



HEBENSTREIT

*shaping
the crisp*

THE COMPANY



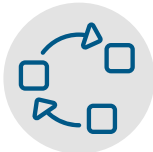
For more than 125 years, Hebenstreit has been shaping industrial wafer and snack production.

In wafer production, we set industry benchmarks with high performance baking systems and complete processing lines for flat and hollow wafers.

In extrusion, our modular platforms enable scalable snack and cereal production with maximum process stability and flexibility.

What unites both technologies is our system architecture: fully integrated lines engineered for reliability, efficiency and long-term investment security.

Based in Mörfelden Walldorf near Frankfurt, Hebenstreit represents German engineering at industrial scale and technological leadership in demanding global markets.

-  **125+ years of engineering excellence**
-  **Complete turnkey lines for wafer and snack production**
-  **Global installation base with worldwide service support**

CUSTOMIZED

Manufactured especially for you.

We listen closely, understand your goals and transform your specific requirements into the solution that truly fits your product and your process.

INNOVATIVE

Driven by technology.

We develop efficient and sustainable solutions built to last, inspired by real application experience created together with you and by our continuous research.

EXCELLENT

Committed to excellence every day.

Clear structures, efficient processes and transparent communication define how we work. Guided by continuous improvement and a strong team spirit.

CONTENTS

	HISTORY	4
	WAFER PRODUCTION	6
	ENGINEERED WAFERS	8
	WAFER BAKING MACHINES	10
	SPREADING MACHINES	16
	SANDWICH COOLER	20
	CUTTING MACHINES	22
	DISCHARGE & DISTRIBUTION	24
	BATTER & CREAM PREPARATION	26
	WAFER DESIGN	28
	CUSTOMIZED WAFER LAYOUTS	30
	EXTRUSION PRODUCTION	32
	ENGINEERED SNACKS	34
	SNACK EXTRUSION EQUIPMENT	36
	CUSTOMIZED EXTRUSION LAYOUTS	42

HISTORY

Originally founded
in Radebeul/Dresden
under the name of
Goering and Hebenstreit

1898



Dr. Hebenstreit moved to
Frankfurt am Main and
founded the Hebenstreit GmbH

1950



Company relocation
to the present headquarters
in Mörfelden-Walldorf

1978



Integration of RAPIDO into
the Hebenstreit family

1998



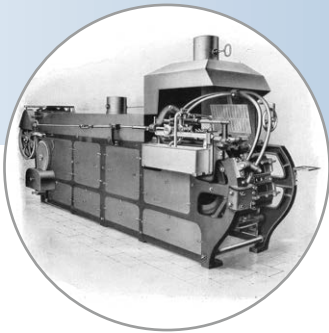
Market introduction
of the Extruder SE
next generation

2014



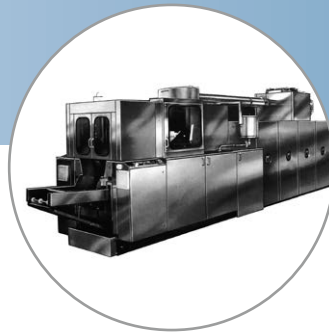
Applied for 6 new
innovative patents

2025



1922

First mechanically driven
wafer baking machine with
continuous chain



1960

Introduction of BAC
automatic wafer baking
machine for industrial
production



1987

Introduction of jumbo
baking plates with
formats up to 730 mm



2012

Integration of TECON,
expanding capabilities
in batter processing



2023

Re-launch of the electric
baking machine, built on the
proven BAC platform



2026

Launch of BAK, BAX
and SEC

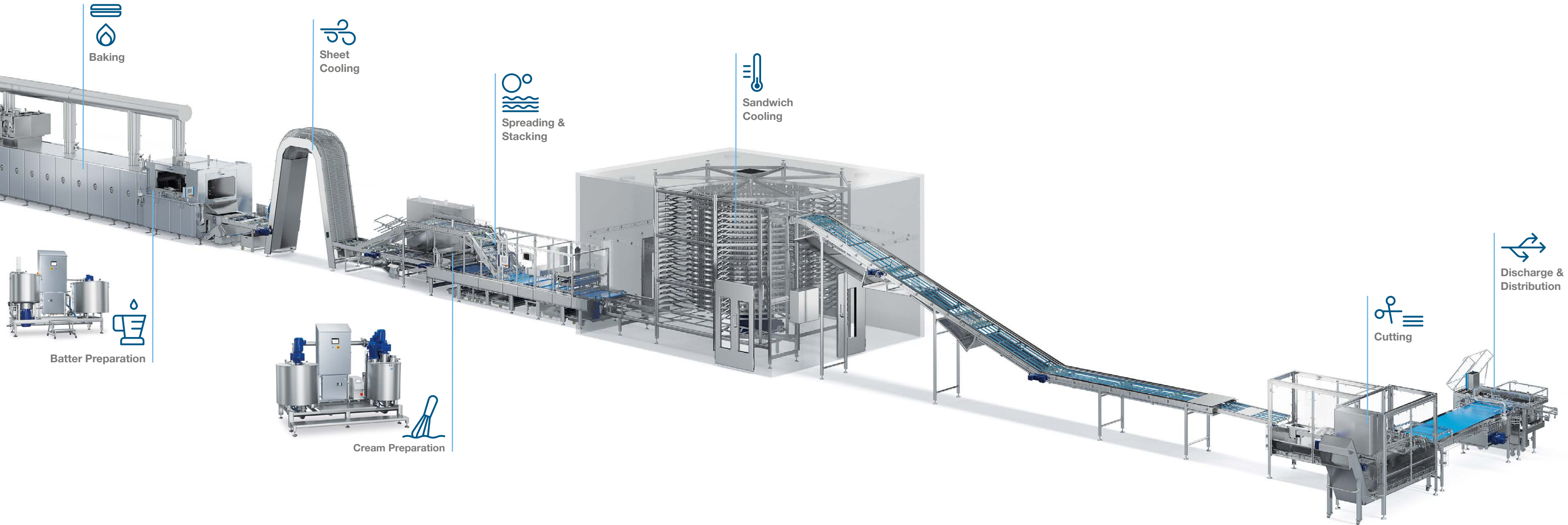


WAFER PRODUCTION

A great wafer product is the result of a perfectly coordinated production process. At Hebenstreit, we design complete production lines where every module, every interface and every parameter works together seamlessly.

Our deep process expertise, combined with decades of engineering experience, enables us to transform product ideas into reliable industrial production. Each line is individually tailored to the customer's product, capacity and future requirements.

The result is a highly efficient, flexible production environment delivering consistent quality, stable processes and long term investment security.





ENGINEERED WAFERS

We turn evolving product ideas into reliable production concepts. Our focus is always on consistent product quality and cost efficient manufacturing giving our customers a clear competitive advantage.

In close collaboration with leading wafer manufacturers worldwide we continuously develop new solutions that bring ideas safely and quickly to market.



Hollow wafers

offer maximum creative freedom. A wide range of shapes and fillings combined with options to integrate whole hazelnuts, almonds or other inclusions enables unique products with strong differentiation.



Flat wafers

combine flexibility in design with efficient processing. Different reeding structures, shapes and engravings enable unique product design. Combined with a wide range of fillings, enrobing and moulding options they ensure consistent quality in high volume production.



