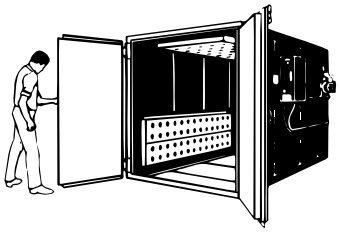
GRIEVE



BULLETIN WI-520

High Temperature Walk-In Ovens

HEAVY DUTY ELECTRIC AND GAS 900°F, 1050°F & 1200°F WALK-IN OVENS

For annealing, sintering, precipitation hardening, burn-off or any other high temperature processing of large or numerous parts. Constructed with an isolated inner oven to eliminate heat transfer and leakage at seams commonly found in standard panel construction. Designed and constructed for long, hard, continuous use with the temperature uniformity required for consistent results at elevated temperatures.

STANDARD FEATURES

- **UL LISTED CONTROL PANEL**
- **Standard High Temperature Walk-In 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-fired ovens
  - — Motor control push buttons, 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
  - — 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
  - — Over 400,000 BTU/HR safety shutoff valve interlocked with purge timer
- **Construction**
  - — Choice of air flow patterns
  - — Adjustable opposed louvers on full coverage supply and return duct work
  - — Exceptionally heavy duty doors
  - — Explosion venting latches
  - — Doors equipped with expansion joints on inner face to guarantee uniform sealing at all temperatures
  - — Inner and outer door gaskets; inner gasket seals directly against door plug; outer gasket seals against front face of oven
  - — 3/8" steel plate oven front to guarantee rigid sealing surface at all temperatures
  - — Slip flashing at door openings to allow inner oven to expand without effecting outer oven or door sealing surface
  - — Aluminized steel exterior with enamel finish
  - — Brushed stainless steel control panel face
  - — 1 year limited warranty
- **Every oven fully assembled and individually factory tested**

*Industrial Risks Insurers vent valve only provided at specific request

MODEL B1-1050 ELECTRIC
WITH OPTIONAL TRUCK TRACKS AND RECORDING THERMOMETER

MODEL B4-1050 GAS
WITH STANDARD MODULATING BURNER SYSTEM AND OPTIONAL TRUCK TRACKS AND RECORDING THERMOMETER

Specifications Subject to Change Without Notice

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Printed in U.S.A. 6/07

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		Insu-lation	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	
B1-900	48" x 48" x 72"	96	75" x 94" x 92"	900°F	4200	3	9"	Double	60	400,000	±0.3%	±10°F	60 min	45 min	8,300
B1-1050	48" x 48" x 72"	96	79" x 104" x 97"	1050°F	6400	5	10"	Double	80	550,000	±0.3%	±12°F	70 min	45 min	9,280
B1-1200	48" x 48" x 72"	96	87" x 114" x 103"	1200°F	10,000	7½	12"	Double	120	880,000	±0.3%	±15°F	80 min	40 min	15,485
B2-900	54“ x 72" x 72"	162	81" x 118" x 92"	900°F	5000	5	9"	Double	80	600,000	±0.3%	±10°F	80 min	50 min	9,220
B2-1050	54" x 72" x 72"	162	87" x 130" x 98"	1050°F	7800	5	10"	Double	100	880,000	±0.3%	±12°F	80 min	50 min	10,625
B3-900	60“ x 96" x 72"	240	91" x 152" x 95"	900°F	7800	5	9"	Double	100	700,000	±0.3%	±10°F	80 min	45 min	10,625
B3-1050	60" x 96" x 72"	240	97" x 158" x 98"	1050°F	10,000	7½	10"	Double	120	880,000	±0.3%	±12°F	90 min	50 min	12,405
B4-900	72“ x 120" x 72"	360	109" x 178" x 96"	900°F	12,500	10	9"	Double	120	800,000	±0.3%	±10°F	90 min	50 min	12,955
B1H-900	48" x 48" x 72"	96	75" x 108" x 88"	900°F	5000	5	9"	Double	60	400,000	±0.3%	±10°F	60 min	45 min	8,340
B1H-1050	48" x 48" x 72"	96	81" x 110" x 91"	1050°F	7800	5	10"	Double	80	550,000	±0.3%	±12°F	60 min	45 min	9,285
B1H-1200	48" x 48" x 72"	96	95" x 114" x 94"	1200°F	12,500	10	12"	Double	120	880,000	±0.3%	±15°F	70 min	40 min	15,480
B2H-900	54“ x 72" x 72"	162	85" x 132" x 88"	900°F	7800	5	9"	Double	80	600,000	±0.3%	±10°F	80 min	50 min	9,275
B2H-1050	54" x 72" x 72"	162	91" x 134" x 91"	1050°F	10,000	7½	10"	Double	100	880,000	±0.3%	±12°F	80 min	50 min	10,630
B3H-900	60“ x 96" x 72"	240	93" x 156" x 88"	900°F	10,000	7½	9"	Double	100	700,000	±0.3%	±10°F	80 min	45 min	10,615
B3H-1050	60" x 96" x 72"	240	101" x 158" x 91"	1050°F	12,500	10	10"	Double	120	880,000	±0.3%	±12°F	90 min	50 min	12,385
B4H-900	72“ x 120" x 72"	360	119" x 180" x 88"	900°F	17,500	15	9"	Double	120	800,000	±0.3%	±10°F	90 min	50 min	12,970

