



capkold  
cook-chill  
production systems

# REVOLUTIONARY COOK-CHILL SOLUTION

Cook-Chill is a revolutionary way to create meals that look and taste like they were freshly and individually prepared ... yet may have been produced for hundreds to thousands at a time.

CapKold is one of the market leaders in Cook-Chill technology. With dedication to research and development, CapKold continues to bring innovation to Cook-Chill, including new products and enhancements.

- Cooking, packaging and chilling equipment allows preparation of multiple portions in a single batch;
- Sophisticated systems control equipment and monitor product through the entire process;
- Combination of plastic casings and water bath chillers accelerate chilling and deliver safe, extended, refrigerated shelf lives up to 30 days.



CapKold kitchen (from left to right, shown above) - kettle control panel, (2) kettles, tumble chiller and pump-fill station



Refrigerated food bank for storage up to 45 days



## THE COOK-CHILL PIONEER

In the early 1970s, Groen and a major packaging film manufacturer developed CapKold – a food production, packaging and rapid chilling system designed as a safe, economical alternative to traditional cook-and-serve. Groen was the first to apply volume food production techniques, sophisticated control technology and the latest packaging films to the Cook-Chill concept. Today, CapKold provides equipment systems that offer cost-savings while delivering the fresh taste and quality of just-cooked food.

## MATCHING FOOD PRODUCTION TO DEMAND

The Cook-Chill concept was developed as a solution to the age-old problem of matching food production to demand. It separates food production from food serving by creating a “food bank” or inventory of prepared product. The key to safe extended storage of foods is very rapid chilling through the bacterial growth “danger zone.” The key to retaining food quality, taste, textures and aroma is controlled refrigerated storage.

# CALCULATE YOUR YEARLY SAVINGS

ANNUAL SAVINGS CALCULATION CHART Use to Estimate How Much CapKold Can Save You		
Multiply your expenses by the savings factors listed below.		EXAMPLE:
A) Yearly hot food production labor cost (30-50% savings)*	\$ x .50 = \$	(\$500,000 x .50) = \$250,000
B) Yearly raw prepared food cost (10% savings)**	\$ x .10 = \$	(\$600,000 x .10) = \$60,000
C) Yearly labor savings for cleaning pots & pans (8% savings)*	\$ x .08 = \$	(\$100,000 x .08) = \$8,000
D) Yearly energy cost KW/H (2% savings)*	\$ x .02 = \$	(\$30,000 x .02) = \$600
<b>GRAND TOTAL (add lines A-D)</b>	<b>\$</b>	<b>(total savings) = \$318,600</b>

\*Estimated savings.

\*\*10% Savings of raw prepared food cost includes: reduces food waste of 2-3%, recipe standardization savings of 1-2%, purchasing—economy savings of 2%, reduction in pilferage of 1%, and a 3-5% cost savings on increased muscle meat yields of 25-35%.

## CAPKOLD MENU APPLICATIONS

A CapKold System can prepare a wide variety of popular menu entrees, side dishes and dessert items, plus many key product components or sauces. Here is just a sample ...