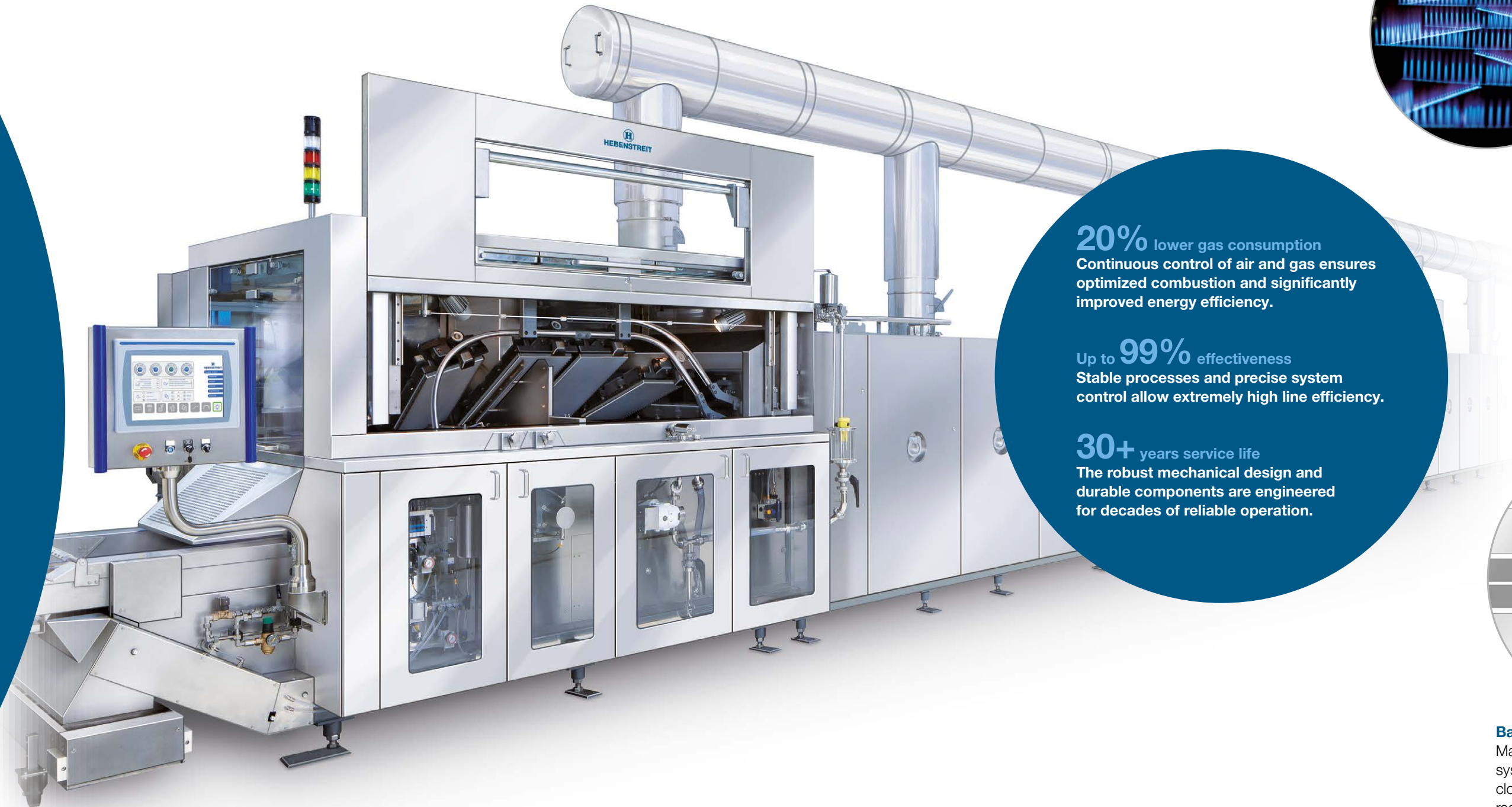


AUTOMATIC WAFER BAKING MACHINE BAK

The BAK wafer baking machine represents the next generation of high performance wafer baking technology. Based on proven baking machine platforms, the BAK combines decades of engineering experience with new process control and energy efficiency concepts.

Designed for the fully automatic production of flat and hollow wafer sheets, the BAK ensures stable processes, consistent product quality and long term investment security for industrial wafer production.

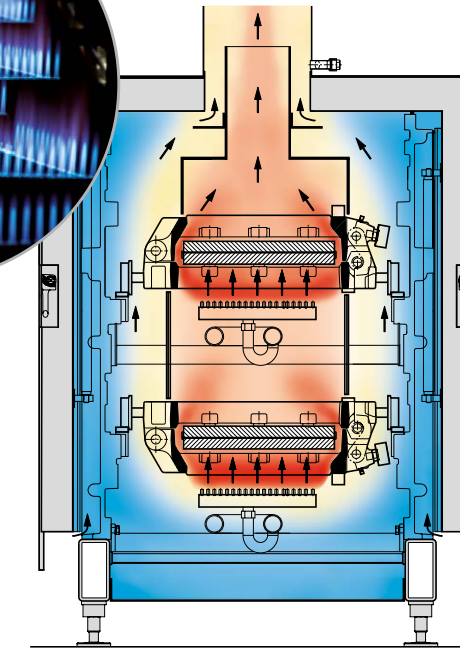
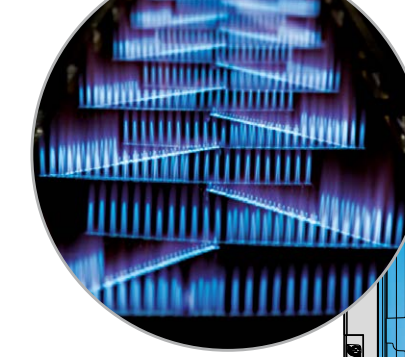
The BAK is the easiest investment decision, because the platform is designed for future flexibility. Machines initially equipped with gas heating can be converted to electric heating at a later stage, allowing producers to adapt to changing energy strategies or regulatory requirements without replacing the entire baking system.



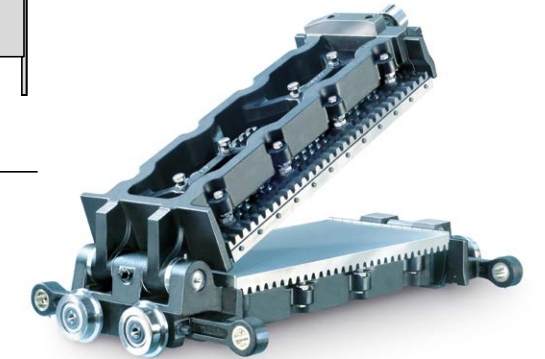
20% lower gas consumption
Continuous control of air and gas ensures optimized combustion and significantly improved energy efficiency.

Up to **99%** effectiveness
Stable processes and precise system control allow extremely high line efficiency.

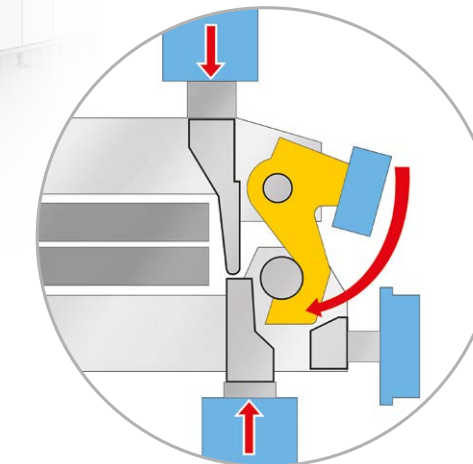
30+ years service life
The robust mechanical design and durable components are engineered for decades of reliable operation.



Separated Heating Chamber Design
Centrally arranged burners concentrate heat directly on the baking plates, ensuring high energy efficiency. At the same time, the separation of the heating chamber keeps mechanical components such as bearings and hinges in a cooler zone, reducing thermal stress and allowing longer maintenance intervals.



Robust Baking Tong System
The extremely robust baking tong chain and solid tong frame absorb the steam pressure generated during baking and ensure exceptional stability. This results in one of the most uniform wafer sheets on the market, with consistent thickness across the entire surface and precise plate adjustment with a tolerance of only ± 0.1 mm.



Baking Tong Locking System
Maximum reliability through a no play locking system, ensuring consistently precise tong closing with minimal wear and significantly reduced spare part requirements.



ELECTRIC WAFER BAKING MACHINE BAKe

Hebenstreit has been manufacturing electric wafer baking machines since the 1950s, with more than 60 systems successfully operating worldwide. The BAKe is ready for production today and already trusted by leading international wafer manufacturers.

The BAKe is the electric version of the proven BAK wafer baking platform. Built on the same robust architecture, it delivers the reliability, baking quality and capacity the BAK is known for, with up to 65 sheets/min.



Electric Wafer Baking Machine BAKe

Thanks to the platform design, existing gas heated BAK systems can be converted to electric operation, offering a future ready upgrade path without replacing the entire machine.

A key innovation is the on board temperature control directly on each baking tong. Every plate pair can be controlled individually, allowing precise heat management across the entire baking system.

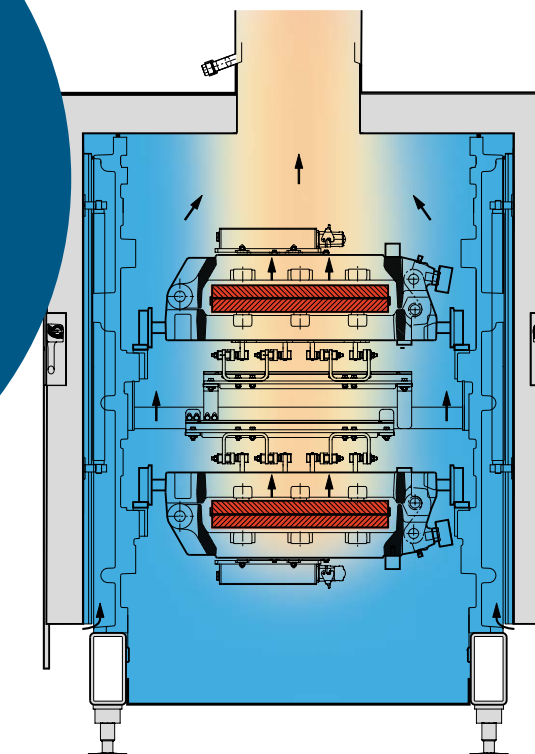
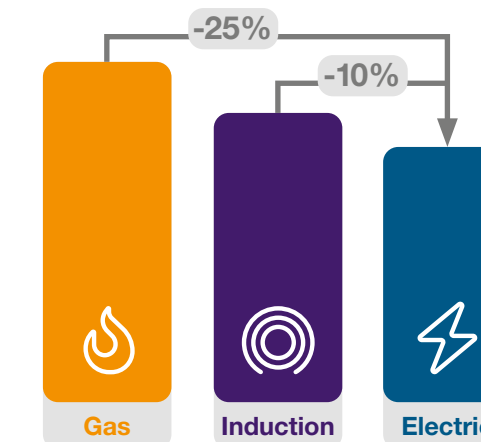
This makes it possible to run different wafer sheets within the same baking machine, opening new flexibility for product development and production optimization.

