

**HEAVY DUTY
CUSTOM DESIGNED
TUNNEL OVENS**

Tunnel Ovens

Grieve has designed and manufactured tunnel ovens for all types of processing. These ovens have been designed for use with a wide range of existing conveyor systems. Since 1949 we have been providing electric, gas and steam heated units with operating temperatures from 150°F to 1200°F.

Tunnel Ovens from Grieve meet the requirements of National Fire Protection Association Standard 86, Industrial Risk Insurers, Factory Mutual and OSHA standards. For applications involving flammable solvents, the additional safety devices required by the above organizations are included.

Tunnel Ovens are designed to include support points for your conveyor system. Adjustable silhouette dampers are provided on the oven end openings to minimize heat loss.


Each oven is designed for the specific application and can include multiple heat zones and a cooling zone. Units can be provided in sections for easy installation and mating with existing conveyor system.

Our experienced engineers will work closely with you to develop a tunnel oven to readily accept your conveyor system. Every unit is completely assembled and tested prior to shipment.



**30" WIDE X 17" HIGH X 10' LONG 500°F HEAT ZONE
ELECTRICALLY HEATED TUNNEL OVEN**

STANDARD FEATURES

- Aluminized or stainless steel interior depending on maximum temperature rating
- 16 gauge aluminized steel exterior with enamel finish
- Welded structural steel, channel base provides a rigid assembly easily moved at any time
- Heavy duty, all welded, structural conveyor supports welded to vertical structural members to transfer load to base
- Side hinged doors provided along oven length for access to work space and heat chamber
- Adjustable silhouette dampers at each end of heat zone can be positioned near load to minimize heat loss from end of oven
- Adjustable opposed louvers on full coverage supply and return duct work
- Duct work removable for cleaning
-  UL Listed Control Panel
- Brushed stainless steel control panel face
- 1 year limited warranty

TUNNEL OVEN LENGTH

Tunnel oven width is selected to accommodate the parts and conveyor system. The speed of the conveyor system and the dwell time determine tunnel oven length.

Heat zone length is the product of the conveyor speed and dwell time. To estimate the length of tunnel oven required, insert your process information in the relationship below.

To the heat zone length calculated, approximately one foot must be added for insulation and silhouette dampers at each end of the oven. Equipment width will be approximately 2' wider than tunnel work space width to accommodate insulation, duct work and control enclosure.

To receive a detailed quotation for your application, complete the Request for Quotation Data Sheet on the reverse side of our catalog index page.

(Conveyor speed of _____ feet per hour) X (Dwell time of _____ hour) = (Heat zone length of _____ feet)

STANDARD EQUIPMENT

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.

• All Models

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

Vertical downward air flow between full coverage duct work above and below conveyor belt. Other air flow patterns available. Trilite Green enamel painted aluminized steel exterior.

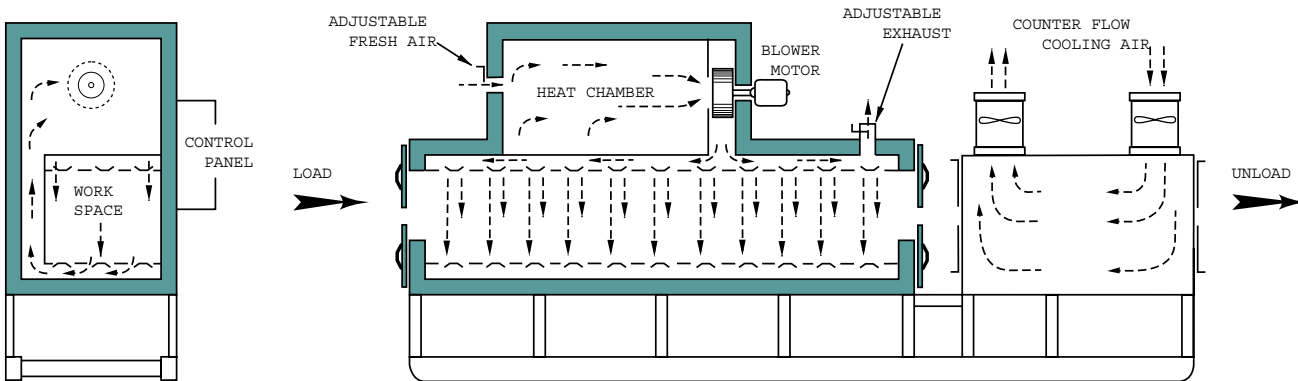
• Electric Models

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.

• Gas Models

- 1,000 BTU natural gas at 6" water column pressure;
 - Other gas characteristics available
- Control panel as on electric models. 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.

Circulation Diagram



Full vertical air flow forces heated air down through parts.

ADDITIONAL EQUIPMENT AVAILABLE*

• **Exhaust Hood**, with or without tubeaxial fan, to exhaust heat and fumes escaping open ends of heat zone . . .**EXH**

• **Multiple Heat Zones**, to provide temperature profile during processing, specify quantity and length of each zone**MHZ**

• **Cooling Zone** with forced convection cooling**CZ**



Ovens and Furnaces For Industry Since 1949
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*See Bulletin TC-960 for modifications and other optional equipment.