

ServoForm™ Depositing Systems

www.bakerperkins.com



Hard Candy



Lollipops



Jellies



Toffee, Caramel & Fudge



Functional & Medicated Confectionery

Baker Perkins' modular ServoForm™ depositing systems comprise a depositor head with a specified starchless mould set and cooling tunnel, alongside stick placement options for lollipop production. A full range of equipment, from cooking and depositing to product finishing, allows Baker Perkins to offer everything needed to set up a starchless moulding line to provide continuous, fully automatic confectionery production process.



ServoForm™ Hard Candy Depositor

High Quality Confectionery

Continuous, accurate depositing at final moisture creates confectionery pieces that are perfectly shaped, with a beautifully smooth surface finish, no air bubbles and no flashing. Pieces taste better through enhanced flavour release and a smoother texture.

Versatile One-Shot Depositing Process

ServoForm™ depositors can produce an almost unlimited variety of solid, striped and layered confectionery with multiple flavours and components. Fillings and inclusions can be incorporated easily and multiple depositing heads can be combined on the same line for additional versatility or output.

Efficient, Low Cost Production

High output production with rapid changeovers, low scrap rates and minimal labour requirements. Consistent size, shape and weight contribute to improved wrapping efficiency, and enhanced hygiene features reduce cleaning and maintenance costs.

For more information on ServoForm™ confectionery depositors please click on the link: www.bakerperkins.com/SFD

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 & Cooking System



ServoForm™ Depositor



Wrapping System

Baker Perkins

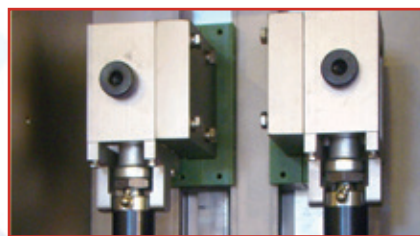
ServoForm™ Depositing Systems

ServoForm™ depositors combine the benefits of continuous production with a starch-free process to deliver the highest levels of quality, output and efficiency to the manufacture of unique, high-quality confectionery. One-shot depositing of up to four colours or components enables a vast array of visually appealing candies with exciting taste and texture combinations to be created.



Temperature controlled twin hoppers

Evenly heated and fully self-draining to improve product flow, minimise waste and reduce cleaning time. Low retention time minimises process inversion.

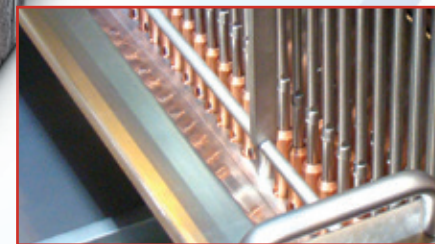


Servo control for easy adjustment, quick changeovers and minimum waste

Full servo control provides high running speeds and accurate, sustained control of precise product dimensions and weight with negligible scrap rates, as well as allowing simultaneous production of different shapes, flavours and colours at high outputs.

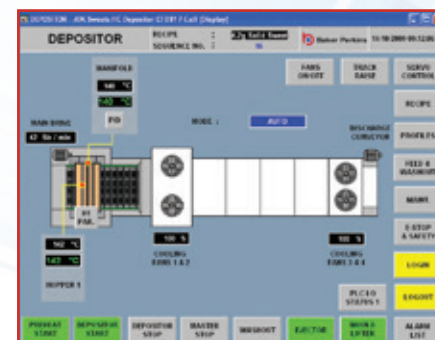


ServoForm™ Ball Lollipop Depositor with stick placement system



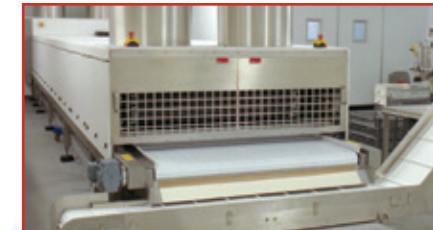
Interchangeable manifolds and high accuracy volumetric pumps

Minimise product tailing to allow multi-colour or multi-component products.



Control of the complete cooking and depositing process

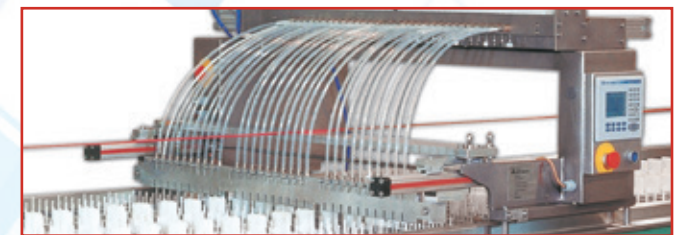
Full process visualisation, recipe management and alarm handling.



Efficient, hygienic cooling tunnel

Minimises floor space requirements and reduces operating costs by avoiding the need for refrigeration.

Refrigerated cooling tunnels for soft confectionery are sized to minimise cooling times based on product weights and throughput. Variable speed fans match the cooling profile to product.



Fully automatic stick placement for lollipops

For ball lollipops, the sticks are automatically inserted accurately and consistently into the moulds after depositing. Full control is retained by the insertion system, which holds the sticks perpendicular during the cooling process until the candy has set.

For 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 is deposited by the ServoForm™ depositing head.



