Freezing technology for the bakery industry
Proofing, cooling and freezing solutions for the bakery industry

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.

With more than 30 years experience in the bakery industry – both with installed bakery facilities and in research programs – we are able to guarantee maximum quality of your food products:
- Minimal 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. Our engineering team will work with you to develop the solution that is best suited to your production needs. Our solutions are designed to deliver class leading reliability, optimal efficiency and performance. Carefully designed evaporation and airflow will enable you to achieve the highest product quality.
The best solution for every application

For dough, part-baked bread, and pastry applications, the primary concern is ensuring optimal product quality while preserving shape, texture, and color – from proofing to freezing.

In satisfying these requirements as part of an economically feasible solution, GEA works together with you to ensure quality in each phase – starting from consulting, planning, and installation, throughout the lifecycle of the plant. Cost effectiveness, energy consumption, safety, reliability, environmental protection, product and personnel safety are all considerations in our delivery program.

By offering up to six days production between defrost cycles and with highly efficient frost-management systems, we adapt our solutions to your production requirements. 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 maintenance and cleaning operations.
Part-baked bread

Applications
- Products: baguettes, traditional breads, sandwich breads, rolls.
- Infeed/outfeed product temperature:
  Cooling: +90°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 the 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

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
- Product retains its shape due to 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

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
- Minimum belt marking on product
- Uniform air flow onto product, with controlled temperature and humidity in the proofer.
We live our values.
Excellence • Passion • Integrity • Responsibility • GEA-versity

GEA is a global technology company with multi-billion euro sales operations in more than 50 countries. Founded in 1881 the company is one of the largest providers of innovative equipment and process technology. GEA is listed in the STOXX® Europe 600 Index. In addition, the company is listed in selected MSCI Global Sustainability Indexes.