BOX TYPE FURNACES 1400 °C max.Temperature –SiC resistors Model family: BOX-AS10-1400

Description.

BOX-AS10-1400 model family designed to give repeatable and reliable results in the most aggressive high temperature processes up to **1400** °C **continuously**. Utilizing the unique high density Kanthal Globar SiC resistors these furnaces have superior performance in terms or resistance to oxidation and chemical attack, highly extending the workable life of your investment.

Having as major priority the economical operation this furnace was designed with double wall ceramic insulation serving from one hand as a heat exchanger preheating the incoming air and from the other as a heat barrier improving the overall thermal insulation. Constructed using the highest quality fibrous low mass density thermal insulation leads to important energy savings.

With adjustable air opening in the back side and an exhaust chimney at the top, creating a strong natural convection, the entire volume of the chamber can be refreshed several times per minute. The preheated incoming air is entering and exiting the chamber through multiple holes creating a smooth and temperature uniform air stream through the sample.



ERMANSYS

Ergonomic design with no protruding edges, bolts or other features combines stainless steel parts with painted finish parts for an improved aesthetic result.

Key features.

- Control strategy based on Thermansys® PCC (Power Consistent Control) platform insures silent operation and compliance with EMC standards.
- Modern double wall construction keeps external surfaces temperature low. Internal skin is exclusively made from stainless steel to enhance durability.
- Lift up door keep hot surfaces away from operator.
- Heater failure, open thermocouple detection, door open alarms and interlocks.

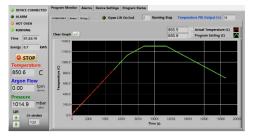
Contact details

Ath. Stagiriti 7- Pilea, Thessaloniki Greece, 55534 tel. 0030 2310 942346, fax. 0030 2310 942336 e-mai: info@thermansys.com www.thermansys.com

Standard equipped with a Digital LCD display temperature controller providing 15 step programming with 1 program storage.



Optionally equipped with s remote, touch screen, computer running the specially designed PYROLOGISM 2.0 software, provides a really unique and friendly, windows oriented architecture interface with multiple, advanced features and peripherals.



- Optional Touch Screen Computer running PYROLOGISM 2.0 software human-machine interface.
- Kanthal Globar SRO Heating Elements
- Power and true RMS Current measuring circuits.
- Stand alone over-temperature limiter (Watchdog) with manual reset in accordance with EN 60519-2 to protect the oven and load. Overrides main controller and cut off heater power if user adjustable high limit is reached.

Information and data contained in this document was considered correct at the time of publication. Thermansys[®] is reserving the right to make modifications as a result of design improvements.

PYROLOGISM control and monitoring software.

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- Quick setting of a single ramp rate to a set point -run on timer function.
- Set-point programming with up to 15 ramp and constant temperature programming steps graphical inspection of programming.
- Storage and reload of unlimited number of distinct programs.
- Graphical inspection of programming.
- Real time chart illustrating control temperature and running set point.
- Real time true-RMS Current (A), Voltage (V) and Power (W) measurements.
- Real time actual Power (W) and totalized Energy (kWh) chart.
- Saves all data on local memory.
- Tools for manual PID tuning and auto-tuning.
- Virtual keyboard, alarm and event message tab.
- Watchdog over temperature limiter monitor/configuration.

Specifications and Ordering Information.

Standard features:

- Maximum continuous temperature 1400 °C.
- Operating Power: 240 /400VAC 50/60Hz.
- Digital LCD temperature controller with 15 step programming and I program storage.
- S type embedded thermocouples for main controller and (optionally) for over-temperature limiter feedback.
- Temperature control accuracy ± 1 °C.
- Exposed resistors type. Kanthal Globar Silicon Carbide SiC.
- Safety thermostat
- Thermocouple inputs: 3 chan. B, K, R, S, T Software configurable (optional).

Optional features:

- Remote, touch screen computer running the specially designed PYROLOGISM 2.0 software on a 10.0in Tablet PC. Add suffix _TSC.
- Programmable stand-alone over-temperature limiter (Watchdog) with manual reset in accordance with EN 60519-2 to protect the heater and load,

Add suffix _WD.

- UPS (Uninterrupted Power Supply). Keep system alive for short periods of power failure and restore program after power recovery Add suffix _UPS
- Flow controllers: Number of lines: 1 or 2 Flow range: 0.01-20 std L/min - Accuracy: ±2% of reading for Air, ±3% of reading for N2 - Typical Control stability: ± 0.1 std L/min.
 Add suffix_Line 1, for gas type calibration: Air,
 Add suffix_Line 2, for gas type calibration: Nitrogen (N₂)

CE Certified. Compliant with Low Voltage Directive 2006/95/EC (harmonized referenced standard EN 61010-1: 2001 and EN 61010-2-010:2003) and EMC Directive 2004/108/EC (harmonized referenced standard EN 61326-1:2006).

TABLE1. BOX-AS10-1400 Family Models								
Model Part Number	Max. Cont. Temp. °C x	Furnace internal dim. WxHxD mm	Heated Volume	Furnace external dim.	Nominal Max. Power			
BOX-AS10	Heat up time* min		liters	WxH**xD mm	(W)			
_V3.2-1400	1400 x 80	120x160x170	3.2	520x710x550	3000			
_V3.8-1400	1400 x 80	120x160x200	3.8	520x710x580	3200			
_V5.0-1400	1400 x 80	140x160x220	5.0	540x710x600	4000			
_V6.3-1400	1400 x 80	140x180x250	6.3	540x730x630	5000			
_V8.3-1400	1400 x 80	160x180x290	8.3	560x730x670	6000			
_V10.0-1400	1400 x 80	160x180x350	10.0	560x730x730	6200			

* Furnace working with no load.

** Plus 100 mm for chimney

IMPORTANT ORDERING NOTES:

- Models Part Number listed in Table 1 concern complete turn-key systems including all standard features ...

Ordering Examples:
 BOX-AS10_V3.2-1400: This Part Number includes one BOX-AS10-1400 family furnace having 120x160x170 mm internal chamber dimensions including all standard features.

- To order the furnace with one flow controller add at the end of the part number the suffix "LINE X",

e.g: BOX-AS10_V3.2-1400-LINE1 for air calibration or BOX-AS10_3.2-1400_LINE2 for Nitrogen calibration

- BOX-AS10_V3.2-1400-**TSC-WD**. This Part Number includes one BOX-AS10-1400 family furnace having 120x160x170 internal chamber dimensions including all standard features plus a Tablet PC running the PYROLOGISM 2.0 software and a programmable over-temperature limiter.

HELLENIC PRODUCT.

Contact details Ath. Stagiriti 7- Pilea, Thessaloniki Greece, 55534 tel. 0030 2310 942346, fax. 0030 2310 942336 e-mai: info@thermansys.com www.thermansys.com Information and data contained in this document was considered correct at the time of publication. Thermansys[®] is reserving the right to make modifications as a result of design improvements.