



**1050°F AND 1250°F
HEAVY DUTY
ELECTRIC AND GAS
CABINET OVENS**

High Temperature Cabinet Ovens

These units, backed by years of experience, quality construction and precise engineering, provide exceptional temperature uniformity. Ruggedly built for long hard usage at elevated temperatures. A choice of two air flow patterns and eight sizes from 4.6 to 72 cubic feet.

STANDARD FEATURES

- UL LISTED CONTROL PANEL
- Standard Cabinet Ovens from Grieve meet the requirements of National Fire Protection Association Standard 86, Industrial Risk Insurers, Factory Mutual and OSHA standards. For some applications, such as those involving flammable solvents or hazardous locations, the above organizations require additional safety devices.
- **Controls**
 - Digital, microprocessor based, thermocouple actuated, indicating temperature controller
 - Modulating burner on gas ovens
 - Motor control push buttons and on-off heat switch
 - LED pilot lights
- **Safety Equipment—Electric Oven**
 - Adjustable, thermocouple actuated, manual reset excess temperature controller
 - Separate heating element control contactors
 - Recirculating blower air flow safety switch
- **Safety Equipment— Gas Oven**
 - Adjustable, thermocouple actuated, manual reset excess temperature controller
 - Solid state electronic flame safeguard protection
 - Stainless steel powered forced exhauster
 - Exhauster air flow safety switch
 - Recirculating blower air flow safety switch
 - Purge timer
 - High gas pressure switch
 - Low gas pressure switch
 - Two pilot safety shutoff valves with leak test stations
 - Two main safety shutoff valves with leak test stations*
 - Valve position indicator on main safety shutoff valves
 - Over 400,000 BTU/HR safety shutoff valve interlocked with purge timer
- **Construction**
 - Choice of recirculating air flow patterns
 - Adjustable opposed louvers on full coverage supply and return duct work
 - 16 gauge 304 stainless steel interior
 - Aluminized steel exterior with enamel finish
 - Brushed stainless steel control panel face
 - Exceptionally heavy duty doors and door frame with explosion venting latches
 - High temperature inner and outer door gaskets with stainless steel spring insert
 - Insulated with 2" thick 1900°F insulating block, backed up with 10 lbs/cf density 1250°F industrial rockwool
 - Two (2) stainless steel shelves
 - Channel shelf supports prevent shelves tipping
 - Adjustable fresh air intake and exhaust dampers
 - High pressure stainless steel recirculating blower
 - All welded construction
 - 1 year limited warranty
- **Every oven fully assembled and individually factory tested**



MODEL HA-1250 ELECTRIC



**MODEL HB-1250 GAS
WITH STANDARD MODULATING BURNER SYSTEM**

*Industrial Risks Insurers vent valve only provided at specific requirements
Specifications Subject to Change Without Notice
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SPECIFICATIONS

CAUTION: OVENS PROCESSING COMBUSTIBLE MATERIAL ARE REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 86 TO HAVE A FIRE SUPPRESSION SYSTEM. IF FLAMMABLE SOLVENTS OR VAPORS ARE PRESENT IN AN OVEN, OSHA REQUIRES CONFORMANCE WITH NFPA 86 WHICH DEFINES OVENS FOR THESE APPLICATIONS AS CLASS A OVENS. A POWERED FORCED EXHAUSTER AND OTHER NON-STANDARD SAFETY EQUIPMENT MUST BE ADDED. SEE BULLETIN TC-940 AND CONSULT FACTORY.

