

# FUNCTION LINE HEATING AND DRYING OVENS

FUNCTION  
*Line*



**Heraeus® Function Line  
heating and drying ovens for  
temperatures up to 250 °C:**

- 3 sizes with 60, 120 and 200 litres
- sophisticated controller with large digital display for easy reading
- easy-to-clean interior saves time and ensures safety
- large volume despite a small footprint saves space in your laboratory



User-friendly thanks to intelligent solutions and technical refinements. Optimal results and high safety standards are guaranteed.



Function Line systems are used in R&D laboratories as well as in quality assurance applications and production.



Sturdy one-point door latch provides optimal sealing.

The T 6, T 12, and T 20 drying ovens with natural convection are used for thermal processes: heated storage, heat treatment, thermal testing, and for conventional drying processes with temperatures up to 250 °C. The UT 6, UT 12, and UT 20 air circulation drying ovens are designed for high-performance drying and thermal processes, which require increased fresh air supply, short process times, precise heat control, and short heating-up times to 250 °C.

**Intelligent Solutions**

The Heraeus® Function Line heating and drying ovens are available in three sizes. The working chamber volumes range from 60, 120 to 200 liters. The inner casing is made of corrosion-resistant stainless steel. Temperature is controlled by a precise microprocessor-based controller with a large display. Due to the compact design the ovens require a minimum of space.

The heating and drying ovens can also be operated when stacked.

**State-of-the-Art Functionality**

Two types of user-friendly control elements with clearly arranged temperature displays complement the Function Line concept. The functions include a timer to activate/deactivate the oven, and to program heating-up/cooling-down and process times.

Function Line ovens in P-version come standard with programmable controller.

**Easy Operation**

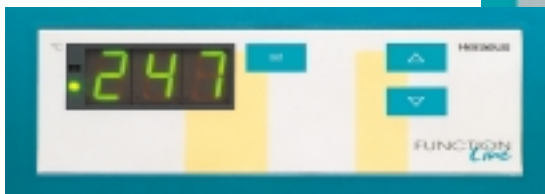
The main operating and display elements are located at eye level on the door. An interchangeable silicone door gasket and removeable shelf supports make cleaning easy and safe.




**Safety and Reliability**

The Function Line heating and drying ovens are designed for continuous unattended operation (upper temperature limit cut-out). All appliances are GS tested by the VDE (German Association of Electrical Engineers) in accordance with International Standard EN 61010 and interference suppressed.

**Documentation**

The Function Line heating and drying ovens feature an RS 232 interface for temperature documentation. Respective software is available as accessory.



-  set  
set temperature  
(set timer)  
(set programs)
-  temperature up  
(time up)
-  temperature down  
(time down)





Interchangeable door gasket made of highly resistant degassed silicone rubber.



UT interior: removable shelf supports and rounded corners for easy cleaning.

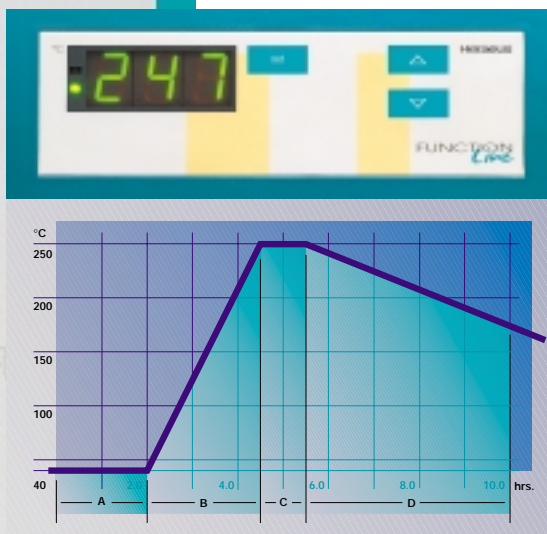


Figure 1: Program profile of Standard Version

**STANDARD VERSION**

Combination of pre-programmed routines:  
 A: Delayed start of heating and fan  
 B: Heating-up  
 C: Process time  
 D: Cooling-down



Figure 2: Example of program profile P-Version

**P-VERSION**

Same as standard version but user-defined programming of temperature profile. All UT-models in P-Version come standard with a fan-speed controller.



## TECHNICAL SPECIFICATIONS



Fresh air supply control (UT) and overtemperature control (Class 2) for unattended operation.



Sturdy door hinge with integrated cable ducts.

Type			T 6/T 6 P	T 12/T 12 P	T 20/T 20 P
<b>Outer dimensions</b>	(W/H/D) <sup>1)</sup>	mm	552/700/540	696/850/540	754/910/720
<b>Interior volume</b>		l	57	110	199
<b>Interior dimensions</b>	(W/H/D)	mm	352/424/386	496/575/386	554/637/566
<b>Number of shelves</b>	standard		2	2	2
	maximum		10	15	17
<b>Shelf dimensions</b>	(W/D)	mm	336/365	480/365	538/545
<b>Maximal load</b>	per shelf	kg	20	20	15
	total	kg	50	50	70
<b>Weight (empty)</b>		kg	40	55	75
<b>Temperature</b>					
from T <sub>A</sub> <sup>2)</sup> + 10 °C to		°C	250	250	250
<b>Temp. deviations at 150 °C</b>	(spatial)	± °C	5	5	4
	(acc. to DIN 12880, Part 2)	(temporal) ± °C	0.3	0.5	0.5
<b>Heating-up times to max. temp.</b>		min	63	60	55
<b>Heat transfer to environment</b>		W	500	700	1000
<b>No. of air changes</b>		per hr	8	10	5
<b>Electrical data (nominal values)</b>					
Operating voltage <sup>3)</sup>		V	230, 1/PE AC	230, 1/PE AC	230, 1/PE AC
Frequency		Hz	50 – 60	50 – 60	50 – 60
Power consumption		kW	1.22	1.82	2.22

