

**Spiral Proofing, Cooling & Freezing Solutions**



# WHY AUTOMATED SPIRALS?



## Consistent Process Control

Automated spiral proofing, cooling, and freezing systems provide precise control over temperature, airflow, and dwell time, ensuring consistent handling throughout production. This controlled environment helps protect product quality, reduce variability, and deliver reliable results across every batch.

Engineered for continuous operation, spiral systems increase throughput while minimizing floor space requirements. Their vertical design allows producers to expand capacity without enlarging the production footprint, making spiral solutions ideal for both new installations and plant upgrades.

Efficient External drive system ensures smooth operation as a result of the low tension belt system.



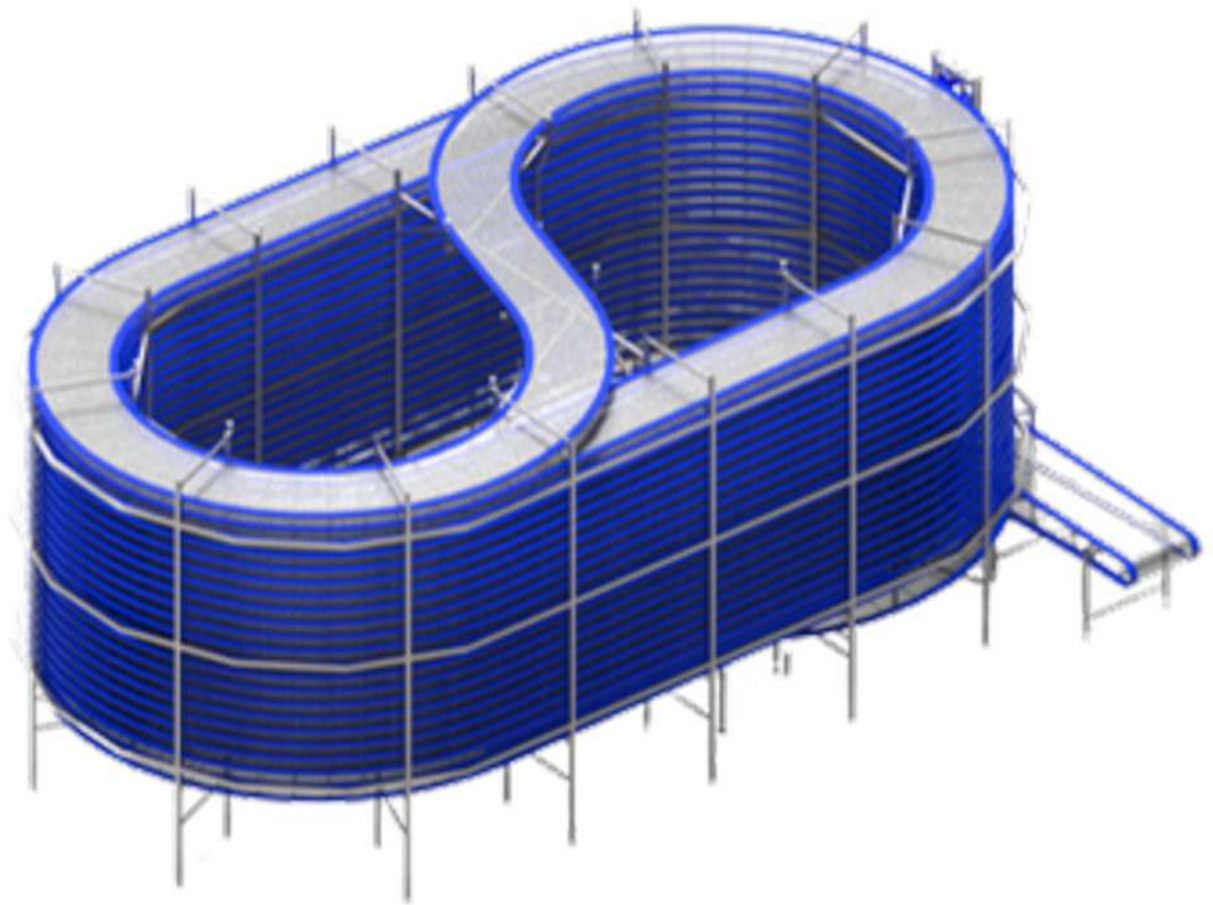
Uniform  
Temperature  
Control



Reduced Manual  
Handling



Compact  
Footprint



**Consistent processing, reduced handling,  
and optimized use of space.**

## Efficient Use of Space

Automated spiral systems are engineered to support continuous, high-throughput production with minimal interruption. Products move smoothly through each processing stage, eliminating batch delays and reducing dwell-time variability. This continuous flow improves overall efficiency while ensuring consistent processing conditions from infeed to discharge.



