

**BULLETIN
BH-302**

Industrial Bench Ovens

Model NBS-400 meets the requirements of OSHA and National Fire Protection Association Standard 86 for Class A ovens. Not for use in hazardous locations as defined in the National Electric Code.

These rugged bench ovens are designed for a wide variety of industrial heat processing applications including those where flammable solvents or vapors will be present in the oven.

STANDARD FEATURES

- Recirculating blower
- 304 stainless steel interior
- Incoloy sheathed tubular heating elements
- Silicone rubber door gasket
- Analog, thermocouple actuated, temperature controller
- Adjustable, thermocouple actuated, manual reset excess temperature controller
- On-off switch
- Red pilot light indicates heater operation
- Sturdy steel construction
- Brushed stainless steel exterior
- 6 lb/cf density industrial rockwool insulation
- Built-in baffles prevent radiant heat
- Fully factory tested
- 1 year limited warranty

MODEL NBS-400

Fan forced recirculation of heated air throughout 7 cubic foot work space at temperatures to 400°F. Includes two (2) removable nickel plated wire shelves easily adjustable on 2" centers. Holds a maximum of seven (7) shelves. Includes safety equipment required when flammable solvents or vapors are present in an oven.

**RUGGED, VERSATILE
BENCH OVEN HANDLES
FLAMMABLE SOLVENTS**



MODEL NBS-400
WITH OPTIONAL DIGITAL MICROPROCESSOR BASED
PROGRAMMABLE TEMPERATURE CONTROLLER

SPECIFICATIONS

Model	Work Space		Outside Dimensions (WxDxH)	Max Temp	Insulation	Watts	Operating Characteristics†			Approx Shipping Weight
	Dimensions (WxDxH)	Volume Cu Ft					Control Accuracy	Oven Uniformity	Rise Time	
NBS-400	28" x 24" x 18"	7	41" x 30" x 39"	400°F	2"	4000	±10°F	±10°F	40 min	300 lbs

†Uniformity at 50°F below maximum temperature. Rise Time in minutes to 50°F below maximum temperature. Tests run with empty oven and minimum exhaust. Performance will vary with load and application. See Bulletin TC-920 for additional details.

STANDARD EQUIPMENT

● Standard Electrical Characteristics

- 208 volts, 1-phase, 60 Hz
- 230 volts, 1-phase, 60 Hz
- Other electrical characteristics available

MODEL NBS-400

Completely wired control panel assembled on the oven enclosing the temperature controller, manual reset excess temperature controller, pilot light to indicate when heaters are energized and on-off switch. Includes additional safety equipment required by OSHA and NFPA 86 for Class A ovens. Will handle a maximum of 3 ounces (0.024 gallons) of flammable solvents or vapors per batch at a maximum temperature of 400°F.

● Manual Reset Excess Temperature Controller

Turns off heat if oven exceeds 400°F

● Back-Up Heating Element Relay

Turns off oven heat on excess temperature controller actuation in the event of failure of the primary heating element relay

● 35 CFM Separately Powered Forced Exhauster

Provides safety ventilation. Exhaust outlet 4" diameter.

● Exhauster Air Flow Safety Switch

Turns off oven heat if exhauster fails

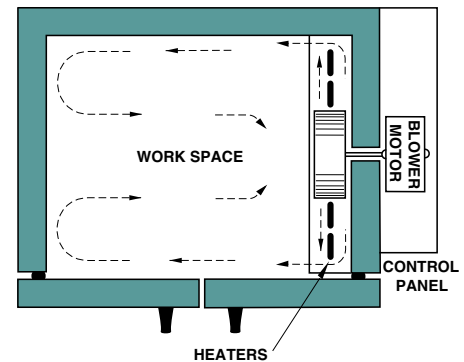
● Recirculating Blower Air Flow Safety Switch

Turns off oven heat if recirculating blower fails

● Purge Timer

Provides time delay to allow exhauster to pull four oven volumes of air through the oven prior to turning oven heat on

Circulation Diagram
(Top View)



ADDITIONAL EQUIPMENT AVAILABLE

● **Additional Shelves**, 20 lbs distributed load per shelf, 40 lbs maximum oven load.

● **Set of Eight (8) 430 Stainless Steel Drying Pans**, 11 1/2" W x 20" D x 2" H requires two (2) add'l shelves) . . . **NBPN3**

● **Oven Stand**, to hold oven at convenient 31" working level, shipped separately, requires assembly **STNDN3**

● **Dial Thermometer** 10–290°C, 50–550°F dual scale range **T550F**

● **Digital Indicating Temperature Controller**, microprocessor based, thermocouple actuated, in lieu of standard controller **DIG2**

● **Digital Timing Temperature Controller**, microprocessor based, digital indicating, incorporates 99 hour 59 minute timer. Starts timing when temperature reaches set point and shuts down oven at end of set time. **DTS2**

● **Programmable Temperature Controller**, microprocessor based, digital indicating, thermocouple actuated, in lieu of standard controller **PTC2**

● **Recording Temperature Controller**, thermocouple actuated, 24-hour, 10" diameter circular chart controller, in lieu of standard controller **RTC2**

● **Programmable Recording Temperature Controller**, microprocessor based, thermocouple actuated, digital display, 24-hour, 10" diameter circular chart, in lieu of standard controller **PRTC2**

● **Shut Down Timer**, with continuous "hold" feature
60 minute range **BTMR60**
12 hour range **BTMR12**



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