



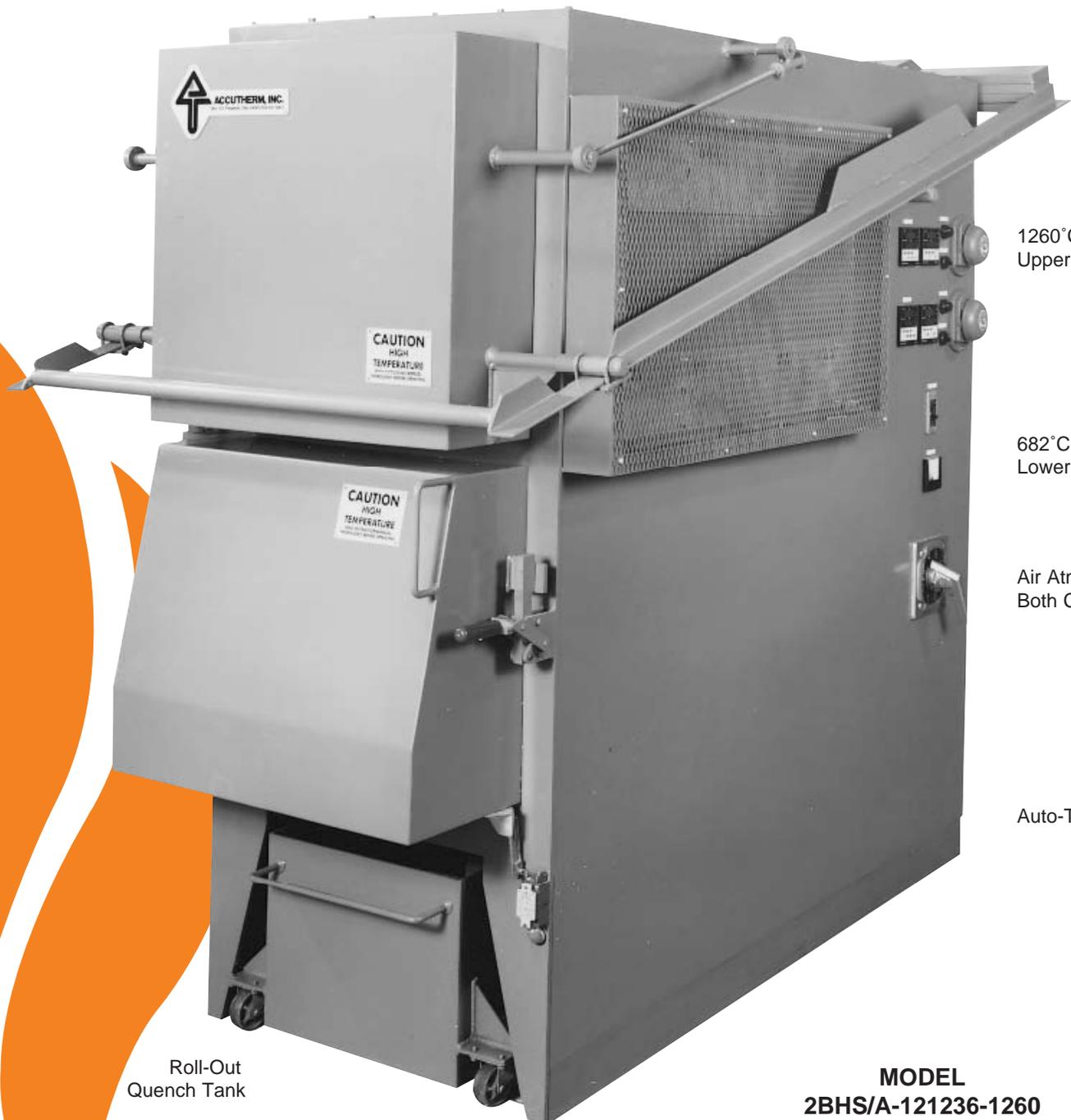
# Thermcraft

incorporated

High Performance Technology

## DUAL CHAMBER TOOL ROOM FURNACES

SERIES 2BHS/A



1260°C (2300°F)  
Upper Chamber

682°C (1250°F)  
Lower Chamber

Air Atmosphere  
Both Chamber

Auto-Tune Controls

Roll-Out  
Quench Tank

MODEL  
2BHS/A-121236-1260

# SPECIFICATIONS

**SHELL:** Heavy structural steel and 3/16" steel plate are used, with the front framework 1/2" thick.

**INSULATION:** Upper chamber has 9" thick walls of graded ceramic fiber with hot face to 1316°C (2400°F) 1371°C (2500°F) version has 10" thick walls with hot face rated to 1472°C (2600°F). Lower chamber insulation has 8" thick walls of ceramic fiber rated to 927°C (1700°F). Floors of both chambers are of insulating firebrick for mechanical strength.

**HEARTHES:** Upper and lower chamber hearths consist of silicon carbide slabs placed on elevating piers to allow placement of heating elements below.

**DOORS:** Upper chamber door is manually operated, counter-weighted and self aligning. This door can be easily lifted with one hand. Lower chamber door is hinged, and has a quick operating latch to assure a positive closure. The specialized shape of the lower door enhances air recirculation as an aid to thermal uniformity. Both doors have safety switches to shut element power off when the respective door is opened.

**AIR RECIRCULATION:** A stainless steel fan assembly in the lower chamber recirculates air through the work area and the heating elements to enhance thermal uniformity. Air cooled bearings are used. Fan shaft rotation is constantly monitored by an electronic stop motion detector, sounding an alarm and turning elements off if the fan is not operating.

**QUENCH TANK:** A quench tank on casters is positioned below the furnace. Internal dimensions are larger than the chamber dimensions so that any ware is easily quenched.

**HEATING ELEMENTS:** Upper chamber uses eight (8) silicon carbide rod type heating elements, positioned equally above and below the chamber work area. The lower chamber uses alloy coil elements located below the silicon carbide hearth.

