Thermo Scientific Heraeus®
High Temperature Furnaces

Precisely the heat you need
Thermo Scientific Heraeus High Temperature Furnaces

Performance you can count on – year after year

Thermo Scientific Heraeus High Temperature Furnaces are designed to meet the stringent demands of today’s laboratory. The range delivers precise and reproducible temperature performance. Made in Germany, our furnaces provide superior long-lasting reliability and state-of-the-art safety. Powerful and sturdy, they require little energy.

Long term experience

We have over 80 years experience in the design and manufacture of high temperature furnaces. Our extensive installed base is testament to our expertise and product reliability.

Safe to use

A wide range of safety features includes:
- Oven doors designed so the hot side always faces away from the operator
- Efficient insulation for low outside surface temperatures
- Automatic interruption of the heating system when door is opened
- Upper limit cut-out automatically switches off heating in case of over temperature

Convenience

Thermo Scientific furnaces are equipped with easily accessible control elements and a digital display. A choice of electronic or digital controllers is available.

Thermo Scientific Heraeus K 114 Chamber Furnace

The ideal choice for everyday use

- Extremely short heating and recovery times – Annealing chamber made of ceramic fiber for rapid heat-up and recovery times.
- Accurate temperature control – Outstanding temperature distribution and control ensure efficient operation.
- Ideal for use in crowded laboratory – Compact size, excellent insulation and patented safety door mechanism.
- Common application areas – Uses include materials testing, burning and rapid heat processes.

High temperature, high quality in a compact package

- Operates at 1100 °C
- Choose from a variety of models with extra-features and options:
  - 24-hour timer
  - Thermicon P digital program controller with microprocessor
  - Exhaust fan
  - Exhaust flue
  - Adjustable fresh air supply

Thermo Scientific Heraeus K 114 Chamber Furnace
Chamber volume: 3.5 l
Thermo Scientific Heraeus
M 104 Muffle Furnace

Space-saving accuracy and efficiency

- **Excellent contamination protection** – Abrasion-resistant ceramic annealing chamber helps protect samples against contamination.
- **Tilting door** – Ensures the operator is not exposed to the hot inside surface, also serves as a sample shelf.
- **Common application areas** – Perfect for chemical analysis, annealing loss determination, materials testing and ashing processes. The M 104 G with glazed annealing muffle is ideally suited to analytical processes which demand extreme purity.

The reliable solution for routine high temperature applications

- Operates at 1000 °C
- Choose from a variety of models with extra features and options:
  - 24-hour timer
  - Thermicon P digital program controller with microprocessor
  - Exhaust fan
  - Exhaust flue
  - Adjustable fresh air supply

Thermo Scientific Heraeus
M 110 Muffle Furnace

The superior general purpose furnace

- **Even heat distribution** – Two-shell design, outstanding insulation and heating element arrangement give even heat distribution with minimal fluctuation.
- **Small footprint** – Only 0.41 m² of counter space needed.
- **Economical operation** – High quality fiber insulation ensures low energy consumption.
- **Application areas** – Rugged and flexible for all types of lab applications. Including heating of metals and drying at high temperatures.

Optimal engineering for safe, economical testing and analysis

- Operates at 1100 °C
- Choose from a variety of models with extra features and options:
  - 24-hour timer
  - Thermicon P digital program controller with microprocessor
  - Exhaust fan
  - Exhaust flue
## Technical Specifications

<table>
<thead>
<tr>
<th>Type</th>
<th>K 114</th>
<th>M 104</th>
<th>M 110</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated temperature °C</td>
<td>1100</td>
<td>1000</td>
<td>1100</td>
</tr>
<tr>
<td>Work space volume L</td>
<td>3.5</td>
<td>3.5</td>
<td>9</td>
</tr>
</tbody>
</table>

### Dimensions [W x H x D]

| Work space dimensions mm | 170 x 130 x 160 | 170 x 130 x 160 | 200 x 150 x 300 |
| Work space dimensions inch | 6.7 x 5.1 x 6.3 | 6.7 x 5.1 x 6.3 | 7.9 x 5.9 x 11.8 |

| External dimensions mm | 456 x 464 x 570 | 456 x 464 x 570 | 576 x 752 x 720 |
| External dimensions inch | 18 x 25.4 x 22.4 | 18 x 25.4 x 22.4 | 22.7 x 29.6 x 28.4 |

### Weight

| kg | 36  | 51  | 78  |
| lbs | 79.4 | 112.4 | 172.0 |

### Temperature Distribution

- **K 114**: ± 6°C
- **M 104** and **M 110**: ± 10°C

### External Surface Temperature

- **K 114**: < 50°C
- **M 104** and **M 110**: < 60°C

### Ordering Information

#### K 114 Chamber Furnace

- **Basic version with Digicon® and upper limit cut-out**: 50040491
- **Comfort version with Thermicon® and upper limit cut-out**: 50040493
- **Comfort version with Digicon®, upper limit cut-out and 24 hour timer**: 50040492
- **Economy version with Digicon®, excluding upper limit cut-out**: 50040902
- **K 114 with adjustable fresh air supply (for incinerating processes)**: 50049812
- **K 114 with Digicon® and exhaust fan**: 50040763
- **K 114 with Thermicon® and exhaust fan**: 50051059

#### M 104 Muffle Furnace

- **Order no.**
  - Basic version with Digicon® and upper limit cut-out: 50040485
  - Comfort version with Digicon®, upper limit cut-out, 24-hour timer and exhaust fan: 50040486
  - Comfort version with Digicon®, upper limit cut-out, 24-hour timer and exhaust fan: 50040487
  - Comfort version with Thermicon® and upper limit cut-out: 50040488
  - Economy version with Digicon®, excluding upper limit cut-out: 50040903
  - M 104 G, Digicon®, 24 hour timer, glazed muffe: 50047438
  - M 104 G, Digicon®, 24 hour timer, exhaust fan, glazed muffe: 50047439
  - M 104 G, Digicon®, with adjustable fresh air supply: 50051429
  - M 104 G, Thermicon® and exhaust fan: 50047440
  - M 104 G, Thermicon®, exhaust fan, glazed muffe: 50047441
  - M 104 G, Thermicon®, with adjustable fresh air supply: 50057773
  - M 104 with adjustable fresh air supply (for incinerating processes): 50049820

### Accessories

- **Exhaust flue** for K 114 and M 104: 50006408
- **Tray**: 50006408

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