zones, allowing maximum process control.
Two dedicated fan are mounted on top of the chamber: one provides for air recirculation inside the roaster, and the second one extracts a controlled amount of air from the roasting chamber to expel the moisture. The recirculated air is sucked through 4 dedicated collector pipes, located inside the cylindrical column supporting the helical track, and it is reintroduced through 8 apposite collector pipes, mounted along the side walls of the roasting chamber.
At the end of the roasting process, the product, unloaded from the bottom part of the chamber, could be delivered directly to a cooling/peeling unit, belonging to Brovind <PLV> family, where its temperature is rapidly cooled down by means of a flow of ambient air, in order to stop the roasting process. For those products which tend to separate from the skin after roasting (i.e. hazelnuts), the <PLV> serves also as peeling unit, thanks to the gentle friction between the kernels (which are constantly kept in motion by a dedicated mixer) and the perforated bottom plate of the cooler. The <PLV> is directly connected to a suction device equipped with centrifugal fan, to co[illegible]e peels and small particles.

TECHNICAL DATA	RI/1500	RI/2000
PROCESS CAPACITY	100÷250kg/h	200÷450kg/h
POWER SUPPLY	3ph – 50Hz – 400V	
TOTAL INSTALLED ELECTRICAL POWER	58kW	106kW
DIMENSIONS (L x W x H)	1.600mm x 1.600mm x 3.400mm	



Production data may vary upon product and process conditions.
Technical data may be subject to change without notice. Brovind reserves the right to apply any modification to improve aesthetics, efficiency and safety.

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