**POWER CONTROLS:** Standard control is by magnetic contactors with separate back-up magnetic contactors being operated by the high limit controllers and door limit switches. A voltage reducing transformer and ammeter is used to adjust voltage to the upper elements to compensate for aging. A 7-point tap switch is available as an option. (Furnaces with 24" wide chambers use two switches to adjust thermal uniformity.)

**INSTRUMENTATION:** Each chamber uses an LED display digital controller with automatic tuning. Each also has a separate digital high limit controller. These instruments are complete with required thermocouples, type K for the lower chamber and type S (platinum/rhodium) for the upper chamber. These instruments are mounted on the rear side of the furnace and are completely interwired, ready to operate.

- OPTIONS:**
- a) inert atmosphere capability
  - b) SCR power controls
  - c) power operated door, pneumatic or electric
  - d) internal alloy rollers operable to 1093°C (2000°F)
  - e) alternate control instruments
  - f) recording
  - g) transformer tap switch

MODEL	CHAMBER			OVERALL			KW	VOLTAGE	PHASE	WEIGHT (LBS.)
	H"	W"	L"	H"	W"	L"				
2BHS/A-101024-1260	10"	10"	24"	77"	46"	82"	15	230	1	3,600
2BHS/A-121236-1260	12"	12"	36"	81"	48"	94"	18	230	1	4,000
2BHS/A-182436-1260	18"	24"	36"	99"	67"	98"	40	230 or 460	3	5,800
2BHS/A-182436-1370*	18"	24"	36"	99"	67"	98"	40	230 or 460	3	6,000

1371°C (\*2500°F) upper chamber capability

Thermcraft has a wide range of standard products which includes: ceramic heaters, vacuum formed ceramic fiber heaters, diffusion heaters, control systems, as well as industrial ovens and furnaces. A standard line of split tube furnaces, solid tube furnaces, and controls are available for shipment in (10) working days. Thermcraft is also a recognized leader in **CUSTOM** heat-treating, industrial, and laboratory ovens and furnaces.

Call your local representative or our staff of trained sales engineers at the Winston-Salem plant with any of your heating problems.



Accepted for your convenience



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P.O. Box 12037 • 3950 Overdale Road  
Winston-Salem, NC 27117-2037 USA  
(336) 784-4800  
FAX (336) 784-0634

**Website:** www.thermcraftinc.com  
**Email:** sales@thermcraftinc.com