



Product Release

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Freeze Framing: Optimizing Cooling Power

Praxair Food Lab Supplies Practical Evaluations and Answers

BURR RIDGE, Ill. (January 10, 2019 – Meeting rising consumer expectations for high quality frozen foods is a daily challenge for food manufacturers. A company’s freezing process is an integral part of delivering high-quality products, because it can greatly affect a product’s sensory characteristics and yield. The Praxair Food Technologies Laboratory was established to assist food manufacturers in optimizing their cryogenic freezing processes to maintain quality and maximize yield. The staff supplies actionable data and recommendations based on test results run on full-size production equipment to determine the optimal cryogenic freezing process for a product or application. Assessment factors include product size and density, heat transfer, belt size and configuration, manufacturing footprint, cryogen use, and more. Praxair’s Food Lab experts analyze production needs and recommend cryogenic systems or process adjustments to meet production goals and improve yield.

The experts in the Food Lab:

- Use thermal analysis and calorimetry testing to collect data on a product’s thermal characteristics
- Determine the optimal parameters for freezing and chilling equipment based on product applications and manufacturing space and processing parameters

- Evaluate finished product appearance, texture and taste in onsite test kitchen
- Recommend cryogenic systems and process adjustments to maximize profit and cryogen utilization

Praxair's Cold Expertise

“Every market category and individual product within that segment poses its own unique thermal fingerprint,” said Debbie Benjamin, Lab Manager, Praxair Business Development. “Add in the differences endemic to each manufacturing site and an individual client’s desired or available production space for freezing and it becomes obvious very quickly that cookie-cutter solutions won’t do. Our holistic approach to the situation, which begins with thorough testing of customer products on full-size production equipment, helps us arrive at the best solution to meet all of these individual concerns.”

Additional information about the Praxair Food Lab may be found at:

www.praxairfood.com/innovations/food-lab

About Praxair

Praxair, Inc., a wholly-owned subsidiary of Linde plc, is a leading industrial gas company in North and South America and one of the largest [worldwide](#). With market capitalization of approximately \$40 billion and 2017 sales of \$11 billion, the company employs over 26,000 people globally and has been named to the Dow Jones® World Sustainability Index for 16 consecutive years. Praxair produces, sells and distributes atmospheric, process and specialty [gases](#), and high-performance [surface coatings](#). Our products, [services](#) and technologies are *making our planet more productive* by bringing efficiency and environmental benefits to a wide variety of [industries](#), including [aerospace](#), [chemicals](#), [food and beverage](#), [electronics](#), [energy](#), [healthcare](#), manufacturing, primary [metals](#) and many others. For more information about the company, please visit our website at www.praxair.com.

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