

Pizza Production

Praxair's temperature controlled freezing and chilling application processes improve overall pizza quality while increasing yield and reducing production time. Combining a variety of processes brings all the components of your pizza product together ready for assembly, final freeze, packaging, and shipment.

Predictable, Precise Temperature Control Throughout the Process

Freezing and chilling the products using cryogenic gases and a select Praxair equipment system rapidly removes heat and helps maintain the inherent properties of each individual ingredient. Moisture retention is important for the integrity of the product and using a quick cryogenic process helps lock in the natural product moisture.

Sauce

Cooling sauces and other liquid food products following the cooking stage is a critical step. If not done quickly, the delay may result in decreased product quality, increased waste product, or creation of production bottlenecks. Praxair offers the *ChillStream*[™] nitrogen injection cooling system to rapidly reduce sauce temperature. This application halts the thermal process and readies your sauce for storage or immediate use.

Proteins

Chilling the product to a target temperature reduces the opportunity for bacterial contamination leading to spoilage. Cryogenic gas helps dissipate the heat generated during grinding and ingredient



incorporation. For ground products, Praxair's *CryoBlend*[™] meat mixer injection cooling is ideal for maintaining low temperature during grinding and ingredient incorporation.

Toppings

Raw, cured or cooked ingredients benefit from precise temperature control to maintain proper moisture levels and retain visual appeal. Rapid heat removal with either liquid nitrogen or liquid carbon dioxide gas precisely controls the processing temperature to quickly chill or produce individually quick frozen (IQF) pieces in either the *ColdFront*[™] ultra performance flighted freezer or the *ColdFront* continuous rotary chiller.

Cheese

Keeping shredded cheese cool reduces clumping and helps

improve handling. Chilling the shredded product in the *ColdFront* continuous rotary chiller removes heat and helps ensure product integrity during conveyance, minimizing fines. If a pre-melt step is part of your process to ensure proper cheese placement, a *ColdFront* tunnel freezer can economically crust freeze assembled pizzas downstream of a melter to provide a clean, finished product and avoid smearing and adhesion to packaging materials.

Crust

For ease of handling and assembly, pre-freezing the crust has been shown to improve productivity. Adding cooled sauce and well chilled and frozen ingredients on top of the firm crust allows for precise assembly. The final freeze step ensures the product is ready



for shipment or storage. The *ColdFront* ultra performance tunnel freezer or the *ColdFront* ultra performance spiral freezer are great choices for achieving the final target temperature.

Packing and Shipping

To maintain the finished product temperature, spot cooling – with on-demand carbon dioxide snow production – allows for heat removal anywhere in your process. This flexible and directional source of low temperature is used on conveying lines and in shipping boxes, bins or totes for product destined for cold storage or transport.

Features

- Equipment meets USDA sanitary clean up guidelines
- Rapid heat removal
- Automated temperature control systems
- Continuous in-line processing
- Minimal floor space requirements

Benefits

- Achieve consistent product quality
- Reduce losses stemming from dehydration, yield, and out of spec product

- Improve production rate
- Product testing and cryogenic system recommendation using Praxair’s food laboratory
- Easy to maintain

Contact Praxair Today

For more information about cryogenic, process, analytical, and industrial gases used throughout your operation, call Praxair at **1-800-PRAXAIR**, or visit our website at www.praxairfood.com/pizza.



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