



Thermo Scientific Heraeus Hot Air Sterilizers

Advanced hot air sterilizers
for maximum safety and reliability

Thermo Scientific Heraeus Hot Air Sterilizers

High quality and reliable performance

With over 80 years of experience, our product portfolio offers a comprehensive selection of hot air sterilizers with reliable 24/7 operation. For precise and reproducible temperature performance combined with the highest standards of workmanship, there's only one choice – Thermo Scientific Heraeus hot air sterilizers.

Basic and additional features of our hot air sterilizers cover a broad spectrum of user requirements. Our Heraeus® Function Line models are equipped with all essentials. Our Heraeus Series 6000 models can be supplied with many additional options and accessories.

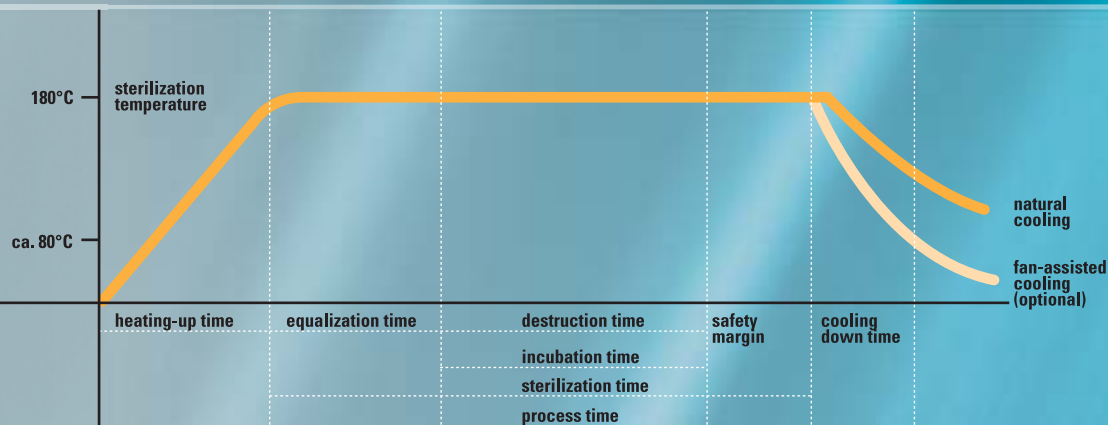
Thermo Scientific Heraeus hot air sterilizers offer:

- Safety and reliability
- All major applications
- Models with natural convection or forced air convection

Fields of application

Biology | Chemistry | Medicine | Hygiene | Pharmacy | Quality assurance

The sterilization process requires even temperatures, fast heat up time and rapid equalization of conditions. Depending on what is being sterilized, the time at maximum temperature will need to be set.



Thermo Scientific Heraeus Function Line Hot Air Sterilizers

Equipped with all essentials

Our Heraeus Function Line hot air sterilizers have been designed to provide all essentials at a competitive price. They ensure best operational results and highest proven level of effectiveness during the daily laboratory routine.

Space-saving – three sizes

Available with natural convection or forced air convection in three sizes with internal volumes of 60, 120 and 200 liters, these slim instruments occupy only a small amount of space while providing the greatest possible useful volume.

Automatic sterilization

The Heraeus Function Line hot air sterilizers are provided with an automatic sterilization routine. All steps in the program, from the heating-up and equalization time to the incubation and cooling-down time, run automatically. The user simply selects fixed program steps to set up the sterilization procedure to allow the process to be carried out without supervision.

The microprocessor-controlled temperature controller with digital display and integrated timer function up to 99 hours 59 min., standby function and preselected program components safeguards the fully automatic sequence of the sterilization process. The large digital display provides a quick overview.

Safety for all applications

Our standard microprocessor-controlled temperature controller maintains precise temperature at set value. The standard adjustable independent mechanical upper temperature protection device ensures additional safe working procedures for:

- Hot air sterilization
- Destruction of microorganisms
- Contamination prevention
- Thermally limited sterilization of liquids

All models are GS tested.



BENEFITS

Sterilizer with natural convection

- Low air turbulences for applications with light samples

Sterilizer with forced air convection

- Convection by hot air circulation for superior homogeneous temperature
- Throttle valve for fresh and exhaust air can be controlled by the user from the front

Thermo Scientific Heraeus Series 6000 Hot Air Sterilizers

BENEFITS

- Microprocessor temperature controller for accurate and reproducible temperature settings
- 24 hour timer for preheating or timed shutdown
- RS 232 interface for documentation
- Smoothly adjustable valve for fresh and exhaust air regulation
- Two tilt-proof, chromium-plated, wire-mesh shelves*
- Casters with locking brake for easy set-up in the lab (floor models 6420 and 6760)



For your safety

All the Series ST/SUT 6000 sterilizers are approved for unsupervised operation. All sterilizer versions are GS tested.

