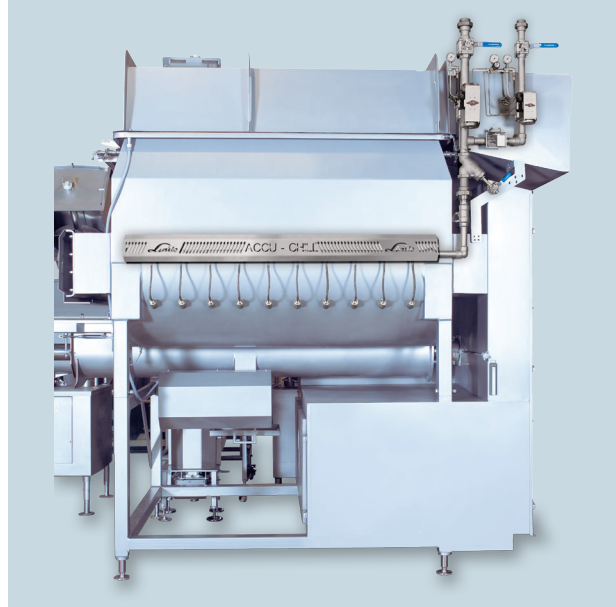


## ACCU-CHILL®.

### Bottom Injection System.



**Introduction** Linde's USDA-approved bottom injection chilling system will increase the efficiency of your blender or mixer/grinder 20 to 50 percent versus competitive top-injected snow horn systems or other conventional chilling methods.

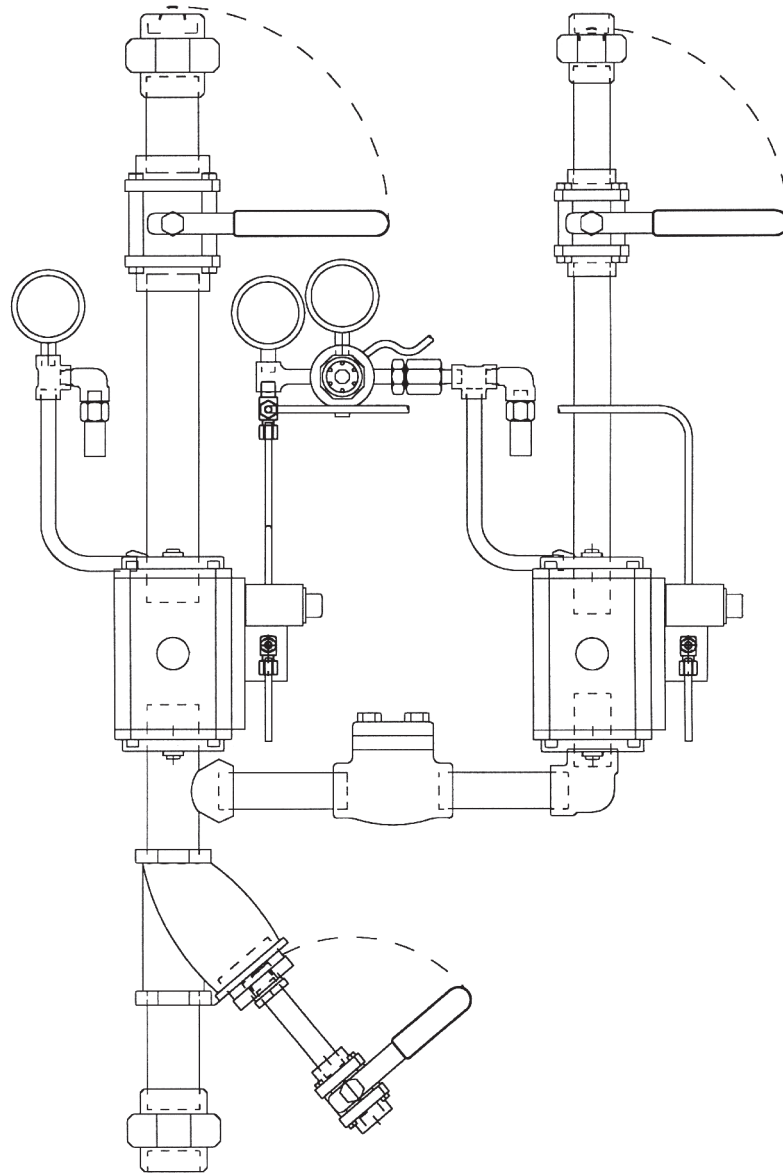
Bottom injection chilling introduces the cryogen into the food product at the bottom of the mixer/grinder. The cryogen sublimates or vaporizes immediately and consistently cools the food product. The cold cryogenic vapor is then pulled through the food product to provide additional cooling before being safely evacuated through an exhaust system.

Efficiency is not the only reason for using a Linde bottom injection chilling system. In fact, it's only the tip of the iceberg. Whether you're chilling meat, seafood, poultry, or bakery dough, our bottom injection system can maintain product quality by preserving color and freshness while also saving you money. Plus, it can be retrofitted to most existing equipment to provide rapid temperature pull-down and precise temperature control.

The Linde patented open-top exhaust with bottom injection safely removes the cryogenic vapor from the mixer/grinder.

- Benefits**
- 20-50 percent improved efficiency by utilizing the BTU content in the vapor phase
  - An optional, patented open-top exhaust system eliminates overhead exhaust and the potential for condensate drip. Further, the system does not require a top on the processing equipment
  - Faster, more consistent temperature pull-down
  - Several nozzle types from which to choose depending on application
  - Easy field installation on most processing equipment

## Linde's bottom injection manifold



Linde's bottom injection manifold (control valve piping with high-torque, pneumatically-actuated ball valves, and pre and post-vapor purge cycles) controls the liquid and gaseous cryogen supply to the nozzles to maintain cleanliness and ensure accurate liquid cryogen flow.

Further advantages:

- Minimizes maintenance labor due to fewer valves and parts compared to competitive systems
- Isolates the high-pressure cryogenic gas out of the way of workers and equipment
- Eliminates need for a separate gas vapor line or electricity to be supplied to a valve at every nozzle
- Eliminates any orifice plugging (snow blocks)
- Eliminates valve freeze-ups, making it a safer and more reliable system

Linde North America, Inc.

575 Mountain Ave., Murray Hill, NJ 07974 USA

Phone 1-800-755-9277, sales.lg.us@linde.com www.lindefood.com