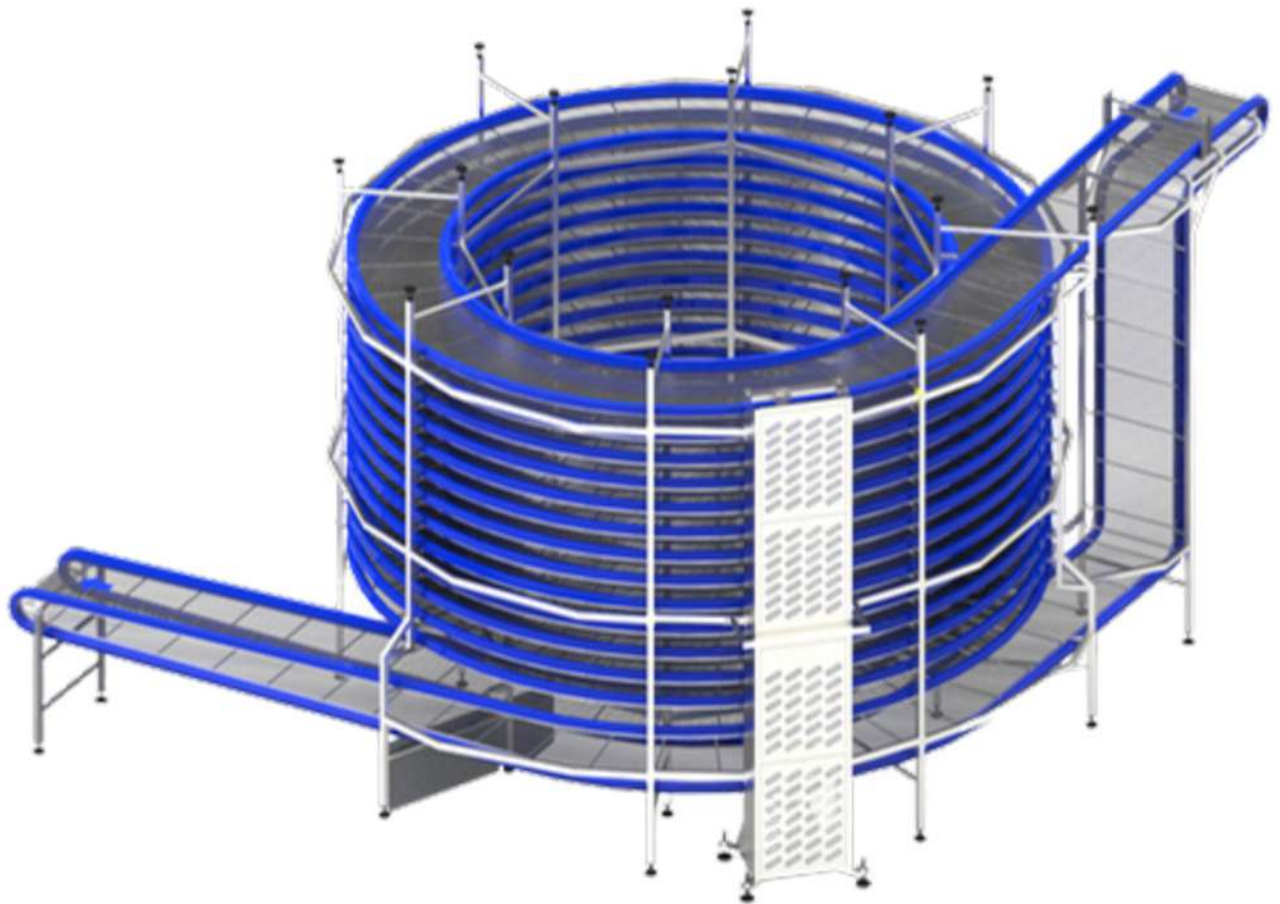
Continuous  
Processing



Increased  
Throughput



Optimized  
Efficiency



By utilizing a vertical spiral configuration, these systems significantly reduce floor space requirements compared to traditional linear solutions. Increased capacity can be achieved within a compact footprint, allowing processors to maximize output while preserving valuable production space — a key advantage for both new facilities and retrofits.

