

## CFW, CWF-B and CWF-BAL Standard Chamber Furnaces

The CWF range of general purpose laboratory chamber furnaces is bench mounted. Models are available in five sizes with a maximum operating temperature up to 1300°C.

The airflow in the CWF-B furnaces is enhanced by the addition of air inlet holes in the door and a tall chimney which rapidly removes the fumes from the furnace.

### Standard features

- Carbolite Gero 301 controller with single ramp to setpoint and process timer
- Soft closing door on 5, 13, 21 & 23 litre models
- Vertical lift door keeps heated surface away from the user
- Delayed start / process timer function as standard
- Hard wearing alumina element carriers, furnace entrance & hearth
- Energy efficient low thermal mass insulation
- Free radiating wire wound elements for optimum uniformity
- Easy access to elements & controls simplifies maintenance & servicing

#### CFW:

- 1100°C, 1200°C or 1300°C maximum operating temperature
- 5, 13, 23, 36 or 65 litre chamber volumes

#### CFW-B:

- Enhanced airflow from tall chimney & door vents for full combustion

#### CFW-BAL:

- With integrated balance that runs independently of the furnace control system
- Software supplied with the balance may be used to monitor the balance reading via a computer
- Maximum capacity of balance is 3 kg with a resolution of 0.01 g (other capacities available)

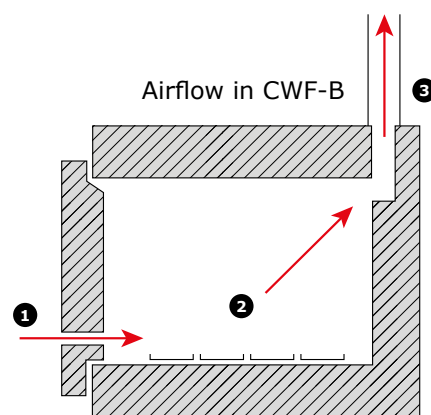
### Options (specify these at time of order)

- 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)
- Over-temperature protection (recommended to protect valuable contents & for unattended operation)
- A range of Inconel retorts to work with modified atmospheres up to 1100°C, please see page 119 for additional information
- AMS2750E Nadcap compatible models are available for aerospace applications
- CWF-BAL: 8 kg balance with a resolution of 0.1 g



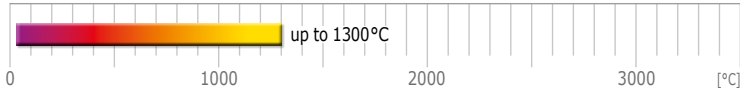
CFW 11/13 with CC-T1 temperature programmer

The CWF-BAL furnace with integral balance can be used for thermogravimetric analysis (TGA) and loss on ignition (LOI) applications, where weight change of the sample must be monitored during the heating process. This is required, for example, in the determination of inorganic matter content in materials such as cement, lime, calcinated bauxite and refractories. For applications involving organic matter content, please refer to page 51 for the AAF-BAL.



- 1) Air inlets through the door plug
- 2) Airflow through the chamber promotes burning of the samples

- 3) Chimney pulls air through the chamber



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CWF 12/36 with 3216P1 programmer option



CWF-BAL 11/21 with optional Nanodac data logger

## Technical data

CGH Model	Max. temp. [°C]	Heat-up time [mins]	Max. continuous operating temperature [°C]	Dimensions: Usable chamber H x W x D [mm]	Dimensions: External H x W x D [mm]	Dimensions: External with door open H x W x D [mm]	Temperature uniformity of $\pm 5^\circ\text{C}$ within H x W x D [mm]	Volume [litres]	Max. power [W]	Weight [kg]
<b>Standard Chamber Furnaces</b>										
CWF 11/5	1100	47	1000	135 x 140 x 250	585 x 375 x 485	800 x 375 x 485	85 x 90 x 110	5	2400	30
CWF 11/13	1100	90	1000	200 x 200 x 325	655 x 435 x 610	905 x 435 x 610	120 x 120 x 185	13	3100	47
CWF 11/23	1100	36	1000	235 x 245 x 400	705 x 505 x 675	990 x 505 x 675	155 x 165 x 285	23	7000	68
CWF 12/5	1200	51	1100	135 x 140 x 250	585 x 375 x 485	800 x 375 x 485	85 x 90 x 125	5	2400	30
CWF 12/13	1200	80	1100	200 x 200 x 325	655 x 435 x 610	905 x 435 x 610	120 x 120 x 200	13	3100	47
CWF 12/23	1200	45	1100	235 x 245 x 400	705 x 505 x 675	990 x 505 x 675	155 x 165 x 325	23	7000	68
CWF 12/36	1200	37	1100	250 x 320 x 450	810 x 690 x 780	1105 x 690 x 780	170 x 240 x 357	36	9000	100
CWF 12/65	1200	40	1100	278 x 388 x 595	885 x 780 x 945	1245 x 780 x 945	178 x 288 x 455	65	14000	165
CWF 13/5	1300	75	1200	135 x 140 x 250	585 x 375 x 485	800 x 375 x 485	85 x 90 x 150	5	2400	30
CWF 13/13	1300	115	1200	200 x 200 x 325	655 x 435 x 610	905 x 435 x 610	120 x 120 x 225	13	3100	47
CWF 13/23	1300	55	1200	235 x 245 x 400	705 x 505 x 675	990 x 505 x 675	155 x 165 x 340	23	7000	68
CWF 13/36	1300	47	1200	250 x 320 x 450	810 x 690 x 780	1105 x 690 x 780	170 x 240 x 400	36	9000	100
CWF 13/65	1300	45	1200	278 x 388 x 595	885 x 780 x 945	1245 x 780 x 945	178 x 288 x 520	65	14000	165
<b>Burn-off Chamber Furnaces</b>										
CWF-B 11/13	1100	103	1000	200 x 200 x 325	655 x 435 x 610	905 x 435 x 610	n/a	13	3100	47
CWF-B 12/13	1200	130	1100	200 x 200 x 325	655 x 435 x 610	905 x 435 x 610	n/a	13	3100	47
<b>Chamber Furnace with Integral Balance</b>										
CWF-BAL 11/21	1100	60	1000	215 x 245 x 400	705 x 505 x 675 (400 x 170 x 500)*	990 x 505 x 675	n/a	21	7000	80

**i** Please note:

- Heat up time is measured to 100°C below max, using an empty chamber
- Holding power is measured at continuous operating temperature
- Maximum power and heat up time based on a 240 V supply

- The uniform volume is smaller than the total chamber volume
- \* Dimensions of control box