25% Energy Reduction
Electric heating compared to gas systems and 10% higher efficiency than induction heating.

20% Lower Maintenance Costs
Lower temperatures reduce wear on mechanical components.

100% Individual Plate Control
Every baking plate can be controlled independently.

Energy Reduction





AUTOMATIC WAFER BAKING MACHINE BAX

The BAX stands for precise wafer baking technology developed by Hebenstreit for small and medium capacities. It combines robust mechanical design with intelligent control systems and delivers consistent product quality in fully automatic operation while offering an attractive and affordable investment level.

Performance and Scalability

- Up to 38 wafer sheets per minute
- Baking plate sizes up to 500 x 350 mm
- Modular machine concept for later capacity extension



Intelligent Heating System

- Energy efficient sickle burners for natural gas or propane
- Individually adjustable burners for uniform heat distribution
- PLC controlled temperature regulation via frequency-controlled air blower

Precision Batter Depositing

- drip free dosing pump with frequency-controlled drive
- Perfect coordination of depositing, release and sheet take off
- Accessible operating area with observation windows

Robust Baking Tong Technology

- Extremely solid baking tong frame designed for millions of load cycles
- Wafer thickness tolerance of plus minus 0.1 mm across the entire surface

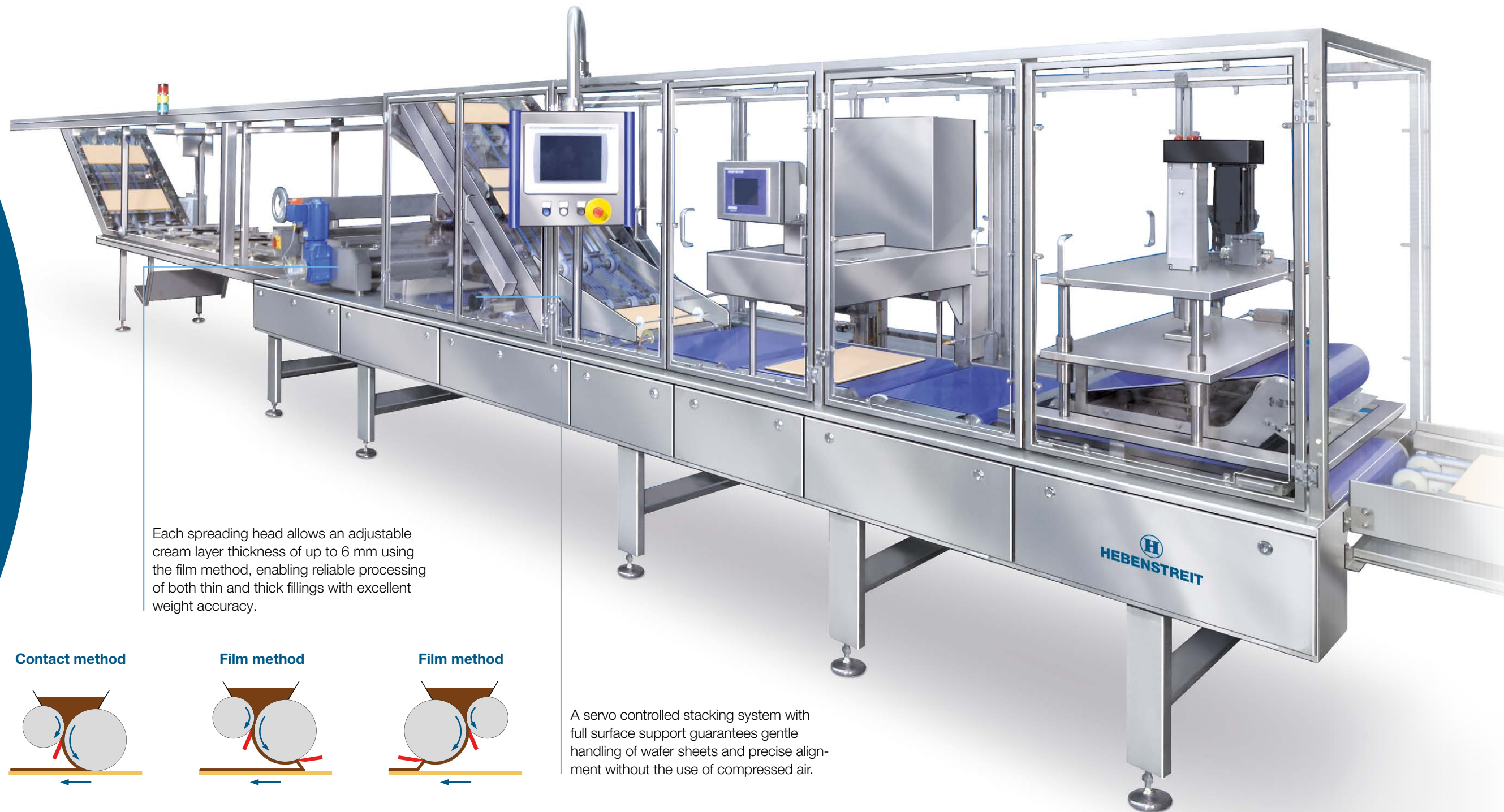




SPREADING MACHINES

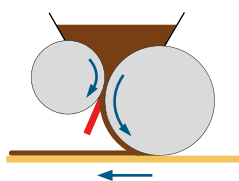
Consistent cream application is the foundation of high quality wafer products. Our spreading machines combine precise process control with flexible configuration to ensure uniform results across a wide range of recipes and product designs.

For special applications such as caramel or jam processing, the system can be equipped with a vacuum stacking solution, ensuring secure handling and stable processing even under challenging conditions.

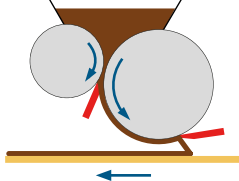


Each spreading head allows an adjustable cream layer thickness of up to 6 mm using the film method, enabling reliable processing of both thin and thick fillings with excellent weight accuracy.

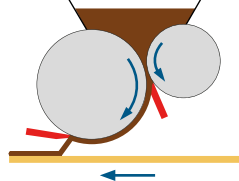
Contact method



Film method



Film method

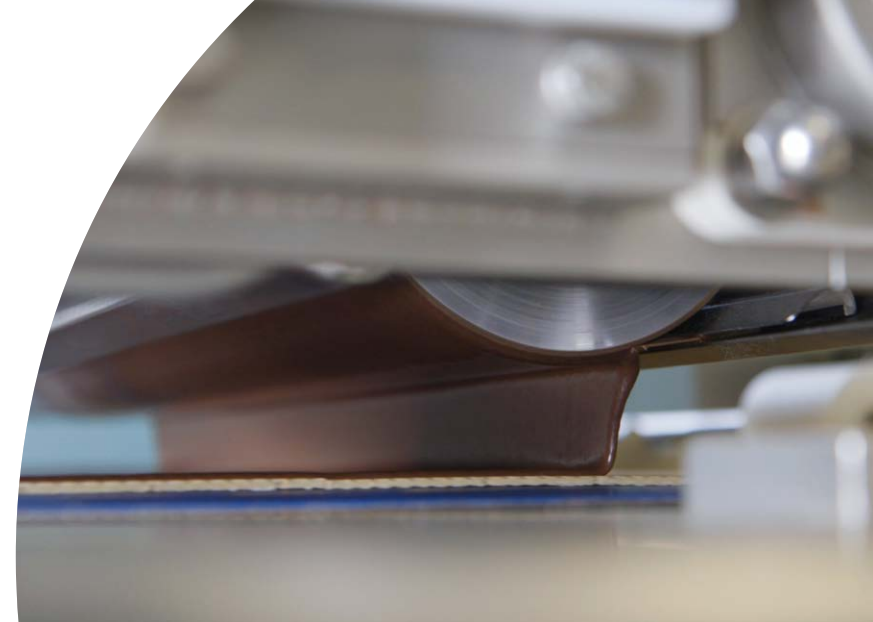


A servo controlled stacking system with full surface support guarantees gentle handling of wafer sheets and precise alignment without the use of compressed air.