Six models suitable for all applications up to 300°C

* model 6030: one shelf only



Performance you can count on

The perfect choice for whatever your application

Our Thermo Scientific Heraeus Series 6000 modular design can accommodate any laboratory need. Available with natural convection (Series ST 6000) or forced air convection (Series SUT 6000), we offer the most comprehensive and flexible range of options with six volumes, special temperature controllers and access ports. The interiors along with the removable internal fittings are easy-to-clean.

- Small foot prints
- Up to 300 °C
- 30 to 760 liter interior volume

Stringent sterilization processes

SUT models with forced air convection fit best for sterilizing processes requiring stringent specifications for temperature distribution and quick heating-up times. These hot air sterilizers are particularly suitable for the sterilization of materials containing moisture, by providing high air-circulation rates.

Precise temperature control

Our Thermo Scientific Kelvitron temperature controller provides rapid heating-up times and low variations in temperature.

Options and accessories



Fresh air fan

Additional fan is connected to the fresh air nozzle and electrically connected to the rear panel of the sterilizer.



Advantages of the fresh air fan

- The increased rate of air exchange accelerates drying processes.
- With the heating switched off, the cooling rate of the load increases.
- With a fine filter, a slight over-pressure is created thereby preventing dust particles from entering the chamber.



Fresh-air fine filter

Incoming fresh air can be efficiently cleaned using a fine fresh-air filter, class EU 12 according to DIN 24183 (filter class H12 according to EN 1822). Separation efficiency is 99.98% based on a 0.3 µm particle size number.



Door safety lock

Prevents unauthorized opening of the door during and after sterilization (two keys supplied). Left-hinged door available as an option for models 6030–6200.

Floating contact

- Connection of the sterilizer to a central monitor, max. 250 V/3 A.
- Signals for external monitor when upper temperature limit cut-out is activated.
 - Central monitoring of several hot-air sterilizers possible.
 - Allows supervisory staff to react immediately.



Access ports

With internal diameters of 18 and 53 mm (0.7 and 2.1 inch) respectively, to allow the insertion of devices as well as for probes etc.



Choice of two Pt 100 temperature sensors

- For load temperature measurement
- Up to 220 C – with flexible cable
 - Up to 300 C – with bendable, metallic wire

Applicable to both sensors:

- Pt 100 in 4-wire system.
- Introduction through door seal or access port.
- Flexible positioning possible inside the chamber.

Stacking frame

To provide stability and ensure safety distance between the stacked units.

Height-adjustable feet

- To compensate for uneven installation surfaces.
- Prevents sterilizers from rocking.
 - 100% horizontal installation possible.

Control panel options



Recording of load temperature with display

- Temperature measurement directly at load
- Digital display
- Connection for external temperature recorder
- Temperature sensor required (see Accessories)



Connection facility for an external temperature recorder

- Pt 100 or NiCr-Ni sensor with plug connection to external temperature recorder.
- Documentation of sterilizer temperature
 - Sensor permanently installed

Thermo Scientific Heraeus Function Line Hot Air Sterilizers
Order Information and Specifications



