



Cookies, Crackers, Bars & Snacks
Full Lines and Unit Machines

Process Knowledge & Engineering Expertise

Baker Perkins' comprehensive range of equipment for cookie, cracker, bar and snack manufacture is founded on over 100 years' experience and expertise. From mixing to sandwiching, every machine is designed to maximize profitability through reliability, ease of cleaning and ease of use.

Because we supply full lines - from mixing and forming to baking and sandwiching - we understand the complete process. This awareness of what is happening throughout the operation enables us to give unparalleled backing to our customers, from planning, through designing, building and commissioning to complete lifetime support.

We have built our business on technical excellence and innovation, firmly grounded in unrivalled process knowledge and engineering expertise. We have always used these to design equipment that meets the needs of the industry, with problems such as better weight control, reduced maintenance and easier, hygienic operation all being addressed in innovative ways.



lifetime
support

When choosing equipment from Baker Perkins, customers expect and get the best in terms of equipment specification, reliability, end product quality and low production costs. Lifetime Support ensures that these expectations are met for as long as the equipment is in production.

We offer a broad range of services to help maintain and improve line performance and extend useful life. This covers everything from replacement parts to major repairs and rebuilds and includes on-site engineering services such as planned maintenance contracts. There are also upgrades available to key features to improve performance and reliability.

Products

Baker Perkins' lines produce everything from soft, sweet cookies, bars and sandwiches to hard, savory crackers and snacks. Increasing product diversity has broadened the appeal of cookies and crackers from simple coffee-time and lunch box staples to indulgent treats and even meal replacements. Baker Perkins' product development has kept pace with these changes while retaining the reliability and low production costs that have characterized our cookie and cracker lines for decades.

Cookies »

Baker Perkins manufactures rotary moulders and wirecuts for the complete range of cookies and soft dough products, from plain to indulgent gourmet and encapsulated cookies. The soft dough portfolio is completed by frozen dough cookies, baked at the point of sale to provide an enhanced level of consumer appeal.



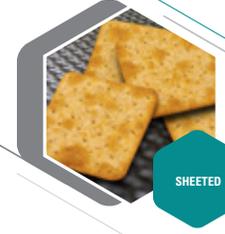
Bars, Sandwiches & Snacks »

Baker Perkins' core technologies are readily applied to other products such as cereal, energy and filled bars; savory snacks and toaster pastries. Sandwiching systems are available for a wide range of product sizes and width input/output configurations that enable a smooth process flow to be achieved.



Crackers »

Forming a sheet and cutting product shapes from it is the method used when the gluten in the flour has been developed in the mixer and the dough has more elastic properties. Whether sweet or savory, products made using this process have a lighter, crispier texture than soft dough products.



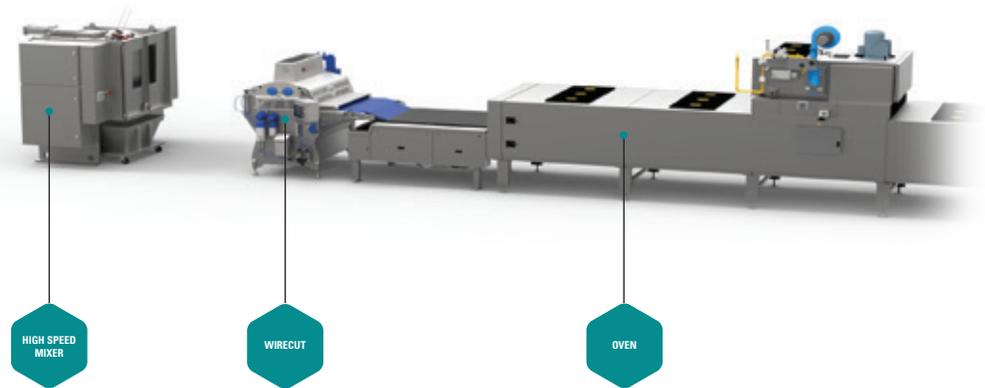
Process: Soft Dough Forming

Baker Perkins provides best-in-class rotary moulders and wirecuts for the complete range of cookies and filled bars. We offer unit machines in each technology; more than a century of experience provides us with an unrivalled ability to combine them into profitable, efficient, flexible lines.



