

## BOX TYPE FURNACES

### Large Volume - Max. Temperature 1200 °C

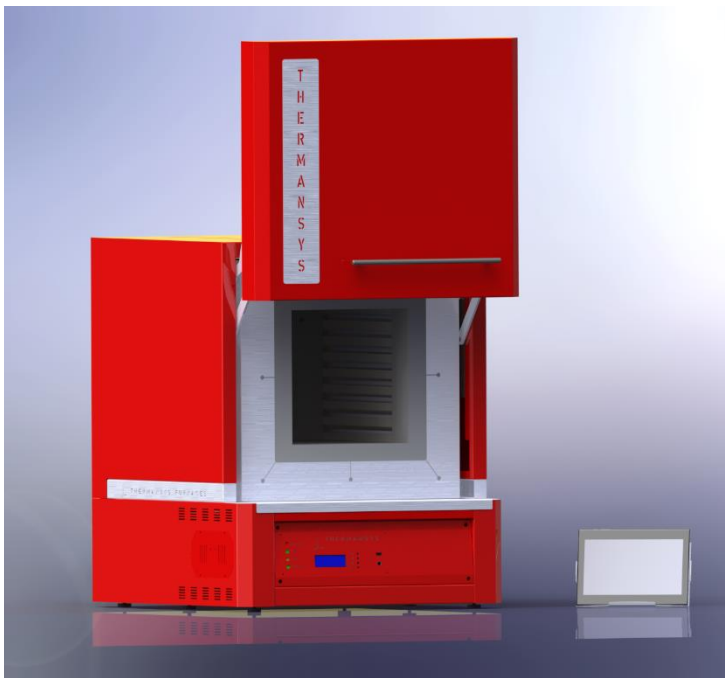
Model family: **BOX-BW20-1200**

### Description.

**BOX-BW20-1200** furnace family was to serve for harsh and demanding thermal processes environment up to **1200 °C**. Suitable for many applications including metals melting, organics combustion, ashing and ceramics sintering. Ideal choice for wax removal this model presents an every-day partner for professionals working in dental, jewelry or other similar areas.

The hot zone is constructed from high resistance, low porosity ceramic materials. The low density fibrous back insulation allows for rapid heat up and cool down rates. Having as major priority the economical operation this furnace was carefully designed with a 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.

With 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 the chamber through multiple holes creating a smooth and temperature uniform laminar air stream through the sample.



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

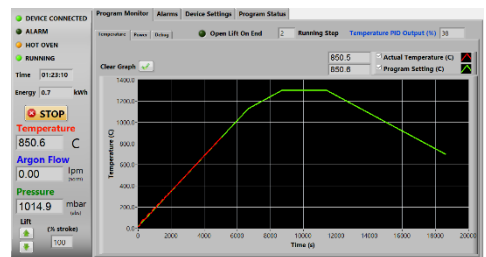
### Key features.

- Control strategy by Thermansys PCC (Power Consistent Control) insures silent operation and compliance with EMC standards.
- Modern double wall construction keeps external surfaces temperature low, emphasizing in operator safety.
- PID control, accurate and uniform temperature profiles.
- KANTHAL® FeCrAl resistors.
- Lift up door keep hot surfaces away from operator.
- Touch screen computer running the user friendly, PYROLOGISM 2.0 software.
- Power and true RMS Current measuring circuits.
- Heater failure, open control thermocouple detection alarms and interlocks.
- Stand alone over-temperature limiter (Watchdog) with manual reset in accordance with EN 60519-2 to protect the heater and load.

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



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

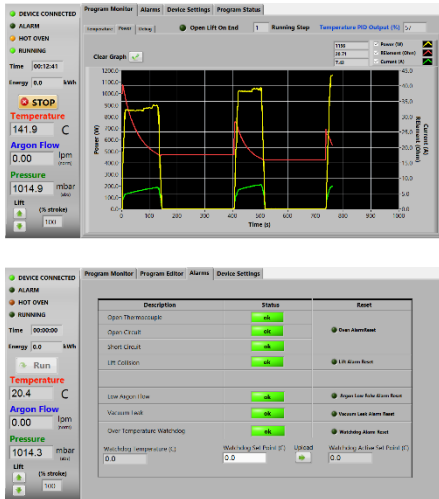


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## PYROLOGISM control and monitoring software.



- 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 with dynamic zoom.
- Events and alerts messaging.
- 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.
- Versions running at Microsoft® Windows are available for control by a PC through USB port.

## Specifications and Ordering Information.

### Standard features:

- Maximum continuous temperature 1200 °C.
- Operating Power: 240VAC – 50/60Hz.
- Two in depended S type embedded thermocouples for controller and over-temperature limiter feedback.
- Temperature control accuracy  $\pm 0.5$  °C.
- Semi-exposed resistors type.
- Safety thermostat
- Two compression fitting ports to serve as gas inlets.
- Two thermocouple probe ports at the rear side.

### Optional features:

- Remote, touch screen temperature controller, running the specially designed PYROLOGISM 2.0 software on a 10.0in Windows 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) that will keep system alive for short periods of power failure and restore program after power recovery  
**Add suffix \_UPS**

**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).

*Produced in GREECE following ISO 9001:2008 quality management system and ISO 14001:2004 environmental management system.*

TABLE1. BOX-BW20-1200 Family Models

Model Part Number	Max. Cont. Temp. °C x Heat up time* min	Furnace internal dim. WxHxD mm	Heated Volume liters	Furnace external dim. WxH**xD mm	Nominal Max. Power (W)
BOX_BW10...					
_V22-1200	1200 x 55	250x250x350	22	610x750x690	5000
_V25-1200	1200 x 55	250x250x400	25	610x750x740	5600
_V36-1200	1200 x 55	300x300x400	36	660x810x740	6200
_V55-1200	1200 x 80	350x350x450	55	710x860x790	8000
_V80-1200	1200 x 80	400x400x500	80	760x910x840	10000
_V150-1200	1200 x 80	500x500x600	150	860x1020x940	15000

\* Furnace working with no load.

\*\* Furnace door closed, plus 100 mm for chimney.

### Ordering Example:

- BOX-BW20\_V36-1200: This Part Number includes one BOX-BW20-1200 family furnace having 300x320x400mm internal chamber dimensions including all standard features.
- BOX-BW20\_V36-1200-TSC-WD. This Part Number includes one BOX-BW20-1200 family furnace having 300x320x400mm internal chamber dimensions including all standard features plus a Tablet PC running the PYROLOGISM 2.0 software and a programmable over-temperature limiter.

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