



Freezing technology for the bakery industry

In touch with the best solutions
for quality bakery products



In the bakery industry, advanced technologies are required for flawless product handling in proofing, cooling, and freezing systems that are part of the processing line. For dough, part-baked bread, and pastry applications, the primary concern is to provide optimal product quality while preserving shape, texture, and color – from proofing to freezing.

In touch with the best solutions for the bakery industry

In satisfying these requirements as part of an economically feasible solution, we at GEA Refrigeration Technologies work closely with our customers. This assures quality in each phase – starting from consulting, planning, and installation, and leading up to extending the service life of the equipment and the exchange of parts in repair and service work. Cost effectiveness, energy consumption, safety, reliability, environmental protection, and people are always at the focus of our efforts here.

Thanks to over 30 years of experience in the bakery industry – both with installed bakery facilities as well as work in the context of research programs – we guarantee you maximum quality for your food products:

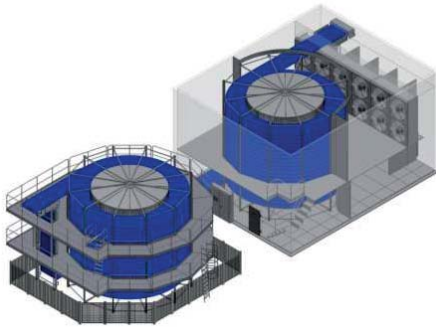
- Limitation of product weight losses
- No damage to bread crust during the freezing process
- Shape preservation
- Minimum belt marking on the product

Our application specialists select for you the cooling and freezing solutions that best meet your product requirements. Technical solutions are developed by our engineering experts that assure you the best in consulting, maximum reliability, and optimal performance. Evaporators and air flow are designed such that you achieve the tops in product quality.

By offering up to six days' production between defrost interruptions, and with highly efficient frost-management systems, we effectively adapt our solutions to the circumstances of your production. These solutions can include our snow removal system (SRS) or sequential defrost equipment. Our facilities are designed in accordance with your floor space, whereby all parts are easily accessible for service and cleaning operations.

Solutions for every application

Part-baked bread



*Ambient cooler and freezer
for part-baked bread*

Applications

- Products: baguettes, traditional breads, sandwich breads, rolls
- Infeed/outfeed product temperature:
Cooling: +9°C / +45°C
Freezing: +45°C / -10°C
- Capacity range: 800 to 3000 kg/hour

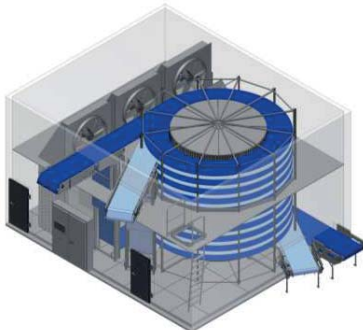
Solutions

Typical configuration for cooling and freezing process:
Up-cage spiral ambient cooler plus down-cage spiral freezer

Benefits

- Easy integration in the processing line thanks to product infeed and outfeed on same level
- Preservation of product quality (shape, crust) with smooth product handling and adapted process temperatures from oven outfeed to packaging
- Ambient coolers: Stainless steel construction. Platforms for easy access to spiral levels, including personnel protection
- Freezers: Coils and air flow designed for optimized air temperature and velocity, which prevents dehydration loss and product crust burning

Dough: freezing



Twin-belt spiral freezer for baguettes

Applications

- Product: baguettes
- Infeed/outfeed product temperature:
+ 18 °C / -18 °C
- Capacity range: 3000 to 8000 baguettes/hour (1000 to 2500 kg/hour)

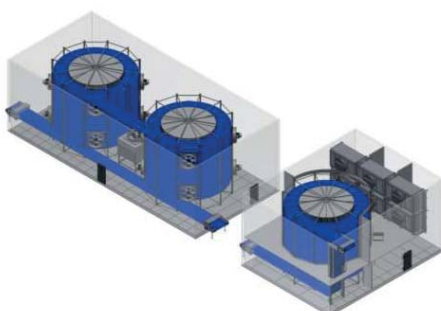
Solutions

Typical configuration for 5000 baguettes/hour: single-drum spiral – twin belt
Two belts, each loaded by a standard 2500 baguettes/hour forming machine.

Benefits

- No product shape damaging, with in-line process from forming to freezing. No additional product transfer necessary for dividing / grouping of the products
- Production flexibility: possibility for freezing 2 different products, one on each belt in the same freezer

Pastries



Proofer and freezer

Applications

- Products: croissants, chocolate rolls
- Infeed/outfeed product temperatures:
Proofer: +8 °C to +28 °C (air regulation: to 28 °C and 70 % humidity)
Freezer: + 28 °C to -18 °C
- Capacity range: 800 to 3500 kg/hour

Solutions

Typical configuration for proofing and freezing process: double-drum spiral proofer plus spiral freezer

Benefits

- Optimal belt selection for minimum belt marking on product
- Uniform air flow onto product, with controlled temperature and humidity in the proofer



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