

TruBake™ Convection Oven

The TruBake™ uses an enhanced direct convection heating system to achieve exceptional product quality, high throughput and low operating costs. Precision control of temperature and airflow creates a stable and predictable environment capable of fast baking and minimal fuel consumption. A choice of heating system, zone length and the ability to be combined with other oven types enable the TruBake™ to be configured to the precise needs of any application.



Cookies



Soft Dough Products



Hard Dough Products



Crackers



Bars



Baked Snacks



lifetime
support

Baker Perkins supports every piece of equipment throughout its life, with a comprehensive programme of parts, service, upgrades and rebuilds. Parts are available around the clock, while our team of service engineers can assist with both repairs and routine maintenance. Existing equipment may be rebuilt to extend service life, and/or upgraded to improve performance.

High quality baking through even distribution of the heated air

High pressure in the plenums above and below the band distributes the heated air evenly across the full width of the oven. Spent air is drawn away from the baking surface quickly and effectively. Adjustable shutters on the plenums and the return air ducts ensure that baking is consistent and even.

High efficiency at lower temperatures

The same bake is achieved at a lower temperature by increasing the volume and velocity of the convection air. This is enhanced by a return system that quickly recovers spent air from the baking surface and prevents slowing of heat transfer to the product. Faster baking and lower losses through the heating system lead to minimized fuel consumption.

Hygienic and easy to use

Closely spaced cleanout doors flush with the oven floor provide full access to every part of the baking chamber for cleaning, and there is ample clearance under the band return for cleaning the bakery floor. The oven is controlled from a single touch screen HMI that provides process visualization and recipe control for consistent quality and rapid changeovers.

For more information on the TruBake™ Oven please click on the link: www.bakerperkins.com/TBCO

Typical Installation Includes:

Mixing /
Forming



Cooling /
Sandwiching

TruBake™
Convection Oven

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Rapidly installed modular construction

The top-mounted burner module minimizes the oven width on the bakery floor. A modular oven enables zone lengths to be chosen to suit the application; TruBake™ modules can also be used as part of a hybrid oven for increased process range.

Efficient heat transfer for better fuel efficiency

Achieving the desired heat flux with high volumes of high velocity air improves the heat transfer rate and allows the air temperature to be reduced. These two effects combined reduce the energy input required and minimize heat losses, particularly from the exhaust.

Heavy-duty feed and delivery ends with variable speed drive

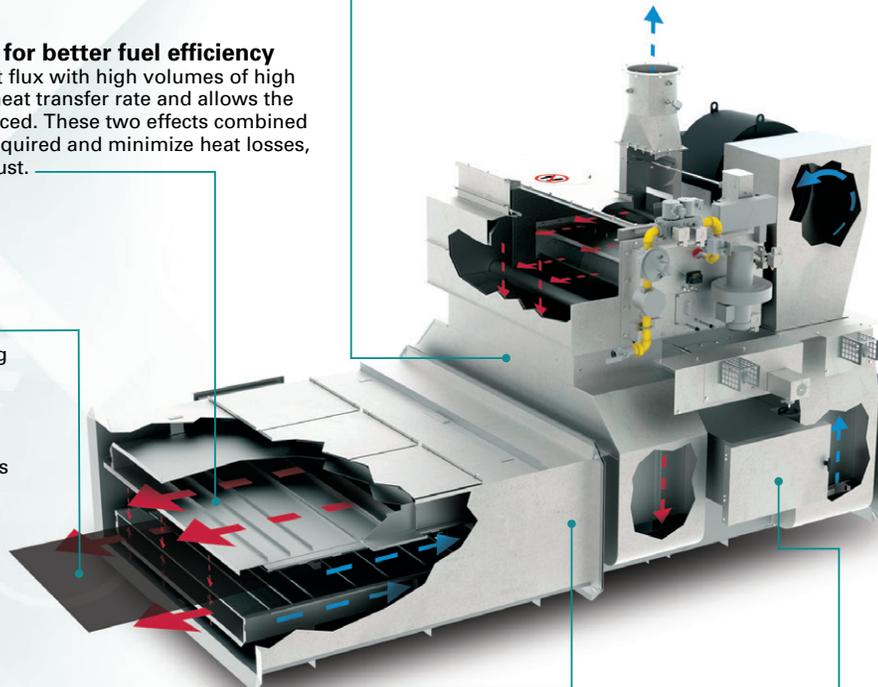
Drop-in skids form a stable and hard-wearing support for any type of oven band. Rollers are used to reduce friction on long ovens, and are used on the return band. Twin pneumatic cylinders apply constant tension to the band; a back-up air reservoir maintains band tension if factory air pressure fails. A high-accuracy pneumatic band tracking system maximizes tracking accuracy and extends band life.

High quality oven body and bake chamber

A stainless steel body is insulated with high density, non-settling mineral wool slabs. Mild steel plenums are selected to give maximum radiation, and the internal Aludip steel construction resists corrosion and prevents sidewall heat radiation from causing edge coloring.

Sophisticated touch screen controls

A single HMI with full process visualization, recipe setting, alarm management and data logging ensures operators have all information needed to set up and run the oven efficiently.



Easy access for cleaning and maintenance

Full height cleanout doors every 2.1m give easy access to clean out ports in the top and bottom plenums. There is a hinged inspection door and lamp in each zone. All burners and gas train components are low-maintenance and readily accessible to enable quick and easy routine servicing.

High average heat flux for fast and even baking

Jets of hot air are directed onto the product from plenum chambers above and below the band. The air is heated by a single burner in each zone and, once spent, is recirculated with a proportion being exhausted to maintain bake chamber humidity.

A high average heat flux is achieved by precisely controlling the way hot air is directed at the product and spent air is removed. Rows of closely pitched, small diameter nozzle holes achieve the high velocity air required for improved convection baking. High pressure in the plenum chambers ensures even distribution of air across the band. Return air is removed from the baking chamber before it can affect the incoming air.

Top and bottom heat distribution is controlled by a simple manual damper. Optional convection / radiation dampers reduce the air velocity and increase radiation for products that are topped or require a more traditional "home baked" appearance.

Hybrid ovens combine the benefits of all baking processes

Companies can combine the best baking methods by specifying a hybrid oven. Direct gas fired (DGF) and direct convection baking have characteristics that are ideal for one part of the process: combining the benefits of each can create a unit that exactly matches a specific need for any kind of cookie, cracker and bar.

DGF and direct convection all have different heating, thermal efficiency, heat transfer and airflow characteristics that affect product quality. Most hybrid ovens feature a DGF section for the first part of the bake to provide radiant heat without turbulence: at this point, air movement is often undesirable as it dries the outer layers and prevents proper flow and lift. During the drying and coloring process in the later stages of baking, air movement is beneficial, so a convection section is specified.

Specifications

Nominal band widths: 31.5" (0.8m) - 39.4" (1.0m), 39.4" (1.0m) - 51.2" (1.3m), 51.2" (1.3m) - 63" (1.6m)
Module lengths: Control 82.7" (2.1m); Standard 82.7" (2.1m)
Fuel type: Gas or LPG
Insulation type: Packed mineral wool
Insulation thickness: Roof 17.7" (450mm); Walls 7.9" (200mm); Floor 4.9" (125mm)
Cleanout doors: Every 82.7" (2.1m)
Inspection doors: One per zone