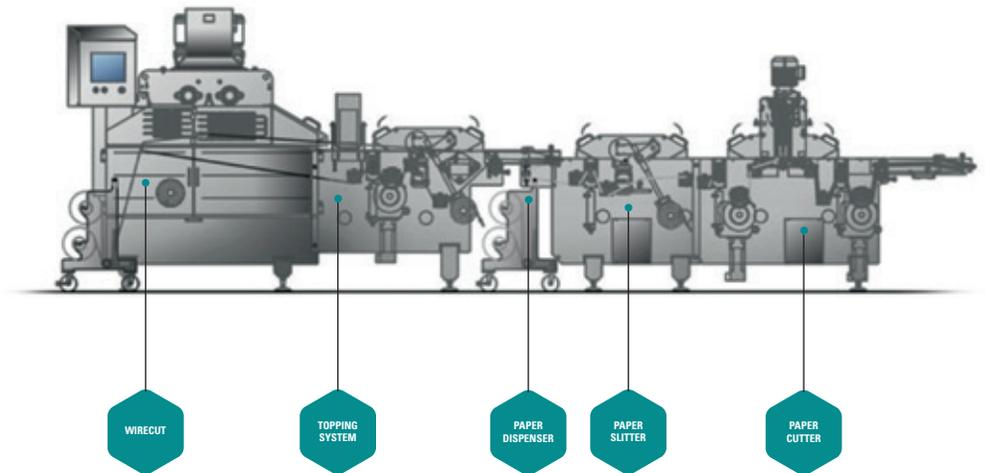
Wirecut Cookies »

Dough is mixed by a High Speed Mixer, using a unique, shaftless mixing blade that ensures good dispersion of ingredients with minimal damage to inclusions. The mixed dough is then transferred to Baker Perkins' TruClean™ Wirecut, where patented filler block technology, die plates and die cups, as well as our unique TruWeight™ technology, provide precise weight control for product consistency ahead of baking. An encapsulation module for fully-encased filled cookies is also available.



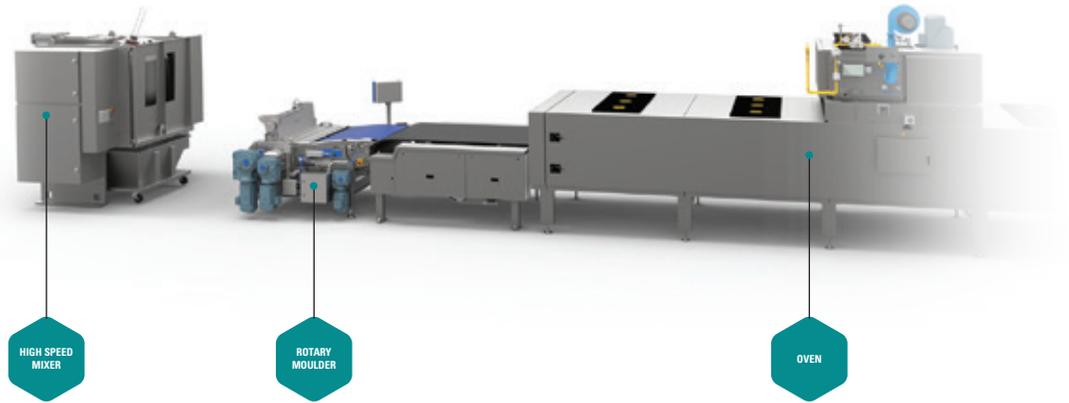
Frozen Dough »

One of Baker Perkins' specialties is the Frozen Dough Machine. The dough piece forming process is the same as a wirecut, but dough pieces are laid onto paper for freezing or bulk packing into containers, rather than baking. The process is based around a Baker Perkins TruClean™ Wirecut with a series of standard modules for wire cutting, paper slitting and paper cutting. A topping system is also available to add finishing touches to the dough pieces for added value.



