

## Turbofilm™ Mini Continuous Cooker

The Turbofilm™ Mini is a compact unit for the continuous cooking of syrups for soft confectionery (pectin, gelatin or blends) or hard candy. Combining continuous dissolving and cooking into a compact, portable module brings the benefits of high efficiency, low energy use and simplicity of operation.



### 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.



#### Suitable for production and lab applications

The Turbofilm™ Mini is a small continuous cooking system designed for start-ups and niche manufacturers, or experimental and development work in larger operations. It combines dissolving and cooking operations into one cost-effective system ideally suited to lower output situations.

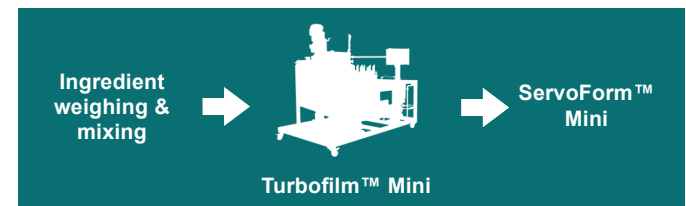
#### Efficient production of gummies, jellies and hard candy

Product consistency is more achievable compared to a manual batch process, while continuous cooking of the product results in low waste.

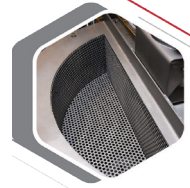
#### Easy to operate, clean and maintain

The Turbofilm™ Mini is designed for easy installation and maximum efficiency. The compact, skid mounted unit has a small footprint, is easy to install, and all parts are readily accessible for cleaning and maintenance. Full control of operations and recipes is provided via the intuitive HMI on the unit.

#### Typical Installation Includes:



# Turbofilm™ Mini Continuous Cooker



## Hygienic

The plate heat exchanger is compact and hygienic with stainless steel plates and food quality contact parts. There is easy access to all components for cleaning and maintenance.



## Energy efficient plate heat exchanger

Sugar slurry is pumped from a stirred reservoir tank through the first zone of a plate heat exchanger. The dissolved syrup then passes through a second plate heat exchanger zone where it is cooked. Vapor from the cooked syrup is flashed off under vacuum and the final product pumped to a forming system, such as the ServoForm™ Mini.



## Functional & Medicated Applications

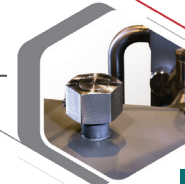
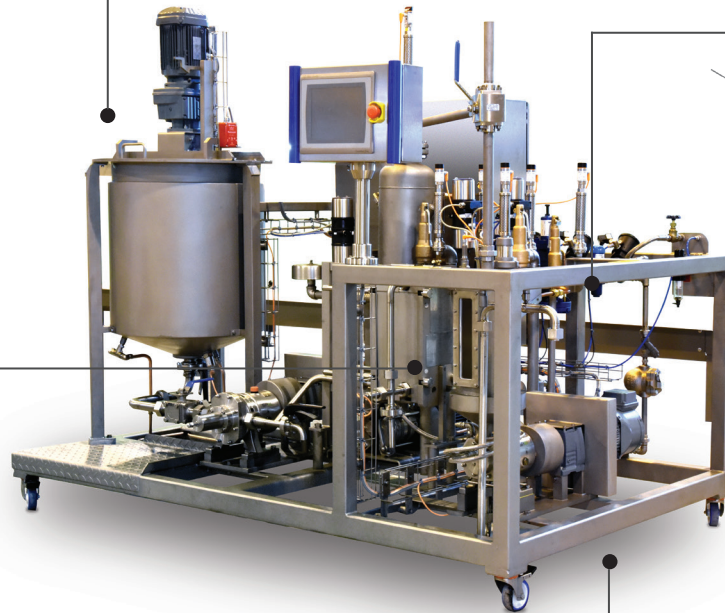
All Baker Perkins' ServoForm™ Mini cooking and depositing systems enable the starch-free production of confectionery for the healthcare and supplement markets, allowing manufacturers to create value-added end products that appeal to health conscious consumers.

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. Products that can be handled include sugar & sugar-free pectin, gelatin and blends plus hard candy syrups.

The Turbofilm™ Mini is not recommended for products containing milk, or any ingredient containing milk protein.

## High quality, low cost alternative to traditional methods

The small footprint and low energy costs significantly reduce production costs. The portable, skid-mounted module minimises floor space requirements and installation time. Low scrap rate, quick product changeovers and continuous, consistent cooking minimise waste, meaning a rapid payback is assured.



## Flexible

Additional small additive systems to meter quantities of minor ingredients into the syrup may be added if required. There is also provision for colour/acid addition to be metered into the vacuum chamber.

## Features

The system comprises a reservoir tank, transfer pump, plate heat exchanger and vacuum evaporation chamber, mounted on a common stainless steel support frame.

### 150L Reservoir Tank

Fed on demand with sugar slurry from an external mixing system

- Stainless steel construction
- Working capacity of 150 liters
- Insulated sides
- Inverter driven stainless steel stirrer
- Self-draining base
- Hinged lid fitted with a safety switch
- International Dairy Federation (IDF) outlet connection
- Configurable call & low level control

### Slurry Transfer Pump

Designed to pump confectionery slurries for long periods with the minimum of maintenance

- Stainless steel rotors
- Stainless steel pump chamber
- Pressure relief valve
- Packed gland shaft sealing with hardened shafts
- Variable speed drive with manually adjusted inverter
- International Dairy Federation (IDF) connections
- Pumping chamber front plate is quickly removable for maintenance and access

### Plate Heat Exchanger

Used to dissolve, cook and evaporate moisture

- Stainless steel plates
- Product temperature indicated on HMI
- Cook temperature regulated via a three term control loop

### Evaporation Chamber

Vacuum is applied to reduce the temperature of the cooked syrup

- Vacuum system contains a direct condenser
- Discharge pump and pipework are steam heated
- A modulating valve controls the vacuum level