



TruBake™ HiCirc Oven

The TruBake™ HiCirc oven uses a high-rate direct convection heating system developed over many years for a variety of product types. Airflow above and below the band gives a stable and predictable baking environment, with close control ensuring evenness of bake and good moisture extraction.



Savings in fuel and maintenance

Not having a heat exchanger results in a much faster temperature response time and a 40:1 turndown range. As well as delivering a high heat flux to bake a full range of products, this results in significant savings in both fuel and maintenance costs.

Modular, hygienic design maximises floor space

Multiple modules are arranged on site to form an oven with separate heating zones. Blowers and burners are located above the oven, creating free aisles and more available floor space surrounding the oven. Large cleanout doors are located every 2.1m (7ft) for improved hygiene and maintenance access.

Stable baking environment for any product profile

Each zone is specified to achieve the desired baking profile, with independent temperature, extraction and airflow control. The HiCirc modules can also be combined with Direct Gas Fired technology to form a hybrid TruBake™ oven. This brings additional flexibility to the baking process by adding the ability for radiant non-turbulent or very high heat input at the beginning of baking.

innovation centre

The development work required to launch a successful new product or improve an existing process can be carried out in the Baker Perkins Innovation Centre. With a full range of pilot-scale equipment and assistance from our expert food technologists, all the necessary tests can be conducted without using valuable plant time.

Typical Installation Includes:

Mixing → Forming → Baking

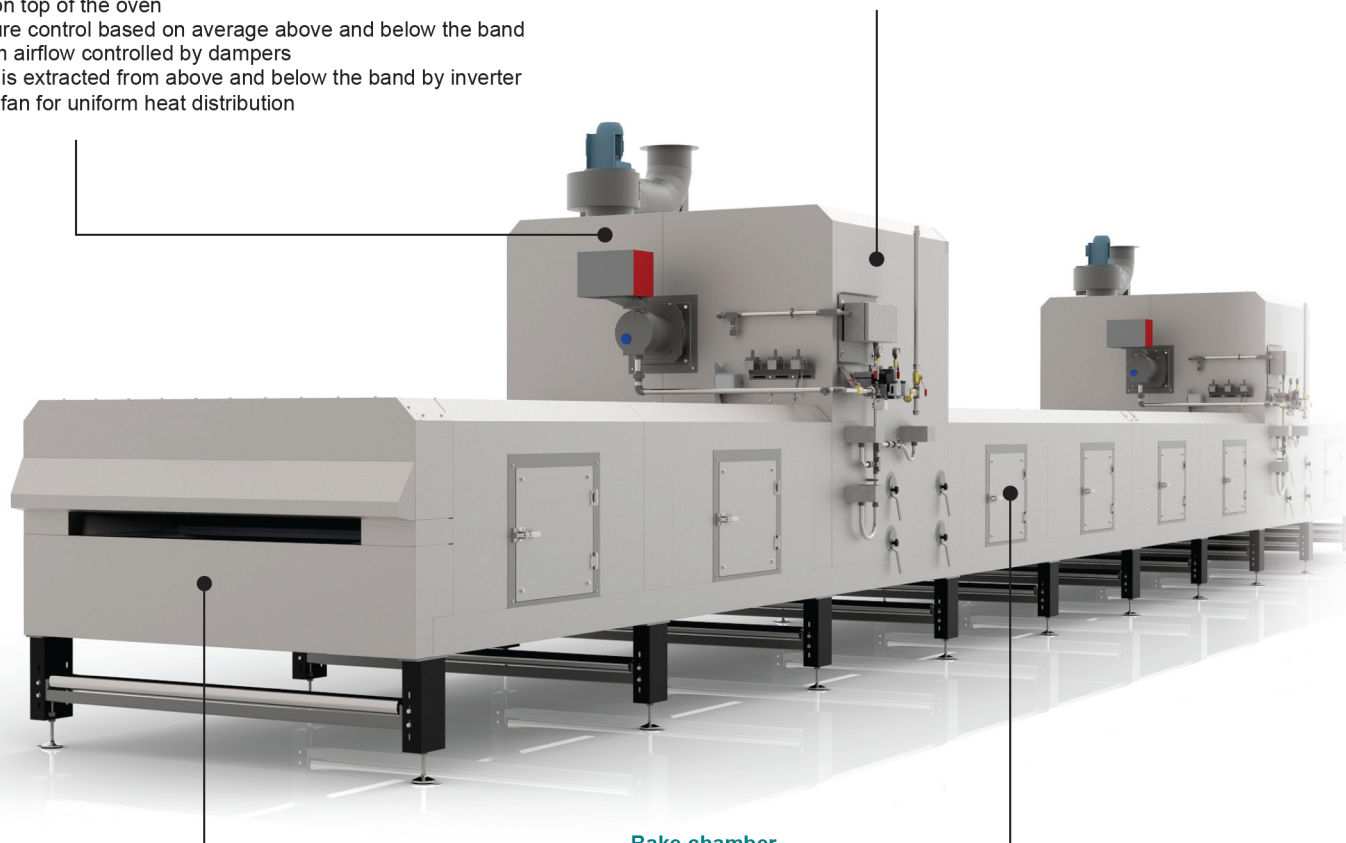
HiCirc direct convection heating system

A burner and fan for each zone supplying heating ducts above and below the band that direct heated air onto the product through slots.

- Maxon OvenPak burner and variable speed circulation air fan mounted on top of the oven
- Temperature control based on average above and below the band
- Top/bottom airflow controlled by dampers
- Return air is extracted from above and below the band by inverter controlled fan for uniform heat distribution

Modular design

Multiple modules are arranged on site to form an oven with a number of separate heating zones. Modules are pre-assembled, insulated and pre-wired for rapid installation.



Conveyor

Heavy duty oven ends.

- Accommodates all types of steel and mesh bands
- Band supported in bake chamber by cast iron skids, graphite skids or rollers (and by rollers on return)
- High-accuracy automatic proportional band tracking system with optional backup compressed air reservoir
- Automatic pneumatic tensioning
- Integrated product stripping conveyor at discharge end

Bake chamber

Aluminised steel construction with high-quality insulation and aluminium outer covers.

- Large hinged cleanout door every 2.1m (7ft) on standard modules
- Non-settling mineral wool panel insulation
- Zone integrity baffles

Specification

Band widths:	800 to 1,800mm
Band height:	1,067mm Standard
Oven drum diameter:	900mm
Fuel type:	Gas or LPG
Module length:	2.1m

Options

- Integrated power and gas meters
- Band return covers, with or without insulation
- Oven band pre-heat
- UPS for emergency wind out
- Stainless steel outer covers and/or inner case
- Band cleaner
- Oven exit waste heat recovery (convection oven)
- Bake chamber humidity monitoring
- Bake chamber steam injection
- Band types
- Extraction hood over oven discharge
- Cross conveyor reject at oven discharge
- Automatic damper control via HMI

Intuitive touch screen controls

Easy-to-use interface contains all the information needed to set up and run the oven efficiently.

- Simple graphical interface
- Recipe-driven settings
- Clear alarm management
- Historical trending