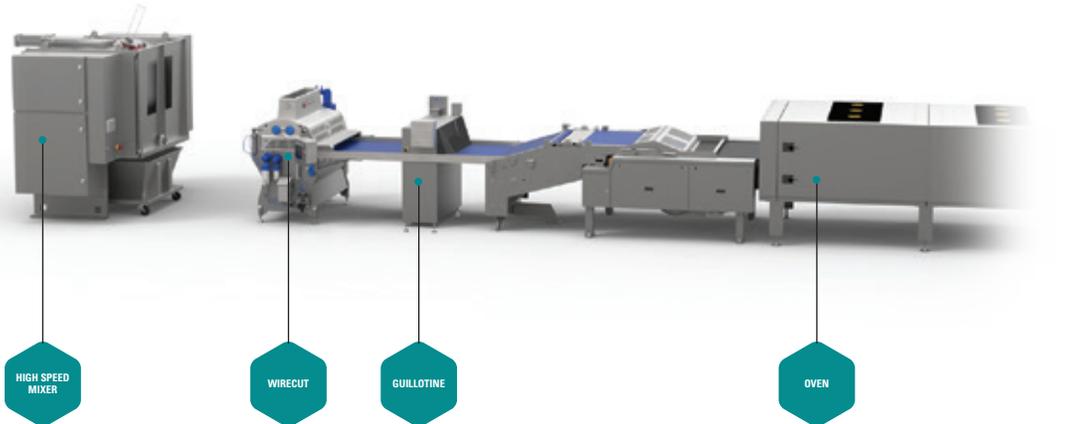
Rotary Moulded Cookies »

Rotary moulding is the industry-standard method of making soft dough products. Dough is mixed in the High Speed Mixer then transferred to a rotary moulder. Specialty dies within the rotary moulder set and maintain the product size, shape, weight and thickness, as well as imparting the manufacturer's unique design or branding. Panning is either direct or by a swivel panner for enhanced centralization onto the oven band.



Bars »

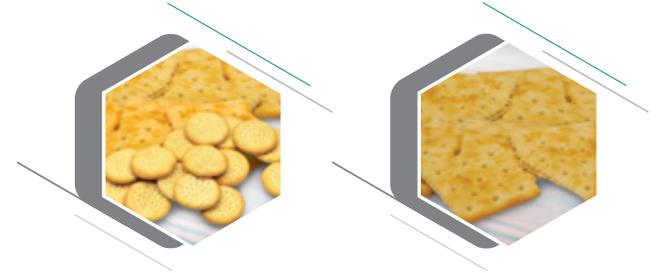
Baker Perkins' wirecuts allow the production of plain bars and bars filled with an unlimited variety of sweet and savory fillings. Mixed dough and fillings are transferred to the forming machines, where they are fed down passages machined into filler blocks to create a continuous strip of filled product. A guillotine then cuts the continuous strip of product into bar lengths for baking.



Process: Sheet Forming & Cutting

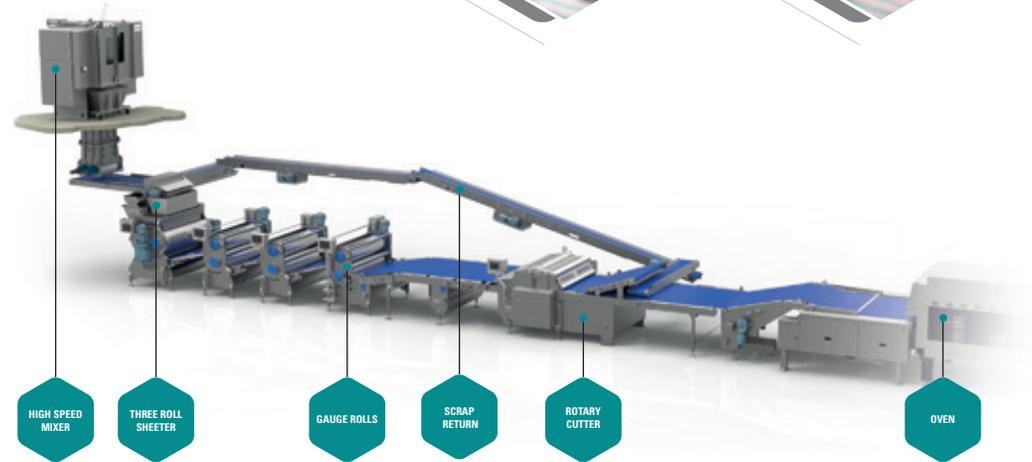
Baker Perkins' TruClean™ sheet forming and cutting lines are able to process a wide range of dough types, including crackers, snack crackers and hard sweet products. There is also an increasing crossover into enzyme raised crackers, baked snacks and softer dough products where a lighter texture is needed.

Baker Perkins' sheet forming and cutting lines meet TruClean™ standards, bringing major benefits in maintenance and hygiene, with low costs and fast changeovers.



