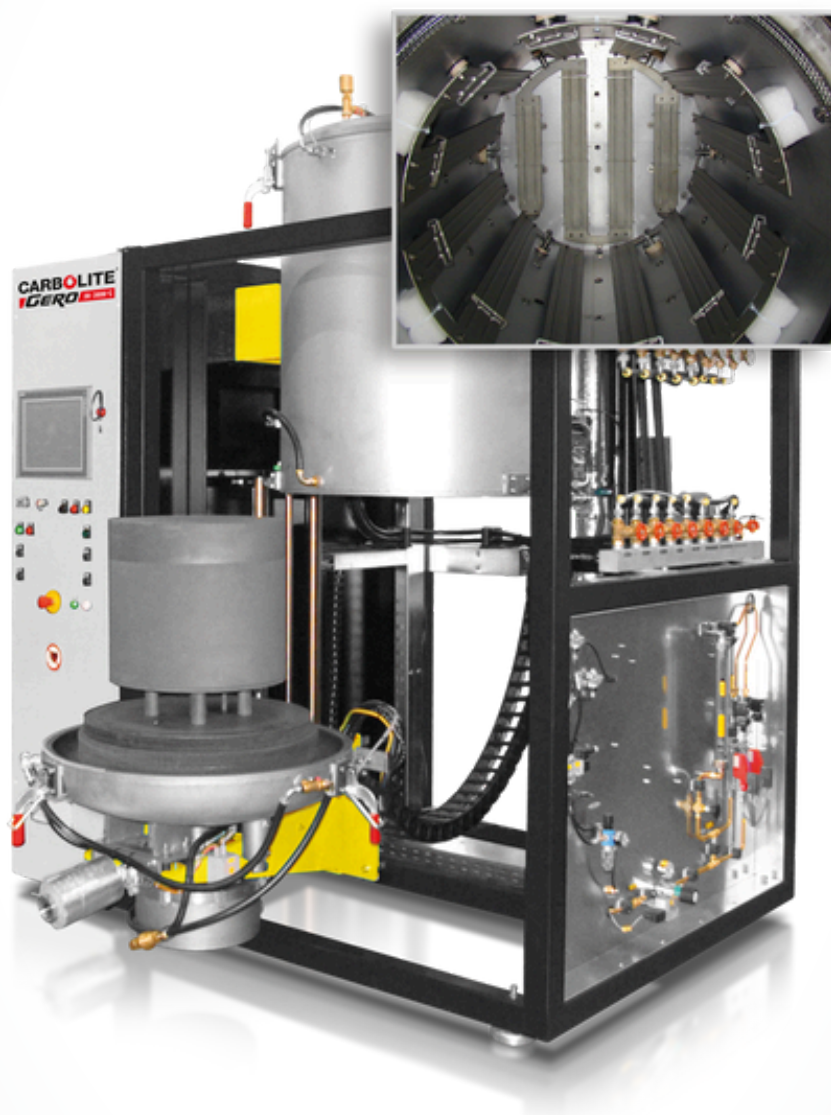




CUPTOR CU ÎNCĂRCARE INFERIOARĂ, IZOLAȚIE METALICĂ

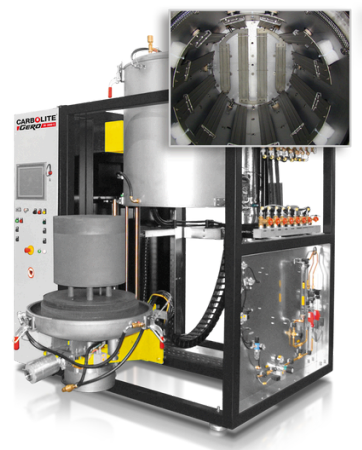
HTBL MO/W

www.carbolite.com/ro/produse/cuptoare-cu-vid/cuptoare-de-vidare-cu-incarcare-inferioara/htbl-mo-htbl-w/

HTBL MO/W**CUPTOR CU ÎNCĂRCARE INFERIOARĂ,
IZOLAȚIE METALICĂ**

The HTBL MO / HTBL W is a bottom loading furnace system that is based on metallic insulation and heating elements.

The metallic furnaces are offered with a volume of 60 litres. The HTBL 60 MO/16-1G has a maximum temperature of 1600 °C and uses molybdenum radiation shields and heating elements. The HTBL 60 W/22-1G has a maximum temperature of 2200 °C and uses tungsten radiation shields and heating elements. The metallic versions of the HTBL are suited for generating the purest atmospheres and the best working vacuum level.



One clear advantage is the easy loading and unloading of the HTBL type furnaces. Once the hearth has been lowered, the sample is accessible from all sides without limitations. Sample loading is extremely easy and user-friendly, especially with delicate samples. Additionally, sample thermocouples can be placed at specified locations within the chamber. A retort may also be used with the HTBL. The movement of the loading area is fully automated and driven by a hydraulic arm. Once the loading area has reached the lowest position, the user can manually rotate the loading platform outward by 90 °.

Nitrogen, Argon, and Hydrogen gases are available for use as either pure or mixed gas. Other gases may be installed upon request. A slight overpressure or controlled partial pressure, to establish a defined gas flow, can be used in the furnace. Operation with air is not possible.