adjustable **film width**
for maximum flexibility

film and contact
method in one machine

up to **6mm** cream thickness
per spreading head

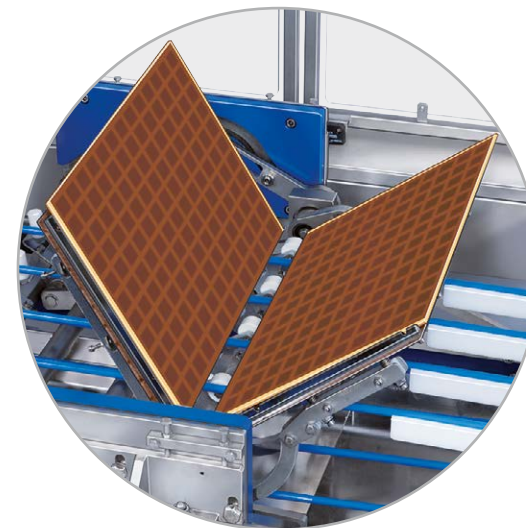
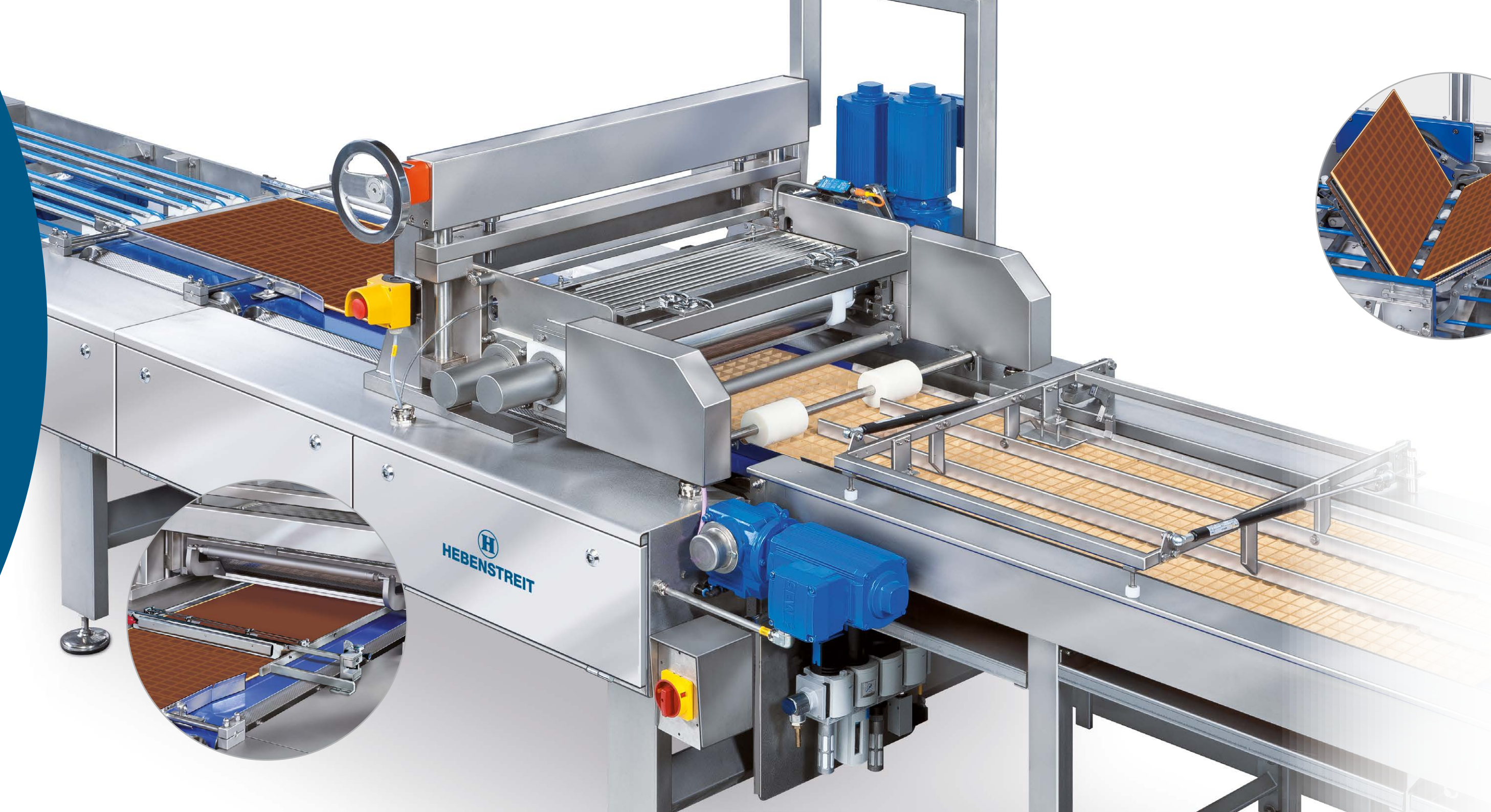




HOLLOW WAFER EQUIPMENT

Hollow Wafer Spreading Machine

The hollow wafer sheets are conveyed gap free beneath the spreader head, where the cream is applied using the film method. A specially developed spreading system ensures precise distribution of the cream into the cavities of the hollow wafer sheets for uniform filling and consistent product quality. Alternatively, a depositor can be used to apply the cream directly into the cavities, depending on the product requirements.



Hollow Wafer Doubling Device

Fully automatic joining of two cream filled hollow wafer sheets to form a wafer sandwich. Accurate alignment guarantees consistent product geometry and stable downstream processing.



Nut Depositing Device

Fully automatic insertion of whole nuts into hollow wafer sheets. The system ensures precise positioning and reliable integration into the production process.



SANDWICH COOLER

Controlled Cooling for Perfect Wafer Structure

After spreading and stacking, the wafer sandwiches are cooled under controlled conditions so that the cream filling sets and the sandwich structure stabilizes. Reliable cooling ensures consistent product quality and clean cutting in the downstream process.



Wafer Sandwich Cooling Tower
The cooling tower ensures efficient cooling of wafer sandwiches in a compact vertical design with minimal footprint and high throughput. Products are transported in carrier brackets through a controlled circulating air system, providing uniform cooling, reliable cream setting and consistent product quality.



Spiral Wafer Sandwich Cooler
The spiral cooler is ideal for wafer products that must not be turned during cooling, protecting sensitive products throughout the process. Its spiral layout enables long cooling times within a compact footprint, while the robust Posi Drive chain system ensures precise guidance, smooth transport and reliable operation even in high capacity production.

Wafer Sandwich Storage Unit

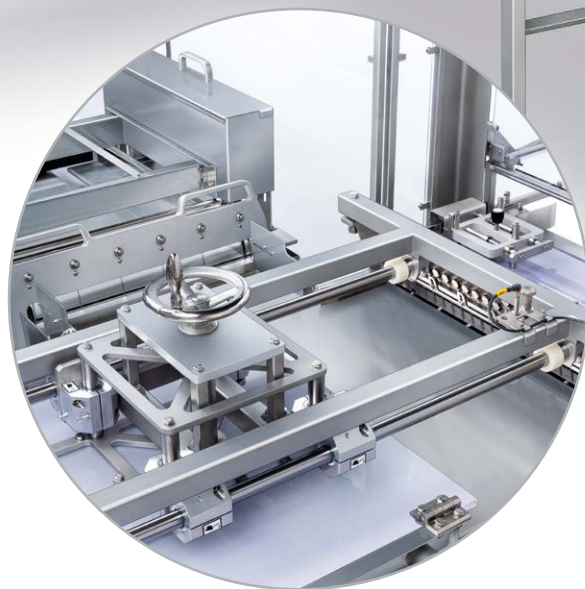
The wafer storage unit buffers wafer sandwiches during production interruptions, preventing product loss and improving line efficiency. Products are automatically stored in transportable magazines and fed back into the process when production resumes. Hebenstreit storage systems are tailored to customer requirements, with flexible capacity and optional cooling.



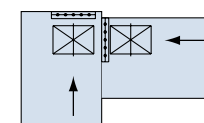


CUTTING MACHINES

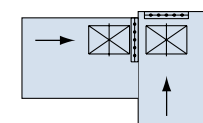
Hebenstreit cutting machines deliver precise and reliable cutting of cream filled wafer sandwiches for high capacity production. Clean cuts and consistent product geometry ensure efficient downstream processing and stable product quality.



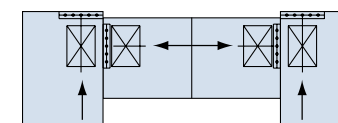
Flexible machine layouts from single to tandem and twin versions allow optimal adaptation to different production requirements.



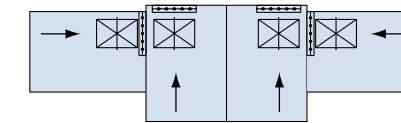
Version A



Version B



Tandem version



Twin version



Round Wafer Cutting Machine
For the production of cream-filled round wafer sandwiches.



Wafer Punching Press
For punching hollow wafers into virtually any form, such as ball-, nut-, egg-, star-shape, etc.



DISCHARGE & DISTRIBUTION

Wafer Discharge Device

The discharge system transfers cut wafer rows reliably to downstream packaging machines. Depending on the production layout, the wafers can be fed in single or double rows to the left, to the right or to both directions feeding multiple packaging machines simultaneously.



Feeding of
packaging machine "1"

Feeding of
packaging machine "2"

Feeding of
both packaging machines

Wafer Distribution and Row Alignment

The wafer distribution device ensures continuous distribution of cut wafer bars and reliable feeding to downstream chocolate enrobing or packaging lines. An integrated row alignment system precisely positions and aligns the wafer rows before transfer.



