



 **Baker Perkins**
Confectionery

Continuous Cooking and Starchless Depositing

Baker Perkins' continuous cooking and starchless depositing technologies bring exceptional levels of reliability, efficiency and low production costs to the manufacture of unique, high-quality confectionery.

Our focus on creating innovative end-products allied to low-cost production can be seen in our commitment to both process development and equipment design. Our latest cooking and ServoForm™ depositing systems continue to deliver the best in flexible and efficient high-output production, while setting new standards for ease of use, hygienic design and energy efficiency.

Backed by our comprehensive Lifetime Support programme to ensure long-term performance and reliability, a cooking and depositing system from Baker Perkins will provide a high return on investment for many years.

- **Unique, high-quality confectionery**
- **High efficiency**
- **Low production costs**
- **Versatile process**
- **Flexible systems**
- **Exceptional reliability**
- **Complete control**
- **Maximum hygiene**
- **Low maintenance**



Products

Every Baker Perkins cooking and depositing system is capable of a wide range of variations on the standard product type. Even the simplest two-component, single-head depositor can produce an array of solid, striped, layered or filled candies, and with four-component heads, lollipop depositing and multi-head configurations also available there is virtually no limit to product variety.

Hard Candy

Multi-colour, multi-component hard candies in one, two, three and four colours; in stripes or layers, with one or two hard or soft centre-fills, and with every possible colour and flavour.



Lollipops

Ball, double-ball and flat lollipops in one, two, three or four colours, with a multi-component capability providing solid, centre-filled, layered and striped options.



Jellies & Gums

All types of jellies, gums and fruit paste confectionery. Creation of striped, layered and centre-filled products is possible; inclusions can be incorporated while intricate product shapes present branding opportunities.



Functional & Medicated

Jellies, gums, hard candy or fruit snacks fortified with vitamins, minerals, fibre, real fruit juice or other supplements. Baker Perkins' hygienic, starch-free process is suitable for production to validation standards.



Toffee & Caramel

High-quality toffee and caramel products can be made in an assortment of colours, and can include added-value centre fillings such as nuts, jam and chocolate.



Fondant & Fudge

Fondant and fudge confectionery in a variety of colours, flavours, fillings and shapes. They can be chocolate coated and include centre fillings like nuts, jelly or fruit pieces.



Process

Hard Candy

Cooking and depositing systems that facilitate production of attractive, high-quality and colourful hard candies using either sugar or sugar-free recipes.

The ServoForm™ continuously deposits syrup into solid moulds using a starchless process. The one-shot depositing action can combine up to four colours and components in a single piece to produce a wide range of attractive candies that have exciting taste and texture combinations.

Multi-colour, multi-component candies can be produced in stripes or layers and hard or soft centre-fills can be incorporated.

Superior appearance, high clarity and rapid flavour release with a smooth 'mouth feel' are quality advantages created by depositing when compared to other production methods.

The nature of the depositing process creates complete control throughout the system, leading to extremely high dimensional, shape and weight accuracy, negligible scrap rates and efficient wrapping, plus maximum hygiene and low maintenance.

Hard candy lines incorporate automatic weighing, feeding, dissolving, and colour / flavour / acid addition, as well as the market leading Microfilm™ cooker, which matches the ServoForm™ depositor in its ability to deliver superior quality with high operational efficiency.



