Freshline®
Food Processing Technologies for Poultry

An efficient way to freeze or chill a broad range of products while enhancing product quality
To remain successful in today’s globally competitive environment, poultry processors must look for ways to improve productivity, increase product yield and lower costs while producing high-quality products that keep up with changing consumer demands. Consumers are looking for affordable, healthy food choices without sacrificing quality, taste or convenience. Frozen food items are a growing category for in-home food preparation.

Enter Air Products. Our Freshline solutions provide innovative freezing and preservation systems and the technical know-how to help with many of the production challenges facing the poultry industry today.

**Why use liquid nitrogen freezing instead of ammonia or Freon?**

- Freezing in seconds instead of hours—LIN is one of the coldest refrigerants on earth
- Enhanced product quality with faster freezing, resulting in smaller ice crystals
- Increased production yields—less dehydration and moisture loss
- Lower capital costs
- Colder LIN temperatures equal smaller equipment footprint

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**Solutions Overview**

**If you:**

- Cool or freeze your products continuously or in batches
- Produce value-added products or ready meals
- Produce IQF products
- Need to package your fresh poultry to increase shelf life and distribution radius

**Our solutions include:**

- Continuous and batch cryogenic freezing technologies
- A range of equipment that preserves appearance and texture of products for high quality when defrosted
- Efficient IQF solutions to help products retain their shape and prevent product folding or belt marks
- Expertise in modified atmosphere packaging
**Wide range of solutions**

Air Products supplies a full line of Freshline liquid nitrogen freezing systems that can be tailored to meet your specific needs. Our tunnel and immersion freezers can freeze a wide variety of poultry, including raw, cooked, marinated, breaded and trayed products. All of our freezing systems use our high-purity liquid nitrogen, which provides the most efficient means of freezing and cooling available.

**Freshline CQ tunnel freezer** – An efficient way to freeze or chill a broad range of products while enhancing product quality. Designed for stand-alone use or for integration into other systems such as immersion freezers, these units are modular, allowing expansion as your needs grow.

**Freshline DM tunnel freezer** – This flexible dual-mode freezer allows you to change quickly from processing IQF to non-IQF products using the same freezer. This can result in maximum uptime and can lead to optimum efficiency.

**Freshline RH immersion freezer** – This immersion freezer allows you to produce up to 15,000 lbs/hr of consistently high-quality IQF products that can be difficult to freeze without clumping using traditional freezing methods. Instantaneous immersion freezing of the food’s outer surface using LIN helps maintain the product’s form, taste and texture and prevents moisture and quality losses.

**Freshline CP immersion freezer** – This uniquely engineered freezing system can be installed for low capital costs and can fully freeze over 3000 pounds per hour in just 10 feet of floor space. Using our proven LIN immersion technology in a multitiered freezing system to maximize efficiency, it is well suited for small products that tend to clump together. This freezer can also be placed in front of an existing conventional mechanical or cryogenic spiral or tunnel system to boost freezing effectiveness.

**Freshline batch freezer** – Uses LIN refrigeration for fast, economic chilling and freezing. It is ideal for food processors with batch or low-volume freezing and chilling requirements. Low capital and entry costs make it appealing to new businesses and those developing new products.

**Freshline tumbler freezer** – Free-flowing products like chicken strips are coated and enrobed with your sauces or herbs and are individually quick-frozen, producing portionable, ready-to-heat products.

**Freshline continuous sauce chiller** – Uses direct injection of LIN for fast cooling of many types of liquids or semi-liquids such as sauces, gravies, marinades, broths, purees and mixed meal combinations, allowing your manufacturing process to run continuously.

**Freshline LIN-IS** – A liquid nitrogen injection solution designed for fast, consistent and repeatable cooling of minced or chopped proteins during mixing to aid in the forming process.

**Freshline modified atmosphere packaging (MAP)** – When MAP is used in conjunction with careful temperature control, shelf life of fresh poultry can be nearly tripled. MAP produces significant benefits to both the retailer and the consumer, resulting in a product that looks good, smells good and tastes good for longer.

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*Freshline RH immersion freezer*
Ask Air Products . . .
and expect more.

Whether your freezing, chilling, cooling or packaging applications include bakery goods, fruit and vegetables, poultry, meats, ready meals or anything in between, Air Products’ Freshline solutions offer you the high-purity gases and equipment, the international supply capability, and—most important—the unmatched industry experience and technical support to help you succeed just about anywhere in the world. We can help you improve your productivity, lower your costs, maximize your returns, and, as a result, help make you more competitive in a very competitive market.

For More Information

For more information on any of our Freshline offerings, call Air Products today to speak with a food industry expert, or visit us at the website below.

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