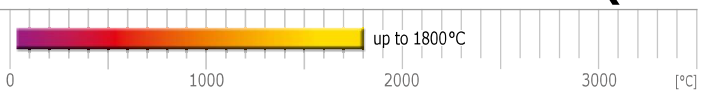

HTF – High Temperature Industrial Chamber Furnaces

The industrial HTF chamber furnace is available in usable volumes of 27 to 514 litres.

Independent over-temperature protection is fitted as standard for unattended operation.

If debinding is required before sintering, Carbolite Gero offers a debinding package for the HTF. The debinding package consists of an inlet for preheated air, several gas inlets, and an afterburner. The preheated air is simultaneously purged through several gas inlets which improves temperature uniformity at low temperatures and envelops the sample in the incoming air. All gaseous by-products generated during the debinding process are burnt in an afterburner that is driven by propane gas and compressed air. On completion of debinding, the furnace temperature will increase to begin the sintering process.

HTF 18/165 with optional Nadcap compliance

HTF 17/27

Standard features

- 1600 °C, 1700 °C & 1800 °C maximum operating temperatures
- Programmable 3216P1 controller
- From 27 to 514 litre capacities
- High quality molybdenum disilicide heating elements
- Advanced refractory interior, used in combination with energy efficient low thermal mass insulation
- Over-temperature protection

Options (specify these at time of order)

- A range of sophisticated digital controllers, multi-segment programmers and data loggers is available. These can be fitted with RS232, RS485 or Ethernet communications (see pages 106 – 111). Please note that special controllers may be needed for this model
- Debinding in air with the debinding package
- Gas supply with manually adjustable flow meter is available
- Modification of the atmosphere in the furnace chamber can be achieved but oxygen cannot be removed completely because it is not gas tight

Technical data

CGN Model	Max. temp. [°C]	Max. heat-up rate [°C/min]	Cooling time [h]	Dimensions: Usable chamber H x W x D [mm]	Dimensions: External H x W x D [mm]	Volume [litres]	Max. power [W]
HTF__/27	1700, 1800	10	10	300 x 300 x 300	1610 x 780 x 945 (door open H 1935)	27	10000
HTF__/64	1600, 1700, 1800	10	12	400 x 400 x 400	2000 x 1000 x 1200	64	16000
HTF__/128	1600, 1700, 1800	10	12	400 x 400 x 800	2000 x 1000 x 1500	128	40000
HTF__/165	1600, 1700, 1800	10	13	550 x 550 x 550	2450 x 1400 x 1400 (door open)	165	40000
HTF__/250	1600, 1700, 1800	10	14	500 x 500 x 1000	2000 x 1000 x 1500	250	–
HTF __/430	1600, 1700, 1800	–	–	600 x 600 x 1200	2400 x 1500 x 2000	430	–
HTF__/514	1600, 1700, 1800	–	–	780 x 550 x 1200	2400 x 1500 x 2000	514	–

Please note:
- Maximum continuous operating temperature is 100 °C below maximum temperature