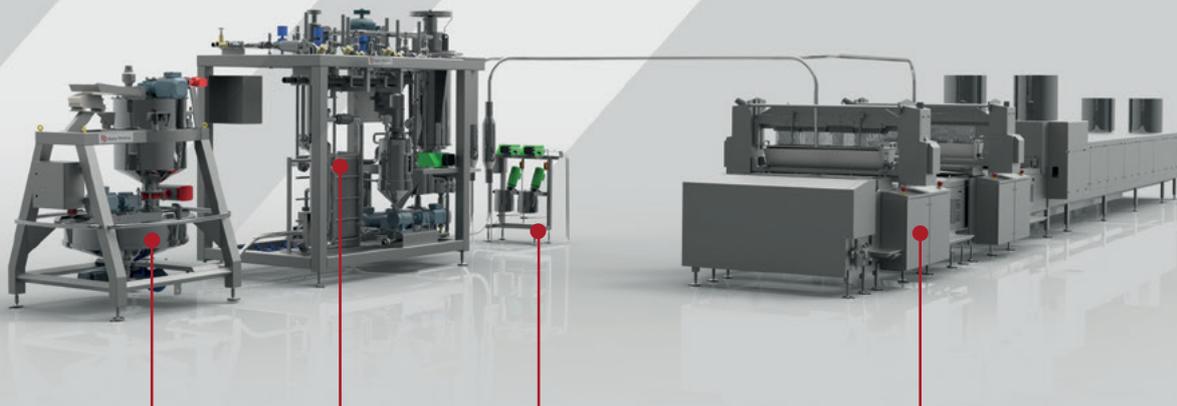
Hard Candy 



New Feed System 



ServoForm™ Hard Candy Depositor 



AUTOFEED

MICROFILM™
COOKER

COLOUR/FLAVOUR
ADDITIONS

SERVOFORM™
HARD CANDY DEPOSITOR 

Jellies & Gums

Starchless moulding is the most cost effective method available for the production of jellies and gums. The elimination of starch from the process significantly reduces production costs and improves hygiene while the capability to produce a wider range of higher-quality products gives confectioners the ability to innovate and add value to their product range.

The depositing process creates complete control throughout the system, leading to extremely high dimensional, shape and weight accuracy, negligible scrap rates and maximum hygiene. The ServoForm™ depositor can produce jellies and gums in solid, striped, layered or centre-filled varieties. Inclusions such as real fruit pieces can be incorporated and liquid centre-fills are also possible.

The ServoForm™ process deposits syrups at final moisture into solid moulds instead of starch trays. The result is a range of high quality jellies, gums and fruit snacks produced with significantly lower capital and running costs, plus a much reduced environmental impact.

Depending on the product, solid metal, polymer or rubber moulds are used with either a mechanical or air ejection system. These give enhanced definition and can place the products on the take-off conveyor in a regimented format ready for chocolate enrobing or other downstream processing.



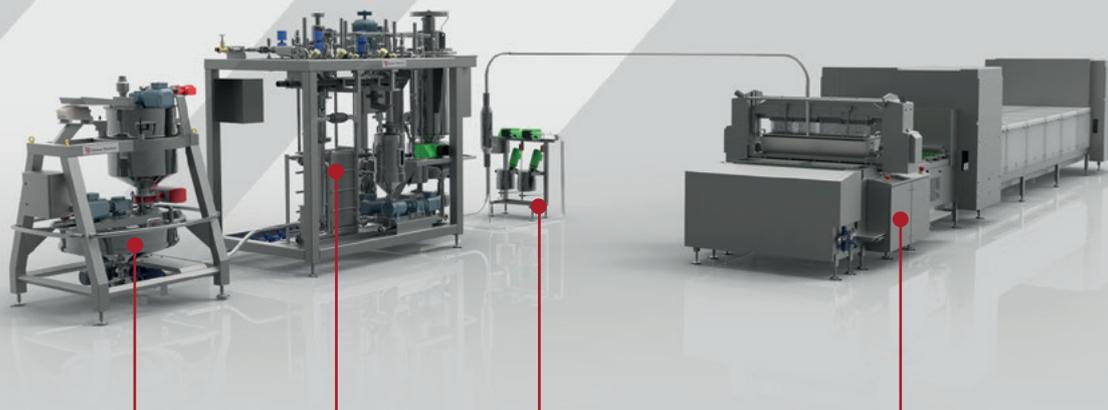
Jellies //



Turbofilm™ Cooker for Pectin Jellies //



Moulds //



AUTOFEED

MICROFILM™
COOKER

COLOUR / FLAVOUR
ADDITIONS

SERVOFORM™
JELLY DEPOSITOR

Process

Lollipops

Baker Perkins' completely automated, high-capacity lollipop depositing technology produces high-quality lollipops with the potential for an almost unlimited product variety, and offers greater production flexibility than other processes.

Lines can produce a wide range of lollipops in up to four colours, with a multi-component capability providing solid, layered and striped options for a variety of ball, double ball, 3D, shaped and flat lollipops.

Centre-filled lollipops can be deposited to add a new range of textures to a product portfolio. Flat and shaped lollipops allow surfaces to be embossed for character merchandising, while a range of profiles such as flowers, hearts or animal shapes can also be produced.

As well as the ServoForm™ lollipop depositor, Baker Perkins' lollipop systems include automatic weighing, feeding, dissolving, and colour / flavour / acid addition, plus the Microfilm™ Cooker - the industry standard for sugar and sugar-free high-boiled lollipops and candies.