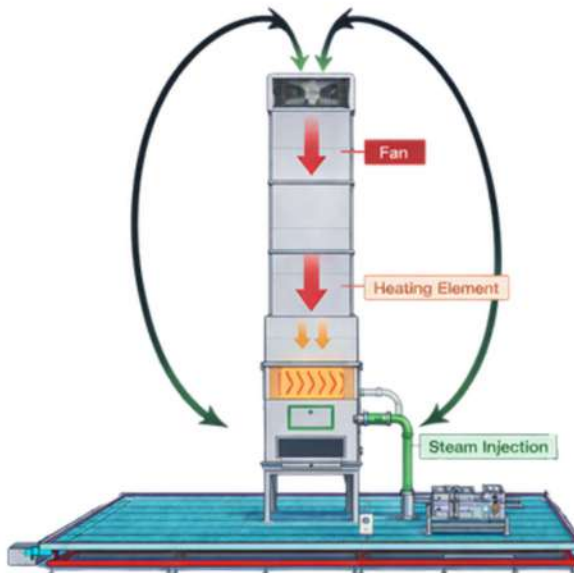
**Higher throughput and smarter use of floor space.**

## Controlled Proofing Environment

Spiral proofing systems provide precise control over temperature and humidity to support consistent dough development across a continuous production flow. Systems can be connected to an existing boiler supply or configured as fully self-contained units capable of generating both steam and heat. This flexibility allows spiral proofers to integrate seamlessly into new or existing lines while maintaining stable proofing conditions for a wide range of products.



Climate Control



Gentle Dough Development



## Hygienic & Flexible Integration

All spiral proofing units are constructed from food-grade stainless steel and designed to meet current hygiene and safety standards. Modular transfer conveyors automatically adapt speed and spacing to ensure smooth product flow and accurate positioning throughout the proofing process.



Integrated Transfer

**Uniform proofing conditions for consistent dough development.**

## Controlled Cooling Performance

Spiral cooling systems provide efficient and controlled temperature reduction to stabilize products before further processing or packaging. Cooling can be achieved through ambient air or integrated chilled systems using forced, filtered airflow, maintaining hygienic air quality. This controlled approach ensures uniform cooling across all products while maintaining throughput and protecting product structure.



Controlled  
Airflow

## Efficient Drive & Belt Control

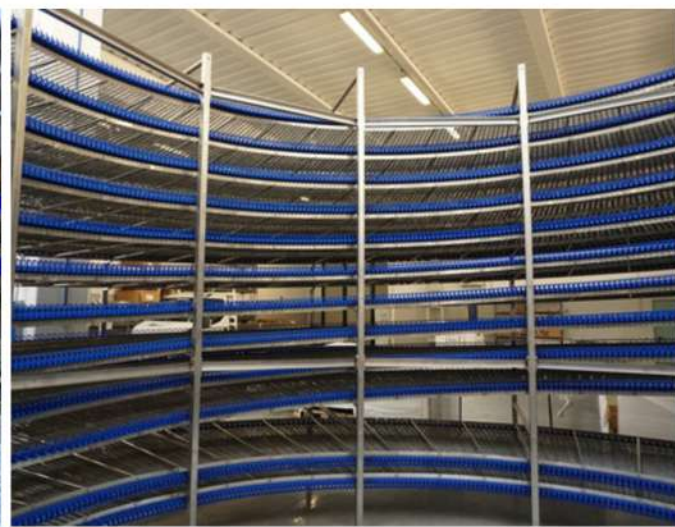
Spiral cooling systems utilize a low-friction external drive system designed to reduce belt tension and mechanical wear. Integrated pitch monitoring continuously adjusts belt alignment and tension, ensuring accurate loading and unloading while maintaining smooth, reliable operation throughout the cooling process.



