coperion | baker perkins

Baker Perkins
Flaking mills

Baker Perkins flaking mills deliver consistent high quality flakes at outputs of up to 1,750kg/hr. Accurately controlled process conditions deliver optimum flaking performance, while high efficiency, hygienic design and minimal maintenance contribute to low production costs.

High quality flakes

High quality flakes are produced by the constant roll surface temperature, maintained by a high capacity water cooling system. Desired flake thickness is maintained by precise gap control and regulated product infeed across the full width of the roll.

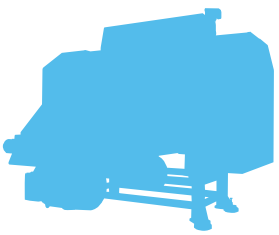
Reduced ownership, servicing and cleaning costs

Rolls can be removed and replaced in under 2½ hours for regrinding. Typical interval between regrinds is 10,000 hours and can be done up to 20 times, providing a maximum operating life of up to 200,000 hours. Low-noise drive belts, acoustic covers, and anti-vibration mounts reduce factory noise levels. Open design provides good visibility and easy access for cleaning.

Superior productivity

Unique oscillating scraper blades maintain uniform contact across the full width of the roll to reduce uneven roll wear and ensure even heat distribution.

Typical installation includes:

Cooking, Pellet Mill + Conditioner ›  › Toasting + Syrup Coating

Flaking Mill

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.

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Precise gap control

A precise gap is maintained under all load conditions by a dynamic closed loop control system with side to side gap measurement and adjustment. System utilizes an external hydraulic pump and can exert a clamping force of up to 73 tons.

Drive arrangement

Rolls are independently driven using low-noise timing belts. AC motors and timing belts require no routine maintenance. Outboard drives improve access and make maintenance easier.

Long life rolls

Roll surface comprises a weld layer of tool steel for superior abrasion resistance and long life. Can be easily replaced or repaired in the event of damage by stones. Roll removal and replacement in 2½ hours minimizes downtime when rolls need regrinding.

Accurate roll surface temperature control

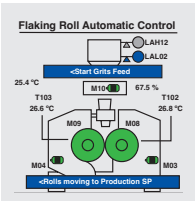
Even cooling over roll surface using high flow rate water cooling system. For maximum cooling effect water chambers are close to the surface. Closed loop control system maintains water temperature within 0.2°C.

Easy access for cleaning and maintenance

Open design provides easy access for cleaning while greasing points and belt drives minimize maintenance.

Easy to use controls with touchscreen HMI providing clear process visualization

Full PLC control for intuitive operation. Recipe driven setup facility. Comprehensive alarm functions, maintenance prompts and history.



Unique oscillating scraper

Oscillating movement improves scraping action and uniform scraping over the roll. The reversible blades are positioned by a variable pneumatic pressure system to maximize service life. Blades can be reground several times and are mounted in a cartridge that can be rotated or removed for safe blade replacement.

Range & specifications

Size	975mm (W)	1,275mm (W)
Nominal output	1,000kg/hr	1,750kg/hr
Roll drive (Each)	45 kW	55 kW
Roll clamping force	Up to 73 tons	Up to 73 tons
Roll speed	160 rpm	160 rpm
Gap control resolution	10 microns	10 microns
Min cooling water flow rate (Per roll)	10,000 L/hr	10,000 L/hr

Options

- Optional product feed sensors to prevent touching rolls
- Differential roll speeds

Infeed options

- Grooved roll - typically for corn grit
- Vibratory infeed - typically for extruded pellets
- Distribution box - typically for whole grain wheat

Discharge options

- Reversible discharge conveyor
- Vibratory discharge conveyor
- Vacuum take-off systems with sampling tray

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