



# SPECIAL FURNACE CO INC

20 Kent Road • PO Box 2129 • Aston, PA 19014 • 610.459.9216 • Fax: 610.459.3689 • Web: hotfurnace.com

## VB SERIES



### APPLICATIONS

The VB SERIES Bench Mounted Electric Recirculating Cabinet Ovens feature air recirculation for high temperature uniformity, simple, clean, electric operation, a stainless steel interior and a precision PID digital control system. These are ideal for laboratory or small production use such as tempering or annealing in heat treating applications. They are rated to 1300°F (700°C) with an option for 1400°F (760°C) operation.

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#### BENCH MOUNTED ELECTRIC RECIRCULATING 1300°F (700°C) TEMPERING OVENS

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### FEATURES

#### RECIRCULATION FOR UNIFORMITY +/-10°F

An alloy fan is mounted in the top. The motor is 1/6 H.P.

#### STAINLESS STEEL INTERIOR

The entire interior is made of stainless steel for heat and corrosion resistance. The liner is designed to expand and contract with the heat.

#### BENCH MOUNTED CASE CONSTRUCTION

The oven case is constructed of 10, 14 and 16 gauge steel with an integrated bench stand. The case is primed with 800°F silicone paint and finished in machine enamel.

#### SEVEN INCHES OF INSULATION

There is 1" of 2300°F ceramic fiber insulation backed up with 6" of mineral wool. All insulation is sandwiched between the interior liner and exterior of the oven. No asbestos is used.

**INCOLOY ELEMENTS**

The elements are incoloy sheathed elements which are rated for 1600°F. They are easily replaced.

**GASKETED DOOR**

The door is pivoted on the left. A woven fiberglass tadpole gasket and adjustable latch seal the door tightly.

**DIGITAL PID CONTROL AND HIGH LIMIT SYSTEM**

The standard control is a Honeywell UDC 2300 digital PID 3 mode tuning control. All fuses, transformers, contactors, and controls are located in a NEMA 1 panel mounted on the side. Panel includes a hinged door and generous internal spacing. Quiet, long life mercury power contactors are standard. The thermocouples are Type K. The control voltage is transformed to 120 volts. Control and power circuits are branch fused. Limit switch turns off power if the door is opened. A NEMA 13 lighted On/Off switch is included. A Honeywell UDC 2300 digital high limit back up control with manual reset, back up contactors and separate thermocouple is included as standard. Customer must connect fused power supply to single point on panel.

**TESTING AND INSTRUCTIONS**

The oven is power tested to insure proper watt ratings. A complete instruction manual includes easy start up instructions, theory of operation, maintenance instructions, parts list, and a detailed trouble shooting guide. A ladder logic diagram and panel layout are prepared on CAD for easy readability.

**WARRANTY**

The oven is warranted for one year except for elements and thermocouples (warranted for 6 months.)

**OPTIONS**

- **JIC CONTROL OPTION:** This includes a NEMA 12 control cabinet, all oil tight switches and a panel mounted fused disconnect switch.
- **INERT ATMOSPHERE BLANKETING:** A flowmeter/regulator combination unit is provided which fits onto a compressed gas bottle. Nitrogen or argon can blanket the inside of the oven, although there will be some leakage around the fan shaft and door seal. Usually 5 to 10 volume changes per hour are required. If a program control is ordered an event switch can be used to shut off gas with an optional solenoid.
- **RAMP/SOAK PROGRAM CONTROLS:** A variety are offered including the 12 segment UDC 3300 program control.
- **TEMPERATURE RECORDERS:** Round and strip chart.
- **SCR POWER CONTROL:** This provides longer element life and more even heating. It also allows the oven to be used to 1400°F.
- **SPRING LOADED EXPLOSION RELIEVING LATCH**
- **MANUAL OR POWERED VENTURI VENT:** A manual or air powered venturi can be provided for venting the oven. Optional safety package for solvent use.
- **SHELVES AND SPECIAL HEARTHS:** Perforated stainless steel shelves are available.
- **ANGLE IRON STAND:** Standard hearth height with optional stand is 32" from floor. Includes leveling bolts.



*This shows the interior of the VB124. You can see the fan and the elements.*

**SPECIFICATIONS**

MODEL NUMBER	WORKING DIMENSIONS			OUTSIDE DIMENSIONS			STAND K.W.	HIGH K.W.	MAX LOAD LBS	SHIP WGHT
	W	H	D	OW	OH	OD				
VB 124	12	12	24	52	44	40	4.0	7.2	150	425
VB 126	12	12	36	52	44	52	6.0	10.8	225	675

Dimensions are in inches. Weight is in pounds. Working dimensions have an extra 1" clearance for all dimensions. 240 or 460 volts are normal. 208 volts will reduce power by 25%. Other voltages are optional. Single phase is normal, although all ovens can be supplied in 3 phase (although some models will have unbalanced phases.) Note that larger size ovens are available in the heavy duty floor standing DV/DR SERIES oven line. Specifications subject to change without notice.