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## 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.



K 114



M 104



M 110

## 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.



## 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 m<sup>2</sup> 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.



### 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 104 Muffle Furnace  
Chamber volume: 3.5 l

### 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



Thermo Scientific Heraeus M 110 Muffle Furnace  
Chamber volume: 9 l

# Thermo Scientific Heraeus High Temperature Furnaces



## Technical Specifications

Type		K 114	M 104	M 110
Rated temperature	°C	1100	1000	1100
Work space volume	L	3.5	3.5	9
<b>Dimensions (W x H x D)</b>				
Work space dimensions	mm	170 x 130 x 160	170 x 130 x 160	200 x 150 x 300
	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 646 x 570	456 x 646 x 570	576 x 752 x 720
	inch	18 x 25.4 x 22.4	18 x 25.4 x 22.4	22.7 x 29.6 x 28.4
<b>Weight</b>	kg	36	51	78
	lbs.	79.4	112.4	172.0
<b>Connected load</b>	kW	1.7	2.5	2.9
<b>Rated voltage</b>	(50/60 Hz)	V 230	V 230	
<b>No-load consumption</b>	W	690	1040	1,4
<b>Heating-up time</b>	min	35	110	100
<b>Temperature distribution</b> at centre axis in acc. with DIN 17052 class C	K	± 6	± 10	± 7
<b>External surface temperature</b> (except furnace front and door)	°C	< 50	< 60	< 80

## Ordering Information

<b>K 114 Chamber Furnace</b>	Order no.
Basic version with Digicon <sup>®1</sup> and upper limit cut-out	50040491
Comfort version with Thermicon <sup>® P 2</sup> and upper limit cut-out	50040493
Comfort version with Digicon <sup>®1</sup> , upper limit cut-out and 24 hour timer	50040492
Economy version with Digicon <sup>®1</sup> , excluding upper limit cut-out	50040902
K 114 with adjustable fresh air supply (for incinerating processes)	50049812
K 114 with Digicon <sup>®1</sup> and exhaust fan	50047063
K 114 with Thermicon <sup>® P 2</sup> and exhaust fan	50051059
<b>M 104 Muffle Furnace</b>	Order no.
Basic version with Digicon <sup>®1</sup> and upper limit cut-out	50040485
Comfort version with Digicon <sup>®1</sup> , upper limit cut-out and 24 hour timer	50040486
Comfort version with Digicon <sup>®1</sup> , upper limit cut-out, 24-hou-timer and exhaust fan	50040487
Comfort version with Thermicon <sup>® P 2</sup> and upper limit cut-out	50040488
Comfort version with Thermicon <sup>® P 2</sup> , upper limit cut-out and exhaust fan	50040489
Economy version with Digicon <sup>®1</sup> , excluding upper limit cut-out	50040903
M 104 G, Digicon <sup>®1</sup> , 24 hour timer, glazed muffle	50047438
M 104 G, Digicon <sup>®1</sup> , 24 hour timer, exhaust fan, glazed muffle	50047439
M 104 G, Digicon <sup>®1</sup> , with adjustable fresh air supply	50051429
M 104 G, Thermicon <sup>® P 2</sup> , glazed muffle	50047440
M 104 G, Thermicon <sup>® P 2</sup> , exhaust fan, glazed muffle	50047441
M 104 G, Thermicon <sup>® P 2</sup> , with adjustable fresh air supply	50057773
M 104 with adjustable fresh air supply (for incinerating processes)	50049820
<b>Accessories</b> for K 114 and M 104	
Exhaust flue	50040537
Tray	50040950

## Ordering Information

<b>M 110 Muffle Furnace</b>	Order no.
Basic version with Digicon <sup>®1</sup> and upper limit cut-out	51010272
Basic version with Digicon <sup>®1</sup> and upper limit cut-out, exhaust fan and flue	51010808
Comfort version with Thermicon <sup>® P 2</sup> and upper limit cut-out	51000802
Comfort version with Thermicon <sup>® P 2</sup> , upper limit cut-out and exhaust fan and flue	51000808
M 110 with Digicon <sup>®1</sup> , upper limit cut-out and 24 hour timer	50057440
M 110 with Digicon <sup>®1</sup> , upper limit cut-out, 24 hour timer and exhaust fan	50056360
<b>Accessories</b> for M 110	
Exhaust flue	50006394
Tray	50006408

<sup>1</sup> electronic controller

<sup>2</sup> digital program controller

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