BATTER AND CREAM PREPARATION

Perfect Batter. Perfect Cream. Perfect Wafers.

Consistent product quality starts with precise preparation of batter and cream. Hebenstreit systems ensure homogeneous mixing, precise dosing and reliable supply to the wafer production line for stable processes and consistently high product quality.



Wafer Batter Production

The semi automatic batter production plant ensures homogeneous mixing and reliable feeding of one or more wafer baking machines, enabling stable baking conditions and consistent wafer quality. Recipe ingredients can be added manually or automatically depending on the plant configuration.



Cream Production

The cream production plant produces homogeneous cream fillings and supplies the spreading machines continuously during production, ensuring stable processing and uniform product quality. The system maintains consistent cream density, while flexible ingredient addition allows easy adaptation to different recipes.



Cream Mixer

The highly efficient mixing turbine and rotating cutter shaft produce a light and homogeneous cream mass, supporting optimal texture and product consistency.



Cream Holding Tank

The double walled cream holding tank stores and conditions the prepared cream mass before continuous feeding to one or more spreader heads, ensuring uninterrupted production.



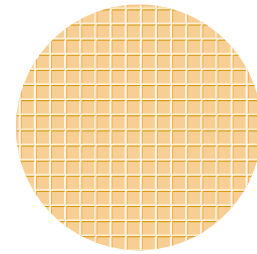
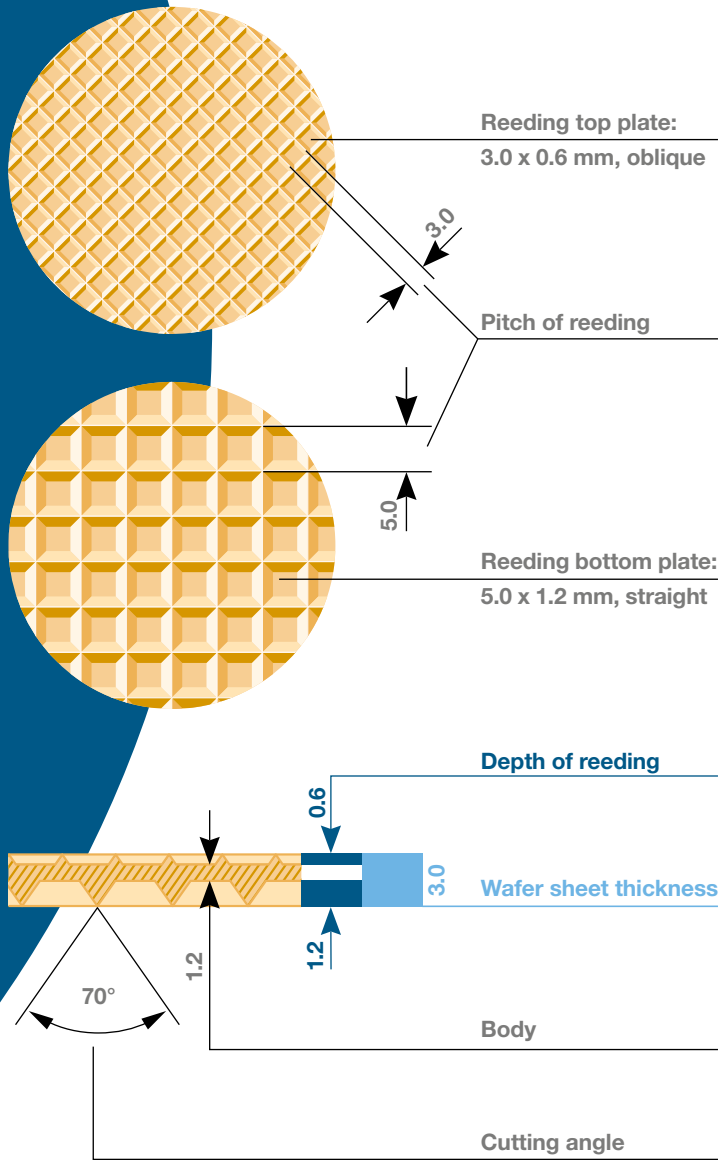
WAFER DESIGN

A perfect product starts with the right wafer design. Precisely aligned parameters such as thickness, reeding depth, angles and radii ensure a uniform structure and consistent moisture across the entire wafer sheet for both flat and hollow products.

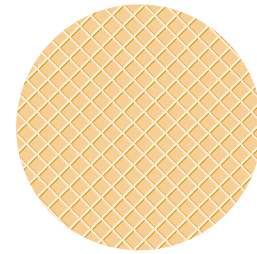
The result is stable baking conditions, reliable product quality and efficient production.

Just share your idea and we will take care of the rest.

