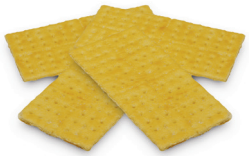
Baker Perkins

www.bakerperkins.com

TruClean™ Sheet Forming and Cutting Lines

Baker Perkins' TruClean™ sheet forming and cutting lines handle a wide range of dough types to produce laminated and/or sheeted crackers and snacks. The range covers every application, from dedicated plants to flexible, multi-purpose lines. Every machine has been designed for high output while minimizing costs in areas such as labor, waste and downtime.

Hard Sweet Products

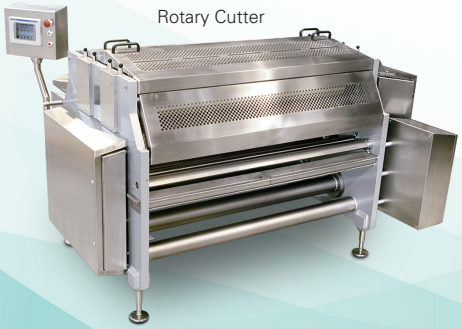


Crackers

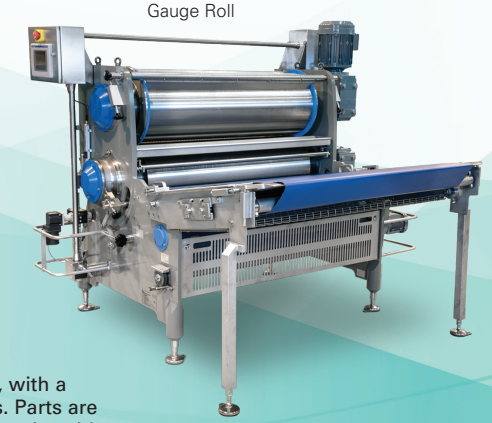
Baked Snacks

Three Roll Sheeter

Combination Laminator



Rotary Cutter



Gauge Roll

Precise weight control at high outputs

All units have the motor power and mechanical strength to run at very high speeds for long periods without loss of weight control or quality. Low-deflection, solid gauge rolls guarantee weight control over many years. The control system provides accurate speed control of each unit, and a sophisticated cascade system maintains a smooth flow of dough along the line.

Efficient and reliable for low production costs

Waste and scrap are very low, while changeover and cleaning between production runs is quick and straightforward. High quality components and software maintain trouble-free operation for long periods. Motors and gearboxes operate well within capability to ensure that component stress does not affect reliability.

Designed to achieve the highest levels of hygienic operation

Every unit is designed with hygiene in mind: maximum access, minimum components between the frames and tool-free removal of scrapers make cleaning simple and quick. Baker Perkins' TruClean™ standard achieves the highest level of hygienic operation in accordance with the GMA's 10 Principles of Equipment Design and other relevant industry guidelines.

For videos and more information on Baker Perkins' TruClean™ sheet forming and cutting lines, please see **www.bakerperkins.com/SFCL**

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.

Typical Installation Includes:

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TruClean™ Sheet Forming and Cutting Lines

TruClean™ sheet forming and cutting lines have been designed for high output while controlling costs in five main areas – weight control, ease of cleaning, ease of use, reliability and ease of maintenance. The result is a line that minimizes the costs of labor, waste and downtime.

Flexible Specification

Individual units allow plant specification to be tailored to the exact product, process and output requirements.

Available units:
- Vertical Cut Sheet Laminator
- Combination Laminator
- Three Roll Sheeter
- Gauge Rolls
- Relaxation web
- Rotary Cutter with web drive
- Transfer web and scrap lift
- Scrap return system
- Swivel panner/salt/sugar sprinkler

Standard widths:
- 40″(1,016mm)
- 48″(1,220mm)
- 60″(1,525mm)

Laminator

A Sheeter and two Gauge Rolls produce a sheet that is cut and then laid down on a continuously moving conveyor to the first Gauge Roll.

To add flexibility, Baker Perkins' Combination Laminator incorporates an ingenious mitre turn after the Sheeter, feeding the dough sheet either to the Laminator or directly to the first Gauge Roll via a bypass conveyor.

Laminating produces a lighter, crisper texture than sheeting. This can be further enhanced by incorporating a layer of dry ingredients between laminations.

For videos and more information please see **www.bakerperkins.com/LAM**

Three Roll Sheeter

Baker Perkins' Three Roll Sheeter takes either a bulk or metered feed of dough and forms a compacted, homogenous sheet ready for the first Gauge Roll.

The three-roll arrangement provides optimum control over the size and condition of the dough sheet.

The infeed hopper contains a partitioned compartment to integrate returned scrap dough into the underside of the fresh dough, preserving the high quality appearance of the dough's surface.

For videos and more information please see **www.bakerperkins.com/TRS**

Gauge Rolls

Gauge Rolls progressively reduce the dough sheet thickness from the initial sheeted or laminated output to that required for the cutting process.

The rolls reliably achieve and maintain the desired thickness across the full width of the dough sheet, with repeatable precision.