Model	Work Space		Outside* Dimensions (WxDxH)	Max Temp	Blower		Insulation	Doors	Heat Input		Operating Characteristics†				Approx Shipping Weight
	Dimensions (WxDxH)	Volume Cu Ft			CFM	HP			KW	BTU/HR	Control Accuracy	Oven Uniformity	Rise Time		
HA-1050	20" x 20" x 20"	4.6	48" x 45" x 60"	1050°F	700	1/2	10"	Single	15	90,000	±0.3%	±8°F	58 min	35 min	1885 lbs
HA-1250	20" x 20" x 20"	4.6	52" x 49" x 64"	1250°F	1000	3/4	12"	Single	20	125,000	±0.3%	±11°F	66 min	46 min	2195 lbs
HX-1050	38" x 20" x 26"	11.4	66" x 45" x 66"	1050°F	1000	3/4	10"	Double	20	150,000	±0.3%	±8°F	66 min	36 min	2965 lbs
HX-1250	38" x 20" x 26"	11.4	70" x 49" x 74"	1250°F	1200	1	12"	Double	30	175,000	±0.3%	±11°F	67 min	46 min	3570 lbs
HB-1050	38" x 26" x 38"	21.7	68" x 51" x 82"	1050°F	1600	1 1/2	10"	Double	30	175,000	±0.3%	±8°F	51 min	36 min	3590 lbs
HB-1250	38" x 26" x 38"	21.7	72" x 55" x 86"	1250°F	1600	1 1/2	12"	Double	40	200,000	±0.3%	±11°F	69 min	50 min	4325 lbs
HZ-1050	38" x 26" x 50"	28.6	68" x 51" x 94"	1050°F	2000	2	10"	Double	40	200,000	±0.3%	±8°F	52 min	39 min	3740 lbs
HZ-1250	38" x 26" x 50"	28.6	72" x 55" x 98"	1250°F	2000	2	12"	Double	60	300,000	±0.3%	±8°F	65 min	49 min	4410 lbs
HY-1050	38" x 38" x 38"	31.8	68" x 63" x 82"	1050°F	2000	2	10"	Double	40	200,000	±0.3%	±8°F	54 min	46 min	4130 lbs
HY-1250	38" x 38" x 38"	31.8	72" x 67" x 86"	1250°F	2000	2	12"	Double	60	300,000	±0.3%	±11°F	60 min	48 min	4870 lbs
HC-1050	50" x 50" x 50"	72.3	100" x 77" x 106"	1050°F	3750	3	10"	Double	80	500,000	±0.3%	±8°F	75 min	46 min	7590 lbs
HC-1250	50" x 50" x 50"	72.3	100" x 81" x 110"	1250°F	4200	5	12"	Double	120	700,000	±0.3%	±11°F	90 min	48 min	9140 lbs
VA-1050	26" x 26" x 38"	14.9	46" x 66" x 73"	1050°F	1600	1 1/2	10"	Single	24	125,000	±0.3%	±9°F	91 min	66 min	3245 lbs
VA-1250	26" x 26" x 38"	14.9	50" x 70" x 77"	1250°F	1600	1 1/2	12"	Single	30	200,000	±0.3%	±12°F	101 min	73 min	4010 lbs
VB-1050	26" x 38" x 50"	28.6	46" x 78" x 85"	1050°F	1600	1 1/2	10"	Single	30	200,000	±0.3%	±9°F	76 min	53 min	3810 lbs
VB-1250	26" x 38" x 50"	28.6	50" x 82" x 89"	1250°F	1600	1 1/2	12"	Single	40	300,000	±0.3%	±12°F	85 min	65 min	4650 lbs

*All Models—Control panel overhang 9" right side.
Blower motor overhang 17" (26" HC Series); H Series right side, V Series rear.
Electric Model HX, HB, HZ, HY, HC—Heater terminal overhang 5" rear and left side.
Gas Model—Burner overhang 15"; H Series left side, V Series right side.

†Accuracy as percent of controller span. Uniformity at 100°F below maximum temperature. Rise Time in minutes to 100°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

- All Models
 - 208 volts, 3-phase, 60 Hz
 - 230 volts, 3-phase, 60 Hz
 - 460 volts, 3-phase, 60 Hz
 - Other electrical characteristics available

Inner and outer door gasket; inner gasket seals directly against door plug, outer gasket against oven face. Two (2) reinforced 200 lbs uniformly distributed load capacity, 304 stainless steel expanded metal shelves; shelf support channels on 3" centers (6" on HC Models).

304 stainless steel interior and Trilite Green enamel painted aluminized steel exterior.

- Electric Models

Each features completely wired, side access UL listed control panel enclosing terminals for incoming power, temperature controllers, push buttons and pilot lights. Motor starter and heating element contactors electrically interlocked to shut off heaters if power to blower is interrupted and to permit operation of blower without heat for cooling. Incoloy sheathed tubular heating elements. The 1250°F models have a heat chamber high limit controller. Exhaust outlet 4" diameter.