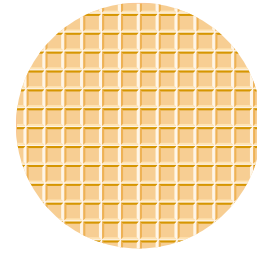
Example



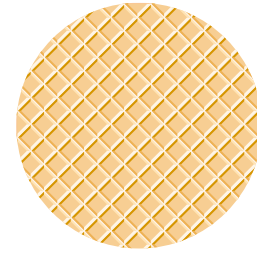
1 2.0 x 0.3 mm



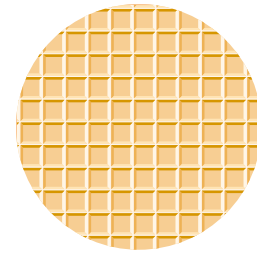
2 2.0 x 0.3 mm



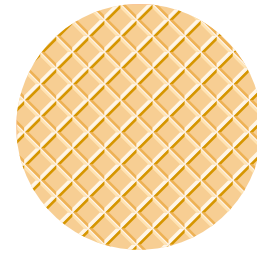
3 2.5 x 0.5 mm



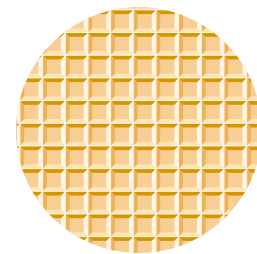
4 2.5 x 0.5 mm



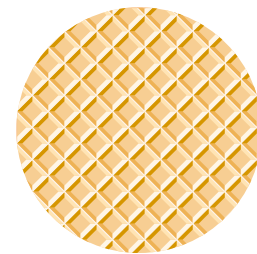
5 3.0 x 0.6 mm



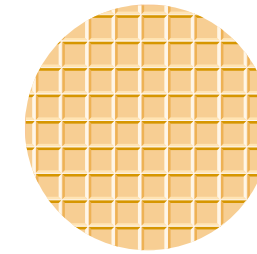
6 3.0 x 0.6 mm



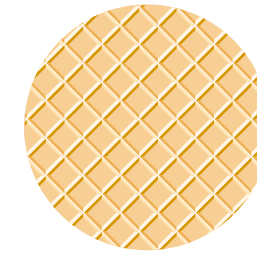
7 3.0 x 0.8 mm



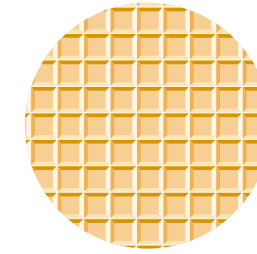
8 3.0 x 0.8 mm



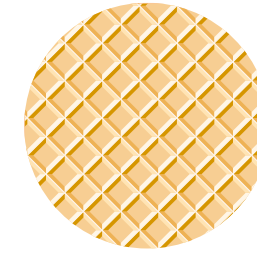
9 3.5 x 0.6 mm



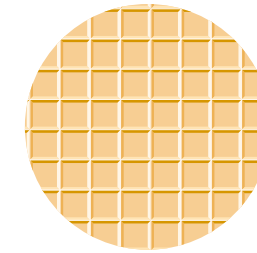
10 3.5 x 0.6 mm



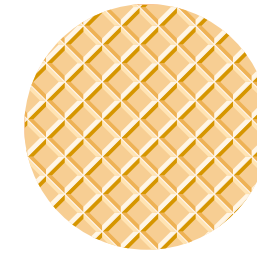
11 3.5 x 0.8 mm



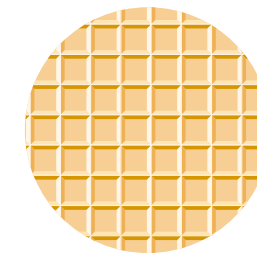
12 3.5 x 0.8 mm



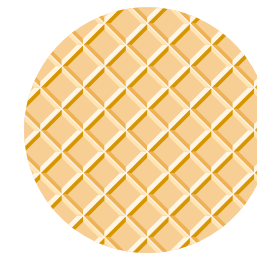
13 4.0 x 0.6 mm



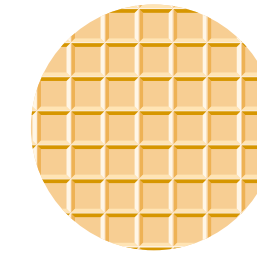
14 4.0 x 0.6 mm



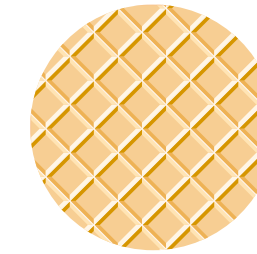
15 4.0 x 0.8 mm



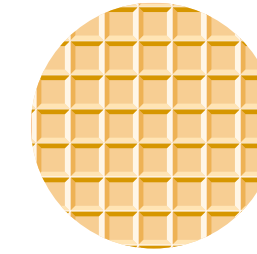
16 4.0 x 0.8 mm



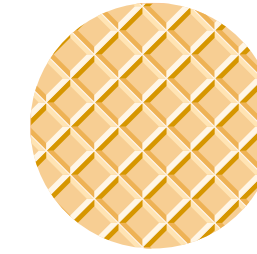
17 4.5 x 0.8 mm



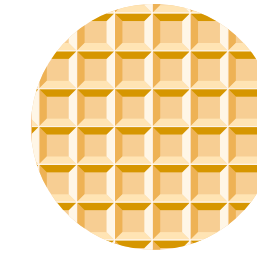
18 4.5 x 0.8 mm



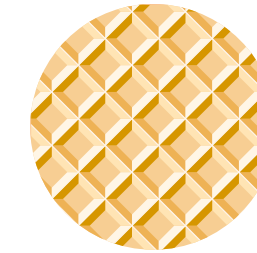
19 4.5 x 1.0 mm



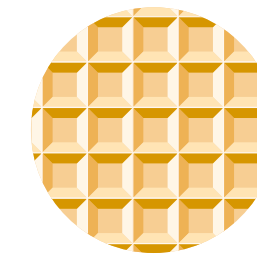
20 4.5 x 1.0 mm



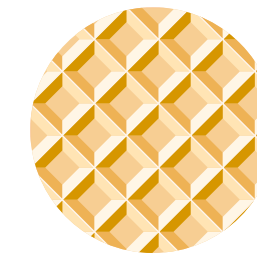
21 5.0 x 1.5 mm



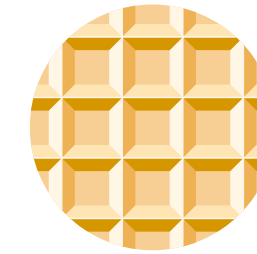
22 5.0 x 1.5 mm



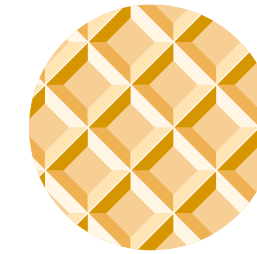
23 6.0 x 2.0 mm



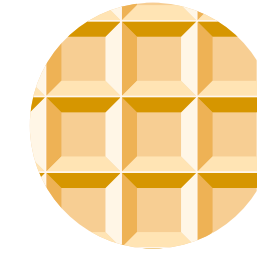
24 6.0 x 2.0 mm



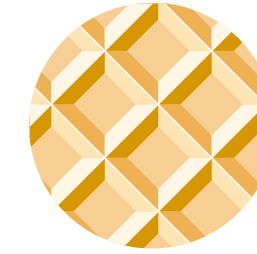
25 8.0 x 2.5 mm



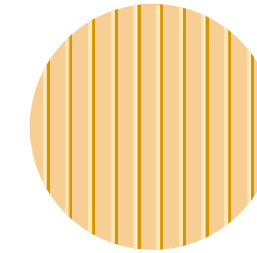
26 8.0 x 2.5 mm



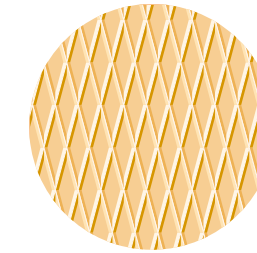
27 10.0 x 3.0 mm



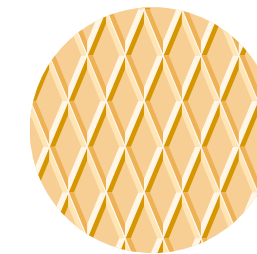
28 10.0 x 3.0 mm



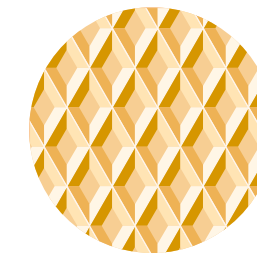
29 3.0 x 0.6 mm



30 3.0 x 0.6 mm 30°



31 5.0 x 1.0 mm 45°

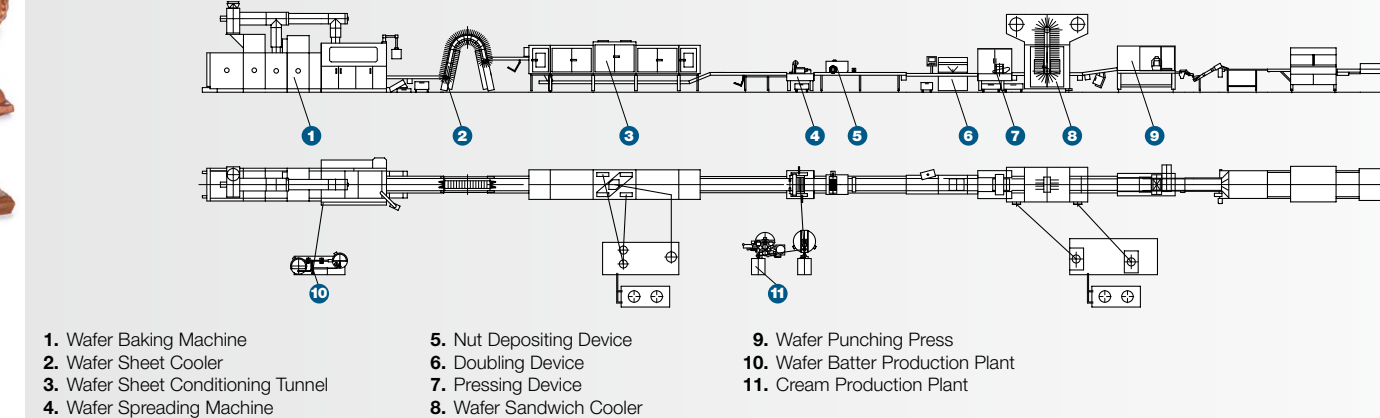
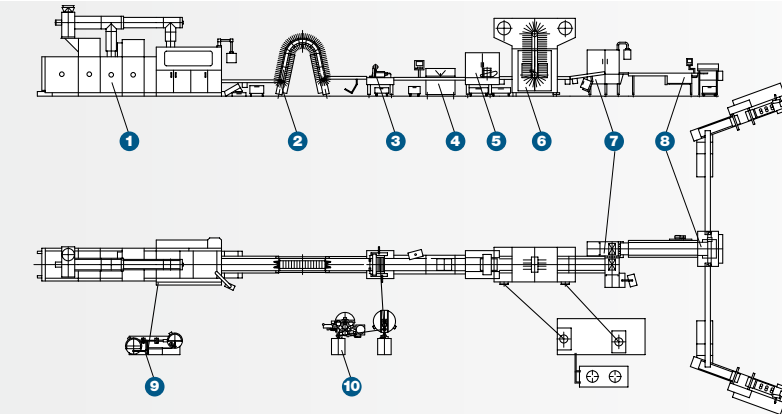
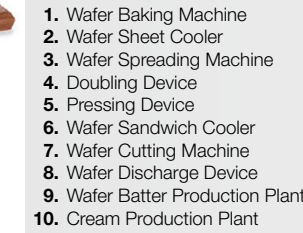
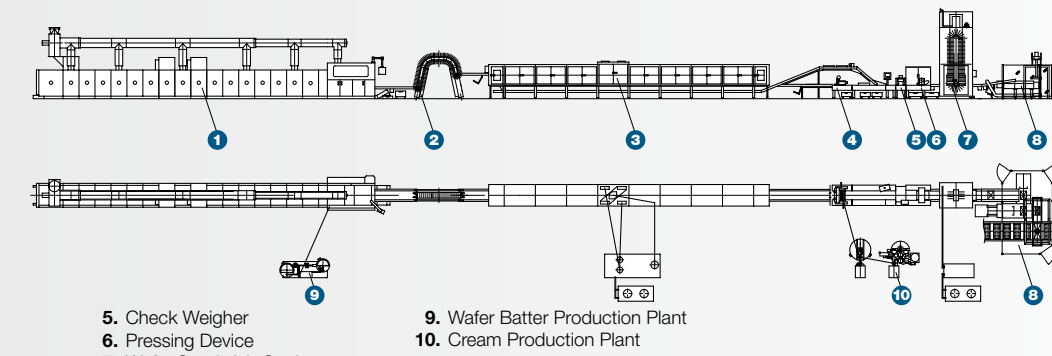
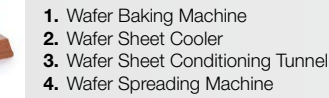
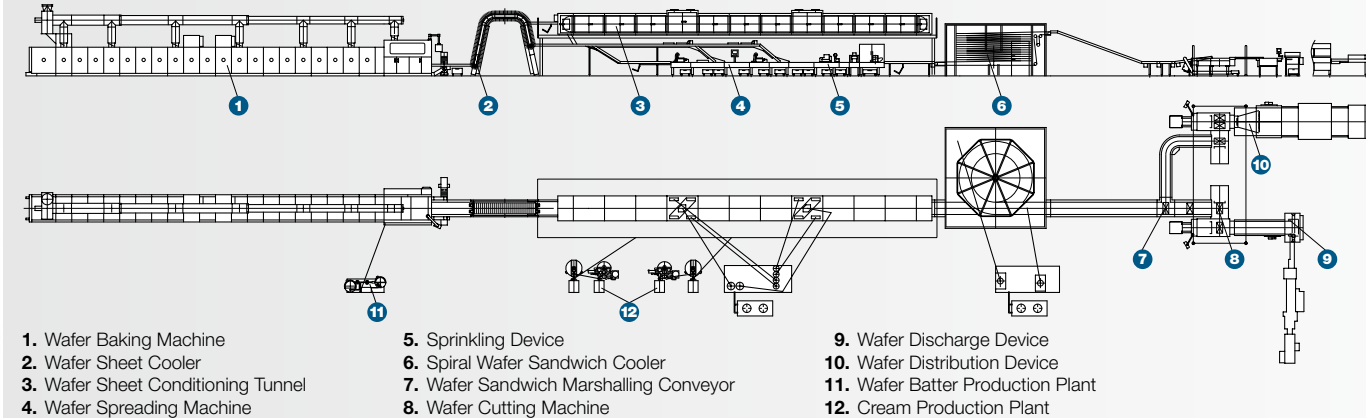
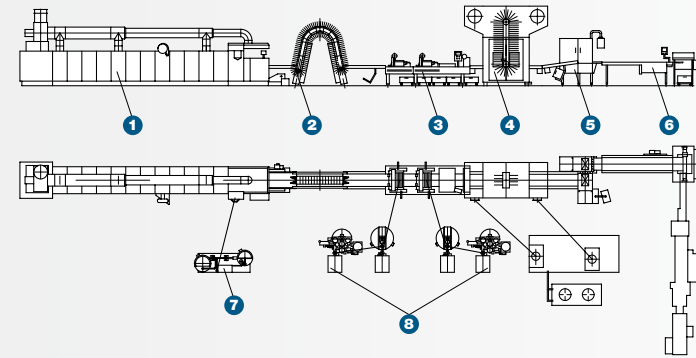
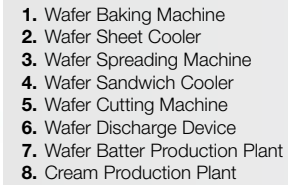
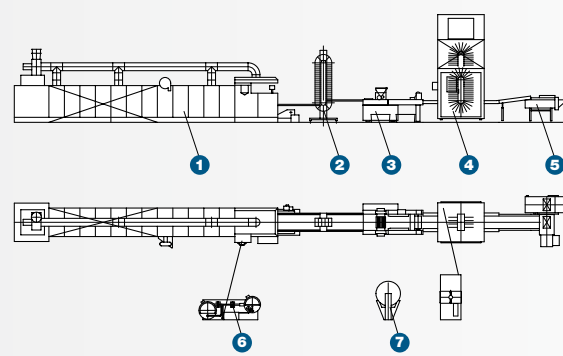
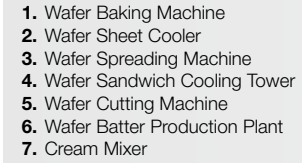