Standard Gauge Rolls are 11.8″(300mm) diameter. Heavy-duty Gauge Rolls with 15.7″(400mm) diameter rolls are also available for tougher doughs and higher output lines.

For videos and more information please see **www.bakerperkins.com/GRS**

Rotary Cutter

The Rotary Cutter produces cut pieces from the gauged dough sheet via removable embossing and cutting rolls, each acting on its own rubber-covered anvil roll.

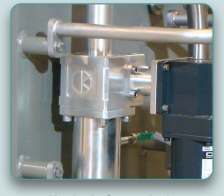
The scrap web is lifted and returned to the Laminator or Sheeter. Returned dough is integrated into the underside of the fresh dough for a consistent product with minimal waste.

The TruClean™ Rotary Cutter has been designed and constructed to minimize costs in every area of operation, while introducing a completely new approach to hygienic design.

For videos and more information please see **www.bakerperkins.com/TRC**

Gauge rolls provide precise weight control

- Gauge rolls are made from high strength carbon steel with a stainless steel cladding. They are machined from a solid billet to offer the ultimate in rigidity and weight control across the full width of the plant
- Deflection is 25% less than tubular chilled cast iron rolls
- Hardened stainless steel ground finish is resistant to corrosion and pitting
- High specification gap adjustment provides fine tuning with accurate and stable positioning with no backlash
- Take-off web nosepiece provides fully supported, reliable transfer for maintenance of weight control



Hygienic Screw Jacks

Roll Scraper & Catch Tray

Hygienic designs are easy to clean

- All sheet forming and cutting equipment is designed to our TruClean™ standard
- Minimum components and no horizontal surfaces between frames
- Fully welded construction with continuous hygienic welds: holes, niches and other debris accumulation points have been eliminated on all machines
- Dough sheet is fully supported by wide webs to reduce debris. Webs are easy-clean polyurethane coated synthetic material
- Gauge rolls have corrosion resistant stainless steel finish
- Top scrapers and catch trays can be easily removed without tools
- Generous floor clearance for easy access for cleaning
- Hygienic foot design with no exposed threads and easy-to-clean surfaces

Easy Cleaning & Sloped Surfaces

Hygienic Foot

Stand-Off Mounts

Processes are easy to control and adjust

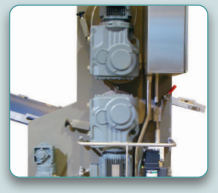
- Local touch screens along the line enable operators to visualize and control the process easily and intuitively
- Local adjustment only is required: upstream and line adjustments are fully cascaded
- Simple removal of cutter rolls without tools, plus limitless phasing adjustment, facilitate rapid changeovers
- Independent embossing and cutting with separate rolls make adjustment for optimum pressures very easy
- Pneumatic dough bypass function helps to avoid jams, especially on start-up
- Dual hardness rubber rolls to optimize cut and emboss as well as extend life of cutting web

Touch Screen Controls

Easy Roll Removal

Lines are reliable and easy to maintain

- All maintenance items are outboard of frames or otherwise easily accessible
- Simple rotating coupling adjustment for side-to-side gap adjustment on Sheeter and Gauge Rolls
- Sealed bearings reduce maintenance, avoid grease migration and prolong life
- Major roll bearings can be replaced without removing the roll
- Light damage to gauge roll surface can be repaired in situ
- Major damage can be repaired by re-cladding the roll
- Maintenance-free AC motors with variable speed drives used throughout
- Web drive and tension arrangement is maintenance-free and self-regulating



Direct Drives

Web Drive

Baker Perkins

TruClean™ Sheet Forming and Cutting Lines

The TruClean™ Standard: Hygienic Design by Baker Perkins

The TruClean™ range has been designed from the ground up to achieve the highest levels of hygienic operation and to improve on the outstanding performance of its predecessors.

The equipment has been designed in accordance with all relevant industry and statutory guidelines, including the GMA's 10 Principles of Equipment Design. Particular attention has been paid to reducing the accumulation of unwanted materials; improving visibility and access for cleaning; and simplifying the removal and replacement of components and assemblies without the need for tools or technicians.

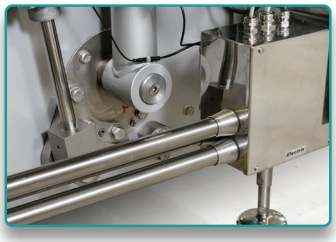
A Customized Approach

While designing for the highest possible levels of hygienic operation, Baker Perkins' engineers have recognized that the risks are not the same in every instance and that customization is required. Two levels of hygienic design are offered allowing manufacturers to choose the one that best matches the sensitive cross-contact risks they face and the cleaning protocols they use.

Rounded corners

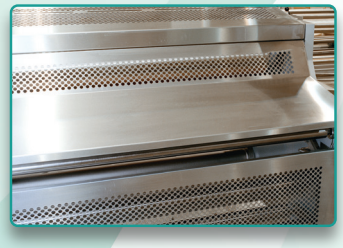
Holes eliminated where possible

Angled surfaces for drainage



Cables run in sealed stainless conduit

No tools required for cleaning



Perforated see-through guards

Continuous welds

Stand-off mounts

"Sandwich" contacts eliminated

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