Technical data		T6	T12	T20	UT6	UT12	UT20
Outer dimensions							
Depth	mm/inch	540/21.3	540/21.3	720/28.3	540/21.3	540/21.3	720/28.3
Width	mm/inch	552/21.7	696/27.4	754/29.3	552/21.7	696/27.4	754/29.3
Height	mm/inch	663/26.1	814/32.0	876/34.5	663/26.1	814/32.0	876/34.5
Wall clearance	mm/inch	80/3.1	80/3.1	80/3.1	80/3.1	80/3.1	80/3.1
Base distance							
Width	mm/inch	506/19.9	650/25.6	708/27.9	506/19.9	650/25.6	708/27.9
Depth	mm/inch	340/13.4	340/13.4	520/20.5	340/13.4	340/13.4	520/20.5
Exhaust air connection, side clearance	mm/inch	276/10.9	348/13.7	377/14.8	184/7.2	184/7.2	184/7.2
Internal dimensions							
Depth	mm/inch	370/14.6	370/14.6	550/21.7	330/13.0	320/12.6	500/19.7
Width	mm/inch	352/13.9	496/19.5	554/21.8	378/14.9	522/20.6	580/22.8
Height	mm/inch	424/16.7	575/22.6	637/25.1	459/18.1	610/24.0	672/26.5
Volume	l	57	110	199	64	112	210
Shelves (wire mesh shelves)	Standard Qty.	2	2	2	2	2	2
	Maximum Qty.	10	15	17	9	14	16
Wire-mesh shelf dimensions							
Depth	mm/inch	365/14.4	365/14.4	545/21.2	333/13.1	323/12.7	503/19.8
Width	mm/inch	336/13.2	480/18.9	538/21.2	362/14.3	506/19.9	564/22.2
Maximum load	per tray kg	20	20	15	20	20	15
	Total kg	50	50	70	50	50	70
Weight (empty instrument)	kg	40	55	75	40	55	75
Operating temperature from TA ¹⁾ +10 °C to	°C	250	250	250	250	250	250
Heating-up time to specified temperature	min	63	60	55	42	30	40
Heat emission to the environment (at 250 °C) Wh/h		500	700	1000	700	850	1100
Air exchange rate	per hour	8	10	5	50	40	20
Electrical data (rated values)							
Rated voltage (1N/PE)	V	230 / 120	230 / 208	230 / 208	230 / 120	230 / 208	230 / 208
Frequency	Hz	50 – 60	50 – 60	50 – 60	50 – 60	50 – 60	50 – 60
Power input	kW	1.22	1.82	2.22	1.27	2.32	2.32

¹⁾ T_A = Ambient temperature

Order Information

Heraeus Function Line Hot Air Sterilizers	T6	T12	T20	UT6	UT12	UT20
Voltage	230 V	230 V	230 V	230 V	230 V	230 V
Order No.	50042293	50042303	50042309	50042297	50042305	50042311
Voltage	120 V	208 V	208 V	120 V	208 V	208 V
Order No.	50042295	50043406	50043408	50042299	50043410	50043412

Accessories

Type	Suitable for sterilizer	Order No.
Stacking frame	T6, UT6	50042906
Stacking frame	T12, UT12	50042907
Stacking frame	T20, UT20	50042908
Shelf set: chromium plated wire-mesh shelf, 2 shelf supports	T6	50042913
Shelf set: chromium plated wire-mesh shelf, 2 shelf supports	T12	50042914
Shelf set: chromium plated wire-mesh shelf, 2 shelf supports	T20	50042915
Shelf set: chromium plated wire-mesh shelf, 2 shelf supports	UT6	50042916
Shelf set: chromium plated wire-mesh shelf, 2 shelf supports	UT12	50042917
Shelf set: chromium plated wire-mesh shelf, 2 shelf supports	UT20	50042918

Thermo Scientific Heraeus Series 6000 Hot Air Sterilizers
Order Information and Specifications



Order Information

	Sterilizers with natural convection						Sterilizers with forced air convection				
Heraeus Series 6000 Hot Air Sterilizers	ST 6030	ST 6060	ST 6120	ST 6200	ST 6420	ST 6760	SUT 6060	SUT 6120	SUT 6200	SUT 6420	SUT 6760
Volume (l)	30	57	107	196	409	751	52	94	180	375	689
Order No.	51015300	51015301	51015302	51015303	51015304	51015305	51015306	51015307	51015308	51015309	51015310