32 6.0 x 2.0 mm 60°

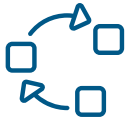


Each plant is engineered to match specific product requirements and capacity targets. Modular concepts ensure flexibility for future adaptations and changing market demands.

30



| 31



EXTRUSION PRODUCTION

A high quality snack product is the result of a precisely controlled extrusion process. At Hebenstreit, we design complete production lines where every module, every interface and every process parameter is perfectly aligned.

Decades of engineering experience enable us to process a wide range of raw materials into innovative snack products with consistent quality, while our machine design is driven by operator needs, focusing on ease of use, durability and continuous optimisation.

Each line is individually tailored to the desired product characteristics, capacity and future requirements. The result is a reliable, scalable production environment delivering high output, repeatable results and long term investment security.





ENGINEERED SNACKS

Hebenstreit extrusion technology enables the production of a wide variety of snack products. From classic savoury snacks to filled products and modern nutrition concepts.



Filled Snacks

Innovative filled snack concepts such as filled chips, filled flat-bread snacks or filled cereals open new possibilities for product development and flavour combinations.



Savoury Snacks

Savoury snacks can be produced in many shapes, textures and flavours.



Pet and Animal Food

Extrusion technology is also suitable for the production of various pet and animal food products.

Wholegrain and Nutrition Products

Whole grains, pulses and alternative ingredients can be processed into "better-for-you" snack products including high protein or nutrition focused concepts.



Cereals and Sweet Snacks

Extruded cereals and sweet snacks are popular breakfast and on the go products, available in a wide range of shapes and flavours.



Specialty Products

A wide range of raw materials and by-products can be processed into innovative snack and semi finished products.





SINGLE SCREW COOKING EXTRUDER SEC

The single screw cooking extruders of the SEC series enable efficient and flexible production of a wide range of extruded snack products. They ensure reliable processing of numerous raw materials and consistent product quality.

Depending on the machine size, capacities range from 100 up to 350 kg per hour of raw extrudate.



Single Screw Cooking Extruder

The extruder is designed for maximum flexibility and short changeover times. Different grains, starches, proteins and alternative raw materials can be processed efficiently.

A practical, application focused training concept supports operators in mastering the extrusion process and organising product changes as efficiently

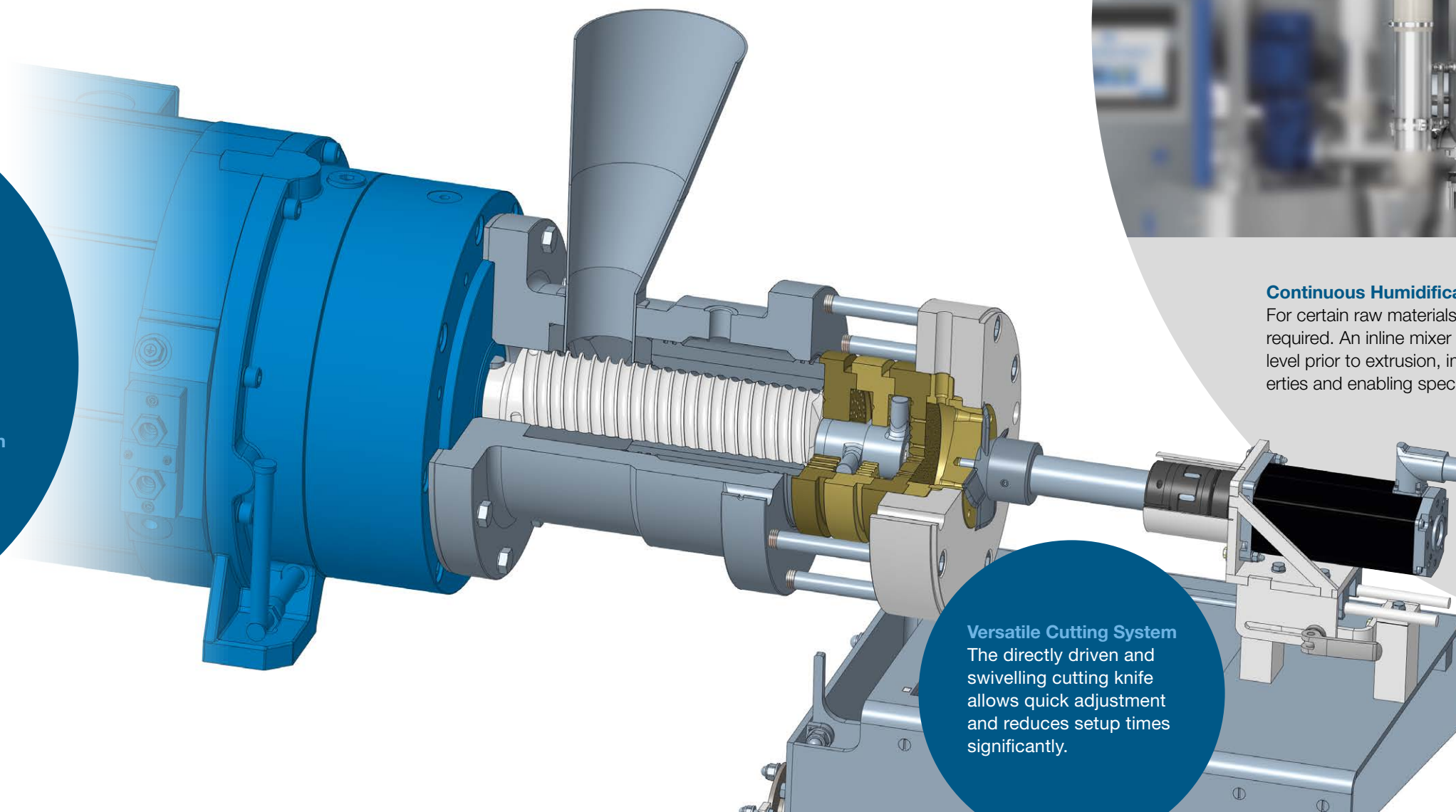
> 20% reduction of changeover time
directly driven and swivelling cutting knife

> 50% faster product changeovers
with our unique Easy Change Training,
reducing downtime

100% Digital monitoring of production
and maintenance data
continuous process transparency and
optimization

as possible, including changeovers without complete cleaning.