- Gas Models
 - 1,000 BTU natural gas at 6" water column pressure, 1" NPT inlet (1 1/4" on HC Series)
 - Other gas characteristics available

Control panel as detailed above and safety devices as listed on the front of this bulletin. Automatic pre-ignition purge period and push button electric ignition contributes to ease of operation. Modulating gas burner is protected with electronic flame safety relay.

ADDITIONAL EQUIPMENT AVAILABLE*

- Additional Shelves, 200 lbs distributed load per shelf, 800 lbs maximum oven load, specify oven model when ordering.
- Programmable Temperature Controller, microprocessor based, digital indicating, thermocouple actuated, in lieu of standard controller PTC3
- Recording Thermometer, thermocouple actuated, 24-hour, 10" diameter circular chart used in conjunction with standard controller RT

*See Bulletin TC-960 for modifications and other optional equipment.

H SERIES Horizontal Air Flow

These electric or gas-fired models come in six sizes. They feature full horizontal air flow for shelf processing at temperatures to 1250°F. Commonly used where work is shelf loaded and least restriction to free air passage is in the horizontal direction.

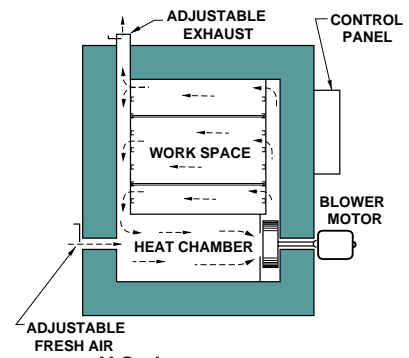
- HA Series - 4.6 cubic feet, holds 6 shelves
 - HX Series - 11.4 cubic feet, holds 8 shelves
 - HB Series - 21.7 cubic feet, holds 12 shelves
 - HZ Series - 28.6 cubic feet, holds 16 shelves
 - HY Series - 31.8 cubic feet, holds 12 shelves
 - HC Series - 72.3 cubic feet, holds 8 shelves
- HC Series High Temperature Cabinet Ovens have the heat chamber above the work space.

V SERIES Vertical Air Flow

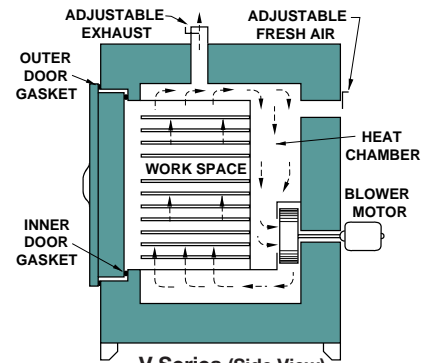
These electric or gas-fired models come in two sizes. They feature full vertical air flow for processing at temperatures to 1250°F. Used where least restriction to free air passage is in the vertical direction. Heated air is supplied at the bottom of the work space and sweeps upward through the work load. Ideal for hanging long parts or applications requiring heated air to pass both around the outside and through the middle of parts such as open ended cylinders.

- VA Series - 14.9 cubic feet, holds 12 shelves
 - VB Series - 28.6 cubic feet, holds 16 shelves
- Due to vertical air flow, a large number of shelves or dense shelf loading will restrict air flow and may adversely affect oven operation.

Circulation Diagrams



H Series (Front View)
Heated air is blown sideways between shelves and across parts



V Series (Side View)
Heated air is provided at the bottom and pulled upward through shelves and load.

- Programmable Recording Temperature Controller, microprocessor based, thermocouple actuated, digital display, 24-hour, 10" diameter circular chart, in lieu of standard controller PRTC3
- 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 DTS3
- Automatic Door Switch, turns off blower and heat when door is opened. Restores blower and heat on electric models, blower only on gas models, when door is closed ADS
- Digital Shut Down Timer, with continuous "hold" feature SDT
- Digital Batch Timer, for uniformly timing batch operations. Continuous alarm with door interlock; alarms at end of preset time period until door is opened or timer reset BT
- Roof Mounted Powered Forced Exhausters with exhauster air flow safety switch†

Capacity	HP	Outlet Diameter	Height
130 CFM	1/3	4"	20"
325 CFM	1/3	6"	23"
650 CFM	1/2	6"	23"

†Gas-fired ovens include 325 CFM exhauster, except 650 CFM on HC-1250
Electric ovens may require additional heat input.

Ovens and Furnaces For Industry Since 1949

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