Factory installed Options – Order Information

Option ¹⁾	ST 6030	ST 6060	ST 6120	ST 6200	ST 6420	ST 6760	SUT 6060	SUT 6120	SUT 6200	SUT 6420	SUT 6760
6 h timer, disconnecting	51900026	51900027	51900027	51900027	51900026	51900026	51900027	51900027	51900027	51900026	51900026
Pt 100 connection for temperature documentation	51900009	51900010	51900010	51900010	51900009	51900009	51900010	51900010	51900010	51900009	51900009
Digital sample temperature display	51900054	51900054	51900054	51900054	51900054	51900054	51900054	51900054	51900054	51900054	51900054
Daily programmable timer	51900159	51900160	51900160	51900160	51900159	51900159	51900160	51900160	51900160	51900159	51900159
Connection for central monitoring	51900063	51900064	51900064	51900064	51900063	51900063	51900064	51900064	51900064	51900063	51900063
Fresh air fan with speed adjuster							51900285	51900285	51900285	51900285	51900285
Left-hinged door	50027652	50027652	50027652	50027652	–	–	50027652	50027652	50027652	–	–
Lockable door	51900059	51900059	51900059	51900059	51900059	51900059	51900059	51900059	51900059	51900059	51900059
Access ports in the centre of the corresponding interior wall; other positions on request.											
Ceiling ²⁾ : ø 23 mm (0.9 inch)	–	50049348	50049348	50049348	–	–	50049348	50049348	50049348	–	–
Right-hand side wall ³⁾ ø 18 mm (0.7 inch)	50049349	50049349	50049349	50049349	50049349	50049349	50049349	50049349	50049349	50049349	50049349
Left-hand side wall ø 18 mm (0.7 inch)	50049350	–	–	–	50049350	50049350	–	–	–	50049350	50049350
Ceiling ²⁾ ø 58 mm (2.3 inch)	–	50049351	50049351	50049351	–	–	50049351	50049351	50049351	–	–
Right-hand side wall ³⁾ ø 53 mm (2.1 inch)	50049352	50049352	50049352	50049352	50049352	50049352	50049352	50049352	50049352	50049352	50049352
Left-hand side wall ø 53 mm (2.1 inch)	50049353	–	–	–	50049353	50049353	–	–	–	50049353	50049353

¹⁾ Options can only be installed with new equipment in the factory. ²⁾ The access ports in the ceiling are shifted by 100 mm (3.9 inch) from the middle to the left. ³⁾ In ST/SUT 6060 and 6120, displaced by 50 mm (2.0 inch) upwards from the middle

Accessories – Order Information

Accessory	ST 6030	ST 6060	ST 6120	ST 6200	ST 6420	ST 6760	SUT 6060	SUT 6120	SUT 6200	SUT 6420	SUT 6760
Support frame (780 mm; 30.7 inch)	–	50029890	50029596	50029597	–	–	50029890	50029596	50029597	–	–
Support frame (300 mm; 11.8 inch)	–	50031349	50034303	50031348	–	–	50031349	50034303	50031348	–	–
Stacking frame	–	50027660	50027661	50027661	–	–	50027660	50027661	50027661	–	–
Four height-adjustable feet	50010923	50010923	50010923	50010923	–	–	50010923	50010923	50010923	–	–
Temperature sensors											
Pt 100 (flexible) for load temp. measurement up to 220 °C	50034313	50034313	50034313	50034313	50034314	50034314	50034313	50034313	50034313	50034314	50034314
Pt 100 (bendable) for load temp. measurement up to 300 °C	50034315	50034315	50034315	50034315	50034316	50034316	50034315	50034315	50034315	50034316	50034316
Fresh air fine filter for connection to											
fresh air nozzle	50030850	50030850	50030850	50030850	50030850	50030850	50030850	50030850	50030850	50030850	50030850
Fresh air filter for fresh air fan	50027662	50027662	50027662	50027662	50027662	50027662	50027662	50027662	50027662	50027662	50027662
KelviLog documentation software											
Temperature documentation of a sterilizer via RS 232	50047372	50047372	50047372	50047372	50047372	50047372	50047372	50047372	50047372	50047372	50047372
Connection set for PCs											
Interface cable, 3 m (10 ft), adaptor plug 9 to 25 poles	50048122	50048122	50048122	50048122	50048122	50048122	50048122	50048122	50048122	50048122	50048122
Exhaust air duct:											
Flexible air pipe, 3 m (10 ft) long, 40 mm (1.6 inch) ø	50048760	50048760	50048760	50048760	50048760	50048760	50048760	50048760	50048760	50048760	50048760
Shelves											
Wire-mesh shelves, chromium-plated, 2 shelf supports	50029401	50029402	50029403	50029404	50029405	50029406	50029413	50029414	50029415	50029416	50029417
Perforated stainless steel shelves, 2 shelf supports	50029487	50029488	50029489	50029490	50029491	50029492	50044614	50044615	50044616	50044617	50044618