Ball Lollipops 



Automatic Stick Insertion (Ball) 



Moulds 

Ball Lollipops



AUTOFEED

MICROFILM™
COOKER

COLOUR/FLAVOUR
ADDITIONS

SERVOFORM™
LOLLIPOP DEPOSITOR

STICK
PLACEMENT 

Ball Lollipops

The ServoForm™ ball lollipop system deposits cooked syrup into solid moulds using a starchless process. One-shot depositing of up to four colours and components enables a vast array of visually appealing lollipops to be produced with exciting taste and texture combinations.

Multi-colour, multi-component ball and double ball lollipops can be produced in stripes, layers and random patterns with hard or soft centre-fills, in every possible colour and flavour.

After depositing, the moulds pass beneath a fully automatic system that places sticks accurately and consistently. The system holds the sticks perpendicular during the cooling process until the product has set.

Flat Lollipops

Sticks are first fed into the moulds by an automatic insertion system. Placement mechanisms then ensure the sticks are accurately positioned and firmly held within the moulds before the cooked syrup at final moisture is deposited by the ServoForm™ depositing head.

The ServoForm™ flat lollipop depositor can produce a wide range of lollipops in up to four colours, with a multi-component capability providing solid, layered and striped options for flat lollipops in a variety of shapes.



Flat Lollipops //

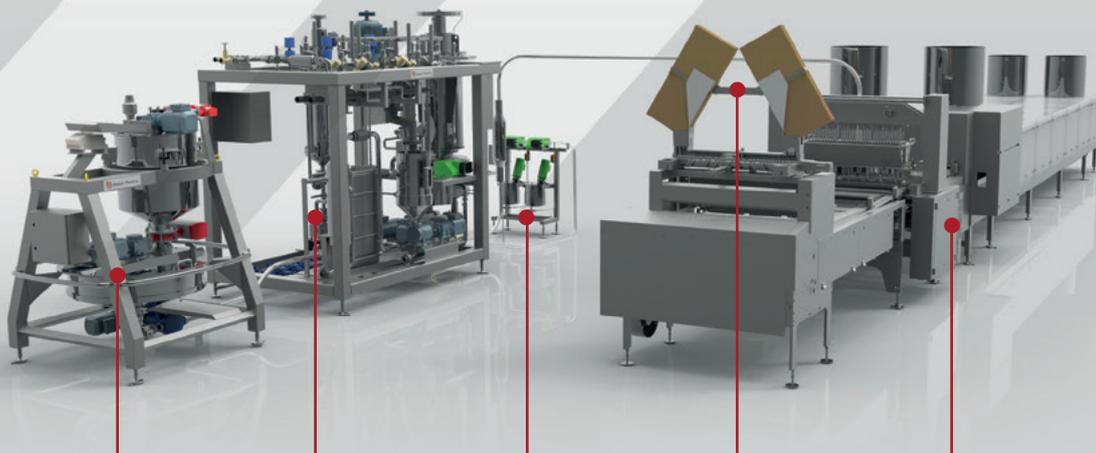


Automatic Stick Insertion (Flat) //



Moulds //

Flat Lollipops //



AUTOFEED

MICROFILM™
COOKER

COLOUR/FLAVOUR
ADDITIONS

STICK
PLACEMENT

SERVOFORM™
LOLLIPOP DEPOSITOR

Process

Soft Confectionery

For high-quality toffee, caramel and fudge, Baker Perkins' ServoForm™ depositing platform offers greater quality and flexibility than other production methods.

Toffee recipes and ingredients can vary widely, from budget to premium quality with high proportions of fat and milk. Baker Perkins' systems can be specified to handle all recipes, with a full range of cooking temperatures and levels of caramelisation.

As well as producing traditional solid toffee, ingredients such as butter, nuts, dried fruit and a variety of flavours can easily be added to the production process. Products can be made in an assortment of colours, and can incorporate added-value centre fillings such as jam or chocolate.

A line with rubber moulds can produce the full range of toffees, caramels and fudges. A metal mould/air ejection system may be specified if regimented discharge for enrobing is required.

Cooking systems are modular and can include a fully automatic Autofeed system to weigh and mix ingredients, while the specialised Carablend™ cooking and caramelising unit offers a comprehensive selection of process capability and outputs.