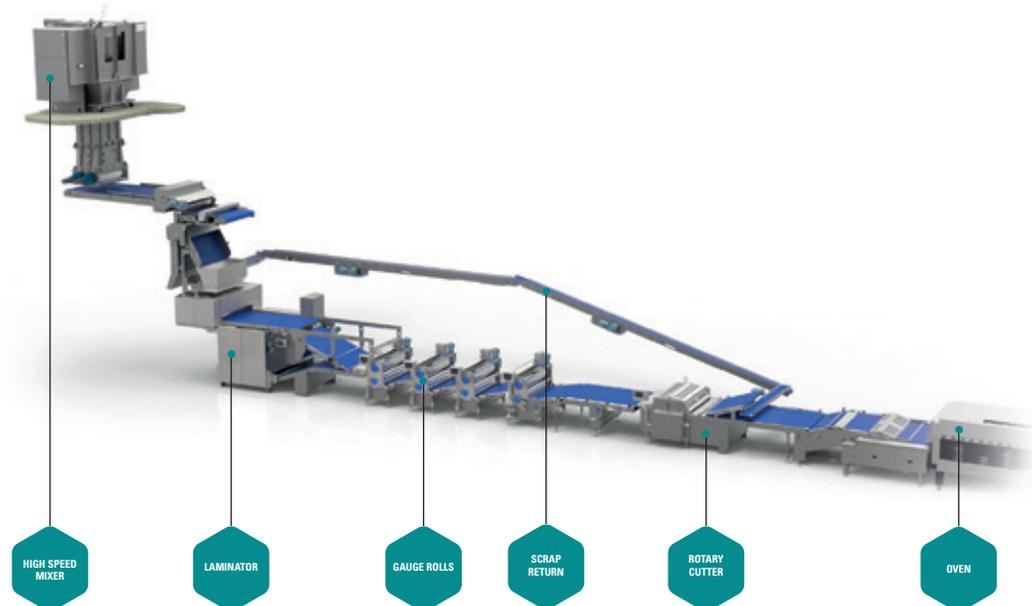
Sheeted Crackers & Snacks >>

The sheet and cut process is traditionally used on hard and semi-sweet products. After mixing, dough is fed into a sheeter, which forms a compacted sheet of constant thickness and density. The sheeter ensures a consistent and even sheet is fed to the gauge rolls. The dough is gauged to the required thickness, relaxed, and then embossed and cut before passing into the oven. The scrap lattice is returned to the sheeter for reprocessing.



Laminated Crackers & Snacks >>

Laminating gives a light, flaky, crisp texture to crackers and snack products which cannot be achieved in any other way. A sheeter and two gauge rolls within a laminator produce a dough sheet that is cut and laid down on a continuously moving conveyor feeding the first gauge roll. Products are gauged to the chosen thickness, relaxed, and then embossed and cut before seasoning and baking. The scrap lattice is returned to the laminator for reprocessing.



Process: Cream Sandwiching

Sandwiching creates value by adding interest and variety to a product range. To do this profitably, Baker Perkins' sandwiching systems are fully automated, from cream feed through to lane multiplication.

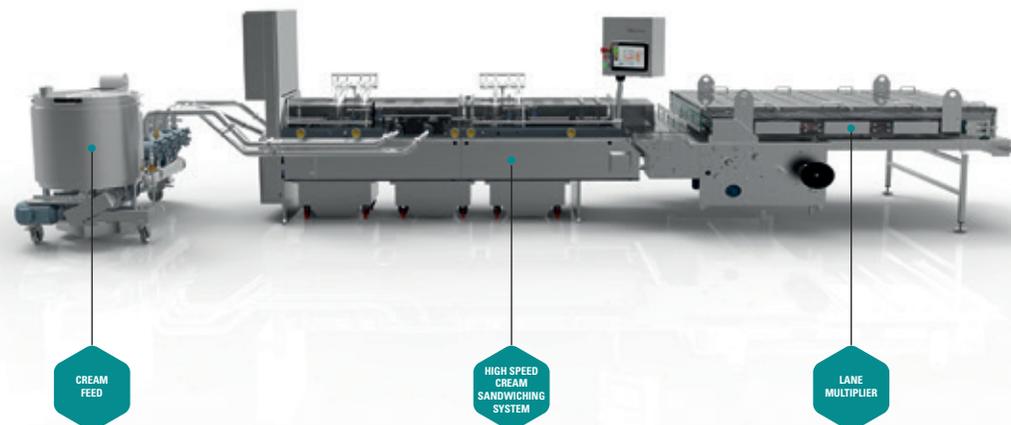
High quality components ensure Baker Perkins' sandwiching systems run faster for longer. Allied to precise weight control, the result is a plant that maximizes return on investment.