Broth & Cream-Based Soups/Chowders

Ethnic Specialties & Other Items

Hearty Stews, Home-Style Casseroles & More

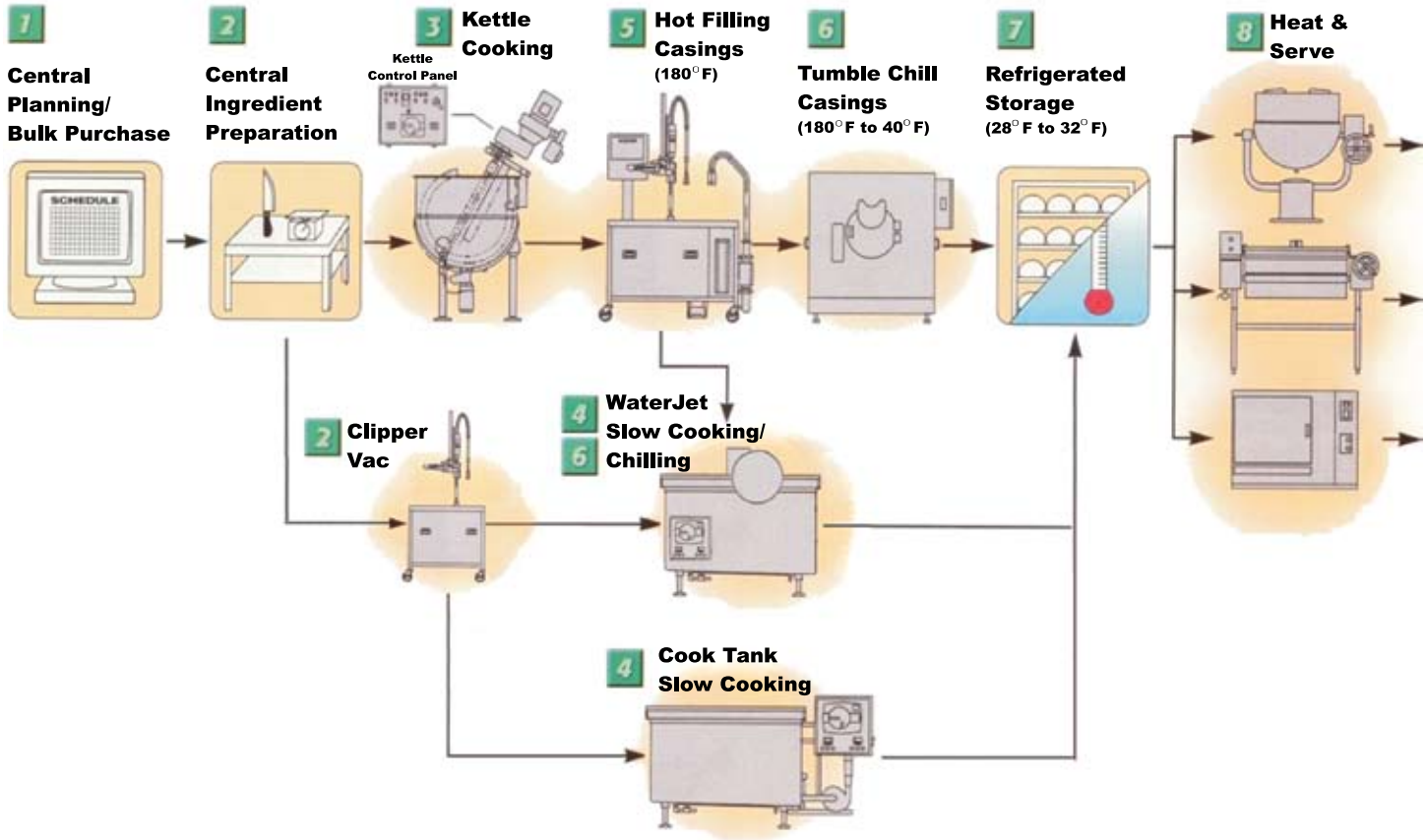
Prepared Meats & Prepared Foods

Sauces, Gravies & Fillings

Whole Meat Items



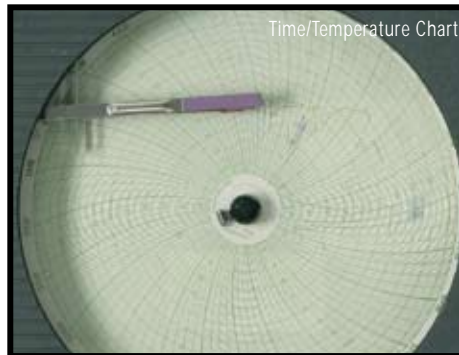
# COOK-CHILL PRODUCTION SYSTEMS AT A GLANCE



## CONTROL, SAFETY, & QUALITY



Refrigerated Food Bank



Time/Temperature Chart



Cased Product

### Planning & Control

- A CapKold system allows advanced scheduling of production, labor and raw material purchase.
- Employees can be scheduled on an eight-hour, five-day or a ten-hour, four-day work schedule. Holidays and vacations can be easily scheduled around normal production.
- Output can typically be doubled or tripled with little or no additional equipment investment. CapKold offers capacity for growth.
- A refrigerated food bank provides an emergency back-up in case of natural disaster or a work stoppage.

### Sanitation & Food Safety

- Kettle and Cook Tank controls include time/temperature chart recorders for HACCP documentation.
- Ideal for HACCP food safety programs.
- Components are designed to the latest sanitary standards.
- Products are packaged hot (sanitary).
- Durable, multi-ply, flexible plastic casings allow product to be safely chilled, stored and rethermalized.

### Food Quality

- CapKold food has the taste, texture, color and aroma of freshly prepared items.
- Centralized purchasing, ingredient preparation and production provides consistent food quality and managed recipe costs. Ingredients can be purchased in volume.
- Large quantity automated cooking ensures batch-to-batch consistency.
- Refrigerated – NOT FROZEN – storage maintains cellular structure... key to preserving texture and consistency.
- Cook Tank items slow cook in their own natural juices - tenderizing tougher cuts of meat, increasing yield and enhancing flavor.

