

## Air Recirculating Oven - HRF

### General Information

The 750 °C HRF air recirculation ovens comprise two bench-mounted models and two floor-standing models.

Equipped with powerful fans and horizontal air-guides these models are intended to provide rapid heating with high thermal transfer to the chamber contents and high uniformity within the chamber.

These designs frequently form the base from which custom designed chambers with non-standard sizes or control configurations are made. HRF ovens are often supplied with modifications to enable heat treatment within AMS 2750E Nadcap compliant production environments.



### Standard features

- 750 °C maximum operating temperature
- 22, 45, 112 or 324 litre chamber volumes
- Wire elements located in both sides of the chamber
- Stainless steel liner
- Combination of low thermal mass and refractory board insulation.
- Carbolite Gero 301 controller, with single ramp to set-point & process timer

### 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
- Additional sets of shelves & runners

### Technical Specifications

#### HRF 7/22C

Max temp (°C)	750
Volume (litres)	22
Heat-up time (mins)	63
Dimensions: Internal H x W x D (mm)	220 x 200 x 495
Dimensions: External H x W x D (mm)	590 x 450 x 870
Shelves fitted / accepted	0/3
Shelf loading each / total (kg)	10 / 20
Configuration	Bench-top
Max power (W)	3000
Thermocouple type	K

## Air Recirculating Oven - HRF

Weight (kg)	61
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### HRF 7/45B

Max temp (°C)	750
Volume (litres)	45
Heat-up time (mins)	--
Dimensions: Internal H x W x D (mm)	295 x 265 x 560
Dimensions: External H x W x D (mm)	840 x 600 x 1000
Shelves fitted / accepted	0/3
Shelf loading each / total (kg)	10 / 20
Configuration	Bench-top
Max power (W)	6000
Thermocouple type	K
Weight (kg)	110

### HRF 7/112

Max temp (°C)	750
Volume (litres)	112
Heat-up time (mins)	--
Dimensions: Internal H x W x D (mm)	400 x 400 x 700
Dimensions: External H x W x D (mm)	1550 x 1000 x 1600
Shelves fitted / accepted	0/2
Shelf loading each / total (kg)	15 / 40
Configuration	Floor-standing
Max power (W)	18000
Thermocouple type	K
Weight (kg)	480

### HRF 7/324

Max temp (°C)	750
Volume (litres)	324
Heat-up time (mins)	--
Dimensions: Internal H x W x D (mm)	600 x 600 x 900
Dimensions: External H x W x D (mm)	1800 x 1200 x 2280
Shelves fitted / accepted	1/1
Shelf loading each / total (kg)	50 / 50
Configuration	Floor-standing

## Air Recirculating Oven - HRF

Max power (W)	24000
Thermocouple type	K
Weight (kg)	1000

**Please note:**

- External dimensions with door closed and including chimney
- Heat up rate is measured to 100°C below max, using an empty chamber
- HRF 7/22 and HRF 7/45 have 3 integral shelf runners
- Maximum power and heat up times are based on a 240V supply