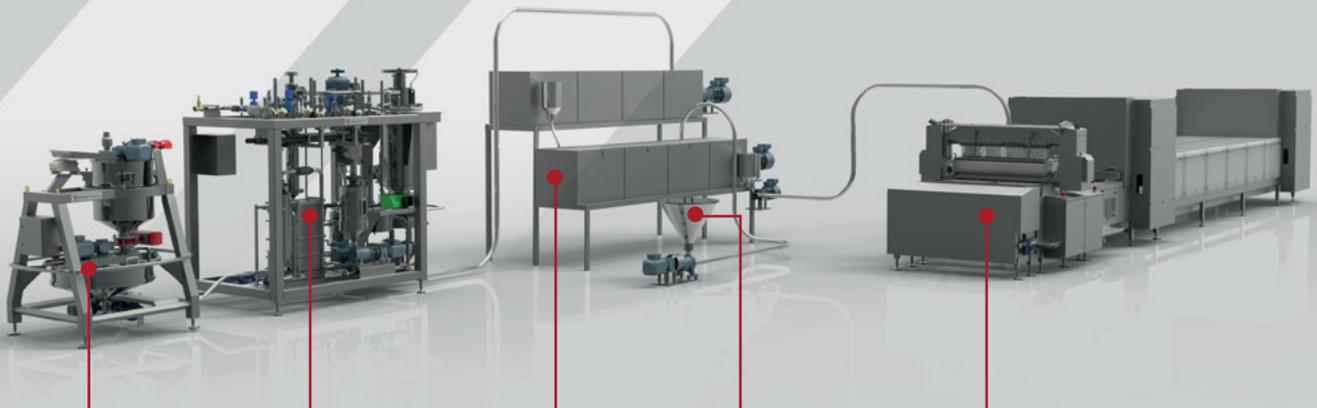
Soft Confectionery



Scraped Preheater



Carablend™ Toffee Cooker



AUTOFEED

SCRAPED PREHEATER & MICROFILM™ COOKER

CARABLEND™ TOFFEE COOKER

FONDANT ADDITION

SERVOFORM™ SOFT CONFECTIONERY DEPOSITOR

Fondant & Fondant Crème Cooking

Baker Perkins provides complete cooking and depositing systems for the continuous production of fondant and fondant crème, which can be used in a variety of soft confectionery products. Base fondant can also be produced in bulk as an ingredient for bakers and confectioners.

For base fondant, fully automatic ingredient weighing and mixing is followed by cooking and drum cooling. Agitation in a fondant beater then crystallizes the sugar to produce a fine fondant.

To produce a fondant crème, the fondant is passed to a crème mixer where it is combined with hot 'bob' syrup. This is cooked with the fondant syrup but bypasses the cooling and beating stages. Adding 'bob' syrup to the beaten fondant produces a fine-crystal confectionery crème, ideal for depositing.

Individual fondants can be produced in a range of colours, flavours and shapes, and can incorporate centre fillings such as nuts, jelly, fruit pieces and liquids. The regimented discharge from the depositor enables a direct link to the enrober for output that is chocolate coated.

Use of the fondant preparation system alongside Baker Perkins' ServoForm™ depositor provides great flexibility and process control. Product quality is improved through a more consistent shape, and depositing brings the flexibility of making a variety of shapes, colours and flavours simultaneously.

Compared with traditional forming processes, space, labour and cost are reduced, while hygiene and safety are improved. Production cycles are cut considerably.



Fondant //



Base Fondant //



Fondant Drum //



AUTOFEED

FONDANT COOKING
SYSTEM

COLOUR/FLAVOUR
ADDITIONS

COOLING DRUM,
BEATER & MIXER

Functional & Medicated

Baker Perkins' ServoForm™ depositors enable hard candy, jellies and fruit snacks containing supplements for the healthcare, functional and medicated markets to be manufactured in a hygienic, starch-free environment. This also makes the process ideal for products where validation is required.

Products may be manufactured in low-sugar or sugar-free formats, with no more than 1% fat while fruit snacks may contain up to 100% real fruit paste. The technology enables vitamins, minerals, fibre, energy and other supplements to be incorporated, as well as natural ingredients such as real fruit paste, juice or pieces.

The ServoForm™ system lends itself well to process validation for regulated products. The process is consistent and repeatable, there is no recycling of starch and the equipment is hygienic and easily cleaned.

The depositing process creates complete control throughout the system, leading to extremely high dimensional, shape and weight accuracy with negligible scrap rates and maximum hygiene. Compared with a starch mogul, energy costs, footprint and capital costs are all significantly lower.



