# Data Sheet Model: MFSU Minimum Free Space Oven (AS<u>TM & ISO)</u>



#### INTRODUCTION

Minimum Free Space oven (MFSU) is utilized for this drying process which features a compact heated chamber that provides the lowest practical volume, or minimum free space.

A stream of nitrogen or air is utilized to heat a known mass of coal to a temperature between 105 °C and 110 °C. The coal is then kept at this temperature until its mass remains constant. The mass loss of the coal is used to calculate the moisture content.

MFSU is a Universal Minimum free space oven that can work as per ISO, BS & ASTM test methods.

### SPECIFICATIONS

- Maximum Temperature: 210°C Maximum Continuous Temperature: 210°C
- Chamber dimensions (mm)- 43 x 195 x 300 (2.5L) (H x W x D)
- The ovens have an aluminum chamber that resists oxidation and corrosion, resulting in excellent temperature uniformity over the working volume.
- Before accessing the front of the work chamber, the nitrogen or air flow passes through a preheating chamber and is adjustable via a flow meter mounted on the control panel.
- The MFSU operates with a regulated flow of moisture free nitrogen gas which removes the moisture released by the coal at 105 °C as per BS 1016-104.2:1991, BS ISO 687:2010 & BS ISO 11722:2013.
- The MFSU also operates with a regulated flow of air as per ASTM D3173-11.



High end Microprocessor PID controller.

- 3 Flow meters are fitted as standard to monitor gas flow of Nitrogen, Air & chamber seal integrity.
- Aluminium loading tray and puller are supplied as standard accessories.
- **External Dimensions (mm):** 210 x 465 x 548 (H x W x D) (Indicative)
- Supply / Power: 230V- 1 Phase 500 Watts.

#### **OPTIONS**

- Over-temperature protection
- Multi segment, multi program storage Controllers
- Crucibles (Quartz/Alumina/Fused Silica) with well-fitting lids
- Vacuum desiccator with gas inlet & gas outlet

## **Elite Thermal Systems Ltd**

Elite Court, 6 Stuart Road, Market Harborough, Leicestershire LE16 9PQ, UK Tel: +44 (0)1858 469834 | E-mail: contact@elitefurnaces.com | Website: www.elitefurnaces.com