Various dosing and controlling devices control all gases. Depending on the vacuum requirements, vacuum pumps are configured specifically for the application or as requested. The temperature is independently controlled to achieve the best uniformity.

HTBL MO/W**CARACTERISTICI STANDARD**

- | Metallic furnaces provide precisely defined atmospheres with the highest possible purity (6 N or better)
- | Hydrogen partial pressure operation upon request
- | Precisely controlled vacuum pumping speeds appropriate for use with powders
- | Fully automatic operation
- | Data recording for quality management

HTBL MO/W**EXEMPLE DE APLICAȚII**

recoacere, brazing, carbonizare, ceramic injection moulding (CIM), descompunere, degazificare, deshidratare, călire, metal injection moulding (MIM), pyrolysis, quenching, rapid prototyping, siliconization, sintering, soldering, sublimation, sinteză, maleabilizare

HTBL MO/W**DESCĂRCĂRI****FIȘĂ DE PRODUS HTBL →**

www.carbolite.com/files/451478/fisa-de-produs-htbl.pdf

VACUUM, INERT AND REACTIVE GAS FURNACES UP TO 3000 °C →

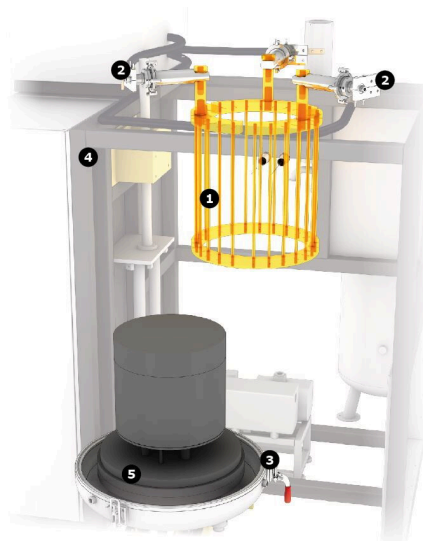
www.carbolite.com/files/15236/vacuum-inert-and-reactive-gas-furnaces-up-to-3000-c.pdf

HEAT TREATMENT AT LOW PRESSURES →

www.carbolite.com/files/16085/heat-treatment-at-low-pressures.pdf

HTBL MO/W**VEDERE A INTERIORULUI CUPTORULUI DE ÎNALTĂ TEMPERATURĂ HTBL**

- | Heating elements
- | Water cooled current
- | Bottom locking device
- | Frame
- | Bottom plate



View inside HTBL

The HTBL furnace based on metallic materials is equipped with one heating zone (mantle heater) made from tungsten or molybdenum. The radiation shields that provide the heat insulation are constructed of the same material as the heating elements. Standard systems use nine radiation shields surrounding the heating elements. If a lower maximum temperature is required, it is possible to reduce the number of radiation shields. The HTBL, with a diameter of 400 mm and heated length of 500 mm, is well suited for high vacuum processes. Both molybdenum and tungsten exhibit very low vapor pressure even at the highest temperatures. Once the maximum temperature is achieved, the heating elements must be handled with care as they will become brittle.

All HTBL models are equipped with fully automated software and reliable data logging for later evaluation of the process. All process data are measured and logged at predefined intervals. Automated control and high volume units are especially suited for industrial applications and large scale production.

HTBL MO/W

DATE TEHNICE

Model / specificație	HTBL 60 MO/16-1G	HTBL 60 W/16-1G
Insulation material	Molybdenum	Tungsten
Dimensiuni: Externe H x W x D (mm)	3300 x 2400 x 2200	3300 x 2400 x 2200
Transport weight (kg)	3400	3600
USABLE SPACE		
Volum (litri)	60	60
Ø x H, usable space without retort (mm)	400 x 500	400 x 500
Ø x H, usable space with retort (mm)	380 x 480	380 x 480
THERMAL VALUES		
Tmax vacuum (°C)	1600	2200
Tmax atmospheric pressure (°C)	1600	2200
-Delta-T, between 500°C and 2200°C (K) according to DIN 17052	± 10	± 10
Max. heat-up rate (K/min)	10	10
Cooling time (h)	5	6
CONNECTING VALUES		
Putere (kW)	80	250
Voltage (V)	400 (3P)	400 (3P)
Current (A)	3 x 115	3 x 360
Series fuse (A)	3 x 160	3 x 500
VACUUM (OPTION)		
Leakage rate - clean, cold and empty (mbar l/s)	< 5x10 ⁻³	< 5x10 ⁻³
Vacuum range depending on the pumping unit	rough, fine, high or ultra high vacuum	rough, fine, high or ultra high vacuum
COOLING WATER REQUIRED		
Flow (l/min)	64	200
GAS SUPPLY		
Nitrogen or Argon flow, others on request (l/h)	500-2000	500-2000
Controller	Siemens	Siemens

HTBL MO/W

CONTACTAȚI-NE

www.carbolite.com/ro/contact-services/contact-form/?prefilltext=contact_form.request&product=G-3-BL-A

SOLICITAȚI O COTAȚIE

www.carbolite.com/ro/contact-services/contact-form/?prefilltext=contact_form.quote_request&product=G-3-BL-A



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