

# KING

# HOT AIR DRY ROASTERS

## **MAIN CHARACTERISTICS AND ADVANTAGES**

- ✓ Versatile: suitable for shelled, in-shell, natural, salted and/or seasoned products
- ✓ Continuous process
- ✓ Great drying and roasting uniformity (in terms of colour, texture and taste)
- ✓ Easy to control and stable temperature ( $\Delta_{\max} \pm 1^{\circ}\text{C}$ )
- ✓ Accurate control of process parameters
- ✓ Solid and reliable
- ✓ High efficiency and low running costs
- ✓ User friendly
- ✓ Easy to clean: wide inspection side doors and automatic cleaning of the roaster belt
- ✓ Modular design and construction allow fast and easy installation



## TECHNICAL FEATURES

- ✓ Construction in AISI 304 S.S. (AISI 316 upon request)
- ✓ Automatic adjusting of the height of the product layer
- ✓ Automatic adjusting of the roasting time
- ✓ Direct heating of the roasting air
- ✓ Automatic stirring and overturning of the product
- ✓ Roasting air fan controlled by frequency converter
- ✓ Cooling of the product after roasting
- ✓ Cooling fan controlled by frequency converter
- ✓ Automatic unloading of the product
- ✓ Built-in process data log
- ✓ Multiple recipes

## PERFECT FOR

- ✓ Hazelnuts
- ✓ Almonds
- ✓ Peanuts
- ✓ Pistachios
- ✓ Cashew Nuts
- ✓ Pumpkin seeds
- ✓ Sunflower Seeds
- ✓ ...



**EITHER SHELLED OR IN-SHELL,  
NATURAL, SALTED, SEASONED, COATED**

## DESCRIPTION AND WORKING

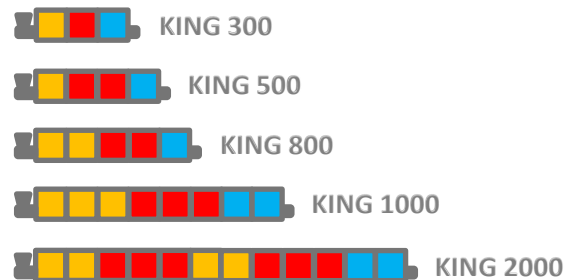
The raw product is dosed from the feeding hopper on the conveyor belt of the dry roaster. The height of the product layer can be automatically adjusted (between 2cm and 20cm) and the advancing speed of the conveyor belt can be set-up, in order to achieve the desired roasting time, thus varying the output capacity of the line. The roasting air is directly heated by an apposite burner, for maximum energy efficiency. The dry roaster is divided into three sections: pre-heating/drying, roasting and cooling. The roasting air flow crosses the product layer from top to bottom and then in the opposite direction, for effective roasting of all the products on the belt. The flow rate can be adjusted thanks to the frequency converter of the dedicated fan. One or more dedicated rotary mixers overturn the product for maximum homogeneity of the process.

After the roasting, the product is cooled down by means of ambient air. The cooling rate is accurately controlled in order to achieve the desired temperature of the product at the outlet. If necessary, it is also possible to exclude the cooling from the process.

Wide side inspection doors allow easy maintenance and cleaning of the dry roaster and a dedicated system with high pressure water jets grants the continuous cleaning of the product conveyor belt, even during production (especially when processing salted or coated products).

**SAFE.** The dry roaster is equipped with a safety system to reduce fire hazard and with a sprinkler system (to be manually activated) for fire extinguishing.

## MODULAR DESIGN



TECHNICAL DATA	KING 300	KING 500	KING 800	KING 1000	KING 2000
PROCESS CAPACITY (kg/h)	Nuts 200÷400 Seeds 150÷400	Nuts 450÷700 Seeds 350÷700	Nuts 650÷900 Seeds 500÷800	Nuts 1.000÷1.500 Seeds 800÷1.500	Nuts 1.800÷2.500 Seeds 1.400÷2.300
POWER SUPPLY	3ph – 50Hz – 400V				
TOTAL INSTALLED ELECTRICAL POWER	24,5kW	33,5kW	33,5kW	37,5kW	50,5kW
TOTAL INSTALLED THERMAL POWER	120.000kcal/h ~140kW	180.000kcal/h ~209kW	300.000kcal/h ~349kW	600.000kcal/h ~698kW	900.000kcal/h ~1.047kW
DIMENSIONS (L x W x H)	6.800mm x 1.500mm* x 3.400mm (*max 2.200mm)	8.200mm x 2.300mm* x 4.000mm (*max 2.900mm)	9.700mm x 2.300mm* x 4.000mm (*max 2.900mm)	14.100mm x 2.300mm* x 4.000mm (*max 2.900mm)	20.500mm x 2.300mm* x 4.000mm (*max 2.900mm)
FUEL TYPE	Natural Gas or LPG				

*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.*

**Other configurations on request.**

