



**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**

**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

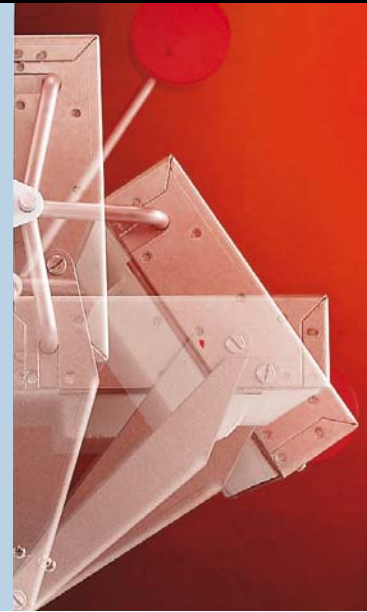


M 110

## 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

K 114 Chamber Furnace	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
M 104 Muffle Furnace	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
Accessories for K 114 and M 104	
Exhaust flue	50040537
Tray	50040950

## Ordering Information

M 110 Muffle Furnace	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
Accessories for M 110	
Exhaust flue	50006394
Tray	50006408

<sup>1)</sup> electronic controller

<sup>2)</sup> digital program controller

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