

# High Temperature Furnace (RHF)

## High Temperature Laboratory Furnace—RHF

The RHF range is silicon carbide heated high temperature chamber furnaces comprises four chamber sizes, each available with three maximum operating temperatures of 1400 °C, 1500 °C and 1600 °C.

### Standard Features:

- Controller, with single ramp to set-point & process timer
- 3, 8, 15 or 35 litre chamber volumes
- Vertical lift door keeps heated surface away from the user
- Soft closing door (3& 8 litre models only)
- Silicon carbide heating elements provide long life and are able to withstand

The stresses of intermittent operation

- RHF 3 & 8 litre have a cast alumina hearth
- RHF 15 & 35 have silicon carbide hearth
- Low thermal mass insulation for high energy efficiency

### Optional Extras:

- Over temperature protection
- A range of sophisticated digital controllers, multi-segment programmers and data loggers.
- Can be fitted with RS232, RS485 or Ethernet communications.
- Heating element protection tiles



Type	Max Temp (°C)	Volume (litres)	Heat-up Time (mins)	Internal Dimensions H x W x D mm	External Dimensions H x W x D mm (H door open)	Configuration	Max Power (W)	Weight (kg)	Thermocouple Type
RHF 14/3	1400	3	33	120 x 120 x 205	655 x 435 x 610 (905)	Bench-Top	4500	42	R
RHF 14/8	1400	8	22	170 x 170 x 270	705 x 505 x 675 (990)	Bench-Top	8000	64	R
RHF 14/15	1400	15	35	220 x 220 x 310	810 x 690 x 780 (1105)	Bench-Top	10000	125	R
RHF 14/35	1400	35	38	250 x 300 x 465	885 x 780 x 945 (1245)	Bench-Top	16000	179	R
RHF 15/3	1500	3	45	120 x 120 x 205	655 x 435 x 610 (905)	Bench-Top	4500	46	R
RHF 15/8	1500	8	40	170 x 170 x 270	705 x 505 x 675 (990)	Bench-Top	8000	61	R
RHF 15/15	1500	15	46	220 x 220 x 310	810 x 690 x 780 (1105)	Bench-Top	10000	125	R
RHF 15/35	1500	35	46	250 x 300 x 465	885 x 780 x 945 (1245)	Bench-Top	16000	178	R
RHF 16/3	1600	3	42	120 x 120 x 205	655 x 435 x 610 (905)	Bench-Top	4500	42	R
RHF 16/8	1600	8	35	170 x 170 x 270	705 x 505 x 675 (990)	Bench-Top	4000	61	R
RHF 16/15	1600	15	58	220 x 220 x 310	810 x 690 x 780 (1105)	Bench-Top	10000	140	R
RHF 16/35	1600	35	113	250 x 300 x 465	1530 x 900 x 1020 (1885)	Floor-Standing	16000	270	R

## High Temperature Laboratory Furnace—HTF

The HTF range has high temperature furnaces of 1700 °C and 1800 °C. The 2 smaller models in each temperature are bench mounted, and the larger models are floor-standing.

### Standard Features:

- 1700 °C and 1800 °C Maximum operating temperatures
- From 4 to 10 litre chamber volumes
- Vertical lift door keeps heated surface away from the user
- Programmable 3216P1 controller
- High quality molybdenum disilicide heating elements
- Over temperature protection
- Digital RS232 communications
- Fan cooling for low external case temperature

### Optional Extras:

- A range of sophisticated digital controllers, multi-segment programmers and data loggers.



Type	Max Temp (°C)	Volume (litres)	Heat-up Time (mins)	Internal Dimensions H x W x D mm	External Dimensions H x W x D mm (H door open)	Configuration	Max Power (W)	Weight (kg)	Thermocouple Type
HTF 17/5	1700	5	50	158 x 150 x 225	565 x 830 x 650 (850)	Bench-Top	4050	109	B
HTF 17/10	1700	10	44	232 x 200 x 225	565 x 830 x 650 (850)	Bench-Top	5920	133	B
HTF 18/4	1800	4	65	140 x 140 x 190	565 x 830 x 650 (850)	Bench-Top	4650	115	Pt20%Rh/Pt40%Rh
HTF 18/8	1800	8	56	210 x 190 x 190	565 x 830 x 650 (850)	Bench-Top	6200	128	Pt20%Rh/Pt40%Rh

### Controller Options

**301 Standard Controller**— has a large display mounted behind a smooth wipeable membrane and has a single ramp to set point. It has a 99 hour process timer which can be programmed for timed delay or used as a countdown timer. It can be fitted to majority of furnaces and ovens. It has precise PID control, large clear illuminated display of temperature.



### 3216 Standard and Programmable Controller

They have multiple line numeric and alphanumeric display, navigation via 4 push buttons, simultaneous display of set-point and actual temperatures, high and low temperature alarms, panel mounted with clear LED display.

**3216P1**— has programmable temperature control up to 8 segments, each comprising of a ramp followed by a dwell, dwells may be set to zero time.

**3216P5**— has all the functionality of the 3216P1 with addition of being able to store up to 5 programs.

**3216CC**—provides PID control for a single ramp to set point as well as 99 hour process time with 3 timer functions.



### 3508 Programmable Controller

Multiple line numeric and alphanumeric display, navigation via 4 push buttons, simultaneous display of set-point and actual temperatures, high and low temperature alarms, clear display of active program segment and type, panel mounted device with clear LED display

**3508P1**—provide programmable temperature control using up to 20 segments. Each can be defined as a ramp a step or a dwell.

**3508P10**— same as the 3508P1 with additional capability of being able to store up to 10 programs with 50 segments per program.

**3508P25**—Same as the 3508P1 with additional capability of being able to store up to 25 program with a total of 500 segments and maximum of 50 segments per program



### 2132 Temperature Controller

Used principally as an over-temperature protection device, and can be used elsewhere within other product groups. All furnances ad ovens are designed to 'fail safe' should control of the elements fail. Although use of an over temperature protection device is recommended for situations where unattended use of the device or protections of valuable loads.

Unit is fitted with separate thermocouple and operates a contactor in the event of set temperature being exceeded.

Panel mounted with clear LED display.

