



**BULLETIN
CA-430**

**LOW COST
LARGE CAPACITY
ELECTRIC AND GAS
FLOOR LEVEL
CABINET OVENS**

Floor Level Cabinet Ovens

Large, low cost, shelf processing ovens for bulky or numerous parts at temperatures to 550°F. Work can be placed directly on reinforced floor or shelf loaded. Work space starts at floor level for convenient loading of large items and easy access to top shelves.

STANDARD FEATURES

- UL LISTED CONTROL PANEL
- Standard Floor Level 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
 - Electronic flame safeguard protection
 - 325 CFM powered forced exhauster for combustion venting
 - 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
- **Construction**
 - Choice of air flow patterns for processing large parts or parts on shelves
 - Aluminized steel interior
 - Aluminized steel exterior with enamel finish
 - Brushed stainless steel control panel face
 - Explosion venting latches
 - 6" of 10 lbs/cf density industrial rockwool insulation
 - Built-in baffles prevent radiant heat
 - Silicone rubber door gasket
 - Two (2) nickel plated wire shelves
 - Channel shelf supports prevent shelves tipping
 - Fully insulated reinforced floor
 - Adjustable fresh air intake and exhaust dampers
 - 1 year limited warranty



MODEL CAV-400



**MODEL CAH-550 GAS
WITH OPTIONAL PROGRAMMABLE
TEMPERATURE CONTROLLER**

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		
												Electric	Gas		
CAH-400	36" x 36" x 60"	45	56" x 67" x 74"	400°F	1600	1 1/2	6"	Double	12	100,000	±0.3%	±4°F	20 min	10 min	2330 lbs
CAH-550	36" x 36" x 60"	45	56" x 67" x 74"	550°F	1600	1 1/2	6"	Double	18	150,000	±0.3%	±6°F	34 min	15 min	2440 lbs
CBH-400	48" x 48" x 60"	80	68" x 79" x 74"	400°F	2000	2	6"	Double	18	125,000	±0.3%	±4°F	18 min	10 min	2800 lbs
CBH-550	48" x 48" x 60"	80	68" x 79" x 74"	550°F	2000	2	6"	Double	24	175,000	±0.3%	±6°F	29 min	15 min	2940 lbs
CAV-400	36" x 36" x 60"	45	56" x 67" x 74"	400°F	1000	3/4	6"	Double	12	100,000	±0.3%	±4°F	20 min	10 min	2230 lbs
CAV-550	36" x 36" x 60"	45	56" x 67" x 74"	550°F	1000	3/4	6"	Double	18	150,000	±0.3%	±6°F	34 min	15 min	2460 lbs
CBV-400	48" x 48" x 60"	80	68" x 79" x 74"	400°F	1200	1	6"	Double	18	125,000	±0.3%	±4°F	18 min	10 min	2650 lbs
CBV-550	48" x 48" x 60"	80	68" x 79" x 74"	550°F	1200	1	6"	Double	24	175,000	±0.3%	±6°F	29 min	15 min	2700 lbs

*All Models—Control panel overhang 9" right side. Blower motor overhang 10" rear.
Gas Models—Burner overhang 15" right side.

†Accuracy as percent of controller span. 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

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

Two (2) reinforced 100 lbs uniformly distributed load capacity nickel plated wire shelves. Nine (9) pair shelf support channels on 6" centers; first shelf 8" above factory floor. Fully insulated 2" thick floor reinforced for 500 lbs distributed loading. Aluminized steel interior and Trilite Green enamel painted aluminized steel exterior.

● Electric Models

Each features completely wired, side access (UL) 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. Exhaust outlet 4" diameter.

● Gas Models

- 1,000 BTU natural gas at 6" water column pressure, 1" NPT inlet
- 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**, 100 lbs distributed load per shelf, 400 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 (side mounted) **RT**
- **Programmable Recording Temperature Controller**, microprocessor based, thermocouple actuated, digital display, 24-hour, 10" diameter circular chart, in lieu of standard controller (side mounted) **PRTC3**

CAH AND CBH SERIES

Horizontal Air Flow

These electric or gas models come in two sizes. They feature full horizontal air flow with adjustable opposed louvers on full coverage supply and return duct work. Commonly used where work is shelf loaded and least restriction to free air passage is in the horizontal direction.

● CAH Series

Size 36" x 36" x 60" high provides 45 cubic feet of work space at temperatures to 400°F and 550°F respectively.

● CBH Series

Size 48" x 48" x 60" high provides 80 cubic feet of work space for larger parts and bigger loads.

CAV AND CBV SERIES

Vertical Air Flow

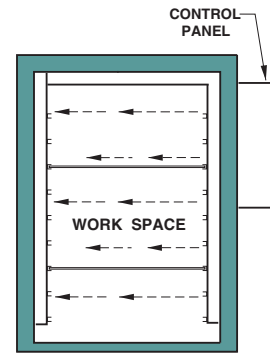
These electric or gas models come in two sizes. They feature vertical air flow for processing at temperatures to 550°F.

Used where least restriction to free air passage is in the vertical direction. Heated air is supplied at each side of the work space and sweeps upward through the work load. Ideal for hanging long parts or placing large objects directly on the oven floor.

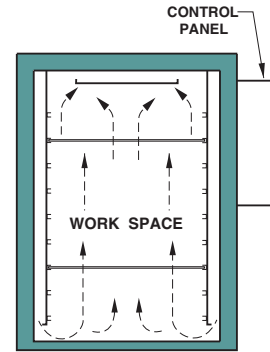
Other specifications identical to CAH and CBH Series above.

- **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**
- **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**
- **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**

Circulation Diagrams (Front View)



CAH and CBH Series
Heated air is blown sideways between shelves and across parts



CAV and CBV Series
Heated air is provided from each side and pulled upward around the load.

- **Reinforced Work Space Bottom**, 1500 lbs. capacity, removable subway grating, reduces clear work space height by 1" **RWB**
- **Roof Mounted Powered Forced Exhausters** with exhauster air flow safety switch†

Capacity	HP	Outlet Diameter	Height
80 CFM	1/8	4"	16"
130 CFM	1/3	4"	20"
325 CFM	1/3	6"	23"
650 CFM	1/2	6"	23"

†Gas ovens include 325 CFM exhauster. Electric oven may require additional heat input.

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



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