Type			UT 6/UT 6 P	UT 12/UT 12 P	UT 20/UT 20 P
<b>Outer dimensions</b>	(W/H/D) <sup>1)</sup>	mm	552/700/540	696/850/540	754/910/720
<b>Interior volume</b>		l	64	112	210
<b>Interior dimensions</b>	(W/H/D)	mm	408/459/344	552/610/334	610/672/514
<b>Number of shelves</b>	standard		2	2	2
	maximum		9	14	16
<b>Shelf dimensions</b>	(W/D)	mm	362/333	506/323	564/503
<b>Maximal load</b>	per shelf	kg	20	20	15
	total	kg	50	50	70
<b>Weight (empty)</b>		kg	40	55	75
<b>Working temperature</b>					
from T <sub>A</sub> <sup>2)</sup> + 20 °C to		°C	250	250	250
<b>Temp. deviations at 150 °C</b>	(spatial)	± °C	3	3	4
	(acc. to DIN 12880, Part 2)	(temporal) ± °C	0.3	0.3	0.5
<b>Heating-up times to max. temp.</b>		min	42	30	40
<b>Heat transfer to environment</b>		W	700	850	1100
<b>No. of air changes</b>		per hr	50	40	20
<b>Electrical data (nominal values)</b>					
Operating voltage <sup>3)</sup>		V	230, 1/PE AC	230, 1/PE AC	230, 1/PE AC
Frequency		Hz	50 – 60	50 – 60	50 – 60
Power consumption		kW	1.27	2.32	2.32

<sup>1)</sup> Depth without handle and wall distance. Dimensions: handle 70 mm, wall distance 80 mm

<sup>2)</sup> T<sub>A</sub> = Ambient temperature

<sup>3)</sup> Other voltages on request.

All specifications are typical measured values for series models.





# Fast and precise service



Fast response times and competent solutions that is our performance promise to our customers all over the world. Our comprehensive service package includes more than repairs and maintenance.

For us service means technological competence, advice on applications and excellent logistics. The basis for all this is our equipment's outstanding quality.

For that reason your decision to work together with Kendro is also the first step towards a reliable and reassuring service partnership.

## ORDER NUMBERS FOR FUNCTION LINE SERIES

### Standard models

Type	230 V~ <sup>1)</sup>	with additional mechanical weekly program timer; 230V~ <sup>1)</sup>
T 6	50042293	50045756
T 12	50042303	50045761
T 20	50042309	50045766
UT 6	50042297	50045758
UT 12	50042305	50045763
UT 20	50042311	50045768

<sup>1)</sup> Other voltages on request

### Programmable models

Type	230 V~ <sup>1)</sup>	with additional mechanical weekly program timer; 230 V~ <sup>1)</sup>
T 6 P	50042294	50045757
T 12 P	50042304	50045762
T 20 P	50042310	50045767
UT 6 P	50042298	50045759
UT 12 P	50042306	50045764
UT 20 P	50042312	50045769

Accessories		T 6/T 6 P	T 12/T 12 P	T 20/T 20 P	UT 6/UT 6 P	UT 12/UT 12 P	UT 20/UT 20 P
<b>Support frame</b>	780 mm in height	50045045	50045046	50045047	50045045	50045046	50045047
	300 mm in height	50045049	50045050	50045051	50045049	50045050	50045051
<b>Stacking kits</b>		50042906	50042907	50042908	50042906	50042907	50042908
<b>Shelf set</b>							
Chromed wire-mesh shelf, incl. 2 shelf supports							
		50042913	50042914	50042915	50042916	50042917	50042918
Stainless steel perforated shelf, incl. 2 shelf supports							
		50044620	50044610	50044621	50044611	50044612	50044613

Options		T/UT-models
<b>Exhaust tube</b>	Flexible exhaust tube, 3 m long, 40 mm in diameter	50048760
<b>KelviLog Documentation Software</b>	for temperature documentation via RS 232 interface	50047373
<b>Connection kit for PCs</b>	Interface cable 3 m long, adaptor plug 9/25 pin	50048122

Options		T-models	UT-models
<b>Access ports</b>	in the center of the corresponding wall of the inner casing		
	top: ø 23 mm (T/UT)	50049336	50049342
	right-hand wall: ø 18 mm (T), ø 23 mm (UT)	50049337	50049343
	left-hand wall: ø 18 mm (T), ø 23 mm (UT)	50049338	50049344
	top: ø 58 mm (T/UT)	50049339	50049345
	right-hand wall: ø 53 mm (T), ø 58 mm (UT)	50049340	50049346
	left-hand wall: ø 53 mm (T), ø 58 mm (UT)	50049341	50049347

Manufacturer's Calibration Certificate			
<b>Manufacturer's Calibration Certificate</b>	Calibration Certificate for 150 °C		
	at center of the inner chamber	50057685	50057685
	Calibration at additional temperature (max. 2)	50057686	50057686
	Record of 150 °C according to DIN 12880		
	measuring at 27 points	50044952	50044952
	Record of additional temperature according to DIN 12880	50057687	50057687

### For Ordering or Technical Information

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**Heraeus**

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