Cream Sandwiches >>

Shells are conveyed to the system via infeed magazines. Shells are stripped from the magazines by pairs of pin chains and pushed through the sandwiching machine on support wires; the bottom shell has cream deposited onto it before passing under a second infeed magazine, where addition of the top shell takes place.

Final thickness is controlled by an adjustable presser; a Lane Multiplier may be used at the end of a sandwiching machine to increase the number of lanes prior to cooling, chocolate coating and/or wrapping.



Pile Packs for Vending >>

Baker Perkins' Pile Pack Sandwiching Machine is a specialized process for producing two-high piles of sandwiches packed end-to-end for vend packs of between one and six piles.

The Pile Pack Sandwiching Machine has a single lane, and the two sandwiches are created one above the other. Assembly is sequential, with the first sandwich completed before the second is begun. There is no need for cooling and there are no complex lane merging devices; the piles are collated into the required pack length and fed directly to a wrapping machine.



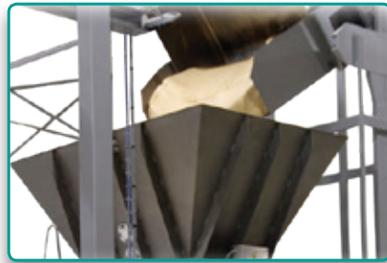
Equipment:

Mixing & Dough Feed



High Speed Mixer >>

Baker Perkins' multi-purpose High Speed Mixers are suitable for both hard and soft dough types. Thorough mixing is assured by the unique shaftless blade design, which gives rapid dough development with good dispersion and minimal damage of inclusions. The High Speed Mixer offers high levels of automation, ease of use and cleaning, and outstanding reliability to guarantee low cost of ownership.



Dough Feed Systems >>

Dough feeding systems comprise a range of unit machines and hygienic conveyors which transport dough from the mixer and provide either a bulk feed or metered feed to the forming equipment. Each system is designed to match the specific plant output and product type, taking into account any requirements for resting and conditioning of the dough.

Equipment:

Sheet Forming & Cutting



TruClean™

Vertical Cut Sheet Laminator >>

The TruClean™ Vertical Cut Sheet Laminator is used in the production of laminated products such as crackers, hard-sweet products and baked snacks.

The machine offers outstanding weight control across the width of the plant, achieved by close control of dough sheet thickness, sheet positioning and the lay-down process. The unit is compact and easy to operate, with excellent access for cleaning and maintenance.



TruClean™

Combination Laminator >>

Baker Perkins' unique TruClean™ Combination Laminator allows the production of a full range of both sheeted and laminated crackers and snacks.

It is a cost-effective and simple method to set up a multi-purpose plant. The key to uncomplicated flexibility is an ingenious mitre turn, which feeds the sheeted dough either to the laminator or directly to the first gauge roll via a bypass conveyor. Conventional dual-purpose plants need two sheeters, one each for laminated and sheeted products; the Combination Laminator saves the cost of the second sheeter, as well as reducing the floor space and cost and complexity of the dough feed system.



TruClean™ Three Roll Sheeter»

The Three Roll Sheeter takes either a bulk or metered feed of dough from the mixer and forms a compacted sheet ready for the gauge rolls.

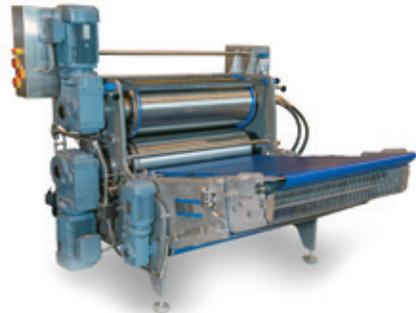
The three-roll arrangement provides optimum control over the size and condition of the dough sheet. The rolls are configured to create a compression chamber which homogenates the dough without damage. The infeed hopper contains a partitioned compartment to integrate returned scrap dough into the underside of the fresh dough, maintaining a high-quality and consistent surface finish.



