High Temperature 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 interlock
  - Separate heating element control contactors
  - Recirculating blower air flow safety switch
- Safety Equipment—Gas Oven
  - Adjustable, thermocouple actuated, manual reset excess temperature interlock
  - 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
  - ½” 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

Specifications Subject to Change Without Notice
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**SPECIFICATIONS**

**CAUTION:** OVENS PROCESSING COMBUSTIBLE MATERIAL ARE REQUIRED BY NATIONAL FIRE PROTECTION ASSOCIATION STANDARD 96 TO HAVE A FIRE SUPPRESSION SYSTEM. IF FLAMMABLE SOLVENTS OR VAPORS ARE PRESENT IN AN OVEN, OSHA REQUIRES COMPLIANCE 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.

**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 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 1/2" 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 1050°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.

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<table>
<thead>
<tr>
<th>Model</th>
<th>Work Space Dimensions (WxDxH)</th>
<th>Volume Cu Ft</th>
<th>Outside Dimensions* (WxDxH)</th>
<th>Max Temp</th>
<th>Blower CMF HP</th>
<th>Insulation Doors</th>
<th>Heat Input KW</th>
<th>BTU/HR</th>
<th>Control Accuracy</th>
<th>Oven Uniformity</th>
<th>Rise Time</th>
<th>Approx Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>B1-900</td>
<td>48&quot; x 48&quot; x 72&quot;</td>
<td>96</td>
<td>75&quot; x 94&quot; x 92&quot;</td>
<td>900°F</td>
<td>4200</td>
<td>3</td>
<td>9&quot; Double</td>
<td>60</td>
<td>400,000</td>
<td>±0.3%</td>
<td>±10°F</td>
<td>60 min</td>
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<tr>
<td>B1-1050</td>
<td>48&quot; x 48&quot; x 72&quot;</td>
<td>96</td>
<td>79&quot; x 104&quot; x 97&quot;</td>
<td>1050°F</td>
<td>6400</td>
<td>5</td>
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<td>80</td>
<td>550,000</td>
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<td>10,000</td>
<td>7&quot; Double</td>
<td>120</td>
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<td>±15°F</td>
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<td>40 min</td>
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<td>B2-900</td>
<td>54&quot; x 72&quot; x 72&quot;</td>
<td>162</td>
<td>81&quot; x 118&quot; x 92&quot;</td>
<td>900°F</td>
<td>5000</td>
<td>5</td>
<td>9&quot; Double</td>
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<td>87&quot; x 130&quot; x 98&quot;</td>
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<td>7800</td>
<td>5</td>
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<td>91&quot; x 152&quot; x 95&quot;</td>
<td>900°F</td>
<td>7800</td>
<td>5</td>
<td>9&quot; Double</td>
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<td>240</td>
<td>97&quot; x 178&quot; x 99&quot;</td>
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[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.

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**Accuracies 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.**

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

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