Temperature  
Control



Low Friction  
Drives



**Uniform cooling with efficient airflow and reliable belt control.**

## Efficient Freezing Performance

Spiral freezing systems are engineered to rapidly and uniformly freeze products while preserving quality and reducing energy consumption. Optimized airflow and precise temperature control ensure consistent freezing across all products, minimizing freezer burn and reducing the risk of improperly frozen items. The self contained flooring system eliminates the need to install a heated concrete slab. These systems are suitable for bulk, packaged, or containerized products, supporting a wide range of production requirements. Freon, CO<sub>2</sub>, and Ammonia based Systems are available.



Energy  
Efficient



Product  
Protection



Consistent  
Freezing



### Reliable Refrigeration Systems

Our spiral freezing solutions integrate high-quality refrigeration components, including Bitzer evaporators and Hussmann compressors for freon systems or Carno compressors for CO<sub>2</sub> systems, to deliver reliable performance and long-term efficiency. Each system is engineered to balance airflow, temperature stability, and energy usage, providing dependable operation in demanding industrial environments.

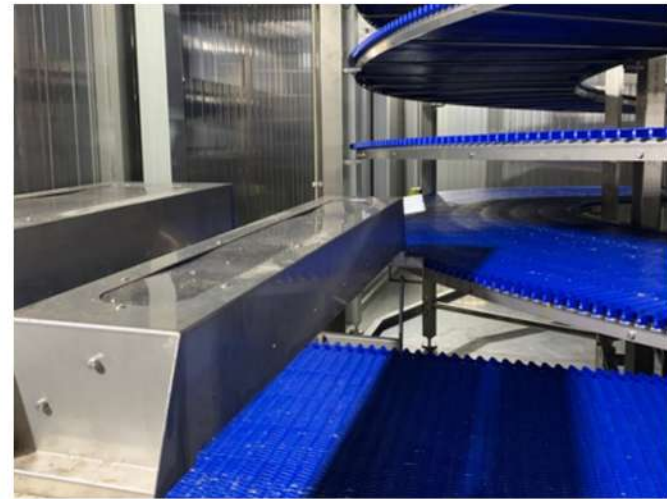
**Consistent freezing that protects product quality and reduces energy demand.**



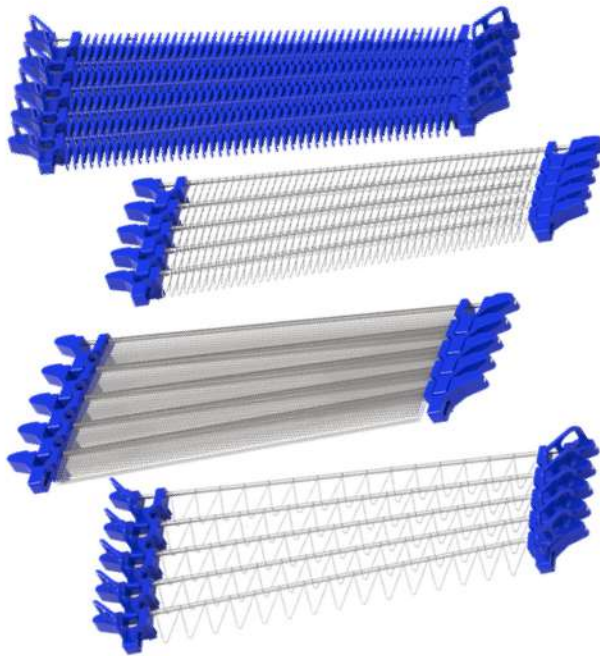
**Stainless Steel Construction**

## Designed for Clean Operation

Spiral systems are designed with hygiene and cleanability as core principles. Conveyor belts, guides, and structural components are constructed from food-grade stainless steel and materials suitable for demanding food-processing environments. This hygienic design reduces contamination risk while supporting compliance with modern food safety standards.



**Automated Cleaning**



### Belt Technology & Automated Cleaning

Spiral systems utilize modular conveyor belts designed for reliable operation across a wide temperature range. Automated belt cleaning cycles can be initiated directly from the HMI, using high-pressure water sprayed above and below the belt through an enclosed cleaning cover. This process ensures thorough sanitation while minimizing downtime and manual intervention.



**Low Maintenance**

**Hygienic construction and automated cleaning — built for uptime.**



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**Contact us to start your project!**