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## KETTLE COOKING ➔



Proven kettle agitator design

### KETTLE COOKING – PUMPABLES

Pumpable foods are cooked in CapKold steam-jacketed kettles, with an inclined agitator/mixer and a bottom-mounted product discharge valve. The patented inclined agitator lifts, folds and mixes kettle ingredients, eliminating product burning/scorching and maintaining batch consistency. The discharge valve allows efficient transfer of kettle product to a pump-fill station without damaging delicate foods.

The Kettle Control Panel sequences the cooking cycle, controlling the agitator, temperature and metered water. A chart recorder provides a time/temperature record for HACCP and quality assurance.

### PROVEN AGITATOR DESIGNS

Groen has manufactured steam jacketed kettles for over 90 years. We were the first to introduce steam-jacketed kettles to commercial and institutional foodservice after World War II. CapKold offers a wide range of large kettles, agitators, jacket configurations and control packages. We are the leader in Kettle technology.

- CapKold INA-Series inclined agitators are available in fixed-agitator, tilt-out agitator (TO), retractable pinned tilt-out agitator (RTO) and fixed agitator/tilt (TW) with variations.
- The new retractable pinned tilt-out agitator is anchored at the bottom for heavy, viscous products. The agitator retracts off an anchor then tilts out of the kettle eliminating the cleaning and maintenance issues associated with horizontal agitators.
- CapKold N-Series Pasta Kettles feature rim-mounted drains.
- Capkold DH/INA/2-100 Kettle is a self-contained gas-heated model.
- All direct-steam kettles available in 50-300 gallon working capacities. Larger sizes are available on request.

## HOT FILLING CASING ➔

### TRANSFER & PACKAGING

At the completion of a cooking cycle, the Pump-fill Station draws product from the kettle, measures a pre-set volume, and fills a flexible plastic casing. The operator uses a station-mounted clipper to seal, attach a label, and trim the casing in one fluid motion. One employee can typically empty and package the entire contents of a 200-gallon (750-liter) kettle in 15-20 minutes. A Pump-fill Station can be shared by two or more kettles.



Transferring kettle foods to flexible plastic casings



Station-mounted clipper for sealing, attaching label and trimming casing



Heated, plated and ready to eat

### BETTER FOOD TRANSFER & PACKAGING SOLUTIONS

CapKold was first to introduce transfer pumps and air-operated, product valves to Cook-Chill.

- The Pump-fill Station handles a broad range of product types, viscosities and particulate sizes.
- The Pump-fill Station features digital input and display, making adjustment of pump speed and fill volume quick, precise and very easy.
- Air operated casing clippers and air driven vacuum pump available for muscle meats and cut vegetables.

# COOK-CHILL PRODUCTION SYSTEMS AT A GLANCE

## TUMBLE CHILL CASING →



Loading filled casings directly into the tumble chiller

## RAPID TUMBLE CHILLING

The batch tumble chiller is used exclusively for cooling large volumes of bagged kettle product. Filled casings are loaded directly into the chiller, where they gently tumble in circulating cold water. The tumbling action quickly removes heat from the food casings and chills the product in the fastest possible time. An automatic control system monitors the chilling time and water bath temperature.

## WATER-BASED HEAT TRANSFER EXPERIENCE

CapKold was the first to develop the batch tumble chiller and water jet concepts of rapidly cooling food in plastic casings or pouches.

- Tumble Chillers feature all stainless steel design and provide up to 300-gallon batch chilling capability.
- Integrated heat exchangers reduce height and simplify cleaning.
- Energy saving ice builders, direct expansion chillers and falling-film chillers provide cold water used for product cooling.
- Recycling Tanks for saving and reusing product chilled water.
- Casing conveyors speed and simplify Tumble Chiller loading.



Unloading chilled casings from tumble chiller to food bank storage

## WATERJET™ (COMBINATION TUMBLE CHILLER & COOK TANK) →



## WATERJET 100

The WaterJet is a Rapid Product Chiller/Cook Tank designed to rapidly chill 100-gallons of filled casings in a circulating water bath. The WaterJet will slow cook using steam slack, prepackaged raw meats, vegetables and starches; or rapidly reheat prepared foods in its circulating hot water bath. An internal lift mechanism raises and lowers product from the water eliminating the need for a hoist/lifting mechanism. Chills most products from temperatures of approximately 180°F-40°F in 60 minutes or less. A powerful water circulation pump, fully automatic operator control package, and a sheathed and air-gap insulated tank with splash covers and lift assist cylinders are included. Unit is NSF Listed, UL Listed and ASMEB31.1.

