

## High Temperature Laboratory Furnace - RHF

### General Information

The RHF range of 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.

Robust construction and high quality elements provide rapid heating rates (typically reaching 1400 °C in under 40 minutes) and a long reliable working life.

### Standard features

- 1400°C, 1500°C or 1600°C maximum operating temperature
- Carbolite Gero 301 controller, with single ramp to set-point & process timer
- 3, 8, 15 or 35 litre chamber volumes
- Soft closing parallel action 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



### Options (specify these at time of order)

- Over-temperature protection (recommended to protect valuable contents & for unattended operation)
- A range of sophisticated digital controllers, multi-segment programmers and data loggers is available. These can be fitted with RS232, RS485 or Ethernet communications

### Technical Specifications

#### RHF 14/3

Max temp (°C)	1400
Volume (litres)	3
Heat-up time (mins)	33
Dimensions: Internal H x W x D (mm)	120 x 120 x 205
Dimensions: External H x W x D (mm) H (door open)	655 x 435 x 610 (905)
Configuration	Bench-top
Max power (W)	4500
Holding power (W)	1900
Thermocouple type	R
Weight (kg)	42
Power supply required per phase	Single phase 200-240V 30A, 380-415V 2 phase 15A

## High Temperature Laboratory Furnace - RHF

### RHF 14/8

Max temp (°C)	1400
Volume (litres)	8
Heat-up time (mins)	22
Dimensions: Internal H x W x D (mm)	170 x 170 x 270
Dimensions: External H x W x D (mm) H (door open)	705 x 505 x 675 (990)
Configuration	Bench-top
Max power (W)	8000
Holding power (W)	3200
Thermocouple type	R
Weight (kg)	64
Power supply required per phase	Single phase 200-240V 50A, 380-415V 2 phase + N 25A

### RHF 14/15

Max temp (°C)	1400
Volume (litres)	15
Heat-up time (mins)	35
Dimensions: Internal H x W x D (mm)	220 x 220 x 310
Dimensions: External H x W x D (mm) H (door open)	810 x 690 x 780 (1105)
Configuration	Bench-top
Max power (W)	10000
Holding power (W)	2900
Thermocouple type	R
Weight (kg)	125
Power supply required per phase	Single phase 200-240V 62A, 380-415V 3 phase + N 22A, 200-220V 3 phase delta 38A

### RHF 14/35

Max temp (°C)	1400
Volume (litres)	35
Heat-up time (mins)	38
Dimensions: Internal H x W x D (mm)	250 x 300 x 465
Dimensions: External H x W x D (mm) H (door open)	885 x 780 x 945 (1245)
Configuration	Bench-top
Max power (W)	16000

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Holding power (W)	6000
Thermocouple type	R
Weight (kg)	179
Power supply required per phase	380-415 3 phase + N 35A, 200-220V 3 phase delta 60A, 440-480V 3 phase no N 35A

### RHF 15/3

Max temp (°C)	1500
Volume (litres)	3
Heat-up time (mins)	45
Dimensions: Internal H x W x D (mm)	120 x 120 x 205
Dimensions: External H x W x D (mm) H (door open)	655 x 435 x 610 (905)
Configuration	Bench-top
Max power (W)	4500
Holding power (W)	2000
Thermocouple type	R
Weight (kg)	46
Power supply required per phase	220-240V single phase 36A, 380-415V, 2 phasse + N, 18A

### RHF 15/8

Max temp (°C)	1500
Volume (litres)	8
Heat-up time (mins)	40
Dimensions: Internal H x W x D (mm)	170 x 170 x 270
Dimensions: External H x W x D (mm) H (door open)	705 x 505 x 675 (990)
Configuration	Bench-top
Max power (W)	8000
Holding power (W)	3500
Thermocouple type	R
Weight (kg)	61
Power supply required per phase	380-415V single phase 17.5, 200-220 3 phase delta 30A, 200-208V 3 phase + delta 38A, 380-415V 3 phase delta 17.5A

