

## Pallet Cooling Technology



**Customized solutions. Energy efficient technologies.**

## Safe, forward-looking, individual

High hygiene standards and the reliable observance of the cooling chain are vital prerequisites for the top quality and long shelf life of food products. The production process often makes it necessary to fill products at high temperatures and then cool them down to the storage temperature. In the food industry, the cooling process frequently involves pallet cooling technology. Efficient and powerful pallet cooling systems are the only way to meet dairies' and food producers' ever increasing requirements for economic efficiency and capacity.

## Modern pallet cooling systems require competent consulting and planning

Finding the most efficient solution requires not only technological know-how, but also comprehensive expertise in process technology. It is essential to analyze the status quo in the first phase of a project and to take into account future requirements, including growth aspects. We work with our customers to define the requirements for their pallet cooling system. On this basis, we analyze the products, evaluate the cooling behaviour of the pallet and look at ambient conditions and available space. Proceeding from a holistic system approach, airinotec's engineers will be able to suggest a tailored solution for each customer.



Cooling tunnel-  
one-lane version

Cooling tunnel-  
two-lane version

High-capacity fans-  
powerful and low-maintenance

## Our offers meet all requirements

airinotec offers comprehensive and tailored solutions for the realization and integration of pallet cooling systems – for all applications, for small and large production volumes, for products with high filling temperatures or confined space. airinotec cooling tunnels adapt to your production and automatically reduce power consumption when operated at partial load. This minimizes manual adjustment requirements and saves energy costs. In addition to our discontinuous cooling tunnel systems, we also offer cooling tunnels with continuous operation in one- and two-lane versions and, if required, in two-high variants.

## Success thanks to sophisticated subsystems

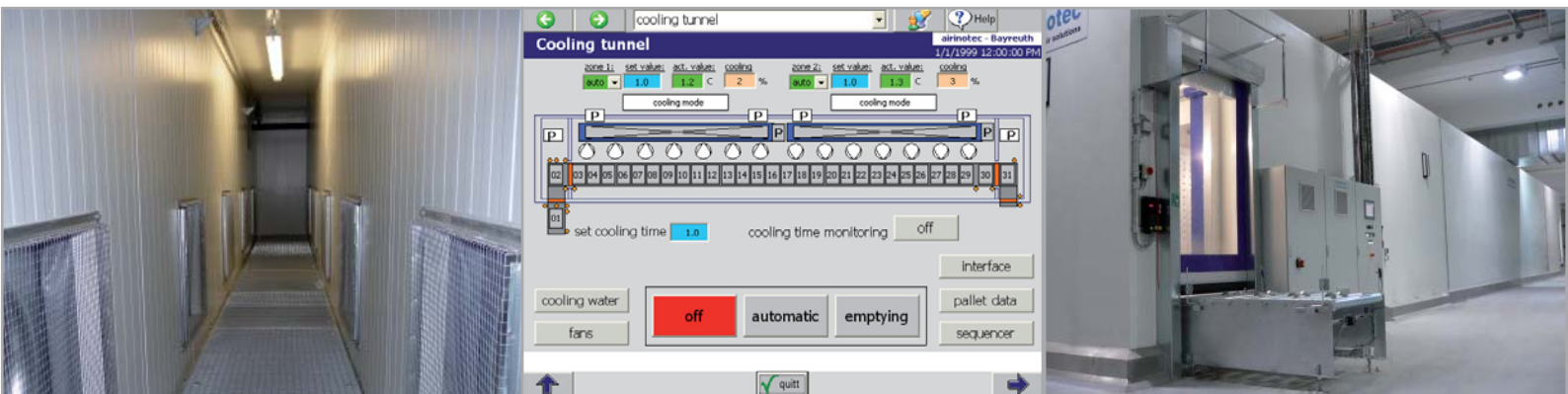
Technical innovations and continuous development are the key to the best system solutions. Our sophisticated modular structure ensures cost-efficient solutions, while the high variability of the modules offers great flexibility for responding to customer-specific and structural requirements. Hygiene is absolutely vital in the food industry. Our hygiene-compliant, easy-to-clean system structure – from lighting systems to hygiene-oriented encasements – ensures perfect cleanliness.

## Successful automation – airinotec Coolmaster-CM

Holistic solutions require a holistic approach. Our software platform airinotec CoolMaster-CM, based on the world leading automation systems Siemens “Simatic S7” and Rockwell Automation “Allen-Bradley”, permits energy-efficient operation. The elaborate visualization makes the operation of the plant transparent and straight forward. Intelligent airinotec software modules coordinate operating modes such as retention operation after the desired product temperature has been reached, deactivation of unoccupied cooling zones or de-icing of air coolers if and when necessary. In our solutions, mechanical and electronic aspects merge into one.

## Full Service Provider

airinotec offers its customers full-service support: From telephone hotline to on-site service, from software service to complete system checkups. airinotec’s experienced engineers can also support you in the modernization of existing cooling tunnels, analyze existing systems and develop optimization concepts. The purpose of all our service offerings is to improve the productivity of your systems.



Good accessibility of all sections of the air technology level

Visualization of the cooling tunnel system

Pallet intake with contour check

## Features of airinotec pallet cooling technology

- Optimized pallet throughput capacity
- Energy-efficient plant design
- Low operating costs
- Even and reliable product cooling
- Flexible adaptation to the local situation
- Sophisticated hygiene and service concept
- High operating reliability

## An overview of our products and services:

### Consultation services:

- Consulting
- Feasibility studies
- Project planning
- Systems development
- Project management/Project realization
- Existing unit upgrades
- Detail engineering
- Assembly
- Commissioning
- Training
- Instruction

### Process engineering:

- Air conditioning units
- Ventilation systems
- Process air units
- Pallet cooling/Cooling tunnel systems
- Energy optimization
- Energy supply systems
- Sector-specific clean-room technology
- Extraction systems
- Heat recovery systems
- Filter systems
- UVC disinfection

### Technical services:

- Maintenance, inspection
- Spare parts
- Measurements
- Remote maintenance
- Troubleshooting service
- Hygiene control (VDI 6022)
- Hygiene training

### Automation:

- Process and building automation based on Siemens "Simatic S7" and Rockwell Automation "Allen-Bradley"
- Process and visualization systems Siemens "WinCC / PCS 7" and Rockwell Automation "Allen-Bradley"
- Software development
- Project planning
- Assembly
- Commissioning

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