- Features insulating, non-corroding double wall construction on exposed tank sides and fully enclosed and vented pump/utility housing.
- Monitor temperatures with a probe for recording internal temperature of solid muscle products and a 24 hour time/temperature recorder for recording water and product time and temperature.
- Water level overflow protection and a diverter valve controls water discharge flow and turbulence.
- Chilled water production uses direct refrigeration eliminating the need for a second tank and saving space.
- Water heating system is direct steam heated and requires a steam source of 20-50 PSI.

## CONTROL PACKAGE

- One touch controls for chill and heat.
- Step-by-step programming of cook-to-temperature and probe.
- Digital display of chilling time and water temperature.

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## COOK TANK COOKING ➔

### WATER BATH SLOW COOKING

Whole-meat products, such as roasts and turkey breasts, and many prepared foods such as rice, vegetables and meatloaf, can be slow-cooked in a WaterJet or a Cook Tank. Both use circulating hot water to cook products, vacuum packaged in plastic casings. At the end of the cooking cycle, the units automatically drain and then circulate cold water for rapid chilling, without the product ever leaving the tank.

Water bath slow cooking can be done overnight, unattended. An integral control system monitors both cooking and chilling and provides a time/temperature production record for HACCP and quality assurance.



Loading and unloading food product with a push of a button

### PROVEN HOT WATER BATH

CapKold pioneered hot water bath, low temperature cooking of meats and prepared foods in vacuum-sealed plastic casings. CapKold Cook Tanks are capable of preparing hundreds of pounds of perfect rare roast beef and more.

- CapKold Cook Tanks are available with 500-, 1000- and 2000-pound nominal.
- Dual purpose Tumble Chiller/Cook Tanks and WaterJets are designed for smaller operators and kitchens.
- A powerful water circulation pump provides uniform cooking and cooling.
- A baffled bottom steam jacket provides fast and efficient heating with direct steam.
- Integrated control systems allow overnight, unattended cooking, cooling and documentation.

## REFRIGERATED STORAGE, HEATING & SERVING

### REFRIGERATED STORAGE (FOOD BANK)

Prepared foods are stored in walk-in refrigerators (commonly referred to as a Food Bank). Temperature is maintained just above the freezing point, to preserve the freshness, texture, color and quality of the food. Menu items are pulled from inventory as needed, used on site, or shipped to remote serving points.

### HEATING & SERVING

CapKold items can be quickly heated to safe serving temperatures right in the casing, placed in steam table pans, or individually portioned. Groen offers a line of steam equipment that is perfect for rethermalizing food.

CapKold foods are ideal for pre-plating as part of a tray makeup and delivery system. They can be used in combination with freshly prepared foods and foods which have been blast-chilled. Randell offers a line of blast chillers as well as standard and customized hot and cold food tables for serving applications.



Groen steamers are an excellent way to reheat food in casings or steam pans



Randell RanServe hot food tables have integral heaters and are NSF listed



Avtec® Chinook Hood

## VENTILATION & UDS

For today's performance kitchens with CapKold cook-chill production systems, Avtec offers ventilation and utility distribution systems (UDS) to satisfy your customization requirements. Avtec's high quality, reliable ventilation hoods

handle the CapKold cooking and heating parts of your cook-chill operation. Avtec UDS provides single point connections for each utility, ease of installation and maintenance, and permits future line-up changes in your cook-chill kitchen. Look to Avtec to complement your CapKold cook-chill kitchen operation.



Avtec® UDS

# CAPKOLD TEST KITCHEN & ON-SITE ASSISTANCE PROGRAM



CapKold's test kitchen in Jackson, Mississippi is available to all customers throughout the various stages of project development in order to offer assistance with:

- Cook-Chill orientation
- Application testing
- Menu development and modification
- Product development
- Training of operations and maintenance personnel

CapKold makes available to all customers an on-site assistance program to support the cook-chill production system purchase. The program includes:

- **Site Inspection:** Prior to shipment of the system, CapKold personnel will conduct a site visit in order to confirm layout plans and general site readiness with the architect, general contractor, consultant and other required individuals.



Kettle control panel training

- **Installation Advisory Service:** Site visit by CapKold personnel as a supervisory service to advise the installation team on key elements of the installation once the system is in place
- **Engineering Start Up:** CapKold personnel will be on site as part of the engineering start-up in order to check and calibrate the system and to train maintenance personnel and local service technicians
- **Initial Operational Training:** CapKold's chef/trainer will conduct initial operational and culinary training to include, but not limited to:
  - Equipment orientation
  - Equipment care and sanitation
  - Equipment operation
  - Recipe adjustment guidance
  - Production schedule preparation assistance
  - HACCP and shelf life guidance
  - Contact our chef online by going to <http://www.unifiedbrands.net/meetthechef.html>



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