



Temperature Controlled Pet Food Production



Retaining taste and texture of ingredients is achieved with cryogenic temperature control .

Linde's *ColdFront*[™] temperature controlled production of high quality pet foods is an effective and highly efficient process to rapidly reduce product temperature. Exact processing temperature helps to ensure the thorough incorporation of protein, fat, seasoning and essential ingredients during grinding and mixing for fresh and fresh-frozen products.

Predictable, Precise Temperature Control

Raw ingredient formulations benefit from precise temperature control to achieve high product quality and consistent results. Rapid heat removal with either liquid nitrogen or liquid carbon dioxide gas precisely controls the processing temperature in premium pet food products.

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. Spot cooling allows for heat removal anywhere in your process.

Freezing the product using cryogenic gases and a Linde equipment system rapidly removes additional heat and helps maintain the inherent properties of the product.

Moisture retention is important for the integrity of the product and using a quick cryogenic freezing process helps lock in the natural product moisture. The final freeze ensures the product is ready for shipment or storage.

- | | | |
|-----------------|---|---|
| Features | <ul style="list-style-type: none">→ Equipment designed to meet USDA sanitary clean up guidelines→ Rapid heat removal→ Automated temperature control systems | <ul style="list-style-type: none">→ Continuous in-line processing→ Minimal floor space requirements→ Easy to maintain |
| Benefits | <ul style="list-style-type: none">→ Achieve consistent product quality→ Lower losses stemming from dehydration and out of spec product→ Reduce manual labor costs | <ul style="list-style-type: none">→ Improve production rate→ Test formulations and freezing methods in Linde's food laboratory |

A Wealth of Experience and Support

Years of food research at our technology center have identified the ideal cooling conditions for a broad range of food products.

At Linde, not only are you selecting one of the leading suppliers of industrial gases worldwide, you are also selecting a support team that includes:

- Experienced food scientists and engineers.
- A complete array of services, on-site evaluation, designed experimental testing, installation and start-up support known as Linde's Total System Approach.
- A food technology center featuring an analytical laboratory to evaluate your product in full-sized production equipment.

Linde is a trusted partner in supporting your yield, quality and costs goals.

Contact Linde Today

For more information about cryogenic, process analytical and industrial gases used throughout your operation, call Linde at **1-844-44LINDE**, or visit our website at www.lindefood.com.