Integrated digital systems allow continuous monitoring and evaluation of production and maintenance parameters, ensuring high process transparency.



Continuous Humidification

For certain raw materials, additional moisture is required. An inline mixer increases the moisture level prior to extrusion, improving product properties and enabling specific processes.

Versatile Cutting System

The directly driven and swivelling cutting knife allows quick adjustment and reduces setup times significantly.





EMBOSSING, DYEING & CUTTING

After extrusion, product shape and appearance define the final character of the snack. Hebenstreit systems ensure precise forming, consistent colouring and accurate cutting for a wide variety of products.

Modular and movable machine designs enable flexible line configurations and efficient production of both standard and innovative products with consistent quality.



Roller Embossing System
For forming and embossing up to 6 product strands.
Various shapes can be realised depending on the roller design.



Cutting & Inking System
For cutting and colouring continuously extruded strands.
Multiple stripes and precise lengths enable consistent product appearance.





DRYING & SEASONING

After shaping, the raw product is refined in downstream process steps.

The first step is drying, which is adapted to the product requirements and carried out using either a belt dryer or a drum dryer.

In the next step, the product is seasoned. Our seasoning systems offer maximum flexibility and are suitable for savoury slurries, dry seasonings and sweet solutions.



Drum Dryer
Different heating methods and controlled air flow ensure optimal and consistent drying results.

Seasoning Drum
Completed by a specially developed seasoning system with the choice of spray system or rotary dosing wheel, depending on the product.

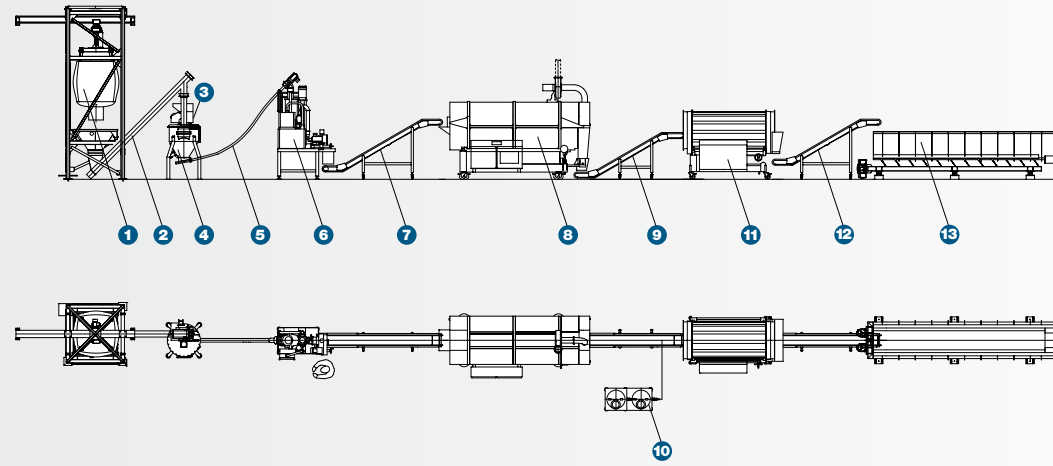




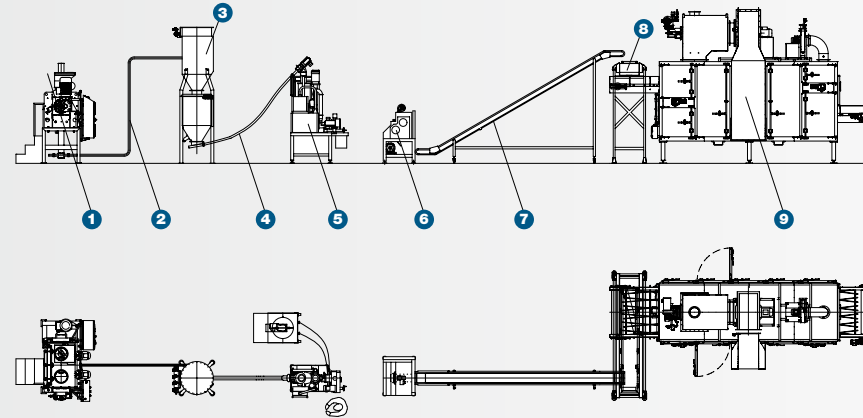
Each line is engineered to match specific raw materials, product characteristics and capacity targets. Modular concepts ensure flexibility for product changes and evolving market demands.

A collection of various snack foods arranged in four rows. The first row features three orange-glazed donuts. The second row shows several white, puffy potato chips of different sizes, with three small dark seeds or crumbs below them. The third row contains three heart-shaped, orange-glazed snacks. The fourth row displays four Cheetos, which are orange, cheddar-flavored cheese puffs.

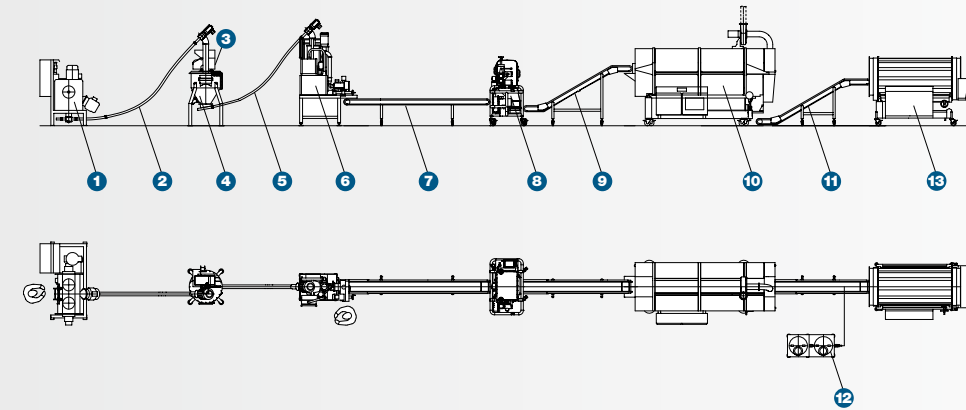
- length approx. 29m | width approx. 3m | height approx. 5m



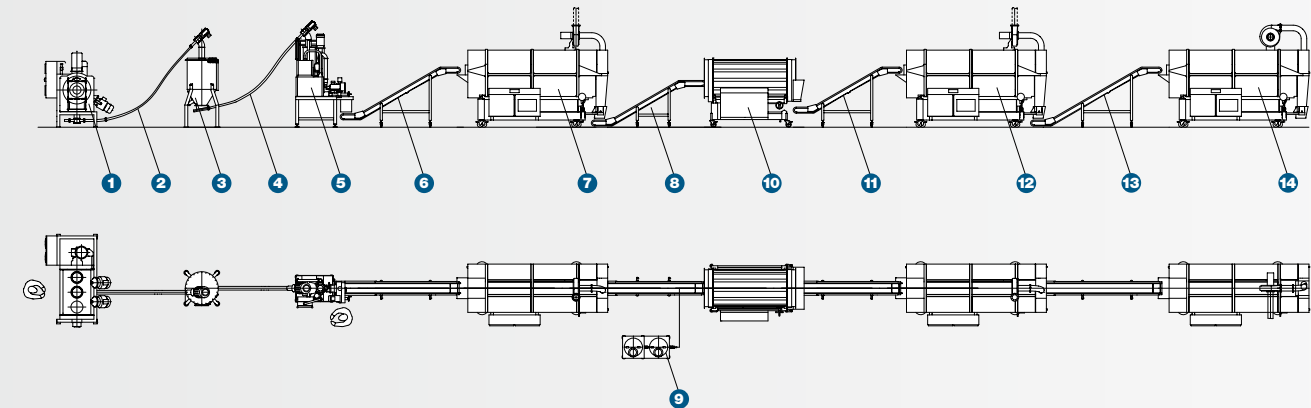
- length approx. 24m | width approx. 5m | height approx. 5m



- length approx. 26m | width approx. 3m | height approx. 3m



- length approx. 35m | width approx. 3m | height approx. 3m



HEBENSTREIT GmbH

Headquarter Mörfelden-Walldorf

Hessenring 16

64546 Mörfelden-Walldorf

Germany

Phone: +49 (0) 6105/202-0

E-mail: info@hebenstreit.de