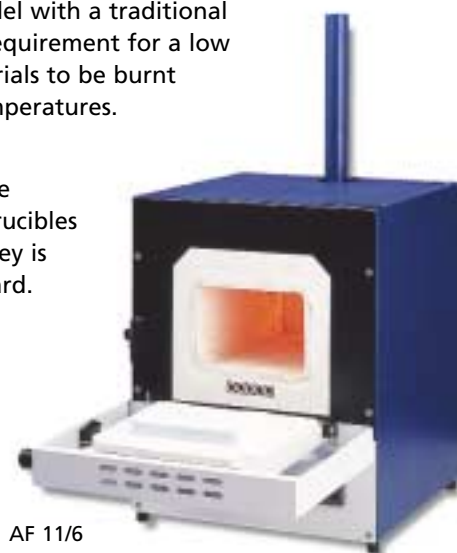
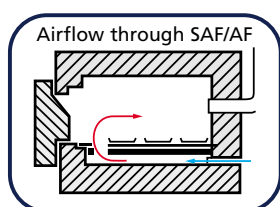


Ashing Furnaces

A choice of two models for ashing is available.

The **AF 11/6** is an economy model with a traditional muffle element. It meets the requirement for a low cost unit which will allow materials to be burnt rapidly at closely controlled temperatures.

The **SAF 11/1** is a more robust traditionally built muffle furnace capable of accepting up to 15 crucibles up to 50mm diameter. A chimney is fitted on both models as standard.



AF 11/6



SAF 11/1

| Model | Maximum temp (°C) | Maximum continuous temp (°C) | Time to temperature (minutes) | Internal dimensions (mm) h x w x d | External dimensions (mm) h x w x d | Chamber capacity (l) | Maximum power (kW) | Power to Hold Temp (kW) | Phase | Net weight (kg) |
|----------|-------------------|------------------------------|-------------------------------|------------------------------------|------------------------------------|----------------------|--------------------|-------------------------|-------|-----------------|
| AF 11/6 | 1100 | 1050 | 75 | 125 x 178 x 305 | 495 x 420 x 490 | 6.0 | 2.2 | 1.0 | 1 | 33 |
| SAF 11/1 | 1100 | 1050 | 85 | 90 x 170 x 455 | 700* x 550 x 765 | 7.0 | 3.9 | 1.6 | 1 | 76 |

* - Height with chimney = 1100mm

Economy Chamber Furnace

An economical, rapid heating and lightweight furnace incorporating a one-piece low thermal mass heating element for general laboratory use. The drop down door can be used as a shelf. If your process generates significant amounts of corrosive fumes, please discuss your application with our sales department.



EF 11/8

| Model | Maximum temp (°C) | Maximum continuous temp (°C) | Time to temperature (minutes) | Internal dimensions (mm) h x w x d | External dimensions (mm) h x w x d | Chamber capacity (l) | Maximum power (kW) | Power to Hold Temp (kW) | Phase | Net weight (kg) |
|---------|-------------------|------------------------------|-------------------------------|------------------------------------|------------------------------------|----------------------|--------------------|-------------------------|-------|-----------------|
| EF 11/8 | 1100 | 1050 | 20 | 180 x 190 x 235 | 495 x 420 x 490 | 8 | 1.8 | 0.85 | 1 | 19 |

temperature control systems

A choice of control systems is available including controllers which simply heat up the furnace and hold at one temperature indefinitely as well as more complex programming systems. Access to parameters is simple and easy to understand and is customised to present only those parameters which need to be viewed or adjusted.

Eurotherm 3216 CC

The Eurotherm 3216CC is a dual display PID controller showing setpoint and furnace temperature. An adjustable ramp to setpoint feature is included.

Eurotherm 3216P1

The Eurotherm 3216P1 is an advanced setpoint programming temperature controller with eight segment-pairs, each a ramp and a dwell. (This configuration of a ramp followed by a dwell cannot be altered). It is housed in a compact, quick release 1/16 din size, measuring 48 x 48mm, and features scrolling text to provide additional information of current status to the user. It provides precise control with an advanced PID control algorithm giving stable "straight - line" control of the process. Power feedback is used to stabilise the output power and hence the controlled temperature against supply voltage fluctuations. The controller continually corrects for drift and this gives high stability and rapid response to process changes.

Eurotherm 3508P1

The Eurotherm 3508P1 is an advanced setpoint programming temperature controller with twenty segments, any of which may be a ramp, a step or a dwell. It is housed in a quick release 1/8 din size measuring 48 x 96mm high, and features large numeric and text displays to provide additional information of current status to the user. It provides the same precise control as the 3216CC or 3216P1 models.

Overtemperature protection

An independent alarm instrument type 2132 and thermocouple are incorporated into the heating element circuit and, in the case of overtemperature of the furnace, power to the elements is switched off with lockout action so shutting down the furnace safely.



Other options: additional control systems can be supplied including cascade control, multi-segment programmers and process timers.

Cascade control: the standard control system senses the temperature close to the heating elements; the temperature of the load is usually slightly lower. To correct this, a second controller can be added; one senses the load the other the elements. The load controller sends signals to the element controller, which adjusts the element temperature accordingly. Faster warm up is achieved by boosting the element temperature when the load is cold and by reducing it as the load approaches the desired temperature. Available with Eurotherm 3216P1 and Eurotherm 3508P1.

Digital communications: RS232 for single instrument communication and RS485 for multi instrument communication ports are available.

Software packages: iTools - a Windows-based single port instrument configuration and data logging system, is ideal for laboratory applications.

Full SCADA packages are available for real time supervision from just a few instruments to complex systems.

Optional extras

- > Process timers/time switches
- > Gas flow meters
- > Audible alarms
- > Probe thermocouples
- > Chart recorders
- > Viewing port

Standard Electrical Supply

When ordering, always quote the model, controller and the preferred type of electrical supply from the list. Please indicate the frequency (50 or 60 Hertz) and number of phases. For 3-phase supplies (where applicable), please state whether a neutral is available (if so, please quote both the phase-to-phase and the phase-to-neutral voltages, eg 380.220V). Typical single phase voltages are 100, 110, 200, 208, 220, 240 and 254V. 3-phase voltages **without** neutral are typically 220, 380, 415 and 440V. 3-phase voltages **with** neutral are typically 220/127, 380/220, 415/240 and 440/254.

Note

As a result of continuous product development, we reserve the right to change specifications and illustrations. In the unlikely event of one of our standard products not meeting your requirements, we have the capability to design and manufacture a unit specifically tailored to meet your needs.

Lenton manufactures in compliance with the relevant safety standards to BS EN 61010-1: 1993 & 61010-2-010: 1995. All products carry the CE mark which indicates compliance with all relevant European safety directives; ie Low Voltage Directive and ElectroMagnetic Compatibility directive.

Lenton



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