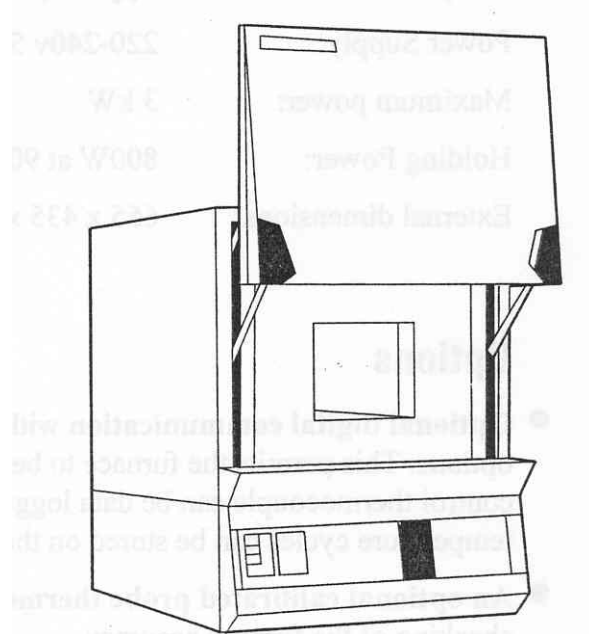




## VMF : Volatile Matter in Coal & Coke : ISO 562

This furnace offers improved temperature and reduced response times to meet the requirements of ISO 562.

- Fast heating: Powerful open spiral elements are supported in lightweight insulation, providing fast heating – typically 20 minutes to 900°C
- Digital temperature control: Use of a sophisticated algorithm ensures fast recovery of temperature after loading the samples – less than 4 minutes to return to 900°C  $\pm 10^{\circ}\text{C}$
- Calibration ports are provided which permit the insertion of unsheathed probe thermocouples, from the back of the chamber, without risking touching live electrical connections. The probe thermocouple can be positioned under each crucible in turn
- A chimney or flue is provided at the back of the chamber
- Insulation: Hardwearing refractory brick is used around the doorway and a SiC floor provides abrasion resistance. Lightweight ceramic fibre is used in other areas to ensure energy efficient fast heating and cooling, together with low heat loss into the room
- Door action: A parallel upward action keeps the hot face insulation away from the operator during loading and unloading. When the door is opened a positive action safety switch automatically isolates the heating elements from the supply to protect the operator from accidental contact with a live heating element
- Power switching: Solid state thyristor based zero voltage switching and rapid cycle time give smooth and reliable control with minimal electromagnetic emissions
- Service is aided by diagnostic warning lights, a removable front instrument panel and easy access to the heating elements and thermocouple
- Cool outer cases: The stylish design incorporates cooling passages. Natural convection moves air silently and reliably through these passages to keep the outer case cool and safe to touch.



## Specification

Maximum temperature (°C)	1000
Chamber dimensions (mm – h x w x d)	100 x 210 x 260
Uniform zone	80 x 160 x 160 $\pm$ 10°C measured at 900°C
Heating elements	Resistance wire spirals embedded in vacuum formed ceramic fibre
Temperature sensor	Type K (NiCr/NiAl) thermocouple
Power supply	220-240V 50-60Hz, single phase, 13 amps
Maximum power (kW)	3
Holding power (w)	800 @ 900°C
External dimensions (mm – h x w x d)	655 x 435 x 610

## Options

- Optional digital communication with a PC is available with some of the temperature control options. This permits the furnace to be remotely controlled from the PC and the temperature of the control thermocouple can be data logged to provide evidence of the test procedure. Favourite temperature cycles can be stored on the computer and sent to the furnace for execution.
- An optional calibrated probe thermocouple and digital indicator can be provided for routine checking of the furnace accuracy.
- Over temperature protection – using a separate thermocouple and control system, this overrides the main controller and shuts down the furnace until it is reset. The limiting temperature can be reduced to protect the furnace load rather than the furnace itself.
- Accessories available include spares kits, crucibles and crucible tray.