TruClean™ Rotary Cutter»

The TruClean™ Rotary Cutter uses a pair of engraved die rolls to emboss then cut pieces from the continuous sheet of dough received from the gauge rolls.

As the cut pieces are passed to the oven for baking, the scrap lattice is returned to the laminator or sheeter for reintegration into the fresh sheet, minimizing waste. The rotary cutter also features a rapid bypass function that avoids problems from an imperfect dough sheet by enabling it to be diverted to the scrap lift for reprocessing at the touch of a button.



TruClean™ Gauge Roll»

TruClean™ Gauge Rolls achieve and maintain the desired thickness of a sheet of dough.

Baker Perkins' latest design ensures reliable operation, low waste and accurate performance. The gauge rolls feature an arrangement of flanges, scrapers and take-off conveyors that reduce waste by fully supporting the dough sheet throughout the process. Repeatable precision is matched by low operating costs, with labor and maintenance kept to an absolute minimum.



Equipment: Soft Dough Forming



TruClean™ Wirecut »

Baker Perkins' TruClean™ Wirecut is especially designed for the very soft doughs typified by the classic chocolate chip cookie.

High accuracy wirecut machines are the key to high quality cookie and bar production. Baker Perkins' patented servo-driven machines can be specified with a range of options to ensure they meet exact requirements; they combine hygienic design with the ability to control product weights very closely using our TruWeight™ assisted weight control technology. Gap adjustability allows large inclusions such as chocolate chunks, nuts and raisins to be handled without impairment or damage. An encapsulation module also enables filled cookies to be produced on the same machine.



TruClean™ Frozen Dough Machine »

The TruClean™ Frozen Dough Machine is a high-output modular system producing every type and size of cookie dough piece for bake-off operations.

Based around a Baker Perkins TruClean™ Wirecut, the Frozen Dough Machine combines exceptional reliability, fast changeovers, accurate weight control and excellent hygiene standards. High production rates are maintained while keeping operating costs low. The TruClean™ Frozen Dough Machine produces the full range of cookies, from bite size to gourmet.





TruClean™ Rotary Moulder Range »

Baker Perkins' TruClean™ Rotary Moulders produce a full range of soft dough moulded products and sandwich cookies.

The range comprises a standard 390 for general purpose applications, and two TruClean™ models with enhanced hygienic features. All three machines are designed for ease of use, with minimal debris accumulation, improved cleaning, and simplified removal and replacement of components. High efficiency, precise weight control, and fast changeovers combine with maximum reliability and durability to keep production costs down.



TruClean™ 590 Heavy Duty Rotary Moulder »

The TruClean™ 590 is primarily used for moulding demanding products such as energy bars and pet food. The machine is stronger and more powerful to cope with the extra work required to form these products.

The 590 features robust construction and components necessary to handle large, thick products made from heavy doughs at high speed. High efficiency and precise weight control minimize waste and giveaway, while maximum reliability with easy cleaning and maintenance keep running costs down.

Forming Ancillaries

A range of units is available to add value and put the finishing touches to cookies and crackers:

- **Jelly Topper:** deposits jams and jellies onto cookies.
- **Washover Unit:** applies egg solution, milk, or similar liquids onto the surface of the unbaked cookies.
- **Salt / Sugar Sprinkler:** sprinkles an evenly distributed layer of granular material onto the product. Includes a recycling system.
- **Swivel Panning Conveyor:** transfers the products from the forming machine to the oven band. Includes facility to mount the salt / sugar sprinkler.
- **Servo Bar Cutter:** positioned after wirecut to cut continuous strips of product into bar lengths.

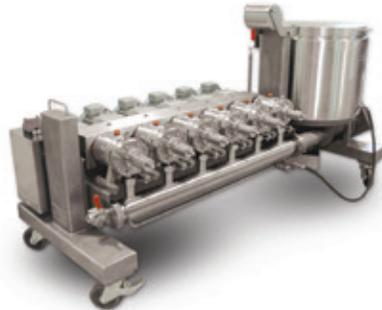
Equipment: Sandwiching



High Speed Cream Sandwiching System »

Baker Perkins' High Speed Cream Sandwiching Systems produce round or rectangular cookie or cracker sandwiches with a single or co-deposited filling.

Precision engineering ensures that an accurately metered cream deposit is reliably and consistently placed between two delicate shells, even when moving at high speed. The result is very little waste or giveaway, leading to high efficiency and low production costs. 2 to 6 lane versions are available, with pin chain pitches between 2" and 4" to match a range of shell sizes and upstream equipment.