## High Temperature Laboratory Furnace - RHF

### RHF 15/15

Max temp (°C)	1500
Volume (litres)	15
Heat-up time (mins)	46
Dimensions: Internal H x W x D (mm)	220 x 220 x 310
Dimensions: External H x W x D (mm) H (door open)	810 x 690 x 780 (1105)
Configuration	Bench-top
Max power (W)	10000
Holding power (W)	3000
Thermocouple type	R
Weight (kg)	125
Power supply required per phase	200-240V single phase 75A, 380-415V 3 phase + N 25A, 230-240V 3 phase delta 43A,

### RHF 15/35

Max temp (°C)	1500
Volume (litres)	35
Heat-up time (mins)	46
Dimensions: Internal H x W x D (mm)	250 x 300 x 465
Dimensions: External H x W x D (mm) H (door open)	885 x 780 x 945 (1245)
Configuration	Floor-standing
Max power (W)	16000
Holding power (W)	6200
Thermocouple type	R
Weight (kg)	178
Power supply required per phase	380 - 415 3 phase + N 35A, 440-480V 3 phase no N 60A, 380-415V 3 phase no N 35A, 440-480 3 phase + N 35A

## High Temperature Laboratory Furnace - RHF

### RHF 16/3

Max temp (°C)	1600
Volume (litres)	3
Heat-up time (mins)	42
Dimensions: Internal H x W x D (mm)	120 x 120 x 205
Dimensions: External H x W x D (mm) H (door open)	655 x 435 x 610 (905)
Configuration	Bench-top
Max power (W)	4500
Holding power (W)	2300
Thermocouple type	R
Weight (kg)	42
Power supply required per phase	200-240V single phase 36A, 380-415V 2 phase + N 18A, 200-240V 3 phase delta 30A

### RHF 16/8

Max temp (°C)	1600
Volume (litres)	8
Heat-up time (mins)	35
Dimensions: Internal H x W x D (mm)	170 x 170 x 270
Dimensions: External H x W x D (mm) H (door open)	705 x 505 x 675 (990)
Configuration	Bench-top
Max power (W)	8000
Holding power (W)	4000
Thermocouple type	R
Weight (kg)	61
Power supply required per phase	380-415V 3 phase + N 18A, 220-240V 3 phase delta 29A, 200-208V 3 phase delta 34A, 380-415V 3 phase no N 18A, 440-480V 3 phase no N 18A

## High Temperature Laboratory Furnace - RHF

### RHF 16/15

Max temp (°C)	1600
Volume (litres)	15
Heat-up time (mins)	58
Dimensions: Internal H x W x D (mm)	220 x 220 x 310
Dimensions: External H x W x D (mm) H (door open)	810 x 690 x 780 (1105)
Configuration	Bench-top
Max power (W)	10000
Holding power (W)	3500
Thermocouple type	R
Weight (kg)	140
Power supply required per phase	220-240V single phase 73A, 380-415V 3 phase + N 25A, 200-240V 3 phase delta 42A, 440-480V 3 phase + N 25A

### RHF 16/35

Max temp (°C)	1600
Volume (litres)	35
Heat-up time (mins)	113
Dimensions: Internal H x W x D (mm)	250 x 300 x 465
Dimensions: External H x W x D (mm) H (door open)	1530 x 900 x 1020 (1885)
Configuration	Floor-standing
Max power (W)	16000
Holding power (W)	7000
Thermocouple type	R
Weight (kg)	270
Power supply required per phase	380-415V 3 phase + N 40A, 220-240V 3 phase delta 62A, 380-415 3 phase no N 37A, 440-480V 3 phase + N 40A

#### Please note:

- Maximum continuous operating temperature is 100°C below maximum temperature
- Heat up rate is measured to 100°C below maximum, using an empty chamber
- Holding power is measured at continuous operating temperature