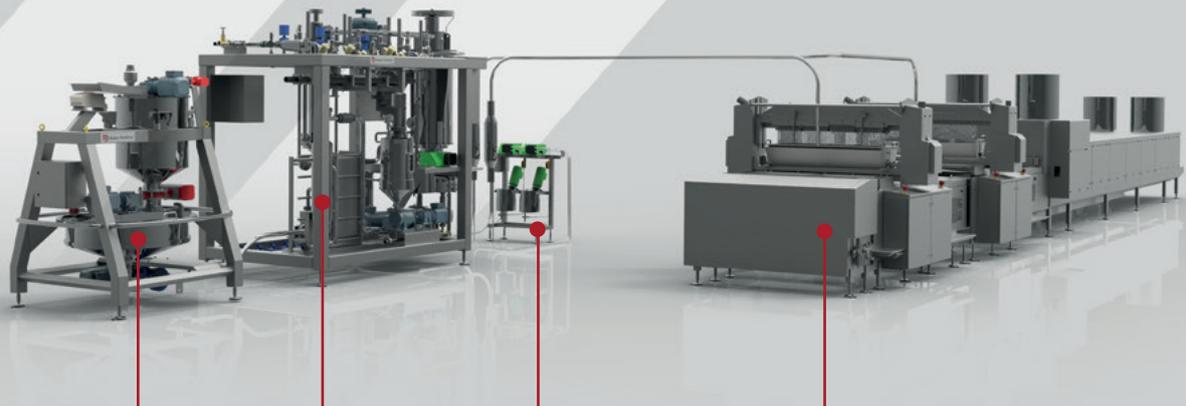
Functional & Medicated
Hard Candy 



Functional & Medicated
Jellies & Gums 



ServoForm™ Jelly
Depositor 



AUTOFEED

MICROFILM™
COOKER

COLOUR/FLAVOUR
ADDITIONS

SERVOFORM™ DEPOSITOR
HARD CANDY OR JELLY

Small Batch Depositing

Baker Perkins' ServoForm™ Mini depositor sits at the heart of a 50+ kg/hr manually operated production line capable of producing deposited candies, jellies, toffees and lollipops – including high-value medicated or functional products – at piece weights ranging from 2g to 16g.

The ServoForm™ Mini is a servo-driven, short run confectionery depositing system designed for entry-level operations or experimental and development work in larger organisations. Based on Baker Perkins' proven ServoForm™ depositing technology, the ServoForm™ Mini deposits a high-quality, smooth product with a consistent size and shape, and high piece-weight accuracy.

Moulds are manually loaded onto a continuous indexing mould conveyor; the moulds then pass through the depositor and are manually unloaded for cooling and demoulding. The ServoForm™ Mini features an electrically heated hopper suitable for single-colour products; a second hopper can be incorporated for two-colour

or centre-filled products. PLC controls incorporating full process visualisation, recipe management and alarm handling provide complete control of the depositing process.

The hygienic nature of the ServoForm™ Mini makes it ideal for production to validation standards for healthcare products. As well as being capable of validation, Baker Perkins' starchless depositing technology brings high standards of quality, convenience and hygiene to healthcare confectionery production, eliminating the time and cost penalty of the traditional starch process. Low scrap rates, quick product changeovers and continuous processing mean a rapid payback is assured.



Hard Candy //



Lollipops //



Jellies //



Equipment

A complete Baker Perkins confectionery process line comprises a cooking system for weighing, mixing and cooking, followed by a ServoForm™ depositor. Systems are designed to offer exceptional levels of performance, whether supplied as stand-alone units or combined into a full production line.

Cooking Systems

The range blends proven cooking technologies within a modular design to create a series of high-efficiency cooking systems for many types of sugar, low-sugar or sugar-free confectionery.

Dedicated and multi-purpose systems can be created in this way, offering outstanding cooking performance and low production costs.

Autofeed

- Weighs and mixes up to 8 dry and liquid ingredients
- Full batch reporting for tight cost control
- Optional polyol dissolving unit for sugar-free syrups



Microfilm™ Cooker

- Cooks most types of sugar and sugar-free hard candy, milk or cream candies, caramels, toffees, fudges, jellies, gums and fruit snacks
- Applies vacuum directly onto a swept thin-film for rapid cooking of high-boiled candies with negligible process inversion
- Atmospheric version used for low-boilings
- Vacuum module available for cooking of sugar-free syrups



Turbofilm™ Cooker

- Compact and efficient jelly cooker
- Combines continuous dissolving and cooking of syrups into a single module
- Plate pack cooker that may also be used for hard candy



Carablend™ Cooker

- Continuously cooks and caramelises toffee and caramel
- Independent control of cooking and caramelisation
- Suitable for addition of further ingredients such as fondant, butter or colours
- Additional output capability with Microfilm™ cooking module



Fondant & Fondant Crème Plant

- Specialised system for the preparation of fondant and fondant crème
- Cooling and beating process for the production of base fondant
- Cooling, beating and mixing process for the production of fondant crème



ServoForm™ Depositor Range

ServoForm™ depositing platforms are modular systems comprising a depositor head, starchless mould set, cooling tunnel and automatic lollipop stick placer. Products can contain up to four simultaneously deposited components for maximum versatility; late addition of colours and flavours achieves this with minimum complexity.