Baker Perkins ServoForm™ Depositing Systems

Functional & medicated applications

Baker Perkins' ServoForm™ depositors enable the starch-free production of confectionery for the healthcare and supplement markets. The hygienic starch-free process is ideal for pharmaceutical products where validation is required. Vitamins, minerals, fibre and energy supplements can be incorporated to hard or soft products that can be sugar-free and less than 1% fat.

High quality, low cost alternative to traditional methods

The small footprint, low energy costs and elimination of starch significantly reduce production costs compared with traditional starch moulding processes, making ServoForm™ depositors ideal for both established manufacturers and new entrants to the market.

Production to validation standards

The ServoForm™ system is particularly suitable for products where validation of the process is required: the process is consistent and repeatable, there is no recycling of starch and the equipment is hygienic and easily cleaned.

Profitable new market opportunities

Create value-added end products that appeal to health conscious consumers. Existing product ranges can be diversified using real fruit ingredients: ideal for positioning in emerging healthy snack categories.



Opportunity to combine healthy products with character merchandising

Healthy products can be made more appealing to children by using the high-definition moulded surface to carry convincing character images and branding.



**ServoForm™ Soft Confectionery Depositor
with refrigerated cooling tunnel**

Outputs

Nominal plant width	250mm, 600mm, 950mm, 1300mm
Min piece weight	1g
Max speed	55 strokes/min (110 rows/min)
Max outputs	1,400 kg/hr (Hard Candy) 1,900kg/hr (Soft Confectionery) 840kg/hr (Lollipops)

Materials of Construction

- Hoppers and manifolds - 316 Stainless steel
- Depositing head covers - 304 Stainless steel
- Frames - Mild steel painted and nickel plated
- Cooler covers - Polyurethane
- Hard candy / Lollipop moulds - Aluminium with special PTFE coating
- Soft confectionery moulds - Silicone rubber or coated aluminium

Options

- Silicone or metal air-ejection moulds (Soft confectionery)
- Extra sets of interchangeable carrier moulds
- Spare hoppers for rapid changeover
- Hopper removal carriage
- Hopper agitators for viscous masses
- Refrigerated cooling
- Four-pass cooling tunnel
- Servo-controlled mould lift
- Powder addition feeder

Enhanced Cleaning & Hygiene Features

- Fully programmed washout cycle requires no operator intervention
- Drain components are easily removed without tools for periodic cleaning
- Quick-release mould retainers enable rapid clean down and changeover
- Good access for cleaning underneath
- Cross shafts eliminated
- Sloping covers
- No exposed screw threads
- Hygienic feet
- Hygienic locks
- FDA approved mould coatings

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Unique Mould Constructions



Moulds are at the heart of all successful depositing lines. The correct choices of mould construction, material and surface finish have a huge impact on the quality and character of the end product and the efficiency of the depositing system. Baker Perkins offers unique mould constructions for the highest end-product quality; all mould types are selected to suit the application following extensive recipe tests, and are designed to provide dimensional stability, minimised tailings, optimum cooling and ejection efficiency.



Metal pin ejection for hard candy

Aluminium moulds with a special PTFE coating that are rigidly fixed to the chain circuits. Once cooled, the product is demoulded via a spring loaded ejector pin onto a discharge conveyor for wrapping or secondary processing.



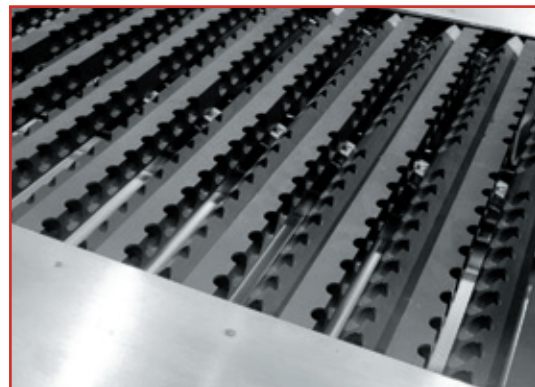
Air ejection technology for soft confectionery

Flexible silicone and metal moulds featuring air ejection technology create superior quality soft confectionery products such as jellies, toffees and fondants. Air ejection creates confectionery pieces that are perfectly shaped with a smooth surface finish – the system leaves no witness marks and does not distort the product. It also allows a regimented discharge for downstream chocolate enrobing.



Plastic book moulds for unique jellies

The 3D mould system uses a new carrier design with clip-in plastic moulds that allows rapid low-cost product changes. This widens the range of products that a single line can produce; this versatility may be enhanced by depositing multiple shapes, meaning a single ServoForm™ line can produce the same product range as a number of smaller low output lines – but at much lower cost. 3D shapes are not possible with a starch moulding system.



Metal book moulds for ball lollipops

Metal book moulds ensure optimum cooling and dimensional stability. Sticks are automatically inserted into the moulds after depositing; once cooled, the mould assemblies open fully for trouble-free ejection. A detection system prevents mould damage by ensuring 100% ejection has been achieved before the moulds re-close.



Unique moulds for flat lollipops

Flat and shaped moulds allow one side of the lollipop to be embossed for branding or character merchandising. Sticks are automatically placed then positioned in the moulds before the ServoForm™ deposits syrup at final moisture ahead of cooling.

A Complete Mould Service

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 hard toffee, hard cream and chew production is also available.