Cream Feed »

Baker Perkins' Cream Feed provides an accurately metered supply of cream to the sandwiching machine.

Mixed cream is held in a water-jacketed hopper, before an auger screw transfers it from the hopper to a manifold that feeds the cream pumps. Each cream pump feeds one lane of the sandwiching machine; the pumps are independently controllable for accurate deposit weight and consistent positioning. The machine is designed for hygiene, with food-grade plastic and stainless steel used throughout the product contact areas.



Pile Pack Cream Sandwiching System »

The Pile Pack Cream Sandwiching System produces piles of two cream sandwiches that are collated into packs for vending machines.

Although the main use is for vend packs of between one and six piles, longer retail packs with a card insert are also possible. The Pile Pack Sandwiching Machine is directly linked to a flow-wrap machine to form a compact and efficient system for sandwiching, handling and wrapping. Direct-linking to the wrapping machine via a single lane completely eliminates the need for complex and costly lane merging devices, as well as cooling and handling systems.



Lane Multiplier »

The Lane Multiplier may be used at the end of a sandwiching machine to increase the number of lanes prior to cooling, chocolate coating and/or wrapping.

Multiplying the lanes allows cooling tunnels to be shorter, less costly and more efficient, as well as preparing the products for subsequent enrobing or wrapping operations. Baker Perkins' Lane Multiplier has been specifically designed to carry out the task gently and hygienically - a wash in place system is also available.

Equipment: Baking



TruBake™ Direct Gas Fired Oven »

Direct Gas Fired (DGF) ovens are selected by cookie and cracker manufacturers around the world for their excellent baking characteristics, flexibility and ease of operation.

Heat comes from ribbon burners mounted above and below the band, assisted by an air circulation (turbulence) system. The TruBake™ DGF has the ability to combine radiant and convective heat in varying proportions along the length of the oven: this enables the ideal size, color, moisture and thickness of product to be consistently achieved.



TruBake™ HiCirc Direct Convection Oven »

Baker Perkins' TruBake™ HiCirc Oven combines radiant and convective baking to offer unparalleled versatility, baking quality and dependability. The oven builds on the heritage of Baker Perkins' ovens with excellent baking efficiency, cleaning, maintenance, safety and installation, while retaining the attractive baking characteristics of previous Recirc™ models.



TruBake™ Hybrid Ovens »

Bakers can combine the best baking methods by specifying a hybrid oven. TruBake™ DGF and HiCirc direct convection ovens have characteristics that are each ideal for one part of the process: combining the benefits of both can create a unit that exactly matches a specific need for any kind of cookie, cracker or bar.



A Complete Rotary & Wirecut Die Service

Baker Perkins' rotary and wirecut die experts provide advice and support at every stage of the design, testing and specification process for new or replacement cookie and cracker dies.

Working from sketches, drawings, models, or even old dies, we can create a digital 3D model of the product to make a test engraving or 3D printed mould for evaluation and approval. We work closely with our clients to select the most appropriate combination of construction, material and finish for the product and the manufacturing operation.

Our advice is based on process knowledge and insight developed over many years' experience as a supplier of high-performance machinery. With our understanding of the interface between the machine, its die and the product, we are able to supply dies that are right first time, run cleanly and reliably, and make a significant contribution to line efficiency and profit.

Why Choose Baker Perkins?

- Unique process insight
- Custom design service plus a library of thousands of standard designs
- Rolls and dies to suit every kind of forming machine
- Fast and accurate 3D design and engraving
- Test sleeves and flat samples for pre-production review and testing
- Range of construction methods, materials and finishes for optimum performance

DG
the die guys



The TruClean™ Standard

The TruClean™ range of equipment for cookies and crackers is designed to meet all industry guidelines on hygiene and sanitation. Every detail is engineered to minimize debris accumulation and make thorough and effective cleaning as easy as possible.

The main objective of enhanced sanitation is to eliminate the risk to consumers from cross-contact. Usually this means allergens and pathogens, but the same high standards are just as important for making Kosher, organic or 'free-from' products.

TruClean™ allows hygiene standards to be raised while maintaining the lowest possible production costs: less time cleaning means lower costs and faster changeovers. TruClean™ machines retain all the best-in-class process parameters and benefits of previous generation equipment, including outstanding reliability, performance and ease of 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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