As well as flexible lines for hard candy, lollipops and soft confectionery, combination lines for hard candy and either lollipops or soft confectionery are possible, enabling an even greater product range to be made on a single machine.

Multi-head systems can be supplied either to maximise output from a single line, or for the production of the latest generation of multi-layered/cup products. Operating costs are kept low by fully automatic operation, including an automatic washout system and servo-controlled drives that reduce the number of components.

ServoForm™ Hard Candy

Continuous production with a starch-free process to deliver one-shot depositing of up to four colours/components. Creates crystal-clear candies with no air bubbles and no flashing.



ServoForm™ Lollipop

One-shot depositing for ball and double ball or flat lollipops; consistent size, shape and weight accuracy; automatic stick insertion ensures repeatable quality and wrapping efficiency.



ServoForm™ Jelly

Starch-free production of jellies. The hygienic starchless process is ideal for functional and medicated products, especially where validation is required.



ServoForm™ Soft Confectionery

Depositing of cooked syrups into silicone or metal moulds for added-value, superior-quality soft confectionery products. Air ejection technology creates confectionery pieces that are perfectly shaped, with a smooth surface finish, and regimented discharge for downstream chocolate enrobing.



ServoForm™ Mini

Baker Perkins' ServoForm™ Mini depositor sits at the heart of a small batch production line capable of producing deposited candies, jellies, toffees and lollipops, including high-value functional and medicated products.



Innovation Centre //

Baker Perkins offers all its customers facilities to develop new products and processes, produce samples for test marketing, and conduct feasibility trials. Products that can be tested using our unique starchless process include hard candy in solid, striped, layered and filled varieties; soft confectionery such as toffee, caramel and fondant; and gums and jellies.

The Innovation Centre at Peterborough contains a wide range of production and laboratory-scale equipment dedicated to the confectionery industry. Customers are guaranteed total confidentiality, working with or without the help of Baker Perkins' experienced food technologists.

available, and specialised units can be brought in - from other suppliers if necessary - to complete a process. Alternatively, customers are welcome to bring along their own technologies to integrate with our existing equipment.

The variety of process technologies available under one roof enables us to cross conventional process boundaries, and to offer a variety of process solutions for a single product. This range of equipment is permanently

innovation centre



Develop new products and processes //



Produce samples for test marketing //



Conduct feasibility trials //



Electronic Lab Depositor //



Mechanical Lab Depositor //

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, fault-finding and plant optimisation. There are also upgrades available to key features to improve performance and reliability.



A Complete Mould Service //

Moulds are at the heart of all successful depositing lines. The correct choice of mould has a huge impact on the quality and character of the confectionery and the efficiency of the depositing system. A complete mould service is available to support the full range of Baker Perkins depositing plants in production throughout the world.

Mould Design

Baker Perkins' bespoke mould design service allows manufacturers to bring new confectionery products to market faster and more economically than ever before. The latest CAD software is used to create full colour 3D confectionery designs that can be sent electronically worldwide for customer appraisal. The latest 3D printing techniques are then used to create a model of the design to the exact size and shape proposed.

Mould Refurbishment

Baker Perkins provides a refurbishment service to extend the life of metal moulds for hard candy. Moulds can be re-coated and worn pin and spring ejector mechanisms replaced. To minimise disruption for customers, we offer a 'rolling' program to refurbish a complete mould set over an agreed extended period. FDA approved coatings are used to recoat the moulds and our experts are available to advise on the best selection for your application.

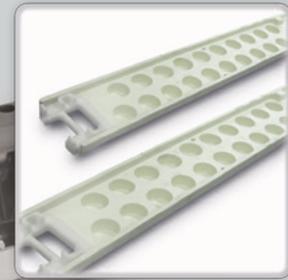
A replacement service for rubber moulds used in toffee and gummy production is also available.



Hard Candy Moulds //



Lollipop Moulds //



Toffee Moulds //

3D Jelly Moulds //





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