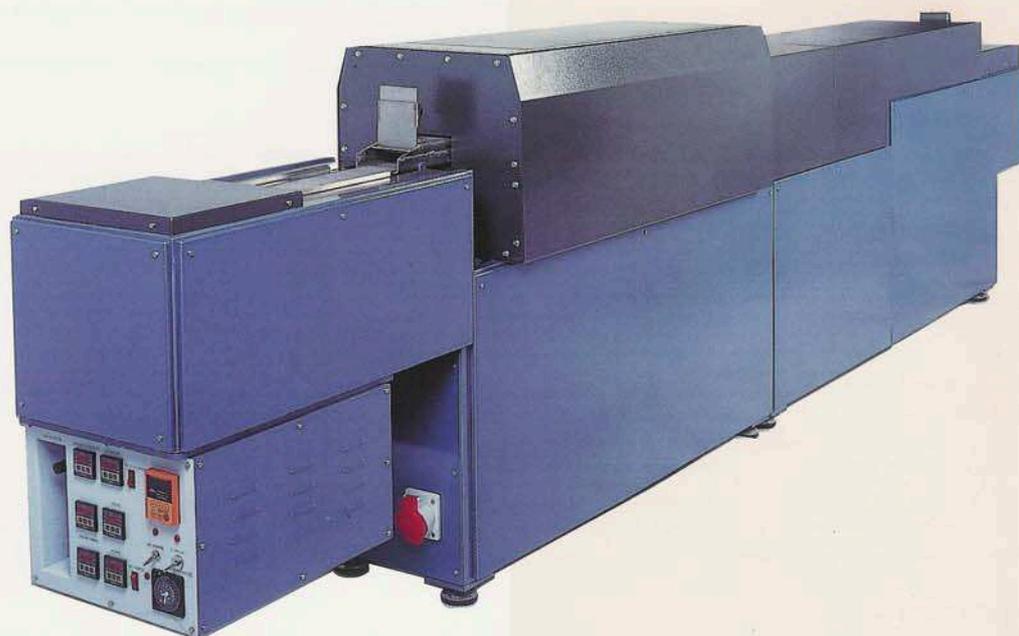


FACTORY OF FURNACES FOR  
LABORATORY • JEWELLERY • CERAMICS  
INDUSTRY & INVESTIGATION



# **CONTINUOUS CONVEYOR BELT ELECTRICAL FURNACES**

**MAXIMUM TEMPERATURE  
1150°C**

## GENERAL CHARACTERISTICS (COMMON)

### Composed of:

Heating chamber with metallic exterior housing, refractory work with isolating wall, metallic muffle of refractory steel and electric resistances.

Water cooled refrigerating chamber, attached to the exit of the heating chamber.

Continuous part hauling system along the furnace by means of a mesh conveyor belt, traction of the hauling drum with tensioning rolls and engine-variator group with chain transmission.

Generating equipment of protecting atmosphere through incorporated ammonia dissociator.

Control panel with automatic temperature adjusting equipment and all the necessary electrical devices for the control of the facility.

### DESCRIPTION

#### HEATING CHAMBER

**Housing.** The furnace is composed exteriorly by a metallic housing of thick folded and welded plate. At the front, there is a small prolongation fitted in its free end with an inclined and height-adjustable guillotine door.

**Work.** The housing interior is coated with an isolating refractory layer of high temperature resistance. Such coating is supported directly from the housing to guarantee its rigidity.

Between this coating and the housing there is a thick layer of a great isolating power and low specific heat, so that, apart from reducing the heat losses to a minimum value, it is also reduced the thermal capacity of the furnace mass and as a result, its warming up speed is considerably increased.

**Muffle.** The chamber is longitudinally crossed by a metallic muffle built of refractory steel, joined at one end to the cooling off chamber. Inside this muffle, the conveyor belt slides together with the part.

**Resistance.** Heating is electrically through metallic resistance of special alloy and supported in the walls, floor and ceiling of the interior chamber, achieving a perfect temperature uniformity.

#### COOLING OFF CHAMBER

Directly coupled to the heating chamber and united to the interior muffle following the same alignment, there is another chamber with a tunnel shape in which interior circulates the conveyor belt together with the parts for their cooling off, once the thermal process has finished.

This chamber is formed by a double jacket through which countercurrent water circulates.

At the final end there is an inclined and adjustable guillotine door, similar to that at the entry.

The assembly is supported independent of the heating chamber so that the components can be easily separated and united to improve the transport system of the facility to be sent to the user.

#### PART TRANSPORTATION

The parts are transported along the whole furnace by means of a metallic belt that circulates inside the heating and cooling chambers respectively.

The belt is of mesh type, of refractory steel of great resistance to high temperatures. It is mounted forming a closed circuit and its return takes place on a tray supported during the whole run under the furnace.

Traction is carried out by means of a drum against which a tensioning roll system presses strongly the belt to eliminate slides and thus achieve an efficient hauling. This roll system also has the mission to compensate for the belt's dilatation and contraction.

The whole mechanism is activated by a variator-reducer engine group, allowing to adjust at will and within a large margin the belt's advance speed.

#### ATMOSPHERE GENERATOR

The atmosphere generation for the correct treatment of parts is made through an ammonia dissociator whose resulting gas is highly reduced due to its high Hydrogen content. This gas is introduced into the furnace inside the muffle and in the cooling chamber, thus the parts to be treated are sunk during the whole process in this atmosphere.

#### CONTROL PANEL

All control and adjusting devices are centralized in a closet attached to the furnace structure and forming a body with it. This disposition spares room, being a compact unit.

Manufactured according to CEE standards.

MODEL	Dimensions in mm.						Independent Heating Area	Ammonia Dissociator	Total Heating Power	Voltage	Variator Engine Power	Maximum Temperature	Belt Speed
	Interior Dimensions			Exterior Dimensions									
	HEIGHT	WIDTH	DEPTH	HEIGHT	WIDTH	DEPTH							
HBC-45	25	50	500	1200	500	2000	1	•	7 Kw (5-2)	220/380 III	0,25 CV	1150 °C	0-1.500
HBC-96	45	100	600	1200	500	3500	1	•	10 Kw (8-2)	220/380 III	0,25 CV	1150 °C	0-1.500
HBC-98	45	100	800	1200	500	4300	2	•	11 Kw (9-2)	220/380 III	0,25 CV	1150 °C	0-1.500
HBC-98A	70	130	800	1200	500	4300	2	•	11 Kw (9-2)	220/380 III	0,25 CV	1150 °C	0-1.500
HBC100	70	130	1000	1200	600	5000	2	•	12 Kw (10-2)	220/380 III	0,25 CV	1150 °C	0-1.500

- Manufacture of special furnaces by request

- Reserved the right to change technical specifications



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