Thermo Scientific Heraeus Series 6000 Hot Air Sterilizers

Technical Specifications



Technical data

Sterilizers	Sterilizers with natural convection						Sterilizers with forced air convection					
	ST 6030	ST 6060	ST 6120	ST 6200	ST 6420	ST 6760	SUT 6060	SUT 6120	SUT 6200	SUT 6420	SUT 6760	
Temperature range (T _A) ¹⁾ + 5 °C to °C	300	300	300	300	300	300						
Temperature range (T _A) ¹⁾ + 20 °C to °C							300	300	300	300	300	
Weight	kg	40	50	65	92	153	223	53	75	100	163	241
Rated power load	kW	0.8	1.6	2.2	2.7	4.1	6.1	1.7	2.4	2.8	4.2	6.3
Rated voltage (50/60 Hz)	1N/PE V	230/120 ²⁾	230/120 ²⁾	230	230	–	–	230/120 ¹⁾	230	230	–	–
	3N/PE V	–	–	–	–	400	400	–	–	–	400	400
	3 /PE V	–	–	–	–	230	230	–	–	–	230	230
Temperature deviations, over time ± °C	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5	≤ 0.5
Spatial temperature deviation at 180 °C ³⁾	°C	3	4	4	4	4	5	4	4	4	4	4
Heating-up time to 180 °C ⁴⁾	°C	40	30	30	40	45	55	30	30	35	45	45
Number of shelves as standard	no.	1 (max. 4)	2 (max. 9)	2 (max. 14)	2 (max. 18)	2 (max. 39)	2 (max. 39)	2 (max. 9)	2 (max. 14)	2 (max. 18)	2 (max. 39)	2 (max. 39)
Electrical output												
Heat emission to the environment												
Forced air circulation at 180 °C	Wh/h	180	250	350	450	720	1080	480T	640	790	1300	1500

Dimensions

Sterilizers	Sterilizers with natural convection						Sterilizers with forced air convection					
	ST 6030	ST 6060	ST 6120	ST 6200	ST 6420	ST 6760	SUT 6060	SUT 6120	SUT 6200	SUT 6420	SUT 6760	
External dimensions												
Width	mm/inch	552/21.7	744/29.3	895/35.1	895/35.2	744/29.3	1200/47.2	744/29.3	895/35.2	895/35.2	744/29.3	744/47.2
Height	mm/inch	552/21.7	552/21.7	696/27.4	816/32.1	1707/67.2	1707/67.2	552/21.7	696/27.4	816/32.1	1707/67.2	552/21.7
Depth	mm/inch	535/21.1	535/21.1	535/21.1	715/28.1	715/28.1	715/28.1	535/21.1	535/21.1	715/28.1	715/28.1	535/21.1
Dimensions												
Foot height (casters)	mm/inch	24/0.9	24//0.9	24/0.9	24/0.9	(106/4.2)	(106/4.2)	24/0.9	24/0.9	24//0.9	(106/4.2)	(106/4.2)
Depth door handle		50/2.0	50/2.0	50/2.0	50/2.0	50/2.0	50/2.0	50/2.0	50/2.0	50/2.0	50/2.0	50/2.0
Width switch box		149/5.9	149/5.9	149/5.9	149/5.9	169/6.7	169/6.7	149/5.9	149/5.9	149/5.9	169/6.7	169/6.7
Depth switch box		400/15.7	400/15.7	400/15.7	580/22.8	580/22.8	580/22.8	400/15.7	400/15.7	400/15.7	580/22.8	580/22.8
Wall clearance		80/3.1	80/3.1	80/3.1	80/3.1	80/3.1	80/3.1	80/3.1	80/3.1	80/3.1	80/3.1	80/3.1
Exhaust air connection, side clearance		276/10.9	302/11.9	377/14.8	377/14.8	372/14.6	600/23.6	377/14.8	377/14.8	372/14.6	372/14.6	600/23.6
External diameter:												
Air inlet pipe/air outlet pipe	Diameter	40/1.6	40/1.6	40/1.6	40/1.6	40/1.6	40/1.6	40/1.6	40/1.6	40/1.6	40/1.6	40/1.6
Interior dimensions												
Depth	mm/inch	370/14.6	370/14.6	370/14.6	550/21.6	550/21.6	550/21.6	339/13.3	323/12.7	503/19.8	522/20.5	522/20.5
Width	mm/inch	352/13.9	403/15.9	554/21.8	554/21.8	544/21.4	1000/39.4	403/15.9	554/21.8	554/21.8	544/21.4	1000/39.4
Height	mm/inch	231/9.1	380/15.0	524/20.6	644/25.4	1366/53.8	1366/53.8	380/15.0	524/20.6	644/25.4	1319/51.9	1319/51.9
Interior volume	l	30	57	107	196	409	751	52	94	180	375	689
Weights												
Total permissible load	kg	50	50	50	75	75	150	50	50	75	75	150
Shelf point load	kg	15	15	15	20	20	20	15	15	20	20	20
Shelf extensive load	kg	20	20	20	40	40	40	20	20	40	40	40

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