*All Models—Control panel overhang 9" right side.
Blower motor overhang on rear: 19" on 3 and 5 HP motors,
26" on 7½ and 10 HP motors, 28" on 15 HP
Gas Models—Burner overhang 15" 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

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

● All Models

Exclusive construction is far superior to commonly used panel construction. Consists of an isolated inner oven completely surrounded by insulation to eliminate heat transfer from through metal and hot air leakage at panel seams. Insulated floor standard. 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 on all models. The 1200°F models have a heat chamber high limit control.

● 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. A 325 CFM powered forced exhauster is included up to 700,000 BTU/HR; at 800,000 BTU/HR a 650 CFM exhauster is included. Both exhausters have 6" outlets. 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.

B1, B2, B3, B4 SERIES
Combination Air Flow

Combination air flow for random shapes and sizes or for large bulky objects where heated air can move upward around and through the load.

B1H, B2H, B3H, B4H SERIES
Horizontal Air Flow

Horizontal air flow for applications where heated air must move sideways to pass through a load such as trays or flat sheets.

● 900°F Models

16 gauge aluminized steel interior throughout. 9" of 1250°F 10 lbs\cf density industrial rockwool insulation throughout walls, doors and ceiling. 4" thick insulated floor with ⅛" steel plate cover.

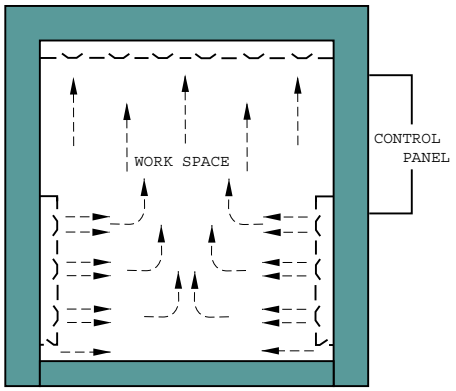
● 1050°F Models

16 gauge aluminized steel work space interior with 16 gauge 304 stainless steel heat chamber interior. Stainless steel recirculating blower. 10" of 1250°F 10 lbs/cf density industrial rockwool insulation throughout walls, doors and ceiling of work space. Oven heat chamber insulated with 2" of 1900°F block surrounded by 8" of 1250°F 10 lbs/cf density industrial rockwool insulation. 6" thick insulated floor with ¼" steel plate cover.

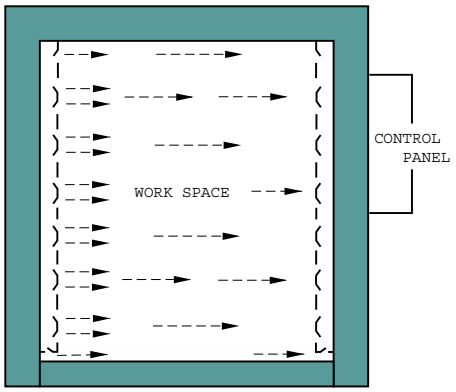
● 1200°F Models

16 gauge 304 stainless steel interior throughout. Stainless steel recirculating blower. 12" of insulation consisting of 2" of 1900°F block, surrounded by 10" of 1250°F 10 lbs/cf density industrial rockwool insulation throughout walls, doors and ceiling. 7" thick insulated floor with ¼" stainless steel plate cover.

Circulation Diagrams
(Front View)



B1, B2, B3, B4 Series
Combination vertical and horizontal air flow.



B1H, B2H, B3H, B4H Series
Full horizontal air flow.

See Walk-In Oven Additional Equipment Bulletin WI-513 for Loading Trucks and Shelves, Truck Tracks and Optional Temperature Controllers and Timers.

Ovens and Furnaces For Industry Since 1949
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